

DRAWING

REPORT INDEX

Purchase Order :	2023013
Quantity:	20PCS
Shipment No:	
Shipment Date :	2023 02 20

Activity No.	Characteristics	Reference Page
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METALLURGICAL TEST CERTIFICATE

Customer:		Customer PO#:		Date:	2023 02 07
Drawing #:	7 1/16 10M	Specification:	API Spec 6A/ASTM A370	API Monogram:	Y/N
Part No.:	X-111128-01	Material:	410 75K	Coating:	
Description:	STEM .hydraulic 7 .1/16" 10M FLSR 410SS, 75K .PSL3 PR1 LU,				20

TEST CONDITION

Test Bar Size:	100mm*100mm*200mm	Bar Diameter:	Φ 55mm
\./****			
Melt Practice:	RYR2302010	Reduction Ratio Min.:	38
Yield Stress:	555	Gauge Length:	50-75mm

CHEMICAL COMPOSITION

Mill No.	Qty.	Test No.	C	Mn	Si	S	P	Ni	Cu	Mo	Cr	V
Spec. Min			0.08						-		11.5	-
Spec. Max			0.15	1.00	1.00	0.030	0.035	1.00	-		13.5	
B320384 1	20		0.12	0.58	0.51	0.001	0.024	0.07			12.18	

MECHANICAL COMPOSITION

Heat No.	Quantity	Test No.	Yield Strength (MPa)	Tensile Strength (MPa)	Elongation %	Reduction of Area %	Hardness HB	10mm x 10mm CHARPY J(ft.lb) at -46°C	Minimum Lateral Expansion mm (inch)	Shear Fraction
Spec. Min			517	655	18.0	35.0	197	27J		
Spec. Max							235			
RYR2302 010	40		623	717	30	63	197-235			

HEAT TREATMENT

Forgings				Test Bar (QTC)			
Normalized:	1000°C	2h	Oil	Normalized:	1000°C	2h	Oil
Quench:	990°C	4h	Oil	Quench:	990°C	4h	Oil
Temper1:	720°C	6h	Air	Temper1:	720°C	6h	Air
Temper2:	665°C	6h	Air	Temper2:	665°C	6h	Air
Start Temp.:	38°C			Start Temp.:	38°C		
End Temp.:	42°C			End Temp.:	42°C		

We hereby certify that all test results and procedure information contained herein are correct and true as in contained the records of the company. There have been no weld repairs on these items.

Inspected By:	Wan Zhixiang	Approved By:	Zhu Yonglan
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HARDNESS TEST REPORT

Customer:				Customer PO#:				Date:	2023 02 07		
Drawing #:	7 1/16 10M	Specification:	API Spec 6A/ASTM E10		API Monogram:	Y/N		Report #:			
Part No.:	X-111128-01	Material:	410 75K						Coating:		
Description:	STEM .hydraulic 7 .1/16" 10M FLSR 410SS, 75K .PSL3 PR1 LU,							Quantity:	40		
Item	S/N	Heat Log No.	Hardness	Item	S/N	Heat Log No.	Hardness				
1	RY23-001	RYR2302010	217	17	RY23-017	RYR2302010	223				
2	RY23-002	RYR2302010	217	18	RY23-018	RYR2302010	223				
3	RY23-003	RYR2302010	217	19	RY23-019	RYR2302010	223				
4	RY23-004	RYR2302010	217	20	RY23-020	RYR2302010	223				
5	RY23-005	RYR2302010	217								
6	RY23-006	RYR2302010	219								
7	RY23-007	RYR2302010	219								
8	RY23-008	RYR2302010	219								
9	RY23-009	RYR2302010	219								
10	RY23-010	RYR2302010	219								
11	RY23-011	RYR2302010	223								
12	RY23-012	RYR2302010	223								
13	RY23-013	RYR2302010	223								
14	RY23-014	RYR2302010	223								
15	RY23-015	RYR2302010	223								
16	RY23-016	RYR2302010	223								

Sketch:



Method Used:	HBW : D10 mm/ 3000kgf / 15s		
Acceptable Hardness:	197-235	Approved By:	Examined By:
Judgments:	[v] Conforms	Zhu Yonglan	Shen Yalin
	[] Does Not Conform		

ULTRASONIC EXAMINATION REPORT

Customer:			Customer PO#:			Date:	2023.02.07
Drawing #:	7 1/16 10M	Specification:	API Spec 6A/ASTM A388	API Monogram:	Y/ N	Report #:	
Part No.:	X-111128-0 1	Material:	410 75K			Coating:	
Description:	STEM .hydraulic 7 .1/16" 10M FLSR 410SS, 75K .PSL3 PR1 LU,					Quantity:	20

Item	S/N	Heat Log No.	Result	Item	S/N	Heat Log No.	Result
1	RY23-001	RYR2302010	Acceptable	17	RY23-017	RYR2302010	Acceptable
2	RY23-002	RYR2302010	Acceptable	18	RY23-018	RYR2302010	Acceptable
3	RY23-003	RYR2302010	Acceptable	19	RY23-019	RYR2302010	Acceptable
4	RY23-004	RYR2302010	Acceptable	20	RY23-020	RYR2302010	Acceptable
5	RY23-005	RYR2302010	Acceptable				
6	RY23-006	RYR2302010	Acceptable				
7	RY23-007	RYR2302010	Acceptable				
8	RY23-008	RYR2302010	Acceptable				
9	RY23-009	RYR2302010	Acceptable				
10	RY23-010	RYR2302010	Acceptable				
11	RY23-011	RYR2302010	Acceptable				
12	RY23-012	RYR2302010	Acceptable				
13	RY23-013	RYR2302010	Acceptable				
14	RY23-014	RYR2302010	Acceptable				
15	RY23-015	RYR2302010	Acceptable				
16	RY23-016	RYR2302010	Acceptable				

Sketch:



****ABOVE FORGED ARE TESTED ULTRASONICALLY FOR INTERNAL DEFECTS, AND THERE WAS NO RECORDABLE INDICATION OBSERVED DURING THE TEST. HENCE ACCEPTABLE AS PER STANDARD.**

UT Code:	ASME SECTION5	Technique:	Straight/Contact	Examined By:	Meng yi
Exam. Stage:	Rough After	Calibration:	Block:csk-I AACS-1-5	Level as per UT:	II
Equipment:	SUB110	Couplant:	Oil		

Probe Used:	2.5P $\varnothing$ 14	Acceptance Criteria:	API 6A PSL3 EE LU	Approved by:	Meng yi
I		Test Gain:	20db+4db	Level as per UT:	II
Nstrmt/Ident.#:					

MAGNETIC PARTICLE INSPECTION REPORT

Customer:			Customer PO#:			Date:	2022 10 08
Drawing #:	7 1/16 10M	Specification:	API Spec 6A/ASTM E709	API Monogram:	Y / N	Report #:	
Part No.:	X-111128-01	Material:	API Spec 6A/ASTM A370			Coating:	
Description:	STEM .hydraulic 7 .1/16" 10M FLSR 410SS, 75K .PSL3 PR1 LU					Quantity:	20
Equipment:	CJW5000	Acceptance Criteria:		API 6A/PSL3	Circular AMPS:		
Test Method:		Particle Type:		WET Fluorescent	UV-Light Intensity:		1500 μW/CM²
Stage:		Concentration:		0.2	Magnetizing Time:		
Item	S/N	Heat Log No.	Result	Item	S/N	Heat Log No.	Result
1	RY23-001	RYR2302010	Acceptable	16	RY23-016	RYR2302010	Acceptable
2	RY23-002	RYR2302010	Acceptable	17	RY23-017	RYR2302010	Acceptable
3	RY23-003	RYR2302010	Acceptable	18	RY23-018	RYR2302010	Acceptable
4	RY23-004	RYR2302010	Acceptable	19	RY23-019	RYR2302010	Acceptable
5	RY23-005	RYR2302010	Acceptable	20	RY23-020	RYR2302010	Acceptable
6	RY23-006	RYR2302010	Acceptable				
7	RY23-007	RYR2302010	Acceptable				
8	RY23-008	RYR2302010	Acceptable				
9	RY23-009	RYR2302010	Acceptable				
10	RY23-010	RYR2302010	Acceptable				
11	RY23-011	RYR2302010	Acceptable				
12	RY23-012	RYR2302010	Acceptable				
13	RY23-013	RYR2302010	Acceptable				
14	RY23-014	RYR2302010	Acceptable				
15	RY23-015	RYR2302010	Acceptable				

Sketch/Inspection Coverage:



Fluorescent magnetic particle inspection was performed on all accessible wetted/sealing surfaces.

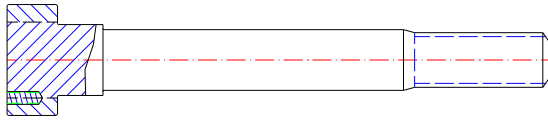
Evaluation & Disposition:	Found to be satisfactory		
Inspected by:	Wan Song	Organization:	QC Department
Approved by:++	Zhu Yonglan		
NDT Level:	II	Date:	2023 02 07

PENETRANT FLAW DETECTION INSPECT

Customer:			Customer PO#:			Date:	2023 02 07
Drawing #:	7 1/16-10M	Specification:	API Spec 6A/ASTM E709	API Monogram:	Y / N	Report #:	
Part No.:	X-111128-01	Material:	API Spec 6A/ASTM A370			Coating:	
Description:	STEM .hydraulic 7 .1/16" 10M FLSR 410SS, 75K .PSL3 PR1 LU					Quantity:	20
TYPE:	DPT-5	Acceptance Criteria:		API 6A/PSL3	FACE		GRINDING
Test Method:	ASTM E165	PENETRATION TIME		10min	DEVELOPE TIME		10min
Stage:		Concentration:		0.2	Magnetizing Time:		
Item	S/N	Heat Log No.	Result	Item	S/N	Heat Log No.	Result
1	RY23-001	RYR2302010	Acceptable	18	RY23-018	RYR2302010	Acceptable
2	RY23-002	RYR2302010	Acceptable	19	RY23-019	RYR2302010	Acceptable
3	RY23-003	RYR2302010	Acceptable	20	RY23-020	RYR2302010	Acceptable
4	RY23-004	RYR2302010	Acceptable				
5	RY23-005	RYR2302010	Acceptable				
6	RY23-006	RYR2302010	Acceptable				
7	RY23-007	RYR2302010	Acceptable				
8	RY23-008	RYR2302010	Acceptable				
9	RY23-009	RYR2302010	Acceptable				
10	RY23-010	RYR2302010	Acceptable				
11	RY23-011	RYR2302010	Acceptable				
12	RY23-012	RYR2302010	Acceptable				
13	RY23-013	RYR2302010	Acceptable				
14	RY23-014	RYR2302010	Acceptable				

15	RY23-015	RYR2302010	Acceptable				
16	RY23-016	RYR2302010	Acceptable				
17	RY23-017	RYR2302010	Acceptable				

Sketch/Inspection Coverage:



Fluorescent magnetic particle inspection was performed on all accessible wetted/sealing surfaces.

Evaluation & Disposition:	Found to be satisfactory		
Inspected by:	Wan Song	Organization:	QC Department
Approved by:	Zhu Yonglan		
NDT Level:	II	Date:	2023 02 07

DRAWING # B05-377

REPORT INDEX

Purchase Order: 2022132

Quantity: 300PCS

Shipment No.:

Shipment Date:

Activity No.	Characteristics	Reference Page
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METALLURGICAL TEST CERTIFICATE

Customer:			Customer PO#:			Date:	2022.6.17
Drawing #:	B05-377	Specification:	API 6A/ASTM A370	API Monogram:	No	Report #:	SO-20220617-02
Part No.:		Material:	410 SS,Per NACE MR0175			Coating:	TC
Description:	Seat ring, 5-1/8"15M FLSR , 410/TC,75K					Quantity:	300

TEST CONDITION

Test Bar Size:	100*100*200	Bar Diameter:	Ø12.7
Melt Practice:	EF+LF+VD	Reduction Ratio Min.:	4.3:1
Yield Stress:	590	Gauge Length:	200

CHEMICAL COMPOSITION

Mill No.	Qty.	Test No.	C	Mn	Si	S	P	Ni	Cu	Mo	Cr	V
Spec. Min			0.08	/	/	/	/	/	/	/	11.50	-
Spec. Max			0.15	1.00	1.00	0.025	0.025	0.60	/	1.00	13.50	
21214021782			0.115	0.45	0.40	0.005	0.016	0.13	/	/	11.80	

MECHANICAL COMPOSITION

Heat No.	Quantity	Test No.	Yield Strength (MPa)	Tensile Strength (MPa)	Elongation %	Reduction of Area %	Hardness HB	10mm x 10mm CHARPY J(ft.lb) at -46°C	Minimum Lateral Expansion mm (inch)	Shear Fraction
Spec. Min			517	655	17	35	207	/		
Spec. Max			/	/	/	/	235	/		
HC2206014-01			590	710	23	66	224			

HEAT TREATMENT

Forgings		Test Bar (QTC)	
Normalized:	960°C 3h OIL	Normalized:	960°C 3h OIL
Quench:	/	Quench:	/
Temper1:	720°C 5.5h AIR	Temper1:	720°C 5.5h AIR
Temper2:	680°C 5.5h AIR	Temper2:	680°C 5.5h AIR
Start Temp.:	39°C	Start Temp.:	39°C
End Temp.:	51°C	End Temp.:	51°C

We hereby certify that all test results and procedure information contained herein are correct and true as in contained the records of the company. There have been **no weld repairs** on these items.

Inspected By:	Min Fukang	Approved By:	JI WEI
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HARDNESS TEST REPORT

Customer:				Customer PO#:				Date:	2022.6.17	
Drawing #:	B05-377	Specification:	API 6A/ASTM E10		API Monogram:	No		Report #:	SO-20220617-02	
Part No.:		Material:	410 SS, Per NACE MR0175					Coating:	TC	
Description	Seat ring, 5-1/8" 15M FLSR, 410/TC, 75K							Quantity:	300	
Item	S/N	Heat Log No.	Hardne ss	Item	S/N	Heat Log No.	Hardness			
1	SO22132-1-001	21214021782	95	26	SO22132-1-026	21214021782	95			
2	SO22132-1-002	21214021782	95	27	SO22132-1-027	21214021782	95			
3	SO22132-1-003	21214021782	95	28	SO22132-1-028	21214021782	95			
4	SO22132-1-004	21214021782	95	29	SO22132-1-029	21214021782	95			
5	SO22132-1-005	21214021782	95	30	SO22132-1-030	21214021782	95			
6	SO22132-1-006	21214021782	95	31	SO22132-1-031	21214021782	95			
7	SO22132-1-007	21214021782	95	32	SO22132-1-032	21214021782	95			
8	SO22132-1-008	21214021782	95	33	SO22132-1-033	21214021782	95			
9	SO22132-1-009	21214021782	95	34	SO22132-1-034	21214021782	95			
10	SO22132-1-010	21214021782	95	35	SO22132-1-035	21214021782	95			
11	SO22132-1-011	21214021782	95	36	SO22132-1-036	21214021782	95			
12	SO22132-1-012	21214021782	95	37	SO22132-1-037	21214021782	97			
13	SO22132-1-013	21214021782	95	38	SO22132-1-038	21214021782	97			
14	SO22132-1-014	21214021782	95	39	SO22132-1-039	21214021782	97			
15	SO22132-1-015	21214021782	95	40	SO22132-1-040	21214021782	98			
16	SO22132-1-016	21214021782	95	41	SO22132-1-041	21214021782	98			
17	SO22132-1-017	21214021782	95	42	SO22132-1-042	21214021782	96			
18	SO22132-1-018	21214021782	95	43	SO22132-1-043	21214021782	96			
19	SO22132-1-019	21214021782	95	44	SO22132-1-044	21214021782	96			
20	SO22132-1-020	21214021782	95	45	SO22132-1-045	21214021782	96			
21	SO22132-1-021	21214021782	95	46	SO22132-1-046	21214021782	96			
22	SO22132-1-022	21214021782	95	47	SO22132-1-047	21214021782	96			
23	SO22132-1-023	21214021782	95	48	SO22132-1-048	21214021782	98			
24	SO22132-1-024	21214021782	95	49	SO22132-1-049	21214021782	98			
25	SO22132-1-025	21214021782	95	50	SO22132-1-050	21214021782	98			

Sketch:

Method Used:			
Acceptable Hardness(HRB):	95-99	Approved By:	Examined By:
Judgments:	[☒] Conforms	JI WEI	Min Fukang
	[☐] Does Not Conform		

HARDNESS TEST REPORT

Customer:				Customer PO#:				Date:	2022.6.17	
Drawing #:	B05-377	Specification:	API 6A/ASTM E10		API Monogram:	No		Report #:	SO-20220617-02	
Part No.:		Material:	410 SS, Per NACE MR0175					Coating:	TC	
Description	Seat ring, 5-1/8" 15M FLSR, 410/TC, 75K							Quantity:	300	
Item	S/N	Heat Log No.	Hardness	Item	S/N	Heat Log No.	Hardness			
51	SO22132-1-051	21214021782	98	76	SO22132-1-076	21214021782	97			
52	SO22132-1-052	21214021782	99	77	SO22132-1-077	21214021782	97			
53	SO22132-1-053	21214021782	99	78	SO22132-1-078	21214021782	99			
54	SO22132-1-054	21214021782	99	79	SO22132-1-079	21214021782	99			
55	SO22132-1-055	21214021782	97	80	SO22132-1-080	21214021782	99			
56	SO22132-1-056	21214021782	99	81	SO22132-1-081	21214021782	99			
57	SO22132-1-057	21214021782	95	82	SO22132-1-082	21214021782	99			
58	SO22132-1-058	21214021782	95	83	SO22132-1-083	21214021782	96			
59	SO22132-1-059	21214021782	95	84	SO22132-1-084	21214021782	96			
60	SO22132-1-060	21214021782	95	85	SO22132-1-085	21214021782	96			
61	SO22132-1-061	21214021782	95	86	SO22132-1-086	21214021782	96			
62	SO22132-1-062	21214021782	95	87	SO22132-1-087	21214021782	96			
63	SO22132-1-063	21214021782	95	88	SO22132-1-088	21214021782	95			
64	SO22132-1-064	21214021782	95	89	SO22132-1-089	21214021782	95			
65	SO22132-1-065	21214021782	95	90	SO22132-1-090	21214021782	95			
66	SO22132-1-066	21214021782	96	91	SO22132-1-091	21214021782	95			
67	SO22132-1-067	21214021782	96	92	SO22132-1-092	21214021782	95			
68	SO22132-1-068	21214021782	96	93	SO22132-1-093	21214021782	95			
69	SO22132-1-069	21214021782	98	94	SO22132-1-094	21214021782	95			
70	SO22132-1-070	21214021782	98	95	SO22132-1-095	21214021782	95			
71	SO22132-1-071	21214021782	98	96	SO22132-1-096	21214021782	98			
72	SO22132-1-072	21214021782	98	97	SO22132-1-097	21214021782	98			
73	SO22132-1-073	21214021782	97	98	SO22132-1-098	21214021782	98			
74	SO22132-1-074	21214021782	97	99	SO22132-1-099	21214021782	97			
75	SO22132-1-075	21214021782	97	100	SO22132-1-100	21214021782	97			

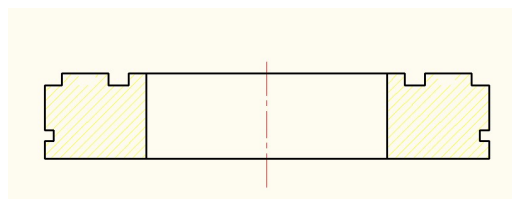
Sketch:

Method Used:			
Acceptable Hardness(HRB):	95-99	Approved By:	Examined By:
Judgments:	[☒] Conforms	JI WEI	Min Fukang
	[☐] Does Not Conform		

HARDNESS TEST REPORT

Customer:			Customer PO#:				Date:	2022.6.17
Drawing #:	B05-377	Specification:	API 6A/ASTM E10		API Monogram:	No	Report #:	SO-20220617-02
Part No.:		Material:	410 SS,Per NACE MR0175				Coating:	TC
Description	Seat ring, 5-1/8"15M FLSR , 410/TC,75K						Quantity:	300
Item	S/N	Heat Log No.	Hardne ss	Item	S/N	Heat Log No.	Hardness	
101	SO22132-1-101	21214021782	97	126	SO22132-1-126	21214021782	99	
102	SO22132-1-102	21214021782	97	127	SO22132-1-127	21214021782	96	
103	SO22132-1-103	21214021782	97	128	SO22132-1-128	21214021782	96	
104	SO22132-1-104	21214021782	99	129	SO22132-1-129	21214021782	96	
105	SO22132-1-105	21214021782	99	130	SO22132-1-130	21214021782	96	
106	SO22132-1-106	21214021782	99	131	SO22132-1-131	21214021782	96	
107	SO22132-1-107	21214021782	99	132	SO22132-1-132	21214021782	96	
108	SO22132-1-108	21214021782	99	133	SO22132-1-133	21214021782	97	
109	SO22132-1-109	21214021782	96	134	SO22132-1-134	21214021782	97	
110	SO22132-1-110	21214021782	96	135	SO22132-1-135	21214021782	95	
111	SO22132-1-111	21214021782	96	136	SO22132-1-136	21214021782	95	
112	SO22132-1-112	21214021782	96	137	SO22132-1-137	21214021782	95	
113	SO22132-1-113	21214021782	96	138	SO22132-1-138	21214021782	95	
114	SO22132-1-114	21214021782	96	139	SO22132-1-139	21214021782	99	
115	SO22132-1-115	21214021782	96	140	SO22132-1-140	21214021782	99	
116	SO22132-1-116	21214021782	97	141	SO22132-1-141	21214021782	99	
117	SO22132-1-117	21214021782	97	142	SO22132-1-142	21214021782	98	
118	SO22132-1-118	21214021782	97	143	SO22132-1-143	21214021782	98	
119	SO22132-1-119	21214021782	97	144	SO22132-1-144	21214021782	98	
120	SO22132-1-120	21214021782	97	145	SO22132-1-145	21214021782	98	
121	SO22132-1-121	21214021782	97	146	SO22132-1-146	21214021782	98	
122	SO22132-1-122	21214021782	97	147	SO22132-1-147	21214021782	98	
123	SO22132-1-123	21214021782	97	148	SO22132-1-148	21214021782	98	
124	SO22132-1-124	21214021782	99	149	SO22132-1-149	21214021782	95	
125	SO22132-1-125	21214021782	99	150	SO22132-1-150	21214021782	95	

Sketch:

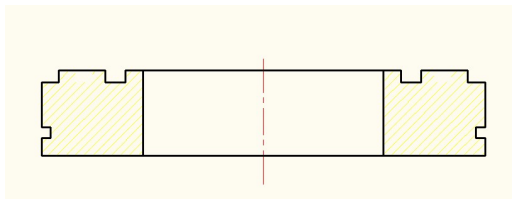


Method Used:			
Acceptable Hardness(HRB):	95-99	Approved By:	Examined By:
Judgments:	[☒] Conforms	JI WEI	Min Fukang
	[☐] Does Not Conform		

HARDNESS TEST REPORT

Customer:			Customer PO#:				Date:	2022.6.17
Drawing #:	B05-377	Specification:	API 6A/ASTM E10		API Monogram:	No	Report #:	SO-20220617-02
Part No.:		Material:	410 SS,Per NACE MR0175				Coating:	TC
Description	Seat ring, 5-1/8"15M FLSR , 410/TC,75K						Quantity:	300
Item	S/N	Heat Log No.	Hardnes s	Item	S/N	Heat Log No.	Hardness	
151	SO22132-1-151	21214021782	95	176	SO22132-1-176	21214021782	97	
152	SO22132-1-152	21214021782	95	177	SO22132-1-177	21214021782	95	
153	SO22132-1-153	21214021782	95	178	SO22132-1-178	21214021782	95	
154	SO22132-1-154	21214021782	95	179	SO22132-1-179	21214021782	95	
155	SO22132-1-155	21214021782	95	180	SO22132-1-180	21214021782	95	
156	SO22132-1-156	21214021782	95	181	SO22132-1-181	21214021782	95	
157	SO22132-1-157	21214021782	95	182	SO22132-1-182	21214021782	99	
158	SO22132-1-158	21214021782	97	183	SO22132-1-183	21214021782	99	
159	SO22132-1-159	21214021782	97	184	SO22132-1-184	21214021782	99	
160	SO22132-1-160	21214021782	97	185	SO22132-1-185	21214021782	97	
161	SO22132-1-161	21214021782	97	186	SO22132-1-186	21214021782	97	
162	SO22132-1-162	21214021782	97	187	SO22132-1-187	21214021782	97	
163	SO22132-1-163	21214021782	97	188	SO22132-1-188	21214021782	96	
164	SO22132-1-164	21214021782	97	189	SO22132-1-189	21214021782	96	
165	SO22132-1-165	21214021782	97	190	SO22132-1-190	21214021782	96	
166	SO22132-1-166	21214021782	97	191	SO22132-1-191	21214021782	96	
167	SO22132-1-167	21214021782	97	192	SO22132-1-192	21214021782	96	
168	SO22132-1-168	21214021782	95	193	SO22132-1-193	21214021782	98	
169	SO22132-1-169	21214021782	95	194	SO22132-1-194	21214021782	98	
170	SO22132-1-170	21214021782	98	195	SO22132-1-195	21214021782	98	
171	SO22132-1-171	21214021782	98	196	SO22132-1-196	21214021782	98	
172	SO22132-1-172	21214021782	98	197	SO22132-1-197	21214021782	99	
173	SO22132-1-173	21214021782	97	198	SO22132-1-198	21214021782	99	
174	SO22132-1-174	21214021782	97	199	SO22132-1-199	21214021782	99	
175	SO22132-1-175	21214021782	97	200	SO22132-1-200	21214021782	99	

Sketch:

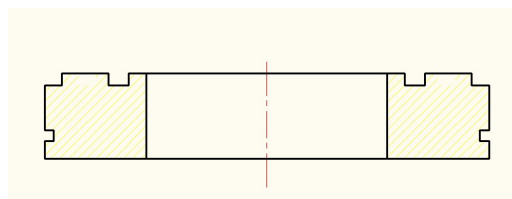


Method Used:			
Acceptable Hardness(HRB):	95-99	Approved By:	Examined By:
Judgments:	[☒] Conforms	JI WEI	Min Fukang
	[☐] Does Not Conform		

HARDNESS TEST REPORT

Customer:			Customer PO#:				Date:	2022.6.17
Drawing #:	B05-377	Specification:	API 6A/ASTM E10		API Monogram:	No	Report #:	SO-20220617-02
Part No.:		Material:	410 SS,Per NACE MR0175				Coating:	TC
Description	Seat ring, 5-1/8"15M FLSR , 410/TC,75K						Quantity:	300
Item	S/N	Heat Log No.	Hardne ss	Item	S/N	Heat Log No.	Hardness	
201	SO22132-1-201	21214021782	99	226	SO22132-1-226	21214021782	99	
202	SO22132-1-202	21214021782	99	227	SO22132-1-227	21214021782	97	
203	SO22132-1-203	21214021782	99	228	SO22132-1-228	21214021782	97	
204	SO22132-1-204	21214021782	97	229	SO22132-1-229	21214021782	97	
205	SO22132-1-205	21214021782	97	230	SO22132-1-230	21214021782	97	
206	SO22132-1-206	21214021782	97	231	SO22132-1-231	21214021782	97	
207	SO22132-1-207	21214021782	97	232	SO22132-1-232	21214021782	97	
208	SO22132-1-208	21214021782	95	233	SO22132-1-233	21214021782	97	
209	SO22132-1-209	21214021782	95	234	SO22132-1-234	21214021782	96	
210	SO22132-1-210	21214021782	95	235	SO22132-1-235	21214021782	96	
211	SO22132-1-211	21214021782	95	236	SO22132-1-236	21214021782	96	
212	SO22132-1-212	21214021782	95	237	SO22132-1-237	21214021782	96	
213	SO22132-1-213	21214021782	95	238	SO22132-1-238	21214021782	95	
214	SO22132-1-214	21214021782	95	239	SO22132-1-239	21214021782	95	
215	SO22132-1-215	21214021782	95	240	SO22132-1-240	21214021782	95	
216	SO22132-1-216	21214021782	95	241	SO22132-1-241	21214021782	95	
217	SO22132-1-217	21214021782	95	242	SO22132-1-242	21214021782	95	
218	SO22132-1-218	21214021782	98	243	SO22132-1-243	21214021782	95	
219	SO22132-1-219	21214021782	98	244	SO22132-1-244	21214021782	95	
220	SO22132-1-220	21214021782	98	245	SO22132-1-245	21214021782	95	
221	SO22132-1-221	21214021782	98	246	SO22132-1-246	21214021782	95	
222	SO22132-1-222	21214021782	99	247	SO22132-1-247	21214021782	98	
223	SO22132-1-223	21214021782	99	248	SO22132-1-248	21214021782	98	
224	SO22132-1-224	21214021782	99	249	SO22132-1-249	21214021782	98	
225	SO22132-1-225	21214021782	99	250	SO22132-1-250	21214021782	98	

Sketch:

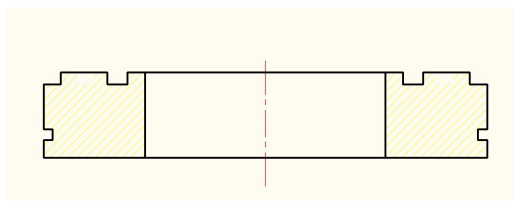


Method Used:			
Acceptable Hardness(HRB):	95-99	Approved By:	Examined By:
Judgments:	[☒] Conforms	JI WEI	Min Fukang
	[☐] Does Not Conform		

HARDNESS TEST REPORT

Customer:			Customer PO#:				Date:	2022.6.17
Drawing #:	B05-377	Specification:	API 6A/ASTM E10		API Monogram:	No	Report #:	SO-20220617-02
Part No.:		Material:	410 SS,Per NACE MR0175				Coating:	TC
Description	Seat ring, 5-1/8"15M FLSR , 410/TC,75K						Quantity:	300
Item	S/N	Heat Log No.	Hardnes s	Item	S/N	Heat Log No.	Hardness	
251	SO22132-1-251	21214021782	98	276	SO22132-1-276	21214021782	95	
252	SO22132-1-252	21214021782	97	277	SO22132-1-277	21214021782	95	
253	SO22132-1-253	21214021782	97	278	SO22132-1-278	21214021782	95	
254	SO22132-1-254	21214021782	97	279	SO22132-1-279	21214021782	95	
255	SO22132-1-255	21214021782	97	280	SO22132-1-280	21214021782	95	
256	SO22132-1-256	21214021782	97	281	SO22132-1-281	21214021782	95	
257	SO22132-1-257	21214021782	97	282	SO22132-1-282	21214021782	95	
258	SO22132-1-258	21214021782	97	283	SO22132-1-283	21214021782	95	
259	SO22132-1-259	21214021782	97	284	SO22132-1-284	21214021782	95	
260	SO22132-1-260	21214021782	99	285	SO22132-1-285	21214021782	95	
261	SO22132-1-261	21214021782	99	286	SO22132-1-286	21214021782	95	
262	SO22132-1-262	21214021782	99	287	SO22132-1-287	21214021782	95	
263	SO22132-1-263	21214021782	99	288	SO22132-1-288	21214021782	96	
264	SO22132-1-264	21214021782	99	289	SO22132-1-289	21214021782	96	
265	SO22132-1-265	21214021782	99	290	SO22132-1-290	21214021782	96	
266	SO22132-1-266	21214021782	99	291	SO22132-1-291	21214021782	96	
267	SO22132-1-267	21214021782	99	292	SO22132-1-292	21214021782	96	
268	SO22132-1-268	21214021782	96	293	SO22132-1-293	21214021782	96	
269	SO22132-1-269	21214021782	96	294	SO22132-1-294	21214021782	98	
270	SO22132-1-270	21214021782	96	295	SO22132-1-295	21214021782	98	
271	SO22132-1-271	21214021782	96	296	SO22132-1-296	21214021782	98	
272	SO22132-1-272	21214021782	96	297	SO22132-1-297	21214021782	98	
273	SO22132-1-273	21214021782	96	298	SO22132-1-298	21214021782	98	
274	SO22132-1-274	21214021782	95	299	SO22132-1-299	21214021782	98	
275	SO22132-1-275	21214021782	95	300	SO22132-1-300	21214021782	98	

Sketch:

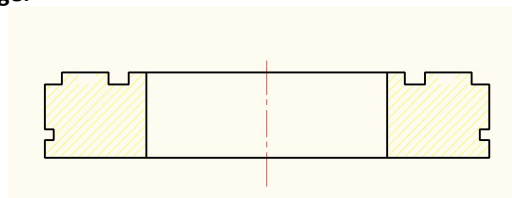


Method Used:			
Acceptable Hardness(HRB):	95-99	Approved By:	Examined By:
Judgments:	[☒] Conforms	JI WEI	Min Fukang
	[☐] Does Not Conform		

PENETRATE TESTING REPORT

Customer:				Customer PO#:				Date:	2022.7.15		
Drawing #:	B05-377	Specification	API Spec 6A/ASTM E165		API Monogram:	No		Report #:	NCS-22 07-Q45		
Part No.:		Material:	410 SS, Per NACE MR0175						Coating:	TC	
Description:	Seat ring, 5-1/8" 15M FLSR, 410/TC, 75K							Quantity:	300		
Equipment:	DPT-8		Acceptance Criteria:		API 6A/PSL3		Test Method:		DYE		
Penetrant Type:	Solvent		Penetration time:		15min		Developing time:		10min		
Stage:	After fine finishing				Inspected surface:		Seat (body)				
Item	S/N	Heat Log No.	Hardne ss	Item	S/N	Heat Log No.	Hardne ss				
1	SO22132-1-001	21214021782	95	26	SO22132-1-026	21214021782	95				
2	SO22132-1-002	21214021782	95	27	SO22132-1-027	21214021782	95				
3	SO22132-1-003	21214021782	95	28	SO22132-1-028	21214021782	95				
4	SO22132-1-004	21214021782	95	29	SO22132-1-029	21214021782	95				
5	SO22132-1-005	21214021782	95	30	SO22132-1-030	21214021782	95				
6	SO22132-1-006	21214021782	95	31	SO22132-1-031	21214021782	95				
7	SO22132-1-007	21214021782	95	32	SO22132-1-032	21214021782	95				
8	SO22132-1-008	21214021782	95	33	SO22132-1-033	21214021782	95				
9	SO22132-1-009	21214021782	95	34	SO22132-1-034	21214021782	95				
10	SO22132-1-010	21214021782	95	35	SO22132-1-035	21214021782	95				
11	SO22132-1-011	21214021782	95	36	SO22132-1-036	21214021782	95				
12	SO22132-1-012	21214021782	95	37	SO22132-1-037	21214021782	97				
13	SO22132-1-013	21214021782	95	38	SO22132-1-038	21214021782	97				
14	SO22132-1-014	21214021782	95	39	SO22132-1-039	21214021782	97				
15	SO22132-1-015	21214021782	95	40	SO22132-1-040	21214021782	98				
16	SO22132-1-016	21214021782	95	41	SO22132-1-041	21214021782	98				
17	SO22132-1-017	21214021782	95	42	SO22132-1-042	21214021782	96				
18	SO22132-1-018	21214021782	95	43	SO22132-1-043	21214021782	96				
19	SO22132-1-019	21214021782	95	44	SO22132-1-044	21214021782	96				
20	SO22132-1-020	21214021782	95	45	SO22132-1-045	21214021782	96				
21	SO22132-1-021	21214021782	95	46	SO22132-1-046	21214021782	96				
22	SO22132-1-022	21214021782	95	47	SO22132-1-047	21214021782	96				
23	SO22132-1-023	21214021782	95	48	SO22132-1-048	21214021782	98				
24	SO22132-1-024	21214021782	95	49	SO22132-1-049	21214021782	98				
25	SO22132-1-025	21214021782	95	50	SO22132-1-050	21214021782	98				

Sketch/Inspection Coverage:



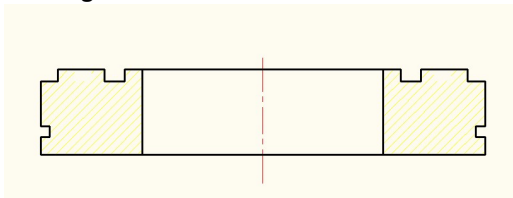
Fluorescent magnetic particle inspection was performed on all accessible wetted/sealing surfaces.

Evaluation & Disposition:	Found to be satisfactory		
Inspected by:	JI LIN	Approved by:	JI WEI
Organization:	QC Department		
NDT Level:	II	Date:	2022.7.15

PENETRATE TESTING REPORT

Customer:				Customer PO#:		Date:		2022.7.15
Drawing #:	B05-377	Specification	API Spec 6A/ ASTM E165		API Monogram:	No	Report #:	NCS-2207-Q45
Part No.:		Material:	410 SS,Per NACE MR0175				Coating:	TC
Description:	Seat ring, 5-1/8"15M FLSR , 410/TC,75K						Quantity:	300
Equipment:	DPT-8	Acceptance Criteria:		API 6A/PSL3	Test Method:			DYE
Penetrant Type:	Solvent	Penetration time:		15min	Developing time:			10min
Stage:	After fine finishing			Inspected surface:	Seat (body)			
Item	S/N	Heat Log No.	Hardne ss	Item	S/N	Heat Log No.	Hardness	
51	SO22132-1-051	21214021782	98	76	SO22132-1-076	21214021782	97	
52	SO22132-1-052	21214021782	99	77	SO22132-1-077	21214021782	97	
53	SO22132-1-053	21214021782	99	78	SO22132-1-078	21214021782	99	
54	SO22132-1-054	21214021782	99	79	SO22132-1-079	21214021782	99	
55	SO22132-1-055	21214021782	97	80	SO22132-1-080	21214021782	99	
56	SO22132-1-056	21214021782	99	81	SO22132-1-081	21214021782	99	
57	SO22132-1-057	21214021782	95	82	SO22132-1-082	21214021782	99	
58	SO22132-1-058	21214021782	95	83	SO22132-1-083	21214021782	96	
59	SO22132-1-059	21214021782	95	84	SO22132-1-084	21214021782	96	
60	SO22132-1-060	21214021782	95	85	SO22132-1-085	21214021782	96	
61	SO22132-1-061	21214021782	95	86	SO22132-1-086	21214021782	96	
62	SO22132-1-062	21214021782	95	87	SO22132-1-087	21214021782	96	
63	SO22132-1-063	21214021782	95	88	SO22132-1-088	21214021782	95	
64	SO22132-1-064	21214021782	95	89	SO22132-1-089	21214021782	95	
65	SO22132-1-065	21214021782	95	90	SO22132-1-090	21214021782	95	
66	SO22132-1-066	21214021782	96	91	SO22132-1-091	21214021782	95	
67	SO22132-1-067	21214021782	96	92	SO22132-1-092	21214021782	95	
68	SO22132-1-068	21214021782	96	93	SO22132-1-093	21214021782	95	
69	SO22132-1-069	21214021782	98	94	SO22132-1-094	21214021782	95	
70	SO22132-1-070	21214021782	98	95	SO22132-1-095	21214021782	95	
71	SO22132-1-071	21214021782	98	96	SO22132-1-096	21214021782	98	
72	SO22132-1-072	21214021782	98	97	SO22132-1-097	21214021782	98	
73	SO22132-1-073	21214021782	97	98	SO22132-1-098	21214021782	98	
74	SO22132-1-074	21214021782	97	99	SO22132-1-099	21214021782	97	
75	SO22132-1-075	21214021782	97	100	SO22132-1-100	21214021782	97	

Sketch/Inspection Coverage:



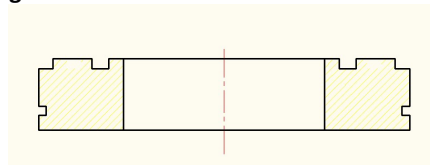
Fluorescent magnetic particle inspection was performed on all accessible wetted/sealing surfaces.

Evaluation & Disposition:	Found to be satisfactory		
Inspected by:	JI LIN	Approved by:	JI WEI
		Organization:	QC Department
NDT Level:	II	Date:	2022.7.15

PENETRATE TESTING REPORT

Customer:			Customer PO#:			Date:	2022.7.15
Drawing #:	B05-377	Specification	API Spec 6A/ ASTM E165	API Monogram:	No	Report #:	NCS-2207-Q45
Part No.:		Material:	410 SS,Per NACE MR0175			Coating:	TC
Description:	Seat ring, 5-1/8"15M FLSR , 410/TC,75K					Quantity:	300
Equipment:	DPT-8	Acceptance Criteria:		API 6A/PSL3	Test Method:		DYE
Penetrant Type:	Solvent	Penetration time:		15min	Developing time:		10min
Stage:	After fine finishing			Inspected surface:	Seat (body)		
Item	S/N	Heat Log No.	Hardne ss	Item	S/N	Heat Log No.	Hardnes s
101	SO22132-1-101	21214021782	97	126	SO22132-1-126	21214021782	99
102	SO22132-1-102	21214021782	97	127	SO22132-1-127	21214021782	96
103	SO22132-1-103	21214021782	97	128	SO22132-1-128	21214021782	96
104	SO22132-1-104	21214021782	99	129	SO22132-1-129	21214021782	96
105	SO22132-1-105	21214021782	99	130	SO22132-1-130	21214021782	96
106	SO22132-1-106	21214021782	99	131	SO22132-1-131	21214021782	96
107	SO22132-1-107	21214021782	99	132	SO22132-1-132	21214021782	96
108	SO22132-1-108	21214021782	99	133	SO22132-1-133	21214021782	97
109	SO22132-1-109	21214021782	96	134	SO22132-1-134	21214021782	97
110	SO22132-1-110	21214021782	96	135	SO22132-1-135	21214021782	95
111	SO22132-1-111	21214021782	96	136	SO22132-1-136	21214021782	95
112	SO22132-1-112	21214021782	96	137	SO22132-1-137	21214021782	95
113	SO22132-1-113	21214021782	96	138	SO22132-1-138	21214021782	95
114	SO22132-1-114	21214021782	96	139	SO22132-1-139	21214021782	99
115	SO22132-1-115	21214021782	96	140	SO22132-1-140	21214021782	99
116	SO22132-1-116	21214021782	97	141	SO22132-1-141	21214021782	99
117	SO22132-1-117	21214021782	97	142	SO22132-1-142	21214021782	98
118	SO22132-1-118	21214021782	97	143	SO22132-1-143	21214021782	98
119	SO22132-1-119	21214021782	97	144	SO22132-1-144	21214021782	98
120	SO22132-1-120	21214021782	97	145	SO22132-1-145	21214021782	98
121	SO22132-1-121	21214021782	97	146	SO22132-1-146	21214021782	98
122	SO22132-1-122	21214021782	97	147	SO22132-1-147	21214021782	98
123	SO22132-1-123	21214021782	97	148	SO22132-1-148	21214021782	98
124	SO22132-1-124	21214021782	99	149	SO22132-1-149	21214021782	95
125	SO22132-1-125	21214021782	99	150	SO22132-1-150	21214021782	95

Sketch/Inspection Coverage:



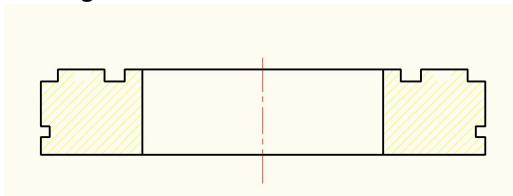
Fluorescent magnetic particle inspection was performed on all accessible wetted/sealing surfaces.

Evaluation & Disposition:	Found to be satisfactory		
Inspected by:	JI LIN		Approved by: JI WEI
Organization:	QC Department		
NDT Level:	II		Date: 2022.7.15

PENETRATE TESTING REPORT

Customer:				Customer PO#:			Date:	2022.7.15
Drawing #:	B05-377	Specification	API Spec 6A/ ASTM E165		API Monogram:	No	Report #:	NCS-2207-Q45
Part No.:		Material:	410 SS,Per NACE MR0175				Coating:	TC
Description:	Seat ring, 5-1/8"15M FLSR , 410/TC,75K						Quantity:	300
Equipment:	DPT-8	Acceptance Criteria:		API 6A/PSL3	Test Method:			DYE
Penetrant Type:	Solvent	Penetration time:		15min	Developing time:			10min
Stage:	After fine finishing			Inspected surface:	Seat (body)			
Item	S/N	Heat Log No.	Hardne ss	Item	S/N	Heat Log No.	Hardne ss	
151	SO22132-1-151	21214021782	95	176	SO22132-1-176	21214021782	97	
152	SO22132-1-152	21214021782	95	177	SO22132-1-177	21214021782	95	
153	SO22132-1-153	21214021782	95	178	SO22132-1-178	21214021782	95	
154	SO22132-1-154	21214021782	95	179	SO22132-1-179	21214021782	95	
155	SO22132-1-155	21214021782	95	180	SO22132-1-180	21214021782	95	
156	SO22132-1-156	21214021782	95	181	SO22132-1-181	21214021782	95	
157	SO22132-1-157	21214021782	95	182	SO22132-1-182	21214021782	99	
158	SO22132-1-158	21214021782	97	183	SO22132-1-183	21214021782	99	
159	SO22132-1-159	21214021782	97	184	SO22132-1-184	21214021782	99	
160	SO22132-1-160	21214021782	97	185	SO22132-1-185	21214021782	97	
161	SO22132-1-161	21214021782	97	186	SO22132-1-186	21214021782	97	
162	SO22132-1-162	21214021782	97	187	SO22132-1-187	21214021782	97	
163	SO22132-1-163	21214021782	97	188	SO22132-1-188	21214021782	96	
164	SO22132-1-164	21214021782	97	189	SO22132-1-189	21214021782	96	
165	SO22132-1-165	21214021782	97	190	SO22132-1-190	21214021782	96	
166	SO22132-1-166	21214021782	97	191	SO22132-1-191	21214021782	96	
167	SO22132-1-167	21214021782	97	192	SO22132-1-192	21214021782	96	
168	SO22132-1-168	21214021782	95	193	SO22132-1-193	21214021782	98	
169	SO22132-1-169	21214021782	95	194	SO22132-1-194	21214021782	98	
170	SO22132-1-170	21214021782	98	195	SO22132-1-195	21214021782	98	
171	SO22132-1-171	21214021782	98	196	SO22132-1-196	21214021782	98	
172	SO22132-1-172	21214021782	98	197	SO22132-1-197	21214021782	99	
173	SO22132-1-173	21214021782	97	198	SO22132-1-198	21214021782	99	
174	SO22132-1-174	21214021782	97	199	SO22132-1-199	21214021782	99	
175	SO22132-1-175	21214021782	97	200	SO22132-1-200	21214021782	99	

Sketch/Inspection Coverage:



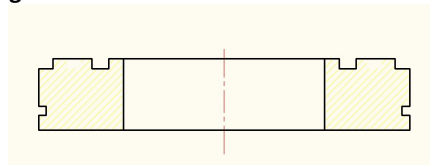
Fluorescent magnetic particle inspection was performed on all accessible wetted/sealing surfaces.

Evaluation & Disposition:	Found to be satisfactory		
Inspected by:	JI LIN	Approved by:	JI WEI
		Organization:	QC Department
NDT Level:	II	Date:	2022.7.15

PENETRATE TESTING REPORT

Customer:			Customer PO#:			Date:	2022.7.15
Drawing #:	B05-377	Specification	API Spec 6A/ ASTM E165	API Monogram:	No	Report #:	NCS-2207-Q45
Part No.:		Material:	410 SS,Per NACE MR0175			Coating:	TC
Description:	Seat ring, 5-1/8"15M FLSR , 410/TC,75K					Quantity:	300
Equipment:	DPT-8	Acceptance Criteria:		API 6A/PSL3	Test Method:		DYE
Penetrant Type:	Solvent	Penetration time:		15min	Developing time:		10min
Stage:	After fine finishing			Inspected surface:	Seat (body)		
Item	S/N	Heat Log No.	Hardne ss	Item	S/N	Heat Log No.	Hardnes s
201	SO22132-1-201	21214021782	99	226	SO22132-1-226	21214021782	99
202	SO22132-1-202	21214021782	99	227	SO22132-1-227	21214021782	97
203	SO22132-1-203	21214021782	99	228	SO22132-1-228	21214021782	97
204	SO22132-1-204	21214021782	97	229	SO22132-1-229	21214021782	97
205	SO22132-1-205	21214021782	97	230	SO22132-1-230	21214021782	97
206	SO22132-1-206	21214021782	97	231	SO22132-1-231	21214021782	97
207	SO22132-1-207	21214021782	97	232	SO22132-1-232	21214021782	97
208	SO22132-1-208	21214021782	95	233	SO22132-1-233	21214021782	97
209	SO22132-1-209	21214021782	95	234	SO22132-1-234	21214021782	96
210	SO22132-1-210	21214021782	95	235	SO22132-1-235	21214021782	96
211	SO22132-1-211	21214021782	95	236	SO22132-1-236	21214021782	96
212	SO22132-1-212	21214021782	95	237	SO22132-1-237	21214021782	96
213	SO22132-1-213	21214021782	95	238	SO22132-1-238	21214021782	95
214	SO22132-1-214	21214021782	95	239	SO22132-1-239	21214021782	95
215	SO22132-1-215	21214021782	95	240	SO22132-1-240	21214021782	95
216	SO22132-1-216	21214021782	95	241	SO22132-1-241	21214021782	95
217	SO22132-1-217	21214021782	95	242	SO22132-1-242	21214021782	95
218	SO22132-1-218	21214021782	98	243	SO22132-1-243	21214021782	95
219	SO22132-1-219	21214021782	98	244	SO22132-1-244	21214021782	95
220	SO22132-1-220	21214021782	98	245	SO22132-1-245	21214021782	95
221	SO22132-1-221	21214021782	98	246	SO22132-1-246	21214021782	95
222	SO22132-1-222	21214021782	99	247	SO22132-1-247	21214021782	98
223	SO22132-1-223	21214021782	99	248	SO22132-1-248	21214021782	98
224	SO22132-1-224	21214021782	99	249	SO22132-1-249	21214021782	98
225	SO22132-1-225	21214021782	99	250	SO22132-1-250	21214021782	98

Sketch/Inspection Coverage:



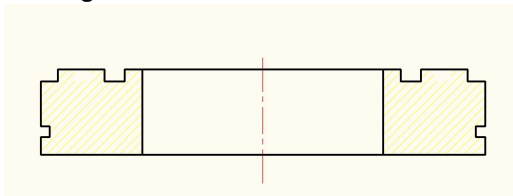
Fluorescent magnetic particle inspection was performed on all accessible wetted/sealing surfaces.

Evaluation & Disposition:	Found to be satisfactory		
Inspected by:	JI LIN	Approved by:	JI WEI
Organization:	QC Department		
NDT Level:	II	Date:2022.7.15	

PENETRATE TESTING REPORT

Customer:				Customer PO#:			Date:	2022.7.15
Drawing #:	B05-377	Specification	API Spec 6A/ ASTM E165		API Monogram:	No	Report #:	NCS-2207-Q45
Part No.:		Material:	410 SS,Per NACE MR0175				Coating:	TC
Description:	Seat ring, 5-1/8"15M FLSR , 410/TC,75K						Quantity:	300
Equipment:	DPT-8	Acceptance Criteria:		API 6A/PSL3	Test Method:			DYE
Penetrant Type:	Solvent	Penetration time:		15min	Developing time:			10min
Stage:	After fine finishing			Inspected surface:	Seat (body)			
Item	S/N	Heat Log No.	Hardne ss	Item	S/N	Heat Log No.	Hardne ss	
251	SO22132-1-251	21214021782	98	276	SO22132-1-276	21214021782	95	
252	SO22132-1-252	21214021782	97	277	SO22132-1-277	21214021782	95	
253	SO22132-1-253	21214021782	97	278	SO22132-1-278	21214021782	95	
254	SO22132-1-254	21214021782	97	279	SO22132-1-279	21214021782	95	
255	SO22132-1-255	21214021782	97	280	SO22132-1-280	21214021782	95	
256	SO22132-1-256	21214021782	97	281	SO22132-1-281	21214021782	95	
257	SO22132-1-257	21214021782	97	282	SO22132-1-282	21214021782	95	
258	SO22132-1-258	21214021782	97	283	SO22132-1-283	21214021782	95	
259	SO22132-1-259	21214021782	97	284	SO22132-1-284	21214021782	95	
260	SO22132-1-260	21214021782	99	285	SO22132-1-285	21214021782	95	
261	SO22132-1-261	21214021782	99	286	SO22132-1-286	21214021782	95	
262	SO22132-1-262	21214021782	99	287	SO22132-1-287	21214021782	95	
263	SO22132-1-263	21214021782	99	288	SO22132-1-288	21214021782	96	
264	SO22132-1-264	21214021782	99	289	SO22132-1-289	21214021782	96	
265	SO22132-1-265	21214021782	99	290	SO22132-1-290	21214021782	96	
266	SO22132-1-266	21214021782	99	291	SO22132-1-291	21214021782	96	
267	SO22132-1-267	21214021782	99	292	SO22132-1-292	21214021782	96	
268	SO22132-1-268	21214021782	96	293	SO22132-1-293	21214021782	96	
269	SO22132-1-269	21214021782	96	294	SO22132-1-294	21214021782	98	
270	SO22132-1-270	21214021782	96	295	SO22132-1-295	21214021782	98	
271	SO22132-1-271	21214021782	96	296	SO22132-1-296	21214021782	98	
272	SO22132-1-272	21214021782	96	297	SO22132-1-297	21214021782	98	
273	SO22132-1-273	21214021782	96	298	SO22132-1-298	21214021782	98	
274	SO22132-1-274	21214021782	95	299	SO22132-1-299	21214021782	98	
275	SO22132-1-275	21214021782	95	300	SO22132-1-300	21214021782	98	

Sketch/Inspection Coverage:



Fluorescent magnetic particle inspection was performed on all accessible wetted/sealing surfaces.

Evaluation & Disposition:	Found to be satisfactory		
Inspected by:	JI LIN	Approved by:	JI WEI
		Organization:	QC Department
NDT Level:	II	Date:	2022.7.15

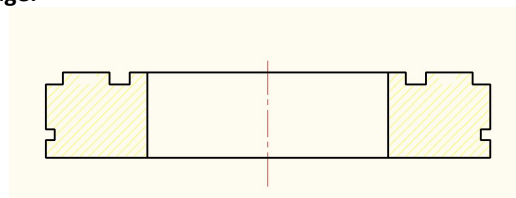
TUNGSTEN CARBIDE SPRAY REPORT

Customer:				Customer PO#:				Date:	2022.7.18	
Drawing #:	B05-377	Specification :	API 6A	API Monogram:	No	Report #:	RS220718-01			
Part No.:		Material:	410 SS,Per NACE MR0175				Coating:	TC		
Description:	Seat ring, 5-1/8"15M FLSR , 410/TC,75K						Quantity:	300		
Dimension inspection										
ITEM	Hardness test		Bonding strength		Porosity		Coating type			
Standard	≥1050		≥69MPa		MAX 1%		WC86-Co10-Cr4			
Actual	1171		77		0.77		WC86-Co10-Cr4			
Chemical component										
	C(%)	Co(%)	Cr(%)	Mn(%)	Ni(%)					
standard	5.1-6.0	9.0-11.0	3.0-5.0							
Actual	5.40	9.70	3.89							
Evaluation & Disposition:			Found to be satisfactory							
Inspected by:			SHI LINGUI							
Approved by:			JI WEI				Date:	2022.7.18		

PENETRATE TESTING REPORT

Customer:				Customer PO#:			Date:	2022.7.20	
Drawing #:	B05-377	Specification	API Spec 6A/ ASTM E165		API Monogram:	No	Report #:	NCS-2207 -H45	
Part No.:		Material:	410 SS, Per NACE MR0175				Coating:	TC	
Description:	Seat ring, 5-1/8" 15M FLSR, 410/TC, 75K						Quantity:	300	
Equipment:	DPT-8	Acceptance Criteria:		API 6A/PSL3	Test Method:			DYE	
Penetrant Type:	Solvent	Penetration time:		15min	Developing time:			10min	
Stage:	After coating tungsten carbide			Inspected surface:	Seat (spraying surface)				
Item	S/N	Heat Log No.	Hardness	Item	S/N	Heat Log No.	Hardness		
1	SO22132-1-001	21214021782	95	26	SO22132-1-026	21214021782	95		
2	SO22132-1-002	21214021782	95	27	SO22132-1-027	21214021782	95		
3	SO22132-1-003	21214021782	95	28	SO22132-1-028	21214021782	95		
4	SO22132-1-004	21214021782	95	29	SO22132-1-029	21214021782	95		
5	SO22132-1-005	21214021782	95	30	SO22132-1-030	21214021782	95		
6	SO22132-1-006	21214021782	95	31	SO22132-1-031	21214021782	95		
7	SO22132-1-007	21214021782	95	32	SO22132-1-032	21214021782	95		
8	SO22132-1-008	21214021782	95	33	SO22132-1-033	21214021782	95		
9	SO22132-1-009	21214021782	95	34	SO22132-1-034	21214021782	95		
10	SO22132-1-010	21214021782	95	35	SO22132-1-035	21214021782	95		
11	SO22132-1-011	21214021782	95	36	SO22132-1-036	21214021782	95		
12	SO22132-1-012	21214021782	95	37	SO22132-1-037	21214021782	97		
13	SO22132-1-013	21214021782	95	38	SO22132-1-038	21214021782	97		
14	SO22132-1-014	21214021782	95	39	SO22132-1-039	21214021782	97		
15	SO22132-1-015	21214021782	95	40	SO22132-1-040	21214021782	98		
16	SO22132-1-016	21214021782	95	41	SO22132-1-041	21214021782	98		
17	SO22132-1-017	21214021782	95	42	SO22132-1-042	21214021782	96		
18	SO22132-1-018	21214021782	95	43	SO22132-1-043	21214021782	96		
19	SO22132-1-019	21214021782	95	44	SO22132-1-044	21214021782	96		
20	SO22132-1-020	21214021782	95	45	SO22132-1-045	21214021782	96		
21	SO22132-1-021	21214021782	95	46	SO22132-1-046	21214021782	96		
22	SO22132-1-022	21214021782	95	47	SO22132-1-047	21214021782	96		
23	SO22132-1-023	21214021782	95	48	SO22132-1-048	21214021782	98		
24	SO22132-1-024	21214021782	95	49	SO22132-1-049	21214021782	98		
25	SO22132-1-025	21214021782	95	50	SO22132-1-050	21214021782	98		

Sketch/Inspection Coverage:



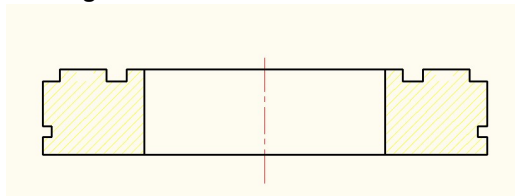
Fluorescent magnetic particle inspection was performed on all accessible wetted/sealing surfaces.

Evaluation & Disposition:	Found to be satisfactory		
Inspected by:	JI LIN	Approved by:	JI WEI
Organization:	QC Department		
NDT Level:	II	Date: 2022.7.20	

PENETRATE TESTING REPORT

Customer:				Customer PO#:			Date:	2022.7.20
Drawing #:	B05-377	Specification	API Spec 6A/ ASTM E165		API Monogram:	No	Report #:	NCS-2207-H45
Part No.:		Material:	410 SS,Per NACE MR0175				Coating:	TC
Description:	Seat ring, 5-1/8"15M FLSR , 410/TC,75K						Quantity:	300
Equipment:	DPT-8	Acceptance Criteria:		API 6A/PSL3	Test Method:			DYE
Penetrant Type:	Solvent	Penetration time:		15min	Developing time:			10min
Stage:	After coating tungsten carbide			Inspected surface:	Seat (spraying surface)			
Item	S/N	Heat Log No.	Hardness	Item	S/N	Heat Log No.	Hardness	
51	SO22132-1-051	21214021782	98	76	SO22132-1-076	21214021782	97	
52	SO22132-1-052	21214021782	99	77	SO22132-1-077	21214021782	97	
53	SO22132-1-053	21214021782	99	78	SO22132-1-078	21214021782	99	
54	SO22132-1-054	21214021782	99	79	SO22132-1-079	21214021782	99	
55	SO22132-1-055	21214021782	97	80	SO22132-1-080	21214021782	99	
56	SO22132-1-056	21214021782	99	81	SO22132-1-081	21214021782	99	
57	SO22132-1-057	21214021782	95	82	SO22132-1-082	21214021782	99	
58	SO22132-1-058	21214021782	95	83	SO22132-1-083	21214021782	96	
59	SO22132-1-059	21214021782	95	84	SO22132-1-084	21214021782	96	
60	SO22132-1-060	21214021782	95	85	SO22132-1-085	21214021782	96	
61	SO22132-1-061	21214021782	95	86	SO22132-1-086	21214021782	96	
62	SO22132-1-062	21214021782	95	87	SO22132-1-087	21214021782	96	
63	SO22132-1-063	21214021782	95	88	SO22132-1-088	21214021782	95	
64	SO22132-1-064	21214021782	95	89	SO22132-1-089	21214021782	95	
65	SO22132-1-065	21214021782	95	90	SO22132-1-090	21214021782	95	
66	SO22132-1-066	21214021782	96	91	SO22132-1-091	21214021782	95	
67	SO22132-1-067	21214021782	96	92	SO22132-1-092	21214021782	95	
68	SO22132-1-068	21214021782	96	93	SO22132-1-093	21214021782	95	
69	SO22132-1-069	21214021782	98	94	SO22132-1-094	21214021782	95	
70	SO22132-1-070	21214021782	98	95	SO22132-1-095	21214021782	95	
71	SO22132-1-071	21214021782	98	96	SO22132-1-096	21214021782	98	
72	SO22132-1-072	21214021782	98	97	SO22132-1-097	21214021782	98	
73	SO22132-1-073	21214021782	97	98	SO22132-1-098	21214021782	98	
74	SO22132-1-074	21214021782	97	99	SO22132-1-099	21214021782	97	
75	SO22132-1-075	21214021782	97	100	SO22132-1-100	21214021782	97	

Sketch/Inspection Coverage:



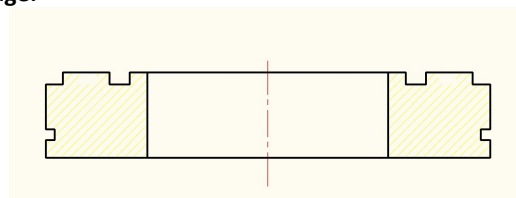
Fluorescent magnetic particle inspection was performed on all accessible wetted/sealing surfaces.

Evaluation & Disposition:	Found to be satisfactory		
Inspected by:	JI LIN	Approved by:	JI WEI
		Organization:	QC Department
NDT Level:	II	Date:	2022.7.20

PENETRATE TESTING REPORT

Customer:				Customer PO#:			Date:	2022.7.20	
Drawing #:	B05-377	Specification	API Spec 6A/ ASTM E165		API Monogram:	No	Report #:	NCS-2207 -H45	
Part No.:		Material:	410 SS, Per NACE MR0175				Coating:	TC	
Description:	Seat ring, 5-1/8" 15M FLSR, 410/TC, 75K						Quantity:	300	
Equipment:	DPT-8	Acceptance Criteria:		API 6A/PSL3	Test Method:			DYE	
Penetrant Type:	Solvent	Penetration time:		15min	Developing time:			10min	
Stage:	After coating tungsten carbide			Inspected surface:	Seat (spraying surface)				
Item	S/N	Heat Log No.	Hardness	Item	S/N	Heat Log No.	Hardness		
101	SO22132-1-101	21214021782	97	126	SO22132-1-126	21214021782	99		
102	SO22132-1-102	21214021782	97	127	SO22132-1-127	21214021782	96		
103	SO22132-1-103	21214021782	97	128	SO22132-1-128	21214021782	96		
104	SO22132-1-104	21214021782	99	129	SO22132-1-129	21214021782	96		
105	SO22132-1-105	21214021782	99	130	SO22132-1-130	21214021782	96		
106	SO22132-1-106	21214021782	99	131	SO22132-1-131	21214021782	96		
107	SO22132-1-107	21214021782	99	132	SO22132-1-132	21214021782	96		
108	SO22132-1-108	21214021782	99	133	SO22132-1-133	21214021782	97		
109	SO22132-1-109	21214021782	96	134	SO22132-1-134	21214021782	97		
110	SO22132-1-110	21214021782	96	135	SO22132-1-135	21214021782	95		
111	SO22132-1-111	21214021782	96	136	SO22132-1-136	21214021782	95		
112	SO22132-1-112	21214021782	96	137	SO22132-1-137	21214021782	95		
113	SO22132-1-113	21214021782	96	138	SO22132-1-138	21214021782	95		
114	SO22132-1-114	21214021782	96	139	SO22132-1-139	21214021782	99		
115	SO22132-1-115	21214021782	96	140	SO22132-1-140	21214021782	99		
116	SO22132-1-116	21214021782	97	141	SO22132-1-141	21214021782	99		
117	SO22132-1-117	21214021782	97	142	SO22132-1-142	21214021782	98		
118	SO22132-1-118	21214021782	97	143	SO22132-1-143	21214021782	98		
119	SO22132-1-119	21214021782	97	144	SO22132-1-144	21214021782	98		
120	SO22132-1-120	21214021782	97	145	SO22132-1-145	21214021782	98		
121	SO22132-1-121	21214021782	97	146	SO22132-1-146	21214021782	98		
122	SO22132-1-122	21214021782	97	147	SO22132-1-147	21214021782	98		
123	SO22132-1-123	21214021782	97	148	SO22132-1-148	21214021782	98		
124	SO22132-1-124	21214021782	99	149	SO22132-1-149	21214021782	95		
125	SO22132-1-125	21214021782	99	150	SO22132-1-150	21214021782	95		

Sketch/Inspection Coverage:



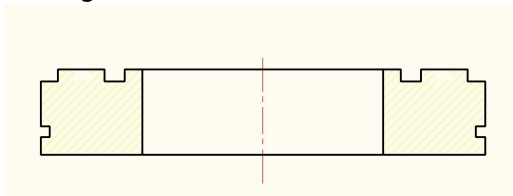
Fluorescent magnetic particle inspection was performed on all accessible wetted/sealing surfaces.

Evaluation & Disposition:	Found to be satisfactory		
Inspected by:	JI LIN	Approved by:	JI WEI
Organization:	QC Department		
NDT Level:	II	Date: 2022.7.20	

PENETRATE TESTING REPORT

Customer:				Customer PO#:			Date:	2022.7.20
Drawing #:	B05-377	Specification	API Spec 6A/ ASTM E165		API Monogram:	No	Report #:	NCS-2207-H45
Part No.:		Material:	410 SS,Per NACE MR0175				Coating:	TC
Description:	Seat ring, 5-1/8"15M FLSR , 410/TC,75K						Quantity:	300
Equipment:	DPT-8	Acceptance Criteria:		API 6A/PSL3	Test Method:			DYE
Penetrant Type:	Solvent	Penetration time:		15min	Developing time:			10min
Stage:	After coating tungsten carbide			Inspected surface:	Seat (spraying surface)			
Item	S/N	Heat Log No.	Hardne ss	Item	S/N	Heat Log No.	Hardness	
151	SO22132-1-151	21214021782	95	176	SO22132-1-176	21214021782	97	
152	SO22132-1-152	21214021782	95	177	SO22132-1-177	21214021782	95	
153	SO22132-1-153	21214021782	95	178	SO22132-1-178	21214021782	95	
154	SO22132-1-154	21214021782	95	179	SO22132-1-179	21214021782	95	
155	SO22132-1-155	21214021782	95	180	SO22132-1-180	21214021782	95	
156	SO22132-1-156	21214021782	95	181	SO22132-1-181	21214021782	95	
157	SO22132-1-157	21214021782	95	182	SO22132-1-182	21214021782	99	
158	SO22132-1-158	21214021782	97	183	SO22132-1-183	21214021782	99	
159	SO22132-1-159	21214021782	97	184	SO22132-1-184	21214021782	99	
160	SO22132-1-160	21214021782	97	185	SO22132-1-185	21214021782	97	
161	SO22132-1-161	21214021782	97	186	SO22132-1-186	21214021782	97	
162	SO22132-1-162	21214021782	97	187	SO22132-1-187	21214021782	97	
163	SO22132-1-163	21214021782	97	188	SO22132-1-188	21214021782	96	
164	SO22132-1-164	21214021782	97	189	SO22132-1-189	21214021782	96	
165	SO22132-1-165	21214021782	97	190	SO22132-1-190	21214021782	96	
166	SO22132-1-166	21214021782	97	191	SO22132-1-191	21214021782	96	
167	SO22132-1-167	21214021782	97	192	SO22132-1-192	21214021782	96	
168	SO22132-1-168	21214021782	95	193	SO22132-1-193	21214021782	98	
169	SO22132-1-169	21214021782	95	194	SO22132-1-194	21214021782	98	
170	SO22132-1-170	21214021782	98	195	SO22132-1-195	21214021782	98	
171	SO22132-1-171	21214021782	98	196	SO22132-1-196	21214021782	98	
172	SO22132-1-172	21214021782	98	197	SO22132-1-197	21214021782	99	
173	SO22132-1-173	21214021782	97	198	SO22132-1-198	21214021782	99	
174	SO22132-1-174	21214021782	97	199	SO22132-1-199	21214021782	99	
175	SO22132-1-175	21214021782	97	200	SO22132-1-200	21214021782	99	

Sketch/Inspection Coverage:



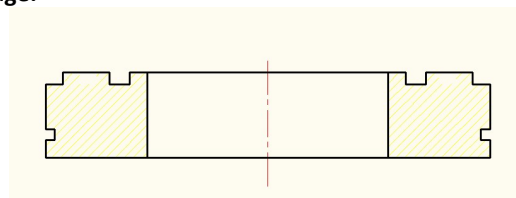
Fluorescent magnetic particle inspection was performed on all accessible wetted/sealing surfaces.

Evaluation & Disposition:	Found to be satisfactory		
Inspected by:	JI LIN	Approved by:	JI WEI
		Organization:	QC Department
NDT Level:	II	Date:	2022.7.20

PENETRATE TESTING REPORT

Customer:				Customer PO#:			Date:	2022.7.20	
Drawing #:	B05-377	Specification	API Spec 6A/ ASTM E165		API Monogram:	No	Report #:	NCS-2207 -H45	
Part No.:		Material:	410 SS, Per NACE MR0175				Coating:	TC	
Description:	Seat ring, 5-1/8" 15M FLSR, 410/TC, 75K						Quantity:	300	
Equipment:	DPT-8	Acceptance Criteria:		API 6A/PSL3	Test Method:			DYE	
Penetrant Type:	Solvent	Penetration time:		15min	Developing time:			10min	
Stage:	After coating tungsten carbide			Inspected surface:	Seat (spraying surface)				
Item	S/N	Heat Log No.	Hardness	Item	S/N	Heat Log No.	Hardness		
201	SO22132-1-201	21214021782	99	226	SO22132-1-226	21214021782	99		
202	SO22132-1-202	21214021782	99	227	SO22132-1-227	21214021782	97		
203	SO22132-1-203	21214021782	99	228	SO22132-1-228	21214021782	97		
204	SO22132-1-204	21214021782	97	229	SO22132-1-229	21214021782	97		
205	SO22132-1-205	21214021782	97	230	SO22132-1-230	21214021782	97		
206	SO22132-1-206	21214021782	97	231	SO22132-1-231	21214021782	97		
207	SO22132-1-207	21214021782	97	232	SO22132-1-232	21214021782	97		
208	SO22132-1-208	21214021782	95	233	SO22132-1-233	21214021782	97		
209	SO22132-1-209	21214021782	95	234	SO22132-1-234	21214021782	96		
210	SO22132-1-210	21214021782	95	235	SO22132-1-235	21214021782	96		
211	SO22132-1-211	21214021782	95	236	SO22132-1-236	21214021782	96		
212	SO22132-1-212	21214021782	95	237	SO22132-1-237	21214021782	96		
213	SO22132-1-213	21214021782	95	238	SO22132-1-238	21214021782	95		
214	SO22132-1-214	21214021782	95	239	SO22132-1-239	21214021782	95		
215	SO22132-1-215	21214021782	95	240	SO22132-1-240	21214021782	95		
216	SO22132-1-216	21214021782	95	241	SO22132-1-241	21214021782	95		
217	SO22132-1-217	21214021782	95	242	SO22132-1-242	21214021782	95		
218	SO22132-1-218	21214021782	98	243	SO22132-1-243	21214021782	95		
219	SO22132-1-219	21214021782	98	244	SO22132-1-244	21214021782	95		
220	SO22132-1-220	21214021782	98	245	SO22132-1-245	21214021782	95		
221	SO22132-1-221	21214021782	98	246	SO22132-1-246	21214021782	95		
222	SO22132-1-222	21214021782	99	247	SO22132-1-247	21214021782	98		
223	SO22132-1-223	21214021782	99	248	SO22132-1-248	21214021782	98		
224	SO22132-1-224	21214021782	99	249	SO22132-1-249	21214021782	98		
225	SO22132-1-225	21214021782	99	250	SO22132-1-250	21214021782	98		

Sketch/Inspection Coverage:



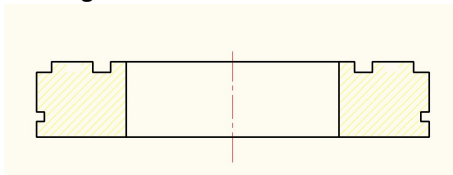
Fluorescent magnetic particle inspection was performed on all accessible wetted/sealing surfaces.

Evaluation & Disposition:	Found to be satisfactory		
Inspected by:	JI LIN	Approved by:	JI WEI
Organization:	QC Department		
NDT Level:	II	Date: 2022.7.20	

PENETRATE TESTING REPORT

Customer:				Customer PO#:			Date:	2022.7.20
Drawing #:	B05-377	Specification	API Spec 6A/ ASTM E165		API Monogram:	No	Report #:	NCS-2207-H45
Part No.:		Material:	410 SS,Per NACE MR0175				Coating:	TC
Description:	Seat ring, 5-1/8"15M FLSR , 410/TC,75K						Quantity:	300
Equipment:	DPT-8	Acceptance Criteria:		API 6A/PSL3	Test Method:			DYE
Penetrant Type:	Solvent	Penetration time:		15min	Developing time:			10min
Stage:	After coating tungsten carbide			Inspected surface:	Seat (spraying surface)			
Item	S/N	Heat Log No.	Hardne ss	Item	S/N	Heat Log No.	Hardness	
251	SO22132-1-251	21214021782	98	276	SO22132-1-276	21214021782	95	
252	SO22132-1-252	21214021782	97	277	SO22132-1-277	21214021782	95	
253	SO22132-1-253	21214021782	97	278	SO22132-1-278	21214021782	95	
254	SO22132-1-254	21214021782	97	279	SO22132-1-279	21214021782	95	
255	SO22132-1-255	21214021782	97	280	SO22132-1-280	21214021782	95	
256	SO22132-1-256	21214021782	97	281	SO22132-1-281	21214021782	95	
257	SO22132-1-257	21214021782	97	282	SO22132-1-282	21214021782	95	
258	SO22132-1-258	21214021782	97	283	SO22132-1-283	21214021782	95	
259	SO22132-1-259	21214021782	97	284	SO22132-1-284	21214021782	95	
260	SO22132-1-260	21214021782	99	285	SO22132-1-285	21214021782	95	
261	SO22132-1-261	21214021782	99	286	SO22132-1-286	21214021782	95	
262	SO22132-1-262	21214021782	99	287	SO22132-1-287	21214021782	95	
263	SO22132-1-263	21214021782	99	288	SO22132-1-288	21214021782	96	
264	SO22132-1-264	21214021782	99	289	SO22132-1-289	21214021782	96	
265	SO22132-1-265	21214021782	99	290	SO22132-1-290	21214021782	96	
266	SO22132-1-266	21214021782	99	291	SO22132-1-291	21214021782	96	
267	SO22132-1-267	21214021782	99	292	SO22132-1-292	21214021782	96	
268	SO22132-1-268	21214021782	96	293	SO22132-1-293	21214021782	96	
269	SO22132-1-269	21214021782	96	294	SO22132-1-294	21214021782	98	
270	SO22132-1-270	21214021782	96	295	SO22132-1-295	21214021782	98	
271	SO22132-1-271	21214021782	96	296	SO22132-1-296	21214021782	98	
272	SO22132-1-272	21214021782	96	297	SO22132-1-297	21214021782	98	
273	SO22132-1-273	21214021782	96	298	SO22132-1-298	21214021782	98	
274	SO22132-1-274	21214021782	95	299	SO22132-1-299	21214021782	98	
275	SO22132-1-275	21214021782	95	300	SO22132-1-300	21214021782	98	

Sketch/Inspection Coverage:



Fluorescent magnetic particle inspection was performed on all accessible wetted/sealing surfaces.

Evaluation & Disposition:	Found to be satisfactory		
Inspected by:	JI LIN	Approved by:	JI WEI
		Organization:	QC Department
NDT Level:	II	Date:	2022.7.20

DRAWING # X-182590-01

REPORT INDEX

Purchase Order: 2022073

Quantity: 200PCS

Shipment No.:

Shipment Date:

Activity No.	Characteristics	Reference Page
1.1	DRAWING # (X-182590-01)	Page - 2
1.1.1	Metallurgical Test Certificate	Page - 2
1.1.2	Mechanical Testing	Page - 2
1.1.3	Chemical Testing	Page - 2
1.1.4	Heat Treatment	Page - 2
2.1	Hardness Test	Page - 3
2.2	Penetrate testing report	Page - 7
2.3	Tungsten carbide spray report	Page - 11
2.4	Penetrate testing report	Page - 12

METALLURGICAL TEST CERTIFICATE

Customer:			Customer PO#:			Date:	2022.5.12
Drawing #:	X-182590-01	Specification:	API 6A/ASTM A370	API Monogram:	No	Report #:	SO-20220512-01
Part No.:		Material:	410 SS,Per NACE MR0175			Coating:	TC
Description:	Seat, 7 1/16" 15M, FLSR, 410 SS with T/C					Quantity:	200

TEST CONDITION

Test Bar Size:	100*100*200	Bar Diameter:	Ø12.7
Melt Practice:	EF+LF+VD	Reduction Ratio Min.:	4.3:1
Yield Stress:	610	Gauge Length:	200

CHEMICAL COMPOSITION

Mill No.	Qty.	Test No.	C	Mn	Si	S	P	Ni	Cu	Mo	Cr	V
Spec. Min			0.08	/	/	/	/	/	/	/	11.50	-
Spec. Max			0.15	1.00	1.00	0.025	0.025	0.60	/	1.00	13.50	
2115802508			0.10	0.44	0.28	0.002	0.013	0.148	/	0.03	11.97	

MECHANICAL COMPOSITION

Heat No.	Quantity	Test No.	Yield Strength (MPa)	Tensile Strength (MPa)	Elongation %	Reduction of Area %	Hardness HB	10mm x 10mm CHARPY J(ft.lb) at -46°C	Minimum Lateral Expansion mm (inch)	Shear Fraction
Spec. Min			517	655	17	35	207	/		
Spec. Max			/	/	/	/	235	/		
HC2205010-01			610	720	23	67	222			

HEAT TREATMENT

Forgings		Test Bar (QTC)	
Normalized:	960°C 3h OIL	Normalized:	960°C 3h OIL
Quench:	/	Quench:	/
Temper1:	710°C 5.5h AIR	Temper1:	710°C 5.5h AIR
Temper2:	680°C 5.5h AIR	Temper2:	680°C 5.5h AIR
Start Temp.:	39°C	Start Temp.:	39°C
End Temp.:	49°C	End Temp.:	49°C

We hereby certify that all test results and procedure information contained herein are correct and true as in contained the records of the company. There have been **no weld repairs** on these items.

Inspected By:	Min Fukang	Approved By:	JI WEI
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HARDNESS TEST REPORT

Customer:				Customer PO#:				Date:	2022.5.12	
Drawing #:	X-182590-01	Specification:	API 6A/ASTM E10		API Monogram:	No		Report #:	SO-20220512-01	
Part No.:		Material:	410 SS, Per NACE MR0175					Coating:	TC	
Description	Seat, 7 1/16" 15M, FLSR, 410 SS with T/C							Quantity:	200	
Item	S/N	Heat Log No.	Hardness	Item	S/N	Heat Log No.	Hardness			
1	SO22073-1-001	2115802508	207	26	SO22073-1-026	2115802508	215			
2	SO22073-1-002	2115802508	207	27	SO22073-1-027	2115802508	215			
3	SO22073-1-003	2115802508	207	28	SO22073-1-028	2115802508	215			
4	SO22073-1-004	2115802508	209	29	SO22073-1-029	2115802508	215			
5	SO22073-1-005	2115802508	209	30	SO22073-1-030	2115802508	215			
6	SO22073-1-006	2115802508	209	31	SO22073-1-031	2115802508	215			
7	SO22073-1-007	2115802508	209	32	SO22073-1-032	2115802508	216			
8	SO22073-1-008	2115802508	210	33	SO22073-1-033	2115802508	216			
9	SO22073-1-009	2115802508	210	34	SO22073-1-034	2115802508	216			
10	SO22073-1-010	2115802508	210	35	SO22073-1-035	2115802508	216			
11	SO22073-1-011	2115802508	211	36	SO22073-1-036	2115802508	216			
12	SO22073-1-012	2115802508	211	37	SO22073-1-037	2115802508	216			
13	SO22073-1-013	2115802508	211	38	SO22073-1-038	2115802508	218			
14	SO22073-1-014	2115802508	211	39	SO22073-1-039	2115802508	218			
15	SO22073-1-015	2115802508	211	40	SO22073-1-040	2115802508	218			
16	SO22073-1-016	2115802508	213	41	SO22073-1-041	2115802508	218			
17	SO22073-1-017	2115802508	213	42	SO22073-1-042	2115802508	218			
18	SO22073-1-018	2115802508	213	43	SO22073-1-043	2115802508	218			
19	SO22073-1-019	2115802508	214	44	SO22073-1-044	2115802508	218			
20	SO22073-1-020	2115802508	214	45	SO22073-1-045	2115802508	218			
21	SO22073-1-021	2115802508	214	46	SO22073-1-046	2115802508	218			
22	SO22073-1-022	2115802508	214	47	SO22073-1-047	2115802508	221			
23	SO22073-1-023	2115802508	214	48	SO22073-1-048	2115802508	221			
24	SO22073-1-024	2115802508	214	49	SO22073-1-049	2115802508	224			
25	SO22073-1-025	2115802508	215	50	SO22073-1-050	2115802508	224			

Sketch:



Method Used:			
Acceptable Hardness(HBW):	207-235	Approved By:	Examined By:
Judgments:	[☒] Conforms	JI WEI	Min Fukang
	[☐] Does Not Conform		

HARDNESS TEST REPORT

Customer:				Customer PO#:				Date:	2022.5.12	
Drawing #:	X-182590-01	Specification:	API 6A/ASTM E10		API Monogram:	No		Report #:	SO-20220512-01	
Part No.:		Material:	410 SS, Per NACE MR0175					Coating:	TC	
Description	Seat, 7 1/16" 15M, FLSR, 410 SS with T/C							Quantity:	200	
Item	S/N	Heat Log No.	Hardne ss	Item	S/N	Heat Log No.	Hardness			
51	SO22073-1-051	2115802508	226	76	SO22073-1-076	2115802508	232			
52	SO22073-1-052	2115802508	226	77	SO22073-1-077	2115802508	232			
53	SO22073-1-053	2115802508	226	78	SO22073-1-078	2115802508	232			
54	SO22073-1-054	2115802508	226	79	SO22073-1-079	2115802508	234			
55	SO22073-1-055	2115802508	226	80	SO22073-1-080	2115802508	234			
56	SO22073-1-056	2115802508	226	81	SO22073-1-081	2115802508	207			
57	SO22073-1-057	2115802508	228	82	SO22073-1-082	2115802508	208			
58	SO22073-1-058	2115802508	228	83	SO22073-1-083	2115802508	208			
59	SO22073-1-059	2115802508	228	84	SO22073-1-084	2115802508	208			
60	SO22073-1-060	2115802508	228	85	SO22073-1-085	2115802508	208			
61	SO22073-1-061	2115802508	228	86	SO22073-1-086	2115802508	208			
62	SO22073-1-062	2115802508	228	87	SO22073-1-087	2115802508	208			
63	SO22073-1-063	2115802508	228	88	SO22073-1-088	2115802508	208			
64	SO22073-1-064	2115802508	228	89	SO22073-1-089	2115802508	209			
65	SO22073-1-065	2115802508	230	90	SO22073-1-090	2115802508	209			
66	SO22073-1-066	2115802508	230	91	SO22073-1-091	2115802508	209			
67	SO22073-1-067	2115802508	230	92	SO22073-1-092	2115802508	209			
68	SO22073-1-068	2115802508	230	93	SO22073-1-093	2115802508	209			
69	SO22073-1-069	2115802508	230	94	SO22073-1-094	2115802508	209			
70	SO22073-1-070	2115802508	231	95	SO22073-1-095	2115802508	210			
71	SO22073-1-071	2115802508	231	96	SO22073-1-096	2115802508	210			
72	SO22073-1-072	2115802508	231	97	SO22073-1-097	2115802508	211			
73	SO22073-1-073	2115802508	232	98	SO22073-1-098	2115802508	211			
74	SO22073-1-074	2115802508	232	99	SO22073-1-099	2115802508	211			
75	SO22073-1-075	2115802508	232	100	SO22073-1-100	2115802508	211			

Sketch:



Method Used:			
Acceptable Hardness(HBW):	207-235	Approved By:	Examined By:
Judgments:	☒ Conforms ☐ Does Not Conform	JI WEI	Min Fukang

HARDNESS TEST REPORT

Customer:				Customer PO#:				Date:	2022.5.12	
Drawing #:	X-182590-01	Specification:	API 6A/ASTM E10		API Monogram:	No		Report #:	SO-20220512-01	
Part No.:		Material:	410 SS, Per NACE MR0175					Coating:	TC	
Description	Seat, 7 1/16" 15M, FLSR, 410 SS with T/C							Quantity:	200	
Item	S/N	Heat Log No.	Hardness	Item	S/N	Heat Log No.	Hardness			
101	SO22073-1-101	2115802508	211	126	SO22073-1-126	2115802508	216			
102	SO22073-1-102	2115802508	212	127	SO22073-1-127	2115802508	216			
103	SO22073-1-103	2115802508	212	128	SO22073-1-128	2115802508	216			
104	SO22073-1-104	2115802508	212	129	SO22073-1-129	2115802508	216			
105	SO22073-1-105	2115802508	212	130	SO22073-1-130	2115802508	216			
106	SO22073-1-106	2115802508	212	131	SO22073-1-131	2115802508	217			
107	SO22073-1-107	2115802508	212	132	SO22073-1-132	2115802508	217			
108	SO22073-1-108	2115802508	213	133	SO22073-1-133	2115802508	217			
109	SO22073-1-109	2115802508	213	134	SO22073-1-134	2115802508	217			
110	SO22073-1-110	2115802508	213	135	SO22073-1-135	2115802508	217			
111	SO22073-1-111	2115802508	213	136	SO22073-1-136	2115802508	217			
112	SO22073-1-112	2115802508	213	137	SO22073-1-137	2115802508	217			
113	SO22073-1-113	2115802508	214	138	SO22073-1-138	2115802508	217			
114	SO22073-1-114	2115802508	214	139	SO22073-1-139	2115802508	218			
115	SO22073-1-115	2115802508	214	140	SO22073-1-140	2115802508	218			
116	SO22073-1-116	2115802508	214	141	SO22073-1-141	2115802508	218			
117	SO22073-1-117	2115802508	214	142	SO22073-1-142	2115802508	218			
118	SO22073-1-118	2115802508	214	143	SO22073-1-143	2115802508	218			
119	SO22073-1-119	2115802508	214	144	SO22073-1-144	2115802508	218			
120	SO22073-1-120	2115802508	215	145	SO22073-1-145	2115802508	219			
121	SO22073-1-121	2115802508	215	146	SO22073-1-146	2115802508	219			
122	SO22073-1-122	2115802508	215	147	SO22073-1-147	2115802508	219			
123	SO22073-1-123	2115802508	215	148	SO22073-1-148	2115802508	219			
124	SO22073-1-124	2115802508	215	149	SO22073-1-149	2115802508	219			
125	SO22073-1-125	2115802508	216	150	SO22073-1-150	2115802508	219			

Sketch:



Method Used:			
Acceptable Hardness(HBW):	207-235	Approved By:	Examined By:
Judgments:	☒ Conforms ☐ Does Not Conform	JI WEI	Min Fukang

HARDNESS TEST REPORT

Customer:			Customer PO#:				Date:	2022.5.12
Drawing #:	X-182590-01	Specification:	API 6A/ASTM E10		API Monogram:	No	Report #:	SO-20220512-01
Part No.:		Material:	410 SS,Per NACE MR0175				Coating:	TC
Description	Seat, 7 1/16" 15M, FLSR, 410 SS with T/C						Quantity:	200
Item	S/N	Heat Log No.	Hardnes s	Item	S/N	Heat Log No.	Hardness	
151	SO22073-1-151	2115802508	219	176	SO22073-1-176	2115802508	226	
152	SO22073-1-152	2115802508	219	177	SO22073-1-177	2115802508	226	
153	SO22073-1-153	2115802508	221	178	SO22073-1-178	2115802508	226	
154	SO22073-1-154	2115802508	221	179	SO22073-1-179	2115802508	226	
155	SO22073-1-155	2115802508	221	180	SO22073-1-180	2115802508	226	
156	SO22073-1-156	2115802508	221	181	SO22073-1-181	2115802508	226	
157	SO22073-1-157	2115802508	221	182	SO22073-1-182	2115802508	226	
158	SO22073-1-158	2115802508	221	183	SO22073-1-183	2115802508	226	
159	SO22073-1-159	2115802508	221	184	SO22073-1-184	2115802508	226	
160	SO22073-1-160	2115802508	221	185	SO22073-1-185	2115802508	228	
161	SO22073-1-161	2115802508	222	186	SO22073-1-186	2115802508	228	
162	SO22073-1-162	2115802508	222	187	SO22073-1-187	2115802508	228	
163	SO22073-1-163	2115802508	222	188	SO22073-1-188	2115802508	228	
164	SO22073-1-164	2115802508	222	189	SO22073-1-189	2115802508	228	
165	SO22073-1-165	2115802508	224	190	SO22073-1-190	2115802508	228	
166	SO22073-1-166	2115802508	224	191	SO22073-1-191	2115802508	228	
167	SO22073-1-167	2115802508	224	192	SO22073-1-192	2115802508	228	
168	SO22073-1-168	2115802508	225	193	SO22073-1-193	2115802508	230	
169	SO22073-1-169	2115802508	225	194	SO22073-1-194	2115802508	230	
170	SO22073-1-170	2115802508	225	195	SO22073-1-195	2115802508	230	
171	SO22073-1-171	2115802508	225	196	SO22073-1-196	2115802508	230	
172	SO22073-1-172	2115802508	225	197	SO22073-1-197	2115802508	230	
173	SO22073-1-173	2115802508	225	198	SO22073-1-198	2115802508	230	
174	SO22073-1-174	2115802508	225	199	SO22073-1-199	2115802508	230	
175	SO22073-1-175	2115802508	226	200	SO22073-1-200	2115802508	230	

Sketch:



Method Used:			
Acceptable Hardness(HBW):	207-235	Approved By:	Examined By:
Judgments:	[☒] Conforms	JI WEI	Min Fukang
	[☐] Does Not Conform		

PENETRATE TESTING REPORT

Customer:				Customer PO#:				Date:	2022.5.20		
Drawing #:	X-182590-01	Specification	API Spec 6A/ ASTM E165	API Monogram:	No		Report #:	NCS-2205-Q53			
Part No.:		Material:	410 SS, Per NACE MR0175					Coating:	TC		
Description:	Seat, 7 1/16" 15M, FLSR, 410 SS with T/C							Quantity:	200		
Equipment:	DPT-8	Acceptance Criteria:		API 6A/PSL3	Test Method:			DYE			
Penetrant Type:	Solvent	Penetration time:		15min	Developing time:			10min			
Stage:	After fine finishing			Inspected surface:	Seat (body)						
Item	S/N	Heat Log No.	Hardness	Item	S/N	Heat Log No.	Hardness				
1	SO22073-1-001	2115802508	207	26	SO22073-1-026	2115802508	215				
2	SO22073-1-002	2115802508	207	27	SO22073-1-027	2115802508	215				
3	SO22073-1-003	2115802508	207	28	SO22073-1-028	2115802508	215				
4	SO22073-1-004	2115802508	209	29	SO22073-1-029	2115802508	215				
5	SO22073-1-005	2115802508	209	30	SO22073-1-030	2115802508	215				
6	SO22073-1-006	2115802508	209	31	SO22073-1-031	2115802508	215				
7	SO22073-1-007	2115802508	209	32	SO22073-1-032	2115802508	216				
8	SO22073-1-008	2115802508	210	33	SO22073-1-033	2115802508	216				
9	SO22073-1-009	2115802508	210	34	SO22073-1-034	2115802508	216				
10	SO22073-1-010	2115802508	210	35	SO22073-1-035	2115802508	216				
11	SO22073-1-011	2115802508	211	36	SO22073-1-036	2115802508	216				
12	SO22073-1-012	2115802508	211	37	SO22073-1-037	2115802508	216				
13	SO22073-1-013	2115802508	211	38	SO22073-1-038	2115802508	218				
14	SO22073-1-014	2115802508	211	39	SO22073-1-039	2115802508	218				
15	SO22073-1-015	2115802508	211	40	SO22073-1-040	2115802508	218				
16	SO22073-1-016	2115802508	213	41	SO22073-1-041	2115802508	218				
17	SO22073-1-017	2115802508	213	42	SO22073-1-042	2115802508	218				
18	SO22073-1-018	2115802508	213	43	SO22073-1-043	2115802508	218				
19	SO22073-1-019	2115802508	214	44	SO22073-1-044	2115802508	218				
20	SO22073-1-020	2115802508	214	45	SO22073-1-045	2115802508	218				
21	SO22073-1-021	2115802508	214	46	SO22073-1-046	2115802508	218				
22	SO22073-1-022	2115802508	214	47	SO22073-1-047	2115802508	221				
23	SO22073-1-023	2115802508	214	48	SO22073-1-048	2115802508	221				
24	SO22073-1-024	2115802508	214	49	SO22073-1-049	2115802508	224				
25	SO22073-1-025	2115802508	215	50	SO22073-1-050	2115802508	224				

Sketch/Inspection Coverage:



Fluorescent magnetic particle inspection was performed on all accessible wetted/sealing surfaces.

Evaluation & Disposition:	Found to be satisfactory		
Inspected by:	JI LIN	Approved by:	JI WEI
Organization:	QC Department		
NDT Level:	II	Date: 2022.5.20	

PENETRATE TESTING REPORT

Customer:			Customer PO#:			Date:	2022.5.20
Drawing #:	X-182590-01	Specification	API Spec 6A/ ASTM E165	API Monogram:	No	Report #:	NCS-2205-Q53
Part No.:		Material:	410 SS,Per NACE MR0175			Coating:	TC
Description:	Seat, 7 1/16" 15M, FLSR, 410 SS with T/C					Quantity:	200
Equipment:	DPT-8	Acceptance Criteria:		API 6A/PSL3	Test Method:		DYE
Penetrant Type:	Solvent	Penetration time:		15min	Developing time:		10min
Stage:	After fine finishing			Inspected surface:	Seat (body)		
Item	S/N	Heat Log No.	Hardness	Item	S/N	Heat Log No.	Hardness
51	SO22073-1-051	2115802508	226	76	SO22073-1-076	2115802508	232
52	SO22073-1-052	2115802508	226	77	SO22073-1-077	2115802508	232
53	SO22073-1-053	2115802508	226	78	SO22073-1-078	2115802508	232
54	SO22073-1-054	2115802508	226	79	SO22073-1-079	2115802508	234
55	SO22073-1-055	2115802508	226	80	SO22073-1-080	2115802508	234
56	SO22073-1-056	2115802508	226	81	SO22073-1-081	2115802508	207
57	SO22073-1-057	2115802508	228	82	SO22073-1-082	2115802508	208
58	SO22073-1-058	2115802508	228	83	SO22073-1-083	2115802508	208
59	SO22073-1-059	2115802508	228	84	SO22073-1-084	2115802508	208
60	SO22073-1-060	2115802508	228	85	SO22073-1-085	2115802508	208
61	SO22073-1-061	2115802508	228	86	SO22073-1-086	2115802508	208
62	SO22073-1-062	2115802508	228	87	SO22073-1-087	2115802508	208
63	SO22073-1-063	2115802508	228	88	SO22073-1-088	2115802508	208
64	SO22073-1-064	2115802508	228	89	SO22073-1-089	2115802508	209
65	SO22073-1-065	2115802508	230	90	SO22073-1-090	2115802508	209
66	SO22073-1-066	2115802508	230	91	SO22073-1-091	2115802508	209
67	SO22073-1-067	2115802508	230	92	SO22073-1-092	2115802508	209
68	SO22073-1-068	2115802508	230	93	SO22073-1-093	2115802508	209
69	SO22073-1-069	2115802508	230	94	SO22073-1-094	2115802508	209
70	SO22073-1-070	2115802508	231	95	SO22073-1-095	2115802508	210
71	SO22073-1-071	2115802508	231	96	SO22073-1-096	2115802508	210
72	SO22073-1-072	2115802508	231	97	SO22073-1-097	2115802508	211
73	SO22073-1-073	2115802508	232	98	SO22073-1-098	2115802508	211
74	SO22073-1-074	2115802508	232	99	SO22073-1-099	2115802508	211
75	SO22073-1-075	2115802508	232	100	SO22073-1-100	2115802508	211

Sketch/Inspection Coverage:



Fluorescent magnetic particle inspection was performed on all accessible wetted/sealing surfaces.

Evaluation & Disposition:	Found to be satisfactory		
Inspected by:	JI LIN	Approved by:	JI WEI
		Organization:	QC Department
NDT Level:	II	Date:	2022.5.20

PENETRATE TESTING REPORT

Customer:				Customer PO#:			Date:	2022.5.20
Drawing #:	X-182590-01	Specification	API Spec 6A/ ASTM E165	API Monogram:	No	Report #:	NCS-2205-Q53	
Part No.:		Material:	410 SS, Per NACE MR0175			Coating:	TC	
Description:	Seat, 7 1/16" 15M, FLSR, 410 SS with T/C						Quantity:	200
Equipment:	DPT-8	Acceptance Criteria:		API 6A/PSL3	Test Method:		DYE	
Penetrant Type:	Solvent	Penetration time:		15min	Developing time:		10min	
Stage:	After fine finishing			Inspected surface:	Seat (body)			

Item	S/N	Heat Log No.	Hardness	Item	S/N	Heat Log No.	Hardness
101	SO22073-1-101	2115802508	211	126	SO22073-1-126	2115802508	216
102	SO22073-1-102	2115802508	212	127	SO22073-1-127	2115802508	216
103	SO22073-1-103	2115802508	212	128	SO22073-1-128	2115802508	216
104	SO22073-1-104	2115802508	212	129	SO22073-1-129	2115802508	216
105	SO22073-1-105	2115802508	212	130	SO22073-1-130	2115802508	216
106	SO22073-1-106	2115802508	212	131	SO22073-1-131	2115802508	217
107	SO22073-1-107	2115802508	212	132	SO22073-1-132	2115802508	217
108	SO22073-1-108	2115802508	213	133	SO22073-1-133	2115802508	217
109	SO22073-1-109	2115802508	213	134	SO22073-1-134	2115802508	217
110	SO22073-1-110	2115802508	213	135	SO22073-1-135	2115802508	217
111	SO22073-1-111	2115802508	213	136	SO22073-1-136	2115802508	217
112	SO22073-1-112	2115802508	213	137	SO22073-1-137	2115802508	217
113	SO22073-1-113	2115802508	214	138	SO22073-1-138	2115802508	217
114	SO22073-1-114	2115802508	214	139	SO22073-1-139	2115802508	218
115	SO22073-1-115	2115802508	214	140	SO22073-1-140	2115802508	218
116	SO22073-1-116	2115802508	214	141	SO22073-1-141	2115802508	218
117	SO22073-1-117	2115802508	214	142	SO22073-1-142	2115802508	218
118	SO22073-1-118	2115802508	214	143	SO22073-1-143	2115802508	218
119	SO22073-1-119	2115802508	214	144	SO22073-1-144	2115802508	218
120	SO22073-1-120	2115802508	215	145	SO22073-1-145	2115802508	219
121	SO22073-1-121	2115802508	215	146	SO22073-1-146	2115802508	219
122	SO22073-1-122	2115802508	215	147	SO22073-1-147	2115802508	219
123	SO22073-1-123	2115802508	215	148	SO22073-1-148	2115802508	219
124	SO22073-1-124	2115802508	215	149	SO22073-1-149	2115802508	219
125	SO22073-1-125	2115802508	216	150	SO22073-1-150	2115802508	219

Sketch/Inspection Coverage:



Fluorescent magnetic particle inspection was performed on all accessible wetted/sealing surfaces.

Evaluation & Disposition:	Found to be satisfactory		
Inspected by:	JI LIN	Approved by:	JI WEI
Organization:	QC Department		
NDT Level:	II	Date:	2022.5.20

PENETRATE TESTING REPORT

Customer:				Customer PO#:				Date:	2022.5.20		
Drawing #:	X-182590-01	Specification	API Spec 6A/ ASTM E165		API Monogram:	No		Report #:	NCS-2205-Q53		
Part No.:			Material:	410 SS, Per NACE MR0175				Coating:	TC		
Description:	Seat, 7 1/16" 15M, FLSR, 410 SS with T/C							Quantity:	200		
Equipment:	DPT-8		Acceptance Criteria:		API 6A/PSL3		Test Method:		DYE		
Penetrant Type:	Solvent		Penetration time:		15min		Developing time:		10min		
Stage:	After fine finishing				Inspected surface:		Seat (body)				

Item	S/N	Heat Log No.	Hardness	Item	S/N	Heat Log No.	Hardness
151	SO22073-1-151	2115802508	219	176	SO22073-1-176	2115802508	226
152	SO22073-1-152	2115802508	219	177	SO22073-1-177	2115802508	226
153	SO22073-1-153	2115802508	221	178	SO22073-1-178	2115802508	226
154	SO22073-1-154	2115802508	221	179	SO22073-1-179	2115802508	226
155	SO22073-1-155	2115802508	221	180	SO22073-1-180	2115802508	226
156	SO22073-1-156	2115802508	221	181	SO22073-1-181	2115802508	226
157	SO22073-1-157	2115802508	221	182	SO22073-1-182	2115802508	226
158	SO22073-1-158	2115802508	221	183	SO22073-1-183	2115802508	226
159	SO22073-1-159	2115802508	221	184	SO22073-1-184	2115802508	226
160	SO22073-1-160	2115802508	221	185	SO22073-1-185	2115802508	228
161	SO22073-1-161	2115802508	222	186	SO22073-1-186	2115802508	228
162	SO22073-1-162	2115802508	222	187	SO22073-1-187	2115802508	228
163	SO22073-1-163	2115802508	222	188	SO22073-1-188	2115802508	228
164	SO22073-1-164	2115802508	222	189	SO22073-1-189	2115802508	228
165	SO22073-1-165	2115802508	224	190	SO22073-1-190	2115802508	228
166	SO22073-1-166	2115802508	224	191	SO22073-1-191	2115802508	228
167	SO22073-1-167	2115802508	224	192	SO22073-1-192	2115802508	228
168	SO22073-1-168	2115802508	225	193	SO22073-1-193	2115802508	230
169	SO22073-1-169	2115802508	225	194	SO22073-1-194	2115802508	230
170	SO22073-1-170	2115802508	225	195	SO22073-1-195	2115802508	230
171	SO22073-1-171	2115802508	225	196	SO22073-1-196	2115802508	230
172	SO22073-1-172	2115802508	225	197	SO22073-1-197	2115802508	230
173	SO22073-1-173	2115802508	225	198	SO22073-1-198	2115802508	230
174	SO22073-1-174	2115802508	225	199	SO22073-1-199	2115802508	230
175	SO22073-1-175	2115802508	226	200	SO22073-1-200	2115802508	230

Sketch/Inspection Coverage:



Fluorescent magnetic particle inspection was performed on all accessible wetted/sealing surfaces.

Evaluation & Disposition:	Found to be satisfactory		
Inspected by:	JI LIN	Approved by:	JI WEI
		Organization:	QC Department
NDT Level:	II	Date:	2022.5.20

TUNGSTEN CARBIDE SPRAY REPORT

Customer:		Customer PO#:		Date:	2022.5.23
Drawing #:	X-182590-01	Specification :	API 6A	API Monogram:	No
Report #:					RS220523-01
Part No.:		Material:	410 SS,Per NACE MR0175		Coating:
					TC
Description:	Seat, 7 1/16" 15M, FLSR, 410 SS with T/C				Quantity:
					200
Dimension inspection					
ITEM	Hardness test		Bonding strength	Porosity	Coating type
Standard	≥1050		≥69MPa	MAX 1%	WC86-Co10-Cr4
Actual	1171		77	0.77	WC86-Co10-Cr4
Chemical component					
	C(%)	Co(%)	Cr(%)	Mn(%)	Ni(%)
standard	5.1-6.0	9.0-11.0	3.0-5.0		
Actual	5.40	9.70	3.89		
Evaluation & Disposition:			Found to be satisfactory		
Inspected by:			SHI LINGUI		
Approved by:			JI WEI		Date: 2022.5.23

PENETRATE TESTING REPORT

Customer:				Customer PO#:				Date:	2022.5.25		
Drawing #:	X-182590-01	Specification	API Spec 6A/ASTM E165		API Monogram:	No		Report #:	NCS-2205-H53		
Part No.:		Material:	410 SS, Per NACE MR0175						Coating:	TC	
Description:	Seat, 7 1/16" 15M, FLSR, 410 SS with T/C								Quantity:	200	
Equipment:	DPT-8	Acceptance Criteria:			API 6A/PSL3	Test Method:			DYE		
Penetrant Type:	Solvent	Penetration time:			15min	Developing time:			10min		
Stage:	After coating tungsten carbide				Inspected surface:	Seat (spraying surface)					
Item	S/N	Heat Log No.	Hardness	Item	S/N	Heat Log No.	Hardness				
1	SO22073-1-001	2115802508	207	26	SO22073-1-026	2115802508	215				
2	SO22073-1-002	2115802508	207	27	SO22073-1-027	2115802508	215				
3	SO22073-1-003	2115802508	207	28	SO22073-1-028	2115802508	215				
4	SO22073-1-004	2115802508	209	29	SO22073-1-029	2115802508	215				
5	SO22073-1-005	2115802508	209	30	SO22073-1-030	2115802508	215				
6	SO22073-1-006	2115802508	209	31	SO22073-1-031	2115802508	215				
7	SO22073-1-007	2115802508	209	32	SO22073-1-032	2115802508	216				
8	SO22073-1-008	2115802508	210	33	SO22073-1-033	2115802508	216				
9	SO22073-1-009	2115802508	210	34	SO22073-1-034	2115802508	216				
10	SO22073-1-010	2115802508	210	35	SO22073-1-035	2115802508	216				
11	SO22073-1-011	2115802508	211	36	SO22073-1-036	2115802508	216				
12	SO22073-1-012	2115802508	211	37	SO22073-1-037	2115802508	216				
13	SO22073-1-013	2115802508	211	38	SO22073-1-038	2115802508	218				
14	SO22073-1-014	2115802508	211	39	SO22073-1-039	2115802508	218				
15	SO22073-1-015	2115802508	211	40	SO22073-1-040	2115802508	218				
16	SO22073-1-016	2115802508	213	41	SO22073-1-041	2115802508	218				
17	SO22073-1-017	2115802508	213	42	SO22073-1-042	2115802508	218				
18	SO22073-1-018	2115802508	213	43	SO22073-1-043	2115802508	218				
19	SO22073-1-019	2115802508	214	44	SO22073-1-044	2115802508	218				
20	SO22073-1-020	2115802508	214	45	SO22073-1-045	2115802508	218				
21	SO22073-1-021	2115802508	214	46	SO22073-1-046	2115802508	218				
22	SO22073-1-022	2115802508	214	47	SO22073-1-047	2115802508	221				
23	SO22073-1-023	2115802508	214	48	SO22073-1-048	2115802508	221				
24	SO22073-1-024	2115802508	214	49	SO22073-1-049	2115802508	224				
25	SO22073-1-025	2115802508	215	50	SO22073-1-050	2115802508	224				

Sketch/Inspection Coverage:



Fluorescent magnetic particle inspection was performed on all accessible wetted/sealing surfaces.

Evaluation & Disposition:	Found to be satisfactory		
Inspected by:	JI LIN	Approved by:	JI WEI
Organization:	QC Department		
NDT Level:	II	Date:	2022.5.25

PENETRATE TESTING REPORT

Customer:			Customer PO#:				Date:	2022.5.25
Drawing #:	X-182590-01	Specification	API Spec 6A/ ASTM E165		API Monogram:	No	Report #:	NCS-2205-H53
Part No.:		Material:	410 SS,Per NACE MR0175				Coating:	TC
Description:	Seat, 7 1/16" 15M, FLSR, 410 SS with T/C						Quantity:	200
Equipment:	DPT-8	Acceptance Criteria:		API 6A/PSL3	Test Method:			DYE
Penetrant Type:	Solvent	Penetration time:		15min	Developing time:			10min
Stage:	After coating tungsten carbide			Inspected surface:	Seat (spraying surface)			
Item	S/N	Heat Log No.	Hardness	Item	S/N	Heat Log No.	Hardness	
51	SO22073-1-051	2115802508	226	76	SO22073-1-076	2115802508	232	
52	SO22073-1-052	2115802508	226	77	SO22073-1-077	2115802508	232	
53	SO22073-1-053	2115802508	226	78	SO22073-1-078	2115802508	232	
54	SO22073-1-054	2115802508	226	79	SO22073-1-079	2115802508	234	
55	SO22073-1-055	2115802508	226	80	SO22073-1-080	2115802508	234	
56	SO22073-1-056	2115802508	226	81	SO22073-1-081	2115802508	207	
57	SO22073-1-057	2115802508	228	82	SO22073-1-082	2115802508	208	
58	SO22073-1-058	2115802508	228	83	SO22073-1-083	2115802508	208	
59	SO22073-1-059	2115802508	228	84	SO22073-1-084	2115802508	208	
60	SO22073-1-060	2115802508	228	85	SO22073-1-085	2115802508	208	
61	SO22073-1-061	2115802508	228	86	SO22073-1-086	2115802508	208	
62	SO22073-1-062	2115802508	228	87	SO22073-1-087	2115802508	208	
63	SO22073-1-063	2115802508	228	88	SO22073-1-088	2115802508	208	
64	SO22073-1-064	2115802508	228	89	SO22073-1-089	2115802508	209	
65	SO22073-1-065	2115802508	230	90	SO22073-1-090	2115802508	209	
66	SO22073-1-066	2115802508	230	91	SO22073-1-091	2115802508	209	
67	SO22073-1-067	2115802508	230	92	SO22073-1-092	2115802508	209	
68	SO22073-1-068	2115802508	230	93	SO22073-1-093	2115802508	209	
69	SO22073-1-069	2115802508	230	94	SO22073-1-094	2115802508	209	
70	SO22073-1-070	2115802508	231	95	SO22073-1-095	2115802508	210	
71	SO22073-1-071	2115802508	231	96	SO22073-1-096	2115802508	210	
72	SO22073-1-072	2115802508	231	97	SO22073-1-097	2115802508	211	
73	SO22073-1-073	2115802508	232	98	SO22073-1-098	2115802508	211	
74	SO22073-1-074	2115802508	232	99	SO22073-1-099	2115802508	211	
75	SO22073-1-075	2115802508	232	100	SO22073-1-100	2115802508	211	

Sketch/Inspection Coverage:



Fluorescent magnetic particle inspection was performed on all accessible wetted/sealing surfaces.

Evaluation & Disposition:	Found to be satisfactory		
Inspected by:	JI LIN	Approved by:	JI WEI
		Organization:	QC Department
NDT Level:	II	Date:	2022.5.25

PENETRATE TESTING REPORT

Customer:				Customer PO#:			Date:	2022.5.25
Drawing #:	X-182590-01	Specification	API Spec 6A/ ASTM E165	API Monogram:	No	Report #:	NCS-2205-H53	
Part No.:		Material:	410 SS, Per NACE MR0175			Coating:	TC	
Description:	Seat, 7 1/16" 15M, FLSR, 410 SS with T/C						Quantity:	200
Equipment:	DPT-8	Acceptance Criteria:		API 6A/PSL3	Test Method:		DYE	
Penetrant Type:	Solvent	Penetration time:		15min	Developing time:		10min	
Stage:	After coating tungsten carbide			Inspected surface:	Seat (spraying surface)			
Item	S/N	Heat Log No.	Hardness	Item	S/N	Heat Log No.	Hardness	
101	SO22073-1-101	2115802508	211	126	SO22073-1-126	2115802508	216	
102	SO22073-1-102	2115802508	212	127	SO22073-1-127	2115802508	216	
103	SO22073-1-103	2115802508	212	128	SO22073-1-128	2115802508	216	
104	SO22073-1-104	2115802508	212	129	SO22073-1-129	2115802508	216	
105	SO22073-1-105	2115802508	212	130	SO22073-1-130	2115802508	216	
106	SO22073-1-106	2115802508	212	131	SO22073-1-131	2115802508	217	
107	SO22073-1-107	2115802508	212	132	SO22073-1-132	2115802508	217	
108	SO22073-1-108	2115802508	213	133	SO22073-1-133	2115802508	217	
109	SO22073-1-109	2115802508	213	134	SO22073-1-134	2115802508	217	
110	SO22073-1-110	2115802508	213	135	SO22073-1-135	2115802508	217	
111	SO22073-1-111	2115802508	213	136	SO22073-1-136	2115802508	217	
112	SO22073-1-112	2115802508	213	137	SO22073-1-137	2115802508	217	
113	SO22073-1-113	2115802508	214	138	SO22073-1-138	2115802508	217	
114	SO22073-1-114	2115802508	214	139	SO22073-1-139	2115802508	218	
115	SO22073-1-115	2115802508	214	140	SO22073-1-140	2115802508	218	
116	SO22073-1-116	2115802508	214	141	SO22073-1-141	2115802508	218	
117	SO22073-1-117	2115802508	214	142	SO22073-1-142	2115802508	218	
118	SO22073-1-118	2115802508	214	143	SO22073-1-143	2115802508	218	
119	SO22073-1-119	2115802508	214	144	SO22073-1-144	2115802508	218	
120	SO22073-1-120	2115802508	215	145	SO22073-1-145	2115802508	219	
121	SO22073-1-121	2115802508	215	146	SO22073-1-146	2115802508	219	
122	SO22073-1-122	2115802508	215	147	SO22073-1-147	2115802508	219	
123	SO22073-1-123	2115802508	215	148	SO22073-1-148	2115802508	219	
124	SO22073-1-124	2115802508	215	149	SO22073-1-149	2115802508	219	
125	SO22073-1-125	2115802508	216	150	SO22073-1-150	2115802508	219	

Sketch/Inspection Coverage:



Fluorescent magnetic particle inspection was performed on all accessible wetted/sealing surfaces.

Evaluation & Disposition:		Found to be satisfactory	
Inspected by:	JI LIN	Approved by:	JI WEI
Organization:	QC Department		
NDT Level:	II	Date:	2022.5.25

PENETRATE TESTING REPORT

Customer:			Customer PO#:			Date:	2022.5.25
Drawing #:	X-182590-01	Specification	API Spec 6A/ ASTM E165	API Monogram:	No	Report #:	NCS-2205-H53
Part No.:		Material:	410 SS,Per NACE MR0175			Coating:	TC
Description:	Seat, 7 1/16" 15M, FLSR, 410 SS with T/C					Quantity:	200
Equipment:	DPT-8	Acceptance Criteria:		API 6A/PSL3	Test Method:		DYE
Penetrant Type:	Solvent	Penetration time:		15min	Developing time:		10min
Stage:	After coating tungsten carbide			Inspected surface:	Seat (spraying surface)		
Item	S/N	Heat Log No.	Hardness	Item	S/N	Heat Log No.	Hardness
151	SO22073-1-151	2115802508	219	176	SO22073-1-176	2115802508	226
152	SO22073-1-152	2115802508	219	177	SO22073-1-177	2115802508	226
153	SO22073-1-153	2115802508	221	178	SO22073-1-178	2115802508	226
154	SO22073-1-154	2115802508	221	179	SO22073-1-179	2115802508	226
155	SO22073-1-155	2115802508	221	180	SO22073-1-180	2115802508	226
156	SO22073-1-156	2115802508	221	181	SO22073-1-181	2115802508	226
157	SO22073-1-157	2115802508	221	182	SO22073-1-182	2115802508	226
158	SO22073-1-158	2115802508	221	183	SO22073-1-183	2115802508	226
159	SO22073-1-159	2115802508	221	184	SO22073-1-184	2115802508	226
160	SO22073-1-160	2115802508	221	185	SO22073-1-185	2115802508	228
161	SO22073-1-161	2115802508	222	186	SO22073-1-186	2115802508	228
162	SO22073-1-162	2115802508	222	187	SO22073-1-187	2115802508	228
163	SO22073-1-163	2115802508	222	188	SO22073-1-188	2115802508	228
164	SO22073-1-164	2115802508	222	189	SO22073-1-189	2115802508	228
165	SO22073-1-165	2115802508	224	190	SO22073-1-190	2115802508	228
166	SO22073-1-166	2115802508	224	191	SO22073-1-191	2115802508	228
167	SO22073-1-167	2115802508	224	192	SO22073-1-192	2115802508	228
168	SO22073-1-168	2115802508	225	193	SO22073-1-193	2115802508	230
169	SO22073-1-169	2115802508	225	194	SO22073-1-194	2115802508	230
170	SO22073-1-170	2115802508	225	195	SO22073-1-195	2115802508	230
171	SO22073-1-171	2115802508	225	196	SO22073-1-196	2115802508	230
172	SO22073-1-172	2115802508	225	197	SO22073-1-197	2115802508	230
173	SO22073-1-173	2115802508	225	198	SO22073-1-198	2115802508	230
174	SO22073-1-174	2115802508	225	199	SO22073-1-199	2115802508	230
175	SO22073-1-175	2115802508	226	200	SO22073-1-200	2115802508	230

Sketch/Inspection Coverage:



Fluorescent magnetic particle inspection was performed on all accessible wetted/sealing surfaces.

Evaluation & Disposition:	Found to be satisfactory		
Inspected by:	JI LIN	Approved by:	JI WEI
		Organization:	QC Department
NDT Level:	II	Date:	2022.5.25



产品出厂检验报告

Inspection Report

产品名称

Product Name

滚珠丝杠副

Ballscrew

产品规格

Specification

63.5*320.5

产品图号

Part No.

XL-S2572

客户图号

Client Dwg No.

本批数量

Quantity

25 PCS

生产批号

Batch No.

10268

检验员

Inspected by

孟丽

Mengli

核准人

Approved by

吴雄辉

Wu Xiong Hui

报告日期

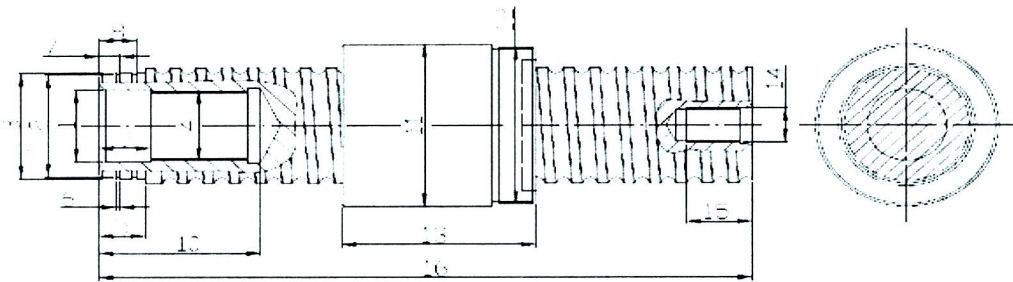
Report Date

2023-06-02





检查基准书 (Inspection Standard)

产品名称 (name)		滚珠丝杠副 (Ball Screw)		规格 (spec)		63.5×320.5		产品性质 (Type)		■成品 (finished)					
产品图号 (Drawing)		XL-S2572		材质 (Material)		Gcr15		抽样数量 (Qtytested)		全检(All)		记录数量 (Records number)		5pcs	
										丝杠参数 (Screw Parameters)					
										公称直径 (Nominal diameter)					
										Φ 63.5					
										导程 (Pitch)					
										12.7					
										精度等级 (Precision grade)					
										P4					
序号 N O	检查项目 (Check)		基准要求 (Standard)		测量工具 (Measuring tool)		检查频率 (Checking frequency)				备注 (Note)				
							交样(delivery sampling)		量产(Mass production)						
1	尺寸 (Size)		1		Φ 38.86 ±0.05		卡尺(calipers)		5EA/LOT		5EA/LOT				
			2		Φ 55.27 ±0.05		卡尺(calipers)		5EA/LOT						
			3		Φ 57.15 +0/-0.13		千分尺(Microcalip)		5EA/LOT						
			4		1-1/2"-12UNF-2B		塞规(Plug gauge)		5EA/LOT						
			5		22.63 ±0.5		卡尺(calipers)		5EA/LOT						
			6		2-2.2 +0.14/-0		卡尺(calipers)		5EA/LOT						
			7		10.39 ±0.5		卡尺(calipers)		5EA/LOT						
			8		18.26 ±0.5		卡尺(calipers)		5EA/LOT						
			9		25 ±0.5		卡尺(calipers)		5EA/LOT						
			10		79.37 ±0.8		卡尺(calipers)		5EA/LOT						
			11		Φ 88.9 ±0.01		千分尺(Microcalip)		5EA/LOT						
			12		3-3/8-12UN-2A		环规(Ring gauge)		5EA/LOT						
			13		93.5		卡尺(calipers)		5EA/LOT						
			14		0.75-10UN-2B		塞规(Plug gauge)		5EA/LOT						
			15		32 ±0.8		卡尺(calipers)		5EA/LOT						
			16		320.5 +1.5/-0		卡尺(calipers)		5EA/LOT						
2	外观 (Appearance)		无毛刺及缺陷现象 (No burrs and defects)		目测(Visual)		/LOT		每批 (batch)						
3	材质 (Material)		Gcr15		化学分析 (visual inspection)		/LOT		每批 (batch)		供方材质报告(Supplier material report)				
4	丝杠硬度 (Screw Hardnes)		HRC58-62		维氏硬度计 (Vitorinox Hardness tester)		5EA/LOT		每批 (batch)		硬度检测报告 (hardness test report)				
5	螺母硬度 (Nut Hardnes)		HRC58-62		洛氏硬度计 (Rochwell Hardness tester)		5EA/LOT		每批 (batch)		硬度检测报告 (hardness test report)0				
6	丝杠精度 (Screw precision)		P4		激光动态检测仪 (Laser dynamic detector)		5EA/LOT		每批 (batch)						
编制 (Organization)		覃素菊		日期 (Date)		2019-03-16		使用部门 (Using Department)		QC 终检 (Final inspection)					
审核 (Checked by)		吴雄辉		日期 (Date)		2019-03-16		管理编号 (Management No.)		L20190316					



检验成绩书 (Check grade book)

编号 (NO): 10268

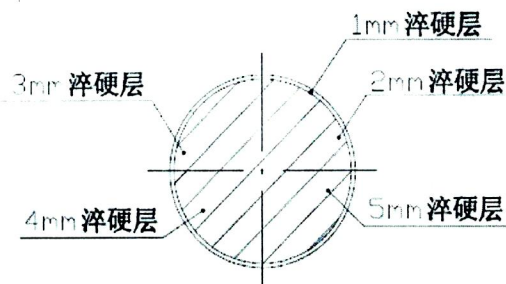
产品名称 (name)	滚珠丝杠副 (BallScrew)	规格 (spec)	63.5*320.5	产品性质 (Type)	成品 (finished)	客户图号 (Customer No)		
产品图号 (Drawing)	XL-S2572	材质 (Material)	Gcr15	送检数量 (Qty)	25PCS	抽样数量 (Qtytested)	25PCS	
抽样方案 (Inspecting)	1.外观尺寸(Size) AQL: 2.机械性能 (Mechanical property) AQL:					检验依据 (According)	图纸 (Drawing)	
☐ 供应商(Supplier):				☐ 配套单位(Buyer):				
序号 (Series)	检验项目 (Item)	基准要求 (Standard)	实测记录 (描述) (Result)					判定 (conclusion)
			①	②	③	④	⑤	
1	φ 38.86	±0.05	φ 38.88	φ 38.86	φ 38.86	φ 38.88	φ 38.88	OK
2	φ 55.27	±0.05	φ 55.26	φ 55.28	φ 55.26	φ 55.22	φ 55.24	OK
3	φ 57.15	+0/-0.13	φ 57.14	φ 57.135	φ 57.139	φ 57.09	φ 57.105	OK
4	1-1/2"-12UNF	2B	OK	OK	OK	OK	OK	OK
5	22.63	±0.5	22.68	22.66	22.62	22.68	22.64	OK
6	2-2.2	+0.14/-0	2.24	2.24	2.22	2.24	2.22	OK
7	10.39	±0.5	10.42	10.34	10.38	10.42	10.36	OK
8	18.26	±0.5	18.54	18.46	18.4	18.34	18.26	OK
9	25	±0.5	25	25.08	25.10	25.08	25.12	OK
10	79.37	±0.8	79.80	80.10	79.88	79.70	79.86	OK
11	φ 88.9	±0.01	φ 88.898	φ 88.895	φ 88.902	φ 88.90	φ 88.898	OK
12	3-3/8-12UN	2A	OK	OK	OK	OK	OK	OK
13	93.5		93.50	93.48	93.46	93.46	93.48	OK
14	0.75-10UN	2B	OK	OK	OK	OK	OK	OK
15	32	±0.8	32.60	32.58	32.70	32.60	32.78	OK
16	320.5	+1.5/-0	321.20	321.30	321.20	321.40	321.50	OK
17	丝杠硬度	HRC58~62	见附页 (See Appendix)					
18	螺母硬度	HRC58~62	见附页 (See Appendix)					
19	外观	目测	良好 (Good)					
检验员 (Inspected by)	孟丽		检验结论 (Result)	☒ 合格 (ok) ☐ 不合格 (fail)				
部门主管 (Checked by)	吴雄辉		不合格处理 (Fail)	☐ 降级处理 (Degradation) ☐ 报废 (Dumping) ☐ 选用 (Selection) ☐ 退回 (Return)				
检验日期 (Date)	2023-04-17							



滚珠丝杠副硬度检验报告(ball screw hardness report)

一, 丝杠硬度表 (Screw hardness meter)

丝杠试棒截面示意图
Ballscrew cross section



丝杠硬度测试结果

序号 serial)	深度 1mm Depth 1mm	深度 2mm Depth 2mm	深度 3mm Depth 3mm	深度 4mm Depth 3mm	深度 5mm Depth 3mm	备注 Note
1	HRC =62	HRC =61.4	HRC =60.5	HRC =59.8	HRC =58	试棒检测结果 Process test inspection results

二, 螺母硬度表(Nut hardness table)

抽件数 形式	1 件 pcs	2 件 pcs	3 件 pcs	4 件 pcs	5 件 pcs	备注 Note
法 兰 螺 母 (Flange nut)						5 件以下全检, 超出 5 件抽检。 Spot check within 5 PCS
圆 柱 螺 母 (round nut)	HRC =58	HRC =59	HRC =59.5	HRC =60	HRC=61	

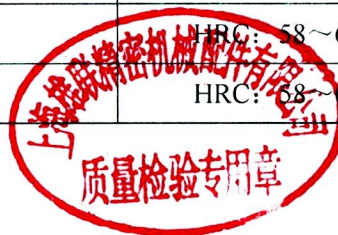
三, 丝杠淬火硬度层深度及硬度对应表(hardness layer depth and hardness table)

序号 Serial NO.	钢球直径 (ball dia.)	淬硬层规定深度hardening layer (单位 mm)	硬度要求 hardness Requirement	备注 Note
1	□ φ 2.381	≥2.2	HRC: 58~62	滚珠丝杠副验收条件和验 收检验标准 按照 Standard GBT17587.3-1998
2	□ φ 3.175	≥2.6	HRC: 58~62	
3	□ φ 3.969	≥3	HRC: 58~62	
4	□ φ 4.763	≥3.4	HRC: 58~62	
5	□ φ 5.953	≥4	HRC: 58~62	
6	□ φ 6.35	≥4.2	HRC: 58~62	
7	■ φ 7.144	≥4.6	HRC: 58~62	

检验员(Inspected by): 覃素菊

审核(Checked by): 吴雄辉

报告日期 (Report Date): 2023-04-02





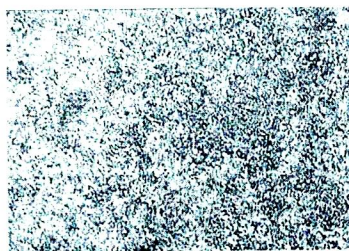
金相试验报告单(Metallographic Test Report)

试棒名称 (Bar name)	滚珠丝杠副(Ballcrew)	报告编号 (No.)	XL20230315
试棒规格 (Spec)	63.5*320.5	材料牌号 (Material)	GCr15
试样状态 (Sample state)	淬火 (Quenching)+ 回火 (Tempering) 试样 A(Sample A)	分析项目 (Process)	金相组织(Metallographic Test)
标准要求 (Standard)	黑白相间的隐晶马氏体 (1-3 级) + 均匀碳化物 (1-2 级) (Black alternating with white Cryptocrystalline Martensite(grade1-3)+uniform carbides(grade 1-2))	报告日期 (Date)	2023-03-15

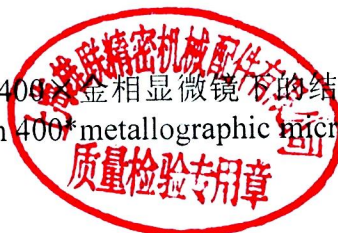
分析结果(Test Result)

金相组织评定 (Metallographic microscope) : 隐晶马氏体+均匀碳化物。按照 GB/T1255-2001 标准, 马氏体执行第二评级图评为 2 级; 碳化物网状评级执行第四评级图评为 2 级。(Cryptocrystalline Martensite+uniform carbides, according to GB/T1255-2001 , Martensite performs the second rating figure, rated grade2, carbide reticulated rating shall carry out the rating figure 4. Rated grade 2)

结论(Result): 合格(OK)。



图片是经过 5% 的硝酸酒精溶液腐蚀的试样, 在 400x 金相显微镜下的结果。(Picture is after a 5% nitric alcohol solution corrosion specimen, in 400x metallographic microscope.)



试验员(Inspected by): 覃素菊

审核(Checked by): 吴雄辉

日期(Date): 2023-03-15



原材料进厂化学分析报告单 (Chemical Analysis Report)

委托部门 (Division)	原材料库房 (Raw material warehouse)		委托日期 (Date)	2019-07-21	
材料牌号 (Material)	GCr15		材料炉号 (Heat)	9G411665	
执行标准 (Standard)	GB/T18254-2002		报告编号 (NO.)	XL20190721	
序号 (Series)	标准要求 (Standard)		实测值 (Measure) (%)	判定 (Result)	
	化学元素 (Elements)	(%)			
01	C	0.95—1.05	0.98	OK	
02	Si	0.15—0.35	0.23	OK	
03	Mn	0.25—0.45	0.32	OK	
04	S	≤0.025	0.010	OK	
05	P	≤0.025	0.013	OK	
06	Cr	1.40—1.65	1.46	OK	
07	Ni	≤0.30	0.03	OK	
08	Mo				
09	V				
10	Ti				
11	W				
12					
结论: 按照 GB/T18254-2002 标准要求经过化学分析复检该材料判定为合格 (Result: Qualified According to GB/T18254-2002)					
化验员 (Inspected by)	覃素菊	审核 (Checked by)	吴雄辉 质量检验专用章	报告日期 (Date)	2019-07-22



产品质量证明书

INSPECTION CERTIFICATE

广东省韶关市曲江区马坝
Maba Qujiang District, Shaoguan
512122 Guangdong, P.R.China

宝钢特钢韶关有限公司
BaoSteel Special Steel
Shaoguan Co.,Ltd.

TEL (0751) 8786615
FAX (0751) 8785981

订货单位 Customer	上海宝钢浦东国际贸易有限公司		订货单位代码 Customer No.	001779	
收货单位 Purchaser	上海宝钢浦东国际贸易有限公司		合同号 Contract No.	Y9A0115008	
品种名称 Designation	高碳铬轴承钢 High-carbon chromium bearing steel		证书号 Certificate No.	TZ2001070010	
产品标准 Specification	SXBG2014-039-001		牌号 Steel Grade	GCr15	
规格 (mm) Size	Φ65*6000		许可证号 License No.		
支 (吊盘件) 数 Piece(Bundle) Number	4	重量 Weight (kg)	9888	签发日期 Date of Issue	2020-1-7
生产编号 Production No.	G9307443L	热处理编号 Heat Treatment No.	YF19C0069	冶炼炉号 Heat No.	9G411665
加工用途 Designated Further		交货状态 Condition of Delivery	热轧软退 WHSTAR	制造命令号 PONO	82926523
地区订货用户 InterMediate User	上海英杰塑胶制品有限公司		最终用户 Final User	上海英杰塑胶制品有限公司	

Intermediate User

一、化学成分 (%) Chemical Composition (%)											
C	0.97	Mn	0.34	Si	0.25	S	0.002	P	0.011		
Cu	0.02	Cr	1.500	Ni	0.006	Mo	0.00	Ti	0.0011		
Al	0.015	O(ppm)	5.6	Sn	0.003	Pb	0.0005	As	0.005		
Sb	0.0000	Ca	0.0002								
二、宏观检验 Macrostructure Examination											
1、尺寸、外形、表面质量 Dimension, Contourand, Surface Quality 合格 OK											
2、低倍组织 Macro-structure											
偏析值 Segregation				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
一般疏松(级) Ordinary Porosity(grade)				1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
中心疏松(级) Centre Porosity(grade)				1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
三、微观检验 Microstructure Examination											
1、非金属夹杂物 Non-material inclusions											
A细 A(thin)				0.5	0.0	1.0	0.5	0.0	1.0		
A粗 A(heavy)				0.0	0.0	0.0	0.0	0.0	0.0		
B细 B(thin)				0.5	0.0	1.0	0.5	0.0	1.0		
B粗 B(heavy)				0.5	0.0	1.0	0.5	0.0	1.0		
C细 C(thin)				0.0	0.0	0.0	0.0	0.0	0.0		
C粗 C(heavy)				0.0	0.0	0.0	0.0	0.0	0.0		
D细 D(thin)				0.5	0.5	0.5	0.5	0.5	0.5		
D粗 D(heavy)				0.0	0.0	0.0	0.0	0.0	0.0		
2、碳化物 Carbide											
碳化物带状(级) CarbideBanding(grade)				2.5	2.0	3.0					
碳化物液析(级) CarbideLiquation(grade)				0.0	0.0	0.0					
3、显微孔隙 Micro-hole											
显微孔隙结果 Micro-hole				合格 OK							
4、脱碳 Decarburization											
总脱碳层比例 Prop. Tol. Dec.				1.150	1.180	1.230					
四、力学性能 Mechanical Property											
1、硬度 Hardness 布氏											
硬度 Hardness				184.0	186.0	188.0					

上海精密机械股份有限公司

备注: Note:					
声明: Statement	兹证明本表所列产品, 均依标准规定制造、取样、试验和检验, 并符合标准及合同要求。 WE HERE CERTIFY THAT THE MATERIAL HEREIN DESCRIBED HAS BEEN MANUFACTURED, SAMPLED, TESTED AND INSPECTED IN ACCORDANCE WITH THE REQUIREMENTS OF ABOVE SPECIFICATIONS AND PURCHASE ORDER, AND MET THE REQUIREMENTS.				



包锋

服务热线 0751-8786615

上海沪江机械厂有限公司
理化试验报告-机械性能试验报告

报告编号: XL20230318

委托部门: 半成品库 材料牌号: Gcr15

规格: 63.5*320.5

送样日期: 2023-03-17

样品名称: 圆钢 试验项目: 抗拉 弯曲 冲击 时效冲击 断口 压扁 扩口

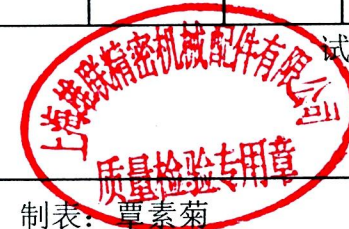
报告日期: 2023-03-20

序次	工程 编号	试样 编号	炉批号	σ_s N /mm ²	σ_b N /mm ²	δ %	Ψ %	断 口	压扁 H=	扩口 %	弯曲结 果 D= T 度	冲击功 AKV J	时效冲 击 AKUS J/cm	硬度 HB
1		2-1		705.0	915.0	18.0	43.0					16.0	-30	
2		2-2		695.0	890.0	18.5	46.5					14.0	-30	
3												24.0	20	
4														
5														
6														

备注

1. 以上数据是指来样而言
2. 数据修改需盖上印章
3. 结论

试验温度 20℃



编辑: 庾石波

审核: 吴雄辉

制表: 覃素菊

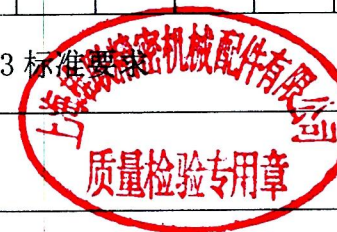
上海奎峰钢球轴承有限公司

钢球检验报告

QG/KF. C.7.4.-01

编号: No. 0003238

规格	7.1438 轴承钢球	等级	G10	数量	0.4 万粒	料号	/	送货日期	2018.06.25										
项目	标准要求值	量具	测试数据 (抽样数据: 10 件)																
批直径变动量 VDWL	0.5	立式光学仪	0.44	0.43	0.43	0.45	0.43	0.45	0.43	0.45	0.43	0.43							
球直径变动量 VDWS	0.25	立式光学仪	0.24	0.23	0.25	0.24	0.23	0.21	0.23	0.24	0.22	0.25							
球形误差 DSPH	0.25	立式光学仪	0.25	0.24	0.25	0.23	0.21	0.22	0.23	0.25	0.21	0.25							
硬度 HRC	61-66	硬度计	62.3	62.3	62.5	62	62.5	63	62.4	63.2	62	63.2							
外观		目视				合		格											
酸洗						无 烧 伤													
其它项目验证结论		(符) 合 GB/T308-2013 标准要求																	
检验结论:																			



检验员: [Signature]

检验日期: 2018.06.24



南通凌龙特钢制品有限公司质量证明书

NANTONG LINGLONG SPECIAL STEEL WIRE PRODUCTS CO.LTD CERTIFICATE OF QUALITY

编号 No: _____

合同号 Contract No.		炉号		规格 Size		捆/支数		重量 (Kg)		交货状态		加工用途		技术条件																	
Steel Grade		Heat No.		断面 (mm)Size		长度 (mm)Length		Number of Bundles/Pieces		Weight		Condition of Delivery		Purpose of Furber Processing		Specification															
GCr15		11705689		φ 2.5		11705689		18		2030.5		轻拉				GB/T18579-2001															
化 学 成 分 (%) Chemical Composition																外形尺寸		表面质量													
C Si Mn P S Cr Ni Cu Mo W V Ti Al B Co No																Size Surface		Surface Quality													
1.00 0.22 0.32 0.007 0.001 1.52 0.05 0.08 0.01																															
Pb Sn Bi Sb As Ca Re H × 10 ⁻⁶ O × 10 ⁻⁶ N × 10 ⁻⁶																合格		合格													
11																															
低倍组织 (级)				非金属夹杂物 (级)				碳化物 (级)				机械性能																			
Macrostructure(Grade)				Nonmetallic Inclusions(Grade)				Carbide(Grade)				Mechanical properties																			
一般疏松 Ordinary Porosity				中心疏松 Center Porosity				方形偏析 Square Segregation				点状偏析 Spot Segregation				抗拉强度 Ult Tensile Strength Rm(MPa)				硬度 Hardness		断口 Fradure		顶锻 Heading							
T H				T H				T H				T H				T H				HRC 或 HRB		HB		退火 Tem- pered		淬火 Quen- ched		冷 Cool		热 Hot	
0 1 0				0.5 0 0 0 0 0 1.0 0.5				0.5				0 0 3 0.01				760															
0 1 0				0.5 0 0 0 0 0 0.5 0.5				1.5				0 0 3 0.00				745															
0 1 0				0.5 0 0 0 0 0 0.5 0.5				1.0				0 0 3 0.00				735															
0 1 0				0.5 0 0 0 0 0 0.5 0.5				0.5				0 0 3 0.00				755															
0 1 0				0.5 0 0 0 0 0 0.5 0.5				1.0				0 0 3 0.00				760															
0 1 0				0.5 0 0 0 0 0 1.0 0.5																											
注:																质量检验专用章				判定员盖章											
Note:																Stamp of Department of Quality Assurance				Stamp of Judge											
许可 211-00087																产品由南京钢铁有限公司材料生产				日期											

说明: ①低倍组织: 缩孔、气泡、裂缝、夹杂、翻皮及白点等, 标准规定不准有的缺陷我公司检验均为零级, 保证无缺陷出厂。此证书复印无效。

Macrostructure: according to the stipulated standard, no defect such as cavity, bubble, crack, inclusion, flake, is regarded as zero grade by inspection from our company.

The products are ensured to deliver without defect. Copying this certificate is invalid.

②用户验货后使用如有异议应及时告知炉号、牌号, 并保留实物和标志。

The heat no. and steel grade will be sent to ours in time by the customer, if the complain would happened after inspection. Keep in the material and the marking card.

公司地址: 中国 南通 张江路 1697 号

邮政编码: 226017

服务电话: 0513-85998122

传真: 0513-85998155

Add: 1697, Zhang Jiang Road, NanTong, China

Post code: 226017

Serve Tel: 0513-85998122

Fax: 0513-85998155

DRAWING

REPORT INDEX

Purchase Order :	2023015
Quantity:	30PCS
Shipment No:	
Shipment Date :	2023 02 22

Activity No.	Characteristics	Reference Page
1.1	DRAWING # (5 1/8" 15M 66-130-M4A)	Page - 2
1.1.1	Metallurgical Test Certificate	Page - 2
1.1.2	Mechanical Testing	Page - 2
1.1.3	Chemical Testing	Page - 2
1.1.4	Heat Treatment	Page - 2
2.1	Hardness Test	Page - 3
2.2	Ultrasonic Testing	Page - 4
2.3	Magnetic Particle Inspection Report	Page - 5
2.4	PENETRANT FLAW DETECTION INSPECT	Page - 6

METALLURGICAL TEST CERTIFICATE

Customer:		Customer PO#:		Date:	2023.02 07
Drawing #:	5 1/8- 15M	Specification:	API Spec 6A/ASTM A370	API Monogram:	Y/N
Part No.:	66-130-M4A	Material:	410 75K	Coating:	
Description:	Balance STEM . 5 .1/8" 15M Bso/hyd 410SS, 75K .PSL3 PR1 LU,				30

TEST CONDITION

Test Bar Size:	100mm*100mm*200mm	Bar Diameter:	Φ 55mm
Melt Practice:	RYR2302010	Reduction Ratio Min.:	38
Yield Stress:	555	Gauge Length:	50-75mm

CHEMICAL COMPOSITION

Mill No.	Qty.	Test No.	C	Mn	Si	S	P	Ni	Cu	Mo	Cr	V
Spec. Min			0.08						-		11.5	-
Spec. Max			0.15	1.00	1.00	0.030	0.035	1.00	-		13.5	
19214021 924	30		0.125	0.41	0.32	0.003	0.017	0.13			11.83	

MECHANICAL COMPOSITION

Heat No.	Quantity	Test No.	Yield Strength (MPa)	Tensile Strength (MPa)	Elongation %	Reduction of Area %	Hardness HB	10mm x 10mm CHARPY J(ft.lb) at -46°C	Minimum Lateral Expansion mm (inch)	Shear Fraction
Spec. Min			75	95	18.0	35.0	197	27J		
Spec. Max							235			
RYR2302 010	30		570	688	26	41	197-235			

HEAT TREATMENT

Forgings			Test Bar (QTC)		
Normalized:	1000°C	2h Oil	Normalized:	1000°C	2h Oil
Quench:	990°C	4h Oil	Quench:	990°C	4h Oil
Temper1:	720°C	6h Air	Temper1:	720°C	6h Air
Temper2:	665°C	6h Air	Temper2:	665°C	6h Air
Start Temp.:	38°C		Start Temp.:	38°C	
End Temp.:	42°C		End Temp.:	42°C	

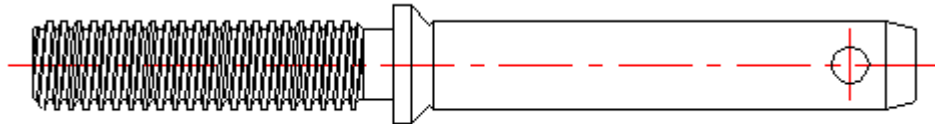
We hereby certify that all test results and procedure information contained herein are correct and true as in contained the records of the company. There have been no weld repairs on these items.

Inspected By:	Wan Zhixiang	Approved By:	Zhu Yonglan
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HARDNESS TEST REPORT

Customer:			Customer PO#:			Date:	2023.02.07	
Drawing #:	5 1/8 -15M	Specification:	API Spec 6A/ASTM E10	API Monogram:	Y/N	Report #:		
Part No.:	66-130-M4A	Material:	410 75K			Coating:		
Description:	Balance STEM . 5 .1/8" 15M Bso/hyd 410SS, 75K .PSL3 PR1 LU,					Quantity:	30	
Item	S/N	Heat Log No.	Hardness	Item	S/N	Heat Log No.	Hardness	
1	RY23-001	RYR2302010	221	17	RY23-017	RYR2302010	222	
2	RY23-002	RYR2302010	221	18	RY23-018	RYR2302010	222	
3	RY23-003	RYR2302010	221	19	RY23-019	RYR2302010	222	
4	RY23-004	RYR2302010	221	20	RY23-020	RYR2302010	222	
5	RY23-005	RYR2302010	221	21	RY23-021	RYR2302010	229	
6	RY23-006	RYR2302010	223	22	RY23-022	RYR2302010	229	
7	RY23-007	RYR2302010	223	23	RY23-023	RYR2302010	229	
8	RY23-008	RYR2302010	223	24	RY23-024	RYR2302010	229	
9	RY23-009	RYR2302010	223	25	RY23-025	RYR2302010	229	
10	RY23-010	RYR2302010	223	26	RY23-026	RYR2302010	225	
11	RY23-011	RYR2302010	227	27	RY23-027	RYR2302010	225	
12	RY23-012	RYR2302010	227	28	RY23-028	RYR2302010	225	
13	RY23-013	RYR2302010	227	29	RY23-029	RYR2302010	225	
14	RY23-014	RYR2302010	227	30	RY23-030	RYR2302010	225	
15	RY23-015	RYR2302010	227					
16	RY23-016	RYR2302010	222					

Sketch:

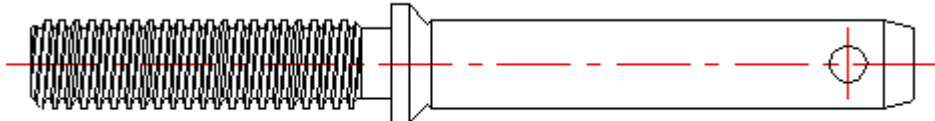


Method Used:	HBW : D10 mm/ 3000kgf / 15s		
Acceptable Hardness:	197-235	Approved By:	Examined By:
Judgments:	[v] Conforms	Zhu Yonglan	Shen Yalin
	[] Does Not Conform		

ULTRASONIC EXAMINATION REPORT

Customer:			Customer PO#:			Date:	2023.02.07
Drawing #:	5- 1/8- 15M	Specification:	API Spec 6A/ASTM A388	API Monogram:	Y/ N	Report #:	
Part No.:	66-130-M4A	Material:	410 75K			Coating:	
Description:	Balance STEM . 5 .1/8" 15M Bso/hyd 410SS, 75K .PSL3 PR1 LU,					Quantity:	30
Item	S/N	Heat Log No.	Result	Item	S/N	Heat Log No.	Result
1	RY23-001	RYR2302010	Acceptable	17	RY23-017	RYR2302010	Acceptable
2	RY23-002	RYR2302010	Acceptable	18	RY23-018	RYR2302010	Acceptable
3	RY23-003	RYR2302010	Acceptable	19	RY23-019	RYR2302010	Acceptable
4	RY23-004	RYR2302010	Acceptable	20	RY23-020	RYR2302010	Acceptable
5	RY23-005	RYR2302010	Acceptable	21	RY23-021	RYR2302010	Acceptable
6	RY23-006	RYR2302010	Acceptable	22	RY23-022	RYR2302010	Acceptable
7	RY23-007	RYR2302010	Acceptable	23	RY23-0223	RYR2302010	Acceptable
8	RY23-008	RYR2302010	Acceptable	24	RY23-024	RYR2302010	Acceptable
9	RY23-009	RYR2302010	Acceptable	25	RY23-025	RYR2302010	Acceptable
10	RY23-010	RYR2302010	Acceptable	26	RY23-026	RYR2302010	Acceptable
11	RY23-011	RYR2302010	Acceptable	27	RY23-027	RYR2302010	Acceptable
12	RY23-012	RYR2302010	Acceptable	28	RY23-028	RYR2302010	Acceptable
13	RY23-013	RYR2302010	Acceptable	29	RY23-029	RYR2302010	Acceptable
14	RY23-014	RYR2302010	Acceptable	30	RY23-030	RYR2302010	Acceptable
15	RY23-015	RYR2302010	Acceptable				
16	RY23-016	RYR2302010	Acceptable				

Sketch:



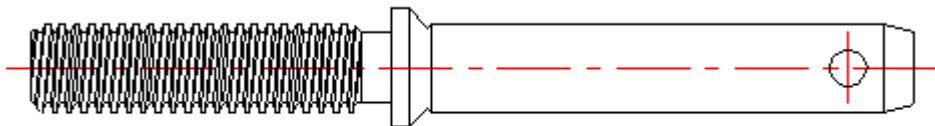
****ABOVE FORGED ARE TESTED ULTRASONICALLY FOR INTERNAL DEFECTS, AND THERE WAS NO RECORDABLE INDICATION OBSERVED DURING THE TEST. HENCE ACCEPTABLE AS PER STANDARD.**

UT Code:	ASME SECTION5	Technique:	Straight/Contact	Examined By:	Meng yi
Exam. Stage:	Rough After	Calibration:	Block:csk-I AACS-1-5	Level as per UT:	II
Equipment:	SUB110	Couplant:	Oil		
Probe Used:	2.5P $\varnothing$ 14	Acceptance Criteria:	API 6A PSL3 EE LU	Approved by:	Meng yi
Instrmt/Ident.#:		Test Gain:	20db+4db	Level as per UT:	II

MAGNETIC PARTICLE INSPECTION REPORT

Customer:				Customer PO#:			Date:	2023.02.07
Drawing #:	5- 1/8- 15M	Specification:	API Spec 6A/ASTM E709	API Monogram:	Y / N	Report #:		
Part No.:	66-130-M4A	Material:	API Spec 6A/ASTM A370			Coating:		
Description:	Balance STEM . 5 .1/8" 15M Bso/hyd 410SS, 75K .PSL3 PR1 LU,					Quantity:	30	
Equipment:	CJW5000	Acceptance Criteria:	API 6A/PSL3		Circular AMPS:			
Test Method:		Particle Type:	WET Fluorescent		UV-Light Intensity:		1500 $\mu\text{W}/\text{CM}^2$	
Stage:		Concentration:	0.2		Magnetizing Time:			
Item	S/N	Heat Log No.	Result	Item	S/N	Heat Log No.	Result	
1	RY23-001	RYR2302010	Acceptable	16	RY23-016	RYR2302010	Acceptable	
2	RY23-002	RYR2302010	Acceptable	17	RY23-017	RYR2302010	Acceptable	
3	RY23-003	RYR2302010	Acceptable	18	RY23-018	RYR2302010	Acceptable	
4	RY23-004	RYR2302010	Acceptable	19	RY23-019	RYR2302010	Acceptable	
5	RY23-005	RYR2302010	Acceptable	20	RY23-020	RYR2302010	Acceptable	
6	RY23-006	RYR2302010	Acceptable	21	RY23-021	RYR2302010	Acceptable	
7	RY23-007	RYR2302010	Acceptable	22	RY23-022	RYR2302010	Acceptable	
8	RY23-008	RYR2302010	Acceptable	23	RY23-023	RYR2302010	Acceptable	
9	RY23-009	RYR2302010	Acceptable	24	RY23-024	RYR2302010	Acceptable	
10	RY23-010	RYR2302010	Acceptable	25	RY23-025	RYR2302010	Acceptable	
11	RY23-011	RYR2302010	Acceptable	26	RY23-026	RYR2302010	Acceptable	
12	RY23-012	RYR2302010	Acceptable	27	RY23-027	RYR2302010	Acceptable	
13	RY23-013	RYR2302010	Acceptable	28	RY23-028	RYR2302010	Acceptable	
14	RY23-014	RYR2302010	Acceptable	29	RY23-029	RYR2302010	Acceptable	
15	RY23-015	RYR2302010	Acceptable	30	RY23-030	RYR2302010	Acceptable	

Sketch/Inspection Coverage:



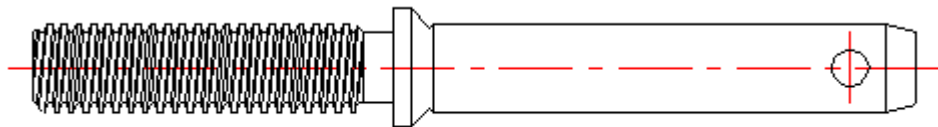
Fluorescent magnetic particle inspection was performed on all accessible wetted/sealing surfaces.

Evaluation & Disposition:	Found to be satisfactory		
Inspected by:	Wan Song	Organization:	QC Department
Approved by:	Zhu Yonglan		
NDT Level:	II	Date:	2023.02.07

PENETRANT FLAW DETECTION INSPECT

Customer:				Customer PO#:			Date:	2023 02.07
Drawing #:	5- 1/8- 15M	Specification:	API Spec 6A/ASTM E709	API Monogram:	Y / N	Report #:		
Part No.:	66-130-M4A	Material:	API Spec 6A/ASTM A370			Coating:		
Description:	Balance STEM . 5 .1/8" 15M Bso/hyd 410SS, 75K .PSL3 PR1 LU,					Quantity:	30	
TYPE:	DPT-5	Acceptance Criteria:	API 6A/PSL3	FACE	GRINDING			
Test Method:	ASTM E165	PENETRATION TIME	10min	DEVELOPE TIME	10min			
Stage:		Concentration:	0.2	Magnetizing Time:				
Item	S/N	Heat Log No.	Result	Item	S/N	Heat Log No.	Result	
1	RY23-001	RYP2302010	Acceptable	16	RY23-016	RYP2302010	Acceptable	
2	RY23-002	RYP2302010	Acceptable	17	RY23-017	RYP2302010	Acceptable	
3	RY23-003	RYP2302010	Acceptable	18	RY23-018	RYP2302010	Acceptable	
4	RY23-004	RYP2302010	Acceptable	19	RY23-019	RYP2302010	Acceptable	
5	RY23-005	RYP2302010	Acceptable	20	RY23-020	RYP2302010	Acceptable	
6	RY23-006	RYP2302010	Acceptable	21	RY23-021	RYP2302010	Acceptable	
7	RY23-007	RYP2302010	Acceptable	22	RY23-022	RYP2302010	Acceptable	
8	RY23-008	RYP2302010	Acceptable	23	RY23-023	RYP2302010	Acceptable	
9	RY23-009	RYP2302010	Acceptable	24	RY23-024	RYP2302010	Acceptable	
10	RY23-010	RYP2302010	Acceptable	25	RY23-025	RYP2302010	Acceptable	
11	RY23-011	RYP2302010	Acceptable	26	RY23-026	RYP2302010	Acceptable	
12	RY23-012	RYP2302010	Acceptable	27	RY23-027	RYP2302010	Acceptable	
13	RY23-013	RYP2302010	Acceptable	28	RY23-028	RYP2302010	Acceptable	
14	RY23-014	RYP2302010	Acceptable	29	RY23-029	RYP2302010	Acceptable	
15	RY23-015	RYP2302010	Acceptable	30	RY23-030	RYP2302010	Acceptable	

Sketch/Inspection Coverage:



Fluorescent magnetic particle inspection was performed on all accessible wetted/sealing surfaces.

Evaluation & Disposition:	Found to be satisfactory		
Inspected by:	Wan Song	Organization:	QC Department
Approved by:	Zhu Yonglan		
NDT Level:	II	Date:	2023.02.07



常熟市吉昌石油机械制造有限公司

Changshu Jichang Petroleum Machinery Manufacturing Co., Ltd

地址/ADD: 江苏省常熟市新港镇浒浦桐坝路 50 号

邮编/POST: 215512

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传真/FAX : 0086-512-52631240

E-mail : nzd@jcsyjx.com

Website : <http://www.jcsyjx.com>

5 1/8" 15 M LOWER STEM (FLSR)

REPORT INDEX

Purchase Order: _____YB18-001_____

Quantity: _____150_____

Shipment No.: _____

Shipment Date: _____

Activity No.	Characteristics	Reference Page
1.1	DRAWING # (<i>for example AB-501-01A</i>)	Page - 2
1.1.1	Metallurgical Test Certificate	Page - 2
1.1.2	Mechanical Testing	Page - 2
1.1.3	Chemical Testing	Page - 2
1.1.4	Heat Treatment	Page - 2
2.1	Hardness Test	Page - 3
2.2	Ultrasonic Testing	Page - 4
2.3	Magnetic Particle Inspection Report	Page - 5



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传真/FAX : 0086-512-52631240

E-mail : nzd@jcsyjx.com

Website : <http://www.jcsyjx.com>

METALLURGICAL TEST CERTIFICATE

Customer:			Customer PO#:			Date:	MAY,2018
Drawing #:	LOWER STEM, FLSR	Specification:	5 1/8” 15M	API Monogram:	N	Heat Log No	B180201
Part No.:	JCLSTFLSR51 5M301~450	Material:	410			Coating:	
Description:	LOWER STEM, FLSR, 5 1/8” 15M					Quantity:	150

TEST CONDITION

Test Bar Size:	75mm	Bar Diameter:	φ 12.7mm
Melt Practice:	LD+LF+RH+CCM	Reduction Ratio Min.:	≥3
Yield Stress:	550kpsi	Gauge Length:	50mm

CHEMICAL COMPOSITION

Mill No.	Qty.	Test No.	C	Mn	Si	S	P	Ni	Cu	Mo	Cr	V
	Spec. Min		0.08								11.5	-
	Spec. Max		0.15	1.00	1.00	0.030	0.040	0.75			13.5	
	Test Data		0.10 5	0.36	0.30	0.004	0.022	0.13			11.75	

MECHANICAL COMPOSITION

Heat No.	Quantity	Test No.	Yield Strength (Kpsi)	Tensile Strength (Kpsi)	Elongation %	Reduction of Area %	Hardness HB	10mm x 10mm CHARPY J(ft.lb) at -46°C	Minimum Lateral Expansion mm (inch)	Shear Fraction
	Spec. Min		355	600	18.0	35.0	197	27J		
	Spec. Max						237			
	Test Data		550	685	38	55	226	58J		

HEAT TREATMENT

Steel pipe		Test Bar (QTC)	
Normalized:		Normalized:	
Quench:		Quench:	1020°C
Temper:		Temper:	680°C
Quenchant:		Quenchant:	Oil
Start Temp.:		Start Temp.:	35°C
End Temp.:		End Temp.:	50°C

We hereby certify that all test results and procedure information contained herein are correct and true as in contained the records of the company. There have been no weld repairs on these items.

Inspected By:	Zhang Weiming	Approved By:	Liu Weixin
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E-mail : nzd@jcsyjx.com

Website : <http://www.jcsyjx.com>

HARDNESS TEST REPORT

Customer:				Customer PO#:			Date:	MAY,2018	
Drawing #:		Specification:	5 1/8" 15M		API Monogram:	N	Report #:		
Part No.:	JCLSTFLSR 515M301 ~450	Material:	410				Coating:		
Description:	LOWER STEM, FLSR, 5 1/8" 15M						Quantity:	150	
Item	S/N	Heat Log No.	Hardness	Item	S/N	Heat Log No.	Hardness		
1	JCLSTFLSR515 M301~450	B180201	226~235						
2									
3									
10									
Sketch									
Method Used:		King Tester Portable 3000KG							
Acceptable Hardness:				Approved By:		Examined By:			
Judgments:		[v] Conforms		Liu Weixin		Zhang Weiming			
		[] Does Not Conform							



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Website : <http://www.jcsyjx.com>

ULTRASONIC EXAMINATION REPORT

Customer:				Customer PO#:			Date:	MAY,2018	
Drawing #:	LOWER STEM FLSR	Specification:	5 1/8" 15M		API Monogram:	N	Report #:		
Part No.:	JCLSTFLSR5 15M301~4 50	Material:	410				Coating:		
Description:	LOWER STEM, FLSR, 5 1/8" 15M						Quantity:	150	
Item	S/N	Heat Log No.	Hardness	Item	S/N	Heat Log No.	Hardness		
1	JCLSTFLSR515 M301~450	B180201	226~235						
2									
3									
4									
Sketch:									
ABOVE FORGED ARE TESTED ULTRASONICALLY FOR INTERNAL DEFECTS, AND THERE WAS NO RECORDABLE INDICATION OBSERVED DURING THE TEST. HENCE ACCEPTABLE AS PER STANDARD.									
UT Code:	001	Technique:	Straight		Examined By:	Zhang Weiming			
Exam. Stage:		Calibration:	3.28",4.92",6.56",9.84"		Level as per UT:	UT2			
Equipment:	CTS-9003	Couplant:	Oil						
Probe Used:	Straight Probe	Acceptance Criteria:	API 6A PSL3 EE LU		Approved by:	Liu Weixin			
Instrmt/Ident.#:	Electronic	Test Gain:	Qualified		Level as per UT:	UT2			



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传真/FAX : 0086-512-52631240

E-mail : nzd@jcsyjx.com

Website : <http://www.jcsyjx.com>

MAGNETIC PARTICLE INSPECTION REPORT

Customer:			Customer PO#:			Date:	MAY,2018
Drawing #:	LOWER STEM FLSR	Specification:	5 1/8” 15M	API Monogram:	N	Report #:	
Part No.:	JCLSTFLSR 515M301~ 450	Material:	410			Quantity:	150
Equipment:	CQE-Type10000	Acceptance Criteria:		API 6A/PSL3	Circular AMPS:		
Test Method:	Fluorescence	Particle Type:			UV-Light Intensity:		
Item	S/N			Item	S/N		
1	JCLSTFLSR515M301~450						
2							
3							

Sketch/Inspection Coverage:

Method	Fluorescent magnetic particle inspection			Solution	0.3ml/100ml		
Current	DC	AC		Black Light Intensity	1500μW/ cm ²		
Coils	√		Turns	5	Amps	1.9KA	
Direct Contact	√		AMPS	3.5KA	Test Block	A: 20/50	
Combination Method	Two Direction Fields	■	Direct Contact&Coil			■	
	Coil &Coil	□	Combination-Coil, Central Cond, Direct Contact			□	
Quantity Tested	150	Accepted	150	Rejected	/	NCR No.	/

Fluorescent magnetic particle inspection was performed on all accessible wetted/sealing surfaces.

Evaluation & Disposition:	Found to be satisfactory		
Inspected by:	Zhang Weiming	Organization:	QC Department
Approved by:	Liu Weixin		
NDT Level:	MT II	Date:	MAY,2018

DRAWING

REPORT INDEX

Purchase Order :	2023023
Quantity:	40PC
Shipment No:	
Shipment Date :	2023 02 28

Activity No.	Characteristics	Reference Page
1.1	DRAWING # (4-1/16-15M X-18791-01)	Page - 2
1.1.1	Metallurgical Test Certificate	Page - 2
1.1.2	Mechanical Testing	Page - 2
1.1.3	Chemical Testing	Page - 2
1.1.4	Heat Treatment	Page - 2
2.1	Hardness Test	Page – 3
2.2	Ultrasonic Testing	Page – 4-5
2.3	Magnetic Particle Inspection Report	Page -6-7
2.4	PENETRANT FLAW DETECTION INSPECT	Page -8-9

METALLURGICAL TEST CERTIFICATE

Customer:		Customer PO#:		Date:	2023 02 21
Drawing #:	4-1/16"-15M	Specification:	API Spec 6A	API Monogram:	Y/N
Part No.:	X-182791-01	Material:	UNS S17400/17-4PH	Coating:	
Description:	Stem,hydraulic 4 1/16" 15M FLSR material drawing 17-4SS,EE LU PSL-3			Quantity:	40

TEST CONDITION

Test Bar Size:	100mm*100mm*200mm	Bar Diameter:	Φ 55mm
Melt Practice:	RYR2302029	Reduction Ratio Min.:	56
Yield Stress:	820	Gauge Length:	55-75mm

CHEMICAL COMPOSITION

Mill No.	Qty.	Test No.	C	Mn	Si	S	P	Ni	Cu	Mo	Cr	Nb
Spec. Min								3.00	3.00		15.00	-
Spec. Max			0.070	1.00	1.00	0.035	0.004	5.00	5.00		17.00	
22ZT0554 1	40		0.052	0.640	0.53	0.030	0.002	3.73	3.12		15.83	0.223

MECHANICAL COMPOSITION

Heat No.	Quantity	Test No.	Yield Strength (MPa)	Tensile Strength (MPa)	Elongation %	Reduction of Area %	Hardness HRC	10mm x 10mm CHARPY J(ft.lb) at -46°C	Minimum Lateral Expansion mm (inch)	Shear Fraction
Spec. Min			725	860	16	50	28			
Spec. Max							33			
RYR230202 9	40		986	1065	20	69	28-33			

HEAT TREATMENT

Herm	Solid melting	Normalize	Precipitation	Precipitation
Furnaceteperature	200°C	--	240°C	140°C
Heating up Rate	With the stove	--	With the stove	With the stove
Holding Temperature	1030°C	--	620°C	620°C
Holding Time	4H	--	6H	6H
Cooling down Rate	--	--	--	--
Out of furnace at	1030°C	--	620°C	620°C
Cooling Media	Water cooling	--	Air cooling	Air cooling

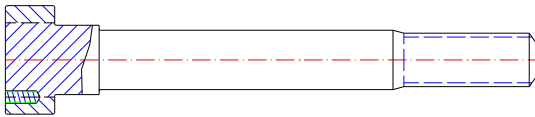
We hereby certify that all test results and procedure information contained herein are correct and true as in contained the records of the company. There have been **no weld repairs** on these items.

Inspected By:	Tao GuoMing	Approved By:	Chen Jun
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HARDNESS TEST REPORT

Customer:			Customer PO#:				Date:	2023 02 21	
Drawing #:	4-1/16"-15M	Specification:	API Spec 6A		API Monogram:	Y / N	Report #:		
Part No.:	X-182791-01	Material:	UNS S17400/17-4PH					Coating:	
Description:	Stem,hydraulic4 1/16" 15M FLSR materlal drawing 17-4SS,EE LU PSL-3						Quantity:	40	
Item	S/N	Heat Log No.	Hardness	Item	S/N	Heat Log No.		Hardness	
1	RY23-001	RYR2302029	31	21	RY23-021	RYR2302029		32	
2	RY23-002	RYR2302029	31	22	RY23-022	RYR2302029		32	
3	RY23-003	RYR2302029	31	23	RY23-023	RYR2302029		30	
4	RY23-004	RYR2302029	32	24	RY23-024	RYR2302029		30	
5	RY23-005	RYR2302029	32	25	RY23-025	RYR2302029		30	
6	RY23-006	RYR2302029	32	26	RY23-026	RYR2302029		29	
7	RY23-007	RYR2302029	32	27	RY23-027	RYR2302029		29	
8	RY23-008	RYR2302029	30	28	RY23-028	RYR2302029		31	
9	RY23-009	RYR2302029	30	29	RY23-029	RYR2302029		31	
10	RY23-010	RYR2302029	29	30	RY23-030	RYR2302029		32	
11	RY23-011	RYR2302029	29	31	RY23-031	RYR2302029		32	
12	RY23-012	RYR2302029	31	32	RY23-032	RYR2302029		30	
13	RY23-013	RYR2302029	31	33	RY23-033	RYR2302029		30	
14	RY23-014	RYR2302029	32	34	RY23-034	RYR2302029		30	
15	RY23-015	RYR2302029	32	35	RY23-035	RYR2302029		29	
16	RY23-016	RYR2302029	30	36	RY23-036	RYR2302029		29	
17	RY23-017	RYR2302029	30	37	RY23-037	RYR2302029		29	
18	RY23-018	RYR2302029	29	38	RY23-038	RYR2302029		31	
19	RY23-019	RYR2302029	29	39	RY23-039	RYR2302029		32	
20	RY23-020	RYR2302029	31	40	RY23-040	RYR2302029		32	

Sketch:



Method Used:			
Acceptable Hardness HRC	28-33	Approved By:	Examined By:
Judgments:	[v] Conforms		

	[] Does Not Conform	Tao GuoMing	Chen Jun
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ULTRASONIC EXAMINATION REPORT

Custo			Customer PO#:		Date:		2023 02 21
Drawin g #:	4-1/16"-15M	Specification:	API Spec 6A	API Monogram:	Y / N	Report #:	
Part No.:	X-182791-01	Material:	UNS S17400/17-4PH			Coating:	
Descri ption:	Stem,hydraulic4 1/16" 15M FLSR materlal drawing 17-4SS,EE LU PSL-3				Quantity:		40

Item	S/N	Heat Log No.	Hardness	Item	S/N	Heat Log No.	Hardness
1	RY23-001	RYR2302029	Acceptable	17	RY23-017	RYR2302029	Acceptable
2	RY23-002	RYR2302029	Acceptable	18	RY23-018	RYR2302029	Acceptable
3	RY23-003	RYR2302029	Acceptable	19	RY23-019	RYR2302029	Acceptable
4	RY23-004	RYR2302029	Acceptable	20	RY23-020	RYR2302029	Acceptable
5	RY23-005	RYR2302029	Acceptable	21	RY23-021	RYR2302029	Acceptable
6	RY23-006	RYR2302029	Acceptable	22	RY23-022	RYR2302029	Acceptable
7	RY23-007	RYR2302029	Acceptable	23	RY23-023	RYR2302029	Acceptable
8	RY23-008	RYR2302029	Acceptable	24	RY23-024	RYR2302029	Acceptable
9	RY23-009	RYR2302029	Acceptable	25	RY23-025	RYR2302029	Acceptable
10	RY23-010	RYR2302029	Acceptable	26	RY23-026	RYR2302029	Acceptable
11	RY23-011	RYR2302029	Acceptable	27	RY23-027	RYR2302029	Acceptable
12	RY23-012	RYR2302029	Acceptable	28	RY23-028	RYR2302029	Acceptable
13	RY23-013	RYR2302029	Acceptable	29	RY23-029	RYR2302029	Acceptable
14	RY23-014	RYR2302029	Acceptable	30	RY23-030	RYR2302029	Acceptable
15	RY23-015	RYR2302029	Acceptable	31	RY23-031	RYR2302029	Acceptable
16	RY23-016	RYR2302029	Acceptable	32	RY23-032	RYR2302029	Acceptable

Sketch:



****ABOVE FORGED ARE TESTED ULTRASONICALLY FOR INTERNAL DEFECTS, AND THERE WAS NO RECORDABLE INDICATION OBSERVED DURING THE TEST. HENCE ACCEPTABLE AS PER STANDARD.**

UT Code:	ASME SECTION5	Technique:	Straight/Contact	Examined By:	Tao GuoMing
Exam. Stage:	After Heat treatment	Calibration:	Block:csk-I AACS-1-5	Level as per UT:	II

Equipment:	CTS-2020	Couplant :	Engine Oil		
Probe Used:	2.5P145p14F30	Acceptance Criteria:	API 6A PSL3 EE LU/ASME SA745	Approved by:	Chen Jun
Instrmt/Ident.#:		Test Gain:	Φ 3.0MM+6dB	Level as per UT:	II

ULTRASONIC EXAMINATION REPORT

Custo			Customer PO#:				Date:	2023 02 21	
Drawin g #:	4-1/16"-15M	Specification:	API Spec 6A		API Monogram:		Y / N	Report #:	
Part No.:	X-182791-01	Material:	UNS S17400/17-4PH				Coating:		
Descri ption:	Stem,hydraulic4 1/16" 15M FLSR materlal drawing 17-4SS,EE LU PSL-3						Quantity:		40
Item	S/N	Heat Log No.	Hardness	Item	S/N	Heat Log No.		Hardness	
33	RY23-033	RYR2302029	Acceptable						
34	RY23-034	RYR2302029	Acceptable						
35	RY23-035	RYR2302029	Acceptable						
36	RY23-036	RYR2302029	Acceptable						
37	RY23-037	RYR2302029	Acceptable						
38	RY23-038	RYR2302029	Acceptable						
39	RY23-039	RYR2302029	Acceptable						
40	RY23-040	RYR2302029	Acceptable						

Sketch:



****ABOVE FORGED ARE TESTED ULTRASONICALLY FOR INTERNAL DEFECTS, AND THERE WAS NO RECORDABLE**

INDICATION OBSERVED DURING THE TEST. HENCE ACCEPTABLE AS PER STANDARD.

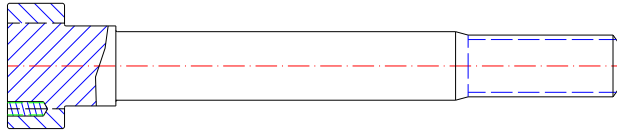
UT Code:	ASME SECTION5	Technique:	Straight/Contact	Examined By:	Tao GuoMing
Exam. Stage:	After Heat treatment	Calibration:	Block:csk-I AACS-1-5	Level as per UT:	II
Equipment:	CTS-2020	Couplant :	Engine Oil		
Probe Used:	2.5P145p14F30	Acceptance Criteria:	API 6A PSL3 EE LU/ASME SA745	Approved by:	Chen Jun
Instrmt/Ident.#:		Test Gain:	Φ 3.0MM+6dB	Level as per UT:	II

MAGNETIC PARTICLE INSPECTION REPORT

Customer:				Customer PO#:				Date:		2023 02 21	
Drawing #:	4-1/16"-15M		Specification:	API Spec 6A		API Monogram:		Y / N	Report #:		
Part No.:	X-182791-01		Material:	UNS S17400/17-4PH				Coating:			
Description:	Stem,hydraulic4 1/16" 15M FLSR material drawing 17-4SS,EE LU PSL-3							Quantity:		40	
Equipment:	CJW5000	Acceptance Criteria:			API 6A/PSL3	Circular AMPS:					
Test Method:		Particle Type:			WET Fluorescent	UV-Light Intensity:				1500 μW/CM²	
Stage:		Concentration:			0.2	Magnetizing Time:					
Item	S/N	Heat Log No.	Hardness	Item	S/N	Heat Log No.	Hardness				
1	RY23-001	RYR2302029	Acceptable	17	RY23-017	RYR2302029	Acceptable				
2	RY23-002	RYR2302029	Acceptable	18	RY23-018	RYR2302029	Acceptable				
3	RY23-003	RYR2302029	Acceptable	19	RY23-019	RYR2302029	Acceptable				
4	RY23-004	RYR2302029	Acceptable	20	RY23-020	RYR2302029	Acceptable				
5	RY23-005	RYR2302029	Acceptable	21	RY23-021	RYR2302029	Acceptable				
6	RY23-006	RYR2302029	Acceptable	22	RY23-022	RYR2302029	Acceptable				

7	RY23-007	RYR2302029	Acceptable	23	RY23-023	RYR2302029	Acceptable
8	RY23-008	RYR2302029	Acceptable	24	RY23-024	RYR2302029	Acceptable
9	RY23-009	RYR2302029	Acceptable	25	RY23-025	RYR2302029	Acceptable
10	RY23-010	RYR2302029	Acceptable	26	RY23-026	RYR2302029	Acceptable
11	RY23-011	RYR2302029	Acceptable	27	RY23-027	RYR2302029	Acceptable
12	RY23-012	RYR2302029	Acceptable	28	RY23-028	RYR2302029	Acceptable
13	RY23-013	RYR2302029	Acceptable	29	RY23-029	RYR2302029	Acceptable
14	RY23-014	RYR2302029	Acceptable	30	RY23-030	RYR2302029	Acceptable
15	RY23-015	RYR2302029	Acceptable	31	RY23-031	RYR2302029	Acceptable
16	RY23-016	RYR2302029	Acceptable	32	RY23-032	RYR2302029	Acceptable

Sketch/Inspection Coverage:



Fluorescent magnetic particle inspection was performed on all accessible wetted/sealing surfaces.

Evaluation & Disposition:	Found to be satisfactory		
Inspected by:	Wan Song	Organization:	QC Department
Approved by:	Zhu Yonglan		
NDT Level:	II	Date:	2023.02.21

MAGNETIC PARTICLE INSPECTION REPORT

Customer:			Customer PO#:			Date:	2023 02 21	
Drawing #:	4-1/16"-15M	Specification:	API Spec 6A	API Monogram:	Y / N	Report #:		
Part No.:	X-182791-01	Material:	UNS S17400/17-4PH			Coating:		
Description:	Stem,hydraulic4 1/16" 15M FLSR material drawing 17-4SS,EE LU PSL-3				Quantity:	40		
Equipment:	CJW5000	Acceptance Criteria:		API 6A/PSL3	Circular AMPS:			
Test Method:		Particle Type:		WET Fluorescent	UV-Light Intensity:			1500 μW/CM²
Stage:		Concentration:		0.2	Magnetizing Time:			
Item	S/N	Heat Log No.	Hardness	Item	S/N	Heat Log No.		Hardness
33	RY23-033	RYR2302029	Acceptable					

34	RY23-034	RYR2302029	Acceptable				
35	RY23-035	RYR2302029	Acceptable				
36	RY23-036	RYR2302029	Acceptable				
37	RY23-037	RYR2302029	Acceptable				
38	RY23-038	RYR2302029	Acceptable				
39	RY23-039	RYR2302029	Acceptable				
40	RY23-040	RYR2302029	Acceptable				
16							

Sketch/Inspection Coverage:



Fluorescent magnetic particle inspection was performed on all accessible wetted/sealing surfaces.

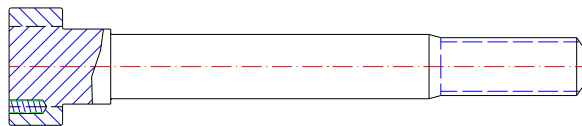
Evaluation & Disposition:	Found to be satisfactory		
Inspected by:	Wan Song	Organization:	QC Department
Approved by:	Zhu Yonglan		
NDT Level:	II	Date:	2022.08.17

PENETRANT FLAW DETECTION INSPECT

Customer:		Customer PO#:		Date:	2023.02 21
Drawing #:	4-1/16"-15M	Specification:	API Spec 6A/ASTM E165	API Monogram:	Y / N
Part No.:	X-182791-01	Material:	API Spec 6A/ASTM A370		Coating:
Description:	Stem,hydraulic4 1/16" 15M FLSR materlal drawing 17-4SS,EE LU PSL-3			Quantity:	40
TYPE:	DPT-5	Acceptance Criteria:	API 6A/PSL3	FACE	GRINDING

Test Method:	ASTM E165	PENETRATION TIME		10min	DEVELOPE TIME		10min
Stage:		Concentration:		0.2	Magnetizing Time:		
Item	S/N	Heat Log No.	Result	Item	S/N	Heat Log No.	Result
01	RY23-001	RYR2302029	Acceptable	16	RY23-016	RYR2302029	Acceptable
02	RY23-002	RYR2302029	Acceptable	17	RY23-017	RYR2302029	Acceptable
03	RY23-003	RYR2302029	Acceptable	18	RY23-018	RYR2302029	Acceptable
04	RY23-004	RYR2302029	Acceptable	19	RY23-019	RYR2302029	Acceptable
05	RY23-005	RYR2302029	Acceptable	20	RY23-020	RYR2302029	Acceptable
06	RY23-006	RYR2302029	Acceptable	21	RY23-021	RYR2302029	Acceptable
07	RY23-007	RYR2302029	Acceptable	22	RY23-022	RYR2302029	Acceptable
08	RY23-008	RYR2302029	Acceptable	23	RY23-023	RYR2302029	Acceptable
09	RY23-009	RYR2302029	Acceptable	24	RY23-024	RYR2302029	Acceptable
10	RY23-010	RYR2302029	Acceptable	25	RY23-025	RYR2302029	Acceptable
11	RY23-011	RYR2302029	Acceptable	26	RY23-026	RYR2302029	Acceptable
12	RY23-012	RYR2302029	Acceptable	27	RY23-027	RYR2302029	Acceptable
13	RY23-013	RYR2302029	Acceptable	28	RY23-028	RYR2302029	Acceptable
14	RY23-014	RYR2302029	Acceptable	29	RY23-029	RYR2302029	Acceptable
15	RY23-015	RYR2302029	Acceptable	30	RY23-030	RYR2302029	Acceptable

Sketch/Inspection Coverage:



Fluorescent magnetic particle inspection was performed on all accessible wetted/sealing surfaces.

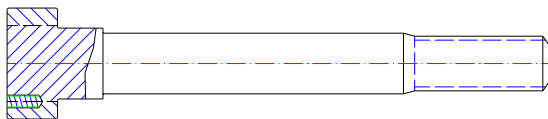
Evaluation & Disposition:	Found to be satisfactory		
Inspected by:	Wan Song	Organization:	QC Department
Approved by:	Zhu Yonglan		
NDT Level:	II	Date:	2023.02 21

PENETRANT FLAW DETECTION INSPECT

Customer:			Customer PO#:			Date:	2023.02 21
Drawing #:	4-1/16"-15M	Specification:	API Spec 6A/ASTM E165	API Monogram:	Y / N	Report #:	
Part No.:	X-182791-01	Material:	API Spec 6A/ASTM A370			Coating:	

Descripti on:	Stem,hydraulic4 1/16" 15M FLSR materlal drawing 17-4SS,EE LU PSL-3				Quantity:	40	
TYPE:	DPT-5	Acceptance Criteria:		API 6A/PSL3	FACE		GRINDING
Test Method:	ASTM E165	PENETRATION TIME		10min	DEVELOPE TIME		10min
Stage:		Concentration:		0.2	Magnetizing Time:		
Item	S/N	Heat Log No.	Result	Item	S/N	Heat Log No.	Result
31	RY22-031	RYR2302029	Acceptable				
32	RY22-032	RYR2302029	Acceptable				
33	RY22-033	RYR2302029	Acceptable				
34	RY22-034	RYR2302029	Acceptable				
35	RY22-035	RYR2302029	Acceptable				
36	RY22-036	RYR2302029	Acceptable				
37	RY22-037	RYR2302029	Acceptable				
38	RY22-038	RYR2302029	Acceptable				
39	RY22-039	RYR2302029	Acceptable				
40	RY22-040	RYR2302029	Acceptable				

Sketch/Inspection Coverage:



Fluorescent magnetic particle inspection was performed on all accessible wetted/sealing surfaces.

Evaluation & Disposition:	Found to be satisfactory		
Inspected by:	Wan Song	Organization:	QC Department
Approved by:	Zhu Yonglan		
NDT Level:	II	Date:	2023.02 21

Wenzhouzhuotai sealing parts co.LTD

CERTIFICATE OF ANALYSIS AND TEST

TO _____ DATE **11/8/2022**

RELEASE NO _____
ORDER NO _____

DESCRIPTION AND SPECIFICATION OF MATERIAL

SPEC. NO:S316L

5-1/8"15M MRING GASKET

NUMBER:**500**

CHEMICAL ANALYSIS

HEAT NO:N220224 AS07	C %	Si %	Mn %	P %	S %	Mo %	Cr %	Al %
	0.026	0.33	0.98	0.036	0.002	2.05	16.30	
	Cu %	Ni %	Fe %	Co %	Ti %	B %	Nb %	W %
		10.05						

THIS MATERIAL IS IN ACCORDANCE WITH AND CONFORMS TO: _____

TENSILE MPa	YIELD MPa	ELONGATION %	REDUCTION %	HARDNESS
580	205	50	50	HRB <82

CHARPYS IMPACT@ 31J

Deg .

Test Piece :

Normalized	:	_____	HRS	_____	MIN	A.C.	Test Coupon
Quenched	:	_____	HRS	_____	MIN	W.Q	Quench Media: does not exceed
Tempered	:	_____	HRS	_____	MIN	A.C	<37.8°C(<100°F)
Hardness	:	_____	BHN	_____			

Parts :

Normalized	:	_____	HRS	_____	MIN	A.C.	Grain Size:
Quenched	:	_____	HRS	_____	MIN	W.Q	Reduction Ratio:
Tempered	:	1010°C-1150°C	HRS	2.5	MIN	A.C	Quench Media: Water
Hardness	:	_____	BHN	_____			
Hardness	:	_____	BHN	_____			

Ultrasonic after Heat Treat :

PER ASTM A388

All heat treat furnaces comply with recommended procedures outlined in API 6A and 14D. Times at temperature are determined by furnace thermocouple.

We hereby certify that the above is the same as the data furnished us by our supplier or resulting from test performed in a recognized laboratory.

Quality Assurance Manager : LIUyangbo

Wenzhouzhuotai sealing parts co.LTD

CERTIFICATE OF ANALYSIS AND TEST

TO _____ DATE 29/6/2022

RELEASE NO _____
ORDER NO _____

DESCRIPTION AND SPECIFICATION OF MATERIAL

SPEC. NO: S316L

4-1/16"15M MRING GASKET

NUMBER: 400

CHEMICAL ANALYSIS

HEAT NO: N220224 AS07	C %	Si %	Mn %	P %	S %	Mo %	Cr %	Al %
	0.026	0.33	0.98	0.036	0.002	2.05	16.30	
	Cu %	Ni %	Fe %	Co %	Ti %	B %	Nb %	W %
		10.05						

THIS MATERIAL IS IN ACCORDANCE WITH AND CONFORMS TO: _____

TENSILE MPa	YIELD MPa	ELONGATION %	REDUCTION %	HARDNESS
580	205	50	50	HRB <82

CHARPYS IMPACT@ 31J

Deg .

Test Piece :

Normalized	:	_____	HRS	_____	MIN	A.C.	Test Coupon
Quenched	:	_____	HRS	_____	MIN	W.Q	Quench Media: does not exceed
Tempered	:	_____	HRS	_____	MIN	A.C	<37.8°C (<100°F)
Hardness	:	_____	BHN	_____			

Parts :

Normalized	:	_____	HRS	_____	MIN	A.C.	Grain Size:
Quenched	:	_____	HRS	_____	MIN	W.Q	Reduction Ratio:
Tempered	:	1010°C-1150°C	HRS	2.5	MIN	A.C	Quench Media: Water
Hardness	:	_____	BHN	_____			
Hardness	:	_____	BHN	_____			

Ultrasonic after Heat Treat : PER ASTM A388

All heat treat furnaces comply with recommended procedures outlined in API 6A and 14D. Times at temperature are determined by furnace thermocouple.

We hereby certify that the above is the same as the data furnished us by our supplier or resulting from test performed in a recognized laboratory.

Quality Assurance Manager : LIUyangbo



DRAWING #

REPORT INDEX

Purchase Order: 2021021(990)

Quantity: 3 EA

Shipment Date: April, 2021

Activity No.	Characteristics	Reference Page
1.1	Material Test Report DRAWING #2021ALAN-13	Page- 2
1.1.1	Metallurgical Test Certificate	Page- 2
1.1.2	Mechanical Testing	Page- 2
1.1.3	Chemical Testing	Page- 2
2.1	Hardness Test Report	Page - 3-5
2.2	Ultrasonic Test Report	Page - 6-8
2.3	Magnetic Particle Inspection Report	Page - 9-11

We hereby certify that all test results and procedure information contained herein are correct and true as in contained the records of the company. There have been no weld repairs on these items.



Certified Material Test Report

Customer		PO No.		Size		WP (psi)		Material		PSL		Temp		Specifications							
		2021021(990)		7-1/16"		15000		EE-NL		PSL3		LU		API SPEC 6A							
Description						Melting Practice		Heat Treatment													
P/N	Parts	Melt No.	H.T. No.	Material Spec	Qty.			Serial No.	Finished	Austenized		Quenched			Temper(1)			Temper(2)			
						Temp (°C)	Time (min)			Medium	Start Temp	Finish Temp	Temp (°C)	Time (min)	Medium	Temp (°C)	Time (min)	Medium			
2021ALAN1301 31JJ1	ELBOW	VDZ2012-27	FH210412-01	AISI 4130 75K	3	LJ202103-001~003	Forging	880	4.0H	WATER	13	23	680	7.0H	AIR	/	/	/			
2021ALAN1302 31JJ1	Ring flange	VDZ2012-27	FH210412-01	AISI 4130 75K	3	LJ202103-004~006	Forging	880	4.0H	WATER	13	23	680	7.0H	AIR	/	/	/			
2021ALAN1303 31JJ1	Threaded Ring flange	VDZ2012-27	FH210412-01	AISI 4130 75K	3	LJ202103-007~009	Forging	880	4.0H	WATER	13	23	680	7.0H	AIR	/	/	/			
Melt No.	H.T. No.	Chemical Analysis (wt, %)											Physical Properties								
		C	Mn	Si	P	S	Cr	Ni	Mo	V	Cu	Nb	Spec Size	Spec Origin	Tensile (MPa)	Yield (MPa)	Elongation (%)	ROA (%)	Impact (-46°C)	Hardness	Equipment Type
VDZ2012-27	FH210412-01	0.282	0.564	0.239	0.024	0.003	0.915	0.09	0.172	0.012	0.06	0.007	5"x5"x8"	QTC	703	532	24	62	50/42/58	220HB	RT2-240-9
VDZ2012-27	FH210412-01	0.282	0.564	0.239	0.024	0.003	0.915	0.09	0.172	0.012	0.06	0.007	5"x5"x8"	QTC	703	532	24	62	50/42/58	220HB	RT2-240-9
VDZ2012-27	FH210412-01	0.282	0.564	0.239	0.024	0.003	0.915	0.09	0.172	0.012	0.06	0.007	5"x5"x8"	QTC	703	532	24	62	50/42/58	220HB	RT2-240-9

Xin Zheng

Name of QA Manager, for and on the authority
of COMPANY NAME

We hereby certify that all test results and procedure information contained herein are correct and true as in contained the records of the company. There have been no weld repairs on these items.



HARDNESS TEST REPORT

Customer:			Customer PO#:	2021021(990)		Date:	April, 2021
Drawing #:	2021ALAN-13-01	Specification:	API Spec 6A /ASTM E10	API Monogram:	6A-2074	Report #:	HM-0422-001
Part No.:	2021ALAN130131JJ1	Material:	4130-75K			Coating:	Red
Description:	7-1/16"15000psi ELBOW					Quantity:	3
Item	S/N	Heat Log No.		Hardness			
1	LJ202103-001	VDZ2012-27		229HB/217HB			
2	LJ202103-002	VDZ2012-27		212HB/217HB			
3	LJ202103-003	VDZ2012-27		217HB/223HB			
Method Used:		Impact Energy: 3000Kg.		Diameter of steel ball: 10mm			
Acceptable Hardness:		197HBW-235HBW		Approved By:		Examined By:	
Judgments:		[√] Conforms		Zhengguo Yao		Xin zheng	
		[] Does Not Conform					

We hereby certify that all test results and procedure information contained herein are correct and true as in contained the records of the company. There have been no weld repairs on these items.



HARDNESS TEST REPORT

Customer:			Customer PO#:	2021021(990)		Date:	April, 2021
Drawing #:	2021ALAN-13-02	Specification:	API Spec 6A /ASTM E10	API Monogram:	6A-2074	Report #:	HM-0422-001
Part No.:	2021ALAN1302 31JJ1	Material:	4130-75K			Coating:	Red
Description:	7-1/16"15000psi Ring flange					Quantity:	3
Item	S/N	Heat Log No.		Hardness			
1	LJ202103-004	VDZ2012-27		219HB			
2	LJ202103-005	VDZ2012-27		221HB			
3	LJ202103-006	VDZ2012-27		219HB			
Method Used:		Impact Energy: 3000Kg.		Diameter of steel ball: 10mm			
Acceptable Hardness:		197HBW-235HBW		Approved By:		Examined By:	
Judgments:		[☒] Conforms		Zhengguo Yao		Xin zheng	
		[☐] Does Not Conform					

We hereby certify that all test results and procedure information contained herein are correct and true as in contained the records of the company. There have been no weld repairs on these items.



HARDNESS TEST REPORT

Customer:		Customer PO#:	2021021(990)	Date:	April, 2021		
Drawing #:	2021ALAN-13-03	Specification:	API Spec 6A /ASTM E10	API Monogram:	6A-2074	Report #:	HM-0422-001
Part No.:	2021ALAN1303 31JJ1	Material:	4130-75K	Coating:	Red		
Description:	7-1/16"15000psi Threaded Ring flange				Quantity:	3	
Item	S/N	Heat Log No.	Hardness				
1	LJ202103-007	VDZ2012-27	225HB				
2	LJ202103-008	VDZ2012-27	223HB				
3	LJ202103-009	VDZ2012-27	219HB				
Method Used:	Impact Energy: 3000Kg.		Diameter of steel ball: 10mm				
Acceptable Hardness:	197HBW-235HBW		Approved By:		Examined By:		
Judgments:	☒ Conforms		Zhengguo Yao		Xin zheng		
	☐ Does Not Conform						

We hereby certify that all test results and procedure information contained herein are correct and true as in contained the records of the company. There have been no weld repairs on these items.



ULTRASONIC EXAMINATION REPORT

Customer:		Customer PO#:		Date:	
Drawing #:		Specification:		API Monogram:	
Part No.:		Material:		Coating:	
Description:	7-1/16"15000psi ELBOW			Quantity:	3
Item	S/N	Heat Log No.	Result		
1	LJ202103-001	VDZ2012-27	Acceptable		
2	LJ202103-002	VDZ2012-27	Acceptable		
3	LJ202103-003	VDZ2012-27	Acceptable		
UT Code:	ASTM A388	Technique:	Straight-beam	Examined By:	Dongkai Xu
Exam. Stage:	Rough After	Calibration:	Block: $\Phi 3.2 + \Phi 6.4$ Flat-bottomed hole	Level as per UT:	II
Equipment:	PXUT-310	Couplant:	Oil		
Probe Used:	2.5MHz $\Phi 20\text{mm}$	Acceptance Criteria:	API 6A-21ST/PSL3	Approved by:	Xin Zheng
		Test Gain:	$\Phi 3.2\text{DAC} + 6\text{dB}$ $\Phi 6.4\text{DAC} + 6\text{dB}$	Level as per UT:	II
Calibration Date:	2020.06	Due Date :	2021.06		

We hereby certify that all test results and procedure information contained herein are correct and true as in contained the records of the company. There have been no weld repairs on these items.



ULTRASONIC EXAMINATION REPORT

Customer:			Customer PO#:	2021021(990)		Date:	2021.04
Drawing #:	2021ALAN-13-02	Specification:	API Spec 6A /ASTM A388	API Monogram:	6A-2074	Report #:	UT210330-02
Part No.:	2021ALAN1302 31JJ1	Material:	4130-75K			Coating:	Red
Description:	7-1/16"15000psi Ring flange					Quantity:	3
Item	S/N	Heat Log No.		Result			
1	LJ202103-004	VDZ2012-27		Acceptable			
2	LJ202103-005	VDZ2012-27		Acceptable			
3	LJ202103-006	VDZ2012-27		Acceptable			
UT Code:	ASTM A388	Technique:	Straight-beam		Examined By:	Dongkai Xu	
Exam. Stage:	Rough After	Calibration:	Block: Φ 3.2 Flat-bottomed hole		Level as per UT:	II	
Equipment:	PXUT-310	Couplant:	Oil				
Probe Used:	2.5MHz Φ 20mm	Acceptance Criteria:	API 6A-21ST/PSL3		Approved by:	Xin Zheng	
		Test Gain:	Φ 3.2DAC+6dB		Level as per UT:	II	
Calibration Date:	2020.06	Due Date :	2021.06				

We hereby certify that all test results and procedure information contained herein are correct and true as in contained the records of the company. There have been no weld repairs on these items.



ULTRASONIC EXAMINATION REPORT

Customer:			Customer PO#:	2021021(990)		Date:	2021.04
Drawing #:	2021ALAN-13-03	Specification:	API Spec 6A /ASTM A388	API Monogram:	6A-2074	Report #:	UT210330-02
Part No.:	2021ALAN13033 1JJ1	Material:	4130-75K			Coating:	Red
Description:	7-1/16"15000psi Threaded Ring flange					Quantity:	3
Item	S/N	Heat Log No.	Result				
1	LJ202103-007	VDZ2012-27	Acceptable				
2	LJ202103-008	VDZ2012-27	Acceptable				
3	LJ202103-009	VDZ2012-27	Acceptable				
UT Code:	ASTM A388	Technique:	Straight-beam		Examined By:	Dongkai Xu	
Exam. Stage:	Rough After	Calibration:	Block: Φ 3.2 Flat-bottomed hole		Level as per UT:	II	
Equipment:	PXUT-310	Couplant:	Oil				
Probe Used:	2.5MHz Φ 20mm	Acceptance Criteria:	API 6A-21ST/PSL3		Approved by:	Xin Zheng	
		Test Gain:	Φ 3.2DAC+6dB		Level as per UT:	II	
Calibration Date:	2020.06	Due Date :	2021.06				

We hereby certify that all test results and procedure information contained herein are correct and true as in contained the records of the company. There have been no weld repairs on these items.



MAGNETIC PARTICLE INSPECTION REPORT

Customer:			Customer PO#:	2021021(990)		Date:	2021.04
Drawing #:	2021ALAN-13-01	Specification:	QJ/JJ07.01.03.01/ ASTM E709	API Monogram:	6A-2074	Report #:	MT201010001
Part No.:	2021ALAN13013 1JJ1	Material:	4130-75K			Coating:	Red
Description:	7-1/16"15000psi ELBOW					Quantity:	3
Equipment:	CYD-5000	Acceptance Criteria:	API 6A-21ST/PSL3	Circular AMPS:		3700A	
Test Method:	Fluorescence Wet Continuous	Particle Type:	Fluorescence	UV-Light Intensity:		7320 μ W/Cm ²	
Stage:	Machined	Concentration:	0.3/100ml	Magnetizing Time:		1-3S	
Item	S/N	Heat Log No.		Result			
1	LJ202103-001	VDZ2012-27		Acceptable			
2	LJ202103-002	VDZ2012-27		Acceptable			
3	LJ202103-003	VDZ2012-27		Acceptable			
Evaluation & Disposition:	Found to be satisfactory						
Inspected by:	Dongkai Xu			Organization:	QC Department		
Approved by:	Xin Zheng						
NDT Level:	MT II			Date:	2021.04		

We hereby certify that all test results and procedure information contained herein are correct and true as in contained the records of the company. There have been no weld repairs on these items.





We hereby certify that all test results and procedure information contained herein are correct and true as in contained the records of the company. There have been no weld repairs on these items.

^
DRAWING #

REPORT INDEX

Purchase Order :	2022052
Quantity:	50PCS
Shipment No:	
Shipment Date :	

Activity No.	Characteristics	Reference Page
1.1	DRAWING # (7 1/16-10M X111128-01)	Page - 2
1.1.1	Metallurgical Test Certificate	Page - 2
1.1.2	Mechanical Testing	Page - 2
1.1.3	Chemical Testing	Page - 2
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2.1	Hardness Test	Page - 3
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2.3	Magnetic Particle Inspection Report	Page – 6-7
2.4	Penetrant Flaw Detection Inspect	Page – 8-9

METALLURGICAL TEST CERTIFICATE

Customer:		Customer PO#:		Date:	2022.03.24
Drawing #:	7- 1/16-10M	Specification:	API Spec 6A/ASTM A370	API Monogram:	Y/N
Part No.:	X111128-01	Material:	410 75K	Coating:	
Description:	STEM . 7 1/16" 10M FLSR , 410SS,API 75K .PSL3 PR1 LU,			Quantity:	50

TEST CONDITION

Test Bar Size:	100mm*100mm*200mm	Bar Diameter:	Φ 55mm
Melt Practice:	HC2203022-08	Reduction Ratio Min.:	38
Yield Stress:	555	Gauge Length:	50-75mm

CHEMICAL COMPOSITION

Mill No.	Qty.	Test No.	C	Mn	Si	S	P	Ni	Cu	Mo	Cr	V
Spec. Min									-		11.5	-
Spec. Max			0.15	1.00	1.00	0.030	0.035	1.00	-		13.5	
21214024 588	50		0.125	0.44	0.30	0.003	0.013	0.13			11.94	

MECHANICAL COMPOSITION

Heat No.	Quantity	Test No.	Yield Strength (MPa)	Tensile Strength (MPa)	Elongation %	Reduction of Area %	Hardness HB	10mm x 10mm CHARPY J(ft.lb) at -46°C	Minimum Lateral Expansion mm (inch)	Shear Fraction
Spec. Min			75	95	18.0	35.0	197	27J		
Spec. Max							235			
HC22030 22-08	50		565	670	35	18	197-235			

HEAT TREATMENT

Forgings			Test Bar (QTC)		
Normalized:	1000°C	2h Oil	Normalized:	1000°C	2h Oil
Quench:	960°C	3h Oil	Quench:	960°C	3.h Oil
Temper1:	720°C	6h Air	Temper1:	720°C	6h Air
Temper2:	680°C	6h Air	Temper2:	680°C	6h Air
Start Temp.:	39°C		Start Temp.:	39°C	
End Temp.:	52°C		End Temp.:	52°C	

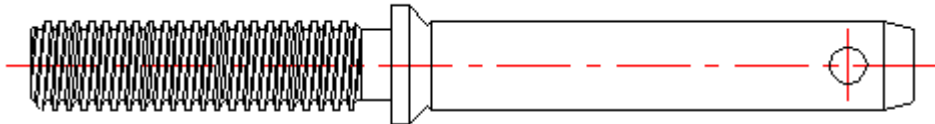
We hereby certify that all test results and procedure information contained herein are correct and true as in contained the records of the company. There have been **no weld repairs** on these items.

Inspected By:	Wan Zhixiang	Approved By:	Zhu Yonglan
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HARDNESS TEST REPORT

Customer:			Customer PO#:			Date:	2022.03.24
Drawing #:	7- 1/16-10M	Specification :	API Spec 6A/ASTM E10	API Monogram:	Y/N	Report #:	
Part No.:	X111128-01	Material:	410 75K			Coating:	
Description:	STEM . 7 1/16" 10M FLSR , 410SS,API 75K .PSL3 PR1 LU					Quantity:	50
Item	S/N	Heat Log No.	Hardness	Item	S/N	Heat Log No.	Hardness
1	RY22-0101	HC2203022-08	222	21	RY22-0121	HC2203022-08	221
2	RY21-0102	HC2203022-08	222	22	RY22-0122	HC2203022-08	221
3	RY22-0103	HC2203022-08	222	23	RY22-0123	HC2203022-08	221
4	RY22-0104	HC2203022-08	222	24	RY22-0124	HC2203022-08	221
5	RY22-0105	HC2203022-08	222	25	RY22-0125	HC2203022-08	221
6	RY22-0106	HC2203022-08	225	26	RY22-0126	HC2203022-08	223
7	RY22-0107	HC2203022-08	225	27	RY22-0127	HC2203022-08	223
8	RY22-0108	HC2203022-08	225	28	RY22-0128	HC2203022-08	223
9	RY22-0109	HC2203022-08	225	29	RY22-0129	HC2203022-08	223
10	RY22-0110	HC2203022-08	225	30	RY22-0130	HC2203022-08	223
11	RY22-0111	HC2203022-08	229	31	RY22-0131	HC2203022-08	229
12	RY22-0112	HC2203022-08	229	32	RY22-0132	HC2203022-08	229
13	RY22-0113	HC2203022-08	229	33	RY22-0133	HC2203022-08	229
14	RY22-0114	HC2203022-08	229	34	RY22-0134	HC2203022-08	229
15	RY22-0115	HC2203022-08	229	35	RY22-0135	HC2203022-08	229
16	RY22-0116	HC2203022-08	227	36	RY22-0136	HC2203022-08	222
17	RY22-0117	HC2203022-08	227	37	RY22-0137	HC2203022-08	222
18	RY22-0118	HC2203022-08	227	38	RY22-0138	HC2203022-08	222
19	RY22-0119	HC2203022-08	227	39	RY22-0139	HC2203022-08	222
20	RY22-0120	HC2203022-08	227	40	RY22-0140	HC2203022-08	222

Sketch:

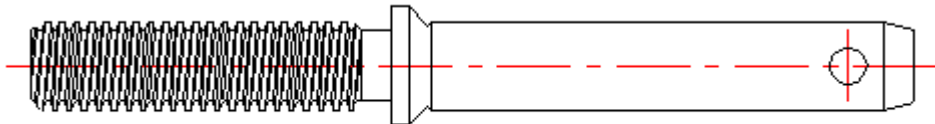


Method Used:	HBW : D10 mm/ 3000kgf / 15s		
Acceptable Hardness:	197-235	Approved By:	Examined By:
Judgments:	[v] Conforms	Zhu Yonglan	Shen Yalin
	[] Does Not Conform		

HARDNESS TEST REPORT

[illegible]

Sketch:

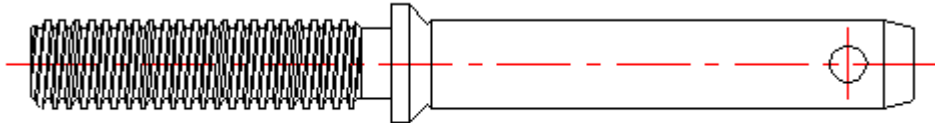


Method Used:	HBW : D10 mm/ 3000kgf / 15s		
Acceptable Hardness:	197-235	Approved By:	Examined By:
Judgments:	[v] Conforms	Zhu Yonglan	Shen Yalin

ULTRASONIC EXAMINATION REPORT

Customer:			Customer PO#:			Date:	2022.03.24	
Drawing #:	7- 1/16-10M	Specification:	API Spec 6A/ASTM A388	API Monogram:	Y/ N	Report #:		
Part No.:	X111128-01	Material:	410 75K			Coating:		
Description:	STEM . 7 1/16" 10M FLSR , 410SS,API 75K .PSL3 PR1 LU					Quantity:	50	
Item	S/N	Heat Log No.	Result	Item	S/N	Heat Log No.	Result	
01	RY22-0101	HC2203022-08	Acceptable	17	RY22-0117	HC2203022-08	Acceptable	
02	RY22-0102	HC2203022-08	Acceptable	18	RY22-0118	HC2203022-08	Acceptable	
03	RY22-0103	HC2203022-08	Acceptable	19	RY22-0119	HC2203022-08	Acceptable	
04	RY22-0104	HC2203022-08	Acceptable	20	RY22-0120	HC2203022-08	Acceptable	
05	RY22-0105	HC2203022-08	Acceptable	21	RY22-0121	HC2203022-08	Acceptable	
06	RY22-0106	HC2203022-08	Acceptable	22	RY22-0122	HC2203022-08	Acceptable	
07	RY22-0107	HC2203022-08	Acceptable	23	RY22-0123	HC2203022-08	Acceptable	
08	RY22-0108	HC2203022-08	Acceptable	24	RY22-0124	HC2203022-08	Acceptable	
09	RY22-0109	HC2203022-08	Acceptable	25	RY22-0125	HC2203022-08	Acceptable	
10	RY22-0110	HC2203022-08	Acceptable	26	RY22-0126	HC2203022-08	Acceptable	
11	RY22-0111	HC2203022-08	Acceptable	27	RY22-0127	HC2203022-08	Acceptable	
12	RY22-0112	HC2203022-08	Acceptable	28	RY22-0128	HC2203022-08	Acceptable	
13	RY22-0113	HC2203022-08	Acceptable	29	RY22-0129	HC2203022-08	Acceptable	
14	RY22-0114	HC2203022-08	Acceptable	30	RY22-0130	HC2203022-08	Acceptable	
15	RY22-0115	HC2203022-08	Acceptable	31	RY22-0131	HC2203022-08	Acceptable	
16	RY22-0116	HC2203022-08	Acceptable	32	RY22-0132	HC2203022-08	Acceptable	

Sketch:



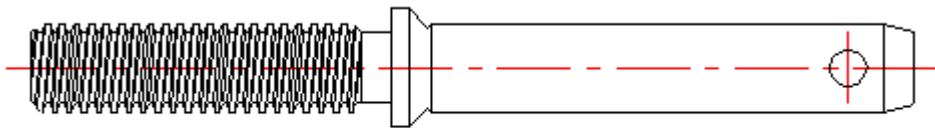
**ABOVE FORGED ARE TESTED ULTRASONICALLY FOR INTERNAL DEFECTS, AND THERE WAS NO RECORDABLE INDICATION OBSERVED DURING THE TEST. HENCE ACCEPTABLE AS PER STANDARD.

UT Code:	ASME SECTION5	Technique:	Straight/Contact	Examined By:	Meng yi
Exam. Stage:	Rough After	Calibration:	Block:csk-I AACS-1-5	Level as per UT:	II
Equipment:	SUB110	Couplant:	Oil		
Probe Used:	2.5P $\varnothing$ 14	Acceptance Criteria:	API 6A PSL3 EE LU	Approved by:	Meng yi
Instrmt/Ident.#:		Test Gain:	20db+4db	Level as per UT:	II

ULTRASONIC EXAMINATION REPORT

Customer:			Customer PO#:			Date:	2022.03.24	
Drawing #:	7- 1/16-10M	Specification:	API Spec 6A/ASTM A388	API Monogram:	Y/ N	Report #:		
Part No.:	X111128-01	Material:	410 75K			Coating:		
Description:	STEM . 7 1/16" 10M FLSR , 410SS,API 75K .PSL3 PR1 LU					Quantity:	50	
Item	S/N	Heat Log No.	Result	Item	S/N	Heat Log No.	Result	
33	RY22-0133	HC2203022-08	Acceptable	49	RY22-0149	HC2203022-08	Acceptable	
34	RY22-0134	HC2203022-08	Acceptable	50	RY22-0150	HC2203022-08	Acceptable	
35	RY22-0135	HC2203022-08	Acceptable					
36	RY22-0136	HC2203022-08	Acceptable					
37	RY22-0137	HC2203022-08	Acceptable					
38	RY22-0138	HC2203022-08	Acceptable					
39	RY22-0139	HC2203022-08	Acceptable					
40	RY22-0140	HC2203022-08	Acceptable					
41	RY22-0141	HC2203022-08	Acceptable					
42	RY22-0142	HC2203022-08	Acceptable					
43	RY22-0143	HC2203022-08	Acceptable					
44	RY22-0144	HC2203022-08	Acceptable					
45	RY22-0145	HC2203022-08	Acceptable					
46	RY22-0146	HC2203022-08	Acceptable					
47	RY22-0147	HC2203022-08	Acceptable					
48	RY22-0148	HC2203022-08	Acceptable					

Sketch:



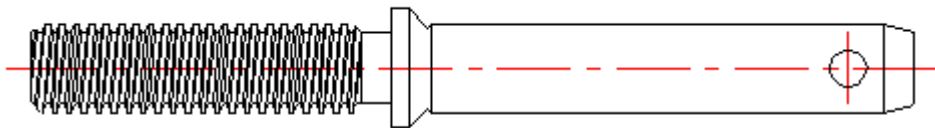
**ABOVE FORGED ARE TESTED ULTRASONICALLY FOR INTERNAL DEFECTS, AND THERE WAS NO RECORDABLE INDICATION OBSERVED DURING THE TEST. HENCE ACCEPTABLE AS PER STANDARD.

UT Code:	ASME SECTION5	Technique:	Straight/Contact	Examined By:	Meng yi
Exam. Stage:	Rough After	Calibration:	Block:csk-I AACS-1-5	Level as per UT:	II
Equipment:	SUB110	Couplant:	Oil		
Probe Used:	2.5P $\varnothing$ 14	Acceptance Criteria:	API 6A PSL3 EE LU	Approved by:	Meng yi
Instrmt/Ident.#:		Test Gain:	20db+4db	Level as per UT:	II

MAGNETIC PARTICLE INSPECTION REPORT

Customer:				Customer PO#:			Date:	2022.03.24
Drawing #:	7- 1/16-10M	Specification:	API Spec 6A/ASTM E709	API Monogram:	Y / N	Report #:		
Part No.:	X111128-01	Material:	API Spec 6A/ASTM A370			Coating:		
Description:	STEM . 7 1/16" 10M FLSR , 410SS,API 75K .PSL3 PR1 LU					Quantity:	50	
Equipment:	CJW5000	Acceptance Criteria:	API 6A/PSL3		Circular AMPS:			
Test Method:		Particle Type:	WET Fluorescent		UV-Light Intensity:		1500 μ W/CM ²	
Stage:		Concentration:	0.2		Magnetizing Time:			
Item	S/N	Heat Log No.	Result	Item	S/N	Heat Log No.	Result	
1	RY22-0101	HC2203022-08	Acceptable	16	RY22-0116	HC2203022-08	Acceptable	
2	RY22-0102	HC2203022-08	Acceptable	17	RY22-0117	HC2203022-08	Acceptable	
3	RY22-0103	HC2203022-08	Acceptable	18	RY22-0118	HC2203022-08	Acceptable	
4	RY22-0104	HC2203022-08	Acceptable	19	RY22-0119	HC2203022-08	Acceptable	
5	RY22-0105	HC2203022-08	Acceptable	20	RY22-0120	HC2203022-08	Acceptable	
6	RY22-0106	HC2203022-08	Acceptable	21	RY22-0121	HC2203022-08	Acceptable	
7	RY22-0107	HC2203022-08	Acceptable	22	RY22-0122	HC2203022-08	Acceptable	
8	RY22-0108	HC2203022-08	Acceptable	23	RY22-0123	HC2203022-08	Acceptable	
9	RY22-0109	HC2203022-08	Acceptable	24	RY22-0124	HC2203022-08	Acceptable	
10	RY22-0110	HC2203022-08	Acceptable	25	RY22-0125	HC2203022-08	Acceptable	
11	RY22-0111	HC2203022-08	Acceptable	26	RY22-0126	HC2203022-08	Acceptable	
12	RY22-0112	HC2203022-08	Acceptable	27	RY22-0127	HC2203022-08	Acceptable	
13	RY22-0113	HC2203022-08	Acceptable	28	RY22-0128	HC2203022-08	Acceptable	
14	RY22-0114	HC2203022-08	Acceptable	29	RY22-0129	HC2203022-08	Acceptable	
15	RY22-0115	HC2203022-08	Acceptable	30	RY22-0130	HC2203022-08	Acceptable	

Sketch/Inspection Coverage:



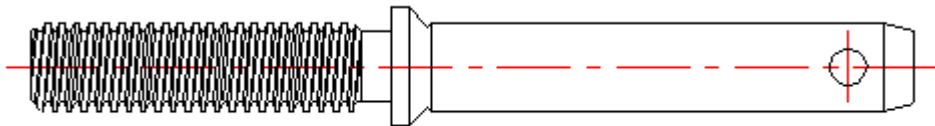
Fluorescent magnetic particle inspection was performed on all accessible wetted/sealing surfaces.

Evaluation & Disposition:	Found to be satisfactory		
Inspected by:	Wan Song	Organization:	QC Department
Approved by:	Zhu Yonglan	Date:	2022.03.24
NDT Level:	II		

MAGNETIC PARTICLE INSPECTION REPORT

Customer:				Customer PO#:			Date:	2022.03.24	
Drawing #:	7-1/16-10M	Specification:	API Spec 6A/ASTM E709		API Monogram:	Y / N	Report #:		
Part No.:	X111128-01	Material:	API Spec 6A/ASTM A370				Coating:		
Description:	STEM . 7 1/16" 10M FLSR , 410SS, API 75K .PSL3 PR1 LU						Quantity:	50	
Equipment:	CJW5000	Acceptance Criteria:		API 6A/PSL3	Circular AMPS:				
Test Method:		Particle Type:		WET Fluorescent	UV-Light Intensity:		1500 $\mu\text{W}/\text{CM}^2$		
Stage:		Concentration:		0.2	Magnetizing Time:				
Item	S/N	Heat Log No.	Result	Item	S/N	Heat Log No.	Result		
31	RY22-0131	HC2203022-08	Acceptable	45	RY22-0145	HC2203022-08	Acceptable		
32	RY22-0132	HC2203022-08	Acceptable	46	RY22-0146	HC2203022-08	Acceptable		
33	RY22-0133	HC2203022-08	Acceptable	47	RY22-0147	HC2203022-08	Acceptable		
34	RY22-0134	HC2203022-08	Acceptable	48	RY22-0148	HC2203022-08	Acceptable		
35	RY22-0135	HC2203022-08	Acceptable	49	RY22-0149	HC2203022-08	Acceptable		
36	RY22-0136	HC2203022-08	Acceptable	50	RY22-0150	HC2203022-08	Acceptable		
37	RY22-0137	HC2203022-08	Acceptable						
38	RY22-0138	HC2203022-08	Acceptable						
39	RY22-0139	HC2203022-08	Acceptable						
40	RY22-0140	HC2203022-08	Acceptable						
41	RY22-0141	HC2203022-08	Acceptable						
42	RY22-0142	HC2203022-08	Acceptable						
43	RY22-0143	HC2203022-08	Acceptable						
44	RY22-0144	HC2203022-08	Acceptable						

Sketch/Inspection Coverage:



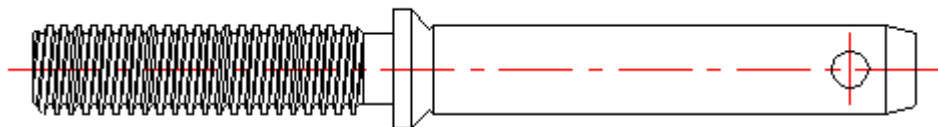
Fluorescent magnetic particle inspection was performed on all accessible wetted/sealing surfaces.

Evaluation & Disposition:	Found to be satisfactory		
Inspected by:	Wan Song	Organization:	QC Department
Approved by:	Zhu Yonglan		
NDT Level:	II	Date:	2022.03.24

PENETRANT FLAW DETECTION INSPECT

Customer:				Customer PO#:			Date:	2022.03.24
Drawing #:	7-1/16-10M	Specification:	API Spec 6A/ASTM E709	API Monogram:	Y / N	Report #:		
Part No.:	X111128-01	Material:	API Spec 6A/ASTM A370			Coating:		
Description:	STEM . 7 1/16" 10M FLSR , 410SS,API 75K .PSL3 PR1 LU					Quantity:	50	
TYPE:	DPT-5	Acceptance Criteria:	API 6A/PSL3		FACE		GRINDING	
Test Method:	ASTM E165	PENETRATION TIME	10min		DEVELOPE TIME		10min	
Stage:		Concentration:	0.2		Magnetizing Time:			
Item	S/N	Heat Log No.	Result	Item	S/N	Heat Log No.	Result	
01	RY22-0101	HC2203022-08	Acceptable	16	RY22-0116	HC2203022-08	Acceptable	
02	RY22-0102	HC2203022-08	Acceptable	17	RY22-0117	HC2203022-08	Acceptable	
03	RY22-0103	HC2203022-08	Acceptable	18	RY22-0118	HC2203022-08	Acceptable	
04	RY22-0104	HC2203022-08	Acceptable	19	RY22-0119	HC2203022-08	Acceptable	
05	RY22-0105	HC2203022-08	Acceptable	20	RY22-0120	HC2203022-08	Acceptable	
06	RY22-0106	HC2203022-08	Acceptable	21	RY22-0121	HC2203022-08	Acceptable	
07	RY22-0107	HC2203022-08	Acceptable	22	RY22-0122	HC2203022-08	Acceptable	
08	RY22-0108	HC2203022-08	Acceptable	23	RY22-0123	HC2203022-08	Acceptable	
09	RY22-0109	HC2203022-08	Acceptable	24	RY22-0124	HC2203022-08	Acceptable	
10	RY22-0110	HC2203022-08	Acceptable	25	RY22-0125	HC2203022-08	Acceptable	
11	RY22-0111	HC2203022-08	Acceptable	26	RY22-0126	HC2203022-08	Acceptable	
12	RY22-0112	HC2203022-08	Acceptable	27	RY22-0127	HC2203022-08	Acceptable	
13	RY22-0113	HC2203022-08	Acceptable	28	RY22-0128	HC2203022-08	Acceptable	
14	RY22-0114	HC2203022-08	Acceptable	29	RY22-0129	HC2203022-08	Acceptable	
15	RY22-0115	HC2203022-08	Acceptable	30	RY22-0130	HC2203022-08	Acceptable	

Sketch/Inspection Coverage:



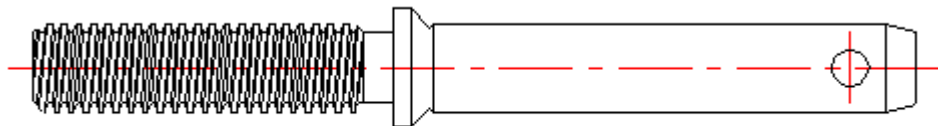
Fluorescent magnetic particle inspection was performed on all accessible wetted/sealing surfaces.

Evaluation & Disposition:	Found to be satisfactory		
Inspected by:	Wan Song	Organization:	QC Department
Approved by:	Zhu Yonglan		
NDT Level:	II	Date:	2022.03.24

PENETRANT FLAW DETECTION INSPECT

Customer:				Customer PO#:			Date:	2022.03.24
Drawing #:	7- 1/16-10M	Specification:	API Spec 6A/ASTM E709	API Monogram:	Y / N	Report #:		
Part No.:	X111128-01	Material:	API Spec 6A/ASTM A370			Coating:		
Description:	STEM . 7 1/16" 10M FLSR , 410SS,API 75K .PSL3 PR1 LU					Quantity:	50	
TYPE:	DPT-5	Acceptance Criteria:	API 6A/PSL3	FACE	GRINDING			
Test Method:	ASTM E165	PENETRATION TIME	10min	DEVELOPE TIME	10min			
Stage:		Concentration:	0.2	Magnetizing Time:				
Item	S/N	Heat Log No.	Result	Item	S/N	Heat Log No.	Result	
31	RY22-0131	HC2203022-08	Acceptable	46	RY22-0146	HC2203022-08	Acceptable	
32	RY22-0132	HC2203022-08	Acceptable	47	RY22-0147	HC2203022-08	Acceptable	
33	RY22-0133	HC2203022-08	Acceptable	48	RY22-0148	HC2203022-08	Acceptable	
34	RY22-0134	HC2203022-08	Acceptable	49	RY22-0149	HC2203022-08	Acceptable	
35	RY22-0135	HC2203022-08	Acceptable	50	RY22-0150	HC2203022-08	Acceptable	
36	RY22-0136	HC2203022-08	Acceptable					
37	RY22-0137	HC2203022-08	Acceptable					
38	RY22-0138	HC2203022-08	Acceptable					
39	RY22-0139	HC2203022-08	Acceptable					
40	RY22-0140	HC2203022-08	Acceptable					
41	RY22-0141	HC2203022-08	Acceptable					
42	RY22-0142	HC2203022-08	Acceptable					
43	RY22-0143	HC2203022-08	Acceptable					
44	RY22-0144	HC2203022-08	Acceptable					
45	RY22-0145	HC2203022-08	Acceptable					

Sketch/Inspection Coverage:



Fluorescent magnetic particle inspection was performed on all accessible wetted/sealing surfaces.

Evaluation & Disposition:	Found to be satisfactory		
Inspected by:	Wan Song	Organization:	QC Department
Approved by:	Zhu Yonglan	Date:	2022.03.24
NDT Level:	II		

Wenzhouzhuotai sealing parts co.LTD

CERTIFICATE OF ANALYSIS AND TEST

TO _____ DATE 6/6/2022
RELEASE NO _____
ORDER NO _____

DESCRIPTION AND SPECIFICATION OF MATERIAL

SPEC. NO: S316L

7 1/16 "10M RING GASKET

NUMBER: 300

CHEMICAL ANALYSIS

HEAT NO: N220224 AS07	C %	Si %	Mn %	P %	S %	Mo %	Cr %	Al %
	0.026	0.33	0.98	0.036	0.002	2.05	16.30	
	Cu %	Ni %	Fe %	Co %	Ti %	B %	Nb %	W %
		10.05						

THIS MATERIAL IS IN ACCORDANCE WITH AND CONFORMS TO: _____

TENSILE MPa	YIELD MPa	ELONGATION %	REDUCTION %	HARDNESS
580	205	50	50	HRB <82

CHARPYS IMPACT@ 31J

Deg .

Test Piece :

Normalized	:	_____	HRS	_____	MIN	A.C.	Test Coupon
Quenched	:	_____	HRS	_____	MIN	W.Q	Quench Media: does not exceed
Tempered	:	_____	HRS	_____	MIN	A.C	<37.8°C (<100°F)
Hardness	:	_____	BHN	_____			

Parts :

Normalized	:	_____	HRS	_____	MIN	A.C.	Grain Size:
Quenched	:	_____	HRS	_____	MIN	W.Q	Reduction Ratio:
Tempered	:	1010°C-1150°C	HRS	2.5	MIN	A.C	Quench Media: Water
Hardness	:	_____	BHN	_____			
Hardness	:	_____	BHN	_____			

Ultrasonic after Heat Treat : PER ASTM A388

All heat treat furnaces comply with recommended procedures outlined in API 6A and 14D. Times at temperature are determined by furnace thermocouple.

We hereby certify that the above is the same as the data furnished us by our supplier or resulting from test performed in a recognized laboratory.

Quality Assurance Manager : yangguangmin

Wenzhouzhuotai sealing parts co.LTD

CERTIFICATE OF ANALYSIS AND TEST

TO _____ DATE 6/6/2022
RELEASE NO _____
ORDER NO _____

DESCRIPTION AND SPECIFICATION OF MATERIAL

SPEC. NO:S316L

7 1/16 "10M RING GASKET

NUMBER:300

CHEMICAL ANALYSIS

HEAT NO:N220224 AS07	C %	Si %	Mn %	P %	S %	Mo %	Cr %	Al %
	0.026	0.33	0.98	0.036	0.002	2.05	16.30	
	Cu %	Ni %	Fe %	Co %	Ti %	B %	Nb %	W %
		10.05						

THIS MATERIAL IS IN ACCORDANCE WITH AND CONFORMS TO: _____

TENSILE MPa	YIELD MPa	ELONGATION %	REDUCTION %	HARDNESS
580	205	50	50	HRB <82

CHARPYS IMPACT@ 31J

Deg .

Test Piece :

Normalized	:	_____	HRS	_____	MIN	A.C.	Test Coupon
Quenched	:	_____	HRS	_____	MIN	W.Q	Quench Media: does not exceed
Tempered	:	_____	HRS	_____	MIN	A.C	<37.8°C (<100°F)
Hardness	:	_____	BHN	_____			

Parts :

Normalized	:	_____	HRS	_____	MIN	A.C.	Grain Size:
Quenched	:	_____	HRS	_____	MIN	W.Q	Reduction Ratio:
Tempered	:	1010°C-1150°C	HRS	2.5	MIN	A.C	Quench Media: Water
Hardness	:	_____	BHN	_____			
Hardness	:	_____	BHN	_____			

Ultrasonic after Heat Treat : PER ASTM A388

All heat treat furnaces comply with recommended procedures outlined in API 6A and 14D. Times at temperature are determined by furnace thermocouple.

We hereby certify that the above is the same as the data furnished us by our supplier or resulting from test performed in a recognized laboratory.

Quality Assurance Manager : yangguangmin

Wenzhouzhuotai sealing parts co.LTD

CERTIFICATE OF ANALYSIS AND TEST

TO _____ DATE 6/6/2022
RELEASE NO _____
ORDER NO _____

DESCRIPTION AND SPECIFICATION OF MATERIAL

SPEC. NO: S316L

7 1/16 "15M RING GASKET

NUMBER: 500

CHEMICAL ANALYSIS

HEAT NO: N220224 AS07	C %	Si %	Mn %	P %	S %	Mo %	Cr %	Al %
	0.026	0.33	0.98	0.036	0.002	2.05	16.30	
	Cu %	Ni %	Fe %	Co %	Ti %	B %	Nb %	W %
		10.05						

THIS MATERIAL IS IN ACCORDANCE WITH AND CONFORMS TO: _____

TENSILE MPa	YIELD MPa	ELONGATION %	REDUCTION %	HARDNESS
580	205	50	50	HRB <82

CHARPYS IMPACT@ 31J

Deg .

Test Piece :

Normalized	:	_____	HRS	_____	MIN	A.C.	Test Coupon
Quenched	:	_____	HRS	_____	MIN	W.Q	Quench Media: does not exceed
Tempered	:	_____	HRS	_____	MIN	A.C	<37.8°C (<100°F)
Hardness	:	_____	BHN	_____			

Parts :

Normalized	:	_____	HRS	_____	MIN	A.C.	Grain Size:
Quenched	:	_____	HRS	_____	MIN	W.Q	Reduction Ratio:
Tempered	:	1010°C-1150°C	HRS	2.5	MIN	A.C	Quench Media: Water
Hardness	:	_____	BHN	_____			
Hardness	:	_____	BHN	_____			

Ultrasonic after Heat Treat : PER ASTM A388

All heat treat furnaces comply with recommended procedures outlined in API 6A and 14D. Times at temperature are determined by furnace thermocouple.

We hereby certify that the above is the same as the data furnished us by our supplier or resulting from test performed in a recognized laboratory.

Quality Assurance Manager : yangguangmin

Wenzhouzhuotai sealing parts co.LTD

CERTIFICATE OF ANALYSIS AND TEST

TO _____ DATE 6/6/2022
RELEASE NO _____
ORDER NO _____

DESCRIPTION AND SPECIFICATION OF MATERIAL

SPEC. NO: S316L

7 1/16 "15M RING GASKET

NUMBER: 500

CHEMICAL ANALYSIS

HEAT NO: N220224 AS07	C %	Si %	Mn %	P %	S %	Mo %	Cr %	Al %
	0.026	0.33	0.98	0.036	0.002	2.05	16.30	
	Cu %	Ni %	Fe %	Co %	Ti %	B %	Nb %	W %
		10.05						

THIS MATERIAL IS IN ACCORDANCE WITH AND CONFORMS TO: _____

TENSILE MPa	YIELD MPa	ELONGATION %	REDUCTION %	HARDNESS
580	205	50	50	HRB <82

CHARPYS IMPACT@ 31J

Deg .

Test Piece :

Normalized	:	_____	HRS	_____	MIN	A.C.	Test Coupon
Quenched	:	_____	HRS	_____	MIN	W.Q	Quench Media: does not exceed
Tempered	:	_____	HRS	_____	MIN	A.C	<37.8°C (<100°F)
Hardness	:	_____	BHN	_____			

Parts :

Normalized	:	_____	HRS	_____	MIN	A.C.	Grain Size:
Quenched	:	_____	HRS	_____	MIN	W.Q	Reduction Ratio:
Tempered	:	1010°C-1150°C	HRS	2.5	MIN	A.C	Quench Media: Water
Hardness	:	_____	BHN	_____			
Hardness	:	_____	BHN	_____			

Ultrasonic after Heat Treat : PER ASTM A388

All heat treat furnaces comply with recommended procedures outlined in API 6A and 14D. Times at temperature are determined by furnace thermocouple.

We hereby certify that the above is the same as the data furnished us by our supplier or resulting from test performed in a recognized laboratory.

Quality Assurance Manager : yangguangmin



REPORT INDEX

Purchase Order:1437

Quantity:1EA

Shipment No.:Crate#AP064F035

Shipment Date:April, 2023

Activity No.	Characteristics	Reference Page
1	CERTIFICATE OF CONFORMITY	Page - 2
2	Metallurgical Test Certificate	Page - 3
2.1	Mechanical Testing	Page - 3
2.2	Chemical Testing	Page -3
2.3	Heat Treatment	Page - 3
3	Hardness Test	Page - 4-12
4	Ultrasonic Testing	Page - 13-17
5	Magnetic Particle Inspection Report	Page - 18-26
6	Hydrostatic Test	Page - 27-28



CERTIFICATE OF CONFORMITY

THE FOLLOWING ITEM IS IN CONFORMITY WITH PO # 1437, DRAWINGS AND ITS TECHNICAL REQUIREMENTS. IT IS MADE PER API – 6A MONOGRAM SPECIFICATIONS, EE-0.5 CLASS, PSL3, PR1, LU. AND IT IS MADE OF MATERIAL (4130,75K YIELD) FOR NACE H2S SERVICE UNDER THE CURRENT NACE MR0175 EDITION.

ITEM:
PO #: 1437
SERIAL NO.: AP064F035
PART NO.: PFFY105/180-00
QANTITY: 1
INSPECTION STANDARD: API Spec 6A 21st EE-0.5, PSL3, PR1, LU

THIS COMMODITY HAS PASSED ALL THE TECHNICAL AND PERFORMANCE TESTS CARRIED BY QUALITY CONTROL/INSPECTION DEPARTMENT.

COMPANY NAME:

(STAMP)

INSPECTOR:Zhicheng Feng

CHIEF ENGINEER: Xin Zheng

EX-FACTORY DATE: April, 2023

Customer: _____

P.O. Number: 1437



No.: AV00012

安澜科技（江苏）股份有限公司

ANLAN TECHNOLOGY (JIANGSU) CO.,LTD
Certified Material Test Report

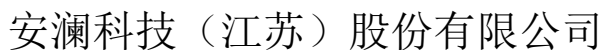
Date:April, 2023

Customer		PO No.		Product			P/N		Serial No.		Qty	Size	WP (psi)	Material	PSL	Temp	Specifications							
		1437		HYDRAULIC GATE VALVE			PFFY105/180-00		AP064F035		1	7-1/16"	15000Psi	EE-0.5	PSL3	LU	API Spec 6A 21st							
Description						Melting Practice			Heat Treatment															
P/N	Parts	Melt No.	H.T. No.	Material Spec Standards	Qty	Serial No.	Finished	Austenized		Quenched			Temper(1)			Temper(2)								
								Temp (°C)	Time (min)	Medium	Start Temp	Finish Temp	Temp (°C)	Time (min)	Medium	Temp (°C)	Time (min)	Medium						
PFFY105/180-00	BODY	TX22-05908	RD-0310-020	AISI 4130 75K,Per ASTM A29	1	AP064044	Forging	865	6.5H	WATER	20	25	660	10.0H	AIR	/	/	/						
	UPPER BONNET	TX22-05906	RD-03-03	AISI 4130 75K,Per ASTM A29	1	AP064093	Forging	860	6.0H	WATER	26	40	670	8.5H	AIR	/	/	/						
	LOWER BONNET	22DV0368	RD-03-09	AISI 4130 75K,Per ASTM A29	1	AS007030	Forging	860	6.0H	WATER	26	38	670	8.0H	AIR	/	/	/						
	STEM	YX2211-1565	HY230222-4	PH17-4 105K,Per ASTM A564/564M	1	AP064311	Forging	1030	3.6H	WATER	15	17	630	5.3H	AIR	630	5.1H	AIR						
	BALANCE STEM	YX2301-1601	HY230211-4	PH17-4 105K,Per ASTM A564/564M	1	AS007088	Forging	1030	3.5H	WATER	14	17	630	5.0H	AIR	630	5.2H	AIR						
	GATE	122V-1118	HC2302005-01	AISI 410 75K,Per ASTM A276/276M	1	AP064584	Forging	960	3.0H	OIL	39	51	720	6.0H	AIR	680	6.0H	AIR						
	BODY BUSHING	122V-1118	HC2302005-01	AISI 410 75K,Per ASTM A276/276M	2	AP064537 AP064533	Forging	960	3.0H	OIL	39	51	720	6.0H	AIR	680	6.0H	AIR						
Melt No.	H.T. No.	Chemical Analysis (wt, %)													Physical Properties									
		C	Mn	Si	P	S	Cr	Ni	Mo	V	Co	W	Cu	Nb	Fe	Spec Size	Spec Origin	Tensile (MPa)	Yield (MPa)	Elongation (%)	ROA (%)	Impact(-46°C) Impact direction (Transverse)	Hardness	Equipment Type
TX22-05908	RD-0310-020	0.31	0.67	0.30	0.009	0.007	1.06	0.20	0.204	0.006	/	/	0.02	/	/	8"x8"x10"	QTC	710	535	26.0	68.0	39/46/75	221HBW	JBW-300B/ WDW-300
TX22-05906	RD-03-03	0.31	0.67	0.26	0.009	0.003	1.04	0.20	0.217	0.006	/	/	0.02	/	/	8"x8"x10"	QTC	678	558	55.0	51.0	62/60/55	220HBW	JBW-300B/ WDW-300
22DV0368	RD-03-09	0.316	0.732	0.301	0.008	0.004	1.08	0.25	0.216	0.007	/	/	0.091	/	/	8"x8"x10"	QTC	680	558	54.0	58.0	61/66/56	220HBW	JBW-300B/ WDW-300
YX2211-1565	HY230222-4	0.021	0.50	0.41	0.028	0.001	15.66	4.08	/	/	/	/	3.61	0.226	/	φ80x200	QTC	1017	941	20.4	57.5	45/33/51	32HRC	JBW-300B/ WDW-300
YX2301-1601	HY230211-4	0.026	0.56	0.41	0.032	0.001	15.70	4.08	/	/	/	/	3.63	0.240	/	φ80x200	QTC	1018	933	21.2	57.5	55/59/40	31HRC	JBW-300B/ WDW-300
122V-1118	HC2302005-01	0.14	0.40	0.22	0.012	0.006	11.66	0.06	0.042	0.034	/	/	0.027	/	/	100x100x200	QTC	690	580	24.0	66.0	/	226HBW	JBW-300B/ WDW-300
122V-1118	HC2302005-01	0.14	0.40	0.22	0.012	0.006	11.66	0.06	0.042	0.034	/	/	0.027	/	/	100x100x200	QTC	690	580	24.0	66.0	/	226HBW	JBW-300B/ WDW-300

This is to certify that all above items have been tested and inspected per scope of specifications, drawings, and the purchase order and have been found to be satisfactory.

The information in this report is true and correct to our knowledge.

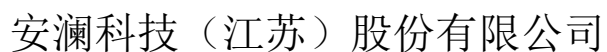
_____Xin Zheng_____
NAME of QA Manager, for and on the authority of COMPANY NAME



ANLAN TECHNOLOGY (JIANGSU) CO.,LTD

[illegible]

Method Used:	Impact Energy: 3000Kg.	Diameter of tungsten ball: 10mm	
Acceptable Hardness:	197HBW-235HBW	Approved By:	Examined By:
Judgments:	[V] Conforms	Xin zheng	Zhengguo Yao
	[] Does Not Conform		

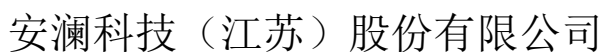


ANLAN TECHNOLOGY (JIANGSU) CO.,LTD

[illegible]

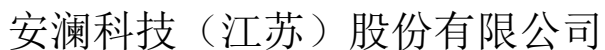
The technical drawing consists of two views of a mechanical assembly. The top view is a cross-section showing a shaft with a key, a pulley, and a housing. The shaft is connected to the pulley, and the pulley is mounted on the shaft. The housing is shown in cross-section, with the shaft passing through it. The bottom view is a side view of the pulley, showing its profile and the shaft passing through its center. The drawing is a technical illustration of a mechanical assembly, likely a pulley system, showing the shaft, pulley, and housing in cross-section and side view.

Method Used:	Impact Energy: 3000Kg.	Diameter of tungsten ball: 10mm	
Acceptable Hardness:	197HBW-235HBW	Approved By:	Examined By:
Judgments:	[V] Conforms	Xin zheng	Zhengguo Yao
	[] Does Not Conform		



ANLAN TECHNOLOGY (JIANGSU) CO.,LTD

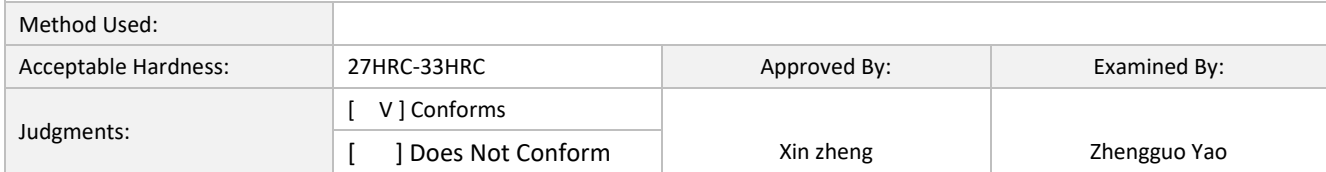
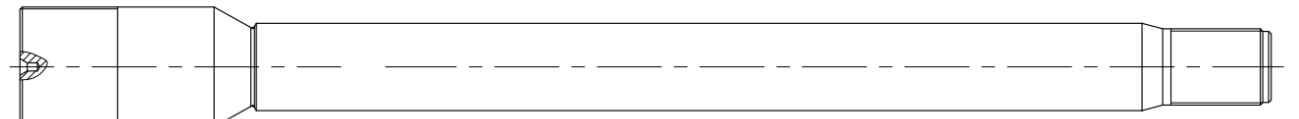
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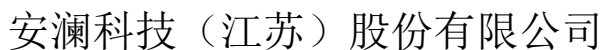


ANLAN TECHNOLOGY (JIANGSU) CO.,LTD

HARDNESS TEST REPORT

Sketch:





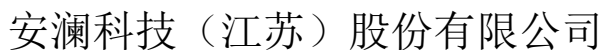
ANLAN TECHNOLOGY (JIANGSU) CO.,LTD

Customer:			Customer PO#:			Date:	
Drawing #:	PFFY105/180-00	Specification:	API Spec 6A 21st /ASTM E10		API Monogram:	6A-2074	Report #: 20230303-01
Part No.:	X-182589-01	Material:	AISI 410 75K				Coating: /
Description:	7-1/16"15000psi Gate					Quantity:	1
Item	S/N	Heat Log No.	Hardness	Item	S/N	Heat Log No.	Hardness
1	AP064584	HC2302005-01	225HBW				

Sketch:

A technical drawing of a gate valve body. It features two large circular openings representing the ports. Each port has a horizontal centerline indicated by a dashed line passing through its center. The entire assembly is enclosed within a rectangular frame with rounded corners. There are four small, detailed drawings at the corners of the main rectangle, likely representing mounting or connection details. On the right side, there are additional mechanical details, possibly indicating where the valve handle or actuator would attach. A vertical dashed line runs down the middle between the two ports.

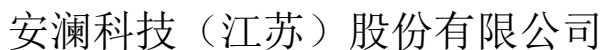
Method Used:	Impact Energy: 3000Kg.	Diameter of tungsten ball: 10mm
Acceptable Hardness:	207HBW-235HBW	Approved By:
Judgments:	[V] Conforms [] Does Not Conform	Xin zheng
		Zhengguo Yao



ANLAN TECHNOLOGY (JIANGSU) CO.,LTD

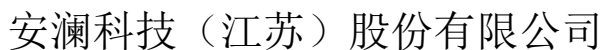
[illegible][illegible]

Method Used:	Impact Energy: 5Kg-f(49.03N).		
Acceptable Hardness:	≥1050HV	Approved By:	Examined By:
Judgments:	[V] Conforms	Xin zheng	Zhengguo Yao
	[] Does Not Conform		



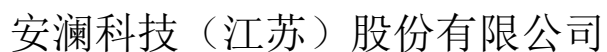
HARDNESS TEST REPORT

10



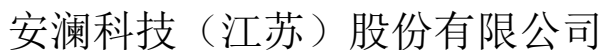
ANLAN TECHNOLOGY (JIANGSU) CO.,LTD

Customer:			Customer PO#:			Date:	
Drawing #:	PFFY105/180-00	Specification:	API Spec 6A 21st /ASTM E92	API Monogram:	6A-2074	Report #:	20230303-04
Part No.:	X-182590-01	Material:	AISI 410 75K			Coating:	WC
Description:	7-1/16"15000psi Body bushing					Quantity:	2
Item	S/N	Heat Log No.	Hardness	Item	S/N	Heat Log No.	Hardness
1	AP064537	HC2302005-01	1171HV				
2	AP064533	HC2302005-01	1197HV				
Sketch:							
Method Used:		Impact Energy: 5Kg-f(49.03N).					
Acceptable Hardness:		≥1050HV		Approved By:		Examined By:	
Judgments:		[V] Conforms		Xin zheng		Zhengguo Yao	
		[] Does Not Conform					



ANLAN TECHNOLOGY (JIANGSU) CO.,LTD

Customer:				Customer PO#:	1437		Date:	2023.03
Drawing #:	PFFY105/180-00	Specification:	API Spec 6A 21st /ASTM E18	API Monogram:	6A-2074	Report #:	HS-0321-001	
Part No.:	X-182591-01	Material:	PH17-4 105K			Coating:	/	
Description:	7-1/16"15000psi Balance Stem					Quantity:	1	
Item	S/N	Heat Log No.	Hardness	Item	S/N	Heat Log No.	Hardness	
1	AS007088	HY230211-4	29HRC					
Sketch:								
Method Used:								
Acceptable Hardness:	27HRC-33HRC		Approved By:		Examined By:			
Judgments:	[V] Conforms		Xin zheng		Zhengguo Yao			
	[] Does Not Conform							



ANLAN TECHNOLOGY (JIANGSU) CO.,LTD

[illegible]

UT Code:	ASTM A388	Technique:	STRAIGHT PROBE	Examined By:	Dongkai Xu
Exam. Stage:	Rough After	Calibration:	Block: CSK -I A Φ 1.6 FBH Block Φ 3.2 FBH Block Φ 6.4 FBH Block	Level as per UT:	II
Equipment:	MUT-800C	Couplant:	OIL		
Date of calibration	2023.03.02				
Period of validity	2024.03.02				
Probe Used:	2.5P ∅ 14+ ∅ 20	Acceptance Criteria:	API Spec. 6A 21st	Approved by:	Xin Zheng
Instrmnt/Ident.#:	FD14082504	Test Gain:	Φ 1.6DAC+6dB Φ 3.2DAC+6dB Φ 6.4DAC+6dB	Level as per UT:	II



安澜科技（江苏）股份有限公司

ANLAN TECHNOLOGY (JIANGSU) CO.,LTD

ULTRASONIC EXAMINATION REPORT

Customer:			Customer PO#:			Date:	
Drawing #:		Specification:		API Monogram:		Report #:	
Part No.:		Material:				Coating:	
Description:	7-1/16"15000psi Upper Bonnet					Quantity:	1
Item	S/N	Heat Log No.	Result	Item	S/N	Heat Log No.	Result
1	AP064093	RD-03-03	Acceptable				
ABOVE FORGED ARE TESTED ULTRASONICALLY FOR INTERNAL DEFECTS, AND THERE WAS NO RECORDABLE INDICATION OBSERVED DURING THE TEST. HENCE ACCEPTABLE AS PER STANDARD.							
UT Code:	ASTM A388	Technique:	STRAIGHT PROBE		Examined By:	Dongkai Xu	
Exam. Stage:	Rough After	Calibration:	Block: CSK -I A Φ 1.6 FBH Block Φ 3.2 FBH Block		Level as per UT:	II	
Equipment:	MUT-800C	Couplant:	OIL				
Date of calibration	2023.03.02						
Period of validity	2024.03.02						
Probe Used:	2.5P Φ 14+ Φ 20	Acceptance Criteria:	API Spec. 6A 21st		Approved by:	Xin Zheng	
Instrmt/Ident.#:	FD14082504	Test Gain:	Φ 1.6DAC+6dB Φ 3.2DAC+6dB		Level as per UT:	II	



安澜科技（江苏）股份有限公司

ANLAN TECHNOLOGY (JIANGSU) CO.,LTD

ULTRASONIC EXAMINATION REPORT

Customer:				Customer PO#:	1437		Date:	2023.03	
Drawing #:	PFFY105/180-00	Specification:	API Spec 6A 21st /ASTM A388		API Monogram:	6A-2074	Report #:	UTS-0310-00 1	
Part No.:	X-182586-01	Material:	AISI 4130 75K				Coating:	/	
Description:	7-1/16"15000psi Lower Bonnet						Quantity:	1	
Item	S/N	Heat Log No.	Result	Item	S/N	Heat Log No.	Result		
1	AS007030	RD-03-09	Acceptable						
ABOVE FORGED ARE TESTED ULTRASONICALLY FOR INTERNAL DEFECTS, AND THERE WAS NO RECORDABLE INDICATION OBSERVED DURING THE TEST. HENCE ACCEPTABLE AS PER STANDARD.									
UT Code:	ASTM A388		Technique:	STRAIGHT PROBE		Examined By:	Dongkai Xu		
Exam. Stage:	Rough After		Calibration:	Block: CSK -I A Φ 1.6 FBH Block Φ 3.2 FBH Block		Level as per UT:	II		
Equipment:	MUT-800C		Couplant:	OIL					
Date of calibration	2023.03.02								
Period of validity	2024.03.02								
Probe Used:	2.5P Φ 14+ Φ 20		Acceptance Criteria:	API Spec. 6A 21st		Approved by:	Xin Zheng		
Instrmt/Ident.#:	FD14082504		Test Gain:	Φ 1.6DAC+6dB Φ 3.2DAC+6dB		Level as per UT:	II		



安澜科技（江苏）股份有限公司

ANLAN TECHNOLOGY (JIANGSU) CO.,LTD

ULTRASONIC EXAMINATION REPORT

Customer:				Customer PO#:	1437		Date:	2023.03	
Drawing #:	PFFY105/180-00	Specification:	API Spec 6A 21st /ASTM A388	API Monogram:	6A-2074		Report #:	UTS-0302-00 1	
Part No.:	X-182716-01	Material:	PH17-4 105K			Coating:	/		
Description:	7-1/16"15000psi Stem					Quantity:	1		
Item	S/N	Heat Log No.	Result	Item	S/N	Heat Log No.	Result		
1	AP064311	HY230222-4	Acceptable						
ABOVE FORGED ARE TESTED ULTRASONICALLY FOR INTERNAL DEFECTS, AND THERE WAS NO RECORDABLE INDICATION OBSERVED DURING THE TEST. HENCE ACCEPTABLE AS PER STANDARD.									
UT Code:	ASTM A388		Technique:	STRAIGHT PROBE		Examined By:	Dongkai Xu		
Exam. Stage:	Rough After		Calibration:	Block: CSK -I A Φ 1.6 FBH Block Φ 3.2 FBH Block		Level as per UT:	II		
Equipment:	MUT-800C		Couplant:	OIL					
Date of calibration	2023.03.02								
Period of validity	2024.03.02								
Probe Used:	2.5P Φ 14+ Φ 20		Acceptance Criteria:	API Spec. 6A 21st		Approved by:	Xin Zheng		
Instrmt/Ident.#:	FD14082504		Test Gain:	Φ 1.6DAC+6dB Φ 3.2DAC+6dB		Level as per UT:	II		

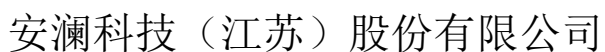


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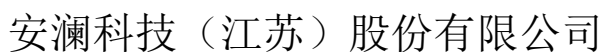
ULTRASONIC EXAMINATION REPORT

Customer:			Customer PO#:			Date:	
Drawing #:	PFFY105/180-00	Specification:	API Spec 6A 21st /ASTM A388	API Monogram:	6A-2074	Report #:	UTS-0315-001
Part No.:	X-182591-01	Material:	PH17-4 105K			Coating:	/
Description:	7-1/16"15000psi Balance Stem					Quantity:	1
Item	S/N	Heat Log No.	Result	Item	S/N	Heat Log No.	Result
1	AS007088	HY230211-4	Acceptable				
ABOVE FORGED ARE TESTED ULTRASONICALLY FOR INTERNAL DEFECTS, AND THERE WAS NO RECORDABLE INDICATION OBSERVED DURING THE TEST. HENCE ACCEPTABLE AS PER STANDARD.							
UT Code:	ASTM A388	Technique:	STRAIGHT PROBE		Examined By:	Dongkai Xu	
Exam. Stage:	Rough After	Calibration:	Block: CSK -I A Φ 1.6 FBH Block Φ 3.2 FBH Block		Level as per UT:	II	
Equipment:	MUT-800C	Couplant:	OIL				
Date of calibration	2023.03.02						
Period of validity	2024.03.02						
Probe Used:	2.5P Φ 14+Φ 20	Acceptance Criteria:	API Spec. 6A 21st		Approved by:	Xin Zheng	
Instrmt/Ident.#:	FD14082504	Test Gain:	Φ 1.6DAC+6dB Φ 3.2DAC+6dB		Level as per UT:	II	



MAGNETIC PARTICLE INSPECTION REPORT

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[illegible]

Fluorescent magnetic particle inspection was performed on all accessible wetted/sealing surfaces.

Evaluation & Disposition:	Found to be satisfactory		
Inspected by:	Dongkai Xu	Organization:	QC Department
Approved by:	Xin Zheng		
NDT Level:	MT II	Date:	2023.03

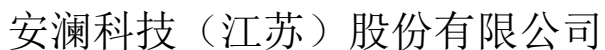


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ANLAN TECHNOLOGY (JIANGSU) CO.,LTD

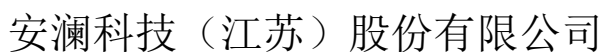
MAGNETIC PARTICLE INSPECTION REPORT

Customer:				Customer PO#:	1437		Date:	2023.03	
Drawing #:	PFFY105/180-00	Specification:	API Spec 6A 21st /ASTM E709		API Monogram:	6A-2074	Report #:	MTS-0320-001	
Part No.:	X-182586-01	Material:	AISI 4130 75K				Coating:	/	
Description:	7-1/16"15000psi Lower Bonnet						Quantity:	1	
Equipment:	CYD-5000	Acceptance Criteria:	API 6A 21st/PSL3		Circular AMPS:		2500A 3500A		
Test Method:	Fluorescence Wet Continuous	Particle Type:	Fluorescence		UV-Light Intensity:		3490Uw/cm ²		
Stage:	Machined	Concentration:	0.2ml/100ml		Magnetizing Time:		1-3S		
Item	S/N	Heat Log No.	Result	Item	S/N	Heat Log No.	Result		
1	AS007030	RD-03-09	Acceptable						
Inspection Coverage:									
Fluorescent magnetic particle inspection was performed on all accessible wetted/sealing surfaces.									
Evaluation & Disposition:	Found to be satisfactory								
Inspected by:	Dongkai Xu				Organization:	QC Department			
Approved by:	Xin Zheng				Date:	2023.03			
NDT Level:	MT II				Date:	2023.03			



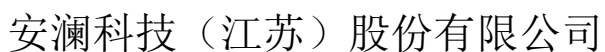
ANLAN TECHNOLOGY (JIANGSU) CO.,LTD

Customer:		Customer PO#:	1437		Date:	2023.03	
Drawing #:	PFFY105/180-00	Specification:	QJ/JJ07.01.03.02/ ASTM E165	API Monogram:	6A-2074	Report #:	PTS-0304-001
Part No.:	X-182716-01	Material:	PH17-4-105K			Coating:	/
Description:	7-1/16"15000psi Stem					Quantity:	1
Test Method:	Type II Method C	Acceptance Criteria:	API 6A 21st/PSL3	Penetrate Type:		DPT-5	
Remover Type:	DPT-5	Developer Type:	DPT-5	Light Intensity:		≥1076Lx	
Stage:	Machined	Penetrate Time:	10min	Develop Time:		10min	
Item	S/N	Heat Log No.	Result	Item	S/N	Heat Log No.	Result
1	AP064311	HY230222-4	Acceptable				
Inspection Coverage:							
Liquid penetrate examination was performed on all accessible wetted/sealing surfaces.							
Evaluation & Disposition:	Found to be satisfactory						
Inspected by:	Dongkai Xu			Organization:	QC Department		
Approved by:	Xin Zheng						
NDT Level:	MT II			Date:	2023.03		



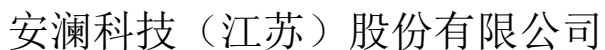
MAGNETIC PARTICLE INSPECTION REPORT

22



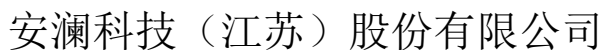
LIQUID PENETRATE EXAMINATION

23



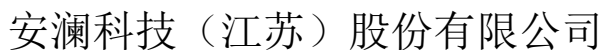
ANLAN TECHNOLOGY (JIANGSU) CO.,LTD

Customer:			Customer PO#:	1437		Date:	2023.03	
Drawing #:	PFFY105/180-00	Specification:	API Spec 6A 21st /ASTM E709	API Monogram:	6A-2074	Report #:	NCS-2303-Q03	
Part No.:	X-182590-01	Material:	AISI 410 75K			Coating:	/	
Description:	7-1/16"15000psi Body Bushing					Quantity:	2	
Equipment:	CYD-5000	Acceptance Criteria:	API 6A 21st/PSL3		Circular AMPS:		3200A	
Test Method:	Fluorescence Wet Continuous	Particle Type:	Fluorescence		UV-Light Intensity:		≥1000Uw/cm²	
Stage:	Machined	Concentration:	0.2ml/100ml		Magnetizing Time:		1-3S	
Item	S/N	Heat Log No.	Result	Item	S/N	Heat Log No.	Result	
1	AP064537	HC2302005-01	Acceptable					
2	AP064533	HC2302005-01	Acceptable					
Inspection Coverage:								
Fluorescent magnetic particle inspection was performed on all accessible wetted/sealing surfaces.								
Evaluation & Disposition:		Found to be satisfactory						
Inspected by:		Dongkai Xu		Organization:		QC Department		
Approved by:		Xin Zheng						
NDT Level:		MT II		Date:		2023.03		



ANLAN TECHNOLOGY (JIANGSU) CO.,LTD

Customer:			Customer PO#:	1437		Date:	2023.03	
Drawing #:	PFFY105/180-00	Specification:	QJ/JJ07.01.03.02/ ASTM E165	API Monogram:	6A-2074	Report #:	NCS-2303-H03	
Part No.:	X-182590-01	Material:	AISI 410 75K			Coating:	WC	
Description:	7-1/16"15000psi Body Bushing					Quantity:	2	
Test Method:	Type II Method C	Acceptance Criteria:		API 6A 21st/PSL3	Penetrate Type:		DPT-5	
Remover Type:	DPT-5	Developer Type:		DPT-5	Light Intensity:		≥1076Lx	
Stage:	Machined	Penetrate Time:		10min	Develop Time:		10min	
Item	S/N	Heat Log No.	Result	Item	S/N	Heat Log No.	Result	
1	AP064537	HC2302005-01	Acceptable					
2	AP064533	HC2302005-01	Acceptable					
Inspection Coverage:								
Liquid penetrate examination was performed on all accessible wetted/sealing surfaces.								
Evaluation & Disposition:		Found to be satisfactory						
Inspected by:		Dongkai Xu			Organization:		QC Department	
Approved by:		Xin Zheng						
NDT Level:		MT II			Date:		2023.03	



ANLAN TECHNOLOGY (JIANGSU) CO.,LTD

Customer:			Customer PO#:	1437		Date:	2023.03	
Drawing #:	PFFY105/180-00	Specification:	QJ/JJ07.01.03.02/ ASTM E165		API Monogram:	6A-2074	Report #:	PTS-0321-002
Part No.:	X-182591-01	Material:	PH17-4-105K				Coating:	/
Description:	7-1/16"15000psi Balance Stem						Quantity:	1
Test Method:	Type II Method C	Acceptance Criteria:		API 6A 21st/PSL3		Penetrate Type:		DPT-5
Remover Type:	DPT-5	Developer Type:		DPT-5		Light Intensity:		≥1076Lx
Stage:	Machined	Penetrate Time:		10min		Develop Time:		10min
Item	S/N	Heat Log No.	Result	Item	S/N	Heat Log No.	Result	
1	AS007088	HY230211-4	Acceptable					
Inspection Coverage:								
Liquid penetrate examination was performed on all accessible wetted/sealing surfaces.								
Evaluation & Disposition:		Found to be satisfactory						
Inspected by:		Dongkai Xu			Organization:		QC Department	
Approved by:		Xin Zheng						
NDT Level:		MT II			Date:		2023.03	



安澜科技（江苏）股份有限公司

ANLAN TECHNOLOGY (JIANGSU) CO.,LTD

HYDROSTATIC TEST REPORT

Customer:				Customer PO#:	1437		Date:	2023.03	
Drawing #:	PFFY105/180-00	Specification:	API6A-21st	API Monogram:	6A-2074	Report #:	AP064F035		
Part No.:	X-182734-01	Material:	AISI 4130 75K			Coating:	/		
Description:	7-1/16"15000psi					Quantity:	1		
Item	Pressure	Method			Qty	Result			
Shell	22500psi	API 6A 21st			1	OK			
Seat	15000psi	API 6A 21st			1	OK			
Item	S/N	Heat Log No.	Result		Item	S/N	Heat Log No.	Result	
			A	B				A	B
1	AP064044	RD-0310-020	OK	OK					
Drift Test:									
Diameter ϕ 179.7 mm drift test gauge can freely pass through the through hole of the valve.									
Inspection Coverage:									
Per Specification & Requirements: API 6A 21st									
					Approved By:		Examined By:		
Judgments:		[V] Conforms			Xin Zheng		Yifei Ma		
		[] Does Not Conform							



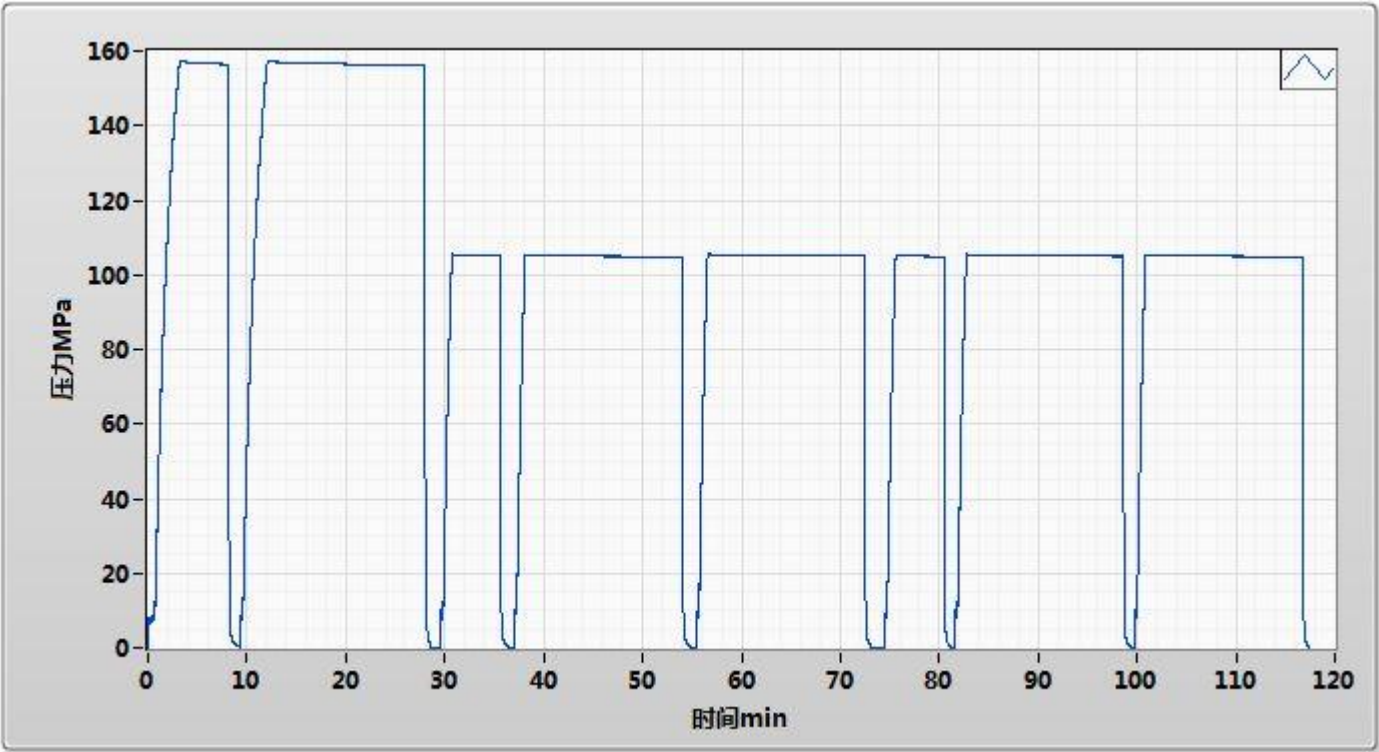
Pressure Test Report

Product Information

PRODUCT NAME	PRODUCT NO.	SPECS	PRESSURE TEST STANDARDS	TEST PART	EQUIPMENT NO.	BRAND
Hydraulic Gate Valve	AP064F035	7-1/16" 15000Psi	API 6A 21st	Shell & Seat	2#	

Test Data

LEVEL	INITIAL PRESSURE (Mpa)	TERMINATED PRESSURE (Mpa)	HOLDING TIME (Min)	PRESSURE DROPPING (Mpa)
1	157.01	156.45	4.0	0.56
2	157.06	156.22	15.0	0.84
3	105.35	105.26	4.0	0.09
4	105.18	104.90	15.0	0.28
5	105.41	105.11	15.0	0.30
6	105.09	104.89	4.0	0.20
7	105.34	104.96	15.0	0.38
8	105.19	104.89	15.0	0.30



TESTED BY:	INSPECTED BY:	REVIEWED BY:	DATE:
Yifei Ma	Xin Zheng	Zhicheng Feng	2023.03.29



REPORT INDEX

Purchase Order:1437

Quantity:1EA

Shipment No.:Crate#AP064F037

Shipment Date:April, 2023

Activity No.	Characteristics	Reference Page
1	CERTIFICATE OF CONFORMITY	Page - 2
2	Metallurgical Test Certificate	Page - 3
2.1	Mechanical Testing	Page - 3
2.2	Chemical Testing	Page -3
2.3	Heat Treatment	Page - 3
3	Hardness Test	Page - 4-12
4	Ultrasonic Testing	Page - 13-17
5	Magnetic Particle Inspection Report	Page - 18-26
6	Hydrostatic Test	Page - 27-28



CERTIFICATE OF CONFORMITY

THE FOLLOWING ITEM IS IN CONFORMITY WITH PO # 1437, DRAWINGS AND ITS TECHNICAL REQUIREMENTS. IT IS MADE PER API – 6A MONOGRAM SPECIFICATIONS, EE-0.5 CLASS, PSL3, PR1, LU. AND IT IS MADE OF MATERIAL (4130,75K YIELD) FOR NACE H2S SERVICE UNDER THE CURRENT NACE MR0175 EDITION.

ITEM:
PO #: 1437
SERIAL NO.: AP064F037
PART NO.: PFFY105/180-00
QANTITY: 1
INSPECTION STANDARD: API Spec 6A 21st EE-0.5, PSL3, PR1, LU

THIS COMMODITY HAS PASSED ALL THE TECHNICAL AND PERFORMANCE TESTS CARRIED BY QUALITY CONTROL/INSPECTION DEPARTMENT.

COMPANY NAME:

(STAMP)

INSPECTOR:Zhicheng Feng

CHIEF ENGINEER: Xin Zheng

EX-FACTORY DATE: April, 2023

Customer: _____

P.O. Number: 1437



No.: AV00012

安澜科技（江苏）股份有限公司

ANLAN TECHNOLOGY (JIANGSU) CO.,LTD
Certified Material Test Report

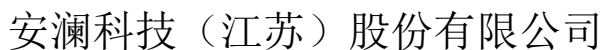
Date:April, 2023

Customer		PO No.		Product				P/N		Serial No.	Qty	Size	WP (psi)	Material	PSL	Temp	Specifications							
		1437		HYDRAULIC GATE VALVE				PFFY105/180-00		AP064F037	1	7-1/16"	15000Psi	EE-0.5	PSL3	LU	API Spec 6A 21st							
Description						Melting Practice			Heat Treatment															
P/N	Parts	Melt No.	H.T. No.	Material Spec Standards	Qty	Serial No.	Finished	Austenized		Quenched			Temper(1)			Temper(2)								
								Temp (°C)	Time (min)	Medium	Start Temp	Finish Temp	Temp (°C)	Time (min)	Medium	Temp (°C)	Time (min)	Medium						
PFFY105/180-00	BODY	TX22-05907	RD-03-07	AISI 4130 75K,Per ASTM A29	1	AP064018	Forging	860	5.0H	WATER	28	41	680	8.0H	AIR	/	/	/						
	UPPER BONNET	TX22-05906	RD-03-03	AISI 4130 75K,Per ASTM A29	1	AP064097	Forging	860	6.0H	WATER	26	40	670	8.5H	AIR	/	/	/						
	LOWER BONNET	TX22-05907	RD-02-34	AISI 4130 75K,Per ASTM A29	1	AS001022	Forging	860	6.0H	WATER	26	39	670	11.0H	AIR	/	/	/						
	STEM	YX2212-2116	HY230227-1	PH17-4 105K,Per ASTM A564/564M	1	AS007077	Forging	1030	3.0H	WATER	17	20	630	4.5H	AIR	630	4.5H	AIR						
	BALANCE STEM	YX2301-1601	HY230211-4	PH17-4 105K,Per ASTM A564/564M	1	AS001034	Forging	1030	3.5H	WATER	14	17	630	5.0H	AIR	630	5.2H	AIR						
	GATE	122V-1118	HC2302005-01	AISI 410 75K,Per ASTM A276/276M	1	AP064591	Forging	960	3.0H	OIL	39	51	720	6.0H	AIR	680	6.0H	AIR						
	BODY BUSHING	122V-1118	HC2302005-01	AISI 410 75K,Per ASTM A276/276M	2	AP064549 AP064544	Forging	960	3.0H	OIL	39	51	720	6.0H	AIR	680	6.0H	AIR						
Melt No.	H.T. No.	Chemical Analysis (wt, %)													Physical Properties									
		C	Mn	Si	P	S	Cr	Ni	Mo	V	Co	W	Cu	Nb	Fe	Spec Size	Spec Origin	Tensile (MPa)	Yield (MPa)	Elongation (%)	ROA (%)	Impact(-46°C) Impact direction (Transverse)	Hardness	Equipment Type
TX22-05907	RD-03-07	0.30	0.66	0.26	0.007	0.003	1.02	0.20	0.201	0.005	/	/	0.02	/	/	8"x8"x10"	QTC	687	562	57.0	55.0	64/61/57	222HBW	JBW-300B/ WDW-300
TX22-05906	RD-03-03	0.31	0.67	0.26	0.009	0.003	1.04	0.20	0.217	0.006	/	/	0.02	/	/	8"x8"x10"	QTC	678	558	55.0	51.0	62/60/55	220HBW	JBW-300B/ WDW-300
TX22-05907	RD-02-34	0.30	0.66	0.26	0.007	0.003	1.02	0.20	0.201	0.005	/	/	0.02	/	/	8"x8"x10"	QTC	676	545	43.0	50.0	59/56/55	221HBW	JBW-300B/ WDW-300
YX2212-2116	HY230227-1	0.024	0.55	0.36	0.032	0.002	15.66	4.08	/	/	/	/	3.62	0.235	/	Φ 80x200	QTC	1022	927	21.3	58.5	36/49/47	31HRC	JBW-300B/ WDW-300
YX2301-1601	HY230211-4	0.026	0.56	0.41	0.032	0.001	15.70	4.08	/	/	/	/	3.63	0.240	/	Φ 80x200	QTC	1018	933	21.2	57.5	55/59/40	31HRC	JBW-300B/ WDW-300
122V-1118	HC2302005-01	0.14	0.40	0.22	0.012	0.006	11.66	0.06	0.042	0.034	/	/	0.027	/	/	100x100x200	QTC	690	580	24.0	66.0	/	226HBW	JBW-300B/ WDW-300
122V-1118	HC2302005-01	0.14	0.40	0.22	0.012	0.006	11.66	0.06	0.042	0.034	/	/	0.027	/	/	100x100x200	QTC	690	580	24.0	66.0	/	226HBW	JBW-300B/ WDW-300

This is to certify that all above items have been tested and inspected per scope of specifications, drawings, and the purchase order and have been found to be satisfactory.

The information in this report is true and correct to our knowledge.

_____Xin Zheng
NAME of QA Manager, for and on the authority of COMPANY NAME



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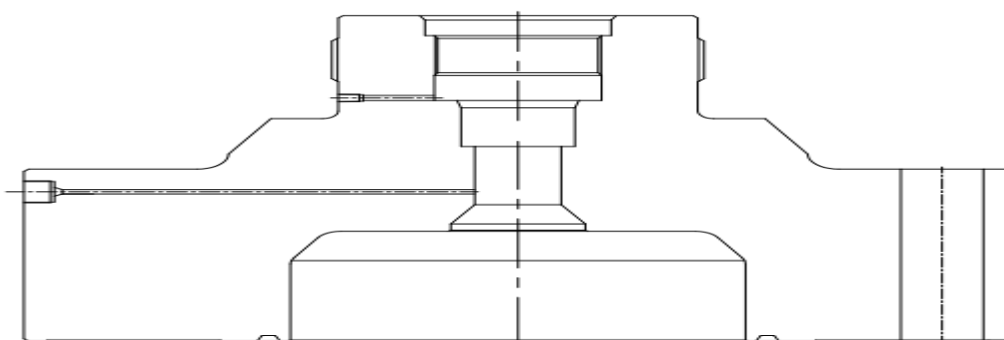
[illegible]

Method Used:	Impact Energy: 3000Kg.	Diameter of tungsten ball: 10mm	
Acceptable Hardness:	197HBW-235HBW	Approved By:	Examined By:
Judgments:	[☒] Conforms	Xin zheng	Zhengguo Yao
	[☐] Does Not Conform		

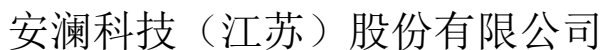
HARDNESS TEST REPORT

[illegible]

Sketch:



Method Used:	Impact Energy: 3000Kg.	Diameter of tungsten ball: 10mm	
Acceptable Hardness:	197HBW-235HBW	Approved By:	Examined By:
Judgments:	☒ V] Conforms	Xin zheng	Zhengguo Yao
	☐] Does Not Conform		



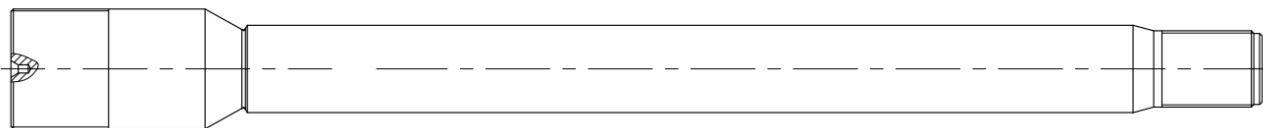
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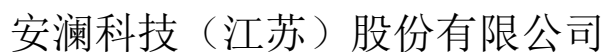
HARDNESS TEST REPORT

[illegible]

Sketch:



Method Used:			
Acceptable Hardness:	27HRC-33HRC	Approved By:	Examined By:
Judgments:	[V] Conforms	Xin zheng	Zhengguo Yao
	[] Does Not Conform		



ANLAN TECHNOLOGY (JIANGSU) CO.,LTD

[illegible]



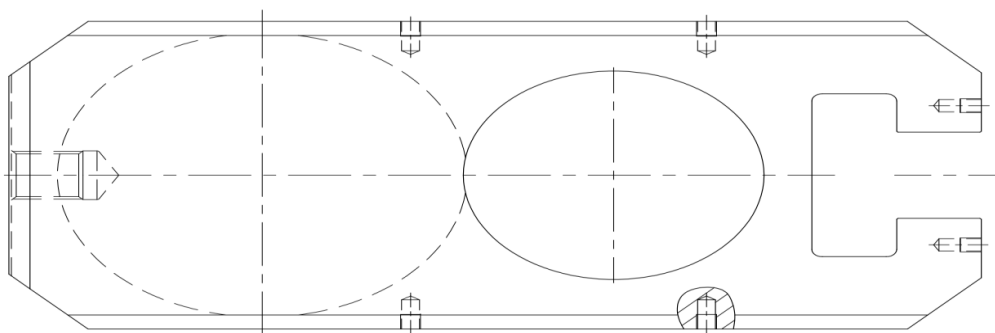
安澜科技（江苏）股份有限公司

ANLAN TECHNOLOGY (JIANGSU) CO.,LTD

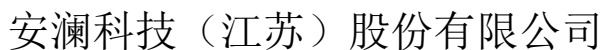
HARDNESS TEST REPORT

Customer:			Customer PO#:			Date:	
Drawing #:	PFFY105/180-00	Specification:	API Spec 6A 21st /ASTM E92	API Monogram:	6A-2074	Report #:	20230303-03
Part No.:	X-182589-01	Material:	AISI 410 75K			Coating:	WC
Description:	7-1/16"15000psi Gate					Quantity:	1
Item	S/N	Heat Log No.	Hardness	Item	S/N	Heat Log No.	Hardness
1	AP064591	HC2302005-01	1171HV				

Sketch:

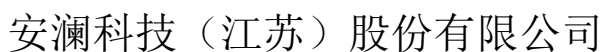


Method Used:	Impact Energy: 5Kg-f(49.03N).		
Acceptable Hardness:	≥1050HV	Approved By:	Examined By:
Judgments:	[V] Conforms	Xin zheng	Zhengguo Yao
	[] Does Not Conform		



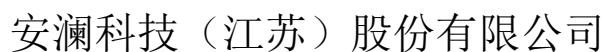
ANLAN TECHNOLOGY (JIANGSU) CO.,LTD

[illegible]



HARDNESS TEST REPORT

11



ANLAN TECHNOLOGY (JIANGSU) CO.,LTD

Customer:				Customer PO#:		1437		Date:	2023.03		
Drawing #:	PFFY105/180-00	Specification:		API Spec 6A 21st /ASTM E18		API Monogram:		6A-2074		Report #:	HS-0321-001
Part No.:	X-182591-01	Material:		PH17-4 105K					Coating:	/	
Description:	7-1/16"15000psi Balance Stem							Quantity:	1		
Item	S/N	Heat Log No.		Hardness	Item	S/N		Heat Log No.	Hardness		
1	AS001034	HY230211-4		30HRC							
Sketch:											
Method Used:											
Acceptable Hardness:		27HRC-33HRC			Approved By:			Examined By:			
Judgments:		[V] Conforms			Xin zheng			Zhengguo Yao			
		[] Does Not Conform									



安澜科技（江苏）股份有限公司

ANLAN TECHNOLOGY (JIANGSU) CO.,LTD

ULTRASONIC EXAMINATION REPORT

Customer:			Customer PO#:	1437		Date:	2023.03
Drawing #:	PFFY105/180 -00	Specification:	API Spec 6A 21st /ASTM A388	API Monogram:	6A-2074	Report #:	UTS-0319-003
Part No.:	X-182734-01	Material:	AISI 4130 75K			Coating:	/
Description:	7-1/16"15000psi Body					Quantity:	1
Item	S/N	Heat Log No.	Result	Item	S/N	Heat Log No.	Result
1	AP064018	RD-03-07	Acceptable				
ABOVE FORGED ARE TESTED ULTRASONICALLY FOR INTERNAL DEFECTS, AND THERE WAS NO RECORDABLE INDICATION OBSERVED DURING THE TEST. HENCE ACCEPTABLE AS PER STANDARD.							
UT Code:	ASTM A388	Technique:	STRAIGHT PROBE		Examined By:	Dongkai Xu	
Exam. Stage:	Rough After	Calibration:	Block: CSK -I A Φ 1.6 FBH Block Φ 3.2 FBH Block Φ 6.4 FBH Block		Level as per UT:	II	
Equipment:	MUT-800C	Couplant:	OIL				
Date of calibration	2023.03.02						
Period of validity	2024.03.02						
Probe Used:	2.5P Φ 14+ Φ 20	Acceptance Criteria:	API Spec. 6A 21st		Approved by:	Xin Zheng	
Instrmt/Ident.#:	FD14082504	Test Gain:	Φ 1.6DAC+6dB Φ 3.2DAC+6dB Φ 6.4DAC+6dB		Level as per UT:	II	



安澜科技（江苏）股份有限公司

ANLAN TECHNOLOGY (JIANGSU) CO.,LTD

ULTRASONIC EXAMINATION REPORT

Customer:				Customer PO#:			Date:	
Drawing #:		Specification:		API Monogram:		Report #:		
Part No.:		Material:				Coating:		
Description:	7-1/16"15000psi Upper Bonnet					Quantity:	1	
Item	S/N	Heat Log No.	Result	Item	S/N	Heat Log No.	Result	
1	AP064097	RD-03-03	Acceptable					
ABOVE FORGED ARE TESTED ULTRASONICALLY FOR INTERNAL DEFECTS, AND THERE WAS NO RECORDABLE INDICATION OBSERVED DURING THE TEST. HENCE ACCEPTABLE AS PER STANDARD.								
UT Code:	ASTM A388	Technique:	STRAIGHT PROBE		Examined By:	Dongkai Xu		
Exam. Stage:	Rough After	Calibration:	Block: CSK -I A Φ 1.6 FBH Block Φ 3.2 FBH Block		Level as per UT:	II		
Equipment:	MUT-800C	Couplant:	OIL					
Date of calibration	2023.03.02							
Period of validity	2024.03.02							
Probe Used:	2.5P Φ 14+ Φ 20	Acceptance Criteria:	API Spec. 6A 21st		Approved by:	Xin Zheng		
Instrmt/Ident.#:	FD14082504	Test Gain:	Φ 1.6DAC+6dB Φ 3.2DAC+6dB		Level as per UT:	II		

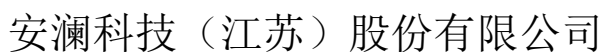


安澜科技（江苏）股份有限公司

ANLAN TECHNOLOGY (JIANGSU) CO.,LTD

ULTRASONIC EXAMINATION REPORT

Customer:				Customer PO#:	1437		Date:	2023.03	
Drawing #:	PFFY105/180-00	Specification:	API Spec 6A 21st /ASTM A388	API Monogram:	6A-2074		Report #:	UTS-0309-00 2	
Part No.:	X-182586-01	Material:	AISI 4130 75K			Coating:	/		
Description:	7-1/16"15000psi Lower Bonnet						Quantity:	1	
Item	S/N	Heat Log No.	Result	Item	S/N	Heat Log No.	Result		
1	AS001022	RD-02-34	Acceptable						
ABOVE FORGED ARE TESTED ULTRASONICALLY FOR INTERNAL DEFECTS, AND THERE WAS NO RECORDABLE INDICATION OBSERVED DURING THE TEST. HENCE ACCEPTABLE AS PER STANDARD.									
UT Code:	ASTM A388		Technique:	STRAIGHT PROBE		Examined By:	Dongkai Xu		
Exam. Stage:	Rough After		Calibration:	Block: CSK -I A Φ 1.6 FBH Block Φ 3.2 FBH Block		Level as per UT:	II		
Equipment:	MUT-800C		Couplant:	OIL					
Date of calibration	2023.03.02								
Period of validity	2024.03.02								
Probe Used:	2.5P Φ 14+ Φ 20		Acceptance Criteria:	API Spec. 6A 21st		Approved by:	Xin Zheng		
Instrmt/Ident.#:	FD14082504		Test Gain:	Φ 1.6DAC+6dB Φ 3.2DAC+6dB		Level as per UT:	II		



ULTRASONIC EXAMINATION REPORT

ABOVE FORGED ARE TESTED ULTRASONICALLY FOR INTERNAL DEFECTS, AND THERE WAS NO RECORDABLE INDICATION SERVED DURING THE TEST. HENCE ACCEPTABLE AS PER STANDARD.

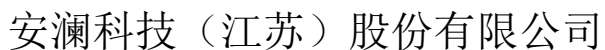


安澜科技（江苏）股份有限公司

ANLAN TECHNOLOGY (JIANGSU) CO.,LTD

ULTRASONIC EXAMINATION REPORT

Customer:			Customer PO#:			Date:	
Drawing #:	PFFY105/180-00	Specification:	API Spec 6A 21st /ASTM A388	API Monogram:	6A-2074	Report #:	UTS-0316-001
Part No.:	X-182591-01	Material:	PH17-4 105K			Coating:	/
Description:	7-1/16"15000psi Balance Stem					Quantity:	1
Item	S/N	Heat Log No.	Result	Item	S/N	Heat Log No.	Result
1	AS001034	HY230211-4	Acceptable				
ABOVE FORGED ARE TESTED ULTRASONICALLY FOR INTERNAL DEFECTS, AND THERE WAS NO RECORDABLE INDICATION OBSERVED DURING THE TEST. HENCE ACCEPTABLE AS PER STANDARD.							
UT Code:	ASTM A388	Technique:	STRAIGHT PROBE		Examined By:	Dongkai Xu	
Exam. Stage:	Rough After	Calibration:	Block: CSK -I A Φ 1.6 FBH Block Φ 3.2 FBH Block		Level as per UT:	II	
Equipment:	MUT-800C	Couplant:	OIL				
Date of calibration	2023.03.02						
Period of validity	2024.03.02						
Probe Used:	2.5P Φ 14+Φ 20	Acceptance Criteria:	API Spec. 6A 21st		Approved by:	Xin Zheng	
Instrmt/Ident.#:	FD14082504	Test Gain:	Φ 1.6DAC+6dB Φ 3.2DAC+6dB		Level as per UT:	II	

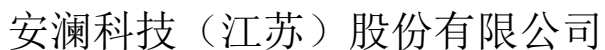


ANLAN TECHNOLOGY (JIANGSU) CO.,LTD

[illegible]

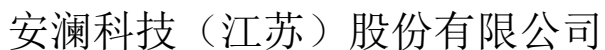
Fluorescent magnetic particle inspection was performed on all accessible wetted/sealing surfaces.

Evaluation & Disposition:	Found to be satisfactory		
Inspected by:	Dongkai Xu	Organization:	QC Department
Approved by:	Xin Zheng		
NDT Level:	MT II	Date:	2023.03



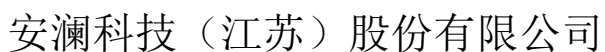
ANLAN TECHNOLOGY (JIANGSU) CO.,LTD

Customer:			Customer PO#:	1437		Date:	2023.03	
Drawing #:	PFFY105/180-00	Specification:	API Spec 6A 21st /ASTM E709	API Monogram:	6A-2074	Report #:	MTS-0326-002	
Part No.:	X-182585-01	Material:	AISI 4130 75K			Coating:	/	
Description:	7-1/16"15000psi Upper Bonnet					Quantity:	1	
Equipment:	CYD-5000	Acceptance Criteria:	API 6A 21st/PSL3	Circular AMPS:		2500A 3500A		
Test Method:	Fluorescence Wet Continuous	Particle Type:	Fluorescence	UV-Light Intensity:		3490Uw/cm ²		
Stage:	Machined	Concentration:	0.2ml/100ml	Magnetizing Time:		1-3S		
Item	S/N	Heat Log No.	Result	Item	S/N	Heat Log No.	Result	
1	AP064097	RD-03-03	Acceptable					
Inspection Coverage:								
Fluorescent magnetic particle inspection was performed on all accessible wetted/sealing surfaces.								
Evaluation & Disposition:		Found to be satisfactory						
Inspected by:		Dongkai Xu		Organization:		QC Department		
Approved by:		Xin Zheng						
NDT Level:		MT II		Date:		2023.03		



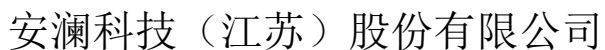
ANLAN TECHNOLOGY (JIANGSU) CO.,LTD

Customer:			Customer PO#:	1437		Date:	2023.03	
Drawing #:	PFFY105/180-00	Specification:	API Spec 6A 21st /ASTM E709	API Monogram:	6A-2074	Report #:	MTS-0317-002	
Part No.:	X-182586-01	Material:	AISI 4130 75K			Coating:	/	
Description:	7-1/16"15000psi Lower Bonnet					Quantity:	1	
Equipment:	CYD-5000	Acceptance Criteria:	API 6A 21st/PSL3	Circular AMPS:		2500A 3500A		
Test Method:	Fluorescence Wet Continuous	Particle Type:	Fluorescence	UV-Light Intensity:		3490Uw/cm ²		
Stage:	Machined	Concentration:	0.2ml/100ml	Magnetizing Time:		1-3S		
Item	S/N	Heat Log No.	Result	Item	S/N	Heat Log No.	Result	
1	AS001022	RD-02-34	Acceptable					
Inspection Coverage:								
Fluorescent magnetic particle inspection was performed on all accessible wetted/sealing surfaces.								
Evaluation & Disposition:		Found to be satisfactory						
Inspected by:		Dongkai Xu		Organization:		QC Department		
Approved by:		Xin Zheng						
NDT Level:		MT II		Date:		2023.03		



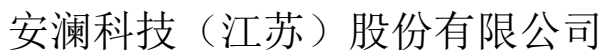
LIQUID PENETRATE EXAMINATION

21



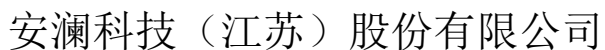
MAGNETIC PARTICLE INSPECTION REPORT

22



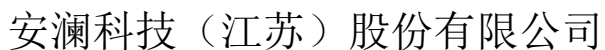
ANLAN TECHNOLOGY (JIANGSU) CO.,LTD

Customer:			Customer PO#:	1437		Date:	2023.03	
Drawing #:	PFFY105/180-00	Specification:	QJ/JJ07.01.03.02/ ASTM E165		API Monogram:	6A-2074	Report #:	NCS-2303-H02
Part No.:	X-182589-01	Material:	AISI 410 75K				Coating:	WC
Description:	7-1/16"15000psi Gate					Quantity:	1	
Test Method:	Type II Method C	Acceptance Criteria:		API 6A 21st/PSL3	Penetrate Type:		DPT-5	
Remover Type:	DPT-5	Developer Type:		DPT-5	Light Intensity:		≥1076Lx	
Stage:	Machined	Penetrate Time:		10min	Develop Time:		10min	
Item	S/N	Heat Log No.	Result	Item	S/N	Heat Log No.	Result	
1	AP064591	HC2302005-01	Acceptable					
Inspection Coverage:								
Liquid penetrate examination was performed on all accessible wetted/sealing surfaces.								
Evaluation & Disposition:		Found to be satisfactory						
Inspected by:		Dongkai Xu			Organization:		QC Department	
Approved by:		Xin Zheng						
NDT Level:		MT II			Date:		2023.03	



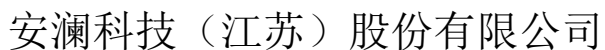
ANLAN TECHNOLOGY (JIANGSU) CO.,LTD

Customer:			Customer PO#:	1437		Date:	2023.03	
Drawing #:	PFFY105/180-00	Specification:	API Spec 6A 21st /ASTM E709	API Monogram:	6A-2074	Report #:	NCS-2303-Q03	
Part No.:	X-182590-01	Material:	AISI 410 75K			Coating:	/	
Description:	7-1/16"15000psi Body Bushing					Quantity:	2	
Equipment:	CYD-5000	Acceptance Criteria:	API 6A 21st/PSL3	Circular AMPS:		3200A		
Test Method:	Fluorescence Wet Continuous	Particle Type:	Fluorescence	UV-Light Intensity:		≥1000Uw/cm²		
Stage:	Machined	Concentration:	0.2ml/100ml	Magnetizing Time:		1-3S		
Item	S/N	Heat Log No.	Result	Item	S/N	Heat Log No.	Result	
1	AP064549	HC2302005-01	Acceptable					
2	AP064544	HC2302005-01	Acceptable					
Inspection Coverage:								
Fluorescent magnetic particle inspection was performed on all accessible wetted/sealing surfaces.								
Evaluation & Disposition:		Found to be satisfactory						
Inspected by:		Dongkai Xu		Organization:		QC Department		
Approved by:		Xin Zheng						
NDT Level:		MT II		Date:		2023.03		



LIQUID PENETRATE EXAMINATION

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ANLAN TECHNOLOGY (JIANGSU) CO.,LTD

Customer:		Customer PO#:		1437		Date:	2023.03	
Drawing #:	PFFY105/180-00	Specification:	QJ/JJ07.01.03.02/ ASTM E165		API Monogram:	6A-2074	Report #:	PTS-0320-001
Part No.:	X-182591-01	Material:	PH17-4-105K				Coating:	/
Description:	7-1/16"15000psi Balance Stem						Quantity:	1
Test Method:	Type II Method C	Acceptance Criteria:		API 6A 21st/PSL3		Penetrate Type:		DPT-5
Remover Type:	DPT-5	Developer Type:		DPT-5		Light Intensity:		≥1076Lx
Stage:	Machined	Penetrate Time:		10min		Develop Time:		10min
Item	S/N	Heat Log No.	Result	Item	S/N	Heat Log No.	Result	
1	AS001034	HY230211-4	Acceptable					
Inspection Coverage:								
Liquid penetrate examination was performed on all accessible wetted/sealing surfaces.								
Evaluation & Disposition:		Found to be satisfactory						
Inspected by:		Dongkai Xu			Organization:		QC Department	
Approved by:		Xin Zheng						
NDT Level:		MT II			Date:		2023.03	



安澜科技（江苏）股份有限公司

ANLAN TECHNOLOGY (JIANGSU) CO.,LTD

HYDROSTATIC TEST REPORT

Customer:				Customer PO#:	1437		Date:	2023.03	
Drawing #:	PFFY105/180 -00	Specification:	API6A-21st	API Monogram:	6A-2074	Report #:	AP064F037		
Part No.:	X-182734-01	Material:	AISI 4130 75K			Coating:	/		
Description:	7-1/16"15000psi					Quantity:	1		
Item	Pressure	Method			Qty	Result			
Shell	22500psi	API 6A 21st			1	OK			
Seat	15000psi	API 6A 21st			1	OK			
Item	S/N	Heat Log No.	Result		Item	S/N	Heat Log No.	Result	
			A	B				A	B
1	AP064018	RD-03-07	OK	OK					
Drift Test:									
Diameter ϕ 179.7 mm drift test gauge can freely pass through the through hole of the valve.									
Inspection Coverage:									
Per Specification & Requirements: API 6A 21st									
					Approved By:		Examined By:		
Judgments:		[V] Conforms			Xin Zheng		Yifei Ma		
		[] Does Not Conform							



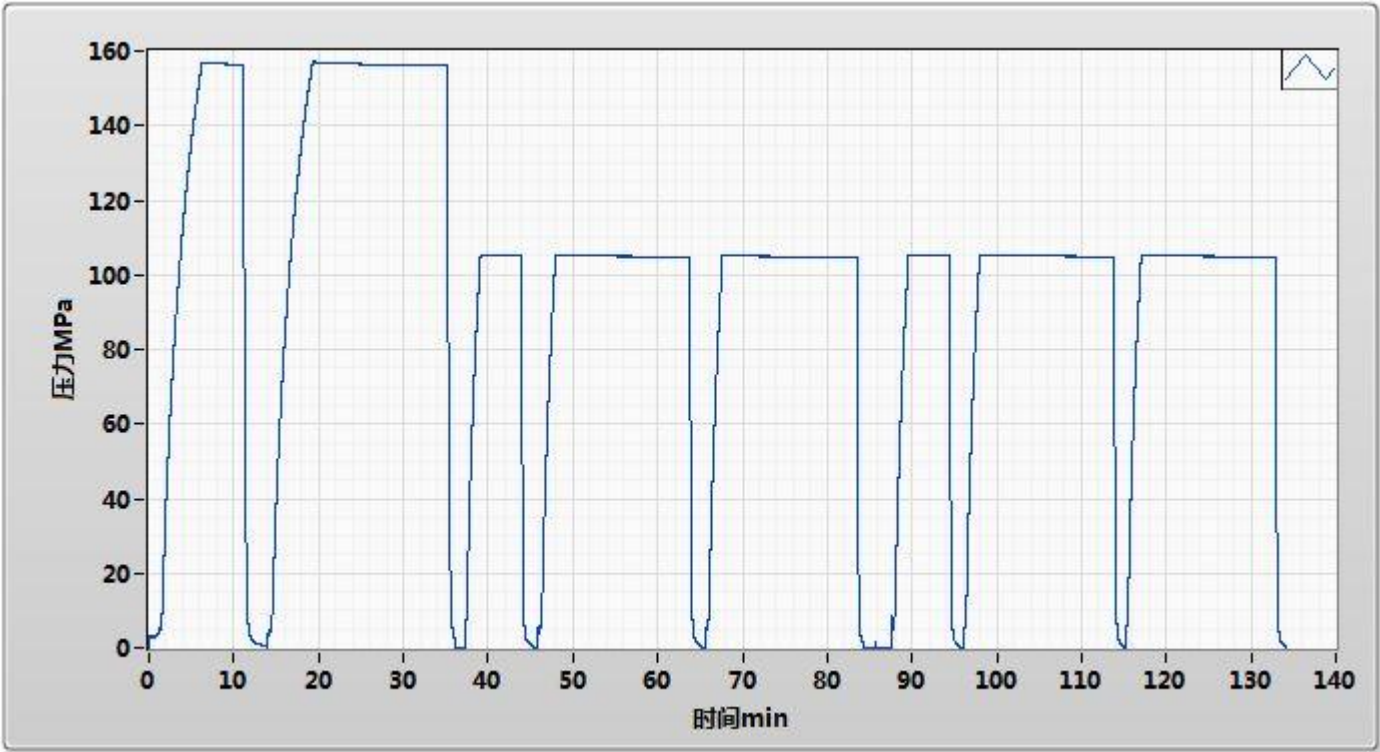
Pressure Test Report

Product Information

PRODUCT NAME	PRODUCT NO.	SPECS	PRESSURE TEST STANDARDS	TEST PART	EQUIPMENT NO.	BRAND
Hydraulic Gate Valve	AP064F037	7-1/16" 15000Psi	API 6A 21st	Shell & Seat	2#	

Test Data

LEVEL	INITIAL PRESSURE (Mpa)	TERMINATED PRESSURE (Mpa)	HOLDING TIME (Min)	PRESSURE DROPPING (Mpa)
1	156.82	156.30	4.0	0.52
2	156.94	156.13	15.0	0.81
3	105.20	105.12	4.0	0.08
4	105.16	104.90	15.0	0.26
5	105.10	104.83	15.0	0.27
6	105.25	105.05	4.0	0.21
7	105.26	104.90	15.0	0.37
8	105.15	104.88	15.0	0.27



TESTED BY:	INSPECTED BY:	REVIEWED BY:	DATE:
Yifei Ma	Xin Zheng	Zhicheng Feng	2023.03.29



REPORT INDEX

Purchase Order:1437

Quantity:1EA

Shipment No.:Crate#AP064F038

Shipment Date:April, 2023

Activity No.	Characteristics	Reference Page
1	CERTIFICATE OF CONFORMITY	Page - 2
2	Metallurgical Test Certificate	Page - 3
2.1	Mechanical Testing	Page - 3
2.2	Chemical Testing	Page -3
2.3	Heat Treatment	Page - 3
3	Hardness Test	Page - 4-12
4	Ultrasonic Testing	Page - 13-17
5	Magnetic Particle Inspection Report	Page - 18-26
6	Hydrostatic Test	Page - 27-28



CERTIFICATE OF CONFORMITY

THE FOLLOWING ITEM IS IN CONFORMITY WITH PO # 1437, DRAWINGS AND ITS TECHNICAL REQUIREMENTS. IT IS MADE PER API – 6A MONOGRAM SPECIFICATIONS, EE-0.5 CLASS, PSL3, PR1, LU. AND IT IS MADE OF MATERIAL (4130,75K YIELD) FOR NACE H2S SERVICE UNDER THE CURRENT NACE MR0175 EDITION.

ITEM:
PO #: 1437
SERIAL NO.: AP064F038
PART NO.: PFFY105/180-00
QANTITY: 1
INSPECTION STANDARD: API Spec 6A 21st EE-0.5, PSL3, PR1, LU

THIS COMMODITY HAS PASSED ALL THE TECHNICAL AND PERFORMANCE TESTS CARRIED BY QUALITY CONTROL/INSPECTION DEPARTMENT.

COMPANY NAME:	INSPECTOR:Zhicheng Feng
(STAMP)	CHIEF ENGINEER: Xin Zheng
	EX-FACTORY DATE: April, 2023
Customer: _____	P.O. Number: <u>1437</u>



No.: AV00012

安澜科技（江苏）股份有限公司

ANLAN TECHNOLOGY (JIANGSU) CO.,LTD
Certified Material Test Report

Date:April, 2023

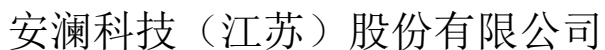
Customer		PO No.		Product				P/N		Serial No.	Qty	Size	WP (psi)	Material	PSL	Temp	Specifications							
		1437		HYDRAULIC GATE VALVE				PFFY105/180-00		AP064F038	1	7-1/16"	15000Psi	EE-0.5	PSL3	LU	API Spec 6A 21st							
Description							Melting Practice			Heat Treatment														
P/N	Parts	Melt No.	H.T. No.	Material Spec Standards		Qty	Serial No.	Finished	Austenized		Quenched			Temper(1)			Temper(2)							
									Temp (°C)	Time (min)	Medium	Start Temp	Finish Temp	Temp (°C)	Time (min)	Medium	Temp (°C)	Time (min)	Medium					
PFFY105/180-00	BODY	TX22-05908	HY230313-5	AISI 4130 75K,Per ASTM A29		1	AP064046	Forging	870	5.5H	WATER	18	21	670	7.4H	AIR	/	/	/					
	UPPER BONNET	TX22-05906	RD-02-46	AISI 4130 75K,Per ASTM A29		1	AP064085	Forging	860	5.5H	WATER	27	40	670	8.0H	AIR	/	/	/					
	LOWER BONNET	22DV0368	RD-03-18	AISI 4130 75K,Per ASTM A29		1	AS007167	Forging	860	5.0H	WATER	26	39	690	7.0H	AIR	/	/	/					
	STEM	YX2212-2116	HY230227-1	PH17-4 105K,Per ASTM A564/564M		1	AS007079	Forging	1030	3.0H	WATER	17	20	630	4.5H	AIR	630	4.5H	AIR					
	BALANCE STEM	YX2301-1601	HY230211-4	PH17-4 105K,Per ASTM A564/564M		1	AS007095	Forging	1030	3.5H	WATER	14	17	630	5.0H	AIR	630	5.2H	AIR					
	GATE	122V-1118	HC2302005-01	AISI 410 75K,Per ASTM A276/276M		1	AP064598	Forging	960	3.0H	OIL	39	51	720	6.0H	AIR	680	6.0H	AIR					
	BODY BUSHING	122V-1118	HC2302005-01	AISI 410 75K,Per ASTM A276/276M		2	AP064511 AP064515	Forging	960	3.0H	OIL	39	51	720	6.0H	AIR	680	6.0H	AIR					
Melt No.	H.T. No.	Chemical Analysis (wt, %)													Physical Properties									
		C	Mn	Si	P	S	Cr	Ni	Mo	V	Co	W	Cu	Nb	Fe	Spec Size	Spec Origin	Tensile (MPa)	Yield (MPa)	Elongation (%)	ROA (%)	Impact(-46°C) Impact direction (Transverse)	Hardness	Equipment Type
TX22-05908	HY230313-5	0.31	0.67	0.30	0.009	0.007	1.06	0.20	0.21	0.006	/	/	0.02	/	/	8"x8"x10"	QTC	702	539	21.7	60.5	44/61/38	219HBW	JBW-300B/ WDW-300
TX22-05906	RD-02-46	0.31	0.67	0.26	0.009	0.003	1.04	0.20	0.217	0.006	/	/	0.02	/	/	8"x8"x10"	QTC	678	546	37.0	55.0	64/61/56	222HBW	JBW-300B/ WDW-300
22DV0368	RD-03-18	0.316	0.732	0.301	0.008	0.004	1.08	0.25	0.216	0.007	/	/	0.091	/	/	8"x8"x10"	QTC	673	546	50.0	63.0	58/62/52	219HBW	JBW-300B/ WDW-300
YX2212-2116	HY230227-1	0.024	0.55	0.36	0.032	0.002	15.66	4.08	/	/	/	/	3.62	0.235	/	Φ 80x200	QTC	1022	927	21.3	58.5	36/49/47	31HRC	JBW-300B/ WDW-300
YX2301-1601	HY230211-4	0.026	0.56	0.41	0.032	0.001	15.70	4.08	/	/	/	/	3.63	0.240	/	Φ 80x200	QTC	1018	933	21.2	57.5	55/59/40	31HRC	JBW-300B/ WDW-300
122V-1118	HC2302005-01	0.14	0.40	0.22	0.012	0.006	11.66	0.06	0.042	0.034	/	/	0.027	/	/	100x100x200	QTC	690	580	24.0	66.0	/	226HBW	JBW-300B/ WDW-300
122V-1118	HC2302005-01	0.14	0.40	0.22	0.012	0.006	11.66	0.06	0.042	0.034	/	/	0.027	/	/	100x100x200	QTC	690	580	24.0	66.0	/	226HBW	JBW-300B/ WDW-300

This is to certify that all above items have been tested and inspected per scope of specifications, drawings, and the purchase order and have been found to be satisfactory.

The information in this report is true and correct to our knowledge.

Xin Zheng

NAME of QA Manager, for and on the authority of COMPANY NAME

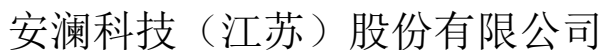


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[illegible]

Technical drawing of a mechanical part, showing a cross-section of a shaft with a central hole and a flange. The drawing includes a top view and a side view, with dimensions and a scale bar.

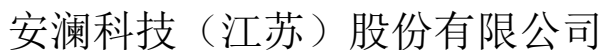
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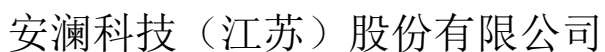
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5



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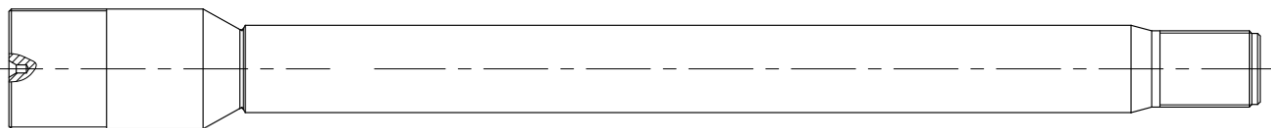
[illegible]6



ANLAN TECHNOLOGY (JIANGSU) CO.,LTD

[illegible]

Sketch:



Method Used:

Acceptable Hardness:

27HRC-33HRC

Approved By:

Examined By:

Judgments:

[V] Conforms

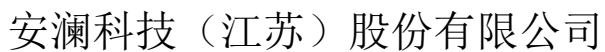
☐ Does Not Conform

Xin zheng

Zhengguo Yao

HARDNESS TEST REPORT

[illegible]

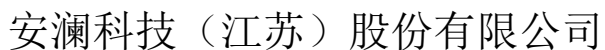


ANLAN TECHNOLOGY (JIANGSU) CO.,LTD

[illegible]

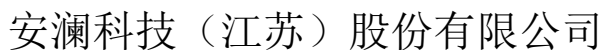
Technical drawing of a mechanical part, likely a shaft or housing, showing a cross-section. The drawing includes dimension lines and a scale bar.

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HARDNESS TEST REPORT

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ANLAN TECHNOLOGY (JIANGSU) CO.,LTD

Customer:			Customer PO#:			Date:	
Drawing #:	PFFY105/180- 00	Specification:	API Spec 6A 21st /ASTM E92	API Monogram:	6A-2074	Report #:	20230303-04
Part No.:	X-182590-01	Material:	AISI 410 75K			Coating:	WC
Description:	7-1/16"15000psi Body bushing					Quantity:	2
Item	S/N	Heat Log No.	Hardness	Item	S/N	Heat Log No.	Hardness
1	AP064511	HC2302005-01	1197HV				
2	AP064515	HC2302005-01	1197HV				
Sketch:							
Method Used:		Impact Energy: 5Kg-f(49.03N).					
Acceptable Hardness:		≥1050HV		Approved By:		Examined By:	
Judgments:		[V] Conforms		Xin zheng		Zhengguo Yao	
		[] Does Not Conform					

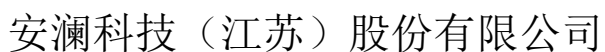


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ANLAN TECHNOLOGY (JIANGSU) CO.,LTD

HARDNESS TEST REPORT

Customer:				Customer PO#:	1437		Date:	2023.03
Drawing #:	PFFY105/180-00	Specification:	API Spec 6A 21st /ASTM E18		API Monogram:	6A-2074	Report #:	HS-0321-001
Part No.:	X-182591-01	Material:	PH17-4 105K				Coating:	/
Description:	7-1/16"15000psi Balance Stem						Quantity:	1
Item	S/N	Heat Log No.	Hardness	Item	S/N	Heat Log No.	Hardness	
1	AS007095	HY230211-4	31HRC					
Sketch:								
								
Method Used:								
Acceptable Hardness:	27HRC-33HRC		Approved By:		Examined By:			
Judgments:	☐ V] Conforms		Xin zheng		Zhengguo Yao			
	☐] Does Not Conform							



ULTRASONIC EXAMINATION REPORT

ABOVE FORGED ARE TESTED ULTRASONICALLY FOR INTERNAL DEFECTS, AND THERE WAS NO RECORDABLE INDICATION OBSERVED DURING THE TEST. HENCE ACCEPTABLE AS PER STANDARD.

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安澜科技（江苏）股份有限公司

ANLAN TECHNOLOGY (JIANGSU) CO.,LTD

ULTRASONIC EXAMINATION REPORT

Customer:			Customer PO#:			Date:	
Drawing #:		Specification:		API Monogram:		Report #:	
Part No.:		Material:				Coating:	
Description:	7-1/16"15000psi Upper Bonnet					Quantity:	1
Item	S/N	Heat Log No.	Result	Item	S/N	Heat Log No.	Result
1	AP064085	RD-02-46	Acceptable				
ABOVE FORGED ARE TESTED ULTRASONICALLY FOR INTERNAL DEFECTS, AND THERE WAS NO RECORDABLE INDICATION OBSERVED DURING THE TEST. HENCE ACCEPTABLE AS PER STANDARD.							
UT Code:	ASTM A388	Technique:	STRAIGHT PROBE		Examined By:	Dongkai Xu	
Exam. Stage:	Rough After	Calibration:	Block: CSK -I A Φ 1.6 FBH Block Φ 3.2 FBH Block		Level as per UT:	II	
Equipment:	MUT-800C	Couplant:	OIL				
Date of calibration	2023.03.02						
Period of validity	2024.03.02						
Probe Used:	2.5P Φ 14+ Φ 20	Acceptance Criteria:	API Spec. 6A 21st		Approved by:	Xin Zheng	
Instrmt/Ident.#:	FD14082504	Test Gain:	Φ 1.6DAC+6dB Φ 3.2DAC+6dB		Level as per UT:	II	



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ANLAN TECHNOLOGY (JIANGSU) CO.,LTD

ULTRASONIC EXAMINATION REPORT

Customer:				Customer PO#:	1437		Date:	2023.03	
Drawing #:	PFFY105/180-00	Specification:	API Spec 6A 21st /ASTM A388	API Monogram:	6A-2074		Report #:	UTS-0310-00 1	
Part No.:	X-182586-01	Material:	AISI 4130 75K			Coating:	/		
Description:	7-1/16"15000psi Lower Bonnet						Quantity:	1	
Item	S/N	Heat Log No.	Result	Item	S/N	Heat Log No.	Result		
1	AS007167	RD-03-18	Acceptable						
ABOVE FORGED ARE TESTED ULTRASONICALLY FOR INTERNAL DEFECTS, AND THERE WAS NO RECORDABLE INDICATION OBSERVED DURING THE TEST. HENCE ACCEPTABLE AS PER STANDARD.									
UT Code:	ASTM A388		Technique:	STRAIGHT PROBE		Examined By:	Dongkai Xu		
Exam. Stage:	Rough After		Calibration:	Block: CSK -I A Φ 1.6 FBH Block Φ 3.2 FBH Block		Level as per UT:	II		
Equipment:	MUT-800C		Couplant:	OIL					
Date of calibration	2023.03.02								
Period of validity	2024.03.02								
Probe Used:	2.5P Φ 14+ Φ 20		Acceptance Criteria:	API Spec. 6A 21st		Approved by:	Xin Zheng		
Instrmt/Ident.#:	FD14082504		Test Gain:	Φ 1.6DAC+6dB Φ 3.2DAC+6dB		Level as per UT:	II		



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ANLAN TECHNOLOGY (JIANGSU) CO.,LTD

ULTRASONIC EXAMINATION REPORT

Customer:				Customer PO#:	1437		Date:	2023.03	
Drawing #:	PFFY105/180-00	Specification:	API Spec 6A 21st /ASTM A388	API Monogram:	6A-2074		Report #:	UTS-0312-00 1	
Part No.:	X-182716-01	Material:	PH17-4 105K			Coating:	/		
Description:	7-1/16"15000psi Stem						Quantity:	1	
Item	S/N	Heat Log No.	Result	Item	S/N	Heat Log No.	Result		
1	AS007079	HY230227-1	Acceptable						
ABOVE FORGED ARE TESTED ULTRASONICALLY FOR INTERNAL DEFECTS, AND THERE WAS NO RECORDABLE INDICATION OBSERVED DURING THE TEST. HENCE ACCEPTABLE AS PER STANDARD.									
UT Code:	ASTM A388		Technique:	STRAIGHT PROBE		Examined By:	Dongkai Xu		
Exam. Stage:	Rough After		Calibration:	Block: CSK -I A Φ 1.6 FBH Block Φ 3.2 FBH Block		Level as per UT:	II		
Equipment:	MUT-800C		Couplant:	OIL					
Date of calibration	2023.03.02								
Period of validity	2024.03.02								
Probe Used:	2.5P Φ 14+ Φ 20		Acceptance Criteria:	API Spec. 6A 21st		Approved by:	Xin Zheng		
Instrmt/Ident.#:	FD14082504		Test Gain:	Φ 1.6DAC+6dB Φ 3.2DAC+6dB		Level as per UT:	II		

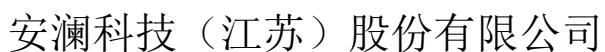


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ANLAN TECHNOLOGY (JIANGSU) CO.,LTD

ULTRASONIC EXAMINATION REPORT

Customer:			Customer PO#:			Date:	
Drawing #:	PFFY105/180-00	Specification:	API Spec 6A 21st /ASTM A388	API Monogram:	6A-2074	Report #:	UTS-0315-001
Part No.:	X-182591-01	Material:	PH17-4 105K			Coating:	/
Description:	7-1/16"15000psi Balance Stem					Quantity:	1
Item	S/N	Heat Log No.	Result	Item	S/N	Heat Log No.	Result
1	AS007095	HY230211-4	Acceptable				
ABOVE FORGED ARE TESTED ULTRASONICALLY FOR INTERNAL DEFECTS, AND THERE WAS NO RECORDABLE INDICATION OBSERVED DURING THE TEST. HENCE ACCEPTABLE AS PER STANDARD.							
UT Code:	ASTM A388	Technique:	STRAIGHT PROBE		Examined By:	Dongkai Xu	
Exam. Stage:	Rough After	Calibration:	Block: CSK -I A Φ 1.6 FBH Block Φ 3.2 FBH Block		Level as per UT:	II	
Equipment:	MUT-800C	Couplant:	OIL				
Date of calibration	2023.03.02						
Period of validity	2024.03.02						
Probe Used:	2.5P Φ 14+Φ 20	Acceptance Criteria:	API Spec. 6A 21st		Approved by:	Xin Zheng	
Instrmt/Ident.#:	FD14082504	Test Gain:	Φ 1.6DAC+6dB Φ 3.2DAC+6dB		Level as per UT:	II	



ANLAN TECHNOLOGY (JIANGSU) CO.,LTD

Customer:		Customer PO#:	1437		Date:	2023.03	
Drawing #:	PFFY105/180-00	Specification:	API Spec 6A 21st /ASTM E709	API Monogram:	6A-2074	Report #:	MTS-0329-004
Part No.:	X-182734-01	Material:	AISI 4130 75K			Coating:	/
Description:	7-1/16"15000psi Body					Quantity:	1
Equipment:	CYD-5000	Acceptance Criteria:	API 6A 21st/PSL3	Circular AMPS:		3100A 2800A	
Test Method:	Fluorescence Wet Continuous	Particle Type:	Fluorescence	UV-Light Intensity:		3310Uw/cm²	
Stage:	Machined	Concentration:	0.2ml/100ml	Magnetizing Time:		1-3S	
Item	S/N	Heat Log No.	Result	Item	S/N	Heat Log No.	Result
1	AP064046	HY230313-5	Acceptable				
Inspection Coverage:							
Fluorescent magnetic particle inspection was performed on all accessible wetted/sealing surfaces.							
Evaluation & Disposition:	Found to be satisfactory						
Inspected by:	Dongkai Xu			Organization:	QC Department		
Approved by:	Xin Zheng						
NDT Level:	MT II			Date:	2023.03		

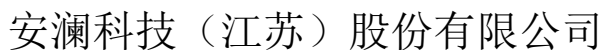


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ANLAN TECHNOLOGY (JIANGSU) CO.,LTD

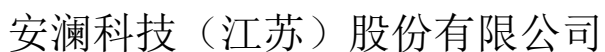
MAGNETIC PARTICLE INSPECTION REPORT

Customer:				Customer PO#:	1437		Date:	2023.03	
Drawing #:	PFFY105/180-00	Specification:	API Spec 6A 21st /ASTM E709		API Monogram:	6A-2074	Report #:	MTS-0326-002	
Part No.:	X-182585-01	Material:	AISI 4130 75K				Coating:	/	
Description:	7-1/16"15000psi Upper Bonnet						Quantity:	1	
Equipment:	CYD-5000	Acceptance Criteria:	API 6A 21st/PSL3		Circular AMPS:		2500A 3500A		
Test Method:	Fluorescence Wet Continuous	Particle Type:	Fluorescence		UV-Light Intensity:		3490Uw/cm ²		
Stage:	Machined	Concentration:	0.2ml/100ml		Magnetizing Time:		1-3S		
Item	S/N	Heat Log No.	Result	Item	S/N	Heat Log No.	Result		
1	AP064085	RD-02-46	Acceptable						
Inspection Coverage:									
Fluorescent magnetic particle inspection was performed on all accessible wetted/sealing surfaces.									
Evaluation & Disposition:		Found to be satisfactory							
Inspected by:		Dongkai Xu			Organization:		QC Department		
Approved by:		Xin Zheng							
NDT Level:		MT II			Date:		2023.03		



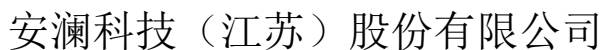
ANLAN TECHNOLOGY (JIANGSU) CO.,LTD

Customer:			Customer PO#:	1437		Date:	2023.03	
Drawing #:	PFFY105/180-00	Specification:	API Spec 6A 21st /ASTM E709	API Monogram:	6A-2074	Report #:	MTS-0320-001	
Part No.:	X-182586-01	Material:	AISI 4130 75K			Coating:	/	
Description:	7-1/16"15000psi Lower Bonnet					Quantity:	1	
Equipment:	CYD-5000	Acceptance Criteria:	API 6A 21st/PSL3	Circular AMPS:		2500A 3500A		
Test Method:	Fluorescence Wet Continuous	Particle Type:	Fluorescence	UV-Light Intensity:		3490Uw/cm ²		
Stage:	Machined	Concentration:	0.2ml/100ml	Magnetizing Time:		1-3S		
Item	S/N	Heat Log No.	Result	Item	S/N	Heat Log No.	Result	
1	AS007167	RD-03-18	Acceptable					
Inspection Coverage:								
Fluorescent magnetic particle inspection was performed on all accessible wetted/sealing surfaces.								
Evaluation & Disposition:		Found to be satisfactory						
Inspected by:		Dongkai Xu		Organization:		QC Department		
Approved by:		Xin Zheng						
NDT Level:		MT II		Date:		2023.03		



LIQUID PENETRATE EXAMINATION

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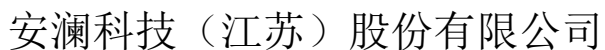


ANLAN TECHNOLOGY (JIANGSU) CO.,LTD

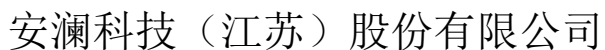
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Fluorescent magnetic particle inspection was performed on all accessible wetted/sealing surfaces.

Evaluation & Disposition:	Found to be satisfactory		
Inspected by:	Dongkai Xu	Organization:	QC Department
Approved by:	Xin Zheng		
NDT Level:	MT II	Date:	2023.03

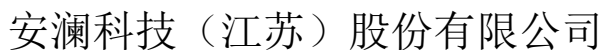


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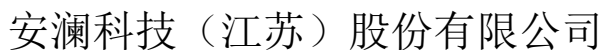
MAGNETIC PARTICLE INSPECTION REPORT

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ANLAN TECHNOLOGY (JIANGSU) CO.,LTD

Customer:			Customer PO#:	1437		Date:	2023.03	
Drawing #:	PFFY105/180-00	Specification:	QJ/JJ07.01.03.02/ ASTM E165		API Monogram:	6A-2074	Report #:	NCS-2303-H03
Part No.:	X-182590-01	Material:	AISI 410 75K			Coating:	WC	
Description:	7-1/16"15000psi Body Bushing					Quantity:	2	
Test Method:	Type II Method C	Acceptance Criteria:		API 6A 21st/PSL3		Penetrate Type:		DPT-5
Remover Type:	DPT-5	Developer Type:		DPT-5		Light Intensity:		≥1076Lx
Stage:	Machined	Penetrate Time:		10min		Develop Time:		10min
Item	S/N	Heat Log No.	Result	Item	S/N	Heat Log No.	Result	
1	AP064511	HC2302005-01	Acceptable					
2	AP064515	HC2302005-01	Acceptable					
Inspection Coverage:								
Liquid penetrate examination was performed on all accessible wetted/sealing surfaces.								
Evaluation & Disposition:		Found to be satisfactory						
Inspected by:		Dongkai Xu			Organization:		QC Department	
Approved by:		Xin Zheng						
NDT Level:		MT II			Date:		2023.03	



ANLAN TECHNOLOGY (JIANGSU) CO.,LTD

Customer:		Customer PO#:		1437		Date:		2023.03	
Drawing #:	PFFY105/180-00	Specification:	QJ/JJ07.01.03.02/ ASTM E165		API Monogram:	6A-2074	Report #:	PTS-0321-002	
Part No.:	X-182591-01	Material:	PH17-4-105K				Coating:	/	
Description:	7-1/16"15000psi Balance Stem						Quantity:	1	
Test Method:	Type II Method C	Acceptance Criteria:		API 6A 21st/PSL3		Penetrate Type:		DPT-5	
Remover Type:	DPT-5	Developer Type:		DPT-5		Light Intensity:		≥1076Lx	
Stage:	Machined	Penetrate Time:		10min		Develop Time:		10min	
Item	S/N	Heat Log No.	Result	Item	S/N	Heat Log No.	Result		
1	AS007095	HY230211-4	Acceptable						
Inspection Coverage:									
Liquid penetrate examination was performed on all accessible wetted/sealing surfaces.									
Evaluation & Disposition:		Found to be satisfactory							
Inspected by:		Dongkai Xu			Organization:		QC Department		
Approved by:		Xin Zheng							
NDT Level:		MT II			Date:		2023.03		



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ANLAN TECHNOLOGY (JIANGSU) CO.,LTD

HYDROSTATIC TEST REPORT

Customer:			Customer PO#:	1437		Date:	2023.03		
Drawing #:	PFFY105/180-00	Specification:	API6A-21st	API Monogram:	6A-2074	Report #:	AP064F038		
Part No.:	X-182734-01	Material:	AISI 4130 75K			Coating:	/		
Description:	7-1/16"15000psi					Quantity:	1		
Item	Pressure	Method			Qty	Result			
Shell	22500psi	API 6A 21st			1	OK			
Seat	15000psi	API 6A 21st			1	OK			
Item	S/N	Heat Log No.	Result		Item	S/N	Heat Log No.	Result	
			A	B				A	B
1	AP064046	HY230313-5	OK	OK					
Drift Test:									
Diameter ϕ 179.7 mm drift test gauge can freely pass through the through hole of the valve.									
Inspection Coverage:									
Per Specification & Requirements: API 6A 21st									
Judgments:					Approved By:		Examined By:		
☒ V] Conforms					Xin Zheng		Yifei Ma		
☐] Does Not Conform									



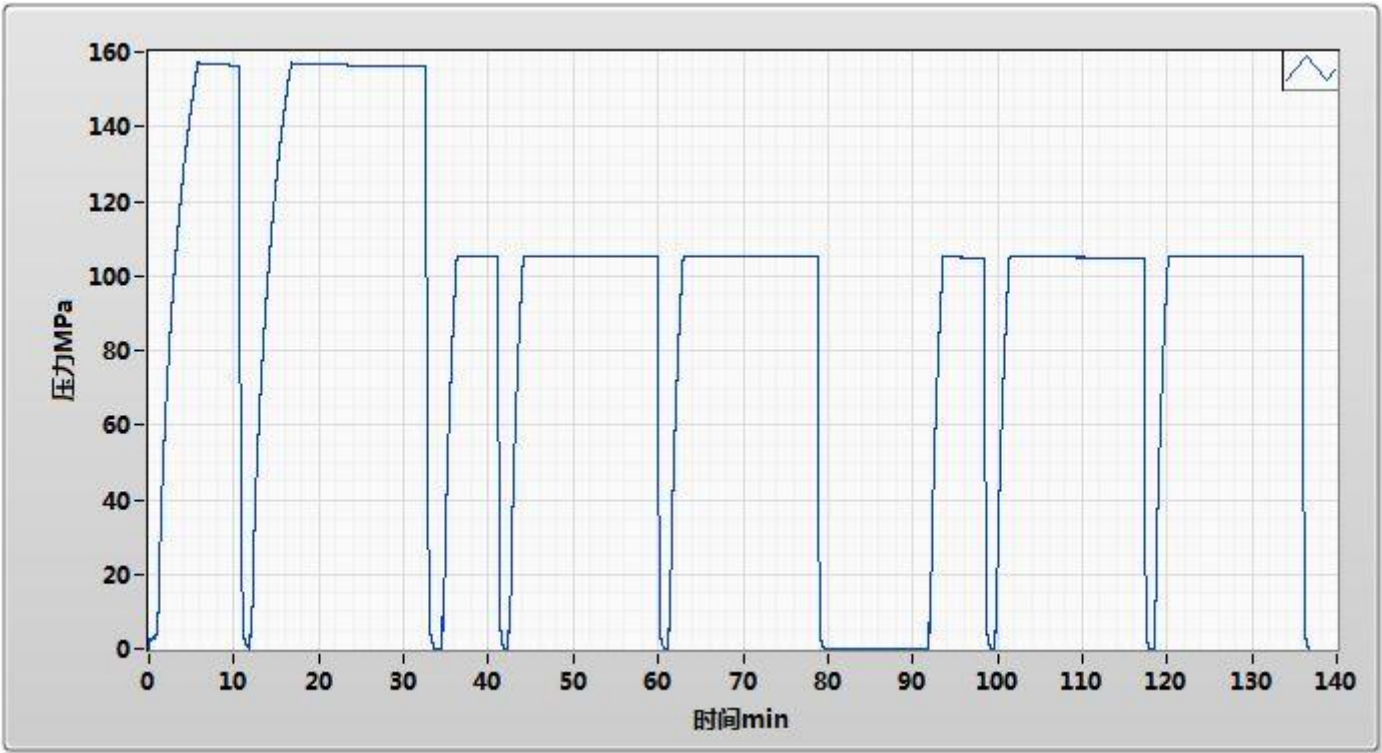
Pressure Test Report

Product Information

PRODUCT NAME	PRODUCT NO.	SPECS	PRESSURE TEST STANDARDS	TEST PART	EQUIPMENT NO.	BRAND
Hydraulic Gate Valve	AP064F038	7-1/16" 15000Psi	API 6A 21st	Shell & Seat	2#	

Test Data

LEVEL	INITIAL PRESSURE (Mpa)	TERMINATED PRESSURE (Mpa)	HOLDING TIME (Min)	PRESSURE DROPPING (Mpa)
1	156.90	156.41	4.0	0.49
2	156.93	156.22	15.0	0.72
3	105.33	105.28	4.0	0.05
4	105.28	105.07	15.0	0.21
5	105.26	105.03	15.0	0.23
6	105.08	104.82	4.0	0.26
7	105.23	104.85	15.0	0.38
8	105.29	105.03	15.0	0.26



TESTED BY:	INSPECTED BY:	REVIEWED BY:	DATE:
Yifei Ma	Xin Zheng	Zhicheng Feng	2023.03.29



REPORT INDEX

Purchase Order:1437

Quantity:1EA

Shipment No.:Crate#AP064F040

Shipment Date:April, 2023

Activity No.	Characteristics	Reference Page
1	CERTIFICATE OF CONFORMITY	Page - 2
2	Metallurgical Test Certificate	Page - 3
2.1	Mechanical Testing	Page - 3
2.2	Chemical Testing	Page -3
2.3	Heat Treatment	Page - 3
3	Hardness Test	Page - 4-12
4	Ultrasonic Testing	Page - 13-17
5	Magnetic Particle Inspection Report	Page - 18-26
6	Hydrostatic Test	Page - 27-28



安澜科技（江苏）股份有限公司

ANLAN TECHNOLOGY (JIANGSU) CO.,LTD

CERTIFICATE OF CONFORMITY

THE FOLLOWING ITEM IS IN CONFORMITY WITH PO # 1437, DRAWINGS AND ITS TECHNICAL REQUIREMENTS. IT IS MADE PER API – 6A MONOGRAM SPECIFICATIONS, EE-0.5 CLASS, PSL3, PR1, LU. AND IT IS MADE OF MATERIAL (4130,75K YIELD) FOR NACE H2S SERVICE UNDER THE CURRENT NACE MR0175 EDITION.

ITEM:

PO #: 1437

SERIAL NO.: AP064F040

PART NO.: PFFY105/180-00

QANTITY: 1

INSPECTION STANDARD: API Spec 6A 21st EE-0.5, PSL3, PR1, LU

THIS COMMODITY HAS PASSED ALL THE TECHNICAL AND PERFORMANCE TESTS CARRIED BY QUALITY CONTROL/INSPECTION DEPARTMENT.

COMPANY NAME:

(STAMP)

Customer: _____

INSPECTOR: Zhicheng Feng

CHIEF ENGINEER: Xin Zheng

EX-FACTORY DATE: April, 2023

P.O. Number: 1437



No.: AV00012

安澜科技（江苏）股份有限公司

ANLAN TECHNOLOGY (JIANGSU) CO.,LTD
Certified Material Test Report

Date:April, 2023

Customer		PO No.		Product				P/N		Serial No.		Qty	Size		WP (psi)		Material		PSL		Temp		Specifications	
		1437		HYDRAULIC GATE VALVE				PFFY105/180-00		AP064F040		1	7-1/16"		15000Psi		EE-0.5		PSL3		LU		API Spec 6A 21st	
Description						Melting Practice			Heat Treatment															
P/N	Parts	Melt No.	H.T. No.	Material Spec Standards	Qty	Serial No.	Finished	Austenized		Quenched			Temper(1)			Temper(2)								
								Temp (°C)	Time (min)	Medium	Start Temp	Finish Temp	Temp (°C)	Time (min)	Medium	Temp (°C)	Time (min)	Medium						
PFFY105/180-00	BODY	TX22-05908	RD-0310-020	AISI 4130 75K,Per ASTM A29	1	AP064043	Forging	865	6.5H	WATER	20	25	660	10.0H	AIR	/	/	/						
	UPPER BONNET	22VD0368	RD-03-18	AISI 4130 75K,Per ASTM A29	1	AS007016	Forging	860	5.0H	WATER	26	39	690	7.0H	AIR	/	/	/						
	LOWER BONNET	22DV0368	RD-03-09	AISI 4130 75K,Per ASTM A29	1	AS007032	Forging	860	6.0H	WATER	26	38	670	8.0H	AIR	/	/	/						
	STEM	YX2211-1565	HY230222-4	PH17-4 105K,Per ASTM A564/564M	1	AP064336	Forging	1030	3.6H	WATER	15	17	630	5.3H	AIR	630	5.1H	AIR						
	BALANCE STEM	YX2301-1601	HY230211-4	PH17-4 105K,Per ASTM A564/564M	1	AS001040	Forging	1030	3.5H	WATER	14	17	630	5.0H	AIR	630	5.2H	AIR						
	GATE	122V-1118	HC2302005-01	AISI 410 75K,Per ASTM A276/276M	1	AP064592	Forging	960	3.0H	OIL	39	51	720	6.0H	AIR	680	6.0H	AIR						
	BODY BUSHING	122V-1118	HC2302005-01	AISI 410 75K,Per ASTM A276/276M	2	AP064545 AP064532	Forging	960	3.0H	OIL	39	51	720	6.0H	AIR	680	6.0H	AIR						
Melt No.	H.T. No.	Chemical Analysis (wt, %)													Physical Properties									
		C	Mn	Si	P	S	Cr	Ni	Mo	V	Co	W	Cu	Nb	Fe	Spec Size	Spec Origin	Tensile (MPa)	Yield (MPa)	Elongation (%)	ROA (%)	Impact(-46°C) Impact direction (Transverse)	Hardness	Equipment Type
TX22-05908	RD-0310-020	0.31	0.67	0.30	0.009	0.007	1.06	0.20	0.204	0.006	/	/	0.02	/	/	8"x8"x10"	QTC	710	535	26.0	68.0	39/46/75	221HBW	JBW-300B/ WDW-300
22VD0368	RD-03-18	0.316	0.732	0.301	0.008	0.004	1.08	0.25	0.216	0.007	/	/	0.091	/	/	8"x8"x10"	QTC	677	544	54.0	60.0	62/65/56	222HBW	JBW-300B/ WDW-300
22DV0368	RD-03-09	0.316	0.732	0.301	0.008	0.004	1.08	0.25	0.216	0.007	/	/	0.091	/	/	8"x8"x10"	QTC	680	558	54.0	58.0	61/66/56	220HBW	JBW-300B/ WDW-300
YX2211-1565	HY230222-4	0.021	0.50	0.41	0.028	0.001	15.66	4.08	/	/	/	/	3.61	0.226	/	Φ 80x200	QTC	1017	941	20.4	57.5	45/33/51	32HRC	JBW-300B/ WDW-300
YX2301-1601	HY230211-4	0.026	0.56	0.41	0.032	0.001	15.70	4.08	/	/	/	/	3.63	0.240	/	Φ 80x200	QTC	1018	933	21.2	57.5	55/59/40	31HRC	JBW-300B/ WDW-300
122V-1118	HC2302005-01	0.14	0.40	0.22	0.012	0.006	11.66	0.06	0.042	0.034	/	/	0.027	/	/	100x100x200	QTC	690	580	24.0	66.0	/	226HBW	JBW-300B/ WDW-300
122V-1118	HC2302005-01	0.14	0.40	0.22	0.012	0.006	11.66	0.06	0.042	0.034	/	/	0.027	/	/	100x100x200	QTC	690	580	24.0	66.0	/	226HBW	JBW-300B/ WDW-300

This is to certify that all above items have been tested and inspected per scope of specifications, drawings, and the purchase order and have been found to be satisfactory.

The information in this report is true and correct to our knowledge.

.....Xin Zheng.....
NAME of QA Manager, for and on the authority of COMPANY NAME



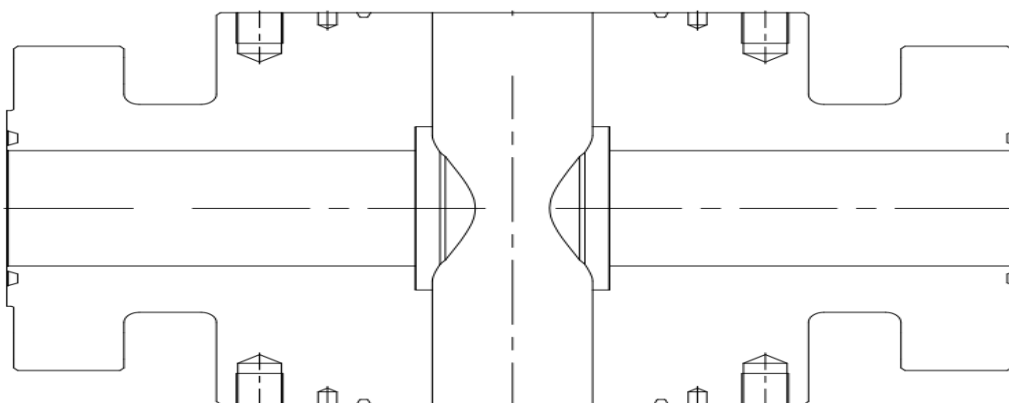
安澜科技（江苏）股份有限公司

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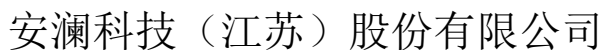
HARDNESS TEST REPORT

Customer:			Customer PO#:			Date:	
Drawing #:	PFFY105/180-00	Specification:	API Spec 6A 21st /ASTM E10	API Monogram:	6A-2074	Report #:	HS-0329-011
Part No.:	X-182734-01	Material:	AISI 4130 75K			Coating:	/
Description:	7-1/16"15000psi Body					Quantity:	1
Item	S/N	Heat Log No.	Hardness	Item	S/N	Heat Log No.	Hardness
1	AP064043	RD-0310-020	229HBW/214HBW 212HBW/222HBW				

Sketch:



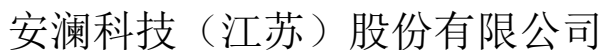
Method Used:	Impact Energy: 3000Kg.	Diameter of tungsten ball: 10mm	
Acceptable Hardness:	197HBW-235HBW	Approved By:	Examined By:
Judgments:	[V] Conforms	Xin zheng	Zhengguo Yao
	[] Does Not Conform		



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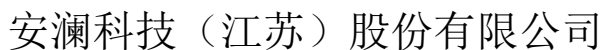
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[illegible]6



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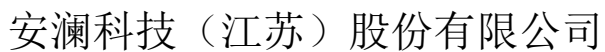
[illegible]

Technical drawing of a shaft with a keyway. The drawing consists of two views: a front view (top) and a side view (bottom). The front view shows a shaft with a keyway on the left end. The side view shows the shaft with a keyway on the right end. The shaft has a central section with a diameter of 10 mm and a total length of 100 mm. The keyway is 10 mm wide and 5 mm deep. The drawing is labeled with dimensions and a scale of 1:1.

Zhengguo Yao

HARDNESS TEST REPORT

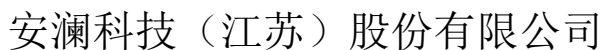
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[illegible]

Method Used:	Impact Energy: 5Kg-f(49.03N).		
Acceptable Hardness:	≥1050HV	Approved By:	Examined By:
Judgments:	[V] Conforms	Xin zheng	Zhengguo Yao
	[] Does Not Conform		



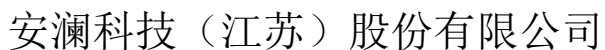
ANLAN TECHNOLOGY (JIANGSU) CO.,LTD

Customer:			Customer PO#:			Date:	
Drawing #:	PFFY105/180-00	Specification:	API Spec 6A 21st /ASTM E10		API Monogram:	6A-2074	Report #: 20230303-02
Part No.:	X-182590-01	Material:	AISI 410 75K				Coating: /
Description:	7-1/16"15000psi Body bushing					Quantity:	2
Item	S/N	Heat Log No.	Hardness	Item	S/N	Heat Log No.	Hardness
1	AP064545	HC2302005-01	222HBW				
2	AP064532	HC2302005-01	210HBW				

Sketch:

The sketch shows a long, narrow rectangular component with rounded ends. It has several vertical slots or grooves along its length. A central dashed vertical line indicates a point of symmetry. The drawing is a simple line art representation without shading.

Method Used:	Impact Energy: 3000Kg.	Diameter of tungsten ball: 10mm	
Acceptable Hardness:	207HBW-235HBW	Approved By:	Examined By:
Judgments:	[V] Conforms	Xin zheng	Zhengguo Yao
	[] Does Not Conform		



HARDNESS TEST REPORT

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ANLAN TECHNOLOGY (JIANGSU) CO.,LTD

HARDNESS TEST REPORT

Customer:				Customer PO#:	1437		Date:	2023.03
Drawing #:	PFFY105/180-00	Specification:	API Spec 6A 21st /ASTM E18		API Monogram:	6A-2074	Report #:	HS-0321-001
Part No.:	X-182591-01	Material:	PH17-4 105K				Coating:	/
Description:	7-1/16"15000psi Balance Stem						Quantity:	1
Item	S/N	Heat Log No.	Hardness	Item	S/N	Heat Log No.	Hardness	
1	AS001040	HY230211-4	31HRC					
Sketch:								
								
Method Used:								
Acceptable Hardness:	27HRC-33HRC		Approved By:		Examined By:			
Judgments:	☐ V] Conforms		Xin zheng		Zhengguo Yao			
	☐] Does Not Conform							



安澜科技（江苏）股份有限公司

ANLAN TECHNOLOGY (JIANGSU) CO.,LTD

ULTRASONIC EXAMINATION REPORT

Customer:			Customer PO#:	1437		Date:	2023.03
Drawing #:	PFFY105/180 -00	Specification:	API Spec 6A 21st /ASTM A388	API Monogram:	6A-2074	Report #:	UTS-0319-003
Part No.:	X-182734-01	Material:	AISI 4130 75K			Coating:	/
Description:	7-1/16"15000psi Body					Quantity:	1
Item	S/N	Heat Log No.	Result	Item	S/N	Heat Log No.	Result
1	AP064043	RD-0310-020	Acceptable				

ABOVE FORGED ARE TESTED ULTRASONICALLY FOR INTERNAL DEFECTS, AND THERE WAS NO RECORDABLE INDICATION OBSERVED DURING THE TEST. HENCE ACCEPTABLE AS PER STANDARD.

UT Code:	ASTM A388	Technique:	STRAIGHT PROBE	Examined By:	Dongkai Xu
Exam. Stage:	Rough After	Calibration:	Block: CSK -I A Φ 1.6 FBH Block Φ 3.2 FBH Block Φ 6.4 FBH Block	Level as per UT:	II
Equipment:	MUT-800C	Couplant:	OIL		
Date of calibration	2023.03.02				
Period of validity	2024.03.02				
Probe Used:	2.5P Φ 14+ Φ 20	Acceptance Criteria:	API Spec. 6A 21st	Approved by:	Xin Zheng
Instrmt/Ident.#:	FD14082504	Test Gain:	Φ 1.6DAC+6dB Φ 3.2DAC+6dB Φ 6.4DAC+6dB	Level as per UT:	II



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ANLAN TECHNOLOGY (JIANGSU) CO.,LTD

ULTRASONIC EXAMINATION REPORT

Customer:			Customer PO#:			Date:	
Drawing #:		Specification:		API Monogram:		Report #:	
Part No.:		Material:				Coating:	
Description:	7-1/16"15000psi Upper Bonnet					Quantity:	1
Item	S/N	Heat Log No.	Result	Item	S/N	Heat Log No.	Result
1	AS007016	RD-03-18	Acceptable				
ABOVE FORGED ARE TESTED ULTRASONICALLY FOR INTERNAL DEFECTS, AND THERE WAS NO RECORDABLE INDICATION OBSERVED DURING THE TEST. HENCE ACCEPTABLE AS PER STANDARD.							
UT Code:	ASTM A388	Technique:	STRAIGHT PROBE		Examined By:	Dongkai Xu	
Exam. Stage:	Rough After	Calibration:	Block: CSK -I A Φ 1.6 FBH Block Φ 3.2 FBH Block		Level as per UT:	II	
Equipment:	MUT-800C	Couplant:	OIL				
Date of calibration	2023.03.02						
Period of validity	2024.03.02						
Probe Used:	2.5P Φ 14+ Φ 20	Acceptance Criteria:	API Spec. 6A 21st		Approved by:	Xin Zheng	
Instrmt/Ident.#:	FD14082504	Test Gain:	Φ 1.6DAC+6dB Φ 3.2DAC+6dB		Level as per UT:	II	

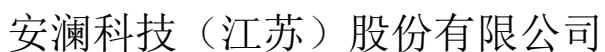


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ANLAN TECHNOLOGY (JIANGSU) CO.,LTD

ULTRASONIC EXAMINATION REPORT

Customer:				Customer PO#:	1437		Date:	2023.03	
Drawing #:	PFFY105/180-00	Specification:	API Spec 6A 21st /ASTM A388		API Monogram:	6A-2074	Report #:	UTS-0310-00 1	
Part No.:	X-182586-01	Material:	AISI 4130 75K				Coating:	/	
Description:	7-1/16"15000psi Lower Bonnet						Quantity:	1	
Item	S/N	Heat Log No.	Result	Item	S/N	Heat Log No.	Result		
1	AS007032	RD-03-09	Acceptable						
ABOVE FORGED ARE TESTED ULTRASONICALLY FOR INTERNAL DEFECTS, AND THERE WAS NO RECORDABLE INDICATION OBSERVED DURING THE TEST. HENCE ACCEPTABLE AS PER STANDARD.									
UT Code:	ASTM A388		Technique:	STRAIGHT PROBE		Examined By:	Dongkai Xu		
Exam. Stage:	Rough After		Calibration:	Block: CSK -I A Φ 1.6 FBH Block Φ 3.2 FBH Block		Level as per UT:	II		
Equipment:	MUT-800C		Couplant:	OIL					
Date of calibration	2023.03.02								
Period of validity	2024.03.02								
Probe Used:	2.5P Φ 14+ Φ 20		Acceptance Criteria:	API Spec. 6A 21st		Approved by:	Xin Zheng		
Instrmt/Ident.#:	FD14082504		Test Gain:	Φ 1.6DAC+6dB Φ 3.2DAC+6dB		Level as per UT:	II		



ULTRASONIC EXAMINATION REPORT

ABOVE FORGED ARE TESTED ULTRASONICALLY FOR INTERNAL DEFECTS, AND THERE WAS NO RECORDABLE INDICATION
SERVED DURING THE TEST. HENCE ACCEPTABLE AS PER STANDARD.

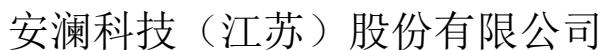


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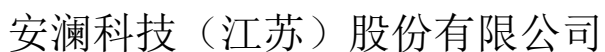
ULTRASONIC EXAMINATION REPORT

Customer:			Customer PO#:			Date:	
Drawing #:	PFFY105/180-00	Specification:	API Spec 6A 21st /ASTM A388	API Monogram:	6A-2074	Report #:	UTS-0316-001
Part No.:	X-182591-01	Material:	PH17-4 105K			Coating:	/
Description:	7-1/16"15000psi Balance Stem					Quantity:	1
Item	S/N	Heat Log No.	Result	Item	S/N	Heat Log No.	Result
1	AS001040	HY230211-4	Acceptable				
ABOVE FORGED ARE TESTED ULTRASONICALLY FOR INTERNAL DEFECTS, AND THERE WAS NO RECORDABLE INDICATION OBSERVED DURING THE TEST. HENCE ACCEPTABLE AS PER STANDARD.							
UT Code:	ASTM A388	Technique:	STRAIGHT PROBE		Examined By:	Dongkai Xu	
Exam. Stage:	Rough After	Calibration:	Block: CSK -I A Φ 1.6 FBH Block Φ 3.2 FBH Block		Level as per UT:	II	
Equipment:	MUT-800C	Couplant:	OIL				
Date of calibration	2023.03.02						
Period of validity	2024.03.02						
Probe Used:	2.5P Φ 14+Φ 20	Acceptance Criteria:	API Spec. 6A 21st		Approved by:	Xin Zheng	
Instrmt/Ident.#:	FD14082504	Test Gain:	Φ 1.6DAC+6dB Φ 3.2DAC+6dB		Level as per UT:	II	



MAGNETIC PARTICLE INSPECTION REPORT

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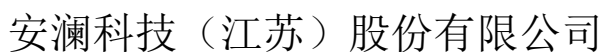


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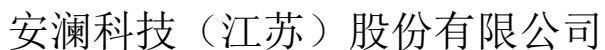
Fluorescent magnetic particle inspection was performed on all accessible wetted/sealing surfaces.

Evaluation & Disposition:	Found to be satisfactory		
Inspected by:	Dongkai Xu	Organization:	QC Department
Approved by:	Xin Zheng		
NDT Level:	MT II	Date:	2023.03



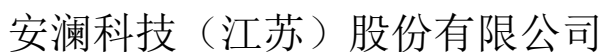
MAGNETIC PARTICLE INSPECTION REPORT

20



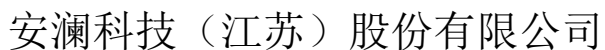
MAGNETIC PARTICLE INSPECTION REPORT

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LIQUID PENETRATE EXAMINATION

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ANLAN TECHNOLOGY (JIANGSU) CO.,LTD

Customer:		Customer PO#:		1437		Date:	2023.03	
Drawing #:	PFFY105/180-00	Specification:	QJ/JJ07.01.03.02/ ASTM E165		API Monogram:	6A-2074	Report #:	PTS-0320-001
Part No.:	X-182591-01	Material:	PH17-4-105K			Coating:	/	
Description:	7-1/16"15000psi Balance Stem					Quantity:	1	
Test Method:	Type II Method C	Acceptance Criteria:	API 6A 21st/PSL3		Penetrate Type:		DPT-5	
Remover Type:	DPT-5	Developer Type:	DPT-5		Light Intensity:		≥1076Lx	
Stage:	Machined	Penetrate Time:	10min		Develop Time:		10min	
Item	S/N	Heat Log No.	Result	Item	S/N	Heat Log No.	Result	
1	AS001040	HY230211-4	Acceptable					
Inspection Coverage:								
Liquid penetrate examination was performed on all accessible wetted/sealing surfaces.								
Evaluation & Disposition:		Found to be satisfactory						
Inspected by:		Dongkai Xu		Organization:		QC Department		
Approved by:		Xin Zheng						
NDT Level:		MT II		Date:		2023.03		



安澜科技（江苏）股份有限公司

ANLAN TECHNOLOGY (JIANGSU) CO.,LTD

HYDROSTATIC TEST REPORT

Customer:				Customer PO#:	1437		Date:	2023.03	
Drawing #:	PFFY105/180-00	Specification:	API6A-21st	API Monogram:	6A-2074	Report #:	AP064F040		
Part No.:	X-182734-01	Material:	AISI 4130 75K			Coating:	/		
Description:	7-1/16"15000psi					Quantity:	1		
Item	Pressure	Method			Qty	Result			
Shell	22500psi	API 6A 21st			1	OK			
Seat	15000psi	API 6A 21st			1	OK			
Item	S/N	Heat Log No.	Result		Item	S/N	Heat Log No.	Result	
			A	B				A	B
1	AP064043	RD-0310-020	OK	OK					
Drift Test:									
Diameter ϕ 179.7 mm drift test gauge can freely pass through the through hole of the valve.									
Inspection Coverage:									
Per Specification & Requirements: API 6A 21st									
					Approved By:		Examined By:		
Judgments:		[V] Conforms			Xin Zheng		Yifei Ma		
		[] Does Not Conform							



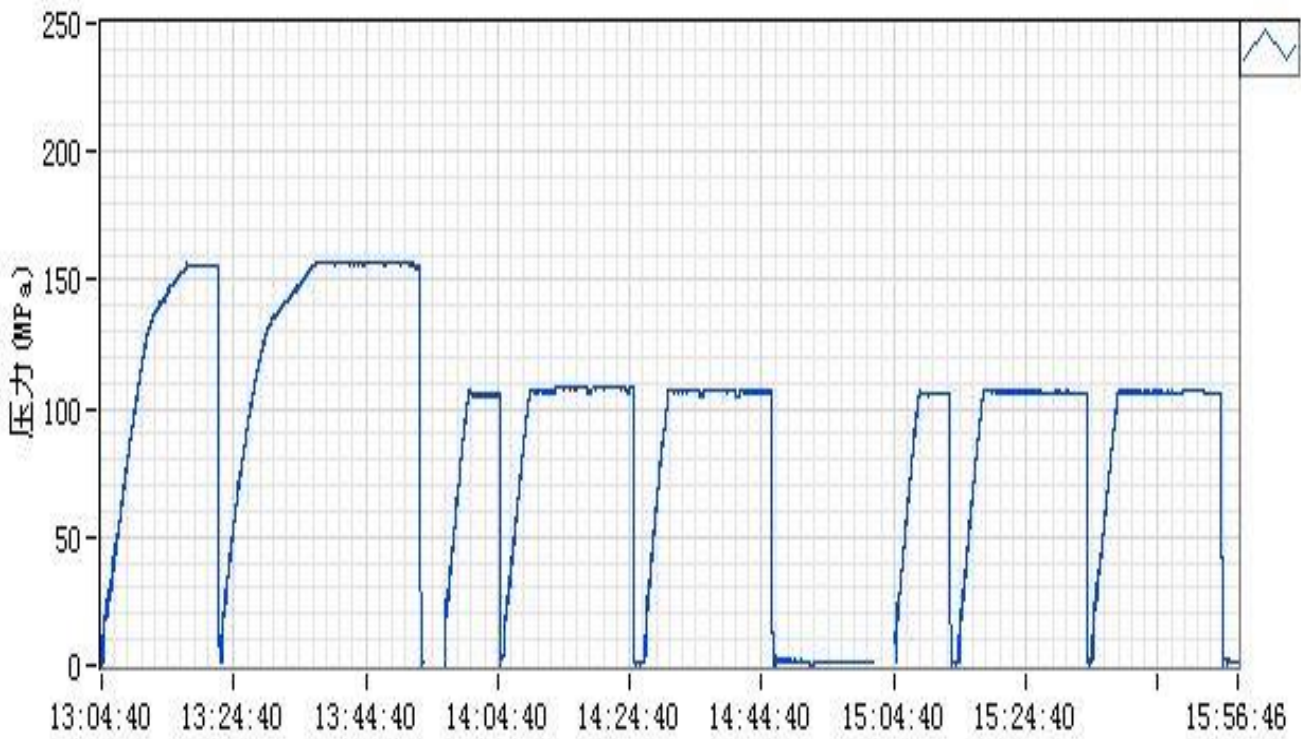
Pressure Test Report

Product Information

PRODUCT NAME	PRODUCT NO.	SPECS	PRESSURE TEST STANDARDS	TEST PART	EQUIPMENT NO.	BRAND
Hydraulic Gate Valve	AP064F040	7-1/16" 15000Psi	API 6A 21st	Shell & Seat	1#	

Test Data

LEVEL	INITIAL PRESSURE (Mpa)	TERMINATED PRESSURE (Mpa)	HOLDING TIME (Min)	PRESSURE DROPPING (Mpa)
1	155.9	155.7	4.0	0.2
2	156.7	155.0	15.0	1.7
3	105.3	105.0	4.0	0.2
4	106.6	106.1	15.0	0.5
5	106.8	106.5	15.0	0.2
6	105.9	105.7	4.0	0.2
7	106.6	106.0	15.0	0.6
8	106.4	105.7	15.0	0.6



TESTED BY:	INSPECTED BY:	REVIEWED BY:	DATE:
Yifei Ma	Xin Zheng	Zhicheng Feng	2023.03.31



REPORT INDEX

Purchase Order:1437

Quantity:1EA

Shipment No.:Crate#AP064F042

Shipment Date:April, 2023

Activity No.	Characteristics	Reference Page
1	CERTIFICATE OF CONFORMITY	Page - 2
2	Metallurgical Test Certificate	Page - 3
2.1	Mechanical Testing	Page - 3
2.2	Chemical Testing	Page -3
2.3	Heat Treatment	Page - 3
3	Hardness Test	Page - 4-12
4	Ultrasonic Testing	Page - 13-17
5	Magnetic Particle Inspection Report	Page - 18-26
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安澜科技（江苏）股份有限公司

ANLAN TECHNOLOGY (JIANGSU) CO.,LTD

CERTIFICATE OF CONFORMITY

THE FOLLOWING ITEM IS IN CONFORMITY WITH PO # 1437, DRAWINGS AND ITS TECHNICAL REQUIREMENTS. IT IS MADE PER API – 6A MONOGRAM SPECIFICATIONS, EE-0.5 CLASS, PSL3, PR1, LU. AND IT IS MADE OF MATERIAL (4130,75K YIELD) FOR NACE H2S SERVICE UNDER THE CURRENT NACE MR0175 EDITION.

ITEM:

PO #: 1437

SERIAL NO.: AP064F042

PART NO.: PFFY105/180-00

QANTITY: 1

INSPECTION STANDARD: API Spec 6A 21st EE-0.5, PSL3, PR1, LU

THIS COMMODITY HAS PASSED ALL THE TECHNICAL AND PERFORMANCE TESTS CARRIED BY QUALITY CONTROL/INSPECTION DEPARTMENT.

COMPANY NAME:

(STAMP)

Customer: _____

INSPECTOR:Zhicheng Feng

CHIEF ENGINEER: Xin Zheng

EX-FACTORY DATE: April, 2023

P.O. Number: 1437



No.: AV00012

安澜科技（江苏）股份有限公司

ANLAN TECHNOLOGY (JIANGSU) CO.,LTD
Certified Material Test Report

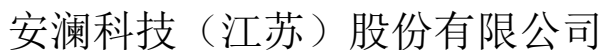
Date:April, 2023

Customer		PO No.		Product			P/N		Serial No.		Qty	Size		WP (psi)	Material	PSL	Temp	Specifications						
		1437		HYDRAULIC GATE VALVE			PFFY105/180-00		AP064F042		1	7-1/16"		15000Psi	EE-0.5	PSL3	LU	API Spec 6A 21st						
Description						Melting Practice			Heat Treatment															
P/N	Parts	Melt No.	H.T. No.	Material Spec Standards	Qty.	Serial No.	Finished	Austenized		Quenched			Temper(1)			Temper(2)								
								Temp (°C)	Time (min)	Medium	Start Temp	Finish Temp	Temp (°C)	Time (min)	Medium	Temp (°C)	Time (min)	Medium						
PFFY105/180-00	BODY	TX22-05907	RD-03-13	AISI 4130 75K,Per ASTM A29	1	AP064026	Forging	860	6.0H	WATER	27	39	670	8.0H	AIR	/	/	/						
	UPPER BONNET	22DV0368	RT-3-053	AISI 4130 75K,Per ASTM A29	1	AS007155	Forging	860	6.0H	WATER	26	27	680	8.0H	AIR	/	/	/						
	LOWER BONNET	TX22-05906	HY230214-3	AISI 4130 75K,Per ASTM A29	1	AP064107	Forging	870	4.5H	WATER	16	19	680	6.5H	AIR	/	/	/						
	STEM	YX2211-1565	HY230222-4	PH17-4 105K,Per ASTM A564/564M	1	AP064346	Forging	1030	3.6H	WATER	15	17	630	5.3H	AIR	630	5.1H	AIR						
	BALANCE STEM	YX2301-1601	HY230211-4	PH17-4 105K,Per ASTM A564/564M	1	AS007172	Forging	1030	3.5H	WATER	14	17	630	5.0H	AIR	630	5.2H	AIR						
	GATE	122V-1118	HC2302005-01	AISI 410 75K,Per ASTM A276/276M	1	AP064597	Forging	960	3.0H	OIL	39	51	720	6.0H	AIR	680	6.0H	AIR						
	BODY BUSHING	122V-1118	HC2302005-01	AISI 410 75K,Per ASTM A276/276M	2	AP064521 AP064527	Forging	960	3.0H	OIL	39	51	720	6.0H	AIR	680	6.0H	AIR						
Melt No.	H.T. No.	Chemical Analysis (wt, %)													Physical Properties									
		C	Mn	Si	P	S	Cr	Ni	Mo	V	Co	W	Cu	Nb	Fe	Spec Size	Spec Origin	Tensile (MPa)	Yield (MPa)	Elongation (%)	ROA (%)	Impact(-46°C) Impact direction (Transverse)	Hardness	Equipment Type
TX22-05907	RD-03-13	0.30	0.66	0.26	0.007	0.003	1.02	0.20	0.201	0.005	/	/	0.02	/	/	8"x8"x10"	QTC	682	569	54.0	58.0	66/63/58	218HBW	JBW-300B/ WDW-300
22DV0368	RT-3-053	0.316	0.732	0.301	0.008	0.004	1.08	0.25	0.216	0.007	/	/	0.091	/	/	8"x8"x10"	QTC	695	541	29.0	70.0	83/98/85	229HBW	JBW-300B/ WDW-300
TX22-05906	HY230214-3	0.31	0.67	0.26	0.009	0.003	1.04	0.20	0.217	0.006	/	/	0.02	/	/	8"x8"x10"	QTC	729	557	22.4	72.1	41/85/79	224HBW	JBW-300B/ WDW-300
YX2211-1565	HY230222-4	0.021	0.50	0.41	0.028	0.001	15.66	4.08	/	/	/	/	3.61	0.226	/	Φ 80x200	QTC	1017	941	20.4	57.5	45/33/51	32HRC	JBW-300B/ WDW-300
YX2301-1601	HY230211-4	0.026	0.56	0.41	0.032	0.001	15.70	4.08	/	/	/	/	3.63	0.240	/	Φ 80x200	QTC	1018	933	21.2	57.5	55/59/40	31HRC	JBW-300B/ WDW-300
122V-1118	HC2302005-01	0.14	0.40	0.22	0.012	0.006	11.66	0.06	0.042	0.034	/	/	0.027	/	/	100x100x200	QTC	690	580	24.0	66.0	/	226HBW	JBW-300B/ WDW-300
122V-1118	HC2302005-01	0.14	0.40	0.22	0.012	0.006	11.66	0.06	0.042	0.034	/	/	0.027	/	/	100x100x200	QTC	690	580	24.0	66.0	/	226HBW	JBW-300B/ WDW-300

This is to certify that all above items have been tested and inspected per scope of specifications, drawings, and the purchase order and have been found to be satisfactory.

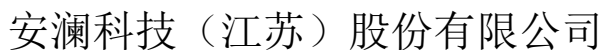
The information in this report is true and correct to our knowledge.

_____Xin Zheng
NAME of QA Manager, for and on the authority of COMPANY NAME



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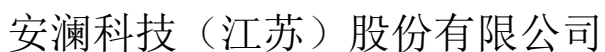
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ANLAN TECHNOLOGY (JIANGSU) CO.,LTD

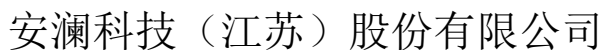
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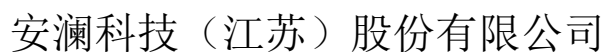


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[illegible]

Technical drawing of a shaft with a keyway. The drawing consists of two views: a front view (top) and a side view (bottom). The front view shows a shaft with a keyway on the left end. The side view shows the shaft with a keyway on the right end. The shaft has a central section with a diameter of 10 mm and a total length of 100 mm. The keyway is 10 mm wide and 5 mm deep. The drawing is labeled with dimensions and a scale of 1:1.

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ANLAN TECHNOLOGY (JIANGSU) CO.,LTD

Customer:				Customer PO#:			Date:	
Drawing #:	PFFY105/180-00	Specification:	API Spec 6A 21st /ASTM E10		API Monogram:	6A-2074	Report #:	20230303-01
Part No.:	X-182589-01	Material:	AISI 410 75K				Coating:	/
Description:	7-1/16"1500psi Gate						Quantity:	1
Item	S/N	Heat Log No.	Hardness	Item	S/N	Heat Log No.	Hardness	
1	AP064597	HC2302005-01	234HBW					

Sketch:

Method Used:	Impact Energy: 3000Kg.	Diameter of tungsten ball: 10mm
Acceptable Hardness:	207HBW-235HBW	Approved By:
Judgments:	[V] Conforms [] Does Not Conform	Xin zheng
		Zhengguo Yao



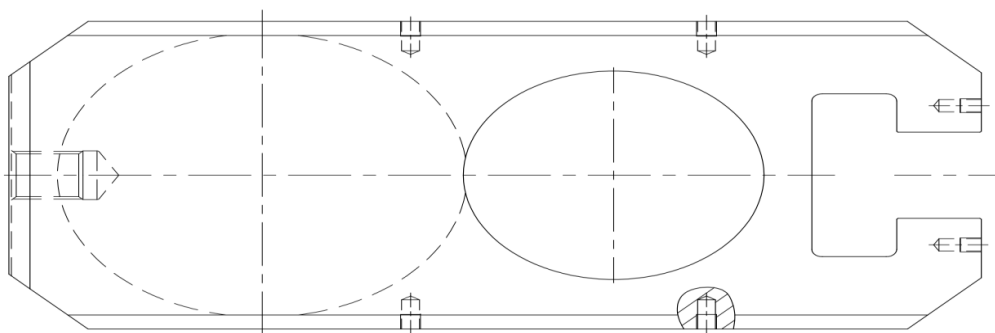
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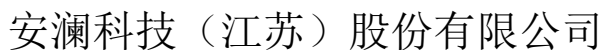
HARDNESS TEST REPORT

Customer:				Customer PO#:			Date:	
Drawing #:	PFFY105/180-00	Specification:	API Spec 6A 21st /ASTM E92	API Monogram:	6A-2074	Report #:	20230303-03	
Part No.:	X-182589-01	Material:	AISI 410 75K			Coating:	WC	
Description:	7-1/16"15000psi Gate					Quantity:	1	
Item	S/N	Heat Log No.	Hardness	Item	S/N	Heat Log No.	Hardness	
1	AP064597	HC2302005-01	1171HV					

Sketch:

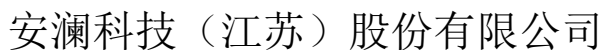


Method Used:	Impact Energy: 5Kg-f(49.03N).		
Acceptable Hardness:	≥1050HV	Approved By:	Examined By:
Judgments:	[V] Conforms	Xin zheng	Zhengguo Yao
	[] Does Not Conform		



HARDNESS TEST REPORT

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HARDNESS TEST REPORT

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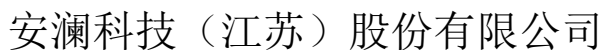


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ANLAN TECHNOLOGY (JIANGSU) CO.,LTD

HARDNESS TEST REPORT

Customer:				Customer PO#:	1437		Date:	2023.03
Drawing #:	PFFY105/180-00	Specification:	API Spec 6A 21st /ASTM E18		API Monogram:	6A-2074	Report #:	HS-0321-001
Part No.:	X-182591-01	Material:	PH17-4 105K				Coating:	/
Description:	7-1/16"15000psi Balance Stem						Quantity:	1
Item	S/N	Heat Log No.	Hardness	Item	S/N	Heat Log No.	Hardness	
1	AS007172	HY230211-4	30HRC					
Sketch:								
Method Used:								
Acceptable Hardness:	27HRC-33HRC		Approved By:		Examined By:			
Judgments:	☒ V] Conforms		Xin zheng		Zhengguo Yao			
	☐] Does Not Conform							



ANLAN TECHNOLOGY (JIANGSU) CO.,LTD

[illegible]

UT Code:	ASTM A388	Technique:	STRAIGHT PROBE	Examined By:	Dongkai Xu
Exam. Stage:	Rough After	Calibration:	Block: CSK -I A Φ 1.6 FBH Block Φ 3.2 FBH Block Φ 6.4 FBH Block	Level as per UT:	II
Equipment:	MUT-800C	Couplant:	OIL		
Date of calibration	2023.03.02				
Period of validity	2024.03.02				
Probe Used:	2.5P ∅ 14+ ∅ 20	Acceptance Criteria:	API Spec. 6A 21st	Approved by:	Xin Zheng
Instrmnt/Ident.#:	FD14082504	Test Gain:	Φ 1.6DAC+6dB Φ 3.2DAC+6dB Φ 6.4DAC+6dB	Level as per UT:	II



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ANLAN TECHNOLOGY (JIANGSU) CO.,LTD

ULTRASONIC EXAMINATION REPORT

Customer:			Customer PO#:			Date:	
Drawing #:		Specification:		API Monogram:		Report #:	
Part No.:		Material:				Coating:	
Description:	7-1/16"15000psi Upper Bonnet					Quantity:	1
Item	S/N	Heat Log No.	Result	Item	S/N	Heat Log No.	Result
1	AS007155	RT-3-053	Acceptable				
ABOVE FORGED ARE TESTED ULTRASONICALLY FOR INTERNAL DEFECTS, AND THERE WAS NO RECORDABLE INDICATION OBSERVED DURING THE TEST. HENCE ACCEPTABLE AS PER STANDARD.							
UT Code:	ASTM A388	Technique:	STRAIGHT PROBE		Examined By:	Dongkai Xu	
Exam. Stage:	Rough After	Calibration:	Block: CSK -I A Φ 1.6 FBH Block Φ 3.2 FBH Block		Level as per UT:	II	
Equipment:	MUT-800C	Couplant:	OIL				
Date of calibration	2023.03.02						
Period of validity	2024.03.02						
Probe Used:	2.5P Φ 14+ Φ 20	Acceptance Criteria:	API Spec. 6A 21st		Approved by:	Xin Zheng	
Instrmt/Ident.#:	FD14082504	Test Gain:	Φ 1.6DAC+6dB Φ 3.2DAC+6dB		Level as per UT:	II	



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ANLAN TECHNOLOGY (JIANGSU) CO.,LTD

ULTRASONIC EXAMINATION REPORT

Customer:				Customer PO#:	1437		Date:	2023.02	
Drawing #:	PFFY105/180-00	Specification:	API Spec 6A 21st /ASTM A388	API Monogram:	6A-2074	Report #:	UTS-0227-00 2		
Part No.:	X-182586-01	Material:	AISI 4130 75K			Coating:	/		
Description:	7-1/16"15000psi Lower Bonnet					Quantity:	1		
Item	S/N	Heat Log No.	Result	Item	S/N	Heat Log No.	Result		
1	AP064107	HY230214-3	Acceptable						
ABOVE FORGED ARE TESTED ULTRASONICALLY FOR INTERNAL DEFECTS, AND THERE WAS NO RECORDABLE INDICATION OBSERVED DURING THE TEST. HENCE ACCEPTABLE AS PER STANDARD.									
UT Code:	ASTM A388		Technique:	STRAIGHT PROBE		Examined By:	Dongkai Xu		
Exam. Stage:	Rough After		Calibration:	Block: CSK -I A Φ 1.6 FBH Block Φ 3.2 FBH Block		Level as per UT:	II		
Equipment:	MUT-800C		Couplant:	OIL					
Date of calibration	2023.03.02								
Period of validity	2024.03.02								
Probe Used:	2.5P Φ 14+ Φ 20		Acceptance Criteria:	API Spec. 6A 21st		Approved by:	Xin Zheng		
Instrmt/Ident.#:	FD14082504		Test Gain:	Φ 1.6DAC+6dB Φ 3.2DAC+6dB		Level as per UT:	II		



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ANLAN TECHNOLOGY (JIANGSU) CO.,LTD

ULTRASONIC EXAMINATION REPORT

Customer:				Customer PO#:	1437		Date:	2023.03	
Drawing #:	PFFY105/180-00	Specification:	API Spec 6A 21st /ASTM A388	API Monogram:	6A-2074		Report #:	UTS-0302-001	
Part No.:	X-182716-01	Material:	PH17-4 105K			Coating:	/		
Description:	7-1/16"15000psi Stem						Quantity:	1	
Item	S/N	Heat Log No.	Result	Item	S/N	Heat Log No.	Result		
1	AP064346	HY230222-4	Acceptable						
ABOVE FORGED ARE TESTED ULTRASONICALLY FOR INTERNAL DEFECTS, AND THERE WAS NO RECORDABLE INDICATION OBSERVED DURING THE TEST. HENCE ACCEPTABLE AS PER STANDARD.									
UT Code:	ASTM A388		Technique:	STRAIGHT PROBE		Examined By:	Dongkai Xu		
Exam. Stage:	Rough After		Calibration:	Block: CSK -I A Φ 1.6 FBH Block Φ 3.2 FBH Block		Level as per UT:	II		
Equipment:	MUT-800C		Couplant:	OIL					
Date of calibration	2023.03.02								
Period of validity	2024.03.02								
Probe Used:	2.5P Φ 14+ Φ 20		Acceptance Criteria:	API Spec. 6A 21st		Approved by:	Xin Zheng		
Instrmt/Ident.#:	FD14082504		Test Gain:	Φ 1.6DAC+6dB Φ 3.2DAC+6dB		Level as per UT:	II		

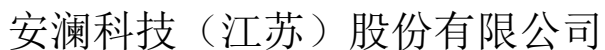


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ANLAN TECHNOLOGY (JIANGSU) CO.,LTD

ULTRASONIC EXAMINATION REPORT

Customer:			Customer PO#:			Date:	
Drawing #:	PFFY105/180-00	Specification:	API Spec 6A 21st /ASTM A388	API Monogram:	6A-2074	Report #:	UTS-0315-001
Part No.:	X-182591-01	Material:	PH17-4 105K			Coating:	/
Description:	7-1/16"15000psi Balance Stem					Quantity:	1
Item	S/N	Heat Log No.	Result	Item	S/N	Heat Log No.	Result
1	AS007172	HY230211-4	Acceptable				
ABOVE FORGED ARE TESTED ULTRASONICALLY FOR INTERNAL DEFECTS, AND THERE WAS NO RECORDABLE INDICATION OBSERVED DURING THE TEST. HENCE ACCEPTABLE AS PER STANDARD.							
UT Code:	ASTM A388	Technique:	STRAIGHT PROBE		Examined By:	Dongkai Xu	
Exam. Stage:	Rough After	Calibration:	Block: CSK -I A Φ 1.6 FBH Block Φ 3.2 FBH Block		Level as per UT:	II	
Equipment:	MUT-800C	Couplant:	OIL				
Date of calibration	2023.03.02						
Period of validity	2024.03.02						
Probe Used:	2.5P Φ 14+Φ 20	Acceptance Criteria:	API Spec. 6A 21st		Approved by:	Xin Zheng	
Instrmt/Ident.#:	FD14082504	Test Gain:	Φ 1.6DAC+6dB Φ 3.2DAC+6dB		Level as per UT:	II	



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[illegible]

Fluorescent magnetic particle inspection was performed on all accessible wetted/sealing surfaces.

Evaluation & Disposition:	Found to be satisfactory		
Inspected by:	Dongkai Xu	Organization:	QC Department
Approved by:	Xin Zheng		
NDT Level:	MT II	Date:	2023.03

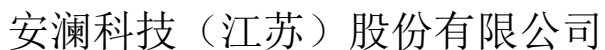


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ANLAN TECHNOLOGY (JIANGSU) CO.,LTD

MAGNETIC PARTICLE INSPECTION REPORT

Customer:				Customer PO#:	1437		Date:	2023.03	
Drawing #:	PFFY105/180-00	Specification:	API Spec 6A 21st /ASTM E709		API Monogram:	6A-2074	Report #:	MTS-0328-002	
Part No.:	X-182585-01	Material:	AISI 4130 75K				Coating:	/	
Description:	7-1/16"15000psi Upper Bonnet						Quantity:	1	
Equipment:	CYD-5000	Acceptance Criteria:	API 6A 21st/PSL3		Circular AMPS:		2500A 3500A		
Test Method:	Fluorescence Wet Continuous	Particle Type:	Fluorescence		UV-Light Intensity:		3490Uw/cm ²		
Stage:	Machined	Concentration:	0.2ml/100ml		Magnetizing Time:		1-3S		
Item	S/N	Heat Log No.	Result	Item	S/N	Heat Log No.	Result		
1	AS007155	RT-3-053	Acceptable						
Inspection Coverage:									
Fluorescent magnetic particle inspection was performed on all accessible wetted/sealing surfaces.									
Evaluation & Disposition:		Found to be satisfactory							
Inspected by:	Dongkai Xu			Organization:	QC Department				
Approved by:	Xin Zheng			Date:	2023.03				
NDT Level:	MT II			Date:	2023.03				

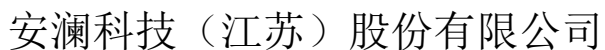


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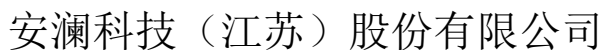
Fluorescent magnetic particle inspection was performed on all accessible wetted/sealing surfaces.

Evaluation & Disposition:	Found to be satisfactory		
Inspected by:	Dongkai Xu	Organization:	QC Department
Approved by:	Xin Zheng		
NDT Level:	MT II	Date:	2023.03



ANLAN TECHNOLOGY (JIANGSU) CO.,LTD

Customer:		Customer PO#:	1437		Date:	2023.03	
Drawing #:	PFFY105/180-00	Specification:	QJ/JJ07.01.03.02/ ASTM E165	API Monogram:	6A-2074	Report #:	PTS-0308-001
Part No.:	X-182716-01	Material:	PH17-4-105K			Coating:	/
Description:	7-1/16"15000psi Stem					Quantity:	1
Test Method:	Type II Method C	Acceptance Criteria:	API 6A 21st/PSL3	Penetrate Type:		DPT-5	
Remover Type:	DPT-5	Developer Type:	DPT-5	Light Intensity:		≥1076Lx	
Stage:	Machined	Penetrate Time:	10min	Develop Time:		10min	
Item	S/N	Heat Log No.	Result	Item	S/N	Heat Log No.	Result
1	AP064346	HY230222-4	Acceptable				
Inspection Coverage:							
Liquid penetrate examination was performed on all accessible wetted/sealing surfaces.							
Evaluation & Disposition:	Found to be satisfactory						
Inspected by:	Dongkai Xu			Organization:	QC Department		
Approved by:	Xin Zheng						
NDT Level:	MT II			Date:	2023.03		

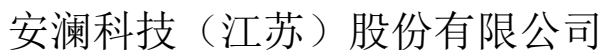


ANLAN TECHNOLOGY (JIANGSU) CO.,LTD

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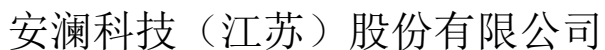
Fluorescent magnetic particle inspection was performed on all accessible wetted/sealing surfaces.

Evaluation & Disposition:	Found to be satisfactory		
Inspected by:	Dongkai Xu	Organization:	QC Department
Approved by:	Xin Zheng		
NDT Level:	MT II	Date:	2023.03



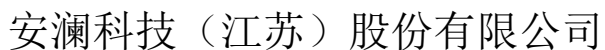
ANLAN TECHNOLOGY (JIANGSU) CO.,LTD

Customer:			Customer PO#:	1437		Date:	2023.03	
Drawing #:	PFFY105/180-00	Specification:	QJ/JJ07.01.03.02/ ASTM E165		API Monogram:	6A-2074	Report #:	NCS-2303-H02
Part No.:	X-182589-01	Material:	AISI 410 75K				Coating:	WC
Description:	7-1/16"15000psi Gate					Quantity:	1	
Test Method:	Type II Method C	Acceptance Criteria:		API 6A 21st/PSL3	Penetrate Type:		DPT-5	
Remover Type:	DPT-5	Developer Type:		DPT-5	Light Intensity:		≥1076Lx	
Stage:	Machined	Penetrate Time:		10min	Develop Time:		10min	
Item	S/N	Heat Log No.	Result	Item	S/N	Heat Log No.	Result	
1	AP064597	HC2302005-01	Acceptable					
Inspection Coverage:								
Liquid penetrate examination was performed on all accessible wetted/sealing surfaces.								
Evaluation & Disposition:		Found to be satisfactory						
Inspected by:		Dongkai Xu			Organization:	QC Department		
Approved by:		Xin Zheng						
NDT Level:		MT II			Date:	2023.03		



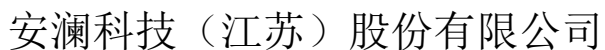
ANLAN TECHNOLOGY (JIANGSU) CO.,LTD

Customer:			Customer PO#:	1437		Date:	2023.03	
Drawing #:	PFFY105/180-00	Specification:	API Spec 6A 21st /ASTM E709	API Monogram:	6A-2074	Report #:	NCS-2303-Q03	
Part No.:	X-182590-01	Material:	AISI 410 75K			Coating:	/	
Description:	7-1/16"15000psi Body Bushing					Quantity:	2	
Equipment:	CYD-5000	Acceptance Criteria:	API 6A 21st/PSL3		Circular AMPS:		3200A	
Test Method:	Fluorescence Wet Continuous	Particle Type:	Fluorescence		UV-Light Intensity:		≥1000Uw/cm²	
Stage:	Machined	Concentration:	0.2ml/100ml		Magnetizing Time:		1-3S	
Item	S/N	Heat Log No.	Result	Item	S/N	Heat Log No.	Result	
1	AP064521	HC2302005-01	Acceptable					
2	AP064527	HC2302005-01	Acceptable					
Inspection Coverage:								
Fluorescent magnetic particle inspection was performed on all accessible wetted/sealing surfaces.								
Evaluation & Disposition:		Found to be satisfactory						
Inspected by:	Dongkai Xu			Organization:	QC Department			
Approved by:	Xin Zheng							
NDT Level:	MT II			Date:	2023.03			



LIQUID PENETRATE EXAMINATION

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ANLAN TECHNOLOGY (JIANGSU) CO.,LTD

Customer:		Customer PO#:		1437		Date:	2023.03	
Drawing #:	PFFY105/180-00	Specification:	QJ/JJ07.01.03.02/ ASTM E165		API Monogram:	6A-2074	Report #:	PTS-0321-002
Part No.:	X-182591-01	Material:	PH17-4-105K				Coating:	/
Description:	7-1/16"15000psi Balance Stem						Quantity:	1
Test Method:	Type II Method C	Acceptance Criteria:		API 6A 21st/PSL3		Penetrate Type:		DPT-5
Remover Type:	DPT-5	Developer Type:		DPT-5		Light Intensity:		≥1076Lx
Stage:	Machined	Penetrate Time:		10min		Develop Time:		10min
Item	S/N	Heat Log No.	Result	Item	S/N	Heat Log No.	Result	
1	AS007172	HY230211-4	Acceptable					
Inspection Coverage:								
Liquid penetrate examination was performed on all accessible wetted/sealing surfaces.								
Evaluation & Disposition:		Found to be satisfactory						
Inspected by:		Dongkai Xu			Organization:		QC Department	
Approved by:		Xin Zheng						
NDT Level:		MT II			Date:		2023.03	



安澜科技（江苏）股份有限公司

ANLAN TECHNOLOGY (JIANGSU) CO.,LTD

HYDROSTATIC TEST REPORT

Customer:			Customer PO#:	1437		Date:	2023.03		
Drawing #:	PFFY105/180 -00	Specification:	API6A-21st	API Monogram:	6A-2074	Report #:	AP064F042		
Part No.:	X-182734-01	Material:	AISI 4130 75K			Coating:	/		
Description:	7-1/16"15000psi					Quantity:	1		
Item	Pressure	Method			Qty	Result			
Shell	22500psi	API 6A 21st			1	OK			
Seat	15000psi	API 6A 21st			1	OK			
Item	S/N	Heat Log No.	Result		Item	S/N	Heat Log No.	Result	
			A	B				A	B
1	AP064026	RD-03-13	OK	OK					
Drift Test:									
Diameter ϕ 179.7 mm drift test gauge can freely pass through the through hole of the valve.									
Inspection Coverage:									
Per Specification & Requirements: API 6A 21st									
Judgments:					Approved By:		Examined By:		
[V] Conforms					Xin Zheng		Yifei Ma		
[] Does Not Conform									



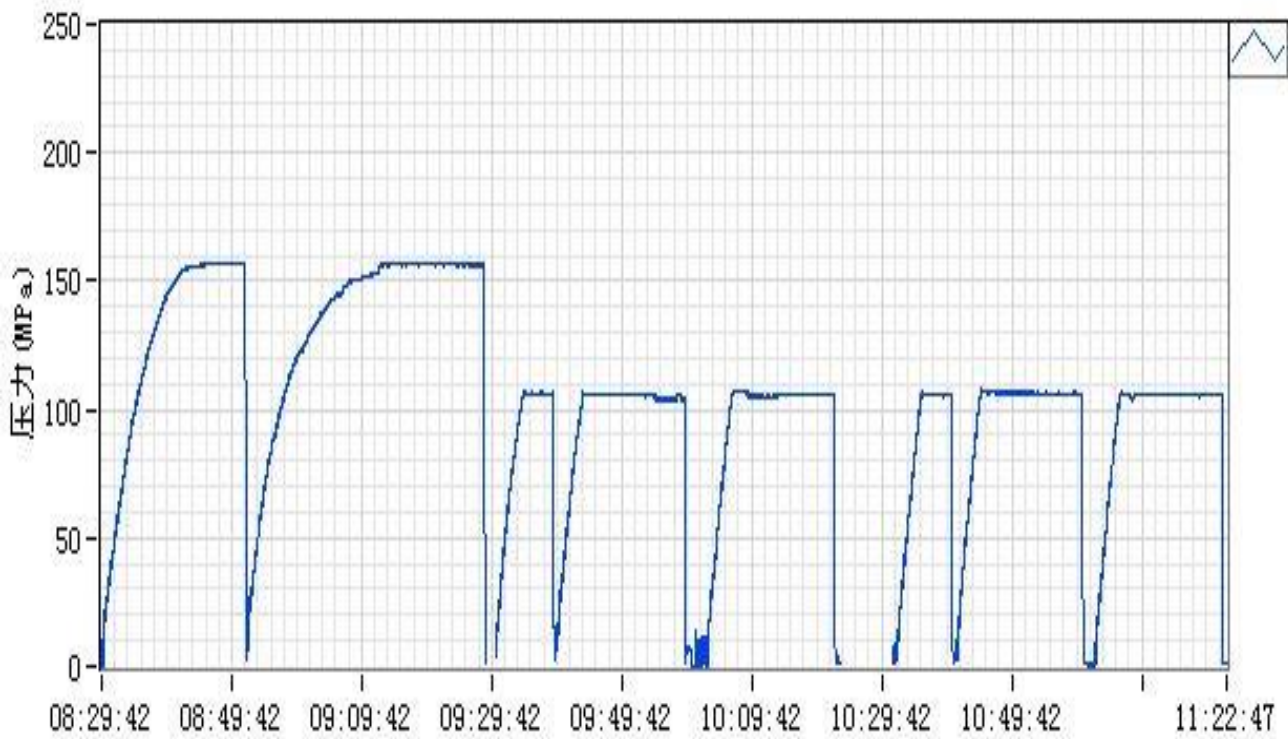
Pressure Test Report

Product Information

PRODUCT NAME	PRODUCT NO.	SPECS	PRESSURE TEST STANDARDS	TEST PART	EQUIPMENT NO.	BRAND
Hydraulic Gate Valve	AP064F042	7-1/16" 15000Psi	API 6A 21st	Shell & Seat	1#	

Test Data

LEVEL	INITIAL PRESSURE (Mpa)	TERMINATED PRESSURE (Mpa)	HOLDING TIME (Min)	PRESSURE DROPPING (Mpa)
1	157.1	156.8	4.0	0.3
2	156.6	156.3	15.0	0.3
3	106.4	106.4	4.0	0.0
4	105.9	105.2	15.0	0.7
5	106.7	106.0	15.0	0.7
6	106.0	105.7	4.0	0.2
7	106.7	106.4	15.0	0.3
8	106.2	105.9	15.0	0.3



TESTED BY:	INSPECTED BY:	REVIEWED BY:	DATE:
Yifei Ma	Xin Zheng	Zhicheng Feng	2023.03.31



REPORT INDEX

Purchase Order:1437

Quantity:1EA

Shipment No.:Crate#AP064F043

Shipment Date:April, 2023

Activity No.	Characteristics	Reference Page
1	CERTIFICATE OF CONFORMITY	Page - 2
2	Metallurgical Test Certificate	Page - 3
2.1	Mechanical Testing	Page - 3
2.2	Chemical Testing	Page -3
2.3	Heat Treatment	Page - 3
3	Hardness Test	Page - 4-12
4	Ultrasonic Testing	Page - 13-17
5	Magnetic Particle Inspection Report	Page - 18-26
6	Hydrostatic Test	Page - 27-28



CERTIFICATE OF CONFORMITY

THE FOLLOWING ITEM IS IN CONFORMITY WITH PO # 1437, DRAWINGS AND ITS TECHNICAL REQUIREMENTS. IT IS MADE PER API – 6A MONOGRAM SPECIFICATIONS, EE-0.5 CLASS, PSL3, PR1, LU. AND IT IS MADE OF MATERIAL (4130,75K YIELD) FOR NACE H2S SERVICE UNDER THE CURRENT NACE MR0175 EDITION.

ITEM:
PO #: 1437
SERIAL NO.: AP064F043
PART NO.: PFFY105/180-00
QANTITY: 1
INSPECTION STANDARD: API Spec 6A 21st EE-0.5, PSL3, PR1, LU

THIS COMMODITY HAS PASSED ALL THE TECHNICAL AND PERFORMANCE TESTS CARRIED BY QUALITY CONTROL/INSPECTION DEPARTMENT.

COMPANY NAME:

(STAMP)

INSPECTOR:Zhicheng Feng

CHIEF ENGINEER: Xin Zheng

EX-FACTORY DATE: April, 2023

Customer: _____

P.O. Number: 1437



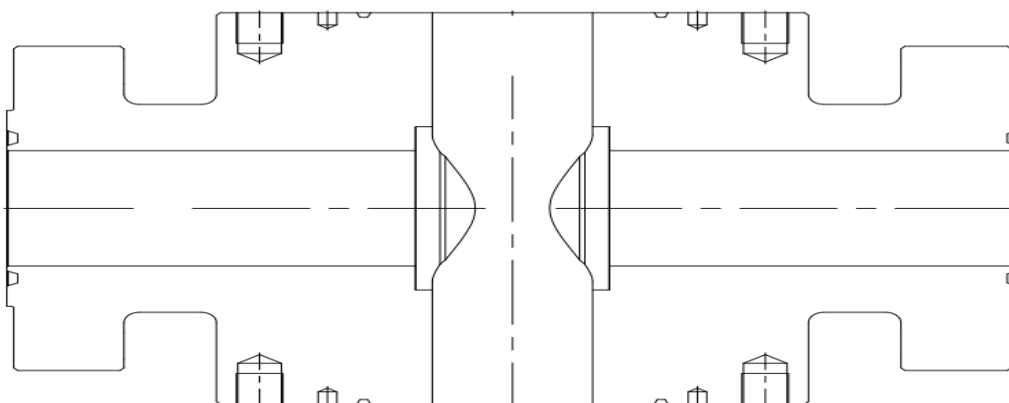
安澜科技（江苏）股份有限公司

ANLAN TECHNOLOGY (JIANGSU) CO.,LTD

HARDNESS TEST REPORT

Customer:			Customer PO#:			Date:	
Drawing #:	PFFY105/180-00	Specification:	API Spec 6A 21st /ASTM E10	API Monogram:	6A-2074	Report #:	HS-0329-011
Part No.:	X-182734-01	Material:	AISI 4130 75K			Coating:	/
Description:	7-1/16"15000psi Body					Quantity:	1
Item	S/N	Heat Log No.	Hardness	Item	S/N	Heat Log No.	Hardness
1	AS007011	HY230318-2	235HBW/235HBW 229HBW/235HBW				

Sketch:



Method Used:	Impact Energy: 3000Kg.	Diameter of tungsten ball: 10mm	
Acceptable Hardness:	197HBW-235HBW	Approved By:	Examined By:
Judgments:	[V] Conforms	Xin zheng	Zhengguo Yao
	[] Does Not Conform		



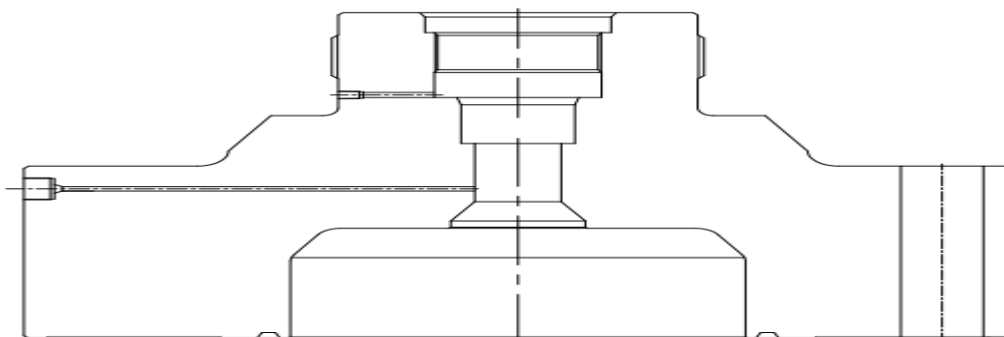
安澜科技（江苏）股份有限公司

ANLAN TECHNOLOGY (JIANGSU) CO.,LTD

HARDNESS TEST REPORT

Customer:			Customer PO#:			Date:		
Drawing #:	PFFY105/180-00	Specification:	API Spec 6A 21st /ASTM E10	API Monogram:	6A-2074	Report #:	HS-0328-005	
Part No.:	X-182585-01	Material:	AISI 4130 75K			Coating:	/	
Description:	7-1/16"15000psi Upper Bonnet					Quantity:	1	
Item	S/N	Heat Log No.	Hardness	Item	S/N	Heat Log No.	Hardness	
1	AS007154	RT-3-053	217HBW					

Sketch:



Method Used:	Impact Energy: 3000Kg.	Diameter of tungsten ball: 10mm	
Acceptable Hardness:	197HBW-235HBW	Approved By:	Examined By:
Judgments:	[V] Conforms	Xin zheng	Zhengguo Yao
	[] Does Not Conform		



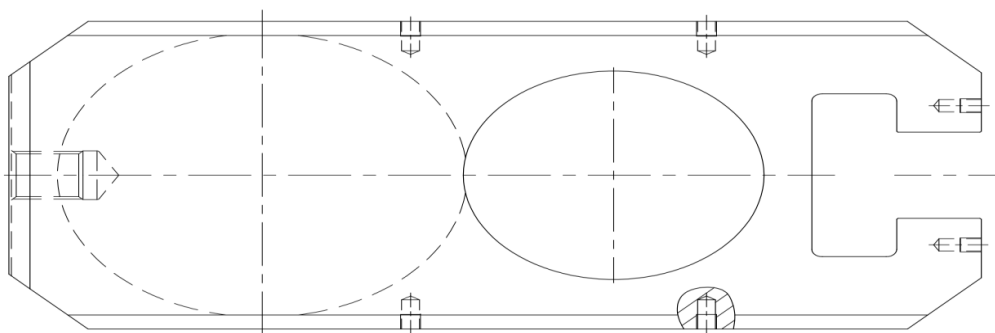
安澜科技（江苏）股份有限公司

ANLAN TECHNOLOGY (JIANGSU) CO.,LTD

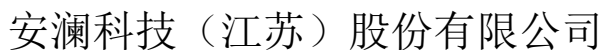
HARDNESS TEST REPORT

Customer:				Customer PO#:			Date:	
Drawing #:	PFFY105/180-00	Specification:	API Spec 6A 21st /ASTM E92	API Monogram:	6A-2074	Report #:	20230303-03	
Part No.:	X-182589-01	Material:	AISI 410 75K			Coating:	WC	
Description:	7-1/16"15000psi Gate					Quantity:	1	
Item	S/N	Heat Log No.	Hardness	Item	S/N	Heat Log No.	Hardness	
1	AP064595	HC2302005-01	1197HV					

Sketch:



Method Used:	Impact Energy: 5Kg-f(49.03N).		
Acceptable Hardness:	≥1050HV	Approved By:	Examined By:
Judgments:	[V] Conforms	Xin zheng	Zhengguo Yao
	[] Does Not Conform		



HARDNESS TEST REPORT

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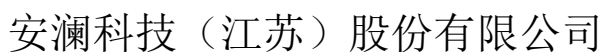


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ANLAN TECHNOLOGY (JIANGSU) CO.,LTD

HARDNESS TEST REPORT

Customer:				Customer PO#:	1437		Date:	2023.03
Drawing #:	PFFY105/180-00	Specification:	API Spec 6A 21st /ASTM E18		API Monogram:	6A-2074	Report #:	HS-0321-001
Part No.:	X-182591-01	Material:	PH17-4 105K				Coating:	/
Description:	7-1/16"15000psi Balance Stem						Quantity:	1
Item	S/N	Heat Log No.	Hardness	Item	S/N	Heat Log No.	Hardness	
1	AS007175	HY230211-4	31HRC					
Sketch:								
								
Method Used:								
Acceptable Hardness:	27HRC-33HRC		Approved By:		Examined By:			
Judgments:	☒ V] Conforms		Xin zheng		Zhengguo Yao			
	☐] Does Not Conform							



ULTRASONIC EXAMINATION REPORT

ABOVE FORGED ARE TESTED ULTRASONICALLY FOR INTERNAL DEFECTS, AND THERE WAS NO RECORDABLE INDICATION OBSERVED DURING THE TEST. HENCE ACCEPTABLE AS PER STANDARD.

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安澜科技（江苏）股份有限公司

ANLAN TECHNOLOGY (JIANGSU) CO.,LTD

ULTRASONIC EXAMINATION REPORT

Customer:			Customer PO#:			Date:	
Drawing #:		Specification:		API Monogram:		Report #:	
Part No.:		Material:				Coating:	
Description:	7-1/16"15000psi Upper Bonnet					Quantity:	1
Item	S/N	Heat Log No.	Result	Item	S/N	Heat Log No.	Result
1	AS007154	RT-3-053	Acceptable				
ABOVE FORGED ARE TESTED ULTRASONICALLY FOR INTERNAL DEFECTS, AND THERE WAS NO RECORDABLE INDICATION OBSERVED DURING THE TEST. HENCE ACCEPTABLE AS PER STANDARD.							
UT Code:	ASTM A388	Technique:	STRAIGHT PROBE		Examined By:	Dongkai Xu	
Exam. Stage:	Rough After	Calibration:	Block: CSK -I A Φ 1.6 FBH Block Φ 3.2 FBH Block		Level as per UT:	II	
Equipment:	MUT-800C	Couplant:	OIL				
Date of calibration	2023.03.02						
Period of validity	2024.03.02						
Probe Used:	2.5P Φ 14+ Φ 20	Acceptance Criteria:	API Spec. 6A 21st		Approved by:	Xin Zheng	
Instrmt/Ident.#:	FD14082504	Test Gain:	Φ 1.6DAC+6dB Φ 3.2DAC+6dB		Level as per UT:	II	



安澜科技（江苏）股份有限公司

ANLAN TECHNOLOGY (JIANGSU) CO.,LTD

ULTRASONIC EXAMINATION REPORT

Customer:				Customer PO#:	1437		Date:	2023.02	
Drawing #:	PFFY105/180-00	Specification:	API Spec 6A 21st /ASTM A388	API Monogram:	6A-2074		Report #:	UTS-0227-00 2	
Part No.:	X-182586-01	Material:	AISI 4130 75K			Coating:	/		
Description:	7-1/16"15000psi Lower Bonnet						Quantity:	1	
Item	S/N	Heat Log No.	Result	Item	S/N	Heat Log No.	Result		
1	AP064122	HY230214-3	Acceptable						
ABOVE FORGED ARE TESTED ULTRASONICALLY FOR INTERNAL DEFECTS, AND THERE WAS NO RECORDABLE INDICATION OBSERVED DURING THE TEST. HENCE ACCEPTABLE AS PER STANDARD.									
UT Code:	ASTM A388		Technique:	STRAIGHT PROBE		Examined By:	Dongkai Xu		
Exam. Stage:	Rough After		Calibration:	Block: CSK -I A Φ 1.6 FBH Block Φ 3.2 FBH Block		Level as per UT:	II		
Equipment:	MUT-800C		Couplant:	OIL					
Date of calibration	2023.03.02								
Period of validity	2024.03.02								
Probe Used:	2.5P Φ 14+ Φ 20		Acceptance Criteria:	API Spec. 6A 21st		Approved by:	Xin Zheng		
Instrmt/Ident.#:	FD14082504		Test Gain:	Φ 1.6DAC+6dB Φ 3.2DAC+6dB		Level as per UT:	II		



安澜科技（江苏）股份有限公司

ANLAN TECHNOLOGY (JIANGSU) CO.,LTD

ULTRASONIC EXAMINATION REPORT

Customer:				Customer PO#:	1437		Date:	2023.03	
Drawing #:	PFFY105/180-00	Specification:	API Spec 6A 21st /ASTM A388	API Monogram:	6A-2074		Report #:	UTS-0302-00 1	
Part No.:	X-182716-01	Material:	PH17-4 105K			Coating:	/		
Description:	7-1/16"15000psi Stem						Quantity:	1	
Item	S/N	Heat Log No.	Result	Item	S/N	Heat Log No.	Result		
1	AP064335	HY230222-4	Acceptable						
ABOVE FORGED ARE TESTED ULTRASONICALLY FOR INTERNAL DEFECTS, AND THERE WAS NO RECORDABLE INDICATION OBSERVED DURING THE TEST. HENCE ACCEPTABLE AS PER STANDARD.									
UT Code:	ASTM A388		Technique:	STRAIGHT PROBE		Examined By:	Dongkai Xu		
Exam. Stage:	Rough After		Calibration:	Block: CSK -I A Φ 1.6 FBH Block Φ 3.2 FBH Block		Level as per UT:	II		
Equipment:	MUT-800C		Couplant:	OIL					
Date of calibration	2023.03.02								
Period of validity	2024.03.02								
Probe Used:	2.5P Φ 14+ Φ 20		Acceptance Criteria:	API Spec. 6A 21st		Approved by:	Xin Zheng		
Instrmt/Ident.#:	FD14082504		Test Gain:	Φ 1.6DAC+6dB Φ 3.2DAC+6dB		Level as per UT:	II		

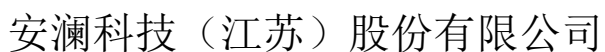


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ANLAN TECHNOLOGY (JIANGSU) CO.,LTD

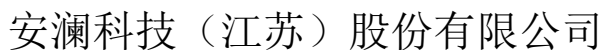
ULTRASONIC EXAMINATION REPORT

Customer:			Customer PO#:			Date:	
Drawing #:	PFFY105/180-00	Specification:	API Spec 6A 21st /ASTM A388	API Monogram:	6A-2074	Report #:	UTS-0315-001
Part No.:	X-182591-01	Material:	PH17-4 105K			Coating:	/
Description:	7-1/16"15000psi Balance Stem					Quantity:	1
Item	S/N	Heat Log No.	Result	Item	S/N	Heat Log No.	Result
1	AS007175	HY230211-4	Acceptable				
ABOVE FORGED ARE TESTED ULTRASONICALLY FOR INTERNAL DEFECTS, AND THERE WAS NO RECORDABLE INDICATION OBSERVED DURING THE TEST. HENCE ACCEPTABLE AS PER STANDARD.							
UT Code:	ASTM A388	Technique:	STRAIGHT PROBE		Examined By:	Dongkai Xu	
Exam. Stage:	Rough After	Calibration:	Block: CSK -I A Φ 1.6 FBH Block Φ 3.2 FBH Block		Level as per UT:	II	
Equipment:	MUT-800C	Couplant:	OIL				
Date of calibration	2023.03.02						
Period of validity	2024.03.02						
Probe Used:	2.5P Φ 14+Φ 20	Acceptance Criteria:	API Spec. 6A 21st		Approved by:	Xin Zheng	
Instrmt/Ident.#:	FD14082504	Test Gain:	Φ 1.6DAC+6dB Φ 3.2DAC+6dB		Level as per UT:	II	



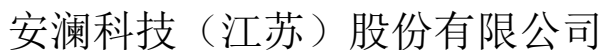
MAGNETIC PARTICLE INSPECTION REPORT

18



ANLAN TECHNOLOGY (JIANGSU) CO.,LTD

Customer:			Customer PO#:	1437		Date:	2023.03	
Drawing #:	PFFY105/180-00	Specification:	API Spec 6A 21st /ASTM E709	API Monogram:	6A-2074	Report #:	MTS-0328-002	
Part No.:	X-182585-01	Material:	AISI 4130 75K			Coating:	/	
Description:	7-1/16"15000psi Upper Bonnet					Quantity:	1	
Equipment:	CYD-5000	Acceptance Criteria:	API 6A 21st/PSL3	Circular AMPS:		2500A 3500A		
Test Method:	Fluorescence Wet Continuous	Particle Type:	Fluorescence	UV-Light Intensity:		3490Uw/cm ²		
Stage:	Machined	Concentration:	0.2ml/100ml	Magnetizing Time:		1-3S		
Item	S/N	Heat Log No.	Result	Item	S/N	Heat Log No.	Result	
1	AS007154	RT-3-053	Acceptable					
Inspection Coverage:								
Fluorescent magnetic particle inspection was performed on all accessible wetted/sealing surfaces.								
Evaluation & Disposition:		Found to be satisfactory						
Inspected by:		Dongkai Xu		Organization:		QC Department		
Approved by:		Xin Zheng						
NDT Level:		MT II		Date:		2023.03		

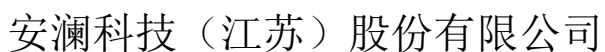


ANLAN TECHNOLOGY (JIANGSU) CO.,LTD

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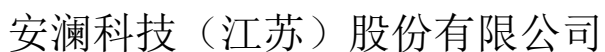
Fluorescent magnetic particle inspection was performed on all accessible wetted/sealing surfaces.

Evaluation & Disposition:	Found to be satisfactory		
Inspected by:	Dongkai Xu	Organization:	QC Department
Approved by:	Xin Zheng		
NDT Level:	MT II	Date:	2023.03



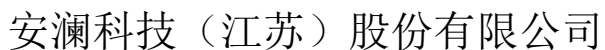
LIQUID PENETRATE EXAMINATION

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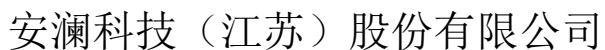
MAGNETIC PARTICLE INSPECTION REPORT

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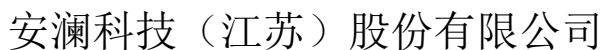
ANLAN TECHNOLOGY (JIANGSU) CO.,LTD

Customer:			Customer PO#:	1437		Date:	2023.03	
Drawing #:	PFFY105/180-00	Specification:	QJ/JJ07.01.03.02/ ASTM E165		API Monogram:	6A-2074	Report #:	NCS-2303-H02
Part No.:	X-182589-01	Material:	AISI 410 75K			Coating:	WC	
Description:	7-1/16"15000psi Gate					Quantity:	1	
Test Method:	Type II Method C	Acceptance Criteria:		API 6A 21st/PSL3	Penetrate Type:		DPT-5	
Remover Type:	DPT-5	Developer Type:		DPT-5	Light Intensity:		≥1076Lx	
Stage:	Machined	Penetrate Time:		10min	Develop Time:		10min	
Item	S/N	Heat Log No.	Result	Item	S/N	Heat Log No.	Result	
1	AP064595	HC2302005-01	Acceptable					
Inspection Coverage:								
Liquid penetrate examination was performed on all accessible wetted/sealing surfaces.								
Evaluation & Disposition:		Found to be satisfactory						
Inspected by:		Dongkai Xu			Organization:	QC Department		
Approved by:		Xin Zheng						
NDT Level:		MT II			Date:	2023.03		



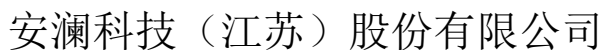
MAGNETIC PARTICLE INSPECTION REPORT

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LIQUID PENETRATE EXAMINATION

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ANLAN TECHNOLOGY (JIANGSU) CO.,LTD

Customer:			Customer PO#:	1437		Date:	2023.03	
Drawing #:	PFFY105/180-00	Specification:	QJ/JJ07.01.03.02/ ASTM E165		API Monogram:	6A-2074	Report #:	PTS-0321-002
Part No.:	X-182591-01	Material:	PH17-4-105K				Coating:	/
Description:	7-1/16"15000psi Balance Stem					Quantity:	1	
Test Method:	Type II Method C	Acceptance Criteria:		API 6A 21st/PSL3	Penetrate Type:		DPT-5	
Remover Type:	DPT-5	Developer Type:		DPT-5	Light Intensity:		≥1076Lx	
Stage:	Machined	Penetrate Time:		10min	Develop Time:		10min	
Item	S/N	Heat Log No.	Result	Item	S/N	Heat Log No.	Result	
1	AS007175	HY230211-4	Acceptable					
Inspection Coverage:								
Liquid penetrate examination was performed on all accessible wetted/sealing surfaces.								
Evaluation & Disposition:		Found to be satisfactory						
Inspected by:		Dongkai Xu			Organization:		QC Department	
Approved by:		Xin Zheng						
NDT Level:		MT II			Date:		2023.03	



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ANLAN TECHNOLOGY (JIANGSU) CO.,LTD

HYDROSTATIC TEST REPORT

Customer:				Customer PO#:	1437		Date:	2023.04	
Drawing #:	PFFY105/180 -00	Specification:	API6A-21st	API Monogram:	6A-2074	Report #:	AP064F043		
Part No.:	X-182734-01	Material:	AISI 4130 75K			Coating:	/		
Description:	7-1/16"15000psi					Quantity:	1		
Item	Pressure	Method			Qty	Result			
Shell	22500psi	API 6A 21st			1	OK			
Seat	15000psi	API 6A 21st			1	OK			
Item	S/N	Heat Log No.	Result		Item	S/N	Heat Log No.	Result	
			A	B				A	B
1	AS007011	HY230318-2	OK	OK					
Drift Test:									
Diameter ϕ 179.7 mm drift test gauge can freely pass through the through hole of the valve.									
Inspection Coverage:									
Per Specification & Requirements: API 6A 21st									
					Approved By:		Examined By:		
Judgments:		[V] Conforms			Xin Zheng		Yifei Ma		
		[] Does Not Conform							



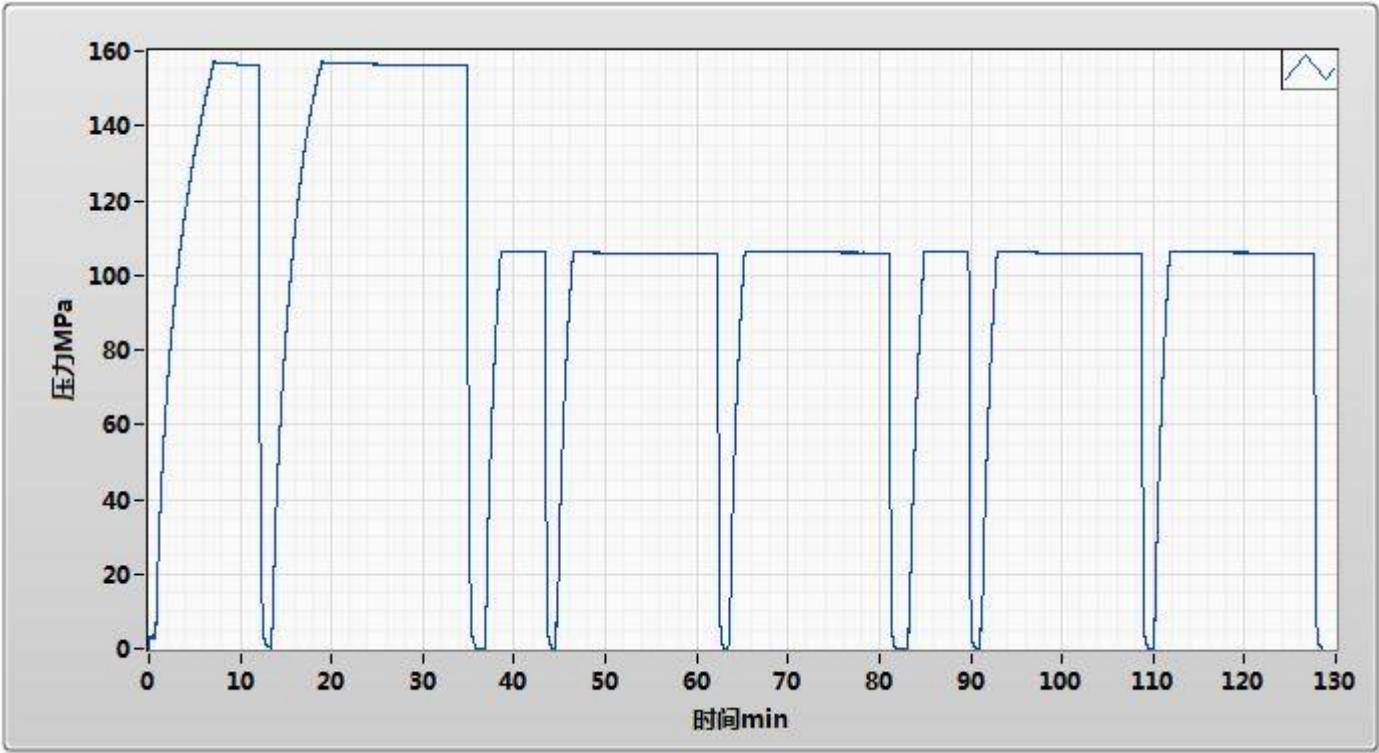
Pressure Test Report

Product Information

PRODUCT NAME	PRODUCT NO.	SPECS	PRESSURE TEST STANDARDS	TEST PART	EQUIPMENT NO.	BRAND
Hydraulic Gate Valve	AP064F043	7-1/16" 15000Psi	API 6A 21st	Shell & Seat	2#	

Test Data

LEVEL	INITIAL PRESSURE (Mpa)	TERMINATED PRESSURE (Mpa)	HOLDING TIME (Min)	PRESSURE DROPPING (Mpa)
1	156.81	156.23	4.0	0.58
2	156.93	156.14	15.0	0.79
3	106.24	106.19	4.0	0.05
4	106.10	105.88	15.0	0.22
5	106.23	106.00	15.0	0.23
6	106.23	106.04	4.0	0.19
7	106.18	105.82	15.0	0.36
8	106.22	105.95	15.0	0.27



TESTED BY:	INSPECTED BY:	REVIEWED BY:	DATE:
Yifei Ma	Xin Zheng	Zhicheng Feng	2023.04.01



REPORT INDEX

Purchase Order:1437

Quantity:1EA

Shipment No.:Crate#AP064F071

Shipment Date:March,2023

Activity No.	Characteristics	Reference Page
1	CERTIFICATE OF CONFORMITY	Page - 2
2	Metallurgical Test Certificate	Page - 3
2.1	Mechanical Testing	Page - 3
2.2	Chemical Testing	Page -3
2.3	Heat Treatment	Page - 3
3	Hardness Test	Page - 4-12
4	Ultrasonic Testing	Page - 13-17
5	Magnetic Particle Inspection Report	Page - 18-26
6	Hydrostatic Test	Page - 27-28



CERTIFICATE OF CONFORMITY

THE FOLLOWING ITEM IS IN CONFORMITY WITH PO # 1437, DRAWINGS AND ITS TECHNICAL REQUIREMENTS. IT IS MADE PER API – 6A MONOGRAM SPECIFICATIONS, EE-0.5 CLASS, PSL3, PR1, LU. AND IT IS MADE OF MATERIAL (4130,75K YIELD) FOR NACE H2S SERVICE UNDER THE CURRENT NACE MR0175 EDITION.

ITEM:
PO #: 1437
SERIAL NO.: AP064F071
PART NO.: PFF105/103AL-00
QANTITY: 1
INSPECTION STANDARD: API Spec 6A 21st EE-0.5, PSL3, PR1, LU

THIS COMMODITY HAS PASSED ALL THE TECHNICAL AND PERFORMANCE TESTS CARRIED BY QUALITY CONTROL/INSPECTION DEPARTMENT.

COMPANY NAME:	INSPECTOR:Zhicheng Feng
(STAMP)	CHIEF ENGINEER: Xin Zheng
	EX-FACTORY DATE: March,2023
Customer: _____	P.O. Number: <u>1437</u>



No.: AV00012

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ANLAN TECHNOLOGY (JIANGSU) CO.,LTD
Certified Material Test Report

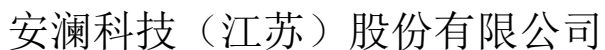
Date:March,2023

Customer		PO No.		Product			P/N		Serial No.		Qty	Size		WP (psi)		Material	PSL	Temp	Specifications						
		1437		MANUAL GATE VALVE			PFF105/103AL-00		AP064F071		1	4-1/16"		15000Psi		EE-0.5	PSL3	LU	API Spec 6A 21st						
Description						Melting Practice			Heat Treatment																
P/N	Parts	Melt No.	H.T. No.	Material Spec Standards		Qty.	Serial No.	Finished	Austenized		Quenched			Temper(1)			Temper(2)								
									Temp (°C)	Time (min)	Medium	Start Temp	Finish Temp	Temp (°C)	Time (min)	Medium	Temp (°C)	Time (min)	Medium						
PFF105/103AL-00	BODY	2027499A	HY230224-2	AISI 4130 75K,Per ASTM A29		1	AP064774	Forging	870	4.0H	WATER	15	19	680	6.0H	AIR	/	/	/						
	BONNET	22E105071	RD-02-40	AISI 4130 75K,Per ASTM A29		1	AP064784	Forging	860	4.0H	WATER	27	41	685	5.83H	AIR	/	/	/						
	STEM	YX2212-2115	HY230114-1	PH17-4 105K,Per ASTM A564/564M		1	AP064808	Forging	1030	3.5H	WATER	12	15	630	5.0H	AIR	630	5.0H	AIR						
	BALANCE STEM	YX2212-2115	HY230114-1	PH17-4 105K,Per ASTM A564/564M		1	AP064796	Forging	1030	3.5H	WATER	12	15	630	5.0H	AIR	630	5.0H	AIR						
	GATE	122V-1118	HC2302005-01	AISI 410 75K,Per ASTM A276/276M		1	AP064835	Forging	960	3.0H	OIL	39	51	720	6.0H	AIR	680	6.0H	AIR						
	BODY BUSHING	122V-1118	HC2302005-01	AISI 410 75K,Per ASTM A276/276M		2	AP064811 AP064825	Forging	960	3.0H	OIL	39	51	720	6.0H	AIR	680	6.0H	AIR						
	TAIL BONNET	22106193C	RD-02-40	AISI 4130 75K,Per ASTM A29		1	AP064768	Forging	860	4.0H	WATER	27	41	685	5.83H	AIR	/	/	/						
Melt No.	H.T. No.	Chemical Analysis (wt, %)													Physical Properties										
		C	Mn	Si	P	S	Cr	Ni	Mo	V	Co	W	Cu	Nb	Fe	Spec Size	Spec Origin	Tensile (MPa)	Yield (MPa)	Elongati on (%)	ROA (%)	Impact(-46°C) Impact direction (Transverse)	Hardness	Equipment Type	
2027499A	HY230224-2	0.32	0.78	0.28	0.011	0.002	1.08	0.22	0.23	0.004	/	/	0.01	/	/	4"x4"x8"	QTC	736	564	24.0	70.3	85/62/90	227HBW	JBW-300B/ WDW-300	
22E105071	RD-02-40	0.30	0.56	0.30	0.010	0.002	0.99	0.03	0.21	0.003	/	/	0.02	/	/	4"x4"x8"	QTC	688	552	53.0	57.0	61/63/55	222HBW	JBW-300B/ WDW-300	
YX2212-2115	HY230114-1	0.024	0.51	0.47	0.030	0.002	15.73	4.05	/	/	/	/	3.60	0.227	/	⌀ 80x200	QTC	1038	945	20.7	58.2	47/33/62	32HRC	JBW-300B/ WDW-300	
YX2212-2115	HY230114-1	0.024	0.51	0.47	0.030	0.002	15.73	4.05	/	/	/	/	3.60	0.227	/	⌀ 80x200	QTC	1038	945	20.7	58.2	47/33/62	32HRC	JBW-300B/ WDW-300	
122V-1118	HC2302005-01	0.14	0.40	0.22	0.012	0.006	11.66	0.06	0.042	0.034	/	/	0.027	/	/	100x100x200	QTC	690	580	24.0	66.0	/	226HBW	JBW-300B/ WDW-300	
122V-1118	HC2302005-01	0.14	0.40	0.22	0.012	0.006	11.66	0.06	0.042	0.034	/	/	0.027	/	/	100x100x200	QTC	690	580	24.0	66.0	/	226HBW	JBW-300B/ WDW-300	
22106193C	RD-02-40	0.31	0.57	0.27	0.010	0.005	1.06	0.23	0.24	0.001	/	/	0.03	/	/	4"x4"x8"	QTC	684	543	49.0	52.0	63/58/50	221HBW	JBW-300B/ WDW-300	

This is to certify that all above items have been tested and inspected per scope of specifications, drawings, and the purchase order and have been found to be satisfactory.

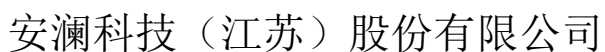
The information in this report is true and correct to our knowledge.

.....Xin Zheng.....
NAME of QA Manager, for and on the authority of COMPANY NAME



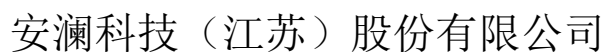
ANLAN TECHNOLOGY (JIANGSU) CO.,LTD

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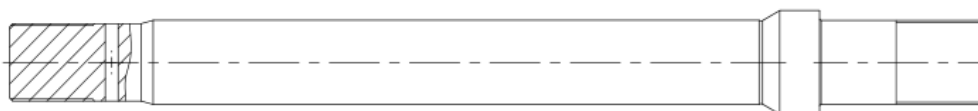
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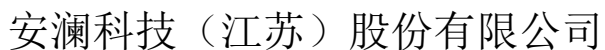
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HARDNESS TEST REPORT

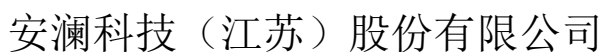
Sketch:

6



ANLAN TECHNOLOGY (JIANGSU) CO.,LTD

Customer:			Customer PO#:			Date:	
Drawing #:	PFF105/103AL -00	Specification:	API Spec 6A 21st /ASTM E10	API Monogram:	6A-2074	Report #:	20230306-01
Part No.:	B04-211	Material:	AISI 410 75K			Coating:	/
Description:	4-1/16"15000psi Gate					Quantity:	1
Item	S/N	Heat Log No.	Hardness	Item	S/N	Heat Log No.	Hardness
1	AP064835	HC2302005-01	226HBW				
Sketch:							
Method Used:	Impact Energy: 3000Kg.		Diameter of tungsten ball: 10mm				
Acceptable Hardness:	207HBW-235HBW		Approved By:			Examined By:	
Judgments:	[V] Conforms		Xin zheng			Zhengguo Yao	
	[] Does Not Conform						



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[illegible]



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ANLAN TECHNOLOGY (JIANGSU) CO.,LTD

HARDNESS TEST REPORT

Customer:			Customer PO#:			Date:		
Drawing #:	PFF105/103AL -00	Specification:	API Spec 6A 21st /ASTM E18	API Monogram:	6A-2074	Report #:	20230306-02	
Part No.:	B04-344	Material:	AISI 410 75K			Coating:	/	
Description:	4-1/16"15000psi	Body bushing				Quantity:	2	
Item	S/N	Heat Log No.	Hardness	Item	S/N	Heat Log No.	Hardness	
1	AP064811	HC2302005-01	99HRB					
2	AP064825	HC2302005-01	99HRB					

Sketch:



Method Used:			
Acceptable Hardness:	94HRB-99HRB	Approved By:	Examined By:
Judgments:	[V] Conforms	Xin zheng	Zhengguo Yao
	[] Does Not Conform		



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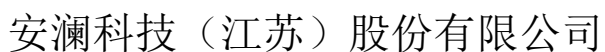
HARDNESS TEST REPORT

Customer:			Customer PO#:	1437		Date:	2023.03
Drawing #:	PFF105/103AL -00	Specification:	API Spec 6A 21st /ASTM E92	API Monogram:	6A-2074	Report #:	20230306-06
Part No.:	B04-344	Material:	AISI 410 75K			Coating:	WC
Description:	4-1/16"15000psi Body bushing					Quantity:	2
Item	S/N	Heat Log No.	Hardness	Item	S/N	Heat Log No.	Hardness
1	AP064811	HC2302005-01	1171HV				
2	AP064825	HC2302005-01	1171HV				

Sketch:



Method Used:	Impact Energy: 5Kg-f(49.03N).		
Acceptable Hardness:	≥1050HV	Approved By:	Examined By:
Judgments:	[V] Conforms	Xin zheng	Zhengguo Yao
	[] Does Not Conform		



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[illegible]

Technical drawing of a shaft with a keyway. The drawing includes a front view (top) and a side view (bottom). The front view shows a shaft with a central keyway. The side view shows the shaft's profile, including a flange on the left and a step on the right. The drawing is labeled with dimensions and a scale.

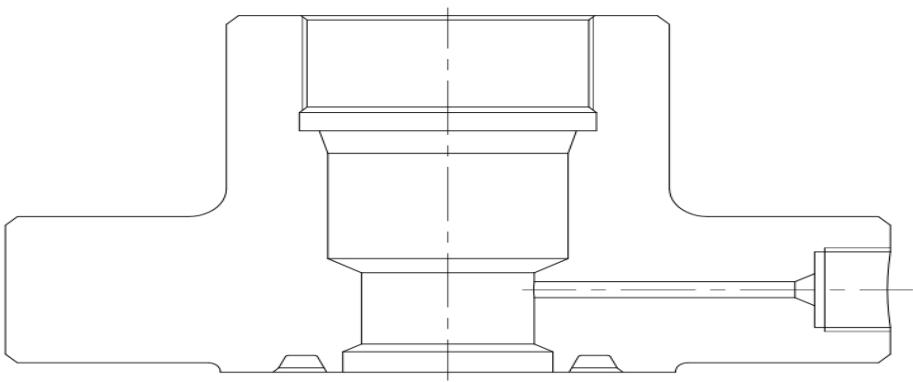
Method Used:			
Acceptable Hardness:	27HRC-33HRC	Approved By:	Examined By:
Judgments:	[V] Conforms	Xin zheng	Zhengguo Yao
	[] Does Not Conform		



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ANLAN TECHNOLOGY (JIANGSU) CO.,LTD

HARDNESS TEST REPORT

Customer:		Customer PO#:		Date:			
Drawing #:		Specification:		API Monogram:			
Part No.:		Material:		Coating:			
Description:					Quantity:		
Item	S/N	Heat Log No.	Hardness	Item	S/N	Heat Log No.	Hardness
1	AP064768	RD-02-40	227HBW				
Sketch:							
							
Method Used:	Impact Energy: 3000Kg.		Diameter of tungsten ball: 10mm				
Acceptable Hardness:	197HBW-235HBW		Approved By:		Examined By:		
Judgments:	[V] Conforms		Xin zheng		Zhengguo Yao		
	[] Does Not Conform						



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ANLAN TECHNOLOGY (JIANGSU) CO.,LTD

ULTRASONIC EXAMINATION REPORT

Customer:				Customer PO#:	1437		Date:	2023.02	
Drawing #:	PFF105/103A L-00	Specification:	API Spec 6A 21st /ASTM A388	API Monogram:	6A-2074		Report #:	UTS-0225-003	
Part No.:	B04-210	Material:	AISI 4130 75K			Coating:	/		
Description:	4-1/16"15000psi Body					Quantity:	1		
Item	S/N	Heat Log No.	Result	Item	S/N	Heat Log No.	Result		
1	AP064774	HY230224-2	Acceptable						
ABOVE FORGED ARE TESTED ULTRASONICALLY FOR INTERNAL DEFECTS, AND THERE WAS NO RECORDABLE INDICATION OBSERVED DURING THE TEST. HENCE ACCEPTABLE AS PER STANDARD.									
UT Code:	ASTM A388		Technique:	STRAIGHT PROBE		Examined By:	Dongkai Xu		
Exam. Stage:	Rough After		Calibration:	Block: CSK -I A Φ 1.6 FBH Block Φ 3.2 FBH Block Φ 6.4 FBH Block		Level as per UT:	II		
Equipment:	MUT-800C		Couplant:	OIL					
Date of calibration	2023.03.02								
Period of validity	2024.03.02								
Probe Used:	2.5P Φ 14+ Φ 20		Acceptance Criteria:	API Spec. 6A 21st		Approved by:	Xin Zheng		
Instrmt/Ident.#:	FD14082504		Test Gain:	Φ 1.6DAC+6dB Φ 3.2DAC+6dB Φ 6.4DAC+6dB		Level as per UT:	II		



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ANLAN TECHNOLOGY (JIANGSU) CO.,LTD

ULTRASONIC EXAMINATION REPORT

Customer:				Customer PO#:	1437		Date:	2023.03	
Drawing #:	PFF105/103AL -00	Specification:	API Spec 6A 21st /ASTM A388	API Monogram:	6A-2074		Report #:	UTS-0301-00 2	
Part No.:	B04-355	Material:	AISI 4130 75K			Coating:	/		
Description:	4-1/16"15000psi Bonnet						Quantity:	1	
Item	S/N	Heat Log No.	Result	Item	S/N	Heat Log No.	Result		
1	AP064784	RD-02-40	Acceptable						
ABOVE FORGED ARE TESTED ULTRASONICALLY FOR INTERNAL DEFECTS, AND THERE WAS NO RECORDABLE INDICATION OBSERVED DURING THE TEST. HENCE ACCEPTABLE AS PER STANDARD.									
UT Code:	ASTM A388		Technique:	STRAIGHT PROBE		Examined By:	Dongkai Xu		
Exam. Stage:	Rough After		Calibration:	Block: CSK -I A Φ 1.6 FBH Block Φ 3.2 FBH Block		Level as per UT:	II		
Equipment:	MUT-800C		Couplant:	OIL					
Date of calibration	2023.03.02								
Period of validity	2024.03.02								
Probe Used:	2.5P Φ 14+ Φ 20		Acceptance Criteria:	API Spec. 6A 21st		Approved by:	Xin Zheng		
Instrmt/Ident.#:	FD14082504		Test Gain:	Φ 1.6DAC+6dB Φ 3.2DAC+6dB		Level as per UT:	II		



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ANLAN TECHNOLOGY (JIANGSU) CO.,LTD

ULTRASONIC EXAMINATION REPORT

Customer:			Customer PO#:			Date:	
Drawing #:		Specification:		API Monogram:		Report #:	
Part No.:		Material:				Coating:	
Description:	4-1/16"15000psi Stem					Quantity:	1
Item	S/N	Heat Log No.	Result	Item	S/N	Heat Log No.	Result
1	AP064808	HY230114-1	Acceptable				
ABOVE FORGED ARE TESTED ULTRASONICALLY FOR INTERNAL DEFECTS, AND THERE WAS NO RECORDABLE INDICATION OBSERVED DURING THE TEST. HENCE ACCEPTABLE AS PER STANDARD.							
UT Code:	ASTM A388	Technique:	STRAIGHT PROBE		Examined By:	Dongkai Xu	
Exam. Stage:	Rough After	Calibration:	Block: CSK -I A Φ 1.6 FBH Block Φ 3.2 FBH Block		Level as per UT:	II	
Equipment:	MUT-800C	Couplant:	OIL				
Date of calibration	2023.03.02						
Period of validity	2024.03.02						
Probe Used:	2.5P Φ 14+ Φ 20	Acceptance Criteria:	API Spec. 6A 21st		Approved by:	Xin Zheng	
Instrmt/Ident.#:	FD14082504	Test Gain:	Φ 1.6DAC+6dB Φ 3.2DAC+6dB		Level as per UT:	II	



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ANLAN TECHNOLOGY (JIANGSU) CO.,LTD

ULTRASONIC EXAMINATION REPORT

Customer:			Customer PO#:	1437		Date:	2023.02
Drawing #:	PFF105/103AL-00	Specification:	API Spec 6A 21st /ASTM A388	API Monogram:	6A-2074	Report #:	UTS-0203-002
Part No.:	B04-351	Material:	PH17-4 105K			Coating:	/
Description:	4-1/16"15000psi Balance Stem					Quantity:	1
Item	S/N	Heat Log No.	Result	Item	S/N	Heat Log No.	Result
1	AP064796	HY230114-1	Acceptable				
ABOVE FORGED ARE TESTED ULTRASONICALLY FOR INTERNAL DEFECTS, AND THERE WAS NO RECORDABLE INDICATION OBSERVED DURING THE TEST. HENCE ACCEPTABLE AS PER STANDARD.							
UT Code:	ASTM A388	Technique:	STRAIGHT PROBE		Examined By:	Dongkai Xu	
Exam. Stage:	Rough After	Calibration:	Block: CSK -I A Φ 1.6 FBH Block Φ 3.2 FBH Block		Level as per UT:	II	
Equipment:	MUT-800C	Couplant:	OIL				
Date of calibration	2023.03.02						
Period of validity	2024.03.02						
Probe Used:	2.5P Φ 14+ Φ 20	Acceptance Criteria:	API Spec. 6A 21st		Approved by:	Xin Zheng	
Instrmt/Ident.#:	FD14082504	Test Gain:	Φ 1.6DAC+6dB Φ 3.2DAC+6dB		Level as per UT:	II	

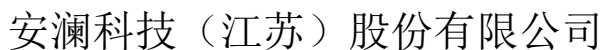


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ANLAN TECHNOLOGY (JIANGSU) CO.,LTD

ULTRASONIC EXAMINATION REPORT

Customer:				Customer PO#:			Date:	
Drawing #:	PFF105/103AL -00	Specification:	API Spec 6A 21st /ASTM A388	API Monogram:	6A-2074	Report #:	UTS-0226-00 3	
Part No.:	B04-349	Material:	AISI 4130 75K			Coating:	/	
Description:	4-1/16"15000psi Tail Bonnet					Quantity:	1	
Item	S/N	Heat Log No.	Result	Item	S/N	Heat Log No.	Result	
1	AP064768	RD-02-40	Acceptable					
ABOVE FORGED ARE TESTED ULTRASONICALLY FOR INTERNAL DEFECTS, AND THERE WAS NO RECORDABLE INDICATION OBSERVED DURING THE TEST. HENCE ACCEPTABLE AS PER STANDARD.								
UT Code:	ASTM A388	Technique:	STRAIGHT PROBE		Examined By:	Dongkai Xu		
Exam. Stage:	Rough After	Calibration:	Block: CSK -I A Φ 1.6 FBH Block Φ 3.2 FBH Block		Level as per UT:	II		
Equipment:	MUT-800C	Couplant:	OIL					
Date of calibration	2023.03.02							
Period of validity	2024.03.02							
Probe Used:	2.5P Φ 14+ Φ 20	Acceptance Criteria:	API Spec. 6A 21st		Approved by:	Xin Zheng		
Instrmt/Ident.#:	FD14082504	Test Gain:	Φ 1.6DAC+6dB Φ 3.2DAC+6dB		Level as per UT:	II		

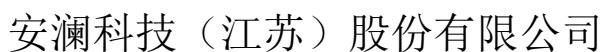


ANLAN TECHNOLOGY (JIANGSU) CO.,LTD

[illegible]

Fluorescent magnetic particle inspection was performed on all accessible wetted/sealing surfaces.

Evaluation & Disposition:	Found to be satisfactory		
Inspected by:	Dongkai Xu	Organization:	QC Department
Approved by:	Xin Zheng		
NDT Level:	MT II	Date:	2023.03

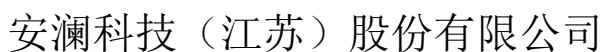


ANLAN TECHNOLOGY (JIANGSU) CO.,LTD

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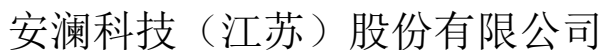
Fluorescent magnetic particle inspection was performed on all accessible wetted/sealing surfaces.

Evaluation & Disposition:	Found to be satisfactory		
Inspected by:	Dongkai Xu	Organization:	QC Department
Approved by:	Xin Zheng		
NDT Level:	MT II	Date:	2023.03



LIQUID PENETRATE EXAMINATION

20

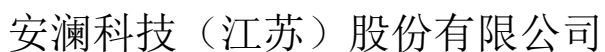


ANLAN TECHNOLOGY (JIANGSU) CO.,LTD

[illegible]

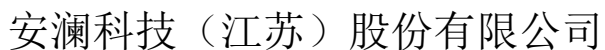
Fluorescent magnetic particle inspection was performed on all accessible wetted/sealing surfaces.

Evaluation & Disposition:	Found to be satisfactory		
Inspected by:	Dongkai Xu	Organization:	QC Department
Approved by:	Xin Zheng		
NDT Level:	MT II	Date:	2023.03



LIQUID PENETRATE EXAMINATION

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ANLAN TECHNOLOGY (JIANGSU) CO.,LTD

Customer:			Customer PO#:	1437		Date:	2023.03	
Drawing #:	PFF105/103AL-00	Specification:	API Spec 6A 21st /ASTM E709	API Monogram:	6A-2074	Report #:	NCS-2303-Q06	
Part No.:	B04-344	Material:	AISI 410 75K			Coating:	/	
Description:	4-1/16"15000psi Body Bushing					Quantity:	2	
Equipment:	CYD-5000	Acceptance Criteria:	API 6A 21st/PSL3		Circular AMPS:		3200A	
Test Method:	Fluorescence Wet Continuous	Particle Type:	Fluorescence		UV-Light Intensity:		≥1000Uw/cm²	
Stage:	Machined	Concentration:	0.2ml/100ml		Magnetizing Time:		1-3S	
Item	S/N	Heat Log No.	Result	Item	S/N	Heat Log No.	Result	
1	AP064811	HC2302005-01	Acceptable					
2	AP064825	HC2302005-01	Acceptable					
Inspection Coverage:								
Fluorescent magnetic particle inspection was performed on all accessible wetted/sealing surfaces.								
Evaluation & Disposition:		Found to be satisfactory						
Inspected by:		Dongkai Xu		Organization:		QC Department		
Approved by:		Xin Zheng						
NDT Level:		MT II		Date:		2023.03		

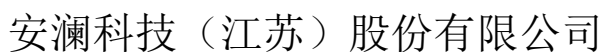


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ANLAN TECHNOLOGY (JIANGSU) CO.,LTD

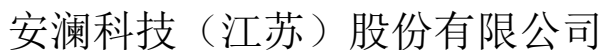
LIQUID PENETRATE EXAMINATION

Customer:				Customer PO#:	1437		Date:	2023.03	
Drawing #:	PFF105/103AL-00	Specification:	QJ/JJ07.01.03.02/ ASTM E165		API Monogram:	6A-2074	Report #:	NCS-2303-H06	
Part No.:	B04-344	Material:	AISI 410 75K				Coating:	WC	
Description:	4-1/16"15000psi Body Bushing						Quantity:	2	
Test Method:	Type II Method C	Acceptance Criteria:	API 6A 21st/PSL3		Penetrate Type:		DPT-5		
Remover Type:	DPT-5	Developer Type:	DPT-5		Light Intensity:		≥1076Lx		
Stage:	Machined	Penetrate Time:	10min		Develop Time:		10min		
Item	S/N	Heat Log No.	Result	Item	S/N	Heat Log No.	Result		
1	AP064811	HC2302005-01	Acceptable						
2	AP064825	HC2302005-01	Acceptable						
Inspection Coverage: Liquid penetrate examination was performed on all accessible wetted/sealing surfaces.									
Evaluation & Disposition:		Found to be satisfactory							
Inspected by:		Dongkai Xu			Organization:		QC Department		
Approved by:		Xin Zheng							
NDT Level:		MT II			Date:		2023.03		



ANLAN TECHNOLOGY (JIANGSU) CO.,LTD

Customer:			Customer PO#:	1437		Date:	2023.02	
Drawing #:	PFF105/103AL-00	Specification:	QJ/JJ07.01.03.02/ASTM E165		API Monogram:	6A-2074	Report #:	PTS-0220-001
Part No.:	B04-351	Material:	PH17-4 105K			Coating:	/	
Description:	4-1/16"15000psi Balance Stem					Quantity:	1	
Test Method:	Type II Method C	Acceptance Criteria:		API 6A 21st/PSL3	Penetrate Type:		DPT-5	
Remover Type:	DPT-5	Developer Type:		DPT-5	Light Intensity:		≥1076Lx	
Stage:	Machined	Penetrate Time:		10min	Develop Time:		10min	
Item	S/N	Heat Log No.	Result	Item	S/N	Heat Log No.	Result	
1	AP064796	HY230114-1	Acceptable					
Inspection Coverage:								
Liquid penetrate examination was performed on all accessible wetted/sealing surfaces.								
Evaluation & Disposition:		Found to be satisfactory						
Inspected by:		Dongkai Xu			Organization:		QC Department	
Approved by:		Xin Zheng						
NDT Level:		MT II			Date:		2023.02	



MAGNETIC PARTICLE INSPECTION REPORT

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ANLAN TECHNOLOGY (JIANGSU) CO.,LTD

HYDROSTATIC TEST REPORT

Customer:			Customer PO#:	1437		Date:	2023.03		
Drawing #:	PFF105/103A L-00	Specification:	API6A-21st	API Monogram:	6A-2074	Report #:	AP064F071		
Part No.:	B04-210	Material:	AISI 4130 75K			Coating:	/		
Description:	4-1/16"15000psi					Quantity:	1		
Item	Pressure	Method			Qty	Result			
Shell	22500psi	API 6A 21st			1	OK			
TAIL BONNET	15000psi	API 6A 21st			1	OK			
Item	S/N	Heat Log No.	Result		Item	S/N	Heat Log No.	Result	
			A	B				A	B
1	AP064774	HY230224-2	OK	OK					
Drift Test:									
Diameter ϕ 102.46mm drift test gauge can freely pass through the through hole of the valve.									
Inspection Coverage:									
Per Specification & Requirements: API 6A 21st									
			Approved By:			Examined By:			
Judgments:	[V] Conforms		Xin Zheng			Yifei Ma			
	[] Does Not Conform								



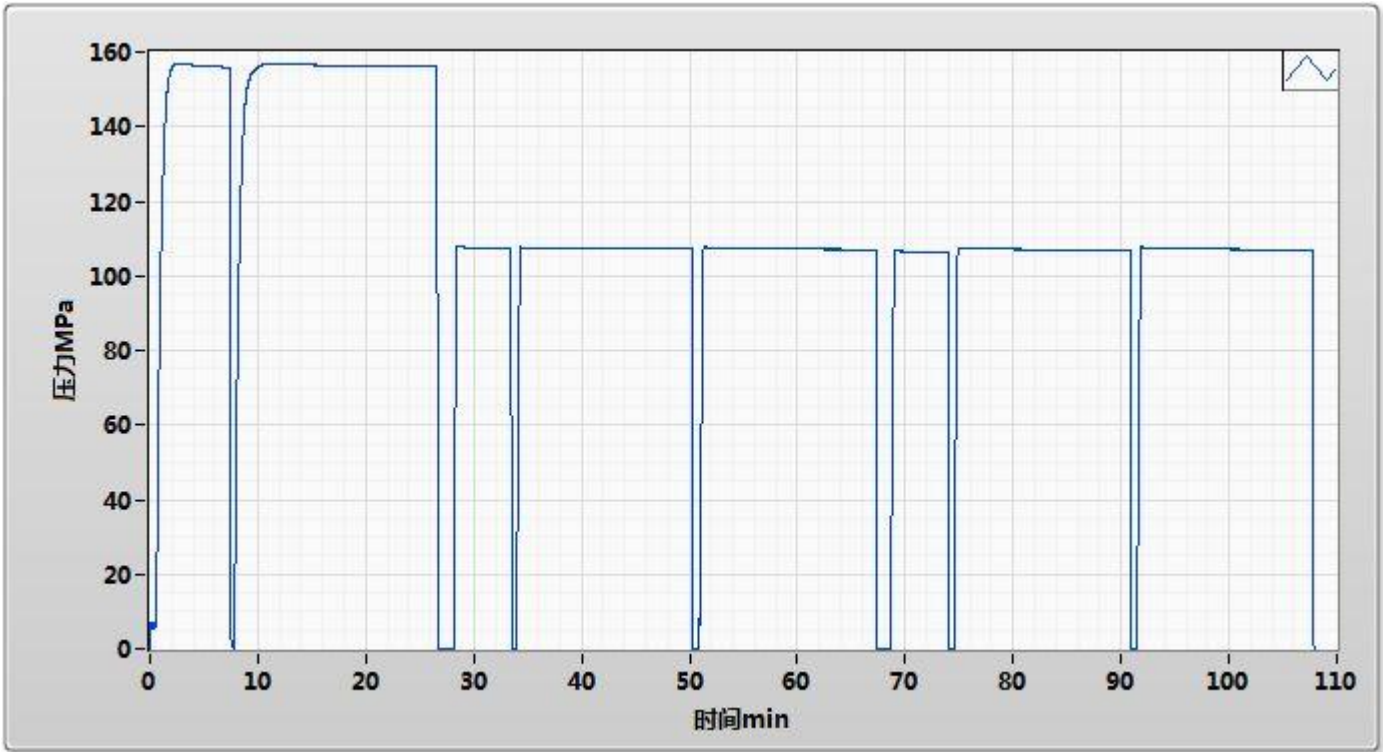
Pressure Test Report

Product Information

PRODUCT NAME	PRODUCT NO.	SPECS	PRESSURE TEST STANDARDS	TEST PART	EQUIPMENT NO.	BRAND
Manual Gate Valve	AP064F071	4-1/16" 15000Psi	API 6A 21st	Shell & TAIL BONNET	2#	

Test Data

LEVEL	INITIAL PRESSURE (Mpa)	TERMINATED PRESSURE (Mpa)	HOLDING TIME (Min)	PRESSURE DROPPING (Mpa)
1	156.65	155.88	4.0	0.77
2	156.87	156.09	15.0	0.78
3	107.62	107.50	4.0	0.12
4	107.50	107.26	15.0	0.24
5	107.52	107.06	15.0	0.46
6	106.53	106.27	4.0	0.25
7	107.31	106.94	15.0	0.37
8	107.45	107.00	15.0	0.45



TESTED BY:	INSPECTED BY:	REVIEWED BY:	DATE:
Yifei Ma	Xin Zheng	Zhicheng Feng	2023.03.10



REPORT INDEX

Purchase Order:1437

Quantity:1EA

Shipment No.:Crate#AP064F073

Shipment Date:March,2023

Activity No.	Characteristics	Reference Page
1	CERTIFICATE OF CONFORMITY	Page - 2
2	Metallurgical Test Certificate	Page - 3
2.1	Mechanical Testing	Page - 3
2.2	Chemical Testing	Page -3
2.3	Heat Treatment	Page - 3
3	Hardness Test	Page - 4-12
4	Ultrasonic Testing	Page - 13-17
5	Magnetic Particle Inspection Report	Page - 18-26
6	Hydrostatic Test	Page - 27-28



CERTIFICATE OF CONFORMITY

THE FOLLOWING ITEM IS IN CONFORMITY WITH PO # 1437, DRAWINGS AND ITS TECHNICAL REQUIREMENTS. IT IS MADE PER API – 6A MONOGRAM SPECIFICATIONS, EE-0.5 CLASS, PSL3, PR1, LU. AND IT IS MADE OF MATERIAL (4130,75K YIELD) FOR NACE H2S SERVICE UNDER THE CURRENT NACE MR0175 EDITION.

ITEM:
PO #: 1437
SERIAL NO.: AP064F073
PART NO.: PFF105/103AL-00
QANTITY: 1
INSPECTION STANDARD: API Spec 6A 21st EE-0.5, PSL3, PR1, LU

THIS COMMODITY HAS PASSED ALL THE TECHNICAL AND PERFORMANCE TESTS CARRIED BY QUALITY CONTROL/INSPECTION DEPARTMENT.

COMPANY NAME:

(STAMP)

INSPECTOR:Zhicheng Feng

CHIEF ENGINEER: Xin Zheng

EX-FACTORY DATE: March,2023

Customer: _____

P.O. Number: 1437



No.: AV00012

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ANLAN TECHNOLOGY (JIANGSU) CO.,LTD
Certified Material Test Report

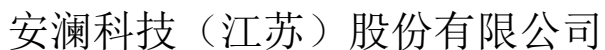
Date:March,2023

Customer		PO No.		Product			P/N		Serial No.		Qty	Size		WP (psi)		Material		PSL		Temp		Specifications			
		1437		MANUAL GATE VALVE			PFF105/103AL-00		AP064F073		1	4-1/16"		15000Psi		EE-0.5		PSL3		LU		API Spec 6A 21st			
Description						Melting Practice			Heat Treatment																
P/N	Parts	Melt No.	H.T. No.	Material Spec Standards		Qty.	Serial No.	Finished	Austenized		Quenched			Temper(1)			Temper(2)								
									Temp (°C)	Time (min)	Medium	Start Temp	Finish Temp	Temp (°C)	Time (min)	Medium	Temp (°C)	Time (min)	Medium						
PFF105/103AL-00	BODY	2027499A	HY230224-2	AISI 4130 75K,Per ASTM A29		1	AP064776	Forging	870	4.0H	WATER	15	19	680	6.0H	AIR	/	/	/						
	BONNET	22E105071	RD-02-40	AISI 4130 75K,Per ASTM A29		1	AP064790	Forging	860	4.0H	WATER	27	41	685	5.83H	AIR	/	/	/						
	STEM	YX2212-2115	HY230114-1	PH17-4 105K,Per ASTM A564/564M		1	AP064805	Forging	1030	3.5H	WATER	12	15	630	5.0H	AIR	630	5.0H	AIR						
	BALANCE STEM	YX2212-2115	HY230114-1	PH17-4 105K,Per ASTM A564/564M		1	AP064797	Forging	1030	3.5H	WATER	12	15	630	5.0H	AIR	630	5.0H	AIR						
	GATE	122V-1118	HC2302005-01	AISI 410 75K,Per ASTM A276/276M		1	AP064838	Forging	960	3.0H	OIL	39	51	720	6.0H	AIR	680	6.0H	AIR						
	BODY BUSHING	122V-1118	HC2302005-01	AISI 410 75K,Per ASTM A276/276M		2	AP064821 AP064828	Forging	960	3.0H	OIL	39	51	720	6.0H	AIR	680	6.0H	AIR						
	TAIL BONNET	22106193C	RD-02-40	AISI 4130 75K,Per ASTM A29		1	AP064765	Forging	860	4.0H	WATER	27	41	685	5.83H	AIR	/	/	/						
Melt No.	H.T. No.	Chemical Analysis (wt, %)													Physical Properties										
		C	Mn	Si	P	S	Cr	Ni	Mo	V	Co	W	Cu	Nb	Fe	Spec Size	Spec Origin	Tensile (MPa)	Yield (MPa)	Elongati on (%)	ROA (%)	Impact(-46°C) Impact direction (Transverse)	Hardness	Equipment Type	
2027499A	HY230224-2	0.32	0.78	0.28	0.011	0.002	1.08	0.22	0.23	0.004	/	/	0.01	/	/	4"x4"x8"	QTC	736	564	24.0	70.3	85/62/90	227HBW	JBW-300B/ WDW-300	
22E105071	RD-02-40	0.30	0.56	0.30	0.010	0.002	0.99	0.03	0.21	0.003	/	/	0.02	/	/	4"x4"x8"	QTC	688	552	53.0	57.0	61/63/55	222HBW	JBW-300B/ WDW-300	
YX2212-2115	HY230114-1	0.024	0.51	0.47	0.030	0.002	15.73	4.05	/	/	/	/	3.60	0.227	/	φ 80x200	QTC	1038	945	20.7	58.2	47/33/62	32HRC	JBW-300B/ WDW-300	
YX2212-2115	HY230114-1	0.024	0.51	0.47	0.030	0.002	15.73	4.05	/	/	/	/	3.60	0.227	/	φ 80x200	QTC	1038	945	20.7	58.2	47/33/62	32HRC	JBW-300B/ WDW-300	
122V-1118	HC2302005-01	0.14	0.40	0.22	0.012	0.006	11.66	0.06	0.042	0.034	/	/	0.027	/	/	100x100x200	QTC	690	580	24.0	66.0	/	226HBW	JBW-300B/ WDW-300	
122V-1118	HC2302005-01	0.14	0.40	0.22	0.012	0.006	11.66	0.06	0.042	0.034	/	/	0.027	/	/	100x100x200	QTC	690	580	24.0	66.0	/	226HBW	JBW-300B/ WDW-300	
22106193C	RD-02-40	0.31	0.57	0.27	0.010	0.005	1.06	0.23	0.24	0.001	/	/	0.03	/	/	4"x4"x8"	QTC	684	543	49.0	52.0	63/58/50	221HBW	JBW-300B/ WDW-300	

This is to certify that all above items have been tested and inspected per scope of specifications, drawings, and the purchase order and have been found to be satisfactory.

The information in this report is true and correct to our knowledge.

.....Xin Zheng.....
NAME of QA Manager, for and on the authority of COMPANY NAME



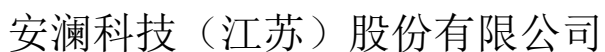
ANLAN TECHNOLOGY (JIANGSU) CO.,LTD

Customer:			Customer PO#:			Date:	
Drawing #:	PFF105/103AL-00	Specification:	API Spec 6A 21st /ASTM E10	API Monogram:	6A-2074	Report #:	HS-0308-002
Part No.:	B04-210	Material:	AISI 4130 75K			Coating:	/
Description:	4-1/16"15000psi Body					Quantity:	1
Item	S/N	Heat Log No.	Hardness	Item	S/N	Heat Log No.	Hardness
1	AP064776	HY230224-2	229HBW/225HBW 224HBW/228HBW				

Sketch:

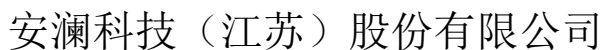
The sketch shows a symmetrical cross-section of a mechanical component. It has a central vertical axis of symmetry indicated by a dashed line. The outer profile consists of several horizontal steps or changes in diameter. Internally, there are two large semi-circular cavities facing each other towards the center. At the very top and bottom, there are small circular holes. Dimension lines indicate specific measurements across different sections of the part.

Method Used:	Impact Energy: 3000Kg.	Diameter of tungsten ball: 10mm	
Acceptable Hardness:	197HBW-235HBW	Approved By:	Examined By:
Judgments:	[V] Conforms	Xin zheng	Zhengguo Yao
	[] Does Not Conform		



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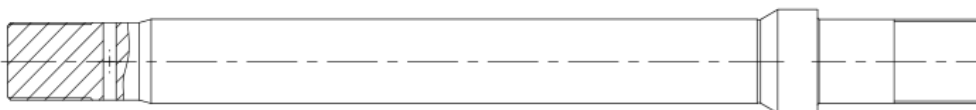


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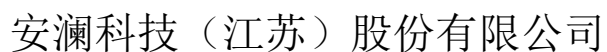
HARDNESS TEST REPORT

[illegible]

Sketch:

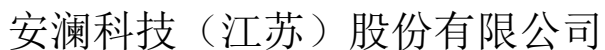


Method Used:			
Acceptable Hardness:	27HRC-33HRC	Approved By:	Examined By:
Judgments:	[V] Conforms	Xin zheng	Zhengguo Yao
	[] Does Not Conform		



ANLAN TECHNOLOGY (JIANGSU) CO.,LTD

[illegible]



ANLAN TECHNOLOGY (JIANGSU) CO.,LTD

[illegible]



安澜科技（江苏）股份有限公司

ANLAN TECHNOLOGY (JIANGSU) CO.,LTD

HARDNESS TEST REPORT

Customer:			Customer PO#:			Date:	
Drawing #:	PFF105/103AL -00	Specification:	API Spec 6A 21st /ASTM E18	API Monogram:	6A-2074	Report #:	20230306-02
Part No.:	B04-344	Material:	AISI 410 75K			Coating:	/
Description:	4-1/16"15000psi Body bushing					Quantity:	2
Item	S/N	Heat Log No.	Hardness	Item	S/N	Heat Log No.	Hardness
1	AP064821	HC2302005-01	98HRB				
2	AP064828	HC2302005-01	99HRB				

Sketch:



Method Used:			
Acceptable Hardness:	94HRB-99HRB	Approved By:	Examined By:
Judgments:	[V] Conforms	Xin zheng	Zhengguo Yao
	[] Does Not Conform		



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ANLAN TECHNOLOGY (JIANGSU) CO.,LTD

HARDNESS TEST REPORT

Customer:			Customer PO#:	1437		Date:	2023.03
Drawing #:	PFF105/103AL -00	Specification:	API Spec 6A 21st /ASTM E92	API Monogram:	6A-2074	Report #:	20230306-06
Part No.:	B04-344	Material:	AISI 410 75K			Coating:	WC
Description:	4-1/16"15000psi Body bushing					Quantity:	2
Item	S/N	Heat Log No.	Hardness	Item	S/N	Heat Log No.	Hardness
1	AP064821	HC2302005-01	1171HV				
2	AP064828	HC2302005-01	1171HV				

Sketch:



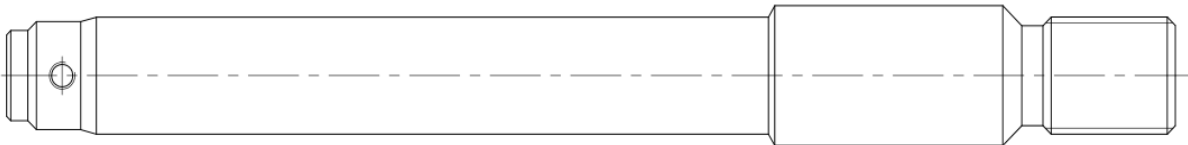
Method Used:	Impact Energy: 5Kg-f(49.03N).		
Acceptable Hardness:	≥1050HV	Approved By:	Examined By:
Judgments:	[V] Conforms	Xin zheng	Zhengguo Yao
	[] Does Not Conform		

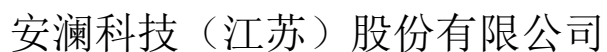


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ANLAN TECHNOLOGY (JIANGSU) CO.,LTD

HARDNESS TEST REPORT

Customer:				Customer PO#:	1437		Date:	2023.02
Drawing #:	PFF105/103A L-00	Specification:	API Spec 6A 21st /ASTM E18		API Monogram:	6A-2074	Report #:	HS-0220-003
Part No.:	B04-351	Material:	PH17-4 105K				Coating:	/
Description:	4-1/16"15000psi Balance Stem						Quantity:	1
Item	S/N	Heat Log No.	Hardness	Item	S/N	Heat Log No.	Hardness	
1	AP064797	HY230114-1	31HRC					
Sketch:								
								
Method Used:								
Acceptable Hardness:	27HRC-33HRC		Approved By:		Examined By:			
Judgments:	☒ V] Conforms		Xin zheng		Zhengguo Yao			
	☐] Does Not Conform							



ANLAN TECHNOLOGY (JIANGSU) CO.,LTD

Customer:			Customer PO#:			Date:	
Drawing #:		Specification:		API Monogram:		Report #:	
Part No.:		Material:				Coating:	
Description:						Quantity:	

[illegible]

This technical drawing shows a mechanical assembly in a half-section view. The central component is a vertical shaft with a flange at the top and a wider base. A horizontal shaft is connected to the right side of the vertical shaft. The assembly is mounted on a base, which is shown in section. The drawing uses standard engineering conventions, including a centerline (dashed line) to indicate symmetry and section lines (hatching) to distinguish different materials or components.

Method Used:	Impact Energy: 3000Kg.	Diameter of tungsten ball: 10mm	
Acceptable Hardness:	197HBW-235HBW	Approved By:	Examined By:
Judgments:	[V] Conforms	Xin zheng	Zhengguo Yao
	[] Does Not Conform		



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ANLAN TECHNOLOGY (JIANGSU) CO.,LTD

ULTRASONIC EXAMINATION REPORT

Customer:				Customer PO#:	1437		Date:	2023.02	
Drawing #:	PFF105/103A L-00	Specification:	API Spec 6A 21st /ASTM A388	API Monogram:	6A-2074		Report #:	UTS-0225-003	
Part No.:	B04-210	Material:	AISI 4130 75K			Coating:	/		
Description:	4-1/16"15000psi Body					Quantity:	1		
Item	S/N	Heat Log No.	Result	Item	S/N	Heat Log No.	Result		
1	AP064776	HY230224-2	Acceptable						
ABOVE FORGED ARE TESTED ULTRASONICALLY FOR INTERNAL DEFECTS, AND THERE WAS NO RECORDABLE INDICATION OBSERVED DURING THE TEST. HENCE ACCEPTABLE AS PER STANDARD.									
UT Code:	ASTM A388		Technique:	STRAIGHT PROBE		Examined By:	Dongkai Xu		
Exam. Stage:	Rough After		Calibration:	Block: CSK -I A Φ 1.6 FBH Block Φ 3.2 FBH Block Φ 6.4 FBH Block		Level as per UT:	II		
Equipment:	MUT-800C		Couplant:	OIL					
Date of calibration	2023.03.02								
Period of validity	2024.03.02								
Probe Used:	2.5P Φ 14+ Φ 20		Acceptance Criteria:	API Spec. 6A 21st		Approved by:	Xin Zheng		
Instrmt/Ident.#:	FD14082504		Test Gain:	Φ 1.6DAC+6dB Φ 3.2DAC+6dB Φ 6.4DAC+6dB		Level as per UT:	II		

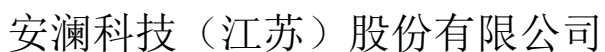


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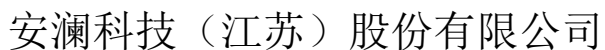
ULTRASONIC EXAMINATION REPORT

Customer:				Customer PO#:	1437		Date:	2023.03	
Drawing #:	PFF105/103AL -00	Specification:	API Spec 6A 21st /ASTM A388	API Monogram:	6A-2074		Report #:	UTS-0301-00 2	
Part No.:	B04-355	Material:	AISI 4130 75K			Coating:	/		
Description:	4-1/16"15000psi Bonnet						Quantity:	1	
Item	S/N	Heat Log No.	Result	Item	S/N	Heat Log No.	Result		
1	AP064790	RD-02-40	Acceptable						
ABOVE FORGED ARE TESTED ULTRASONICALLY FOR INTERNAL DEFECTS, AND THERE WAS NO RECORDABLE INDICATION OBSERVED DURING THE TEST. HENCE ACCEPTABLE AS PER STANDARD.									
UT Code:	ASTM A388		Technique:	STRAIGHT PROBE		Examined By:	Dongkai Xu		
Exam. Stage:	Rough After		Calibration:	Block: CSK -I A Φ 1.6 FBH Block Φ 3.2 FBH Block		Level as per UT:	II		
Equipment:	MUT-800C		Couplant:	OIL					
Date of calibration	2023.03.02								
Period of validity	2024.03.02								
Probe Used:	2.5P Φ 14+ Φ 20		Acceptance Criteria:	API Spec. 6A 21st		Approved by:	Xin Zheng		
Instrmt/Ident.#:	FD14082504		Test Gain:	Φ 1.6DAC+6dB Φ 3.2DAC+6dB		Level as per UT:	II		



ULTRASONIC EXAMINATION REPORT

ABOVE FORGED ARE TESTED ULTRASONICALLY FOR INTERNAL DEFECTS, AND THERE WAS NO RECORDABLE INDICATION OBSERVED DURING THE TEST. HENCE ACCEPTABLE AS PER STANDARD.



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Customer:			Customer PO#:	1437		Date:	2023.02	
Drawing #:	PFF105/103AL-00	Specification:	API Spec 6A 21st /ASTM A388	API Monogram:	6A-2074	Report #:	UTS-0203-002	
Part No.:	B04-351	Material:	PH17-4 105K			Coating:	/	
Description:	4-1/16"15000psi Balance Stem					Quantity:	1	
Item	S/N	Heat Log No.	Result	Item	S/N	Heat Log No.	Result	
1	AP064797	HY230114-1	Acceptable					
ABOVE FORGED ARE TESTED ULTRASONICALLY FOR INTERNAL DEFECTS, AND THERE WAS NO RECORDABLE INDICATION OBSERVED DURING THE TEST. HENCE ACCEPTABLE AS PER STANDARD.								
UT Code:	ASTM A388	Technique:	STRAIGHT PROBE			Examined By:	Dongkai Xu	
Exam. Stage:	Rough After	Calibration:	Block: CSK -I A Φ 1.6 FBH Block Φ 3.2 FBH Block			Level as per UT:	II	
Equipment:	MUT-800C	Couplant:	OIL					
Date of calibration	2023.03.02							
Period of validity	2024.03.02							
Probe Used:	2.5P Φ 14+ Φ 20	Acceptance Criteria:	API Spec. 6A 21st			Approved by:	Xin Zheng	
Instrmt/Ident.#:	FD14082504	Test Gain:	Φ 1.6DAC+6dB Φ 3.2DAC+6dB			Level as per UT:	II	

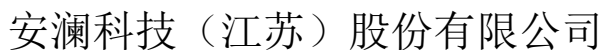


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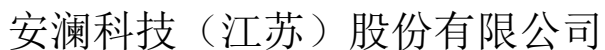
ULTRASONIC EXAMINATION REPORT

Customer:				Customer PO#:			Date:	
Drawing #:	PFF105/103AL -00	Specification:	API Spec 6A 21st /ASTM A388	API Monogram:	6A-2074	Report #:	UTS-0226-00 3	
Part No.:	B04-349	Material:	AISI 4130 75K			Coating:	/	
Description:	4-1/16"15000psi Tail Bonnet					Quantity:	1	
Item	S/N	Heat Log No.	Result	Item	S/N	Heat Log No.	Result	
1	AP064765	RD-02-40	Acceptable					
ABOVE FORGED ARE TESTED ULTRASONICALLY FOR INTERNAL DEFECTS, AND THERE WAS NO RECORDABLE INDICATION OBSERVED DURING THE TEST. HENCE ACCEPTABLE AS PER STANDARD.								
UT Code:	ASTM A388	Technique:	STRAIGHT PROBE		Examined By:	Dongkai Xu		
Exam. Stage:	Rough After	Calibration:	Block: CSK -I A Φ 1.6 FBH Block Φ 3.2 FBH Block		Level as per UT:	II		
Equipment:	MUT-800C	Couplant:	OIL					
Date of calibration	2023.03.02							
Period of validity	2024.03.02							
Probe Used:	2.5P Φ 14+ Φ 20	Acceptance Criteria:	API Spec. 6A 21st		Approved by:	Xin Zheng		
Instrmt/Ident.#:	FD14082504	Test Gain:	Φ 1.6DAC+6dB Φ 3.2DAC+6dB		Level as per UT:	II		



MAGNETIC PARTICLE INSPECTION REPORT

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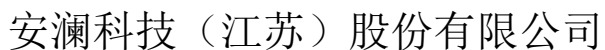


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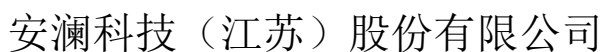
Fluorescent magnetic particle inspection was performed on all accessible wetted/sealing surfaces.

Evaluation & Disposition:	Found to be satisfactory		
Inspected by:	Dongkai Xu	Organization:	QC Department
Approved by:	Xin Zheng		
NDT Level:	MT II	Date:	2023.03



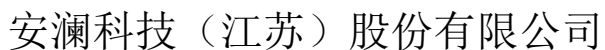
ANLAN TECHNOLOGY (JIANGSU) CO.,LTD

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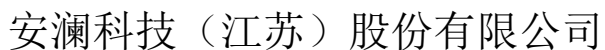
MAGNETIC PARTICLE INSPECTION REPORT

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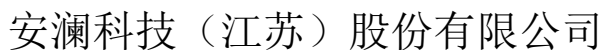
ANLAN TECHNOLOGY (JIANGSU) CO.,LTD

Customer:			Customer PO#:	1437		Date:	2023.03	
Drawing #:	PFF105/103AL-00	Specification:	QJ/JJ07.01.03.02/ ASTM E165		API Monogram:	6A-2074	Report #:	NCS-2303-H05
Part No.:	B04-211	Material:	AISI 410 75K			Coating:	WC	
Description:	4-1/16"15000psi Gate					Quantity:	1	
Test Method:	Type II Method C	Acceptance Criteria:		API 6A 21st/PSL3	Penetrate Type:		DPT-5	
Remover Type:	DPT-5	Developer Type:		DPT-5	Light Intensity:		≥1076Lx	
Stage:	Machined	Penetrate Time:		10min	Develop Time:		10min	
Item	S/N	Heat Log No.	Result	Item	S/N	Heat Log No.	Result	
1	AP064838	HC2302005-01	Acceptable					
Inspection Coverage:								
Liquid penetrate examination was performed on all accessible wetted/sealing surfaces.								
Evaluation & Disposition:		Found to be satisfactory						
Inspected by:		Dongkai Xu			Organization:		QC Department	
Approved by:		Xin Zheng						
NDT Level:		MT II			Date:		2023.03	



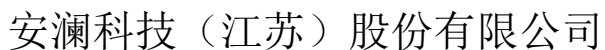
ANLAN TECHNOLOGY (JIANGSU) CO.,LTD

Customer:			Customer PO#:	1437		Date:	2023.03	
Drawing #:	PFF105/103AL-00	Specification:	API Spec 6A 21st /ASTM E709	API Monogram:	6A-2074	Report #:	NCS-2303-Q06	
Part No.:	B04-344	Material:	AISI 410 75K			Coating:	/	
Description:	4-1/16"15000psi Body Bushing					Quantity:	2	
Equipment:	CYD-5000	Acceptance Criteria:	API 6A 21st/PSL3		Circular AMPS:		3200A	
Test Method:	Fluorescence Wet Continuous	Particle Type:	Fluorescence		UV-Light Intensity:		≥1000Uw/cm²	
Stage:	Machined	Concentration:	0.2ml/100ml		Magnetizing Time:		1-3S	
Item	S/N	Heat Log No.	Result	Item	S/N	Heat Log No.	Result	
1	AP064821	HC2302005-01	Acceptable					
2	AP064828	HC2302005-01	Acceptable					
Inspection Coverage:								
Fluorescent magnetic particle inspection was performed on all accessible wetted/sealing surfaces.								
Evaluation & Disposition:		Found to be satisfactory						
Inspected by:		Dongkai Xu		Organization:		QC Department		
Approved by:		Xin Zheng						
NDT Level:		MT II		Date:		2023.03		



LIQUID PENETRATE EXAMINATION

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ANLAN TECHNOLOGY (JIANGSU) CO.,LTD

Customer:			Customer PO#:	1437		Date:	2023.02	
Drawing #:	PFF105/103AL-00	Specification:	QJ/JJ07.01.03.02/ASTM E165		API Monogram:	6A-2074	Report #:	PTS-0220-001
Part No.:	B04-351	Material:	PH17-4 105K				Coating:	/
Description:	4-1/16"15000psi Balance Stem					Quantity:	1	
Test Method:	Type II Method C	Acceptance Criteria:		API 6A 21st/PSL3	Penetrate Type:		DPT-5	
Remover Type:	DPT-5	Developer Type:		DPT-5	Light Intensity:		≥1076Lx	
Stage:	Machined	Penetrate Time:		10min	Develop Time:		10min	
Item	S/N	Heat Log No.	Result	Item	S/N	Heat Log No.	Result	
1	AP064797	HY230114-1	Acceptable					
Inspection Coverage:								
Liquid penetrate examination was performed on all accessible wetted/sealing surfaces.								
Evaluation & Disposition:		Found to be satisfactory						
Inspected by:		Dongkai Xu			Organization:		QC Department	
Approved by:		Xin Zheng						
NDT Level:		MT II			Date:		2023.02	



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ANLAN TECHNOLOGY (JIANGSU) CO.,LTD

MAGNETIC PARTICLE INSPECTION REPORT

Customer:				Customer PO#:	1437		Date:	2023.03	
Drawing #:	PFF105/103AL-00	Specification:	API Spec 6A 21st /ASTM E709		API Monogram:	6A-2074	Report #:	MTS-0308-002	
Part No.:	B04-349	Material:	AISI 4130 75K				Coating:	/	
Description:	4-1/16"15000psi Tail Bonnet						Quantity:	1	
Equipment:	CYD-5000	Acceptance Criteria:	API 6A 21st/PSL3		Circular AMPS:		2500A 3500A		
Test Method:	Fluorescence Wet Continuous	Particle Type:	Fluorescence		UV-Light Intensity:		3490Uw/cm ²		
Stage:	Machined	Concentration:	0.2ml/100ml		Magnetizing Time:		1-3S		
Item	S/N	Heat Log No.	Result	Item	S/N	Heat Log No.	Result		
1	AP064765	RD-02-40	Acceptable						
Inspection Coverage:									
Fluorescent magnetic particle inspection was performed on all accessible wetted/sealing surfaces.									
Evaluation & Disposition:		Found to be satisfactory							
Inspected by:	Dongkai Xu			Organization:	QC Department				
Approved by:	Xin Zheng			Date:	2023.03				
NDT Level:	MT II			Date:	2023.03				



安澜科技（江苏）股份有限公司

ANLAN TECHNOLOGY (JIANGSU) CO.,LTD

HYDROSTATIC TEST REPORT

Customer:					Customer PO#:	1437		Date:	2023.03	
Drawing #:	PFF105/103A L-00	Specification:	API6A-21st	API Monogram:	6A-2074	Report #:	AP064F073			
Part No.:	B04-210	Material:	AISI 4130 75K				Coating:	/		
Description:	4-1/16"15000psi						Quantity:	1		
Item	Pressure	Method			Qty	Result				
Shell	22500psi	API 6A 21st			1	OK				
TAIL BONNET	15000psi	API 6A 21st			1	OK				
Item	S/N	Heat Log No.	Result		Item	S/N	Heat Log No.	Result		
			A	B				A	B	
1	AP064776	HY230224-2	OK	OK						
Drift Test:										
Diameter ϕ 102.46mm drift test gauge can freely pass through the through hole of the valve.										
Inspection Coverage:										
Per Specification & Requirements: API 6A 21st										
					Approved By:		Examined By:			
Judgments:		[V] Conforms			Xin Zheng		Yifei Ma			
		[] Does Not Conform								



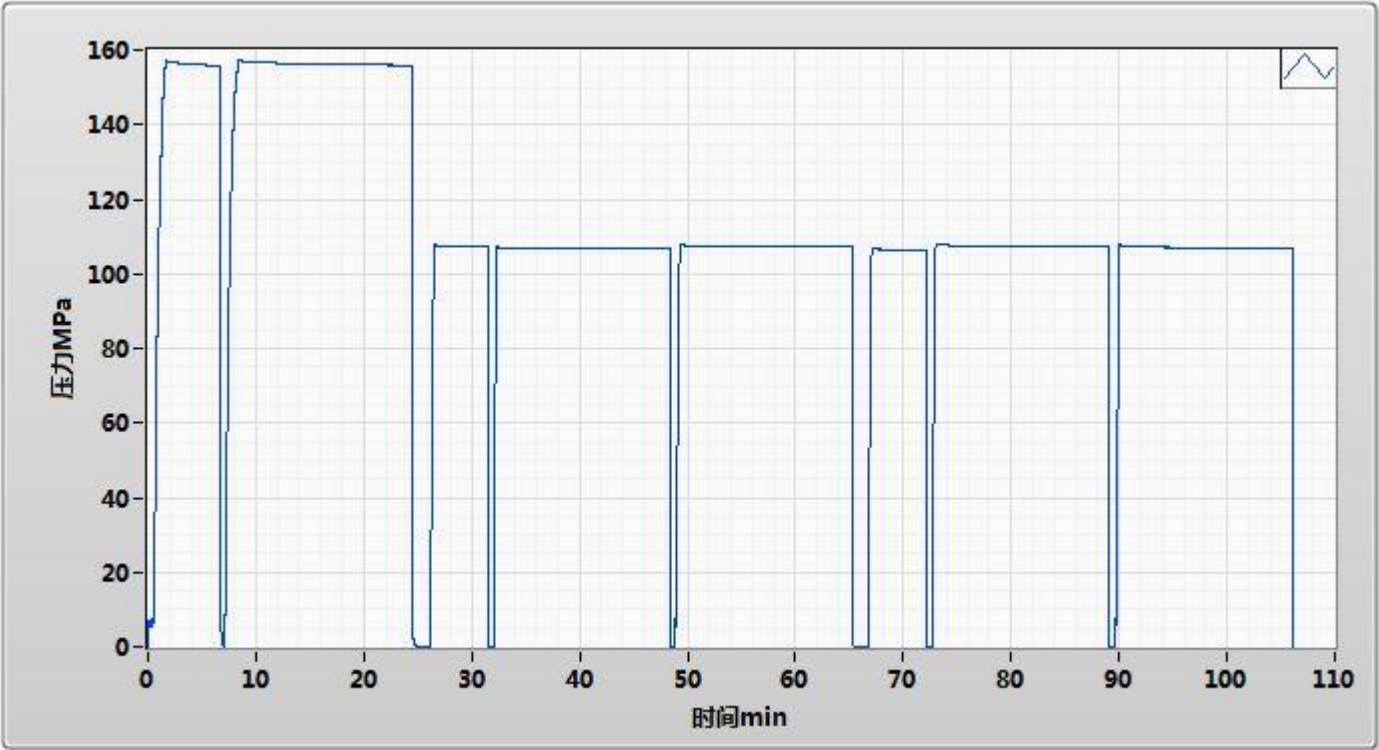
Pressure Test Report

Product Information

PRODUCT NAME	PRODUCT NO.	SPECS	PRESSURE TEST STANDARDS	TEST PART	EQUIPMENT NO.	BRAND
Manual Gate Valve	AP064F073	4-1/16" 15000Psi	API 6A 21st	Shell & TAIL BONNET	2#	

Test Data

LEVEL	INITIAL PRESSURE (Mpa)	TERMINATED PRESSURE (Mpa)	HOLDING TIME (Min)	PRESSURE DROPPING (Mpa)
1	156.56	155.78	4.0	0.78
2	156.85	155.92	15.0	0.93
3	107.50	107.34	4.0	0.16
4	106.93	106.66	15.0	0.27
5	107.56	107.13	15.0	0.43
6	106.52	106.20	4.0	0.32
7	107.67	107.21	15.0	0.46
8	107.36	106.86	15.0	0.50



TESTED BY:	INSPECTED BY:	REVIEWED BY:	DATE:
Yifei Ma	Xin Zheng	Zhicheng Feng	2023.03.09



REPORT INDEX

Purchase Order:1437

Quantity:1EA

Shipment No.:Crate#AP064F075

Shipment Date:March,2023

Activity No.	Characteristics	Reference Page
1	CERTIFICATE OF CONFORMITY	Page - 2
2	Metallurgical Test Certificate	Page - 3
2.1	Mechanical Testing	Page - 3
2.2	Chemical Testing	Page -3
2.3	Heat Treatment	Page - 3
3	Hardness Test	Page - 4-12
4	Ultrasonic Testing	Page - 13-17
5	Magnetic Particle Inspection Report	Page - 18-26
6	Hydrostatic Test	Page - 27-28



CERTIFICATE OF CONFORMITY

THE FOLLOWING ITEM IS IN CONFORMITY WITH PO # 1437, DRAWINGS AND ITS TECHNICAL REQUIREMENTS. IT IS MADE PER API – 6A MONOGRAM SPECIFICATIONS, EE-0.5 CLASS, PSL3, PR1, LU. AND IT IS MADE OF MATERIAL (4130,75K YIELD) FOR NACE H2S SERVICE UNDER THE CURRENT NACE MR0175 EDITION.

ITEM:
PO #: 1437
SERIAL NO.: AP064F075
PART NO.: PFF105/103AL-00
QANTITY: 1
INSPECTION STANDARD: API Spec 6A 21st EE-0.5, PSL3, PR1, LU

THIS COMMODITY HAS PASSED ALL THE TECHNICAL AND PERFORMANCE TESTS CARRIED BY QUALITY CONTROL/INSPECTION DEPARTMENT.

COMPANY NAME:	INSPECTOR:Zhicheng Feng
(STAMP)	CHIEF ENGINEER: Xin Zheng
	EX-FACTORY DATE: March,2023
Customer: _____	P.O. Number: <u>1437</u>



No.: AV00012

安澜科技（江苏）股份有限公司

ANLAN TECHNOLOGY (JIANGSU) CO.,LTD
Certified Material Test Report

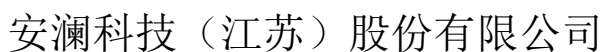
Date:March,2023

Customer		PO No.		Product			P/N		Serial No.		Qty	Size	WP (psi)	Material	PSL	Temp	Specifications							
		1437		MANUAL GATE VALVE			PFF105/103AL-00		AP064F075		1	4-1/16"	15000Psi	EE-0.5	PSL3	LU	API Spec 6A 21st							
Description						Melting Practice			Heat Treatment															
P/N	Parts	Melt No.	H.T. No.	Material Spec Standards	Qty.	Serial No.	Finished	Austenized		Quenched			Temper(1)			Temper(2)								
								Temp (°C)	Time (min)	Medium	Start Temp	Finish Temp	Temp (°C)	Time (min)	Medium	Temp (°C)	Time (min)	Medium						
PFF105/103AL-00	BODY	2027499A	HY230224-2	AISI 4130 75K,Per ASTM A29		1	AP064772	Forging	870	4.0H	WATER	15	19	680	6.0H	AIR	/	/	/					
	BONNET	22E105071	RD-02-40	AISI 4130 75K,Per ASTM A29		1	AP064783	Forging	860	4.0H	WATER	27	41	685	5.83H	AIR	/	/	/					
	STEM	YX2212-2115	HY230114-1	PH17-4 105K,Per ASTM A564/564M		1	AP064807	Forging	1030	3.5H	WATER	12	15	630	5.0H	AIR	630	5.0H	AIR					
	BALANCE STEM	YX2212-2115	HY230114-1	PH17-4 105K,Per ASTM A564/564M		1	AP064791	Forging	1030	3.5H	WATER	12	15	630	5.0H	AIR	630	5.0H	AIR					
	GATE	122V-1118	HC2302005-01	AISI 410 75K,Per ASTM A276/276M		1	AP064839	Forging	960	3.0H	OIL	39	51	720	6.0H	AIR	680	6.0H	AIR					
	BODY BUSHING	122V-1118	HC2302005-01	AISI 410 75K,Per ASTM A276/276M		2	AP064820 AP064827	Forging	960	3.0H	OIL	39	51	720	6.0H	AIR	680	6.0H	AIR					
	TAIL BONNET	22106193C	RD-02-40	AISI 4130 75K,Per ASTM A29		1	AP064770	Forging	860	4.0H	WATER	27	41	685	5.83H	AIR	/	/	/					
Melt No.	H.T. No.	Chemical Analysis (wt, %)													Physical Properties									
		C	Mn	Si	P	S	Cr	Ni	Mo	V	Co	W	Cu	Nb	Fe	Spec Size	Spec Origin	Tensile (MPa)	Yield (MPa)	Elongati on (%)	ROA (%)	Impact(-46°C) Impact direction (Transverse)	Hardness	Equipment Type
2027499A	HY230224-2	0.32	0.78	0.28	0.011	0.002	1.08	0.22	0.23	0.004	/	/	0.01	/	/	4"x4"x8"	QTC	736	564	24.0	70.3	85/62/90	227HBW	JBW-300B/ WDW-300
22E105071	RD-02-40	0.30	0.56	0.30	0.010	0.002	0.99	0.03	0.21	0.003	/	/	0.02	/	/	4"x4"x8"	QTC	688	552	53.0	57.0	61/63/55	222HBW	JBW-300B/ WDW-300
YX2212-2115	HY230114-1	0.024	0.51	0.47	0.030	0.002	15.73	4.05	/	/	/	/	3.60	0.227	/	φ 80x200	QTC	1038	945	20.7	58.2	47/33/62	32HRC	JBW-300B/ WDW-300
YX2212-2115	HY230114-1	0.024	0.51	0.47	0.030	0.002	15.73	4.05	/	/	/	/	3.60	0.227	/	φ 80x200	QTC	1038	945	20.7	58.2	47/33/62	32HRC	JBW-300B/ WDW-300
122V-1118	HC2302005-01	0.14	0.40	0.22	0.012	0.006	11.66	0.06	0.042	0.034	/	/	0.027	/	/	100x100x200	QTC	690	580	24.0	66.0	/	226HBW	JBW-300B/ WDW-300
122V-1118	HC2302005-01	0.14	0.40	0.22	0.012	0.006	11.66	0.06	0.042	0.034	/	/	0.027	/	/	100x100x200	QTC	690	580	24.0	66.0	/	226HBW	JBW-300B/ WDW-300
22106193C	RD-02-40	0.31	0.57	0.27	0.010	0.005	1.06	0.23	0.24	0.001	/	/	0.03	/	/	4"x4"x8"	QTC	684	543	49.0	52.0	63/58/50	221HBW	JBW-300B/ WDW-300

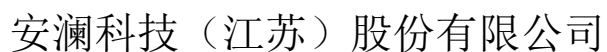
This is to certify that all above items have been tested and inspected per scope of specifications, drawings, and the purchase order and have been found to be satisfactory.

The information in this report is true and correct to our knowledge.

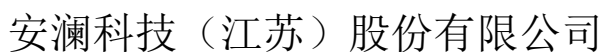
.....Xin Zheng.....
NAME of QA Manager, for and on the authority of COMPANY NAME



ANLAN TECHNOLOGY (JIANGSU) CO.,LTD



ANLAN TECHNOLOGY (JIANGSU) CO.,LTD

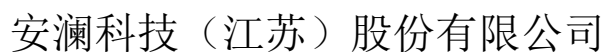


ANLAN TECHNOLOGY (JIANGSU) CO.,LTD

[illegible]

Technical drawing of a shaft assembly. The shaft is shown in cross-section with a keyway. A pulley is mounted on the shaft, and a coupling is shown at the end. The drawing includes a dashed line indicating the center of the shaft.

Zhengguo Yao



ANLAN TECHNOLOGY (JIANGSU) CO.,LTD

[illegible]

HARDNESS TEST REPORT

[illegible]



安澜科技（江苏）股份有限公司

ANLAN TECHNOLOGY (JIANGSU) CO.,LTD

HARDNESS TEST REPORT

Customer:			Customer PO#:			Date:	
Drawing #:	PFF105/103AL -00	Specification:	API Spec 6A 21st /ASTM E18	API Monogram:	6A-2074	Report #:	20230306-02
Part No.:	B04-344	Material:	AISI 410 75K			Coating:	/
Description:	4-1/16"15000psi Body bushing					Quantity:	2
Item	S/N	Heat Log No.	Hardness	Item	S/N	Heat Log No.	Hardness
1	AP064820	HC2302005-01	98HRB				
2	AP064827	HC2302005-01	99HRB				

Sketch:



Method Used:			
Acceptable Hardness:	94HRB-99HRB	Approved By:	Examined By:
Judgments:	[V] Conforms	Xin zheng	Zhengguo Yao
	[] Does Not Conform		



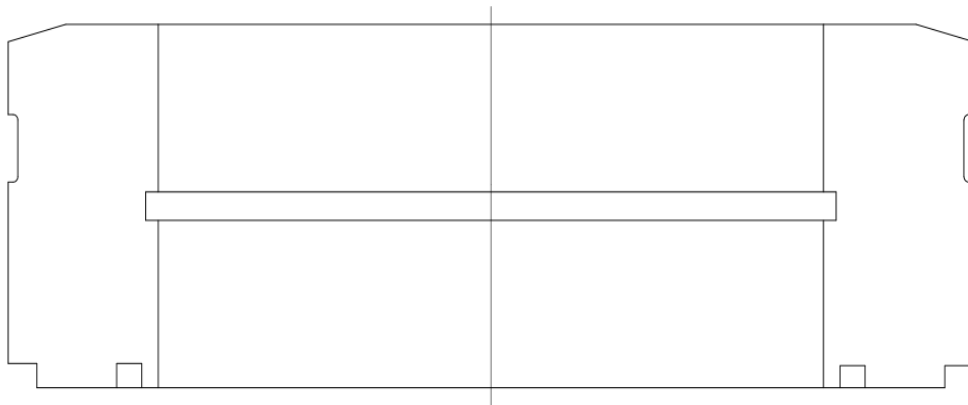
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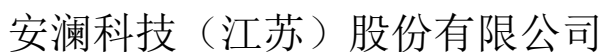
HARDNESS TEST REPORT

Customer:			Customer PO#:	1437		Date:	2023.03
Drawing #:	PFF105/103AL -00	Specification:	API Spec 6A 21st /ASTM E92	API Monogram:	6A-2074	Report #:	20230306-06
Part No.:	B04-344	Material:	AISI 410 75K			Coating:	WC
Description:	4-1/16"15000psi Body bushing					Quantity:	2
Item	S/N	Heat Log No.	Hardness	Item	S/N	Heat Log No.	Hardness
1	AP064820	HC2302005-01	1197HV				
2	AP064827	HC2302005-01	1197HV				

Sketch:



Method Used:	Impact Energy: 5Kg-f(49.03N).		
Acceptable Hardness:	≥1050HV	Approved By:	Examined By:
Judgments:	[V] Conforms	Xin zheng	Zhengguo Yao
	[] Does Not Conform		



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[illegible]

The drawing shows a shaft with a keyway. The front view (top) shows a shaft with a central keyway. The side view (bottom) shows the shaft with a keyway. The shaft has a diameter of 10 mm and a length of 100 mm. The keyway has a width of 10 mm and a depth of 5 mm. The shaft is shown with a dashed line indicating the keyway's position.

Method Used:			
Acceptable Hardness:	27HRC-33HRC	Approved By:	Examined By:
Judgments:	[V] Conforms	Xin zheng	Zhengguo Yao
	[] Does Not Conform		

HARDNESS TEST REPORT

Customer:			Customer PO#:			Date:			
Drawing #:			Specification:			API Monogram:			
Part No.:			Material:				Coating:		
Description:							Quantity:		

Item	S/N	Heat Log No.	Hardness	Item	S/N	Heat Log No.	Hardness
1	AP064770	RD-02-40	228HBW				

Sketch:

Method Used:	Impact Energy: 3000Kg.	Diameter of tungsten ball: 10mm	
Acceptable Hardness:	197HBW-235HBW	Approved By:	Examined By:
Judgments:	[V] Conforms	Xin zheng	Zhengguo Yao
	[] Does Not Conform		



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ANLAN TECHNOLOGY (JIANGSU) CO.,LTD

ULTRASONIC EXAMINATION REPORT

Customer:			Customer PO#:	1437		Date:	2023.02
Drawing #:	PFF105/103A L-00	Specification:	API Spec 6A 21st /ASTM A388	API Monogram:	6A-2074	Report #:	UTS-0225-003
Part No.:	B04-210	Material:	AISI 4130 75K			Coating:	/
Description:	4-1/16"15000psi Body					Quantity:	1
Item	S/N	Heat Log No.	Result	Item	S/N	Heat Log No.	Result
1	AP064772	HY230224-2	Acceptable				
ABOVE FORGED ARE TESTED ULTRASONICALLY FOR INTERNAL DEFECTS, AND THERE WAS NO RECORDABLE INDICATION OBSERVED DURING THE TEST. HENCE ACCEPTABLE AS PER STANDARD.							
UT Code:	ASTM A388	Technique:	STRAIGHT PROBE		Examined By:	Dongkai Xu	
Exam. Stage:	Rough After	Calibration:	Block: CSK -I A Φ 1.6 FBH Block Φ 3.2 FBH Block Φ 6.4 FBH Block		Level as per UT:	II	
Equipment:	MUT-800C	Couplant:	OIL				
Date of calibration	2023.03.02						
Period of validity	2024.03.02						
Probe Used:	2.5P Φ 14+ Φ 20	Acceptance Criteria:	API Spec. 6A 21st		Approved by:	Xin Zheng	
Instrmt/Ident.#:	FD14082504	Test Gain:	Φ 1.6DAC+6dB Φ 3.2DAC+6dB Φ 6.4DAC+6dB		Level as per UT:	II	

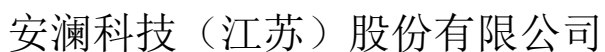


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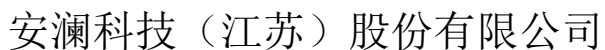
ULTRASONIC EXAMINATION REPORT

Customer:			Customer PO#:	1437		Date:	2023.03	
Drawing #:	PFF105/103AL -00	Specification:	API Spec 6A 21st /ASTM A388	API Monogram:	6A-2074	Report #:	UTS-0301-00 2	
Part No.:	B04-355	Material:	AISI 4130 75K			Coating:	/	
Description:	4-1/16"15000psi Bonnet					Quantity:	1	
Item	S/N	Heat Log No.	Result	Item	S/N	Heat Log No.	Result	
1	AP064783	RD-02-40	Acceptable					
ABOVE FORGED ARE TESTED ULTRASONICALLY FOR INTERNAL DEFECTS, AND THERE WAS NO RECORDABLE INDICATION OBSERVED DURING THE TEST. HENCE ACCEPTABLE AS PER STANDARD.								
UT Code:	ASTM A388	Technique:	STRAIGHT PROBE		Examined By:	Dongkai Xu		
Exam. Stage:	Rough After	Calibration:	Block: CSK -I A Φ 1.6 FBH Block Φ 3.2 FBH Block		Level as per UT:	II		
Equipment:	MUT-800C	Couplant:	OIL					
Date of calibration	2023.03.02							
Period of validity	2024.03.02							
Probe Used:	2.5P Φ 14+ Φ 20	Acceptance Criteria:	API Spec. 6A 21st		Approved by:	Xin Zheng		
Instrmt/Ident.#:	FD14082504	Test Gain:	Φ 1.6DAC+6dB Φ 3.2DAC+6dB		Level as per UT:	II		



ANLAN TECHNOLOGY (JIANGSU) CO.,LTD

Customer:		Customer PO#:		Date:			
Drawing #:		Specification:		API Monogram:		Report #:	
Part No.:		Material:			Coating:		
Description:	4-1/16"15000psi Stem				Quantity:	1	
Item	S/N	Heat Log No.	Result	Item	S/N	Heat Log No.	Result
1	AP064807	HY230114-1	Acceptable				
ABOVE FORGED ARE TESTED ULTRASONICALLY FOR INTERNAL DEFECTS, AND THERE WAS NO RECORDABLE INDICATION OBSERVED DURING THE TEST. HENCE ACCEPTABLE AS PER STANDARD.							
UT Code:	ASTM A388	Technique:	STRAIGHT PROBE		Examined By:	Dongkai Xu	
Exam. Stage:	Rough After	Calibration:	Block: CSK -I A Φ 1.6 FBH Block Φ 3.2 FBH Block		Level as per UT:	II	
Equipment:	MUT-800C	Couplant:	OIL				
Date of calibration	2023.03.02						
Period of validity	2024.03.02						
Probe Used:	2.5P Φ 14+ Φ 20	Acceptance Criteria:	API Spec. 6A 21st		Approved by:	Xin Zheng	
Instrmt/Ident.#:	FD14082504	Test Gain:	Φ 1.6DAC+6dB Φ 3.2DAC+6dB		Level as per UT:	II	



ANLAN TECHNOLOGY (JIANGSU) CO.,LTD

Customer:			Customer PO#:	1437		Date:	2023.02
Drawing #:	PFF105/103AL-00	Specification:	API Spec 6A 21st /ASTM A388	API Monogram:	6A-2074	Report #:	UTS-0203-002
Part No.:	B04-351	Material:	PH17-4 105K			Coating:	/
Description:	4-1/16"15000psi Balance Stem					Quantity:	1
Item	S/N	Heat Log No.	Result	Item	S/N	Heat Log No.	Result
1	AP064791	HY230114-1	Acceptable				
ABOVE FORGED ARE TESTED ULTRASONICALLY FOR INTERNAL DEFECTS, AND THERE WAS NO RECORDABLE INDICATION OBSERVED DURING THE TEST. HENCE ACCEPTABLE AS PER STANDARD.							
UT Code:	ASTM A388	Technique:	STRAIGHT PROBE		Examined By:	Dongkai Xu	
Exam. Stage:	Rough After	Calibration:	Block: CSK -I A Φ 1.6 FBH Block Φ 3.2 FBH Block		Level as per UT:	II	
Equipment:	MUT-800C	Couplant:	OIL				
Date of calibration	2023.03.02						
Period of validity	2024.03.02						
Probe Used:	2.5P Φ 14+ Φ 20	Acceptance Criteria:	API Spec. 6A 21st		Approved by:	Xin Zheng	
Instrmt/Ident.#:	FD14082504	Test Gain:	Φ 1.6DAC+6dB Φ 3.2DAC+6dB		Level as per UT:	II	

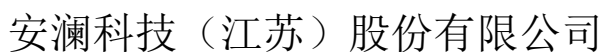


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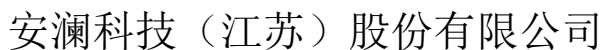
ULTRASONIC EXAMINATION REPORT

Customer:				Customer PO#:			Date:	
Drawing #:	PFF105/103AL -00	Specification:	API Spec 6A 21st /ASTM A388	API Monogram:	6A-2074	Report #:	UTS-0226-00 3	
Part No.:	B04-349	Material:	AISI 4130 75K			Coating:	/	
Description:	4-1/16"15000psi Tail Bonnet					Quantity:	1	
Item	S/N	Heat Log No.	Result	Item	S/N	Heat Log No.	Result	
1	AP064770	RD-02-40	Acceptable					
ABOVE FORGED ARE TESTED ULTRASONICALLY FOR INTERNAL DEFECTS, AND THERE WAS NO RECORDABLE INDICATION OBSERVED DURING THE TEST. HENCE ACCEPTABLE AS PER STANDARD.								
UT Code:	ASTM A388	Technique:	STRAIGHT PROBE		Examined By:	Dongkai Xu		
Exam. Stage:	Rough After	Calibration:	Block: CSK -I A Φ 1.6 FBH Block Φ 3.2 FBH Block		Level as per UT:	II		
Equipment:	MUT-800C	Couplant:	OIL					
Date of calibration	2023.03.02							
Period of validity	2024.03.02							
Probe Used:	2.5P Φ 14+ Φ 20	Acceptance Criteria:	API Spec. 6A 21st		Approved by:	Xin Zheng		
Instrmt/Ident.#:	FD14082504	Test Gain:	Φ 1.6DAC+6dB Φ 3.2DAC+6dB		Level as per UT:	II		



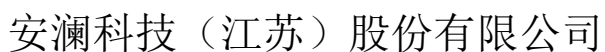
ANLAN TECHNOLOGY (JIANGSU) CO.,LTD

Customer:			Customer PO#:	1437		Date:	2023.03	
Drawing #:	PFF105/103AL-00	Specification:	API Spec 6A 21st /ASTM E709		API Monogram:	6A-2074	Report #:	MTS-0307-003
Part No.:	B04-210	Material:	AISI 4130 75K				Coating:	/
Description:	4-1/16"15000psi Body					Quantity:	1	
Equipment:	CYD-5000	Acceptance Criteria:		API 6A 21st/PSL3	Circular AMPS:		3100A 2800A	
Test Method:	Fluorescence Wet Continuous	Particle Type:		Fluorescence	UV-Light Intensity:		3310Uw/cm²	
Stage:	Machined	Concentration:		0.2ml/100ml	Magnetizing Time:		1-3S	
Item	S/N	Heat Log No.	Result	Item	S/N	Heat Log No.	Result	
1	AP064772	HY230224-2	Acceptable					
Inspection Coverage:								
Fluorescent magnetic particle inspection was performed on all accessible wetted/sealing surfaces.								
Evaluation & Disposition:		Found to be satisfactory						
Inspected by:		Dongkai Xu			Organization:		QC Department	
Approved by:		Xin Zheng						
NDT Level:		MT II			Date:		2023.03	



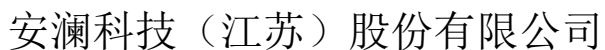
ANLAN TECHNOLOGY (JIANGSU) CO.,LTD

Customer:			Customer PO#:	1437		Date:	2023.03	
Drawing #:	PFF105/103AL-00	Specification:	API Spec 6A 21st /ASTM E709	API Monogram:	6A-2074	Report #:	MTS-0307-002	
Part No.:	B04-355	Material:	AISI 4130 75K			Coating:	/	
Description:	4-1/16"15000psi Bonnet					Quantity:	1	
Equipment:	CYD-5000	Acceptance Criteria:	API 6A 21st/PSL3		Circular AMPS:		2500A 3500A	
Test Method:	Fluorescence Wet Continuous	Particle Type:	Fluorescence		UV-Light Intensity:		3490Uw/cm ²	
Stage:	Machined	Concentration:	0.2ml/100ml		Magnetizing Time:		1-3S	
Item	S/N	Heat Log No.	Result	Item	S/N	Heat Log No.	Result	
1	AP064783	RD-02-40	Acceptable					
Inspection Coverage:								
Fluorescent magnetic particle inspection was performed on all accessible wetted/sealing surfaces.								
Evaluation & Disposition:		Found to be satisfactory						
Inspected by:		Dongkai Xu		Organization:		QC Department		
Approved by:		Xin Zheng						
NDT Level:		MT II		Date:		2023.03		



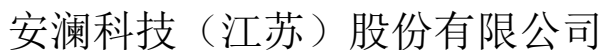
LIQUID PENETRATE EXAMINATION

20



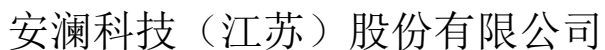
ANLAN TECHNOLOGY (JIANGSU) CO.,LTD

Customer:			Customer PO#:	1437		Date:	2023.03	
Drawing #:	PFF105/103AL-00	Specification:	API Spec 6A 21st /ASTM E709	API Monogram:	6A-2074	Report #:	NCS-2303-Q06	
Part No.:	B04-344	Material:	AISI 410 75K			Coating:	/	
Description:	4-1/16"15000psi Body Bushing					Quantity:	2	
Equipment:	CYD-5000	Acceptance Criteria:	API 6A 21st/PSL3	Circular AMPS:		3200A		
Test Method:	Fluorescence Wet Continuous	Particle Type:	Fluorescence	UV-Light Intensity:		≥1000Uw/cm²		
Stage:	Machined	Concentration:	0.2ml/100ml	Magnetizing Time:		1-3S		
Item	S/N	Heat Log No.	Result	Item	S/N	Heat Log No.	Result	
1	AP064820	HC2302005-01	Acceptable					
2	AP064827	HC2302005-01	Acceptable					
Inspection Coverage:								
Fluorescent magnetic particle inspection was performed on all accessible wetted/sealing surfaces.								
Evaluation & Disposition:		Found to be satisfactory						
Inspected by:		Dongkai Xu		Organization:		QC Department		
Approved by:		Xin Zheng						
NDT Level:		MT II		Date:		2023.03		



ANLAN TECHNOLOGY (JIANGSU) CO.,LTD

Customer:			Customer PO#:	1437		Date:	2023.03	
Drawing #:	PFF105/103AL-00	Specification:	QJ/JJ07.01.03.02/ ASTM E165	API Monogram:	6A-2074	Report #:	NCS-2303-H06	
Part No.:	B04-344	Material:	AISI 410 75K			Coating:	WC	
Description:	4-1/16"15000psi Body Bushing					Quantity:	2	
Test Method:	Type II Method C	Acceptance Criteria:		API 6A 21st/PSL3	Penetrate Type:		DPT-5	
Remover Type:	DPT-5	Developer Type:		DPT-5	Light Intensity:		≥1076Lx	
Stage:	Machined	Penetrate Time:		10min	Develop Time:		10min	
Item	S/N	Heat Log No.	Result	Item	S/N	Heat Log No.	Result	
1	AP064820	HC2302005-01	Acceptable					
2	AP064827	HC2302005-01	Acceptable					
Inspection Coverage:								
Liquid penetrate examination was performed on all accessible wetted/sealing surfaces.								
Evaluation & Disposition:		Found to be satisfactory						
Inspected by:		Dongkai Xu			Organization:		QC Department	
Approved by:		Xin Zheng						
NDT Level:		MT II			Date:		2023.03	



ANLAN TECHNOLOGY (JIANGSU) CO.,LTD

Customer:			Customer PO#:	1437		Date:	2023.02	
Drawing #:	PFF105/103AL-00	Specification:	QJ/JJ07.01.03.02/ASTM E165		API Monogram:	6A-2074	Report #:	PTS-0220-001
Part No.:	B04-351	Material:	PH17-4 105K				Coating:	/
Description:	4-1/16"15000psi Balance Stem					Quantity:	1	
Test Method:	Type II Method C	Acceptance Criteria:		API 6A 21st/PSL3	Penetrate Type:		DPT-5	
Remover Type:	DPT-5	Developer Type:		DPT-5	Light Intensity:		≥1076Lx	
Stage:	Machined	Penetrate Time:		10min	Develop Time:		10min	
Item	S/N	Heat Log No.	Result	Item	S/N	Heat Log No.	Result	
1	AP064791	HY230114-1	Acceptable					
Inspection Coverage:								
Liquid penetrate examination was performed on all accessible wetted/sealing surfaces.								
Evaluation & Disposition:		Found to be satisfactory						
Inspected by:		Dongkai Xu			Organization:		QC Department	
Approved by:		Xin Zheng						
NDT Level:		MT II			Date:		2023.02	



安澜科技（江苏）股份有限公司

ANLAN TECHNOLOGY (JIANGSU) CO.,LTD

HYDROSTATIC TEST REPORT

Customer:				Customer PO#:	1437		Date:	2023.03	
Drawing #:	PFF105/103A L-00	Specification:	API6A-21st	API Monogram:	6A-2074	Report #:	AP064F075		
Part No.:	B04-210	Material:	AISI 4130 75K			Coating:	/		
Description:	4-1/16"15000psi					Quantity:	1		
Item	Pressure	Method			Qty	Result			
Shell	22500psi	API 6A 21st			1	OK			
TAIL BONNET	15000psi	API 6A 21st			1	OK			
Item	S/N	Heat Log No.	Result		Item	S/N	Heat Log No.	Result	
			A	B				A	B
1	AP064772	HY230224-2	OK	OK					
Drift Test:									
Diameter ϕ 102.46mm drift test gauge can freely pass through the through hole of the valve.									
Inspection Coverage:									
Per Specification & Requirements: API 6A 21st									
					Approved By:		Examined By:		
Judgments:		[V] Conforms			Xin Zheng		Yifei Ma		
		[] Does Not Conform							



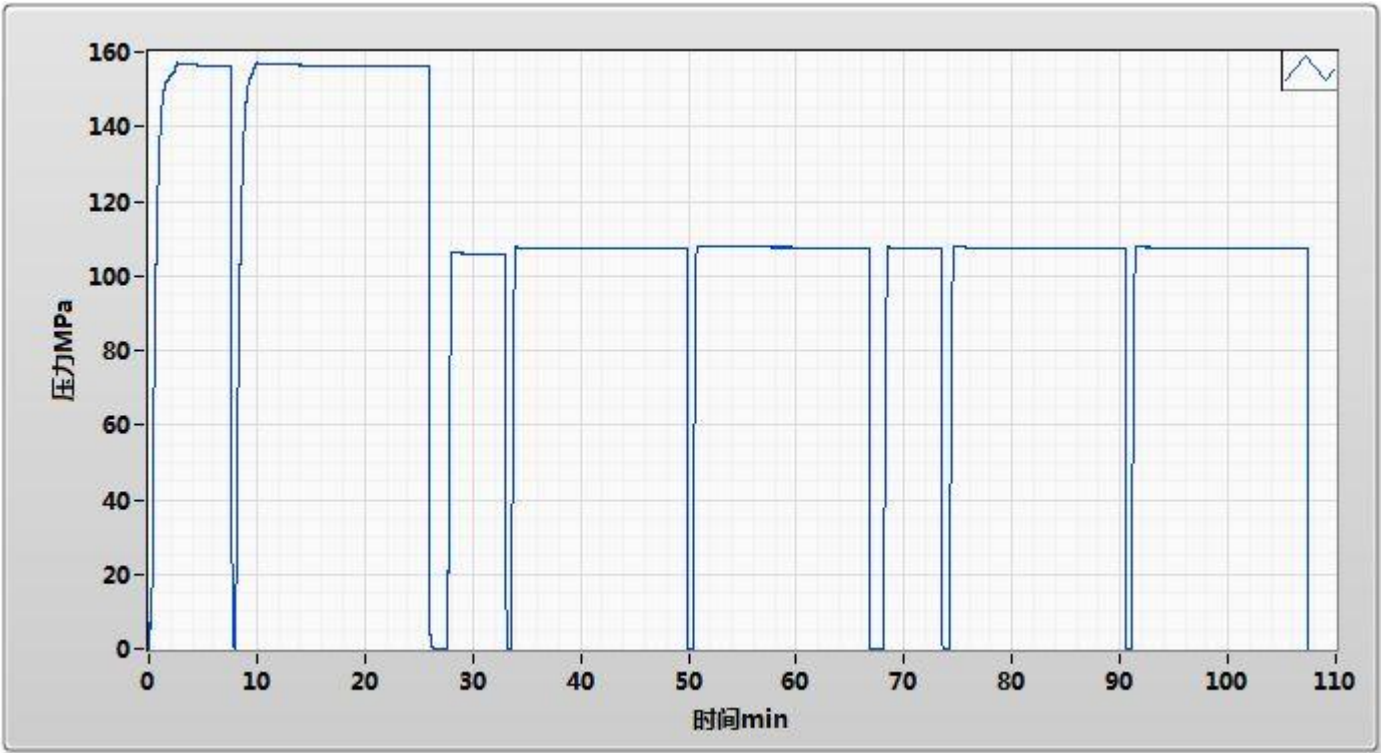
Pressure Test Report

Product Information

PRODUCT NAME	PRODUCT NO.	SPECS	PRESSURE TEST STANDARDS	TEST PART	EQUIPMENT NO.	BRAND
Manual Gate Valve	AP064F075	4-1/16" 15000Psi	API 6A 21st	Shell & TAIL BONNET	2#	

Test Data

LEVEL	INITIAL PRESSURE (Mpa)	TERMINATED PRESSURE (Mpa)	HOLDING TIME (Min)	PRESSURE DROPPING (Mpa)
1	156.72	156.03	4.0	0.69
2	156.85	156.01	15.0	0.84
3	106.04	105.92	4.0	0.12
4	107.52	107.27	15.0	0.25
5	107.81	107.58	15.0	0.22
6	107.45	107.19	4.0	0.27
7	107.67	107.17	15.0	0.50
8	107.66	107.39	15.0	0.26



TESTED BY:	INSPECTED BY:	REVIEWED BY:	DATE:
Yifei Ma	Xin Zheng	Zhicheng Feng	2023.03.10



REPORT INDEX

Purchase Order:1437

Quantity:1EA

Shipment No.:Crate#AP064F076

Shipment Date:March,2023

Activity No.	Characteristics	Reference Page
1	CERTIFICATE OF CONFORMITY	Page - 2
2	Metallurgical Test Certificate	Page - 3
2.1	Mechanical Testing	Page - 3
2.2	Chemical Testing	Page -3
2.3	Heat Treatment	Page - 3
3	Hardness Test	Page - 4-12
4	Ultrasonic Testing	Page - 13-17
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6	Hydrostatic Test	Page - 27-28



CERTIFICATE OF CONFORMITY

THE FOLLOWING ITEM IS IN CONFORMITY WITH PO # 1437, DRAWINGS AND ITS TECHNICAL REQUIREMENTS. IT IS MADE PER API – 6A MONOGRAM SPECIFICATIONS, EE-0.5 CLASS, PSL3, PR1, LU. AND IT IS MADE OF MATERIAL (4130,75K YIELD) FOR NACE H2S SERVICE UNDER THE CURRENT NACE MR0175 EDITION.

ITEM:
PO #: 1437
SERIAL NO.: AP064F076
PART NO.: PFF105/103AL-00
QANTITY: 1
INSPECTION STANDARD: API Spec 6A 21st EE-0.5, PSL3, PR1, LU

THIS COMMODITY HAS PASSED ALL THE TECHNICAL AND PERFORMANCE TESTS CARRIED BY QUALITY CONTROL/INSPECTION DEPARTMENT.

COMPANY NAME:	INSPECTOR:Zhicheng Feng
(STAMP)	CHIEF ENGINEER: Xin Zheng
	EX-FACTORY DATE: March,2023
Customer: _____	P.O. Number: <u>1437</u>



No.: AV00012

安澜科技（江苏）股份有限公司

ANLAN TECHNOLOGY (JIANGSU) CO.,LTD
Certified Material Test Report

Date:March,2023

Customer		PO No.		Product			P/N		Serial No.		Qty	Size		WP (psi)		Material	PSL	Temp	Specifications					
		1437		MANUAL GATE VALVE			PFF105/103AL-00		AP064F076		1	4-1/16"		15000Psi		EE-0.5	PSL3	LU	API Spec 6A 21st					
Description						Melting Practice			Heat Treatment															
P/N	Parts	Melt No.	H.T. No.	Material Spec Standards	Qty.	Serial No.	Finished	Austenized		Quenched			Temper(1)			Temper(2)								
								Temp (°C)	Time (min)	Medium	Start Temp	Finish Temp	Temp (°C)	Time (min)	Medium	Temp (°C)	Time (min)	Medium						
PFF105/103AL-00	BODY	2027499A	HY230224-2	AISI 4130 75K,Per ASTM A29		1	AP064777	Forging	870	4.0H	WATER	15	19	680	6.0H	AIR	/	/	/					
	BONNET	22E105071	RD-02-40	AISI 4130 75K,Per ASTM A29		1	AP064782	Forging	860	4.0H	WATER	27	41	685	5.83H	AIR	/	/	/					
	STEM	YX2212-2115	HY230114-1	PH17-4 105K,Per ASTM A564/564M		1	AP064803	Forging	1030	3.5H	WATER	12	15	630	5.0H	AIR	630	5.0H	AIR					
	BALANCE STEM	YX2212-2115	HY230114-1	PH17-4 105K,Per ASTM A564/564M		1	AP064792	Forging	1030	3.5H	WATER	12	15	630	5.0H	AIR	630	5.0H	AIR					
	GATE	122V-1118	HC2302005-01	AISI 410 75K,Per ASTM A276/276M		1	AP064840	Forging	960	3.0H	OIL	39	51	720	6.0H	AIR	680	6.0H	AIR					
	BODY BUSHING	122V-1118	HC2302005-01	AISI 410 75K,Per ASTM A276/276M		2	AP064813 AP064819	Forging	960	3.0H	OIL	39	51	720	6.0H	AIR	680	6.0H	AIR					
	TAIL BONNET	22106193C	RD-02-40	AISI 4130 75K,Per ASTM A29		1	AP064767	Forging	860	4.0H	WATER	27	41	685	5.83H	AIR	/	/	/					
Melt No.	H.T. No.	Chemical Analysis (wt, %)													Physical Properties									
		C	Mn	Si	P	S	Cr	Ni	Mo	V	Co	W	Cu	Nb	Fe	Spec Size	Spec Origin	Tensile (MPa)	Yield (MPa)	Elongati on (%)	ROA (%)	Impact(-46°C) Impact direction (Transverse)	Hardness	Equipment Type
2027499A	HY230224-2	0.32	0.78	0.28	0.011	0.002	1.08	0.22	0.23	0.004	/	/	0.01	/	/	4"x4"x8"	QTC	736	564	24.0	70.3	85/62/90	227HBW	JBW-300B/ WDW-300
22E105071	RD-02-40	0.30	0.56	0.30	0.010	0.002	0.99	0.03	0.21	0.003	/	/	0.02	/	/	4"x4"x8"	QTC	688	552	53.0	57.0	61/63/55	222HBW	JBW-300B/ WDW-300
YX2212-2115	HY230114-1	0.024	0.51	0.47	0.030	0.002	15.73	4.05	/	/	/	/	3.60	0.227	/	φ 80x200	QTC	1038	945	20.7	58.2	47/33/62	32HRC	JBW-300B/ WDW-300
YX2212-2115	HY230114-1	0.024	0.51	0.47	0.030	0.002	15.73	4.05	/	/	/	/	3.60	0.227	/	φ 80x200	QTC	1038	945	20.7	58.2	47/33/62	32HRC	JBW-300B/ WDW-300
122V-1118	HC2302005-01	0.14	0.40	0.22	0.012	0.006	11.66	0.06	0.042	0.034	/	/	0.027	/	/	100x100x200	QTC	690	580	24.0	66.0	/	226HBW	JBW-300B/ WDW-300
122V-1118	HC2302005-01	0.14	0.40	0.22	0.012	0.006	11.66	0.06	0.042	0.034	/	/	0.027	/	/	100x100x200	QTC	690	580	24.0	66.0	/	226HBW	JBW-300B/ WDW-300
22106193C	RD-02-40	0.31	0.57	0.27	0.010	0.005	1.06	0.23	0.24	0.001	/	/	0.03	/	/	4"x4"x8"	QTC	684	543	49.0	52.0	63/58/50	221HBW	JBW-300B/ WDW-300

This is to certify that all above items have been tested and inspected per scope of specifications, drawings, and the purchase order and have been found to be satisfactory.

The information in this report is true and correct to our knowledge.

.....Xin Zheng.....
NAME of QA Manager, for and on the authority of COMPANY NAME



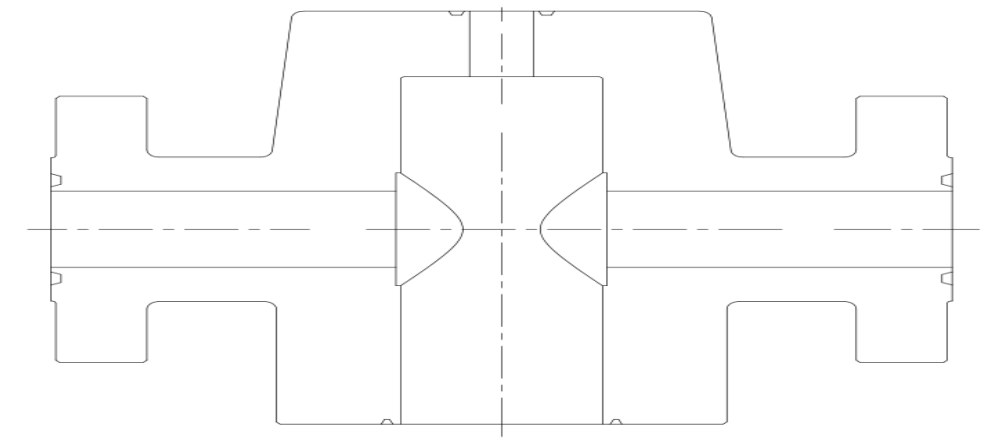
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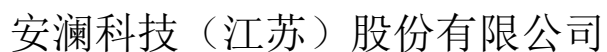
HARDNESS TEST REPORT

Customer:			Customer PO#:			Date:	
Drawing #:	PFF105/103AL -00	Specification:	API Spec 6A 21st /ASTM E10	API Monogram:	6A-2074	Report #:	HS-0308-002
Part No.:	B04-210	Material:	AISI 4130 75K			Coating:	/
Description:	4-1/16"15000psi Body					Quantity:	1
Item	S/N	Heat Log No.	Hardness	Item	S/N	Heat Log No.	Hardness
1	AP064777	HY230224-2	228HBW/225HBW 229HBW/226HBW				

Sketch:

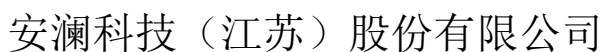


Method Used:	Impact Energy: 3000Kg.	Diameter of tungsten ball: 10mm	
Acceptable Hardness:	197HBW-235HBW	Approved By:	Examined By:
Judgments:	[V] Conforms	Xin zheng	Zhengguo Yao
	[] Does Not Conform		



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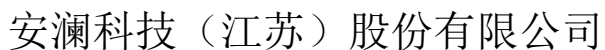
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[illegible]

Acceptable Hardness:	27HRC-33HRC	Approved By:	Examined By:
Judgments:	[V] Conforms	Xin zheng	Zhengguo Yao
	[] Does Not Conform		



ANLAN TECHNOLOGY (JIANGSU) CO.,LTD

Customer:				Customer PO#:				Date:	
Drawing #:	PFF105/103AL-00	Specification:	API Spec 6A 21st /ASTM E10		API Monogram:	6A-2074		Report #:	20230306-01
Part No.:	B04-211	Material:	AISI 410 75K					Coating:	/
Description:	4-1/16"15000psi Gate							Quantity:	1
Item	S/N	Heat Log No.	Hardness	Item	S/N	Heat Log No.	Hardness		
1	AP064840	HC2302005-01	211HBW						
Sketch:									
Method Used:		Impact Energy: 3000Kg.		Diameter of tungsten ball: 10mm					
Acceptable Hardness:		207HBW-235HBW		Approved By:		Examined By:			
Judgments:		[V] Conforms		Xin zheng		Zhengguo Yao			
		[] Does Not Conform							



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HARDNESS TEST REPORT

Customer:			Customer PO#:			Date:	
Drawing #:	PFF105/103AL -00	Specification:	API Spec 6A 21st /ASTM E18	API Monogram:	6A-2074	Report #:	20230306-02
Part No.:	B04-344	Material:	AISI 410 75K			Coating:	/
Description:	4-1/16"15000psi Body bushing					Quantity:	2
Item	S/N	Heat Log No.	Hardness	Item	S/N	Heat Log No.	Hardness
1	AP064813	HC2302005-01	96HRB				
2	AP064819	HC2302005-01	98HRB				

Sketch:



Method Used:			
Acceptable Hardness:	94HRB-99HRB	Approved By:	Examined By:
Judgments:	[V] Conforms	Xin zheng	Zhengguo Yao
	[] Does Not Conform		



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HARDNESS TEST REPORT

Customer:			Customer PO#:	1437		Date:	2023.03
Drawing #:	PFF105/103AL -00	Specification:	API Spec 6A 21st /ASTM E92	API Monogram:	6A-2074	Report #:	20230306-06
Part No.:	B04-344	Material:	AISI 410 75K			Coating:	WC
Description:	4-1/16"15000psi Body bushing					Quantity:	2
Item	S/N	Heat Log No.	Hardness	Item	S/N	Heat Log No.	Hardness
1	AP064813	HC2302005-01	1197HV				
2	AP064819	HC2302005-01	1171HV				

Sketch:



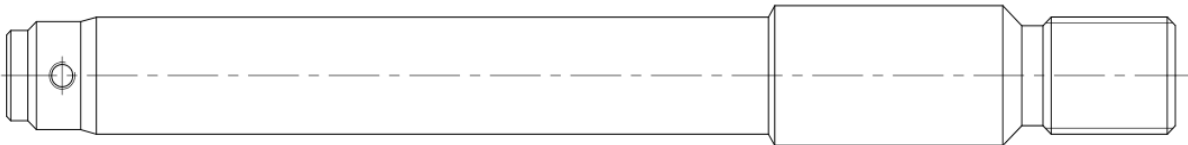
Method Used:	Impact Energy: 5Kg-f(49.03N).		
Acceptable Hardness:	≥1050HV	Approved By:	Examined By:
Judgments:	[V] Conforms	Xin zheng	Zhengguo Yao
	[] Does Not Conform		



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HARDNESS TEST REPORT

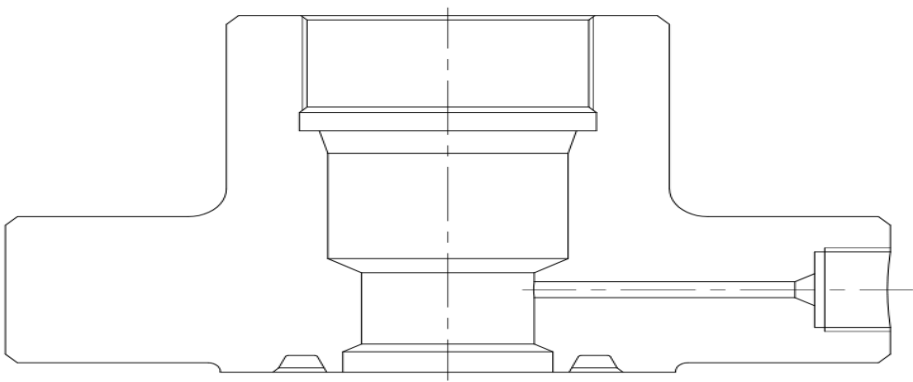
Customer:				Customer PO#:	1437		Date:	2023.02
Drawing #:	PFF105/103A L-00	Specification:	API Spec 6A 21st /ASTM E18		API Monogram:	6A-2074	Report #:	HS-0220-003
Part No.:	B04-351	Material:	PH17-4 105K				Coating:	/
Description:	4-1/16"15000psi Balance Stem						Quantity:	1
Item	S/N	Heat Log No.	Hardness	Item	S/N	Heat Log No.	Hardness	
1	AP064792	HY230114-1	29HRC					
Sketch:								
								
Method Used:								
Acceptable Hardness:	27HRC-33HRC		Approved By:		Examined By:			
Judgments:	[V] Conforms		Xin zheng		Zhengguo Yao			
	[] Does Not Conform							



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ANLAN TECHNOLOGY (JIANGSU) CO.,LTD

HARDNESS TEST REPORT

Customer:		Customer PO#:		Date:			
Drawing #:		Specification:		API Monogram:			
Part No.:		Material:		Coating:			
Description:				Quantity:			
Item	S/N	Heat Log No.	Hardness	Item	S/N	Heat Log No.	Hardness
1	AP064767	RD-02-40	228HBW				
Sketch:							
							
Method Used:	Impact Energy: 3000Kg.		Diameter of tungsten ball: 10mm				
Acceptable Hardness:	197HBW-235HBW		Approved By:		Examined By:		
Judgments:	[V] Conforms		Xin zheng		Zhengguo Yao		
	[] Does Not Conform						



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ANLAN TECHNOLOGY (JIANGSU) CO.,LTD

ULTRASONIC EXAMINATION REPORT

Customer:			Customer PO#:	1437		Date:	2023.02
Drawing #:	PFF105/103A L-00	Specification:	API Spec 6A 21st /ASTM A388	API Monogram:	6A-2074	Report #:	UTS-0225-003
Part No.:	B04-210	Material:	AISI 4130 75K			Coating:	/
Description:	4-1/16"15000psi Body					Quantity:	1
Item	S/N	Heat Log No.	Result	Item	S/N	Heat Log No.	Result
1	AP064777	HY230224-2	Acceptable				
ABOVE FORGED ARE TESTED ULTRASONICALLY FOR INTERNAL DEFECTS, AND THERE WAS NO RECORDABLE INDICATION OBSERVED DURING THE TEST. HENCE ACCEPTABLE AS PER STANDARD.							
UT Code:	ASTM A388	Technique:	STRAIGHT PROBE		Examined By:	Dongkai Xu	
Exam. Stage:	Rough After	Calibration:	Block: CSK -I A Φ 1.6 FBH Block Φ 3.2 FBH Block Φ 6.4 FBH Block		Level as per UT:	II	
Equipment:	MUT-800C	Couplant:	OIL				
Date of calibration	2023.03.02						
Period of validity	2024.03.02						
Probe Used:	2.5P Φ 14+ Φ 20	Acceptance Criteria:	API Spec. 6A 21st		Approved by:	Xin Zheng	
Instrmt/Ident.#:	FD14082504	Test Gain:	Φ 1.6DAC+6dB Φ 3.2DAC+6dB Φ 6.4DAC+6dB		Level as per UT:	II	



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ANLAN TECHNOLOGY (JIANGSU) CO.,LTD

ULTRASONIC EXAMINATION REPORT

Customer:				Customer PO#:	1437		Date:	2023.03	
Drawing #:	PFF105/103AL -00	Specification:	API Spec 6A 21st /ASTM A388	API Monogram:	6A-2074		Report #:	UTS-0301-00 2	
Part No.:	B04-355	Material:	AISI 4130 75K			Coating:	/		
Description:	4-1/16"15000psi Bonnet						Quantity:	1	
Item	S/N	Heat Log No.	Result	Item	S/N	Heat Log No.	Result		
1	AP064782	RD-02-40	Acceptable						
ABOVE FORGED ARE TESTED ULTRASONICALLY FOR INTERNAL DEFECTS, AND THERE WAS NO RECORDABLE INDICATION OBSERVED DURING THE TEST. HENCE ACCEPTABLE AS PER STANDARD.									
UT Code:	ASTM A388		Technique:	STRAIGHT PROBE		Examined By:	Dongkai Xu		
Exam. Stage:	Rough After		Calibration:	Block: CSK -I A Φ 1.6 FBH Block Φ 3.2 FBH Block		Level as per UT:	II		
Equipment:	MUT-800C		Couplant:	OIL					
Date of calibration	2023.03.02								
Period of validity	2024.03.02								
Probe Used:	2.5P Φ 14+ Φ 20		Acceptance Criteria:	API Spec. 6A 21st		Approved by:	Xin Zheng		
Instrmt/Ident.#:	FD14082504		Test Gain:	Φ 1.6DAC+6dB Φ 3.2DAC+6dB		Level as per UT:	II		



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ANLAN TECHNOLOGY (JIANGSU) CO.,LTD

ULTRASONIC EXAMINATION REPORT

Customer:			Customer PO#:			Date:	
Drawing #:		Specification:		API Monogram:		Report #:	
Part No.:		Material:				Coating:	
Description:	4-1/16"15000psi Stem					Quantity:	1
Item	S/N	Heat Log No.	Result	Item	S/N	Heat Log No.	Result
1	AP064803	HY230114-1	Acceptable				
ABOVE FORGED ARE TESTED ULTRASONICALLY FOR INTERNAL DEFECTS, AND THERE WAS NO RECORDABLE INDICATION OBSERVED DURING THE TEST. HENCE ACCEPTABLE AS PER STANDARD.							
UT Code:	ASTM A388	Technique:	STRAIGHT PROBE		Examined By:	Dongkai Xu	
Exam. Stage:	Rough After	Calibration:	Block: CSK -I A Φ 1.6 FBH Block Φ 3.2 FBH Block		Level as per UT:	II	
Equipment:	MUT-800C	Couplant:	OIL				
Date of calibration	2023.03.02						
Period of validity	2024.03.02						
Probe Used:	2.5P Φ 14+ Φ 20	Acceptance Criteria:	API Spec. 6A 21st		Approved by:	Xin Zheng	
Instrmt/Ident.#:	FD14082504	Test Gain:	Φ 1.6DAC+6dB Φ 3.2DAC+6dB		Level as per UT:	II	



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ANLAN TECHNOLOGY (JIANGSU) CO.,LTD

ULTRASONIC EXAMINATION REPORT

Customer:			Customer PO#:	1437		Date:	2023.02
Drawing #:	PFF105/103AL-00	Specification:	API Spec 6A 21st /ASTM A388	API Monogram:	6A-2074	Report #:	UTS-0203-002
Part No.:	B04-351	Material:	PH17-4 105K			Coating:	/
Description:	4-1/16"15000psi Balance Stem					Quantity:	1
Item	S/N	Heat Log No.	Result	Item	S/N	Heat Log No.	Result
1	AP064792	HY230114-1	Acceptable				
ABOVE FORGED ARE TESTED ULTRASONICALLY FOR INTERNAL DEFECTS, AND THERE WAS NO RECORDABLE INDICATION OBSERVED DURING THE TEST. HENCE ACCEPTABLE AS PER STANDARD.							
UT Code:	ASTM A388	Technique:	STRAIGHT PROBE		Examined By:	Dongkai Xu	
Exam. Stage:	Rough After	Calibration:	Block: CSK -I A Φ 1.6 FBH Block Φ 3.2 FBH Block		Level as per UT:	II	
Equipment:	MUT-800C	Couplant:	OIL				
Date of calibration	2023.03.02						
Period of validity	2024.03.02						
Probe Used:	2.5P Φ 14+ Φ 20	Acceptance Criteria:	API Spec. 6A 21st		Approved by:	Xin Zheng	
Instrmt/Ident.#:	FD14082504	Test Gain:	Φ 1.6DAC+6dB Φ 3.2DAC+6dB		Level as per UT:	II	

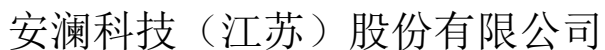


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ANLAN TECHNOLOGY (JIANGSU) CO.,LTD

ULTRASONIC EXAMINATION REPORT

Customer:				Customer PO#:			Date:	
Drawing #:	PFF105/103AL -00	Specification:	API Spec 6A 21st /ASTM A388	API Monogram:	6A-2074	Report #:	UTS-0226-00 3	
Part No.:	B04-349	Material:	AISI 4130 75K			Coating:	/	
Description:	4-1/16"15000psi Tail Bonnet					Quantity:	1	
Item	S/N	Heat Log No.	Result	Item	S/N	Heat Log No.	Result	
1	AP064767	RD-02-40	Acceptable					
ABOVE FORGED ARE TESTED ULTRASONICALLY FOR INTERNAL DEFECTS, AND THERE WAS NO RECORDABLE INDICATION OBSERVED DURING THE TEST. HENCE ACCEPTABLE AS PER STANDARD.								
UT Code:	ASTM A388	Technique:	STRAIGHT PROBE		Examined By:	Dongkai Xu		
Exam. Stage:	Rough After	Calibration:	Block: CSK -I A Φ 1.6 FBH Block Φ 3.2 FBH Block		Level as per UT:	II		
Equipment:	MUT-800C	Couplant:	OIL					
Date of calibration	2023.03.02							
Period of validity	2024.03.02							
Probe Used:	2.5P Φ 14+ Φ 20	Acceptance Criteria:	API Spec. 6A 21st		Approved by:	Xin Zheng		
Instrmt/Ident.#:	FD14082504	Test Gain:	Φ 1.6DAC+6dB Φ 3.2DAC+6dB		Level as per UT:	II		



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[illegible]

Fluorescent magnetic particle inspection was performed on all accessible wetted/sealing surfaces.

Evaluation & Disposition:	Found to be satisfactory		
Inspected by:	Dongkai Xu	Organization:	QC Department
Approved by:	Xin Zheng		
NDT Level:	MT II	Date:	2023.03

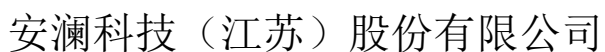


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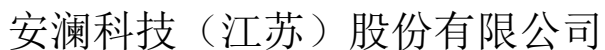
MAGNETIC PARTICLE INSPECTION REPORT

Customer:				Customer PO#:	1437		Date:	2023.03	
Drawing #:	PFF105/103AL-00	Specification:	API Spec 6A 21st /ASTM E709		API Monogram:	6A-2074	Report #:	MTS-0307-002	
Part No.:	B04-355	Material:	AISI 4130 75K				Coating:	/	
Description:	4-1/16"15000psi Bonnet						Quantity:	1	
Equipment:	CYD-5000	Acceptance Criteria:	API 6A 21st/PSL3		Circular AMPS:		2500A 3500A		
Test Method:	Fluorescence Wet Continuous	Particle Type:	Fluorescence		UV-Light Intensity:		3490Uw/cm ²		
Stage:	Machined	Concentration:	0.2ml/100ml		Magnetizing Time:		1-3S		
Item	S/N	Heat Log No.	Result	Item	S/N	Heat Log No.	Result		
1	AP064782	RD-02-40	Acceptable						
Inspection Coverage:									
Fluorescent magnetic particle inspection was performed on all accessible wetted/sealing surfaces.									
Evaluation & Disposition:		Found to be satisfactory							
Inspected by:		Dongkai Xu			Organization:		QC Department		
Approved by:		Xin Zheng							
NDT Level:		MT II			Date:		2023.03		



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Customer:		Customer PO#:	1437		Date:	2023.02	
Drawing #:	PFF105/103AL-00	Specification:	QJ/JJ07.01.03.02/ ASTM E165	API Monogram:	6A-2074	Report #:	PTS-0208-001
Part No.:	B04-352	Material:	PH17-4-105K			Coating:	/
Description:	4-1/16"15000psi Stem					Quantity:	1
Test Method:	Type II Method C	Acceptance Criteria:	API 6A 21st/PSL3	Penetrate Type:		DPT-5	
Remover Type:	DPT-5	Developer Type:	DPT-5	Light Intensity:		≥1076Lx	
Stage:	Machined	Penetrate Time:	10min	Develop Time:		10min	
Item	S/N	Heat Log No.	Result	Item	S/N	Heat Log No.	Result
1	AP064803	HY230114-1	Acceptable				
Inspection Coverage:							
Liquid penetrate examination was performed on all accessible wetted/sealing surfaces.							
Evaluation & Disposition:	Found to be satisfactory						
Inspected by:	Dongkai Xu			Organization:	QC Department		
Approved by:	Xin Zheng						
NDT Level:	MT II			Date:	2023.02		

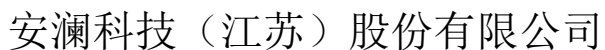


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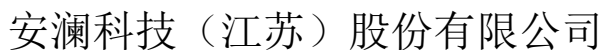
Fluorescent magnetic particle inspection was performed on all accessible wetted/sealing surfaces.

Evaluation & Disposition:	Found to be satisfactory		
Inspected by:	Dongkai Xu	Organization:	QC Department
Approved by:	Xin Zheng		
NDT Level:	MT II	Date:	2023.03



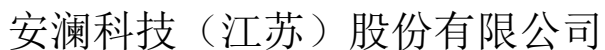
ANLAN TECHNOLOGY (JIANGSU) CO.,LTD

Customer:			Customer PO#:	1437		Date:	2023.03	
Drawing #:	PFF105/103AL-00	Specification:	QJ/JJ07.01.03.02/ ASTM E165		API Monogram:	6A-2074	Report #:	NCS-2303-H05
Part No.:	B04-211	Material:	AISI 410 75K			Coating:	WC	
Description:	4-1/16"15000psi Gate					Quantity:	1	
Test Method:	Type II Method C	Acceptance Criteria:		API 6A 21st/PSL3	Penetrate Type:		DPT-5	
Remover Type:	DPT-5	Developer Type:		DPT-5	Light Intensity:		≥1076Lx	
Stage:	Machined	Penetrate Time:		10min	Develop Time:		10min	
Item	S/N	Heat Log No.	Result	Item	S/N	Heat Log No.	Result	
1	AP064840	HC2302005-01	Acceptable					
Inspection Coverage:								
Liquid penetrate examination was performed on all accessible wetted/sealing surfaces.								
Evaluation & Disposition:		Found to be satisfactory						
Inspected by:		Dongkai Xu			Organization:		QC Department	
Approved by:		Xin Zheng						
NDT Level:		MT II			Date:		2023.03	



ANLAN TECHNOLOGY (JIANGSU) CO.,LTD

Customer:			Customer PO#:	1437		Date:	2023.03	
Drawing #:	PFF105/103AL-00	Specification:	API Spec 6A 21st /ASTM E709	API Monogram:	6A-2074	Report #:	NCS-2303-Q06	
Part No.:	B04-344	Material:	AISI 410 75K			Coating:	/	
Description:	4-1/16"15000psi Body Bushing					Quantity:	2	
Equipment:	CYD-5000	Acceptance Criteria:	API 6A 21st/PSL3		Circular AMPS:		3200A	
Test Method:	Fluorescence Wet Continuous	Particle Type:	Fluorescence		UV-Light Intensity:		≥1000Uw/cm²	
Stage:	Machined	Concentration:	0.2ml/100ml		Magnetizing Time:		1-3S	
Item	S/N	Heat Log No.	Result	Item	S/N	Heat Log No.	Result	
1	AP064813	HC2302005-01	Acceptable					
2	AP064819	HC2302005-01	Acceptable					
Inspection Coverage:								
Fluorescent magnetic particle inspection was performed on all accessible wetted/sealing surfaces.								
Evaluation & Disposition:		Found to be satisfactory						
Inspected by:		Dongkai Xu		Organization:		QC Department		
Approved by:		Xin Zheng						
NDT Level:		MT II		Date:		2023.03		



ANLAN TECHNOLOGY (JIANGSU) CO.,LTD

Customer:			Customer PO#:	1437		Date:	2023.03	
Drawing #:	PFF105/103AL-00	Specification:	QJ/JJ07.01.03.02/ ASTM E165		API Monogram:	6A-2074	Report #:	NCS-2303-H06
Part No.:	B04-344	Material:	AISI 410 75K			Coating:	WC	
Description:	4-1/16"15000psi Body Bushing					Quantity:	2	
Test Method:	Type II Method C	Acceptance Criteria:		API 6A 21st/PSL3		Penetrate Type:		DPT-5
Remover Type:	DPT-5	Developer Type:		DPT-5		Light Intensity:		≥1076Lx
Stage:	Machined	Penetrate Time:		10min		Develop Time:		10min
Item	S/N	Heat Log No.	Result	Item	S/N	Heat Log No.	Result	
1	AP064813	HC2302005-01	Acceptable					
2	AP064819	HC2302005-01	Acceptable					
Inspection Coverage:								
Liquid penetrate examination was performed on all accessible wetted/sealing surfaces.								
Evaluation & Disposition:		Found to be satisfactory						
Inspected by:		Dongkai Xu			Organization:		QC Department	
Approved by:		Xin Zheng						
NDT Level:		MT II			Date:		2023.03	



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ANLAN TECHNOLOGY (JIANGSU) CO.,LTD

HYDROSTATIC TEST REPORT

Customer:			Customer PO#:	1437		Date:	2023.03		
Drawing #:	PFF105/103A L-00	Specification:	API6A-21st	API Monogram:	6A-2074	Report #:	AP064F076		
Part No.:	B04-210	Material:	AISI 4130 75K			Coating:	/		
Description:	4-1/16"15000psi					Quantity:	1		
Item	Pressure	Method			Qty	Result			
Shell	22500psi	API 6A 21st			1	OK			
TAIL BONNET	15000psi	API 6A 21st			1	OK			
Item	S/N	Heat Log No.	Result		Item	S/N	Heat Log No.	Result	
			A	B				A	B
1	AP064777	HY230224-2	OK	OK					
Drift Test:									
Diameter ϕ 102.46mm drift test gauge can freely pass through the through hole of the valve.									
Inspection Coverage:									
Per Specification & Requirements: API 6A 21st									
Approved By:					Examined By:				
Judgments:	[V] Conforms		Xin Zheng			Yifei Ma			
	[] Does Not Conform								



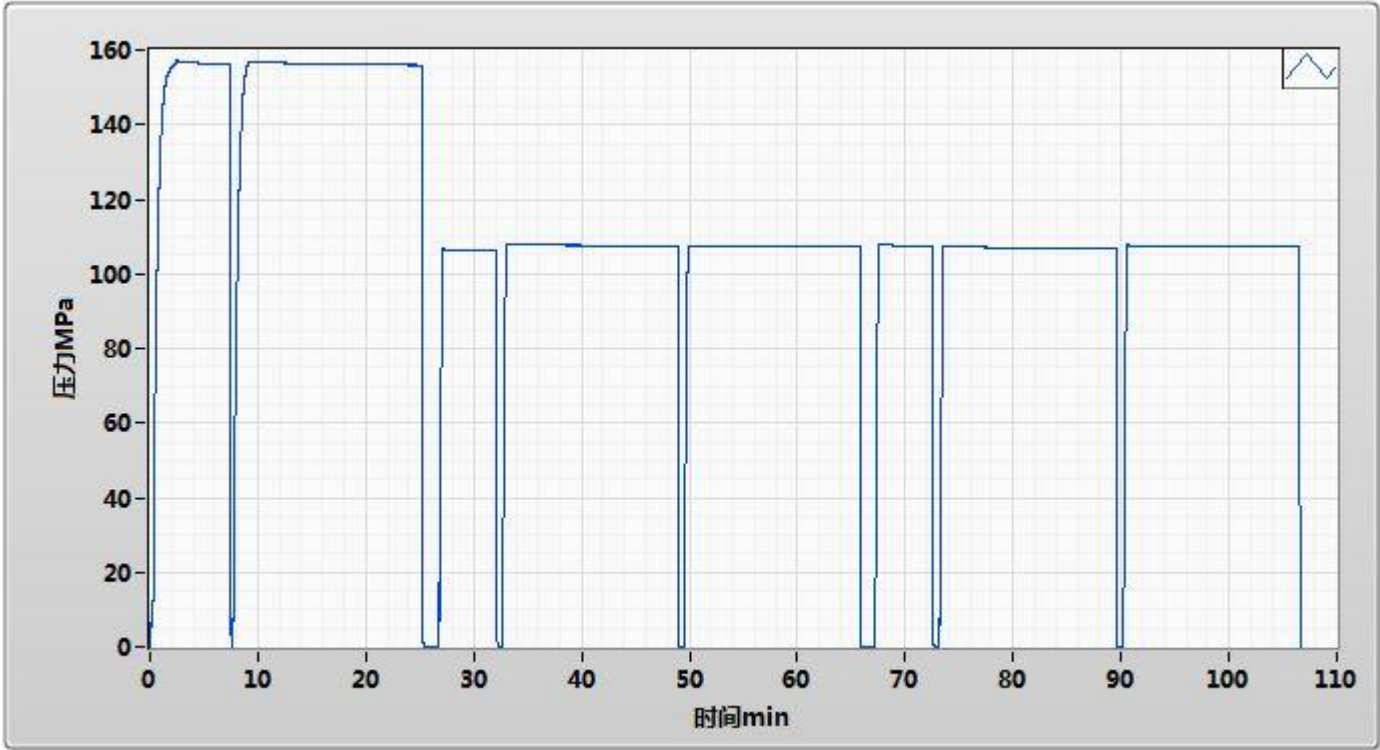
Pressure Test Report

Product Information

PRODUCT NAME	PRODUCT NO.	SPECS	PRESSURE TEST STANDARDS	TEST PART	EQUIPMENT NO.	BRAND
Manual Gate Valve	AP064F076	4-1/16" 15000Psi	API 6A 21st	Shell & TAIL BONNET	2#	

Test Data

LEVEL	INITIAL PRESSURE (Mpa)	TERMINATED PRESSURE (Mpa)	HOLDING TIME (Min)	PRESSURE DROPPING (Mpa)
1	156.77	156.08	4.0	0.69
2	156.80	155.95	15.0	0.85
3	106.44	106.33	4.0	0.11
4	107.81	107.55	15.0	0.25
5	107.42	107.19	15.0	0.24
6	107.67	107.42	4.0	0.25
7	107.30	106.86	15.0	0.44
8	107.49	107.13	15.0	0.35



TESTED BY:	INSPECTED BY:	REVIEWED BY:	DATE:
Yifei Ma	Xin Zheng	Zhicheng Feng	2023.03.10



REPORT INDEX

Purchase Order:1437

Quantity:1EA

Shipment No.:Crate#AP064F078

Shipment Date:March,2023

Activity No.	Characteristics	Reference Page
1	CERTIFICATE OF CONFORMITY	Page - 2
2	Metallurgical Test Certificate	Page - 3
2.1	Mechanical Testing	Page - 3
2.2	Chemical Testing	Page -3
2.3	Heat Treatment	Page - 3
3	Hardness Test	Page - 4-12
4	Ultrasonic Testing	Page - 13-17
5	Magnetic Particle Inspection Report	Page - 18-26
6	Hydrostatic Test	Page - 27-28



CERTIFICATE OF CONFORMITY

THE FOLLOWING ITEM IS IN CONFORMITY WITH PO # 1437, DRAWINGS AND ITS TECHNICAL REQUIREMENTS. IT IS MADE PER API – 6A MONOGRAM SPECIFICATIONS, EE-0.5 CLASS, PSL3, PR1, LU. AND IT IS MADE OF MATERIAL (4130,75K YIELD) FOR NACE H2S SERVICE UNDER THE CURRENT NACE MR0175 EDITION.

ITEM:
PO #: 1437
SERIAL NO.: AP064F078
PART NO.: PFF105/103AL-00
QANTITY: 1
INSPECTION STANDARD: API Spec 6A 21st EE-0.5, PSL3, PR1, LU

THIS COMMODITY HAS PASSED ALL THE TECHNICAL AND PERFORMANCE TESTS CARRIED BY QUALITY CONTROL/INSPECTION DEPARTMENT.

COMPANY NAME:

(STAMP)

INSPECTOR:Zhicheng Feng

CHIEF ENGINEER: Xin Zheng

EX-FACTORY DATE: March,2023

Customer: _____

P.O. Number: 1437



No.: AV00012

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ANLAN TECHNOLOGY (JIANGSU) CO.,LTD
Certified Material Test Report

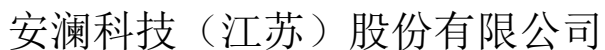
Date:March,2023

Customer		PO No.		Product			P/N		Serial No.		Qty	Size	WP (psi)		Material	PSL	Temp	Specifications						
		1437		MANUAL GATE VALVE			PFF105/103AL-00		AP064F078		1	4-1/16"	15000Psi		EE-0.5	PSL3	LU	API Spec 6A 21st						
Description						Melting Practice			Heat Treatment															
P/N	Parts	Melt No.	H.T. No.	Material Spec Standards	Qty.	Serial No.	Finished	Austenized		Quenched			Temper(1)			Temper(2)								
								Temp (°C)	Time (min)	Medium	Start Temp	Finish Temp	Temp (°C)	Time (min)	Medium	Temp (°C)	Time (min)	Medium						
PFF105/103AL-00	BODY	2027499A	HY230224-2	AISI 4130 75K,Per ASTM A29		1	AP064779	Forging	870	4.0H	WATER	15	19	680	6.0H	AIR	/	/	/					
	BONNET	22E105071	RD-02-40	AISI 4130 75K,Per ASTM A29		1	AP064786	Forging	860	4.0H	WATER	27	41	685	5.83H	AIR	/	/	/					
	STEM	YX2212-2115	HY230114-1	PH17-4 105K,Per ASTM A564/564M		1	AP064806	Forging	1030	3.5H	WATER	12	15	630	5.0H	AIR	630	5.0H	AIR					
	BALANCE STEM	YX2212-2115	HY230114-1	PH17-4 105K,Per ASTM A564/564M		1	AP064800	Forging	1030	3.5H	WATER	12	15	630	5.0H	AIR	630	5.0H	AIR					
	GATE	122V-1118	HC2302005-01	AISI 410 75K,Per ASTM A276/276M		1	AP064833	Forging	960	3.0H	OIL	39	51	720	6.0H	AIR	680	6.0H	AIR					
	BODY BUSHING	122V-1118	HC2302005-01	AISI 410 75K,Per ASTM A276/276M		2	AP064814 AP064824	Forging	960	3.0H	OIL	39	51	720	6.0H	AIR	680	6.0H	AIR					
	TAIL BONNET	22106193C	RD-02-40	AISI 4130 75K,Per ASTM A29		1	AP064764	Forging	860	4.0H	WATER	27	41	685	5.83H	AIR	/	/	/					
Melt No.	H.T. No.	Chemical Analysis (wt, %)													Physical Properties									
		C	Mn	Si	P	S	Cr	Ni	Mo	V	Co	W	Cu	Nb	Fe	Spec Size	Spec Origin	Tensile (MPa)	Yield (MPa)	Elongati on (%)	ROA (%)	Impact(-46°C) Impact direction (Transverse)	Hardness	Equipment Type
2027499A	HY230224-2	0.32	0.78	0.28	0.011	0.002	1.08	0.22	0.23	0.004	/	/	0.01	/	/	4"x4"x8"	QTC	736	564	24.0	70.3	85/62/90	227HBW	JBW-300B/ WDW-300
22E105071	RD-02-40	0.30	0.56	0.30	0.010	0.002	0.99	0.03	0.21	0.003	/	/	0.02	/	/	4"x4"x8"	QTC	688	552	53.0	57.0	61/63/55	222HBW	JBW-300B/ WDW-300
YX2212-2115	HY230114-1	0.024	0.51	0.47	0.030	0.002	15.73	4.05	/	/	/	/	3.60	0.227	/	φ 80x200	QTC	1038	945	20.7	58.2	47/33/62	32HRC	JBW-300B/ WDW-300
YX2212-2115	HY230114-1	0.024	0.51	0.47	0.030	0.002	15.73	4.05	/	/	/	/	3.60	0.227	/	φ 80x200	QTC	1038	945	20.7	58.2	47/33/62	32HRC	JBW-300B/ WDW-300
122V-1118	HC2302005-01	0.14	0.40	0.22	0.012	0.006	11.66	0.06	0.042	0.034	/	/	0.027	/	/	100x100x200	QTC	690	580	24.0	66.0	/	226HBW	JBW-300B/ WDW-300
122V-1118	HC2302005-01	0.14	0.40	0.22	0.012	0.006	11.66	0.06	0.042	0.034	/	/	0.027	/	/	100x100x200	QTC	690	580	24.0	66.0	/	226HBW	JBW-300B/ WDW-300
22106193C	RD-02-40	0.31	0.57	0.27	0.010	0.005	1.06	0.23	0.24	0.001	/	/	0.03	/	/	4"x4"x8"	QTC	684	543	49.0	52.0	63/58/50	221HBW	JBW-300B/ WDW-300

This is to certify that all above items have been tested and inspected per scope of specifications, drawings, and the purchase order and have been found to be satisfactory.

The information in this report is true and correct to our knowledge.

.....Xin Zheng.....
NAME of QA Manager, for and on the authority of COMPANY NAME



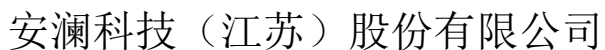
ANLAN TECHNOLOGY (JIANGSU) CO.,LTD

Customer:			Customer PO#:			Date:	
Drawing #:	PFF105/103AL-00	Specification:	API Spec 6A 21st /ASTM E10	API Monogram:	6A-2074	Report #:	HS-0308-002
Part No.:	B04-210	Material:	AISI 4130 75K			Coating:	/
Description:	4-1/16"15000psi Body					Quantity:	1
Item	S/N	Heat Log No.	Hardness	Item	S/N	Heat Log No.	Hardness
1	AP064779	HY230224-2	230HBW/226HBW 227HBW/226HBW				

Sketch:

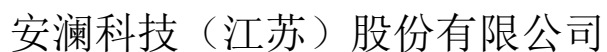
A technical sketch of a mechanical component, likely a valve body or a similar industrial part. The drawing shows a cross-sectional view with a central vertical axis indicated by a dashed line. The component has a complex shape with multiple levels and features, including what appears to be a central bore or passage. The sketch is drawn with clean lines and includes some dimension lines and arrows indicating specific parts or measurements.

Method Used:	Impact Energy: 3000Kg.	Diameter of tungsten ball: 10mm	
Acceptable Hardness:	197HBW-235HBW	Approved By:	Examined By:
Judgments:	[V] Conforms	Xin zheng	Zhengguo Yao
	[] Does Not Conform		



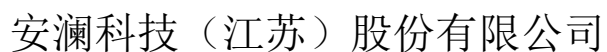
ANLAN TECHNOLOGY (JIANGSU) CO.,LTD

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ANLAN TECHNOLOGY (JIANGSU) CO.,LTD

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安澜科技（江苏）股份有限公司

ANLAN TECHNOLOGY (JIANGSU) CO.,LTD

HARDNESS TEST REPORT

Customer:				Customer PO#:			Date:	
Drawing #:	PFF105/103AL -00	Specification:	API Spec 6A 21st /ASTM E18	API Monogram:	6A-2074	Report #:	20230306-02	
Part No.:	B04-344	Material:	AISI 410 75K			Coating:	/	
Description:	4-1/16"15000psi Body bushing					Quantity:	2	
Item	S/N	Heat Log No.	Hardness	Item	S/N	Heat Log No.	Hardness	
1	AP064814	HC2302005-01	97HRB					
2	AP064824	HC2302005-01	99HRB					

Sketch:



Method Used:			
Acceptable Hardness:	94HRB-99HRB	Approved By:	Examined By:
Judgments:	[V] Conforms	Xin zheng	Zhengguo Yao
	[] Does Not Conform		



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ANLAN TECHNOLOGY (JIANGSU) CO.,LTD

HARDNESS TEST REPORT

Customer:			Customer PO#:	1437		Date:	2023.03
Drawing #:	PFF105/103AL -00	Specification:	API Spec 6A 21st /ASTM E92	API Monogram:	6A-2074	Report #:	20230306-06
Part No.:	B04-344	Material:	AISI 410 75K			Coating:	WC
Description:	4-1/16"15000psi Body bushing					Quantity:	2
Item	S/N	Heat Log No.	Hardness	Item	S/N	Heat Log No.	Hardness
1	AP064814	HC2302005-01	1197HV				
2	AP064824	HC2302005-01	1171HV				

Sketch:



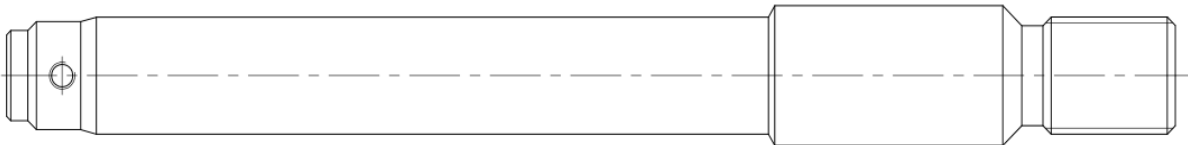
Method Used:	Impact Energy: 5Kg-f(49.03N).		
Acceptable Hardness:	≥1050HV	Approved By:	Examined By:
Judgments:	[V] Conforms	Xin zheng	Zhengguo Yao
	[] Does Not Conform		

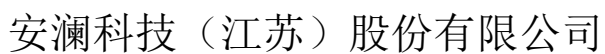


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ANLAN TECHNOLOGY (JIANGSU) CO.,LTD

HARDNESS TEST REPORT

Customer:				Customer PO#:	1437		Date:	2023.02
Drawing #:	PFF105/103A L-00	Specification:	API Spec 6A 21st /ASTM E18		API Monogram:	6A-2074	Report #:	HS-0220-003
Part No.:	B04-351	Material:	PH17-4 105K				Coating:	/
Description:	4-1/16"15000psi Balance Stem						Quantity:	1
Item	S/N	Heat Log No.	Hardness	Item	S/N	Heat Log No.	Hardness	
1	AP064800	HY230114-1	31HRC					
Sketch:								
								
Method Used:								
Acceptable Hardness:	27HRC-33HRC		Approved By:		Examined By:			
Judgments:	[V] Conforms		Xin zheng		Zhengguo Yao			
	[] Does Not Conform							



ANLAN TECHNOLOGY (JIANGSU) CO.,LTD

Customer:			Customer PO#:			Date:	
Drawing #:		Specification:		API Monogram:		Report #:	
Part No.:		Material:				Coating:	
Description:						Quantity:	

[illegible]

Method Used:	Impact Energy: 3000Kg.	Diameter of tungsten ball: 10mm	
Acceptable Hardness:	197HBW-235HBW	Approved By:	Examined By:
Judgments:	[V] Conforms	Xin zheng	Zhengguo Yao
	[] Does Not Conform		

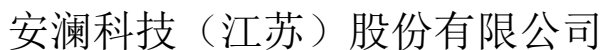


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ANLAN TECHNOLOGY (JIANGSU) CO.,LTD

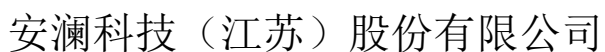
ULTRASONIC EXAMINATION REPORT

Customer:				Customer PO#:	1437		Date:	2023.02	
Drawing #:	PFF105/103A L-00	Specification:	API Spec 6A 21st /ASTM A388		API Monogram:	6A-2074	Report #:	UTS-0225-003	
Part No.:	B04-210	Material:	AISI 4130 75K				Coating:	/	
Description:	4-1/16"15000psi Body						Quantity:	1	
Item	S/N	Heat Log No.	Result	Item	S/N	Heat Log No.	Result		
1	AP064779	HY230224-2	Acceptable						
ABOVE FORGED ARE TESTED ULTRASONICALLY FOR INTERNAL DEFECTS, AND THERE WAS NO RECORDABLE INDICATION OBSERVED DURING THE TEST. HENCE ACCEPTABLE AS PER STANDARD.									
UT Code:	ASTM A388	Technique:	STRAIGHT PROBE			Examined By:	Dongkai Xu		
Exam. Stage:	Rough After	Calibration:	Block: CSK -I A Φ 1.6 FBH Block Φ 3.2 FBH Block Φ 6.4 FBH Block			Level as per UT:	II		
Equipment:	MUT-800C	Couplant:	OIL						
Date of calibration	2023.03.02								
Period of validity	2024.03.02								
Probe Used:	2.5P Φ 14+ Φ 20	Acceptance Criteria:	API Spec. 6A 21st			Approved by:	Xin Zheng		
Instrmt/Ident.#:	FD14082504	Test Gain:	Φ 1.6DAC+6dB Φ 3.2DAC+6dB Φ 6.4DAC+6dB			Level as per UT:	II		



ANLAN TECHNOLOGY (JIANGSU) CO.,LTD

Customer:			Customer PO#:	1437		Date:	2023.03	
Drawing #:	PFF105/103AL-00	Specification:	API Spec 6A 21st /ASTM A388	API Monogram:	6A-2074	Report #:	UTS-0301-002	
Part No.:	B04-355	Material:	AISI 4130 75K			Coating:	/	
Description:	4-1/16"15000psi Bonnet					Quantity:	1	
Item	S/N	Heat Log No.	Result	Item	S/N	Heat Log No.	Result	
1	AP064786	RD-02-40	Acceptable					
ABOVE FORGED ARE TESTED ULTRASONICALLY FOR INTERNAL DEFECTS, AND THERE WAS NO RECORDABLE INDICATION OBSERVED DURING THE TEST. HENCE ACCEPTABLE AS PER STANDARD.								
UT Code:	ASTM A388	Technique:	STRAIGHT PROBE			Examined By:	Dongkai Xu	
Exam. Stage:	Rough After	Calibration:	Block: CSK -I A Φ 1.6 FBH Block Φ 3.2 FBH Block			Level as per UT:	II	
Equipment:	MUT-800C	Couplant:	OIL					
Date of calibration	2023.03.02							
Period of validity	2024.03.02							
Probe Used:	2.5P Φ 14+Φ 20	Acceptance Criteria:	API Spec. 6A 21st			Approved by:	Xin Zheng	
Instrmnt/Ident.#:	FD14082504	Test Gain:	Φ 1.6DAC+6dB Φ 3.2DAC+6dB			Level as per UT:	II	



ULTRASONIC EXAMINATION REPORT

ABOVE FORGED ARE TESTED ULTRASONICALLY FOR INTERNAL DEFECTS, AND THERE WAS NO RECORDABLE INDICATION OBSERVED DURING THE TEST. HENCE ACCEPTABLE AS PER STANDARD.



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ANLAN TECHNOLOGY (JIANGSU) CO.,LTD

ULTRASONIC EXAMINATION REPORT

Customer:			Customer PO#:	1437		Date:	2023.02
Drawing #:	PFF105/103AL-00	Specification:	API Spec 6A 21st /ASTM A388	API Monogram:	6A-2074	Report #:	UTS-0203-002
Part No.:	B04-351	Material:	PH17-4 105K			Coating:	/
Description:	4-1/16"15000psi Balance Stem					Quantity:	1
Item	S/N	Heat Log No.	Result	Item	S/N	Heat Log No.	Result
1	AP064800	HY230114-1	Acceptable				
ABOVE FORGED ARE TESTED ULTRASONICALLY FOR INTERNAL DEFECTS, AND THERE WAS NO RECORDABLE INDICATION OBSERVED DURING THE TEST. HENCE ACCEPTABLE AS PER STANDARD.							
UT Code:	ASTM A388	Technique:	STRAIGHT PROBE		Examined By:	Dongkai Xu	
Exam. Stage:	Rough After	Calibration:	Block: CSK -I A Φ 1.6 FBH Block Φ 3.2 FBH Block		Level as per UT:	II	
Equipment:	MUT-800C	Couplant:	OIL				
Date of calibration	2023.03.02						
Period of validity	2024.03.02						
Probe Used:	2.5P Φ 14+ Φ 20	Acceptance Criteria:	API Spec. 6A 21st		Approved by:	Xin Zheng	
Instrmt/Ident.#:	FD14082504	Test Gain:	Φ 1.6DAC+6dB Φ 3.2DAC+6dB		Level as per UT:	II	

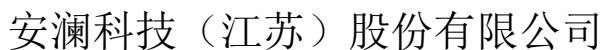


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ANLAN TECHNOLOGY (JIANGSU) CO.,LTD

ULTRASONIC EXAMINATION REPORT

Customer:				Customer PO#:			Date:	
Drawing #:	PFF105/103AL -00	Specification:	API Spec 6A 21st /ASTM A388	API Monogram:	6A-2074	Report #:	UTS-0226-00 3	
Part No.:	B04-349	Material:	AISI 4130 75K			Coating:	/	
Description:	4-1/16"15000psi Tail Bonnet					Quantity:	1	
Item	S/N	Heat Log No.	Result	Item	S/N	Heat Log No.	Result	
1	AP064764	RD-02-40	Acceptable					
ABOVE FORGED ARE TESTED ULTRASONICALLY FOR INTERNAL DEFECTS, AND THERE WAS NO RECORDABLE INDICATION OBSERVED DURING THE TEST. HENCE ACCEPTABLE AS PER STANDARD.								
UT Code:	ASTM A388	Technique:	STRAIGHT PROBE		Examined By:	Dongkai Xu		
Exam. Stage:	Rough After	Calibration:	Block: CSK -I A Φ 1.6 FBH Block Φ 3.2 FBH Block		Level as per UT:	II		
Equipment:	MUT-800C	Couplant:	OIL					
Date of calibration	2023.03.02							
Period of validity	2024.03.02							
Probe Used:	2.5P Φ 14+ Φ 20	Acceptance Criteria:	API Spec. 6A 21st		Approved by:	Xin Zheng		
Instrmt/Ident.#:	FD14082504	Test Gain:	Φ 1.6DAC+6dB Φ 3.2DAC+6dB		Level as per UT:	II		

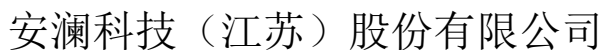


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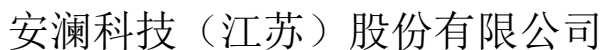
Fluorescent magnetic particle inspection was performed on all accessible wetted/sealing surfaces.

Evaluation & Disposition:	Found to be satisfactory		
Inspected by:	Dongkai Xu	Organization:	QC Department
Approved by:	Xin Zheng		
NDT Level:	MT II	Date:	2023.03



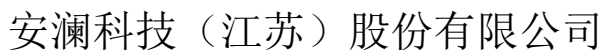
ANLAN TECHNOLOGY (JIANGSU) CO.,LTD

Customer:			Customer PO#:	1437		Date:	2023.03	
Drawing #:	PFF105/103AL-00	Specification:	API Spec 6A 21st /ASTM E709	API Monogram:	6A-2074	Report #:	MTS-0307-002	
Part No.:	B04-355	Material:	AISI 4130 75K			Coating:	/	
Description:	4-1/16"15000psi Bonnet					Quantity:	1	
Equipment:	CYD-5000	Acceptance Criteria:	API 6A 21st/PSL3	Circular AMPS:		2500A 3500A		
Test Method:	Fluorescence Wet Continuous	Particle Type:	Fluorescence	UV-Light Intensity:		3490Uw/cm ²		
Stage:	Machined	Concentration:	0.2ml/100ml	Magnetizing Time:		1-3S		
Item	S/N	Heat Log No.	Result	Item	S/N	Heat Log No.	Result	
1	AP064786	RD-02-40	Acceptable					
Inspection Coverage:								
Fluorescent magnetic particle inspection was performed on all accessible wetted/sealing surfaces.								
Evaluation & Disposition:		Found to be satisfactory						
Inspected by:		Dongkai Xu		Organization:		QC Department		
Approved by:		Xin Zheng						
NDT Level:		MT II		Date:		2023.03		



ANLAN TECHNOLOGY (JIANGSU) CO.,LTD

Customer:		Customer PO#:	1437		Date:	2023.02	
Drawing #:	PFF105/103AL-00	Specification:	QJ/JJ07.01.03.02/ ASTM E165	API Monogram:	6A-2074	Report #:	PTS-0208-001
Part No.:	B04-352	Material:	PH17-4-105K			Coating:	/
Description:	4-1/16"15000psi Stem					Quantity:	1
Test Method:	Type II Method C	Acceptance Criteria:	API 6A 21st/PSL3	Penetrate Type:		DPT-5	
Remover Type:	DPT-5	Developer Type:	DPT-5	Light Intensity:		≥1076Lx	
Stage:	Machined	Penetrate Time:	10min	Develop Time:		10min	
Item	S/N	Heat Log No.	Result	Item	S/N	Heat Log No.	Result
1	AP064806	HY230114-1	Acceptable				
Inspection Coverage:							
Liquid penetrate examination was performed on all accessible wetted/sealing surfaces.							
Evaluation & Disposition:	Found to be satisfactory						
Inspected by:	Dongkai Xu			Organization:	QC Department		
Approved by:	Xin Zheng						
NDT Level:	MT II			Date:	2023.02		

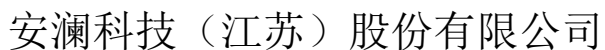


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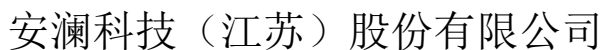
Fluorescent magnetic particle inspection was performed on all accessible wetted/sealing surfaces.

Evaluation & Disposition:	Found to be satisfactory		
Inspected by:	Dongkai Xu	Organization:	QC Department
Approved by:	Xin Zheng		
NDT Level:	MT II	Date:	2023.03



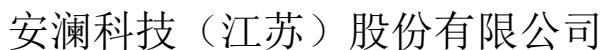
ANLAN TECHNOLOGY (JIANGSU) CO.,LTD

Customer:			Customer PO#:	1437		Date:	2023.03	
Drawing #:	PFF105/103AL-00	Specification:	QJ/JJ07.01.03.02/ ASTM E165		API Monogram:	6A-2074	Report #:	NCS-2303-H05
Part No.:	B04-211	Material:	AISI 410 75K			Coating:	WC	
Description:	4-1/16"15000psi Gate					Quantity:	1	
Test Method:	Type II Method C	Acceptance Criteria:		API 6A 21st/PSL3	Penetrate Type:		DPT-5	
Remover Type:	DPT-5	Developer Type:		DPT-5	Light Intensity:		≥1076Lx	
Stage:	Machined	Penetrate Time:		10min	Develop Time:		10min	
Item	S/N	Heat Log No.	Result	Item	S/N	Heat Log No.	Result	
1	AP064833	HC2302005-01	Acceptable					
Inspection Coverage:								
Liquid penetrate examination was performed on all accessible wetted/sealing surfaces.								
Evaluation & Disposition:		Found to be satisfactory						
Inspected by:		Dongkai Xu			Organization:	QC Department		
Approved by:		Xin Zheng						
NDT Level:		MT II			Date:	2023.03		



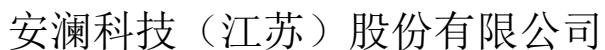
ANLAN TECHNOLOGY (JIANGSU) CO.,LTD

Customer:			Customer PO#:	1437		Date:	2023.03	
Drawing #:	PFF105/103AL-00	Specification:	API Spec 6A 21st /ASTM E709	API Monogram:	6A-2074	Report #:	NCS-2303-Q06	
Part No.:	B04-344	Material:	AISI 410 75K			Coating:	/	
Description:	4-1/16"15000psi Body Bushing					Quantity:	2	
Equipment:	CYD-5000	Acceptance Criteria:	API 6A 21st/PSL3	Circular AMPS:		3200A		
Test Method:	Fluorescence Wet Continuous	Particle Type:	Fluorescence	UV-Light Intensity:		≥1000Uw/cm²		
Stage:	Machined	Concentration:	0.2ml/100ml	Magnetizing Time:		1-3S		
Item	S/N	Heat Log No.	Result	Item	S/N	Heat Log No.	Result	
1	AP064814	HC2302005-01	Acceptable					
2	AP064824	HC2302005-01	Acceptable					
Inspection Coverage:								
Fluorescent magnetic particle inspection was performed on all accessible wetted/sealing surfaces.								
Evaluation & Disposition:		Found to be satisfactory						
Inspected by:		Dongkai Xu		Organization:		QC Department		
Approved by:		Xin Zheng						
NDT Level:		MT II		Date:		2023.03		



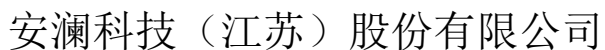
ANLAN TECHNOLOGY (JIANGSU) CO.,LTD

Customer:			Customer PO#:	1437		Date:	2023.03	
Drawing #:	PFF105/103AL-00	Specification:	QJ/JJ07.01.03.02/ ASTM E165	API Monogram:	6A-2074	Report #:	NCS-2303-H06	
Part No.:	B04-344	Material:	AISI 410 75K			Coating:	WC	
Description:	4-1/16"15000psi Body Bushing					Quantity:	2	
Test Method:	Type II Method C	Acceptance Criteria:		API 6A 21st/PSL3	Penetrate Type:		DPT-5	
Remover Type:	DPT-5	Developer Type:		DPT-5	Light Intensity:		≥1076Lx	
Stage:	Machined	Penetrate Time:		10min	Develop Time:		10min	
Item	S/N	Heat Log No.	Result	Item	S/N	Heat Log No.	Result	
1	AP064814	HC2302005-01	Acceptable					
2	AP064824	HC2302005-01	Acceptable					
Inspection Coverage:								
Liquid penetrate examination was performed on all accessible wetted/sealing surfaces.								
Evaluation & Disposition:		Found to be satisfactory						
Inspected by:		Dongkai Xu			Organization:		QC Department	
Approved by:		Xin Zheng						
NDT Level:		MT II			Date:		2023.03	



ANLAN TECHNOLOGY (JIANGSU) CO.,LTD

Customer:			Customer PO#:	1437		Date:	2023.02	
Drawing #:	PFF105/103AL-00	Specification:	QJ/JJ07.01.03.02/ASTM E165	API Monogram:	6A-2074	Report #:	PTS-0220-001	
Part No.:	B04-351	Material:	PH17-4 105K			Coating:	/	
Description:	4-1/16"15000psi Balance Stem					Quantity:	1	
Test Method:	Type II Method C	Acceptance Criteria:	API 6A 21st/PSL3		Penetrate Type:		DPT-5	
Remover Type:	DPT-5	Developer Type:	DPT-5		Light Intensity:		≥1076Lx	
Stage:	Machined	Penetrate Time:	10min		Develop Time:		10min	
Item	S/N	Heat Log No.	Result	Item	S/N	Heat Log No.	Result	
1	AP064800	HY230114-1	Acceptable					
Inspection Coverage:								
Liquid penetrate examination was performed on all accessible wetted/sealing surfaces.								
Evaluation & Disposition:		Found to be satisfactory						
Inspected by:		Dongkai Xu		Organization:		QC Department		
Approved by:		Xin Zheng						
NDT Level:		MT II		Date:		2023.02		



ANLAN TECHNOLOGY (JIANGSU) CO.,LTD

Customer:			Customer PO#:	1437		Date:	2023.03	
Drawing #:	PFF105/103AL-00	Specification:	API Spec 6A 21st /ASTM E709	API Monogram:	6A-2074	Report #:	MTS-0308-002	
Part No.:	B04-349	Material:	AISI 4130 75K			Coating:	/	
Description:	4-1/16"15000psi Tail Bonnet					Quantity:	1	
Equipment:	CYD-5000	Acceptance Criteria:	API 6A 21st/PSL3	Circular AMPS:		2500A 3500A		
Test Method:	Fluorescence Wet Continuous	Particle Type:	Fluorescence	UV-Light Intensity:		3490Uw/cm ²		
Stage:	Machined	Concentration:	0.2ml/100ml	Magnetizing Time:		1-3S		
Item	S/N	Heat Log No.	Result	Item	S/N	Heat Log No.	Result	
1	AP064764	RD-02-40	Acceptable					
Inspection Coverage:								
Fluorescent magnetic particle inspection was performed on all accessible wetted/sealing surfaces.								
Evaluation & Disposition:		Found to be satisfactory						
Inspected by:		Dongkai Xu		Organization:		QC Department		
Approved by:		Xin Zheng						
NDT Level:		MT II		Date:		2023.03		



安澜科技（江苏）股份有限公司

ANLAN TECHNOLOGY (JIANGSU) CO.,LTD

HYDROSTATIC TEST REPORT

Customer:					Customer PO#:	1437		Date:	2023.03	
Drawing #:	PFF105/103A L-00	Specification:	API6A-21st	API Monogram:	6A-2074		Report #:	AP064F078		
Part No.:	B04-210	Material:	AISI 4130 75K				Coating:	/		
Description:	4-1/16"15000psi						Quantity:	1		
Item	Pressure	Method				Qty	Result			
Shell	22500psi	API 6A 21st				1	OK			
TAIL BONNET	15000psi	API 6A 21st				1	OK			
Item	S/N	Heat Log No.	Result		Item	S/N	Heat Log No.	Result		
			A	B				A	B	
1	AP064779	HY230224-2	OK	OK						
Drift Test:										
Diameter ϕ 102.46mm drift test gauge can freely pass through the through hole of the valve.										
Inspection Coverage:										
Per Specification & Requirements: API 6A 21st										
					Approved By:		Examined By:			
Judgments:		[V] Conforms			Xin Zheng		Yifei Ma			
		[] Does Not Conform								



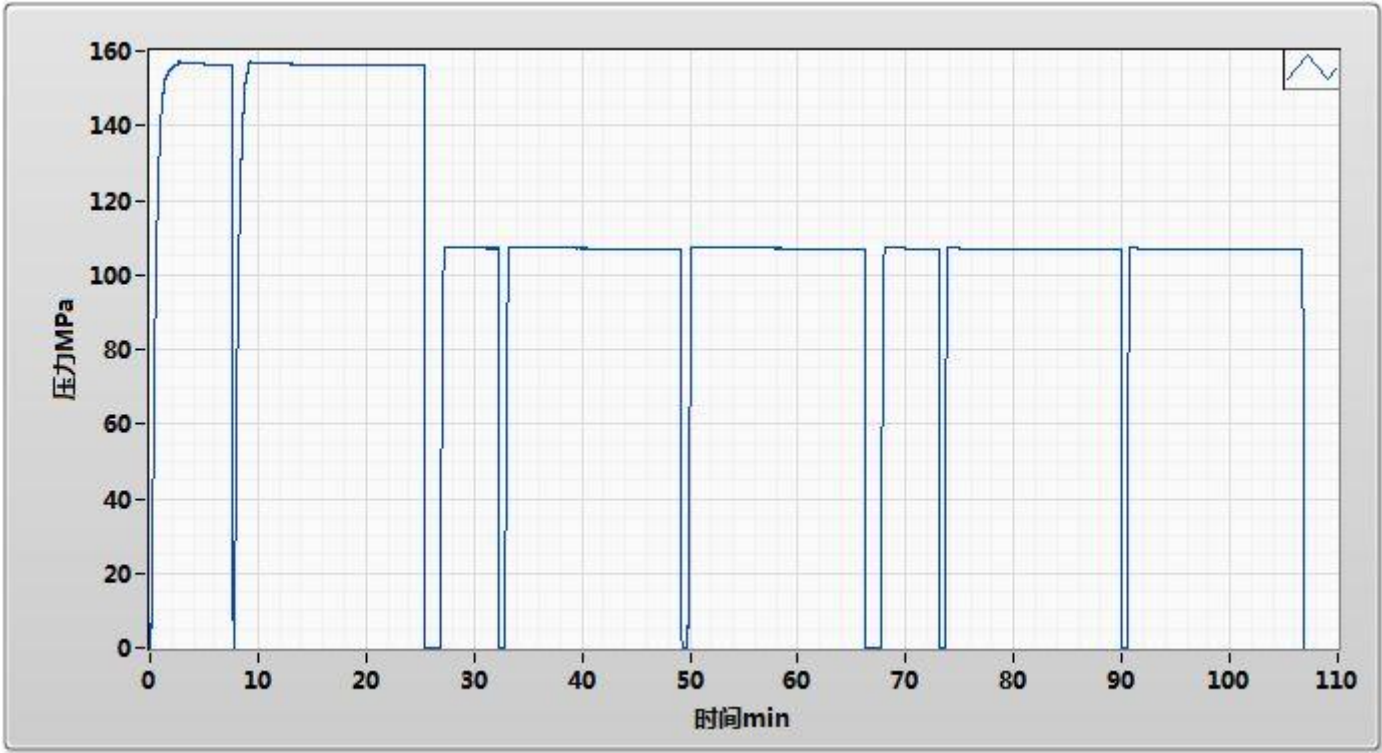
Pressure Test Report

Product Information

PRODUCT NAME	PRODUCT NO.	SPECS	PRESSURE TEST STANDARDS	TEST PART	EQUIPMENT NO.	BRAND
Manual Gate Valve	AP064F078	4-1/16" 15000Psi	API 6A 21st	Shell & TAIL BONNET	2#	

Test Data

LEVEL	INITIAL PRESSURE (Mpa)	TERMINATED PRESSURE (Mpa)	HOLDING TIME (Min)	PRESSURE DROPPING (Mpa)
1	156.81	156.17	4.0	0.64
2	156.82	156.00	15.0	0.82
3	107.22	107.11	4.0	0.11
4	107.34	106.99	15.0	0.35
5	107.37	107.00	15.0	0.38
6	107.22	106.92	4.0	0.30
7	107.11	106.66	15.0	0.45
8	107.09	106.81	15.0	0.28



TESTED BY:	INSPECTED BY:	REVIEWED BY:	DATE:
Yifei Ma	Xin Zheng	Zhicheng Feng	2023.03.10



REPORT INDEX

Purchase Order:1437

Quantity:1EA

Shipment No.:Crate#AS001F008

Shipment Date:March, 2023

Activity No.	Characteristics	Reference Page
1	CERTIFICATE OF CONFORMITY	Page - 2
2	Metallurgical Test Certificate	Page - 3
2.1	Mechanical Testing	Page - 3
2.2	Chemical Testing	Page -3
2.3	Heat Treatment	Page - 3
3	Hardness Test	Page - 4-12
4	Ultrasonic Testing	Page - 13-17
5	Magnetic Particle Inspection Report	Page - 18-26
6	Hydrostatic Test	Page - 27-28



CERTIFICATE OF CONFORMITY

THE FOLLOWING ITEM IS IN CONFORMITY WITH PO # 1437, DRAWINGS AND ITS TECHNICAL REQUIREMENTS. IT IS MADE PER API – 6A MONOGRAM SPECIFICATIONS, EE-0.5 CLASS, PSL3, PR1, LU. AND IT IS MADE OF MATERIAL (4130,75K YIELD) FOR NACE H2S SERVICE UNDER THE CURRENT NACE MR0175 EDITION.

ITEM:
PO #: 1437
SERIAL NO.: AS001F008
PART NO.: PFF105/180AN-00
QANTITY: 1
INSPECTION STANDARD: API Spec 6A 21st EE-0.5, PSL3, PR1, LU

THIS COMMODITY HAS PASSED ALL THE TECHNICAL AND PERFORMANCE TESTS CARRIED BY QUALITY CONTROL/INSPECTION DEPARTMENT.

COMPANY NAME:	INSPECTOR:Zhicheng Feng
(STAMP)	CHIEF ENGINEER: Xin Zheng
	EX-FACTORY DATE: March, 2023
Customer: _____	P.O. Number: <u>1437</u>



No.: AV00012

安澜科技（江苏）股份有限公司

ANLAN TECHNOLOGY (JIANGSU) CO.,LTD
Certified Material Test Report

Date:March, 2023

Customer		PO No.		Product				P/N		Serial No.		Qty	Size		WP (psi)		Material		PSL		Temp		Specifications	
		1437		MANUAL GATE VALVE				PFF105/180AN-00		AS001F008		1	7-1/16"		15000Psi		EE-0.5		PSL3		LU		API Spec 6A 21st	
Description						Melting Practice				Heat Treatment														
P/N	Parts	Melt No.	H.T. No.	Material Spec Standards		Qty	Serial No.	Finished	Austenized		Quenched			Temper(1)			Temper(2)							
									Temp (°C)	Time (min)	Medium	Start Temp	Finish Temp	Temp (°C)	Time (min)	Medium	Temp (°C)	Time (min)	Medium					
PFF105/180AN-00	BODY	TX22-05907	RD-03-07	AISI 4130 75K,Per ASTM A29		1	AP064017	Forging	860	5.0H	WATER	28	41	680	8.0H	AIR	/	/	/					
	UPPER BONNET	TX22-05906	RD-03-03	AISI 4130 75K,Per ASTM A29		1	AP064096	Forging	860	6.0H	WATER	26	40	670	8.5H	AIR	/	/	/					
	LOWER BONNET	TX22-05906	HY230214-3	AISI 4130 75K,Per ASTM A29		1	AP064114	Forging	870	4.5H	WATER	16	19	680	6.5H	AIR	/	/	/					
	STEM	YX2212-2116	HY230227-1	PH17-4 105K,Per ASTM A564/564M		1	AS007181	Forging	1030	3.0H	WATER	17	20	630	4.5H	AIR	630	4.5H	AIR					
	BALANCE STEM	YX2211-1628	HY230114-1	PH17-4 105K,Per ASTM A564/564M		1	AP064393	Forging	1030	3.5H	WATER	12	15	630	5.0H	AIR	630	5.0H	AIR					
	GATE	122V-1118	HC2302005-01	AISI 410 75K,Per ASTM A276/276M		1	AS001071	Forging	960	3.0H	OIL	39	51	720	6.0H	AIR	680	6.0H	AIR					
	BODY BUSHING	122V-1118	HC2302005-01	AISI 410 75K,Per ASTM A276/276M		2	AP064513 AS001057	Forging	960	3.0H	OIL	39	51	720	6.0H	AIR	680	6.0H	AIR					
Melt No.	H.T. No.	Chemical Analysis (wt, %)													Physical Properties									
		C	Mn	Si	P	S	Cr	Ni	Mo	V	Co	W	Cu	Nb	Fe	Spec Size	Spec Origin	Tensile (MPa)	Yield (MPa)	Elongation (%)	ROA (%)	Impact(-46°C) Impact direction (Transverse)	Hardness	Equipment Type
TX22-05907	RD-03-07	0.30	0.66	0.26	0.007	0.003	1.02	0.20	0.201	0.005	/	/	0.02	/	/	8"x8"x10"	QTC	687	562	57.0	55.0	64/61/57	222HBW	JBW-300B/ WDW-300
TX22-05906	RD-03-03	0.31	0.67	0.26	0.009	0.003	1.04	0.20	0.217	0.006	/	/	0.02	/	/	8"x8"x10"	QTC	678	546	37.0	55.0	64/61/56	222HBW	JBW-300B/ WDW-300
TX22-05906	HY230214-3	0.31	0.67	0.26	0.009	0.003	1.04	0.20	0.217	0.006	/	/	0.02	/	/	8"x8"x10"	QTC	729	557	22.4	72.1	41/85/79	224HBW	JBW-300B/ WDW-300
YX2212-2116	HY230227-1	0.024	0.55	0.36	0.032	0.002	15.66	4.08	/	/	/	/	3.62	0.235	/	Φ 80x200	QTC	1022	927	21.3	58.5	36/49/47	31HRC	JBW-300B/ WDW-300
YX2211-1628	HY230114-1	0.029	0.49	0.36	0.029	0.002	15.73	4.10	/	/	/	/	3.68	0.245	/	Φ 80x200	QTC	1027	930	19.5	60.1	55/51/42	30HRC	JBW-300B/ WDW-300
122V-1118	HC2302005-01	0.14	0.40	0.22	0.012	0.006	11.66	0.06	0.042	0.034	/	/	0.027	/	/	100x100x200	QTC	690	580	24.0	66.0	/	226HBW	JBW-300B/ WDW-300
122V-1118	HC2302005-01	0.14	0.40	0.22	0.012	0.006	11.66	0.06	0.042	0.034	/	/	0.027	/	/	100x100x200	QTC	690	580	24.0	66.0	/	226HBW	JBW-300B/ WDW-300

This is to certify that all above items have been tested and inspected per scope of specifications, drawings, and the purchase order and have been found to be satisfactory.

The information in this report is true and correct to our knowledge.

.....Xin Zheng.....
NAME of QA Manager, for and on the authority of COMPANY NAME



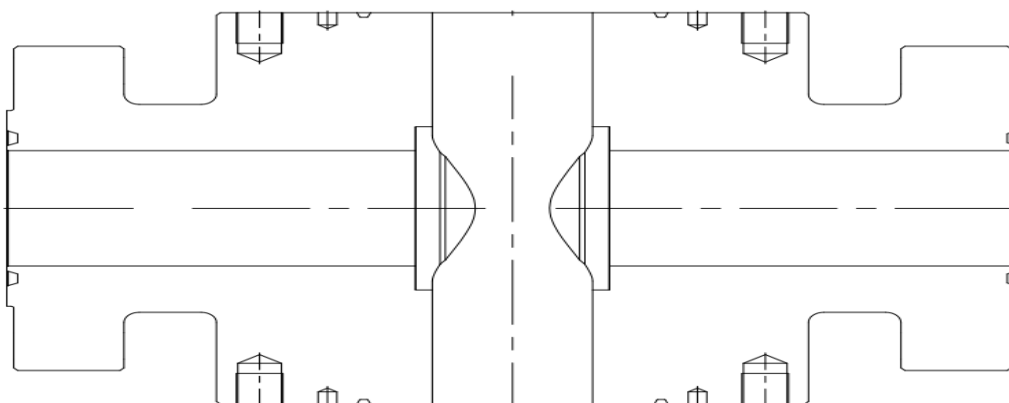
安澜科技（江苏）股份有限公司

ANLAN TECHNOLOGY (JIANGSU) CO.,LTD

HARDNESS TEST REPORT

Customer:			Customer PO#:			Date:	
Drawing #:	PFF105/180A N-00	Specification:	API Spec 6A 21st /ASTM E10	API Monogram:	6A-2074	Report #:	HS-0314-001
Part No.:	X-182734-01	Material:	AISI 4130 75K			Coating:	/
Description:	7-1/16"15000psi Body					Quantity:	1
Item	S/N	Heat Log No.	Hardness	Item	S/N	Heat Log No.	Hardness
1	AP064017	RD-03-07	223HBW/224HBW 221HBW/225HBW				

Sketch:



Method Used:	Impact Energy: 3000Kg.	Diameter of tungsten ball: 10mm	
Acceptable Hardness:	197HBW-235HBW	Approved By:	Examined By:
Judgments:	[V] Conforms	Xin zheng	Zhengguo Yao
	[] Does Not Conform		



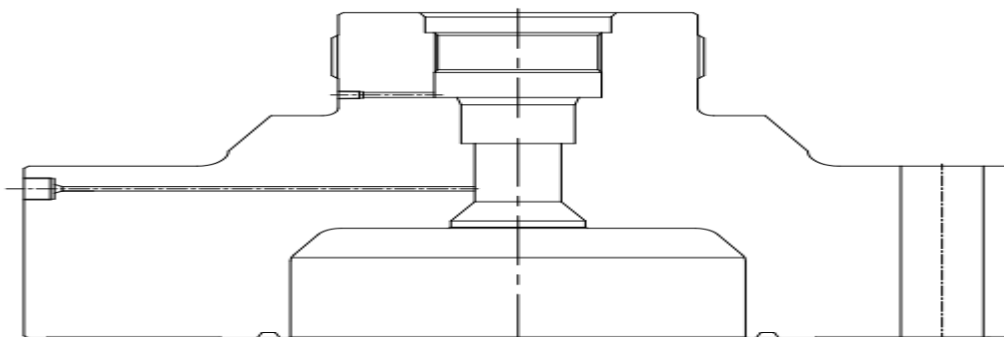
安澜科技（江苏）股份有限公司

ANLAN TECHNOLOGY (JIANGSU) CO.,LTD

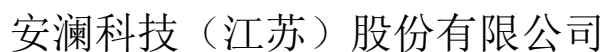
HARDNESS TEST REPORT

Customer:			Customer PO#:			Date:		
Drawing #:	PFF105/180A N-00	Specification:	API Spec 6A 21st /ASTM E10	API Monogram:	6A-2074	Report #:	HS-0314-002	
Part No.:	X-182585-01	Material:	AISI 4130 75K			Coating:	/	
Description:	7-1/16"15000psi Upper Bonnet					Quantity:	1	
Item	S/N	Heat Log No.	Hardness	Item	S/N	Heat Log No.	Hardness	
1	AP064096	RD-03-03	225HBW					

Sketch:

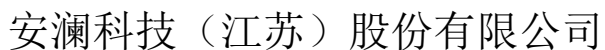


Method Used:	Impact Energy: 3000Kg.	Diameter of tungsten ball: 10mm	
Acceptable Hardness:	197HBW-235HBW	Approved By:	Examined By:
Judgments:	[V] Conforms	Xin zheng	Zhengguo Yao
	[] Does Not Conform		



ANLAN TECHNOLOGY (JIANGSU) CO.,LTD

[illegible]



ANLAN TECHNOLOGY (JIANGSU) CO.,LTD

Customer:			Customer PO#:			Date:	
Drawing #:	PFF105/180A N-00	Specification:	API Spec 6A 21st /ASTM E10	API Monogram:	6A-2074	Report #:	20230311-01
Part No.:	X-182589-01	Material:	AISI 410 75K			Coating:	/
Description:	7-1/16"1500psi Gate					Quantity:	1
Item	S/N	Heat Log No.	Hardness	Item	S/N	Heat Log No.	Hardness
1	AS001071	HC2302005-01	235HBW				

Sketch:

The sketch shows a technical drawing of a gate valve body. It features two large circular openings representing the flow paths. The left opening has a dashed circle indicating its full extent. The right opening also has a dashed circle. Between the two openings are four mounting brackets or flanges. On the far right, there are two smaller rectangular features, possibly handles or locking mechanisms. A small cross-section view of a bolt or screw is shown at the bottom center of the main body.

Method Used:	Impact Energy: 3000Kg.	Diameter of tungsten ball: 10mm
Acceptable Hardness:	207HBW-235HBW	Approved By:
Judgments:	[V] Conforms	Xin zheng
	[] Does Not Conform	
		Zhengguo Yao



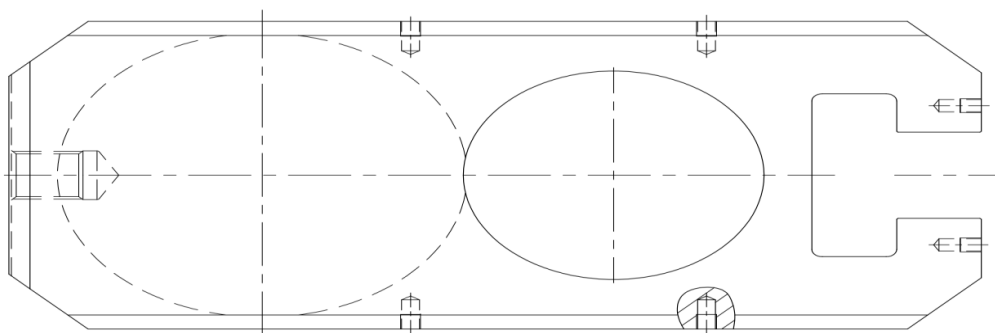
安澜科技（江苏）股份有限公司

ANLAN TECHNOLOGY (JIANGSU) CO.,LTD

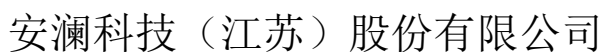
HARDNESS TEST REPORT

Customer:			Customer PO#:			Date:	
Drawing #:	PFF105/180A N-00	Specification:	API Spec 6A 21st /ASTM E92	API Monogram:	6A-2074	Report #:	20230311-02
Part No.:	X-182589-01	Material:	AISI 410 75K			Coating:	WC
Description:	7-1/16"15000psi Gate					Quantity:	1
Item	S/N	Heat Log No.	Hardness	Item	S/N	Heat Log No.	Hardness
1	AS001071	HC2302005-01	1346HV				

Sketch:

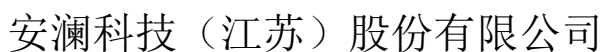


Method Used:	Impact Energy: 5Kg-f(49.03N).		
Acceptable Hardness:	≥1050HV	Approved By:	Examined By:
Judgments:	[V] Conforms	Xin zheng	Zhengguo Yao
	[] Does Not Conform		



HARDNESS TEST REPORT

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HARDNESS TEST REPORT

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安澜科技（江苏）股份有限公司

ANLAN TECHNOLOGY (JIANGSU) CO.,LTD

ULTRASONIC EXAMINATION REPORT

Customer:				Customer PO#:	1437		Date:	2023.03	
Drawing #:	PFF105/180A N-00	Specification:	API Spec 6A 21st /ASTM A388	API Monogram:	6A-2074		Report #:	UTS-0309-003	
Part No.:	X-182734-01	Material:	AISI 4130 75K			Coating:	/		
Description:	7-1/16"15000psi Body						Quantity:	1	
Item	S/N	Heat Log No.	Result	Item	S/N	Heat Log No.	Result		
1	AP064017	RD-03-07	Acceptable						
ABOVE FORGED ARE TESTED ULTRASONICALLY FOR INTERNAL DEFECTS, AND THERE WAS NO RECORDABLE INDICATION OBSERVED DURING THE TEST. HENCE ACCEPTABLE AS PER STANDARD.									
UT Code:	ASTM A388	Technique:	STRAIGHT PROBE			Examined By:	Dongkai Xu		
Exam. Stage:	Rough After	Calibration:	Block: CSK -I A Φ 1.6 FBH Block Φ 3.2 FBH Block Φ 6.4 FBH Block			Level as per UT:	II		
Equipment:	MUT-800C	Couplant:	OIL						
Date of calibration	2023.03.02								
Period of validity	2024.03.02								
Probe Used:	2.5P Φ 14+ Φ 20	Acceptance Criteria:	API Spec. 6A 21st			Approved by:	Xin Zheng		
Instrmt/Ident.#:	FD14082504	Test Gain:	Φ 1.6DAC+6dB Φ 3.2DAC+6dB Φ 6.4DAC+6dB			Level as per UT:	II		



安澜科技（江苏）股份有限公司

ANLAN TECHNOLOGY (JIANGSU) CO.,LTD

ULTRASONIC EXAMINATION REPORT

Customer:			Customer PO#:			Date:	
Drawing #:		Specification:		API Monogram:		Report #:	
Part No.:		Material:				Coating:	
Description:	7-1/16"15000psi Upper Bonnet					Quantity:	1
Item	S/N	Heat Log No.	Result	Item	S/N	Heat Log No.	Result
1	AP064096	RD-03-03	Acceptable				
ABOVE FORGED ARE TESTED ULTRASONICALLY FOR INTERNAL DEFECTS, AND THERE WAS NO RECORDABLE INDICATION OBSERVED DURING THE TEST. HENCE ACCEPTABLE AS PER STANDARD.							
UT Code:	ASTM A388	Technique:	STRAIGHT PROBE		Examined By:	Dongkai Xu	
Exam. Stage:	Rough After	Calibration:	Block: CSK -I A Φ 1.6 FBH Block Φ 3.2 FBH Block		Level as per UT:	II	
Equipment:	MUT-800C	Couplant:	OIL				
Date of calibration	2023.03.02						
Period of validity	2024.03.02						
Probe Used:	2.5P Φ 14+ Φ 20	Acceptance Criteria:	API Spec. 6A 21st		Approved by:	Xin Zheng	
Instrmt/Ident.#:	FD14082504	Test Gain:	Φ 1.6DAC+6dB Φ 3.2DAC+6dB		Level as per UT:	II	



安澜科技（江苏）股份有限公司
ANLAN TECHNOLOGY (JIANGSU) CO.,LTD

ULTRASONIC EXAMINATION REPORT

Customer:				Customer PO#:	1437		Date:	2023.02	
Drawing #:	PFF105/180A N-00	Specification:	API Spec 6A 21st /ASTM A388	API Monogram:	6A-2074		Report #:	UTS-0225-00 4	
Part No.:	X-182586-01	Material:	AISI 4130 75K			Coating:	/		
Description:	7-1/16"15000psi Lower Bonnet						Quantity:	1	
Item	S/N	Heat Log No.	Result	Item	S/N	Heat Log No.	Result		
1	AP064114	HY230214-3	Acceptable						
ABOVE FORGED ARE TESTED ULTRASONICALLY FOR INTERNAL DEFECTS, AND THERE WAS NO RECORDABLE INDICATION OBSERVED DURING THE TEST. HENCE ACCEPTABLE AS PER STANDARD.									
UT Code:	ASTM A388		Technique:	STRAIGHT PROBE		Examined By:	Dongkai Xu		
Exam. Stage:	Rough After		Calibration:	Block: CSK -I A Φ 1.6 FBH Block Φ 3.2 FBH Block		Level as per UT:	II		
Equipment:	MUT-800C		Couplant:	OIL					
Date of calibration	2023.03.02								
Period of validity	2024.03.02								
Probe Used:	2.5P Φ 14+ Φ 20		Acceptance Criteria:	API Spec. 6A 21st		Approved by:	Xin Zheng		
Instrmt/Ident.#:	FD14082504		Test Gain:	Φ 1.6DAC+6dB Φ 3.2DAC+6dB		Level as per UT:	II		



安澜科技（江苏）股份有限公司

ANLAN TECHNOLOGY (JIANGSU) CO.,LTD

ULTRASONIC EXAMINATION REPORT

Customer:				Customer PO#:	1437		Date:	2023.03	
Drawing #:	PFF105/180A N-00	Specification:	API Spec 6A 21st /ASTM A388	API Monogram:	6A-2074		Report #:	UTS-0308-00 2	
Part No.:	X-182588-01	Material:	PH17-4 105K			Coating:	/		
Description:	7-1/16"15000psi Stem						Quantity:	1	
Item	S/N	Heat Log No.	Result	Item	S/N	Heat Log No.	Result		
1	AS007181	HY230227-1	Acceptable						
ABOVE FORGED ARE TESTED ULTRASONICALLY FOR INTERNAL DEFECTS, AND THERE WAS NO RECORDABLE INDICATION OBSERVED DURING THE TEST. HENCE ACCEPTABLE AS PER STANDARD.									
UT Code:	ASTM A388		Technique:	STRAIGHT PROBE		Examined By:	Dongkai Xu		
Exam. Stage:	Rough After		Calibration:	Block: CSK -I A Φ 1.6 FBH Block Φ 3.2 FBH Block		Level as per UT:	II		
Equipment:	MUT-800C		Couplant:	OIL					
Date of calibration	2023.03.02								
Period of validity	2024.03.02								
Probe Used:	2.5P Φ 14+ Φ 20		Acceptance Criteria:	API Spec. 6A 21st		Approved by:	Xin Zheng		
Instrmt/Ident.#:	FD14082504		Test Gain:	Φ 1.6DAC+6dB Φ 3.2DAC+6dB		Level as per UT:	II		

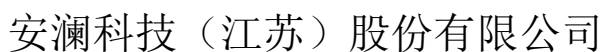


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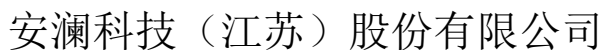
ULTRASONIC EXAMINATION REPORT

Customer:			Customer PO#:			Date:	
Drawing #:	PFF105/180AN-00	Specification:	API Spec 6A 21st /ASTM A388	API Monogram:	6A-2074	Report #:	UTS-0212-003
Part No.:	X-182591-01	Material:	PH17-4 105K			Coating:	/
Description:	7-1/16"15000psi Balance Stem					Quantity:	1
Item	S/N	Heat Log No.	Result	Item	S/N	Heat Log No.	Result
1	AP064393	HY230114-1	Acceptable				
ABOVE FORGED ARE TESTED ULTRASONICALLY FOR INTERNAL DEFECTS, AND THERE WAS NO RECORDABLE INDICATION OBSERVED DURING THE TEST. HENCE ACCEPTABLE AS PER STANDARD.							
UT Code:	ASTM A388	Technique:	STRAIGHT PROBE		Examined By:	Dongkai Xu	
Exam. Stage:	Rough After	Calibration:	Block: CSK -I A Φ 1.6 FBH Block Φ 3.2 FBH Block		Level as per UT:	II	
Equipment:	MUT-800C	Couplant:	OIL				
Date of calibration	2023.03.02						
Period of validity	2024.03.02						
Probe Used:	2.5P Φ 14+Φ 20	Acceptance Criteria:	API Spec. 6A 21st		Approved by:	Xin Zheng	
Instrmt/Ident.#:	FD14082504	Test Gain:	Φ 1.6DAC+6dB Φ 3.2DAC+6dB		Level as per UT:	II	



MAGNETIC PARTICLE INSPECTION REPORT

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MAGNETIC PARTICLE INSPECTION REPORT

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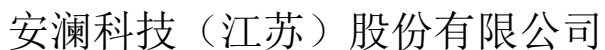


安澜科技（江苏）股份有限公司

ANLAN TECHNOLOGY (JIANGSU) CO.,LTD

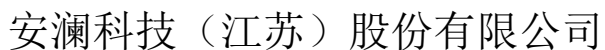
MAGNETIC PARTICLE INSPECTION REPORT

Customer:				Customer PO#:	1437		Date:	2023.03	
Drawing #:	PFF105/180AN-00	Specification:	API Spec 6A 21st /ASTM E709		API Monogram:	6A-2074	Report #:	MTS-0311-004	
Part No.:	X-182586-01	Material:	AISI 4130 75K				Coating:	/	
Description:	7-1/16"15000psi Lower Bonnet						Quantity:	1	
Equipment:	CYD-5000	Acceptance Criteria:	API 6A 21st/PSL3		Circular AMPS:		2500A 3500A		
Test Method:	Fluorescence Wet Continuous	Particle Type:	Fluorescence		UV-Light Intensity:		3490Uw/cm ²		
Stage:	Machined	Concentration:	0.2ml/100ml		Magnetizing Time:		1-3S		
Item	S/N	Heat Log No.	Result	Item	S/N	Heat Log No.	Result		
1	AP064114	HY230214-3	Acceptable						
Inspection Coverage:									
Fluorescent magnetic particle inspection was performed on all accessible wetted/sealing surfaces.									
Evaluation & Disposition:		Found to be satisfactory							
Inspected by:	Dongkai Xu			Organization:	QC Department				
Approved by:	Xin Zheng			Date:	2023.03				
NDT Level:	MT II			Date:	2023.03				



ANLAN TECHNOLOGY (JIANGSU) CO.,LTD

Customer:		Customer PO#:	1437		Date:	2023.03	
Drawing #:	PFF105/180AN-00	Specification:	QJ/JJ07.01.03.02/ ASTM E165	API Monogram:	6A-2074	Report #:	PTS-0311-001
Part No.:	X-182588-01	Material:	PH17-4-105K			Coating:	/
Description:	7-1/16"15000psi Stem					Quantity:	1
Test Method:	Type II Method C	Acceptance Criteria:	API 6A 21st/PSL3	Penetrate Type:		DPT-5	
Remover Type:	DPT-5	Developer Type:	DPT-5	Light Intensity:		≥1076Lx	
Stage:	Machined	Penetrate Time:	10min	Develop Time:		10min	
Item	S/N	Heat Log No.	Result	Item	S/N	Heat Log No.	Result
1	AS007181	HY230227-1	Acceptable				
Inspection Coverage:							
Liquid penetrate examination was performed on all accessible wetted/sealing surfaces.							
Evaluation & Disposition:	Found to be satisfactory						
Inspected by:	Dongkai Xu			Organization:	QC Department		
Approved by:	Xin Zheng						
NDT Level:	MT II			Date:	2023.03		

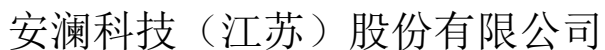


ANLAN TECHNOLOGY (JIANGSU) CO.,LTD

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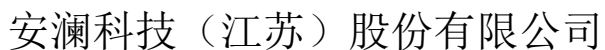
Fluorescent magnetic particle inspection was performed on all accessible wetted/sealing surfaces.

Evaluation & Disposition:	Found to be satisfactory		
Inspected by:	Dongkai Xu	Organization:	QC Department
Approved by:	Xin Zheng		
NDT Level:	MT II	Date:	2023.03



ANLAN TECHNOLOGY (JIANGSU) CO.,LTD

Customer:			Customer PO#:	1437		Date:	2023.03	
Drawing #:	PFF105/180AN-00	Specification:	QJ/JJ07.01.03.02/ ASTM E165		API Monogram:	6A-2074	Report #:	NCS-2303-H29
Part No.:	X-182589-01	Material:	AISI 410 75K			Coating:	WC	
Description:	7-1/16"15000psi Gate					Quantity:	1	
Test Method:	Type II Method C	Acceptance Criteria:		API 6A 21st/PSL3	Penetrate Type:		DPT-5	
Remover Type:	DPT-5	Developer Type:		DPT-5	Light Intensity:		≥1076Lx	
Stage:	Machined	Penetrate Time:		10min	Develop Time:		10min	
Item	S/N	Heat Log No.	Result	Item	S/N	Heat Log No.	Result	
1	AS001071	HC2302005-01	Acceptable					
Inspection Coverage:								
Liquid penetrate examination was performed on all accessible wetted/sealing surfaces.								
Evaluation & Disposition:		Found to be satisfactory						
Inspected by:		Dongkai Xu			Organization:	QC Department		
Approved by:		Xin Zheng						
NDT Level:		MT II			Date:	2023.03		



MAGNETIC PARTICLE INSPECTION REPORT

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安澜科技（江苏）股份有限公司

ANLAN TECHNOLOGY (JIANGSU) CO.,LTD

HYDROSTATIC TEST REPORT

Customer:			Customer PO#:	1437		Date:	2023.03		
Drawing #:	PFF105/180A N-00	Specification:	API6A-21st	API Monogram:	6A-2074	Report #:	AS001F008		
Part No.:	X-182734-01	Material:	AISI 4130 75K			Coating:	/		
Description:	7-1/16"15000psi					Quantity:	1		
Item	Pressure	Method			Qty	Result			
Shell	22500psi	API 6A 21st			1	OK			
Seat	15000psi	API 6A 21st			1	OK			
Item	S/N	Heat Log No.	Result		Item	S/N	Heat Log No.	Result	
			A	B				A	B
1	AP064017	RD-03-07	OK	OK					
Drift Test:									
Diameter ϕ 179.7 mm drift test gauge can freely pass through the through hole of the valve.									
Inspection Coverage:									
Per Specification & Requirements: API 6A 21st									
Judgments:					Approved By:		Examined By:		
[V] Conforms					Xin Zheng		Yifei Ma		
[] Does Not Conform									



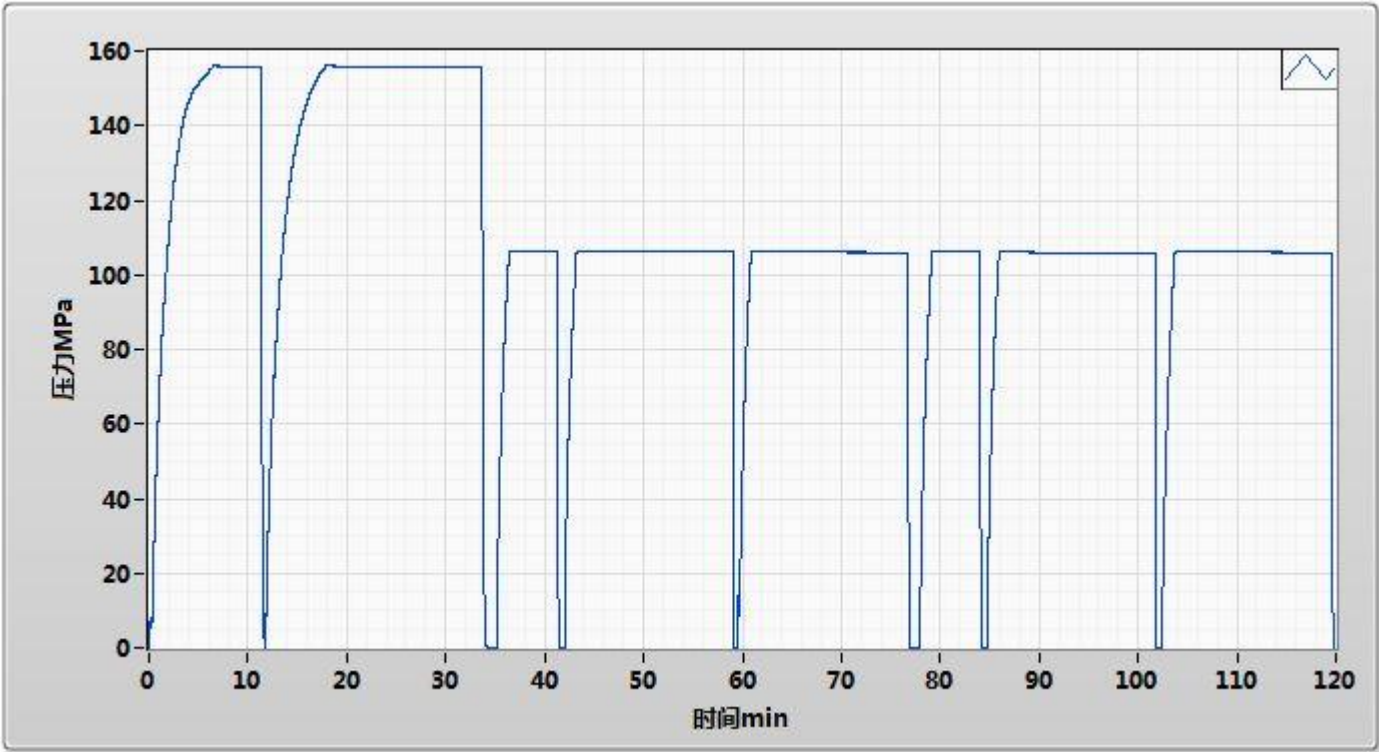
Pressure Test Report

Product Information

PRODUCT NAME	PRODUCT NO.	SPECS	PRESSURE TEST STANDARDS	TEST PART	EQUIPMENT NO.	BRAND
MANUAL GATE VALVE	AS001F008	7-1/16" 15000Psi	API 6A 21st	Shell & Seat	2#	

Test Data

LEVEL	INITIAL PRESSURE (Mpa)	TERMINATED PRESSURE (Mpa)	HOLDING TIME (Min)	PRESSURE DROPPING (Mpa)
1	155.94	155.48	4.0	0.46
2	156.00	155.31	15.0	0.69
3	106.14	106.11	4.0	0.03
4	106.23	106.06	15.0	0.17
5	106.01	105.74	15.0	0.27
6	106.22	106.07	4.0	0.14
7	106.22	105.96	15.0	0.26
8	106.04	105.73	15.0	0.31



TESTED BY:	INSPECTED BY:	REVIEWED BY:	DATE:
Yifei Ma	Xin Zheng	Zhicheng Feng	2023.03.18



REPORT INDEX

Purchase Order: 1456

Quantity: 1EA

Shipment No.: Crate# AS007F001

Shipment Date: April, 2023

Activity No.	Characteristics	Reference Page
1	CERTIFICATE OF CONFORMITY	Page - 2
2	Metallurgical Test Certificate	Page - 3
2.1	Mechanical Testing	Page - 3
2.2	Chemical Testing	Page -3
2.3	Heat Treatment	Page - 3
3	Hardness Test	Page - 4-12
4	Ultrasonic Testing	Page - 13-17
5	Magnetic Particle Inspection Report	Page - 18-26
6	Hydrostatic Test	Page - 27-28



安澜科技（江苏）股份有限公司

ANLAN TECHNOLOGY (JIANGSU) CO.,LTD

CERTIFICATE OF CONFORMITY

THE FOLLOWING ITEM IS IN CONFORMITY WITH PO # 1456, DRAWINGS AND ITS TECHNICAL REQUIREMENTS. IT IS MADE PER API – 6A MONOGRAM SPECIFICATIONS, EE-0.5 CLASS, PSL3, PR1, LU. AND IT IS MADE OF MATERIAL (4130,75K YIELD) FOR NACE H2S SERVICE UNDER THE CURRENT NACE MR0175 EDITION.

ITEM:
PO #: 1456
SERIAL NO.: AS007F001
PART NO.: PFFY105/180-00
QANTITY: 1
INSPECTION STANDARD: API Spec 6A 21st EE-0.5, PSL3, PR1, LU

THIS COMMODITY HAS PASSED ALL THE TECHNICAL AND PERFORMANCE TESTS CARRIED BY QUALITY CONTROL/INSPECTION DEPARTMENT.

COMPANY NAME:

(STAMP)

INSPECTOR:Zhicheng Feng

CHIEF ENGINEER: Xin Zheng

EX-FACTORY DATE: April, 2023

Customer: _____

P.O. Number: 1456



No.: AV00012

安澜科技（江苏）股份有限公司

ANLAN TECHNOLOGY (JIANGSU) CO.,LTD
Certified Material Test Report

Date: April, 2023

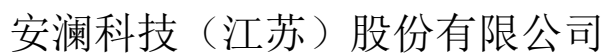
Customer		PO No.		Product						P/N			Serial No.		Qty	Size	WP (psi)	Material	PSL	Temp	Specifications			
		1456		HYDRAULIC GATE VALVE						PFFY105/180-00			AS007F001		1	7-1/16"	15000Psi	EE-0.5	PSL3	LU	API Spec 6A 21st			
Description										Melting Practice				Heat Treatment										
P/N	Parts	Melt No.	H.T. No.	Material Spec Standards						Qty	Serial No.	Finished	Austenized		Quenched			Temper(1)			Temper(2)			
													Temp (°C)	Time (min)	Medium	Start Temp	Finish Temp	Temp (°C)	Time (min)	Medium	Temp (°C)	Time (min)	Medium	
PFFY105/180-00	BODY	22DV0340	HY230327-3	AISI 4130 75K,Per ASTM A29						1	AS007151	Forging	870	5.5H	WATER	20	24	670	7.5H	AIR	/	/	/	
	UPPER BONNET	22VD0368	RD-03-18	AISI 4130 75K,Per ASTM A29						1	AS007020	Forging	860	5.0H	WATER	26	39	690	7.0H	AIR	/	/	/	
	LOWER BONNET	22DV0368	RD-03-09	AISI 4130 75K,Per ASTM A29						1	AS007036	Forging	860	6.0H	WATER	26	38	670	8.0H	AIR	/	/	/	
	STEM	YX2211-1565	HY230222-4	PH17-4 105K,Per ASTM A564/564M						1	AP064341	Forging	1030	3.6H	WATER	15	17	630	5.3H	AIR	630	5.1H	AIR	
	BALANCE STEM	YX2301-1601	HY230211-4	PH17-4 105K,Per ASTM A564/564M						1	AS001031	Forging	1030	3.5H	WATER	14	17	630	5.0H	AIR	630	5.2H	AIR	
	GATE	122V-1118	HC2302005-01	AISI 410 75K,Per ASTM A276/276M						1	AP064580	Forging	960	3.0H	OIL	39	51	720	6.0H	AIR	680	6.0H	AIR	
	BODY BUSHING	122V-1118	HC2302005-01	AISI 410 75K,Per ASTM A276/276M						2	AS001062 AP064543	Forging	960	3.0H	OIL	39	51	720	6.0H	AIR	680	6.0H	AIR	
Melt No.	H.T. No.	Chemical Analysis (wt, %)													Physical Properties									
		C	Mn	Si	P	S	Cr	Ni	Mo	V	Co	W	Cu	Nb	Fe	Spec Size	Spec Origin	Tensile (MPa)	Yield (MPa)	Elongation (%)	ROA (%)	Impact(-46°C) Impact direction (Transverse)	Hardness	Equipment Type
22DV0340	HY230327-3	0.31	0.69	0.31	0.005	0.004	1.04	0.23	0.19	0.006	/	/	0.06	/	/	8"x8"x10"	QTC	720	557	24.0	66.5	63/50/56	221HBW	JBW-300B/ WDW-300
22VD0368	RD-03-18	0.316	0.732	0.301	0.008	0.004	1.08	0.25	0.216	0.007	/	/	0.091	/	/	8"x8"x10"	QTC	677	544	54.0	60.0	62/65/56	222HBW	JBW-300B/ WDW-300
22DV0368	RD-03-09	0.316	0.732	0.301	0.008	0.004	1.08	0.25	0.216	0.007	/	/	0.091	/	/	8"x8"x10"	QTC	680	558	54.0	58.0	61/66/56	220HBW	JBW-300B/ WDW-300
YX2211-1565	HY230222-4	0.021	0.50	0.41	0.028	0.001	15.66	4.08	/	/	/	/	3.61	0.226	/	Φ80x200	QTC	1017	941	20.4	57.5	45/33/51	32HRC	JBW-300B/ WDW-300
YX2301-1601	HY230211-4	0.026	0.56	0.41	0.032	0.001	15.70	4.08	/	/	/	/	3.63	0.240	/	Φ80x200	QTC	1018	933	21.2	57.5	55/59/40	31HRC	JBW-300B/ WDW-300
122V-1118	HC2302005-01	0.14	0.40	0.22	0.012	0.006	11.66	0.06	0.042	0.034	/	/	0.027	/	/	100x100x200	QTC	690	580	24.0	66.0	/	226HBW	JBW-300B/ WDW-300
122V-1118	HC2302005-01	0.14	0.40	0.22	0.012	0.006	11.66	0.06	0.042	0.034	/	/	0.027	/	/	100x100x200	QTC	690	580	24.0	66.0	/	226HBW	JBW-300B/ WDW-300

This is to certify that all above items have been tested and inspected per scope of specifications, drawings, and the purchase order and have been found to be satisfactory.

The information in this report is true and correct to our knowledge.

Xin Zheng

NAME of QA Manager, for and on the authority of COMPANY NAME



ANLAN TECHNOLOGY (JIANGSU) CO.,LTD

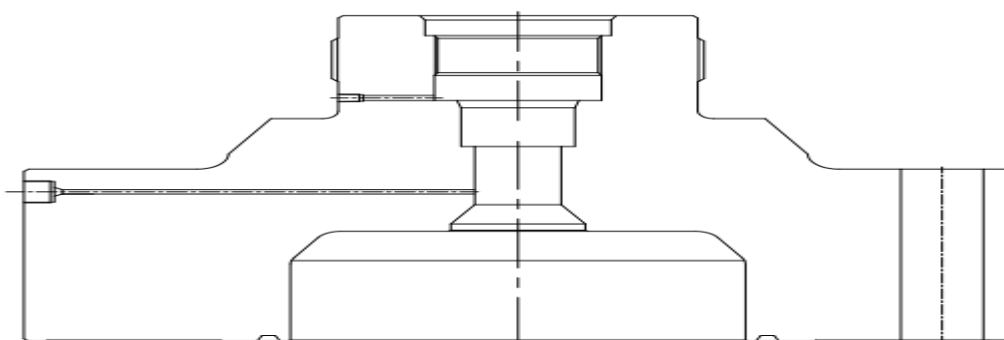
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Method Used:	Impact Energy: 3000Kg.	Diameter of tungsten ball: 10mm	
Acceptable Hardness:	197HBW-235HBW	Approved By:	Examined By:
Judgments:	[V] Conforms	Xin zheng	Zhengguo Yao
	[] Does Not Conform		

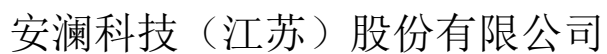
HARDNESS TEST REPORT

[illegible]

Sketch:



Method Used:	Impact Energy: 3000Kg.	Diameter of tungsten ball: 10mm	
Acceptable Hardness:	197HBW-235HBW	Approved By:	Examined By:
Judgments:	[☒ V] Conforms	Xin zheng	Zhengguo Yao
	[☐] Does Not Conform		



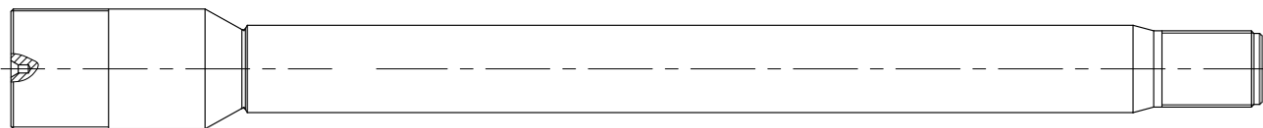
ANLAN TECHNOLOGY (JIANGSU) CO.,LTD

[illegible]6

HARDNESS TEST REPORT

[illegible]

Sketch:



Method Used:			
Acceptable Hardness:	27HRC-33HRC	Approved By:	Examined By:
Judgments:	[V] Conforms	Xin zheng	Zhengguo Yao
	[] Does Not Conform		



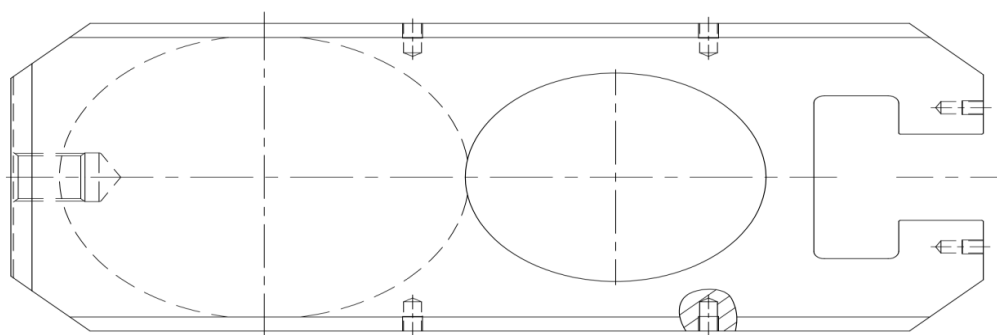
安澜科技（江苏）股份有限公司

ANLAN TECHNOLOGY (JIANGSU) CO.,LTD

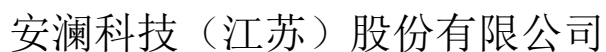
HARDNESS TEST REPORT

Customer:			Customer PO#:			Date:		
Drawing #:	PFFY105/180-00	Specification:	API Spec 6A 21st /ASTM E92	API Monogram:	6A-2074	Report #:	20230303-03	
Part No.:	X-182589-01	Material:	AISI 410 75K			Coating:	WC	
Description:	7-1/16"15000psi Gate					Quantity:	1	
Item	S/N	Heat Log No.	Hardness	Item	S/N	Heat Log No.	Hardness	
1	AP064580	HC2302005-01	1171HV					

Sketch:



Method Used:	Impact Energy: 5Kg-f(49.03N).		
Acceptable Hardness:	≥1050HV	Approved By:	Examined By:
Judgments:	[V] Conforms	Xin zheng	Zhengguo Yao
	[] Does Not Conform		



HARDNESS TEST REPORT

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安澜科技（江苏）股份有限公司

ANLAN TECHNOLOGY (JIANGSU) CO.,LTD

HARDNESS TEST REPORT

Customer:				Customer PO#:	1456		Date:	2023.03
Drawing #:	PFFY105/180-00	Specification:	API Spec 6A 21st /ASTM E18		API Monogram:	6A-2074	Report #:	HS-0321-001
Part No.:	X-182591-01	Material:	PH17-4 105K				Coating:	/
Description:	7-1/16"15000psi Balance Stem						Quantity:	1
Item	S/N	Heat Log No.	Hardness	Item	S/N	Heat Log No.	Hardness	
1	AS001031	HY230211-4	29HRC					
Sketch:								
Method Used:								
Acceptable Hardness:	27HRC-33HRC		Approved By:		Examined By:			
Judgments:	☐ V] Conforms		Xin zheng		Zhengguo Yao			
	☐] Does Not Conform							



安澜科技（江苏）股份有限公司

ANLAN TECHNOLOGY (JIANGSU) CO.,LTD

ULTRASONIC EXAMINATION REPORT

Customer:			Customer PO#:	1456		Date:	2023.03
Drawing #:	PFFY105/180 -00	Specification:	API Spec 6A 21st /ASTM A388	API Monogram:	6A-2074	Report #:	UTS-0329-001
Part No.:	X-182734-01	Material:	AISI 4130 75K			Coating:	/
Description:	7-1/16"15000psi Body					Quantity:	1
Item	S/N	Heat Log No.	Result	Item	S/N	Heat Log No.	Result
1	AS007151	HY230327-3	Acceptable				
ABOVE FORGED ARE TESTED ULTRASONICALLY FOR INTERNAL DEFECTS, AND THERE WAS NO RECORDABLE INDICATION OBSERVED DURING THE TEST. HENCE ACCEPTABLE AS PER STANDARD.							
UT Code:	ASTM A388	Technique:	STRAIGHT PROBE		Examined By:	Dongkai Xu	
Exam. Stage:	Rough After	Calibration:	Block: CSK -I A Φ 1.6 FBH Block Φ 3.2 FBH Block Φ 6.4 FBH Block		Level as per UT:	II	
Equipment:	MUT-800C	Couplant:	OIL				
Date of calibration	2023.03.02						
Period of validity	2024.03.02						
Probe Used:	2.5P Φ 14+ Φ 20	Acceptance Criteria:	API Spec. 6A 21st		Approved by:	Xin Zheng	
Instrmt/Ident.#:	FD14082504	Test Gain:	Φ 1.6DAC+6dB Φ 3.2DAC+6dB Φ 6.4DAC+6dB		Level as per UT:	II	

ULTRASONIC EXAMINATION REPORT



安澜科技（江苏）股份有限公司

ANLAN TECHNOLOGY (JIANGSU) CO.,LTD

Customer:			Customer PO#:			Date:	
Drawing #:		Specification:		API Monogram:		Report #:	
Part No.:		Material:				Coating:	
Description:						Quantity:	
Item	S/N	Heat Log No.	Result	Item	S/N	Heat Log No.	Result
1	AS007020	RD-03-18	Acceptable				
ABOVE FORGED ARE TESTED ULTRASONICALLY FOR INTERNAL DEFECTS, AND THERE WAS NO RECORDABLE INDICATION OBSERVED DURING THE TEST. HENCE ACCEPTABLE AS PER STANDARD.							
UT Code:	ASTM A388	Technique:	STRAIGHT PROBE		Examined By:	Dongkai Xu	
Exam. Stage:	Rough After	Calibration:	Block: CSK -I A Φ 1.6 FBH Block Φ 3.2 FBH Block		Level as per UT:	II	
Equipment:	MUT-800C	Couplant:	OIL				
Date of calibration	2023.03.02						
Period of validity	2024.03.02						
Probe Used:	2.5P Φ 14+ Φ 20	Acceptance Criteria:	API Spec. 6A 21st		Approved by:	Xin Zheng	
Instrmt/Ident.#:	FD14082504	Test Gain:	Φ 1.6DAC+6dB Φ 3.2DAC+6dB		Level as per UT:	II	



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ANLAN TECHNOLOGY (JIANGSU) CO.,LTD

ULTRASONIC EXAMINATION REPORT

Customer:			Customer PO#:	1456		Date:	2023.03	
Drawing #:	PFFY105/180-00	Specification:	API Spec 6A 21st /ASTM A388	API Monogram:	6A-2074	Report #:	UTS-0310-001	
Part No.:	X-182586-01	Material:	AISI 4130 75K			Coating:	/	
Description:	7-1/16"15000psi Lower Bonnet					Quantity:	1	
Item	S/N	Heat Log No.	Result	Item	S/N	Heat Log No.	Result	
1	AS007036	RD-03-09	Acceptable					
ABOVE FORGED ARE TESTED ULTRASONICALLY FOR INTERNAL DEFECTS, AND THERE WAS NO RECORDABLE INDICATION OBSERVED DURING THE TEST. HENCE ACCEPTABLE AS PER STANDARD.								
UT Code:	ASTM A388	Technique:	STRAIGHT PROBE		Examined By:	Dongkai Xu		
Exam. Stage:	Rough After	Calibration:	Block: CSK -I A Φ 1.6 FBH Block Φ 3.2 FBH Block		Level as per UT:	II		
Equipment:	MUT-800C	Couplant:	OIL					
Date of calibration	2023.03.02							
Period of validity	2024.03.02							
Probe Used:	2.5P Φ 14+ Φ 20	Acceptance Criteria:	API Spec. 6A 21st		Approved by:	Xin Zheng		
Instrmt/Ident.#:	FD14082504	Test Gain:	Φ 1.6DAC+6dB Φ 3.2DAC+6dB		Level as per UT:	II		



安澜科技（江苏）股份有限公司

ANLAN TECHNOLOGY (JIANGSU) CO.,LTD

ULTRASONIC EXAMINATION REPORT

Customer:			Customer PO#:	1456		Date:	2023.03
Drawing #:	PFFY105/180-00	Specification:	API Spec 6A 21st /ASTM A388	API Monogram:	6A-2074	Report #:	UTS-0302-001
Part No.:	X-182716-01	Material:	PH17-4 105K			Coating:	/
Description:	7-1/16"15000psi Stem					Quantity:	1
Item	S/N	Heat Log No.	Result	Item	S/N	Heat Log No.	Result
1	AP064341	HY230222-4	Acceptable				
ABOVE FORGED ARE TESTED ULTRASONICALLY FOR INTERNAL DEFECTS, AND THERE WAS NO RECORDABLE INDICATION OBSERVED DURING THE TEST. HENCE ACCEPTABLE AS PER STANDARD.							
UT Code:	ASTM A388	Technique:	STRAIGHT PROBE		Examined By:	Dongkai Xu	
Exam. Stage:	Rough After	Calibration:	Block: CSK -I A Φ 1.6 FBH Block Φ 3.2 FBH Block		Level as per UT:	II	
Equipment:	MUT-800C	Couplant:	OIL				
Date of calibration	2023.03.02						
Period of validity	2024.03.02						
Probe Used:	2.5P Φ 14+ Φ 20	Acceptance Criteria:	API Spec. 6A 21st		Approved by:	Xin Zheng	
Instrmt/Ident.#:	FD14082504	Test Gain:	Φ 1.6DAC+6dB Φ 3.2DAC+6dB		Level as per UT:	II	

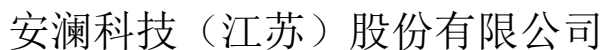


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ANLAN TECHNOLOGY (JIANGSU) CO.,LTD

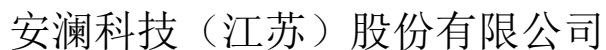
ULTRASONIC EXAMINATION REPORT

Customer:			Customer PO#:			Date:	
Drawing #:	PFFY105/180-00	Specification:	API Spec 6A 21st /ASTM A388	API Monogram:	6A-2074	Report #:	UTS-0316-001
Part No.:	X-182591-01	Material:	PH17-4 105K			Coating:	/
Description:	7-1/16"15000psi Balance Stem					Quantity:	1
Item	S/N	Heat Log No.	Result	Item	S/N	Heat Log No.	Result
1	AS001031	HY230211-4	Acceptable				
ABOVE FORGED ARE TESTED ULTRASONICALLY FOR INTERNAL DEFECTS, AND THERE WAS NO RECORDABLE INDICATION OBSERVED DURING THE TEST. HENCE ACCEPTABLE AS PER STANDARD.							
UT Code:	ASTM A388	Technique:	STRAIGHT PROBE		Examined By:	Dongkai Xu	
Exam. Stage:	Rough After	Calibration:	Block: CSK -I A Φ 1.6 FBH Block Φ 3.2 FBH Block		Level as per UT:	II	
Equipment:	MUT-800C	Couplant:	OIL				
Date of calibration	2023.03.02						
Period of validity	2024.03.02						
Probe Used:	2.5P Φ 14+Φ 20	Acceptance Criteria:	API Spec. 6A 21st		Approved by:	Xin Zheng	
Instrmt/Ident.#:	FD14082504	Test Gain:	Φ 1.6DAC+6dB Φ 3.2DAC+6dB		Level as per UT:	II	



MAGNETIC PARTICLE INSPECTION REPORT

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ANLAN TECHNOLOGY (JIANGSU) CO.,LTD

[illegible]

Fluorescent magnetic particle inspection was performed on all accessible wetted/sealing surfaces.

Evaluation & Disposition:	Found to be satisfactory		
Inspected by:	Dongkai Xu	Organization:	QC Department
Approved by:	Xin Zheng		
NDT Level:	MT II	Date:	2023.03



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ANLAN TECHNOLOGY (JIANGSU) CO.,LTD

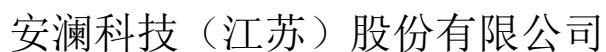
MAGNETIC PARTICLE INSPECTION REPORT

Customer:				Customer PO#:	1456		Date:	2023.03	
Drawing #:	PFFY105/180-00	Specification:	API Spec 6A 21st /ASTM E709		API Monogram:	6A-2074	Report #:	MTS-0320-001	
Part No.:	X-182586-01	Material:	AISI 4130 75K				Coating:	/	
Description:	7-1/16"15000psi Lower Bonnet						Quantity:	1	
Equipment:	CYD-5000	Acceptance Criteria:	API 6A 21st/PSL3		Circular AMPS:		2500A 3500A		
Test Method:	Fluorescence Wet Continuous	Particle Type:	Fluorescence		UV-Light Intensity:		3490Uw/cm ²		
Stage:	Machined	Concentration:	0.2ml/100ml		Magnetizing Time:		1-3S		
Item	S/N	Heat Log No.	Result	Item	S/N	Heat Log No.	Result		
1	AS007036	RD-03-09	Acceptable						

Inspection Coverage:

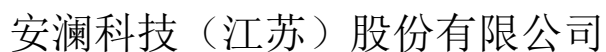
Fluorescent magnetic particle inspection was performed on all accessible wetted/sealing surfaces.

Evaluation & Disposition:	Found to be satisfactory		
Inspected by:	Dongkai Xu	Organization:	QC Department
Approved by:	Xin Zheng	Date:	2023.03
NDT Level:	MT II		



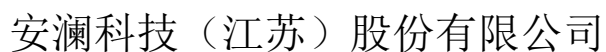
LIQUID PENETRATE EXAMINATION

21



MAGNETIC PARTICLE INSPECTION REPORT

22



MAGNETIC PARTICLE INSPECTION REPORT

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安澜科技（江苏）股份有限公司

ANLAN TECHNOLOGY (JIANGSU) CO.,LTD

HYDROSTATIC TEST REPORT

Customer:			Customer PO#:	1456		Date:	2023.04		
Drawing #:	PFFY105/180-00	Specification:	API6A-21st	API Monogram:	6A-2074	Report #:	AS007F001		
Part No.:	X-182734-01	Material:	AISI 4130 75K			Coating:	/		
Description:	7-1/16"15000psi					Quantity:	1		
Item	Pressure	Method			Qty	Result			
Shell	22500psi	API 6A 21st			1	OK			
Seat	15000psi	API 6A 21st			1	OK			
Item	S/N	Heat Log No.	Result		Item	S/N	Heat Log No.	Result	
			A	B				A	B
1	AS007151	HY230327-3	OK	OK					
Drift Test:									
Diameter ϕ 179.7 mm drift test gauge can freely pass through the through hole of the valve.									
Inspection Coverage:									
Per Specification & Requirements: API 6A 21st									
Judgments:					Approved By:		Examined By:		
☒ V] Conforms					Xin Zheng		Yifei Ma		
☐] Does Not Conform									



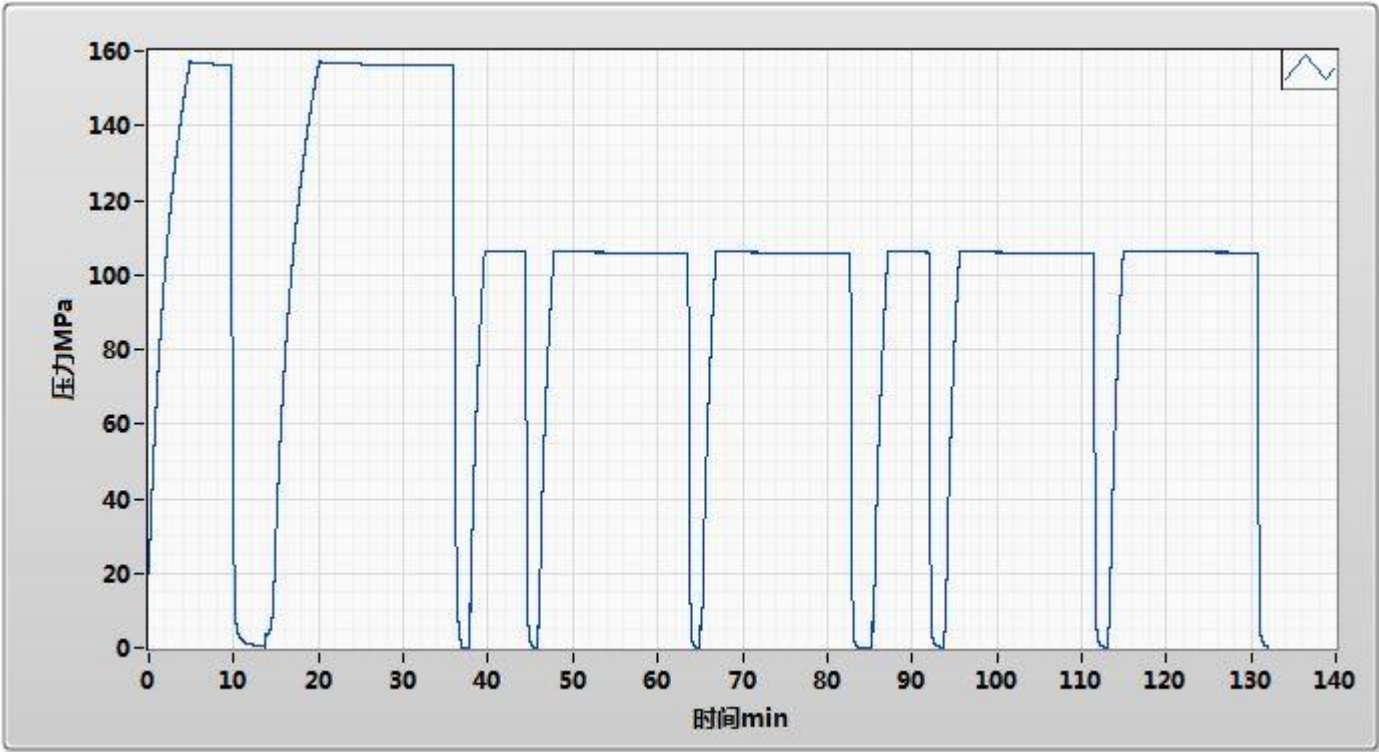
Pressure Test Report

Product Information

PRODUCT NAME	PRODUCT NO.	SPECS	PRESSURE TEST STANDARDS	TEST PART	EQUIPMENT NO.	BRAND
Hydraulic Gate Valve	AS007F001	7-1/16" 15000Psi	API 6A 21st	Shell & Seat	2#	

Test Data

LEVEL	INITIAL PRESSURE (Mpa)	TERMINATED PRESSURE (Mpa)	HOLDING TIME (Min)	PRESSURE DROPPING (Mpa)
1	156.87	156.24	4.0	0.63
2	156.95	156.01	15.0	0.94
3	106.24	106.19	4.0	0.06
4	106.16	105.92	15.0	0.24
5	106.14	105.90	15.0	0.23
6	106.21	106.03	4.0	0.18
7	106.20	105.83	15.0	0.38
8	106.28	105.99	15.0	0.29



TESTED BY:	INSPECTED BY:	REVIEWED BY:	DATE:
Yifei Ma	Xin Zheng	Zhicheng Feng	2023.04.04



REPORT INDEX

Purchase Order:1456

Quantity:1EA

Shipment No.:Crate#AS007F014

Shipment Date:March, 2023

Activity No.	Characteristics	Reference Page
1	CERTIFICATE OF CONFORMITY	Page - 2
2	Metallurgical Test Certificate	Page - 3
2.1	Mechanical Testing	Page - 3
2.2	Chemical Testing	Page -3
2.3	Heat Treatment	Page - 3
3	Hardness Test	Page - 4-12
4	Ultrasonic Testing	Page - 13-17
5	Magnetic Particle Inspection Report	Page - 18-26
6	Hydrostatic Test	Page - 27-28



CERTIFICATE OF CONFORMITY

THE FOLLOWING ITEM IS IN CONFORMITY WITH PO # 1456, DRAWINGS AND ITS TECHNICAL REQUIREMENTS. IT IS MADE PER API – 6A MONOGRAM SPECIFICATIONS, EE-0.5 CLASS, PSL3, PR1, LU. AND IT IS MADE OF MATERIAL (4130,75K YIELD) FOR NACE H2S SERVICE UNDER THE CURRENT NACE MR0175 EDITION.

ITEM:
PO #: 1456
SERIAL NO.: AS007F014
PART NO.: PFF105/180AN-00
QANTITY: 1
INSPECTION STANDARD: API Spec 6A 21st EE-0.5, PSL3, PR1, LU

THIS COMMODITY HAS PASSED ALL THE TECHNICAL AND PERFORMANCE TESTS CARRIED BY QUALITY CONTROL/INSPECTION DEPARTMENT.

COMPANY NAME:	INSPECTOR:Zhicheng Feng
(STAMP)	CHIEF ENGINEER: Xin Zheng
	EX-FACTORY DATE: March, 2023
Customer: _____	P.O. Number: <u>1456</u>



No.: AV00012

安澜科技（江苏）股份有限公司

ANLAN TECHNOLOGY (JIANGSU) CO.,LTD
Certified Material Test Report

Date:March, 2023

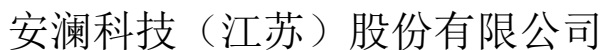
Customer		PO No.		Product				P/N		Serial No.		Qty	Size	WP (psi)	Material	PSL	Temp	Specifications						
		1456		MANUAL GATE VALVE				PFF105/180AN-00		AS007F014		1	7-1/16"	15000Psi	EE-0.5	PSL3	LU	API Spec 6A 21st						
Description							Melting Practice			Heat Treatment														
P/N	Parts	Melt No.	H.T. No.	Material Spec Standards			Qty	Serial No.	Finished	Austenized		Quenched			Temper(1)			Temper(2)						
										Temp (°C)	Time (min)	Medium	Start Temp	Finish Temp	Temp (°C)	Time (min)	Medium	Temp (°C)	Time (min)	Medium				
PFF105/180AN-00	BODY	22DV0372	RD-0306-012	AISI 4130 75K,Per ASTM A29			1	AS007001	Forging	865	6.5H	WATER	19	24	660	10.5H	AIR	/	/	/				
	UPPER BONNET	TX22-05906	RD-0202-003	AISI 4130 75K,Per ASTM A29			1	AP064073	Forging	870	5.3H	WATER	19	25	658	8.0H	AIR	/	/	/				
	LOWER BONNET	22DV0368	RD-03-09	AISI 4130 75K,Per ASTM A29			1	AS007029	Forging	860	6.0H	WATER	26	38	670	8.0H	AIR	/	/	/				
	STEM	YX2212-2116	HY230227-1	PH17-4 105K,Per ASTM A564/564M			1	AS007177	Forging	1030	3.0H	WATER	17	20	630	4.5H	AIR	630	4.5H	AIR				
	BALANCE STEM	YX2211-1628	HY230114-1	PH17-4 105K,Per ASTM A564/564M			1	AP064381	Forging	1030	3.5H	WATER	12	15	630	5.0H	AIR	630	5.0H	AIR				
	GATE	122V-1118	HC2302005-01	AISI 410 75K,Per ASTM A276/276M			1	AP064588	Forging	960	3.0H	OIL	39	51	720	6.0H	AIR	680	6.0H	AIR				
	BODY BUSHING	122V-1118	HC2302005-01	AISI 410 75K,Per ASTM A276/276M			2	AS001068 AP064510	Forging	960	3.0H	OIL	39	51	720	6.0H	AIR	680	6.0H	AIR				
Melt No.	H.T. No.	Chemical Analysis (wt, %)													Physical Properties									
		C	Mn	Si	P	S	Cr	Ni	Mo	V	Co	W	Cu	Nb	Fe	Spec Size	Spec Origin	Tensile (MPa)	Yield (MPa)	Elongation (%)	ROA (%)	Impact(-46°C) Impact direction (Transverse)	Hardness	Equipment Type
22DV0372	RD-0306-012	0.31	0.64	0.29	0.004	0.003	1.02	0.22	0.19	0.006	/	/	0.1	/	/	8"x8"x10"	QTC	705	535	27.0	69.0	39/45/66	228HBW	JBW-300B/ WDW-300
TX22-05906	RD-0202-003	0.31	0.67	0.26	0.009	0.003	1.04	0.20	0.217	0.006	/	/	0.02	/	/	8"x8"x10"	QTC	715	535	32.0	63.0	42/45/75	232HBW	JBW-300B/ WDW-300
22DV0368	RD-03-09	0.316	0.732	0.301	0.008	0.004	1.08	0.25	0.216	0.007	/	/	0.091	/	/	8"x8"x10"	QTC	680	558	54.0	58.0	61/66/56	220HBW	JBW-300B/ WDW-300
YX2212-2116	HY230227-1	0.024	0.55	0.36	0.032	0.002	15.66	4.08	/	/	/	/	3.62	0.235	/	Φ 80x200	QTC	1022	927	21.3	58.5	36/49/47	31HRC	JBW-300B/ WDW-300
YX2211-1628	HY230114-1	0.029	0.49	0.36	0.029	0.002	15.73	4.10	/	/	/	/	3.68	0.245	/	Φ 80x200	QTC	1027	930	19.5	60.1	55/51/42	30HRC	JBW-300B/ WDW-300
122V-1118	HC2302005-01	0.14	0.40	0.22	0.012	0.006	11.66	0.06	0.042	0.034	/	/	0.027	/	/	100x100x200	QTC	690	580	24.0	66.0	/	226HBW	JBW-300B/ WDW-300
122V-1118	HC2302005-01	0.14	0.40	0.22	0.012	0.006	11.66	0.06	0.042	0.034	/	/	0.027	/	/	100x100x200	QTC	690	580	24.0	66.0	/	226HBW	JBW-300B/ WDW-300

This is to certify that all above items have been tested and inspected per scope of specifications, drawings, and the purchase order and have been found to be satisfactory.

The information in this report is true and correct to our knowledge.

Xin Zheng

NAME of QA Manager, for and on the authority of COMPANY NAME

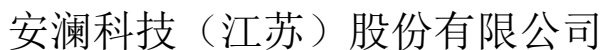


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[illegible]

Technical drawing of a mechanical part, showing a cross-section of a shaft with a central hole and a flange. The drawing includes a top view and a side view, with dimensions and a scale bar.

4

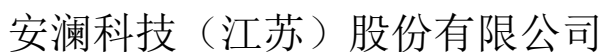


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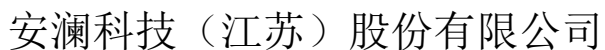
The technical drawing consists of two views of a mechanical assembly. The top view is a cross-section showing a shaft with a key, a pulley, and a housing. The shaft is shown in section with a dashed line indicating its internal structure. The pulley is mounted on the shaft and has a key. The housing is shown in section with a dashed line indicating its internal structure. The bottom view is a side view of the pulley, showing its profile and the key. The drawing is a technical illustration of a mechanical assembly, likely a pulley system, showing the shaft, pulley, and housing in cross-section and side view.

Method Used:	Impact Energy: 3000Kg.	Diameter of tungsten ball: 10mm	
Acceptable Hardness:	197HBW-235HBW	Approved By:	Examined By:
Judgments:	[V] Conforms	Xin zheng	Zhengguo Yao
	[] Does Not Conform		



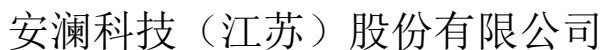
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HARDNESS TEST REPORT							
Customer:			Customer PO#:			Date:	
Drawing #:	PFF105/180A N-00	Specification:	API Spec 6A 21st /ASTM E18	API Monogram:	6A-2074	Report #:	HS-0311-004
Part No.:	X-182588-01	Material:	PH17-4 105K			Coating:	/
Description:	7-1/16"15000psi Stem					Quantity:	1
Item	S/N	Heat Log No.	Hardness	Item	S/N	Heat Log No.	Hardness
1	AS007177	HY230227-1	29HRC				
Sketch:							
Method Used:							
Acceptable Hardness:		27HRC-33HRC		Approved By:		Examined By:	
Judgments:		[V] Conforms		Xin zheng		Zhengguo Yao	
		[] Does Not Conform					



ANLAN TECHNOLOGY (JIANGSU) CO.,LTD

Customer:		Customer PO#:		Date:			
Drawing #:	PFF105/180A N-00	Specification:	API Spec 6A 21st /ASTM E10	API Monogram:	6A-2074	Report #:	20230303-01
Part No.:	X-182589-01	Material:	AISI 410 75K			Coating:	/
Description:	7-1/16"15000psi Gate					Quantity:	1
Item	S/N	Heat Log No.	Hardness	Item	S/N	Heat Log No.	Hardness
1	AP064588	HC2302005-01	232HBW				

Sketch:

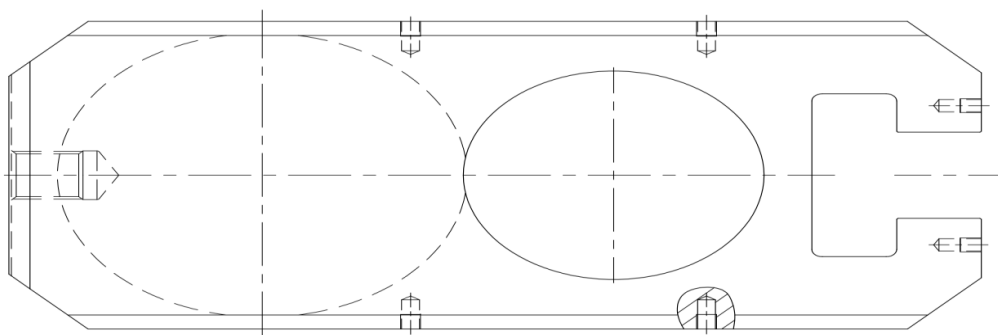
The sketch shows a top-down view of a rectangular gate valve body with rounded corners. It features two large circular openings representing the flow paths. The left opening has dashed concentric circles indicating different diameters or stages. Four bolted connections are shown along the top edge, and one at the bottom center. On the right side, there's a complex assembly likely part of the actuator mechanism, featuring more bolts and structural details. A horizontal centerline runs through both circular openings, and vertical centerlines mark their respective centers.

Method Used:	Impact Energy: 3000Kg.	Diameter of tungsten ball: 10mm	
Acceptable Hardness:	207HBW-235HBW	Approved By:	Examined By:
Judgments:	[V] Conforms	Xin zheng	Zhengguo Yao
	[] Does Not Conform		

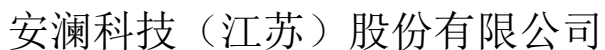
HARDNESS TEST REPORT

[illegible]

Sketch:

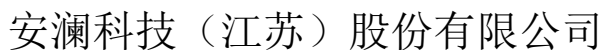


Method Used:	Impact Energy: 5Kg-f(49.03N).		
Acceptable Hardness:	≥1050HV	Approved By:	Examined By:
Judgments:	[V] Conforms	Xin zheng	Zhengguo Yao
	[] Does Not Conform		



ANLAN TECHNOLOGY (JIANGSU) CO.,LTD

Customer:			Customer PO#:			Date:	
Drawing #:	PFF105/180A N-00	Specification:	API Spec 6A 21st /ASTM E10		API Monogram:	6A-2074	Report #: 20230309-05
Part No.:	X-182590-01	Material:	AISI 410 75K			Coating:	/
Description:	7-1/16"15000psi Body bushing					Quantity:	2
Item	S/N	Heat Log No.	Hardness	Item	S/N	Heat Log No.	Hardness
1	AS001068	HC2302005-01	229HBW				
2	AP064510	HC2302005-01	216HBW				
Sketch:							
Method Used:		Impact Energy: 3000Kg.		Diameter of tungsten ball: 10mm			
Acceptable Hardness:		207HBW-235HBW		Approved By:		Examined By:	
Judgments:		[V] Conforms		Xin zheng		Zhengguo Yao	
		[] Does Not Conform					



ANLAN TECHNOLOGY (JIANGSU) CO.,LTD

Customer:			Customer PO#:			Date:	
Drawing #:	PFF105/180A N-00	Specification:	API Spec 6A 21st /ASTM E92		API Monogram:	6A-2074	Report #: 20230309-06
Part No.:	X-182590-01	Material:	AISI 410 75K			Coating:	WC
Description:	7-1/16"15000psi Body bushing					Quantity:	2
Item	S/N	Heat Log No.	Hardness	Item	S/N	Heat Log No.	Hardness
1	AS001068	HC2302005-01	1314HV				
2	AP064510	HC2302005-01	1197HV				
Sketch:							
Method Used:		Impact Energy: 5Kg-f(49.03N).					
Acceptable Hardness:		≥1050HV		Approved By:		Examined By:	
Judgments:		[V] Conforms		Xin zheng		Zhengguo Yao	
		[] Does Not Conform					

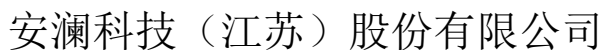


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ANLAN TECHNOLOGY (JIANGSU) CO.,LTD

HARDNESS TEST REPORT

Customer:				Customer PO#:	1456		Date:	2023.02
Drawing #:	PFF105/180A N-00	Specification:	API Spec 6A 21st /ASTM E18		API Monogram:	6A-2074	Report #:	HS-0222-004
Part No.:	X-182591-01	Material:	PH17-4 105K				Coating:	/
Description:	7-1/16"15000psi Balance Stem						Quantity:	1
Item	S/N	Heat Log No.	Hardness	Item	S/N	Heat Log No.	Hardness	
1	AP064381	HY230114-1	30HRC					
Sketch:								
Method Used:								
Acceptable Hardness:	27HRC-33HRC		Approved By:		Examined By:			
Judgments:	☒ V] Conforms		Xin zheng		Zhengguo Yao			
	☐] Does Not Conform							



ANLAN TECHNOLOGY (JIANGSU) CO.,LTD

Customer:				Customer PO#:	1456		Date:	2023.03	
Drawing #:	PFF105/180A N-00	Specification:	API Spec 6A 21st /ASTM A388	API Monogram:	6A-2074		Report #:	UTS-0309-001	
Part No.:	X-182734-01	Material:	AISI 4130 75K				Coating:	/	
Description:	7-1/16"15000psi Body						Quantity:	1	
Item	S/N	Heat Log No.	Result	Item	S/N		Heat Log No.	Result	
1	AS007001	RD-0306-012	Acceptable						
ABOVE FORGED ARE TESTED ULTRASONICALLY FOR INTERNAL DEFECTS, AND THERE WAS NO RECORDABLE INDICATION OBSERVED DURING THE TEST. HENCE ACCEPTABLE AS PER STANDARD.									
UT Code:	ASTM A388		Technique:	STRAIGHT PROBE		Examined By:	Dongkai Xu		
Exam. Stage:	Rough After		Calibration:	Block: CSK -I A Φ 1.6 FBH Block Φ 3.2 FBH Block Φ 6.4 FBH Block		Level as per UT:	II		
Equipment:	MUT-800C		Couplant:	OIL					
Date of calibration	2023.03.02								
Period of validity	2024.03.02								
Probe Used:	2.5P Φ 14+ Φ 20		Acceptance Criteria:	API Spec. 6A 21st		Approved by:	Xin Zheng		
Instrmt/Ident.#:	FD14082504		Test Gain:	Φ 1.6DAC+6dB Φ 3.2DAC+6dB Φ 6.4DAC+6dB		Level as per UT:	II		



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ANLAN TECHNOLOGY (JIANGSU) CO.,LTD

ULTRASONIC EXAMINATION REPORT

Customer:				Customer PO#:			Date:	
Drawing #:		Specification:		API Monogram:		Report #:		
Part No.:		Material:				Coating:		
Description:	7-1/16"15000psi Upper Bonnet					Quantity:	1	
Item	S/N	Heat Log No.	Result	Item	S/N	Heat Log No.	Result	
1	AP064073	RD-0202-003	Acceptable					
ABOVE FORGED ARE TESTED ULTRASONICALLY FOR INTERNAL DEFECTS, AND THERE WAS NO RECORDABLE INDICATION OBSERVED DURING THE TEST. HENCE ACCEPTABLE AS PER STANDARD.								
UT Code:	ASTM A388	Technique:	STRAIGHT PROBE		Examined By:	Dongkai Xu		
Exam. Stage:	Rough After	Calibration:	Block: CSK -I A Φ 1.6 FBH Block Φ 3.2 FBH Block		Level as per UT:	II		
Equipment:	MUT-800C	Couplant:	OIL					
Date of calibration	2023.03.02							
Period of validity	2024.03.02							
Probe Used:	2.5P Φ 14+ Φ 20	Acceptance Criteria:	API Spec. 6A 21st		Approved by:	Xin Zheng		
Instrmt/Ident.#:	FD14082504	Test Gain:	Φ 1.6DAC+6dB Φ 3.2DAC+6dB		Level as per UT:	II		

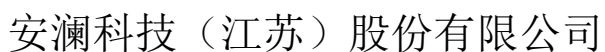


安澜科技（江苏）股份有限公司

ANLAN TECHNOLOGY (JIANGSU) CO.,LTD

ULTRASONIC EXAMINATION REPORT

Customer:				Customer PO#:	1456		Date:	2023.03	
Drawing #:	PFF105/180A N-00	Specification:	API Spec 6A 21st /ASTM A388		API Monogram:	6A-2074	Report #:	UTS-0310-00 1	
Part No.:	X-182586-01	Material:	AISI 4130 75K				Coating:	/	
Description:	7-1/16"15000psi Lower Bonnet						Quantity:	1	
Item	S/N	Heat Log No.	Result	Item	S/N	Heat Log No.	Result		
1	AS007029	RD-03-09	Acceptable						
ABOVE FORGED ARE TESTED ULTRASONICALLY FOR INTERNAL DEFECTS, AND THERE WAS NO RECORDABLE INDICATION OBSERVED DURING THE TEST. HENCE ACCEPTABLE AS PER STANDARD.									
UT Code:	ASTM A388		Technique:	STRAIGHT PROBE		Examined By:	Dongkai Xu		
Exam. Stage:	Rough After		Calibration:	Block: CSK -I A Φ 1.6 FBH Block Φ 3.2 FBH Block		Level as per UT:	II		
Equipment:	MUT-800C		Couplant:	OIL					
Date of calibration	2023.03.02								
Period of validity	2024.03.02								
Probe Used:	2.5P Φ 14+ Φ 20		Acceptance Criteria:	API Spec. 6A 21st		Approved by:	Xin Zheng		
Instrmt/Ident.#:	FD14082504		Test Gain:	Φ 1.6DAC+6dB Φ 3.2DAC+6dB		Level as per UT:	II		



ULTRASONIC EXAMINATION REPORT

ABOVE FORGED ARE TESTED ULTRASONICALLY FOR INTERNAL DEFECTS, AND THERE WAS NO RECORDABLE INDICATION SERVED DURING THE TEST. HENCE ACCEPTABLE AS PER STANDARD.

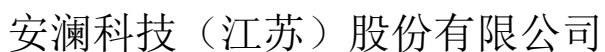


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ANLAN TECHNOLOGY (JIANGSU) CO.,LTD

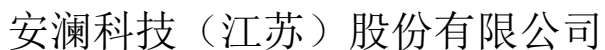
ULTRASONIC EXAMINATION REPORT

Customer:			Customer PO#:			Date:	
Drawing #:	PFF105/180AN-00	Specification:	API Spec 6A 21st /ASTM A388	API Monogram:	6A-2074	Report #:	UTS-0212-003
Part No.:	X-182591-01	Material:	PH17-4 105K			Coating:	/
Description:	7-1/16"15000psi Balance Stem					Quantity:	1
Item	S/N	Heat Log No.	Result	Item	S/N	Heat Log No.	Result
1	AP064381	HY230114-1	Acceptable				
ABOVE FORGED ARE TESTED ULTRASONICALLY FOR INTERNAL DEFECTS, AND THERE WAS NO RECORDABLE INDICATION OBSERVED DURING THE TEST. HENCE ACCEPTABLE AS PER STANDARD.							
UT Code:	ASTM A388	Technique:	STRAIGHT PROBE		Examined By:	Dongkai Xu	
Exam. Stage:	Rough After	Calibration:	Block: CSK -I A Φ 1.6 FBH Block Φ 3.2 FBH Block		Level as per UT:	II	
Equipment:	MUT-800C	Couplant:	OIL				
Date of calibration	2023.03.02						
Period of validity	2024.03.02						
Probe Used:	2.5P Φ 14+Φ 20	Acceptance Criteria:	API Spec. 6A 21st		Approved by:	Xin Zheng	
Instrmt/Ident.#:	FD14082504	Test Gain:	Φ 1.6DAC+6dB Φ 3.2DAC+6dB		Level as per UT:	II	



MAGNETIC PARTICLE INSPECTION REPORT

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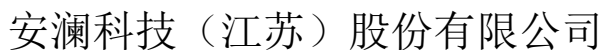


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[illegible]

Fluorescent magnetic particle inspection was performed on all accessible wetted/sealing surfaces.

Evaluation & Disposition:	Found to be satisfactory		
Inspected by:	Dongkai Xu	Organization:	QC Department
Approved by:	Xin Zheng		
NDT Level:	MT II	Date:	2023.03

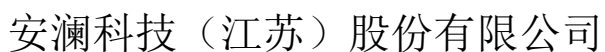


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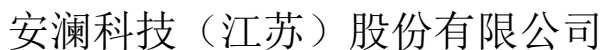
Fluorescent magnetic particle inspection was performed on all accessible wetted/sealing surfaces.

Evaluation & Disposition:	Found to be satisfactory		
Inspected by:	Dongkai Xu	Organization:	QC Department
Approved by:	Xin Zheng		
NDT Level:	MT II	Date:	2023.03



ANLAN TECHNOLOGY (JIANGSU) CO.,LTD

Customer:		Customer PO#:	1456		Date:	2023.03	
Drawing #:	PFF105/180AN-00	Specification:	QJ/JJ07.01.03.02/ ASTM E165	API Monogram:	6A-2074	Report #:	PTS-0311-001
Part No.:	X-182588-01	Material:	PH17-4-105K			Coating:	/
Description:	7-1/16"15000psi Stem					Quantity:	1
Test Method:	Type II Method C	Acceptance Criteria:	API 6A 21st/PSL3	Penetrate Type:		DPT-5	
Remover Type:	DPT-5	Developer Type:	DPT-5	Light Intensity:		≥1076Lx	
Stage:	Machined	Penetrate Time:	10min	Develop Time:		10min	
Item	S/N	Heat Log No.	Result	Item	S/N	Heat Log No.	Result
1	AS007177	HY230227-1	Acceptable				
Inspection Coverage:							
Liquid penetrate examination was performed on all accessible wetted/sealing surfaces.							
Evaluation & Disposition:	Found to be satisfactory						
Inspected by:	Dongkai Xu			Organization:	QC Department		
Approved by:	Xin Zheng						
NDT Level:	MT II			Date:	2023.03		



ANLAN TECHNOLOGY (JIANGSU) CO.,LTD

[illegible]

Fluorescent magnetic particle inspection was performed on all accessible wetted/sealing surfaces.

Evaluation & Disposition:	Found to be satisfactory		
Inspected by:	Dongkai Xu	Organization:	QC Department
Approved by:	Xin Zheng		
NDT Level:	MT II	Date:	2023.03

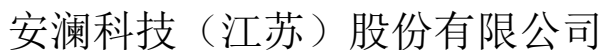


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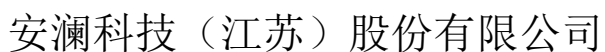
LIQUID PENETRATE EXAMINATION

Customer:				Customer PO#:	1456		Date:	2023.03	
Drawing #:	PFF105/180AN-00	Specification:	QJ/JJ07.01.03.02/ ASTM E165		API Monogram:	6A-2074	Report #:	NCS-2303-H29	
Part No.:	X-182589-01	Material:	AISI 410 75K				Coating:	WC	
Description:	7-1/16"15000psi Gate						Quantity:	1	
Test Method:	Type II Method C	Acceptance Criteria:	API 6A 21st/PSL3		Penetrate Type:		DPT-5		
Remover Type:	DPT-5	Developer Type:	DPT-5		Light Intensity:		≥1076Lx		
Stage:	Machined	Penetrate Time:	10min		Develop Time:		10min		
Item	S/N	Heat Log No.	Result	Item	S/N	Heat Log No.	Result		
1	AP064588	HC2302005-01	Acceptable						
Inspection Coverage:									
Liquid penetrate examination was performed on all accessible wetted/sealing surfaces.									
Evaluation & Disposition:	Found to be satisfactory								
Inspected by:	Dongkai Xu			Organization:	QC Department				
Approved by:	Xin Zheng								
NDT Level:	MT II			Date:	2023.03				



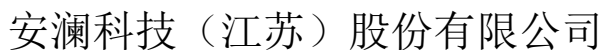
ANLAN TECHNOLOGY (JIANGSU) CO.,LTD

Customer:			Customer PO#:	1456		Date:	2023.03	
Drawing #:	PFF105/180AN-00	Specification:	API Spec 6A 21st /ASTM E709	API Monogram:	6A-2074	Report #:	NCS-2303-Q18	
Part No.:	X-182590-01	Material:	AISI 410 75K			Coating:	/	
Description:	7-1/16"15000psi Body Bushing					Quantity:	2	
Equipment:	CYD-5000	Acceptance Criteria:	API 6A 21st/PSL3		Circular AMPS:		3200A	
Test Method:	Fluorescence Wet Continuous	Particle Type:	Fluorescence		UV-Light Intensity:		≥1000Uw/cm²	
Stage:	Machined	Concentration:	0.2ml/100ml		Magnetizing Time:		1-3S	
Item	S/N	Heat Log No.	Result	Item	S/N	Heat Log No.	Result	
1	AS001068	HC2302005-01	Acceptable					
2	AP064510	HC2302005-01	Acceptable					
Inspection Coverage:								
Fluorescent magnetic particle inspection was performed on all accessible wetted/sealing surfaces.								
Evaluation & Disposition:		Found to be satisfactory						
Inspected by:		Dongkai Xu		Organization:		QC Department		
Approved by:		Xin Zheng						
NDT Level:		MT II		Date:		2023.03		



LIQUID PENETRATE EXAMINATION

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LIQUID PENETRATE EXAMINATION

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安澜科技（江苏）股份有限公司

ANLAN TECHNOLOGY (JIANGSU) CO.,LTD

HYDROSTATIC TEST REPORT

Customer:				Customer PO#:	1456		Date:	2023.03	
Drawing #:	PFF105/180A N-00	Specification:	API6A-21st	API Monogram:	6A-2074	Report #:	AS007F014		
Part No.:	X-182734-01	Material:	AISI 4130 75K			Coating:	/		
Description:	7-1/16"15000psi					Quantity:	1		
Item	Pressure	Method			Qty	Result			
Shell	22500psi	API 6A 21st			1	OK			
Seat	15000psi	API 6A 21st			1	OK			
Item	S/N	Heat Log No.	Result		Item	S/N	Heat Log No.	Result	
			A	B				A	B
1	AS007001	RD-0306-012	OK	OK					
Drift Test:									
Diameter ϕ 179.7 mm drift test gauge can freely pass through the through hole of the valve.									
Inspection Coverage:									
Per Specification & Requirements: API 6A 21st									
Judgments:					Approved By:		Examined By:		
☒ V] Conforms					Xin Zheng		Yifei Ma		
☐] Does Not Conform									



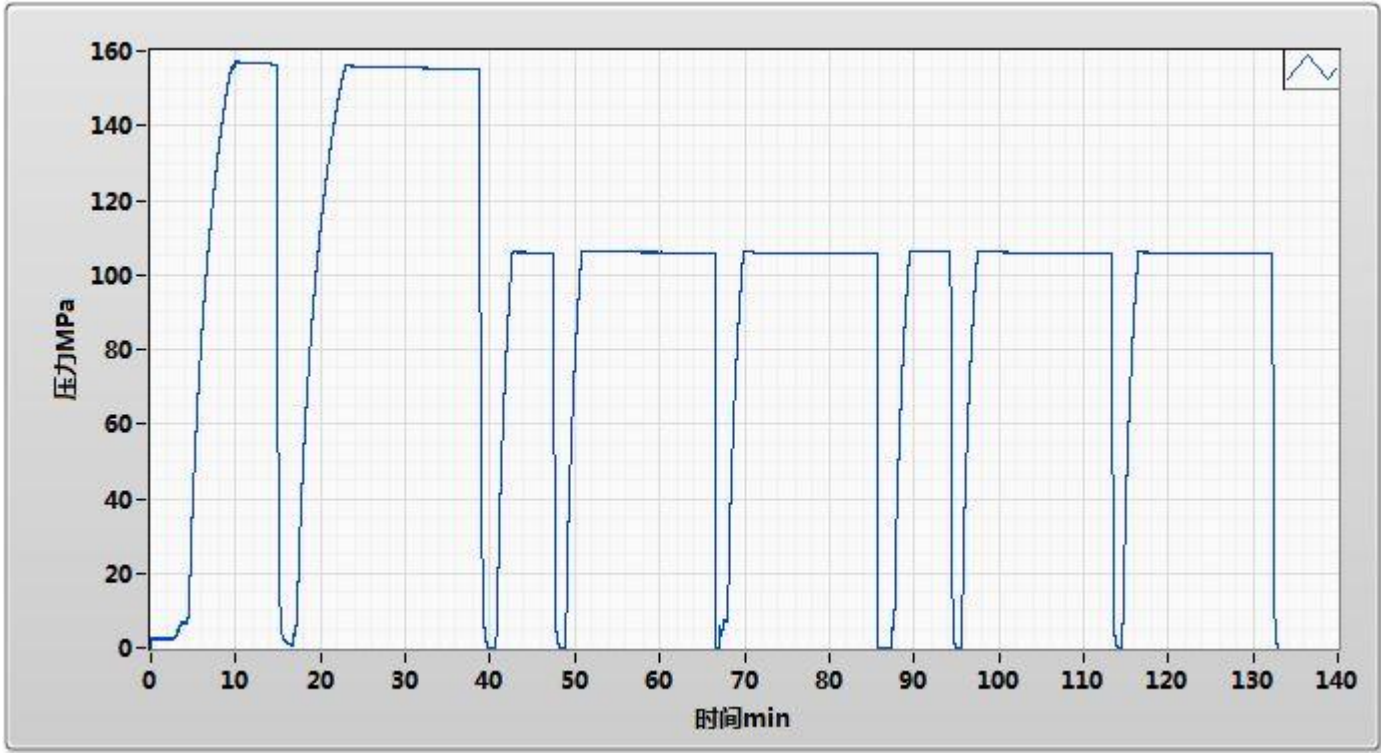
Pressure Test Report

Product Information

PRODUCT NAME	PRODUCT NO.	SPECS	PRESSURE TEST STANDARDS	TEST PART	EQUIPMENT NO.	BRAND
MANUAL GATE VALVE	AS007F014	7-1/16" 15000Psi	API 6A 21st	Shell & Seat	2#	

Test Data

LEVEL	INITIAL PRESSURE (Mpa)	TERMINATED PRESSURE (Mpa)	HOLDING TIME (Min)	PRESSURE DROPPING (Mpa)
1	156.95	156.43	4.0	0.51
2	155.99	155.24	15.0	0.75
3	106.04	106.00	4.0	0.04
4	106.15	105.98	15.0	0.17
5	106.07	105.53	15.0	0.54
6	106.20	106.03	4.0	0.17
7	106.15	105.79	15.0	0.37
8	106.04	105.81	15.0	0.23



TESTED BY:	INSPECTED BY:	REVIEWED BY:	DATE:
Yifei Ma	Xin Zheng	Zhicheng Feng	2023.03.18



REPORT INDEX

Purchase Order:1456

Quantity:1EA

Shipment No.:Crate#AS007F017

Shipment Date:April,2023

Activity No.	Characteristics	Reference Page
1	CERTIFICATE OF CONFORMITY	Page - 2
2	Metallurgical Test Certificate	Page - 3
2.1	Mechanical Testing	Page - 3
2.2	Chemical Testing	Page -3
2.3	Heat Treatment	Page - 3
3	Hardness Test	Page - 4-12
4	Ultrasonic Testing	Page - 13-17
5	Magnetic Particle Inspection Report	Page - 18-26
6	Hydrostatic Test	Page - 27-28



CERTIFICATE OF CONFORMITY

THE FOLLOWING ITEM IS IN CONFORMITY WITH PO # 1456, DRAWINGS AND ITS TECHNICAL REQUIREMENTS. IT IS MADE PER API – 6A MONOGRAM SPECIFICATIONS, EE-0.5 CLASS, PSL3, PR1, LU. AND IT IS MADE OF MATERIAL (4130,75K YIELD) FOR NACE H2S SERVICE UNDER THE CURRENT NACE MR0175 EDITION.

ITEM:
PO #: 1456
SERIAL NO.: AS007F017
PART NO.: PFF105/180AN-00
QANTITY: 1
INSPECTION STANDARD: API Spec 6A 21st EE-0.5, PSL3, PR1, LU

THIS COMMODITY HAS PASSED ALL THE TECHNICAL AND PERFORMANCE TESTS CARRIED BY QUALITY CONTROL/INSPECTION DEPARTMENT.

COMPANY NAME:	INSPECTOR:Zhicheng Feng
(STAMP)	CHIEF ENGINEER: Xin Zheng
	EX-FACTORY DATE: April,2023
Customer: _____	P.O. Number: <u>1456</u>



No.: AV00012

安澜科技（江苏）股份有限公司

ANLAN TECHNOLOGY (JIANGSU) CO.,LTD
Certified Material Test Report

Date:April,2023

Customer		PO No.		Product				P/N		Serial No.		Qty	Size		WP (psi)		Material		PSL	Temp	Specifications			
		1456		MANUAL GATE VALVE				PFF105/180AN-00		AS007F017		1	7-1/16"		15000Psi		EE-0.5		PSL3	LU	API Spec 6A 21st			
Description							Melting Practice				Heat Treatment													
P/N	Parts	Melt No.	H.T. No.	Material Spec Standards		Qty	Serial No.	Finished	Austenized		Quenched			Temper(1)			Temper(2)							
									Temp (°C)	Time (min)	Medium	Start Temp	Finish Temp	Temp (°C)	Time (min)	Medium	Temp (°C)	Time (min)	Medium					
PFF105/180AN-00	BODY	TX22-05909	HY230325-1	AISI 4130 75K,Per ASTM A29		1	AS001008	Forging	870	5.5H	WATER	18	22	665	7.5H	AIR	/	/	/					
	UPPER BONNET	22VD0368	RD-03-18	AISI 4130 75K,Per ASTM A29		1	AS007017	Forging	860	5.0H	WATER	26	39	690	7.0H	AIR	/	/	/					
	LOWER BONNET	TX22-05906	HY230214-3	AISI 4130 75K,Per ASTM A29		1	AP064108	Forging	870	4.5H	WATER	16	19	680	6.5H	AIR	/	/	/					
	STEM	YX2212-2116	HY230227-1	PH17-4 105K,Per ASTM A564/564M		1	AS001047	Forging	1030	3.0H	WATER	17	20	630	4.5H	AIR	630	4.5H	AIR					
	BALANCE STEM	YX2301-1601	HY230211-4	PH17-4 105K,Per ASTM A564/564M		1	AS007090	Forging	1030	3.5H	WATER	14	17	630	5.0H	AIR	630	5.2H	AIR					
	GATE	122V-1118	HC2302005-01	AISI 410 75K,Per ASTM A276/276M		1	AS007134	Forging	960	3.0H	OIL	39	51	720	6.0H	AIR	680	6.0H	AIR					
	BODY BUSHING	122V-1118	HC2302005-01	AISI 410 75K,Per ASTM A276/276M		2	AS007113 AS007125	Forging	960	3.0H	OIL	39	51	720	6.0H	AIR	680	6.0H	AIR					
Melt No.	H.T. No.	Chemical Analysis (wt, %)													Physical Properties									
		C	Mn	Si	P	S	Cr	Ni	Mo	V	Co	W	Cu	Nb	Fe	Spec Size	Spec Origin	Tensile (MPa)	Yield (MPa)	Elongation (%)	ROA (%)	Impact(-46°C) Impact direction (Transverse)	Hardness	Equipment Type
TX22-05909	HY230325-1	0.31	0.66	0.29	0.008	0.004	1.06	0.21	0.211	0.006	/	/	0.03	/	/	8"x8"x10"	QTC	707	540	23.2	65.8	44/59/50	221HBW	JBW-300B/ WDW-300
22VD0368	RD-03-18	0.316	0.732	0.301	0.008	0.004	1.08	0.25	0.216	0.007	/	/	0.091	/	/	8"x8"x10"	QTC	677	544	54.0	60.0	62/65/56	222HBW	JBW-300B/ WDW-300
TX22-05906	HY230214-3	0.31	0.67	0.26	0.009	0.003	1.04	0.20	0.217	0.006	/	/	0.02	/	/	8"x8"x10"	QTC	729	557	22.4	72.1	41/85/79	224HBW	JBW-300B/ WDW-300
YX2212-2116	HY230227-1	0.024	0.55	0.36	0.032	0.002	15.66	4.08	/	/	/	/	3.62	0.235	/	Φ 80x200	QTC	1022	927	21.3	58.5	36/49/47	31HRC	JBW-300B/ WDW-300
YX2301-1601	HY230211-4	0.026	0.56	0.41	0.032	0.001	15.70	4.08	/	/	/	/	3.63	0.240	/	Φ 80x200	QTC	1038	645	20.7	58.2	47/33/62	32HRC	JBW-300B/ WDW-300
122V-1118	HC2302005-01	0.14	0.40	0.22	0.012	0.006	11.66	0.06	0.042	0.034	/	/	0.027	/	/	100x100x200	QTC	690	580	24.0	66.0	/	226HBW	JBW-300B/ WDW-300
122V-1118	HC2302005-01	0.14	0.40	0.22	0.012	0.006	11.66	0.06	0.042	0.034	/	/	0.027	/	/	100x100x200	QTC	690	580	24.0	66.0	/	226HBW	JBW-300B/ WDW-300

This is to certify that all above items have been tested and inspected per scope of specifications, drawings, and the purchase order and have been found to be satisfactory.

The information in this report is true and correct to our knowledge.

Xin Zheng

NAME of QA Manager, for and on the authority of COMPANY NAME



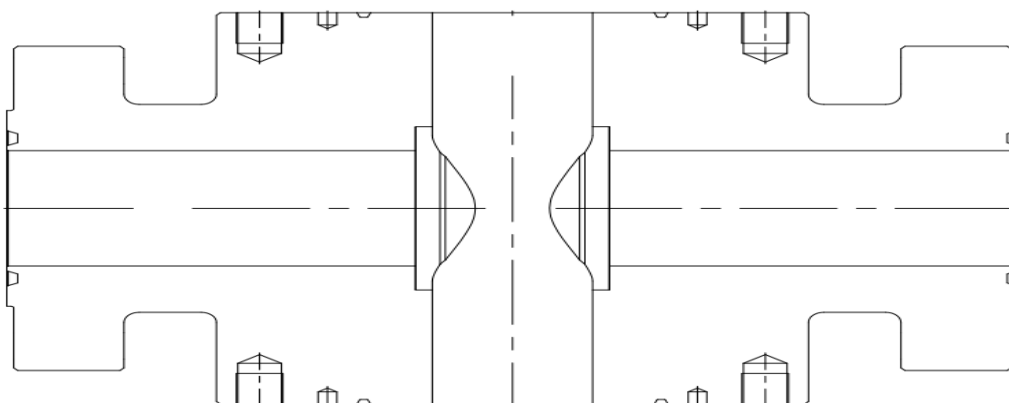
安澜科技（江苏）股份有限公司

ANLAN TECHNOLOGY (JIANGSU) CO.,LTD

HARDNESS TEST REPORT

Customer:			Customer PO#:			Date:	
Drawing #:	PFF105/180A N-00	Specification:	API Spec 6A 21st /ASTM E10	API Monogram:	6A-2074	Report #:	HS-0403-001
Part No.:	X-182734-01	Material:	AISI 4130 75K			Coating:	/
Description:	7-1/16"15000psi Body					Quantity:	1
Item	S/N	Heat Log No.	Hardness	Item	S/N	Heat Log No.	Hardness
1	AS001008	HY230325-1	212HBW/210HBW 222HBW/215HBW				

Sketch:



Method Used:	Impact Energy: 3000Kg.	Diameter of tungsten ball: 10mm	
Acceptable Hardness:	197HBW-235HBW	Approved By:	Examined By:
Judgments:	[V] Conforms	Xin zheng	Zhengguo Yao
	[] Does Not Conform		



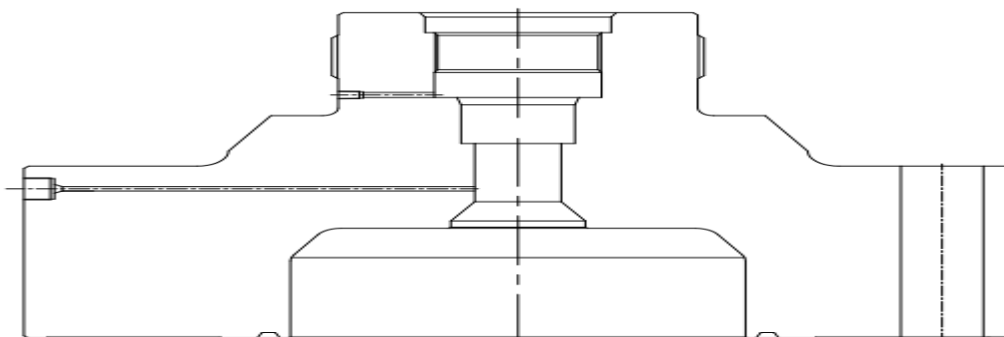
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ANLAN TECHNOLOGY (JIANGSU) CO.,LTD

HARDNESS TEST REPORT

Customer:			Customer PO#:			Date:		
Drawing #:	PFF105/180A N-00	Specification:	API Spec 6A 21st /ASTM E10	API Monogram:	6A-2074	Report #:	HS-0328-005	
Part No.:	X-182585-01	Material:	AISI 4130 75K			Coating:	/	
Description:	7-1/16"15000psi Upper Bonnet					Quantity:	1	
Item	S/N	Heat Log No.	Hardness	Item	S/N	Heat Log No.	Hardness	
1	AS007017	RD-03-18	213HBW					

Sketch:



Method Used:	Impact Energy: 3000Kg.	Diameter of tungsten ball: 10mm	
Acceptable Hardness:	197HBW-235HBW	Approved By:	Examined By:
Judgments:	[V] Conforms	Xin zheng	Zhengguo Yao
	[] Does Not Conform		



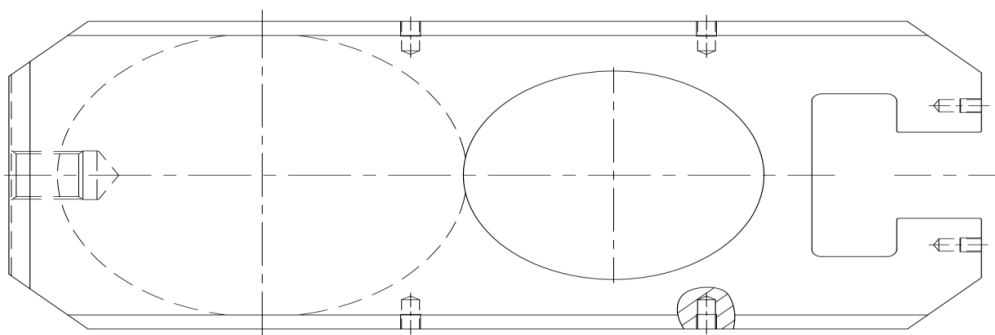
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ANLAN TECHNOLOGY (JIANGSU) CO.,LTD

HARDNESS TEST REPORT

Customer:			Customer PO#:			Date:	
Drawing #:	PFF105/180A N-00	Specification:	API Spec 6A 21st /ASTM E92	API Monogram:	6A-2074	Report #:	20230406-03
Part No.:	X-182589-01	Material:	AISI 410 75K			Coating:	WC
Description:	7-1/16"15000psi Gate					Quantity:	1
Item	S/N	Heat Log No.	Hardness	Item	S/N	Heat Log No.	Hardness
1	AS007134	HC2302005-01	1197HV				

Sketch:



Method Used:	Impact Energy: 5Kg-f(49.03N).		
Acceptable Hardness:	≥1050HV	Approved By:	Examined By:
Judgments:	[V] Conforms	Xin zheng	Zhengguo Yao
	[] Does Not Conform		



安澜科技（江苏）股份有限公司

ANLAN TECHNOLOGY (JIANGSU) CO.,LTD

HARDNESS TEST REPORT

Customer:				Customer PO#:	1456		Date:	2023.03
Drawing #:	PFF105/180A N-00	Specification:	API Spec 6A 21st /ASTM E18		API Monogram:	6A-2074	Report #:	HS-0321-001
Part No.:	X-182591-01	Material:	PH17-4 105K				Coating:	/
Description:	7-1/16"15000psi Balance Stem						Quantity:	1
Item	S/N	Heat Log No.	Hardness	Item	S/N	Heat Log No.	Hardness	
1	AS007090	HY230211-4	30HRC					
Sketch:								
								
Method Used:								
Acceptable Hardness:	27HRC-33HRC		Approved By:		Examined By:			
Judgments:	☐ V] Conforms		Xin zheng		Zhengguo Yao			
	☐] Does Not Conform							



安澜科技（江苏）股份有限公司

ANLAN TECHNOLOGY (JIANGSU) CO.,LTD

ULTRASONIC EXAMINATION REPORT

Customer:			Customer PO#:			Date:	
Drawing #:		Specification:		API Monogram:		Report #:	
Part No.:		Material:				Coating:	
Description:	7-1/16"15000psi Upper Bonnet					Quantity:	1
Item	S/N	Heat Log No.	Result	Item	S/N	Heat Log No.	Result
1	AS007017	RD-03-18	Acceptable				
ABOVE FORGED ARE TESTED ULTRASONICALLY FOR INTERNAL DEFECTS, AND THERE WAS NO RECORDABLE INDICATION OBSERVED DURING THE TEST. HENCE ACCEPTABLE AS PER STANDARD.							
UT Code:	ASTM A388	Technique:	STRAIGHT PROBE		Examined By:	Dongkai Xu	
Exam. Stage:	Rough After	Calibration:	Block: CSK -I A Φ 1.6 FBH Block Φ 3.2 FBH Block		Level as per UT:	II	
Equipment:	MUT-800C	Couplant:	OIL				
Date of calibration	2023.03.02						
Period of validity	2024.03.02						
Probe Used:	2.5P Φ 14+ Φ 20	Acceptance Criteria:	API Spec. 6A 21st		Approved by:	Xin Zheng	
Instrmt/Ident.#:	FD14082504	Test Gain:	Φ 1.6DAC+6dB Φ 3.2DAC+6dB		Level as per UT:	II	



安澜科技（江苏）股份有限公司

ANLAN TECHNOLOGY (JIANGSU) CO.,LTD

ULTRASONIC EXAMINATION REPORT

Customer:				Customer PO#:	1456		Date:	2023.02	
Drawing #:	PFF105/180A N-00	Specification:	API Spec 6A 21st /ASTM A388	API Monogram:	6A-2074	Report #:	UTS-0225-00 4		
Part No.:	X-182586-01	Material:	AISI 4130 75K			Coating:	/		
Description:	7-1/16"15000psi Lower Bonnet					Quantity:	1		
Item	S/N	Heat Log No.	Result	Item	S/N	Heat Log No.	Result		
1	AP064108	HY230214-3	Acceptable						
ABOVE FORGED ARE TESTED ULTRASONICALLY FOR INTERNAL DEFECTS, AND THERE WAS NO RECORDABLE INDICATION OBSERVED DURING THE TEST. HENCE ACCEPTABLE AS PER STANDARD.									
UT Code:	ASTM A388	Technique:	STRAIGHT PROBE		Examined By:	Dongkai Xu			
Exam. Stage:	Rough After	Calibration:	Block: CSK -I A Φ 1.6 FBH Block Φ 3.2 FBH Block		Level as per UT:	II			
Equipment:	MUT-800C	Couplant:	OIL						
Date of calibration	2023.03.02								
Period of validity	2024.03.02								
Probe Used:	2.5P Φ 14+ Φ 20	Acceptance Criteria:	API Spec. 6A 21st		Approved by:	Xin Zheng			
Instrmt/Ident.#:	FD14082504	Test Gain:	Φ 1.6DAC+6dB Φ 3.2DAC+6dB		Level as per UT:	II			



安澜科技（江苏）股份有限公司

ANLAN TECHNOLOGY (JIANGSU) CO.,LTD

ULTRASONIC EXAMINATION REPORT

Customer:				Customer PO#:	1456		Date:	2023.03	
Drawing #:	PFF105/180A N-00	Specification:	API Spec 6A 21st /ASTM A388	API Monogram:	6A-2074		Report #:	UTS-0307-00 2	
Part No.:	X-182588-01	Material:	PH17-4 105K			Coating:	/		
Description:	7-1/16"15000psi Stem						Quantity:	1	
Item	S/N	Heat Log No.	Result	Item	S/N	Heat Log No.	Result		
1	AS001047	HY230227-1	Acceptable						
ABOVE FORGED ARE TESTED ULTRASONICALLY FOR INTERNAL DEFECTS, AND THERE WAS NO RECORDABLE INDICATION OBSERVED DURING THE TEST. HENCE ACCEPTABLE AS PER STANDARD.									
UT Code:	ASTM A388		Technique:	STRAIGHT PROBE		Examined By:	Dongkai Xu		
Exam. Stage:	Rough After		Calibration:	Block: CSK -I A Φ 1.6 FBH Block Φ 3.2 FBH Block		Level as per UT:	II		
Equipment:	MUT-800C		Couplant:	OIL					
Date of calibration	2023.03.02								
Period of validity	2024.03.02								
Probe Used:	2.5P Φ 14+ Φ 20		Acceptance Criteria:	API Spec. 6A 21st		Approved by:	Xin Zheng		
Instrmt/Ident.#:	FD14082504		Test Gain:	Φ 1.6DAC+6dB Φ 3.2DAC+6dB		Level as per UT:	II		

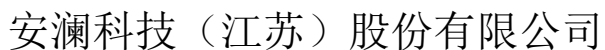


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ANLAN TECHNOLOGY (JIANGSU) CO.,LTD

ULTRASONIC EXAMINATION REPORT

Customer:			Customer PO#:			Date:	
Drawing #:	PFF105/180AN-00	Specification:	API Spec 6A 21st /ASTM A388	API Monogram:	6A-2074	Report #:	UTS-0315-00 1
Part No.:	X-182591-01	Material:	PH17-4 105K			Coating:	/
Description:	7-1/16"15000psi Balance Stem					Quantity:	1
Item	S/N	Heat Log No.	Result	Item	S/N	Heat Log No.	Result
1	AS007090	HY230211-4	Acceptable				
ABOVE FORGED ARE TESTED ULTRASONICALLY FOR INTERNAL DEFECTS, AND THERE WAS NO RECORDABLE INDICATION OBSERVED DURING THE TEST. HENCE ACCEPTABLE AS PER STANDARD.							
UT Code:	ASTM A388	Technique:	STRAIGHT PROBE		Examined By:	Dongkai Xu	
Exam. Stage:	Rough After	Calibration:	Block: CSK -I A Φ 1.6 FBH Block Φ 3.2 FBH Block		Level as per UT:	II	
Equipment:	MUT-800C	Couplant:	OIL				
Date of calibration	2023.03.02						
Period of validity	2024.03.02						
Probe Used:	2.5P Φ 14+Φ 20	Acceptance Criteria:	API Spec. 6A 21st		Approved by:	Xin Zheng	
Instrmt/Ident.#:	FD14082504	Test Gain:	Φ 1.6DAC+6dB Φ 3.2DAC+6dB		Level as per UT:	II	

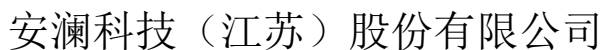


ANLAN TECHNOLOGY (JIANGSU) CO.,LTD

[illegible]

Fluorescent magnetic particle inspection was performed on all accessible wetted/sealing surfaces.

Evaluation & Disposition:	Found to be satisfactory		
Inspected by:	Dongkai Xu	Organization:	QC Department
Approved by:	Xin Zheng		
NDT Level:	MT II	Date:	2023.04



ANLAN TECHNOLOGY (JIANGSU) CO.,LTD

Customer:			Customer PO#:	1456		Date:	2023.03	
Drawing #:	PFF105/180AN-00	Specification:	API Spec 6A 21st /ASTM E709	API Monogram:	6A-2074	Report #:	MTS-0328-002	
Part No.:	X-182585-01	Material:	AISI 4130 75K			Coating:	/	
Description:	7-1/16"15000psi Upper Bonnet					Quantity:	1	
Equipment:	CYD-5000	Acceptance Criteria:	API 6A 21st/PSL3	Circular AMPS:		2500A 3500A		
Test Method:	Fluorescence Wet Continuous	Particle Type:	Fluorescence	UV-Light Intensity:		3490Uw/cm ²		
Stage:	Machined	Concentration:	0.2ml/100ml	Magnetizing Time:		1-3S		
Item	S/N	Heat Log No.	Result	Item	S/N	Heat Log No.	Result	
1	AS007017	RD-03-18	Acceptable					
Inspection Coverage:								
Fluorescent magnetic particle inspection was performed on all accessible wetted/sealing surfaces.								
Evaluation & Disposition:		Found to be satisfactory						
Inspected by:		Dongkai Xu		Organization:		QC Department		
Approved by:		Xin Zheng						
NDT Level:		MT II		Date:		2023.03		

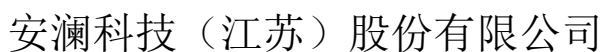


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ANLAN TECHNOLOGY (JIANGSU) CO.,LTD

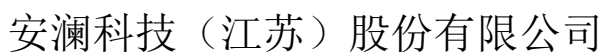
MAGNETIC PARTICLE INSPECTION REPORT

Customer:				Customer PO#:	1456		Date:	2023.03	
Drawing #:	PFF105/180AN-00	Specification:	API Spec 6A 21st /ASTM E709		API Monogram:	6A-2074	Report #:	MTS-0311-004	
Part No.:	X-182586-01	Material:	AISI 4130 75K				Coating:	/	
Description:	7-1/16"15000psi Lower Bonnet						Quantity:	1	
Equipment:	CYD-5000	Acceptance Criteria:	API 6A 21st/PSL3		Circular AMPS:		2500A 3500A		
Test Method:	Fluorescence Wet Continuous	Particle Type:	Fluorescence		UV-Light Intensity:		3490Uw/cm ²		
Stage:	Machined	Concentration:	0.2ml/100ml		Magnetizing Time:		1-3S		
Item	S/N	Heat Log No.	Result	Item	S/N	Heat Log No.	Result		
1	AP064108	HY230214-3	Acceptable						
Inspection Coverage:									
Fluorescent magnetic particle inspection was performed on all accessible wetted/sealing surfaces.									
Evaluation & Disposition:	Found to be satisfactory								
Inspected by:	Dongkai Xu				Organization:	QC Department			
Approved by:	Xin Zheng				Date:	2023.03			
NDT Level:	MT II				Date:	2023.03			



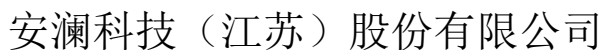
LIQUID PENETRATE EXAMINATION

21



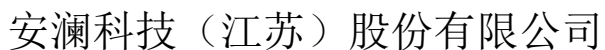
MAGNETIC PARTICLE INSPECTION REPORT

22



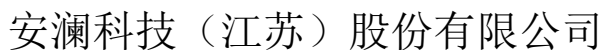
ANLAN TECHNOLOGY (JIANGSU) CO.,LTD

Customer:			Customer PO#:	1456		Date:	2023.04	
Drawing #:	PFF105/180AN-00	Specification:	QJ/JJ07.01.03.02/ ASTM E165		API Monogram:	6A-2074	Report #:	NCS-2304-H11
Part No.:	X-182589-01	Material:	AISI 410 75K				Coating:	WC
Description:	7-1/16"15000psi Gate					Quantity:	1	
Test Method:	Type II Method C	Acceptance Criteria:		API 6A 21st/PSL3	Penetrate Type:		DPT-5	
Remover Type:	DPT-5	Developer Type:		DPT-5	Light Intensity:		≥1076Lx	
Stage:	Machined	Penetrate Time:		10min	Develop Time:		10min	
Item	S/N	Heat Log No.	Result	Item	S/N	Heat Log No.	Result	
1	AS007134	HC2302005-01	Acceptable					
Inspection Coverage:								
Liquid penetrate examination was performed on all accessible wetted/sealing surfaces.								
Evaluation & Disposition:		Found to be satisfactory						
Inspected by:		Dongkai Xu		Organization:		QC Department		
Approved by:		Xin Zheng						
NDT Level:		MT II		Date:		2023.04		



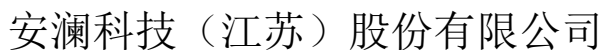
ANLAN TECHNOLOGY (JIANGSU) CO.,LTD

Customer:			Customer PO#:	1456		Date:	2023.04	
Drawing #:	PFF105/180AN-00	Specification:	API Spec 6A 21st /ASTM E709	API Monogram:	6A-2074	Report #:	NCS-2304-Q12	
Part No.:	X-182590-01	Material:	AISI 410 75K			Coating:	/	
Description:	7-1/16"15000psi Body Bushing					Quantity:	2	
Equipment:	CYD-5000	Acceptance Criteria:	API 6A 21st/PSL3	Circular AMPS:		3200A		
Test Method:	Fluorescence Wet Continuous	Particle Type:	Fluorescence	UV-Light Intensity:		≥1000Uw/cm²		
Stage:	Machined	Concentration:	0.2ml/100ml	Magnetizing Time:		1-3S		
Item	S/N	Heat Log No.	Result	Item	S/N	Heat Log No.	Result	
1	AS007113	HC2302005-01	Acceptable					
2	AS007125	HC2302005-01	Acceptable					
Inspection Coverage:								
Fluorescent magnetic particle inspection was performed on all accessible wetted/sealing surfaces.								
Evaluation & Disposition:		Found to be satisfactory						
Inspected by:		Dongkai Xu		Organization:		QC Department		
Approved by:		Xin Zheng						
NDT Level:		MT II		Date:		2023.04		



LIQUID PENETRATE EXAMINATION

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LIQUID PENETRATE EXAMINATION

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安澜科技（江苏）股份有限公司

ANLAN TECHNOLOGY (JIANGSU) CO.,LTD

HYDROSTATIC TEST REPORT

Customer:				Customer PO#:	1456		Date:	2023.04	
Drawing #:	PFF105/180A N-00	Specification:	API6A-21st	API Monogram:	6A-2074	Report #:	AS007F017		
Part No.:	X-182734-01	Material:	AISI 4130 75K			Coating:	/		
Description:	7-1/16"15000psi					Quantity:	1		
Item	Pressure	Method			Qty	Result			
Shell	22500psi	API 6A 21st			1	OK			
Seat	15000psi	API 6A 21st			1	OK			
Item	S/N	Heat Log No.	Result		Item	S/N	Heat Log No.	Result	
			A	B				A	B
1	AS001008	HY230325-1	OK	OK					
Drift Test:									
Diameter ϕ 179.7 mm drift test gauge can freely pass through the through hole of the valve.									
Inspection Coverage:									
Per Specification & Requirements: API 6A 21st									
					Approved By:		Examined By:		
Judgments:		[V] Conforms			Xin Zheng		Yifei Ma		
		[] Does Not Conform							



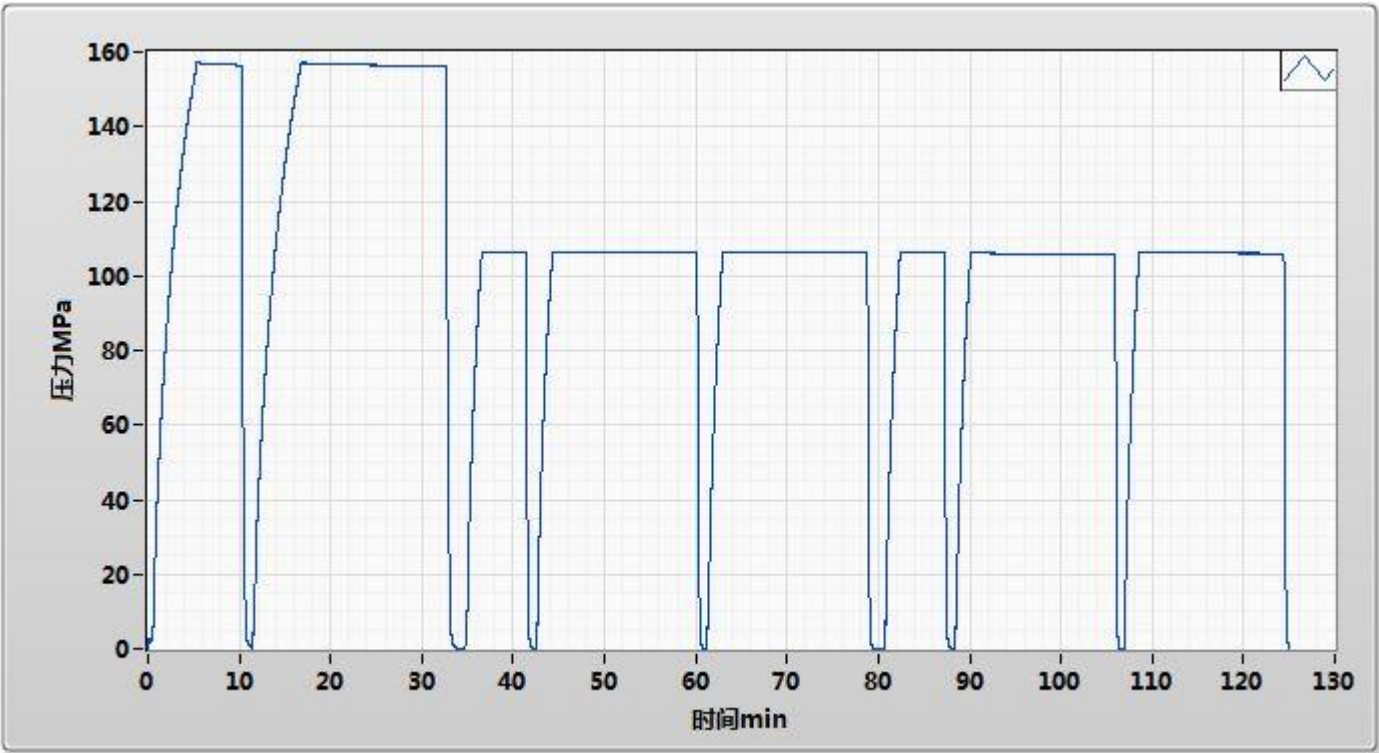
Pressure Test Report

Product Information

PRODUCT NAME	PRODUCT NO.	SPECS	PRESSURE TEST STANDARDS	TEST PART	EQUIPMENT NO.	BRAND
MANUAL GATE VALVE	AS007F017	7-1/16" 15000Psi	API 6A 21st	Shell & Seat	2#	

Test Data

LEVEL	INITIAL PRESSURE (Mpa)	TERMINATED PRESSURE (Mpa)	HOLDING TIME (Min)	PRESSURE DROPPING (Mpa)
1	156.93	156.46	4.0	0.47
2	156.98	156.25	15.0	0.73
3	106.20	106.14	4.0	0.06
4	106.26	106.06	15.0	0.20
5	106.31	106.11	15.0	0.20
6	106.25	106.07	4.0	0.18
7	106.10	105.79	15.0	0.31
8	106.22	106.01	15.0	0.21



TESTED BY:	INSPECTED BY:	REVIEWED BY:	DATE:
Yifei Ma	Xin Zheng	Zhicheng Feng	2023.04.04



REPORT INDEX

Purchase Order:1456

Quantity:1EA

Shipment No.:Crate#AS007F018

Shipment Date:April,2023

Activity No.	Characteristics	Reference Page
1	CERTIFICATE OF CONFORMITY	Page - 2
2	Metallurgical Test Certificate	Page - 3
2.1	Mechanical Testing	Page - 3
2.2	Chemical Testing	Page -3
2.3	Heat Treatment	Page - 3
3	Hardness Test	Page - 4-12
4	Ultrasonic Testing	Page - 13-17
5	Magnetic Particle Inspection Report	Page - 18-26
6	Hydrostatic Test	Page - 27-28



CERTIFICATE OF CONFORMITY

THE FOLLOWING ITEM IS IN CONFORMITY WITH PO # 1456, DRAWINGS AND ITS TECHNICAL REQUIREMENTS. IT IS MADE PER API – 6A MONOGRAM SPECIFICATIONS, EE-0.5 CLASS, PSL3, PR1, LU. AND IT IS MADE OF MATERIAL (4130,75K YIELD) FOR NACE H2S SERVICE UNDER THE CURRENT NACE MR0175 EDITION.

ITEM:
PO #: 1456
SERIAL NO.: AS007F018
PART NO.: PFF105/180AN-00
QANTITY: 1
INSPECTION STANDARD: API Spec 6A 21st EE-0.5, PSL3, PR1, LU

THIS COMMODITY HAS PASSED ALL THE TECHNICAL AND PERFORMANCE TESTS CARRIED BY QUALITY CONTROL/INSPECTION DEPARTMENT.

COMPANY NAME:	INSPECTOR:Zhicheng Feng
(STAMP)	CHIEF ENGINEER: Xin Zheng
	EX-FACTORY DATE: April,2023
Customer: _____	P.O. Number: <u>1456</u>



No.: AV00012

安澜科技（江苏）股份有限公司

ANLAN TECHNOLOGY (JIANGSU) CO.,LTD
Certified Material Test Report

Date:April,2023

Customer		PO No.		Product				P/N		Serial No.		Qty	Size		WP (psi)		Material		PSL		Temp		Specifications	
		1456		MANUAL GATE VALVE				PFF105/180AN-00		AS007F018		1	7-1/16"		15000Psi		EE-0.5		PSL3		LU		API Spec 6A 21st	
Description								Melting Practice				Heat Treatment												
P/N	Parts	Melt No.	H.T. No.	Material Spec Standards			Qty	Serial No.	Finished	Austenized		Quenched			Temper(1)			Temper(2)						
										Temp (°C)	Time (min)	Medium	Start Temp	Finish Temp	Temp (°C)	Time (min)	Medium	Temp (°C)	Time (min)	Medium				
PFF105/180AN-00	BODY	TX22-05909	HY230325-1	AISI 4130 75K,Per ASTM A29			1	AS001006	Forging	870	5.5H	WATER	18	22	665	7.5H	AIR	/	/	/				
	UPPER BONNET	22VD0368	RD-03-18	AISI 4130 75K,Per ASTM A29			1	AS007014	Forging	860	5.0H	WATER	26	39	690	7.0H	AIR	/	/	/				
	LOWER BONNET	TX22-05907	RD-02-34	AISI 4130 75K,Per ASTM A29			1	AS001027	Forging	860	6.0H	WATER	26	39	670	11.0H	AIR	/	/	/				
	STEM	YX2212-2116	HY230227-1	PH17-4 105K,Per ASTM A564/564M			1	AS001046	Forging	1030	3.0H	WATER	17	20	630	4.5H	AIR	630	4.5H	AIR				
	BALANCE STEM	YX2301-1601	HY230211-4	PH17-4 105K,Per ASTM A564/564M			1	AS001035	Forging	1030	3.5H	WATER	14	17	630	5.0H	AIR	630	5.2H	AIR				
	GATE	122V-1118	HC2302005-01	AISI 410 75K,Per ASTM A276/276M			1	AS007133	Forging	960	3.0H	OIL	39	51	720	6.0H	AIR	680	6.0H	AIR				
	BODY BUSHING	122V-1118	HC2302005-01	AISI 410 75K,Per ASTM A276/276M			2	AS007112 AS007115	Forging	960	3.0H	OIL	39	51	720	6.0H	AIR	680	6.0H	AIR				
Melt No.	H.T. No.	Chemical Analysis (wt, %)													Physical Properties									
		C	Mn	Si	P	S	Cr	Ni	Mo	V	Co	W	Cu	Nb	Fe	Spec Size	Spec Origin	Tensile (MPa)	Yield (MPa)	Elongation (%)	ROA (%)	Impact(-46°C) Impact direction (Transverse)	Hardness	Equipment Type
TX22-05909	HY230325-1	0.31	0.66	0.29	0.008	0.004	1.06	0.21	0.211	0.006	/	/	0.03	/	/	8"x8"x10"	QTC	707	540	23.2	65.8	44/59/50	221HBW	JBW-300B/ WDW-300
22VD0368	RD-03-18	0.316	0.732	0.301	0.008	0.004	1.08	0.25	0.216	0.007	/	/	0.091	/	/	8"x8"x10"	QTC	677	544	54.0	60.0	62/65/56	222HBW	JBW-300B/ WDW-300
TX22-05907	RD-02-34	0.30	0.66	0.26	0.007	0.003	1.02	0.20	0.201	0.005	/	/	0.02	/	/	8"x8"x10"	QTC	676	545	43.0	50.0	59/56/55	221HBW	JBW-300B/ WDW-300
YX2212-2116	HY230227-1	0.024	0.55	0.36	0.032	0.002	15.66	4.08	/	/	/	/	3.62	0.235	/	Φ 80x200	QTC	1022	927	21.3	58.5	36/49/47	31HRC	JBW-300B/ WDW-300
YX2301-1601	HY230211-4	0.026	0.56	0.41	0.032	0.001	15.70	4.08	/	/	/	/	3.63	0.240	/	Φ 80x200	QTC	1038	645	20.7	58.2	47/33/62	32HRC	JBW-300B/ WDW-300
122V-1118	HC2302005-01	0.14	0.40	0.22	0.012	0.006	11.66	0.06	0.042	0.034	/	/	0.027	/	/	100x100x200	QTC	690	580	24.0	66.0	/	226HBW	JBW-300B/ WDW-300
122V-1118	HC2302005-01	0.14	0.40	0.22	0.012	0.006	11.66	0.06	0.042	0.034	/	/	0.027	/	/	100x100x200	QTC	690	580	24.0	66.0	/	226HBW	JBW-300B/ WDW-300

This is to certify that all above items have been tested and inspected per scope of specifications, drawings, and the purchase order and have been found to be satisfactory.

The information in this report is true and correct to our knowledge.

_____Xin Zheng_____
NAME of QA Manager, for and on the authority of COMPANY NAME



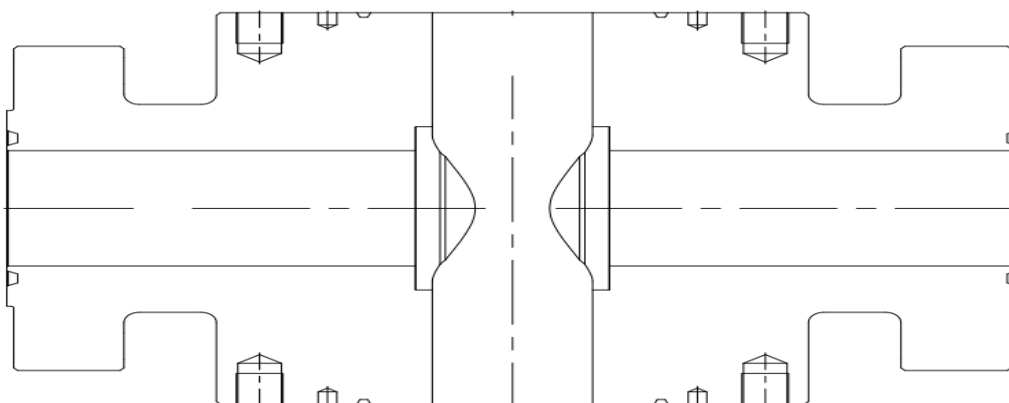
安澜科技（江苏）股份有限公司

ANLAN TECHNOLOGY (JIANGSU) CO.,LTD

HARDNESS TEST REPORT

Customer:			Customer PO#:			Date:	
Drawing #:	PFF105/180A N-00	Specification:	API Spec 6A 21st /ASTM E10	API Monogram:	6A-2074	Report #:	HS-0403-001
Part No.:	X-182734-01	Material:	AISI 4130 75K			Coating:	/
Description:	7-1/16"15000psi Body					Quantity:	1
Item	S/N	Heat Log No.	Hardness	Item	S/N	Heat Log No.	Hardness
1	AS001006	HY230325-1	217HBW/223HBW 217HBW/217HBW				

Sketch:



Method Used:	Impact Energy: 3000Kg.	Diameter of tungsten ball: 10mm	
Acceptable Hardness:	197HBW-235HBW	Approved By:	Examined By:
Judgments:	[V] Conforms	Xin zheng	Zhengguo Yao
	[] Does Not Conform		



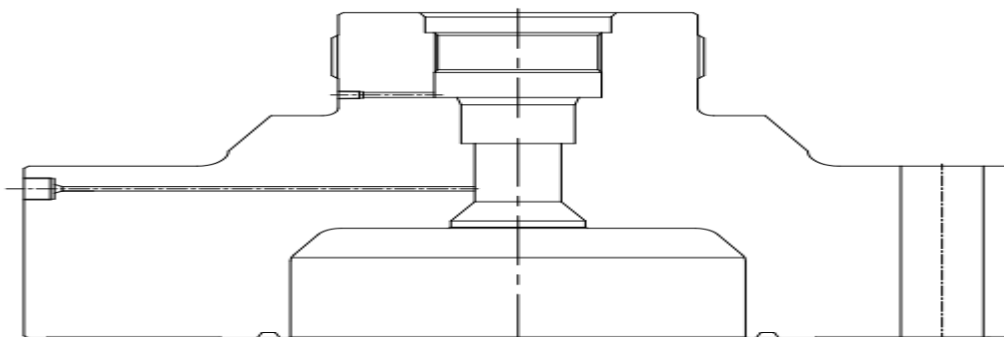
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ANLAN TECHNOLOGY (JIANGSU) CO.,LTD

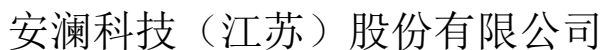
HARDNESS TEST REPORT

Customer:			Customer PO#:			Date:		
Drawing #:	PFF105/180A N-00	Specification:	API Spec 6A 21st /ASTM E10	API Monogram:	6A-2074	Report #:	HS-0328-005	
Part No.:	X-182585-01	Material:	AISI 4130 75K			Coating:	/	
Description:	7-1/16"15000psi Upper Bonnet					Quantity:	1	
Item	S/N	Heat Log No.	Hardness	Item	S/N	Heat Log No.	Hardness	
1	AS007014	RD-03-18	229HBW					

Sketch:

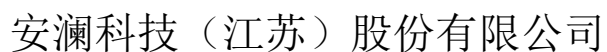


Method Used:	Impact Energy: 3000Kg.	Diameter of tungsten ball: 10mm	
Acceptable Hardness:	197HBW-235HBW	Approved By:	Examined By:
Judgments:	[V] Conforms	Xin zheng	Zhengguo Yao
	[] Does Not Conform		



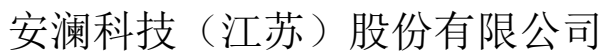
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ANLAN TECHNOLOGY (JIANGSU) CO.,LTD

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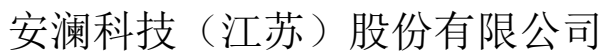


ANLAN TECHNOLOGY (JIANGSU) CO.,LTD

Customer:		Customer PO#:		Date:			
Drawing #:	PFF105/180A N-00	Specification:	API Spec 6A 21st /ASTM E10	API Monogram:	6A-2074	Report #:	20230406-01
Part No.:	X-182589-01	Material:	AISI 410 75K			Coating:	/
Description:	7-1/16"15000psi Gate					Quantity:	1
Item	S/N	Heat Log No.	Hardness	Item	S/N	Heat Log No.	Hardness
1	AS007133	HC2302005-01	228HBW				

Sketch:

Method Used:	Impact Energy: 3000Kg.	Diameter of tungsten ball: 10mm	
Acceptable Hardness:	207HBW-235HBW	Approved By:	Examined By:
Judgments:	[V] Conforms	Xin zheng	Zhengguo Yao
	[] Does Not Conform		

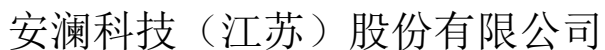


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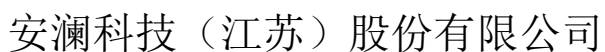
Technical drawing of a mechanical part, likely a shaft or housing, showing a cross-section. The drawing includes dimension lines and a scale bar.

Method Used:	Impact Energy: 5Kg-f(49.03N).		
Acceptable Hardness:	≥1050HV	Approved By:	Examined By:
Judgments:	[V] Conforms	Xin zheng	Zhengguo Yao
	[] Does Not Conform		



ANLAN TECHNOLOGY (JIANGSU) CO.,LTD

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ANLAN TECHNOLOGY (JIANGSU) CO.,LTD

Customer:			Customer PO#:			Date:	
Drawing #:	PFF105/180A N-00	Specification:	API Spec 6A 21st /ASTM E92	API Monogram:	6A-2074	Report #:	20230406-04
Part No.:	X-182590-01	Material:	AISI 410 75K			Coating:	WC
Description:	7-1/16"15000psi Body bushing					Quantity:	2
Item	S/N	Heat Log No.	Hardness	Item	S/N	Heat Log No.	Hardness
1	AS007112	HC2302005-01	1171HV				
2	AS007115	HC2302005-01	1197HV				
Sketch:							
Method Used:		Impact Energy: 5Kg-f(49.03N).					
Acceptable Hardness:		≥1050HV		Approved By:		Examined By:	
Judgments:		[V] Conforms		Xin zheng		Zhengguo Yao	
		[] Does Not Conform					

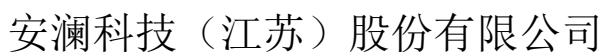


安澜科技（江苏）股份有限公司

ANLAN TECHNOLOGY (JIANGSU) CO.,LTD

HARDNESS TEST REPORT

Customer:				Customer PO#:	1456		Date:	2023.03
Drawing #:	PFF105/180A N-00	Specification:	API Spec 6A 21st /ASTM E18		API Monogram:	6A-2074	Report #:	HS-0321-001
Part No.:	X-182591-01	Material:	PH17-4 105K				Coating:	/
Description:	7-1/16"15000psi Balance Stem						Quantity:	1
Item	S/N	Heat Log No.	Hardness	Item	S/N	Heat Log No.	Hardness	
1	AS001035	HY230211-4	30HRC					
Sketch:								
								
Method Used:								
Acceptable Hardness:	27HRC-33HRC		Approved By:		Examined By:			
Judgments:	☐ V] Conforms		Xin zheng		Zhengguo Yao			
	☐] Does Not Conform							



ANLAN TECHNOLOGY (JIANGSU) CO.,LTD

Customer:		Customer PO#:	1456	Date:	2023.03		
Drawing #:	PFF105/180A N-00	Specification:	API Spec 6A 21st /ASTM A388	API Monogram:	6A-2074	Report #:	UTS-0326-003
Part No.:	X-182734-01	Material:	AISI 4130 75K	Coating:	/		
Description:	7-1/16"15000psi Body				Quantity:	1	
Item	S/N	Heat Log No.	Result	Item	S/N	Heat Log No.	Result
1	AS001006	HY230325-1	Acceptable				
ABOVE FORGED ARE TESTED ULTRASONICALLY FOR INTERNAL DEFECTS, AND THERE WAS NO RECORDABLE INDICATION OBSERVED DURING THE TEST. HENCE ACCEPTABLE AS PER STANDARD.							
UT Code:	ASTM A388	Technique:	STRAIGHT PROBE	Examined By:	Dongkai Xu		
Exam. Stage:	Rough After	Calibration:	Block: CSK -I A Φ 1.6 FBH Block Φ 3.2 FBH Block Φ 6.4 FBH Block	Level as per UT:	II		
Equipment:	MUT-800C	Couplant:	OIL				
Date of calibration	2023.03.02						
Period of validity	2024.03.02						
Probe Used:	2.5P Φ 14+ Φ 20	Acceptance Criteria:	API Spec. 6A 21st	Approved by:	Xin Zheng		
Instrmt/Ident.#:	FD14082504	Test Gain:	Φ 1.6DAC+6dB Φ 3.2DAC+6dB Φ 6.4DAC+6dB	Level as per UT:	II		



安澜科技（江苏）股份有限公司

ANLAN TECHNOLOGY (JIANGSU) CO.,LTD

ULTRASONIC EXAMINATION REPORT

Customer:			Customer PO#:			Date:	
Drawing #:		Specification:		API Monogram:		Report #:	
Part No.:		Material:				Coating:	
Description:	7-1/16"15000psi Upper Bonnet					Quantity:	1
Item	S/N	Heat Log No.	Result	Item	S/N	Heat Log No.	Result
1	AS007014	RD-03-18	Acceptable				
ABOVE FORGED ARE TESTED ULTRASONICALLY FOR INTERNAL DEFECTS, AND THERE WAS NO RECORDABLE INDICATION OBSERVED DURING THE TEST. HENCE ACCEPTABLE AS PER STANDARD.							
UT Code:	ASTM A388	Technique:	STRAIGHT PROBE		Examined By:	Dongkai Xu	
Exam. Stage:	Rough After	Calibration:	Block: CSK -I A Φ 1.6 FBH Block Φ 3.2 FBH Block		Level as per UT:	II	
Equipment:	MUT-800C	Couplant:	OIL				
Date of calibration	2023.03.02						
Period of validity	2024.03.02						
Probe Used:	2.5P Φ 14+ Φ 20	Acceptance Criteria:	API Spec. 6A 21st		Approved by:	Xin Zheng	
Instrmt/Ident.#:	FD14082504	Test Gain:	Φ 1.6DAC+6dB Φ 3.2DAC+6dB		Level as per UT:	II	



安澜科技（江苏）股份有限公司

ANLAN TECHNOLOGY (JIANGSU) CO.,LTD

ULTRASONIC EXAMINATION REPORT

Customer:				Customer PO#:	1456		Date:	2023.03	
Drawing #:	PFF105/180A N-00	Specification:	API Spec 6A 21st /ASTM A388	API Monogram:	6A-2074		Report #:	UTS-0309-00 2	
Part No.:	X-182586-01	Material:	AISI 4130 75K			Coating:	/		
Description:	7-1/16"15000psi Lower Bonnet						Quantity:	1	
Item	S/N	Heat Log No.	Result	Item	S/N	Heat Log No.	Result		
1	AS001027	RD-02-34	Acceptable						
ABOVE FORGED ARE TESTED ULTRASONICALLY FOR INTERNAL DEFECTS, AND THERE WAS NO RECORDABLE INDICATION OBSERVED DURING THE TEST. HENCE ACCEPTABLE AS PER STANDARD.									
UT Code:	ASTM A388		Technique:	STRAIGHT PROBE		Examined By:	Dongkai Xu		
Exam. Stage:	Rough After		Calibration:	Block: CSK -I A Φ 1.6 FBH Block Φ 3.2 FBH Block		Level as per UT:	II		
Equipment:	MUT-800C		Couplant:	OIL					
Date of calibration	2023.03.02								
Period of validity	2024.03.02								
Probe Used:	2.5P Φ 14+ Φ 20		Acceptance Criteria:	API Spec. 6A 21st		Approved by:	Xin Zheng		
Instrmt/Ident.#:	FD14082504		Test Gain:	Φ 1.6DAC+6dB Φ 3.2DAC+6dB		Level as per UT:	II		



安澜科技（江苏）股份有限公司

ANLAN TECHNOLOGY (JIANGSU) CO.,LTD

ULTRASONIC EXAMINATION REPORT

Customer:				Customer PO#:	1456		Date:	2023.03	
Drawing #:	PFF105/180A N-00	Specification:	API Spec 6A 21st /ASTM A388	API Monogram:	6A-2074		Report #:	UTS-0307-00 2	
Part No.:	X-182588-01	Material:	PH17-4 105K			Coating:	/		
Description:	7-1/16"15000psi Stem						Quantity:	1	
Item	S/N	Heat Log No.	Result	Item	S/N	Heat Log No.	Result		
1	AS001046	HY230227-1	Acceptable						
ABOVE FORGED ARE TESTED ULTRASONICALLY FOR INTERNAL DEFECTS, AND THERE WAS NO RECORDABLE INDICATION OBSERVED DURING THE TEST. HENCE ACCEPTABLE AS PER STANDARD.									
UT Code:	ASTM A388		Technique:	STRAIGHT PROBE		Examined By:	Dongkai Xu		
Exam. Stage:	Rough After		Calibration:	Block: CSK -I A Φ 1.6 FBH Block Φ 3.2 FBH Block		Level as per UT:	II		
Equipment:	MUT-800C		Couplant:	OIL					
Date of calibration	2023.03.02								
Period of validity	2024.03.02								
Probe Used:	2.5P Φ 14+ Φ 20		Acceptance Criteria:	API Spec. 6A 21st		Approved by:	Xin Zheng		
Instrmt/Ident.#:	FD14082504		Test Gain:	Φ 1.6DAC+6dB Φ 3.2DAC+6dB		Level as per UT:	II		

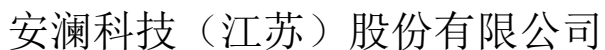


安澜科技（江苏）股份有限公司

ANLAN TECHNOLOGY (JIANGSU) CO.,LTD

ULTRASONIC EXAMINATION REPORT

Customer:			Customer PO#:			Date:	
Drawing #:	PFF105/180AN-00	Specification:	API Spec 6A 21st /ASTM A388	API Monogram:	6A-2074	Report #:	UTS-0316-00 1
Part No.:	X-182591-01	Material:	PH17-4 105K			Coating:	/
Description:	7-1/16"15000psi Balance Stem					Quantity:	1
Item	S/N	Heat Log No.	Result	Item	S/N	Heat Log No.	Result
1	AS001035	HY230211-4	Acceptable				
ABOVE FORGED ARE TESTED ULTRASONICALLY FOR INTERNAL DEFECTS, AND THERE WAS NO RECORDABLE INDICATION OBSERVED DURING THE TEST. HENCE ACCEPTABLE AS PER STANDARD.							
UT Code:	ASTM A388	Technique:	STRAIGHT PROBE		Examined By:	Dongkai Xu	
Exam. Stage:	Rough After	Calibration:	Block: CSK -I A Φ 1.6 FBH Block Φ 3.2 FBH Block		Level as per UT:	II	
Equipment:	MUT-800C	Couplant:	OIL				
Date of calibration	2023.03.02						
Period of validity	2024.03.02						
Probe Used:	2.5P Φ 14+Φ 20	Acceptance Criteria:	API Spec. 6A 21st		Approved by:	Xin Zheng	
Instrmt/Ident.#:	FD14082504	Test Gain:	Φ 1.6DAC+6dB Φ 3.2DAC+6dB		Level as per UT:	II	



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[illegible]

Fluorescent magnetic particle inspection was performed on all accessible wetted/sealing surfaces.

Evaluation & Disposition:	Found to be satisfactory		
Inspected by:	Dongkai Xu	Organization:	QC Department
Approved by:	Xin Zheng		
NDT Level:	MT II	Date:	2023.04

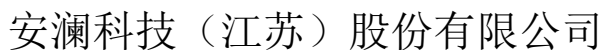


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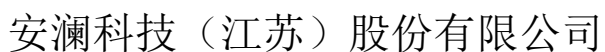
MAGNETIC PARTICLE INSPECTION REPORT

Customer:				Customer PO#:	1456		Date:	2023.03	
Drawing #:	PFF105/180AN-00	Specification:	API Spec 6A 21st /ASTM E709		API Monogram:	6A-2074	Report #:	MTS-0328-002	
Part No.:	X-182585-01	Material:	AISI 4130 75K				Coating:	/	
Description:	7-1/16"15000psi Upper Bonnet						Quantity:	1	
Equipment:	CYD-5000	Acceptance Criteria:	API 6A 21st/PSL3		Circular AMPS:		2500A 3500A		
Test Method:	Fluorescence Wet Continuous	Particle Type:	Fluorescence		UV-Light Intensity:		3490Uw/cm ²		
Stage:	Machined	Concentration:	0.2ml/100ml		Magnetizing Time:		1-3S		
Item	S/N	Heat Log No.	Result	Item	S/N	Heat Log No.	Result		
1	AS007014	RD-03-18	Acceptable						
Inspection Coverage:									
Fluorescent magnetic particle inspection was performed on all accessible wetted/sealing surfaces.									
Evaluation & Disposition:	Found to be satisfactory								
Inspected by:	Dongkai Xu				Organization:	QC Department			
Approved by:	Xin Zheng				Date:	2023.03			
NDT Level:	MT II				Date:	2023.03			



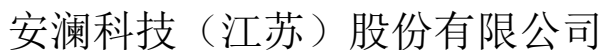
MAGNETIC PARTICLE INSPECTION REPORT

20



LIQUID PENETRATE EXAMINATION

21

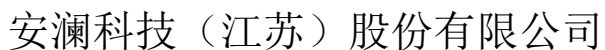


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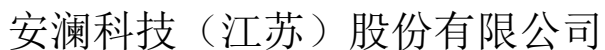
Fluorescent magnetic particle inspection was performed on all accessible wetted/sealing surfaces.

Evaluation & Disposition:	Found to be satisfactory		
Inspected by:	Dongkai Xu	Organization:	QC Department
Approved by:	Xin Zheng		
NDT Level:	MT II	Date:	2023.04



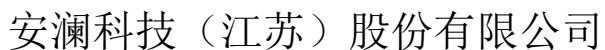
ANLAN TECHNOLOGY (JIANGSU) CO.,LTD

Customer:			Customer PO#:	1456		Date:	2023.04	
Drawing #:	PFF105/180AN-00	Specification:	QJ/JJ07.01.03.02/ ASTM E165		API Monogram:	6A-2074	Report #:	NCS-2304-H11
Part No.:	X-182589-01	Material:	AISI 410 75K				Coating:	WC
Description:	7-1/16"15000psi Gate					Quantity:	1	
Test Method:	Type II Method C	Acceptance Criteria:		API 6A 21st/PSL3	Penetrate Type:		DPT-5	
Remover Type:	DPT-5	Developer Type:		DPT-5	Light Intensity:		≥1076Lx	
Stage:	Machined	Penetrate Time:		10min	Develop Time:		10min	
Item	S/N	Heat Log No.	Result	Item	S/N	Heat Log No.	Result	
1	AS007133	HC2302005-01	Acceptable					
Inspection Coverage:								
Liquid penetrate examination was performed on all accessible wetted/sealing surfaces.								
Evaluation & Disposition:		Found to be satisfactory						
Inspected by:		Dongkai Xu			Organization:		QC Department	
Approved by:		Xin Zheng						
NDT Level:		MT II			Date:		2023.04	



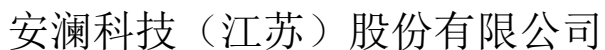
ANLAN TECHNOLOGY (JIANGSU) CO.,LTD

Customer:			Customer PO#:	1456		Date:	2023.04	
Drawing #:	PFF105/180AN-00	Specification:	API Spec 6A 21st /ASTM E709	API Monogram:	6A-2074	Report #:	NCS-2304-Q12	
Part No.:	X-182590-01	Material:	AISI 410 75K			Coating:	/	
Description:	7-1/16"15000psi Body Bushing					Quantity:	2	
Equipment:	CYD-5000	Acceptance Criteria:	API 6A 21st/PSL3	Circular AMPS:		3200A		
Test Method:	Fluorescence Wet Continuous	Particle Type:	Fluorescence	UV-Light Intensity:		≥1000Uw/cm²		
Stage:	Machined	Concentration:	0.2ml/100ml	Magnetizing Time:		1-3S		
Item	S/N	Heat Log No.	Result	Item	S/N	Heat Log No.	Result	
1	AS007112	HC2302005-01	Acceptable					
2	AS007115	HC2302005-01	Acceptable					
Inspection Coverage:								
Fluorescent magnetic particle inspection was performed on all accessible wetted/sealing surfaces.								
Evaluation & Disposition:		Found to be satisfactory						
Inspected by:		Dongkai Xu		Organization:		QC Department		
Approved by:		Xin Zheng						
NDT Level:		MT II		Date:		2023.04		



ANLAN TECHNOLOGY (JIANGSU) CO.,LTD

Customer:			Customer PO#:	1456		Date:	2023.04	
Drawing #:	PFF105/180AN-00	Specification:	QJ/JJ07.01.03.02/ ASTM E165		API Monogram:	6A-2074	Report #:	NCS-2303-H12
Part No.:	X-182590-01	Material:	AISI 410 75K			Coating:	WC	
Description:	7-1/16"15000psi Body Bushing					Quantity:	2	
Test Method:	Type II Method C	Acceptance Criteria:		API 6A 21st/PSL3		Penetrate Type:		DPT-5
Remover Type:	DPT-5	Developer Type:		DPT-5		Light Intensity:		≥1076Lx
Stage:	Machined	Penetrate Time:		10min		Develop Time:		10min
Item	S/N	Heat Log No.	Result	Item	S/N	Heat Log No.	Result	
1	AS007112	HC2302005-01	Acceptable					
2	AS007115	HC2302005-01	Acceptable					
Inspection Coverage:								
Liquid penetrate examination was performed on all accessible wetted/sealing surfaces.								
Evaluation & Disposition:		Found to be satisfactory						
Inspected by:		Dongkai Xu			Organization:		QC Department	
Approved by:		Xin Zheng						
NDT Level:		MT II			Date:		2023.04	



ANLAN TECHNOLOGY (JIANGSU) CO.,LTD

Customer:			Customer PO#:	1456		Date:	2023.03	
Drawing #:	PFF105/180AN-00	Specification:	QJ/JJ07.01.03.02/ASTM E165	API Monogram:	6A-2074	Report #:	PTS-0320-001	
Part No.:	X-182591-01	Material:	PH17-4-105K			Coating:	/	
Description:	7-1/16"15000psi Balance Stem					Quantity:	1	
Test Method:	Type II Method C	Acceptance Criteria:	API 6A 21st/PSL3		Penetrate Type:		DPT-5	
Remover Type:	DPT-5	Developer Type:	DPT-5		Light Intensity:		≥1076Lx	
Stage:	Machined	Penetrate Time:	10min		Develop Time:		10min	
Item	S/N	Heat Log No.	Result	Item	S/N	Heat Log No.	Result	
1	AS001035	HY230211-4	Acceptable					
Inspection Coverage:								
Liquid penetrate examination was performed on all accessible wetted/sealing surfaces.								
Evaluation & Disposition:		Found to be satisfactory						
Inspected by:		Dongkai Xu		Organization:		QC Department		
Approved by:		Xin Zheng						
NDT Level:		MT II		Date:		2023.03		



安澜科技（江苏）股份有限公司

ANLAN TECHNOLOGY (JIANGSU) CO.,LTD

HYDROSTATIC TEST REPORT

Customer:			Customer PO#:	1456		Date:	2023.04	
Drawing #:	PFF105/180A N-00	Specification:	API6A-21st	API Monogram:	6A-2074	Report #:	AS007F018	
Part No.:	X-182734-01	Material:	AISI 4130 75K			Coating:	/	
Description:	7-1/16"15000psi					Quantity:	1	
Item	Pressure	Method			Qty	Result		
Shell	22500psi	API 6A 21st			1	OK		
Seat	15000psi	API 6A 21st			1	OK		

Item	S/N	Heat Log No.	Result		Item	S/N	Heat Log No.	Result	
			A	B				A	B
1	AS001006	HY230325-1	OK	OK					

Drift Test:

Diameter ϕ 179.7 mm drift test gauge can freely pass through the through hole of the valve.

Inspection Coverage:

Per Specification & Requirements: API 6A 21st

		Approved By:	Examined By:
Judgments:	[V] Conforms	Xin Zheng	Yifei Ma
	[] Does Not Conform		



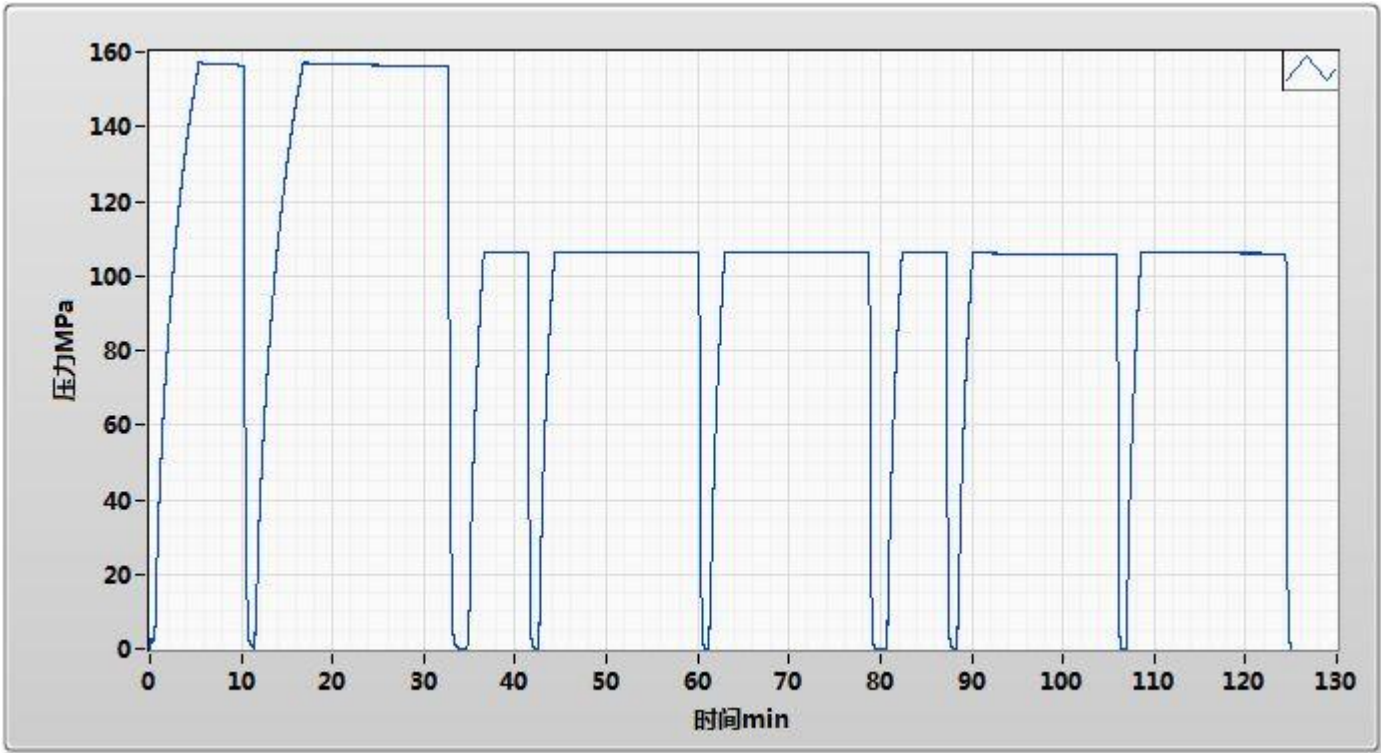
Pressure Test Report

Product Information

PRODUCT NAME	PRODUCT NO.	SPECS	PRESSURE TEST STANDARDS	TEST PART	EQUIPMENT NO.	BRAND
MANUAL GATE VALVE	AS007F018	7-1/16" 15000Psi	API 6A 21st	Shell & Seat	2#	

Test Data

LEVEL	INITIAL PRESSURE (Mpa)	TERMINATED PRESSURE (Mpa)	HOLDING TIME (Min)	PRESSURE DROPPING (Mpa)
1	156.93	156.46	4.0	0.47
2	156.98	156.25	15.0	0.73
3	106.20	106.14	4.0	0.06
4	106.26	106.06	15.0	0.20
5	106.31	106.11	15.0	0.20
6	106.25	106.07	4.0	0.18
7	106.10	105.79	15.0	0.31
8	106.22	106.01	15.0	0.21



TESTED BY:	INSPECTED BY:	REVIEWED BY:	DATE:
Yifei Ma	Xin Zheng	Zhicheng Feng	2023.04.04



REPORT INDEX

Purchase Order:1456

Quantity:1EA

Shipment No.:Crate#AS007F019

Shipment Date:April,2023

Activity No.	Characteristics	Reference Page
1	CERTIFICATE OF CONFORMITY	Page - 2
2	Metallurgical Test Certificate	Page - 3
2.1	Mechanical Testing	Page - 3
2.2	Chemical Testing	Page -3
2.3	Heat Treatment	Page - 3
3	Hardness Test	Page - 4-12
4	Ultrasonic Testing	Page - 13-17
5	Magnetic Particle Inspection Report	Page - 18-26
6	Hydrostatic Test	Page - 27-28



CERTIFICATE OF CONFORMITY

THE FOLLOWING ITEM IS IN CONFORMITY WITH PO # 1456, DRAWINGS AND ITS TECHNICAL REQUIREMENTS. IT IS MADE PER API – 6A MONOGRAM SPECIFICATIONS, EE-0.5 CLASS, PSL3, PR1, LU. AND IT IS MADE OF MATERIAL (4130,75K YIELD) FOR NACE H2S SERVICE UNDER THE CURRENT NACE MR0175 EDITION.

ITEM:
PO #: 1456
SERIAL NO.: AS007F019
PART NO.: PFF105/180AN-00
QANTITY: 1
INSPECTION STANDARD: API Spec 6A 21st EE-0.5, PSL3, PR1, LU

THIS COMMODITY HAS PASSED ALL THE TECHNICAL AND PERFORMANCE TESTS CARRIED BY QUALITY CONTROL/INSPECTION DEPARTMENT.

COMPANY NAME:	INSPECTOR:Zhicheng Feng
(STAMP)	CHIEF ENGINEER: Xin Zheng
	EX-FACTORY DATE: April,2023
Customer: _____	P.O. Number: <u>1456</u>



No.: AV00012

安澜科技（江苏）股份有限公司

ANLAN TECHNOLOGY (JIANGSU) CO.,LTD
Certified Material Test Report

Date:April,2023

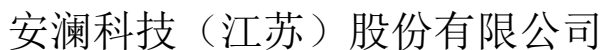
Customer		PO No.		Product			P/N		Serial No.		Qty	Size		WP (psi)	Material	PSL	Temp	Specifications						
		1456		MANUAL GATE VALVE			PFF105/180AN-00		AS007F019		1	7-1/16"		15000Psi	EE-0.5	PSL3	LU	API Spec 6A 21st						
Description						Melting Practice			Heat Treatment															
P/N	Parts	Melt No.	H.T. No.	Material Spec Standards	Qty	Serial No.	Finished	Austenized		Quenched			Temper(1)			Temper(2)								
								Temp (°C)	Time (min)	Medium	Start Temp	Finish Temp	Temp (°C)	Time (min)	Medium	Temp (°C)	Time (min)	Medium						
PFF105/180AN-00	BODY	TX22-05909	HY230321-3	AISI 4130 75K,Per ASTM A29	1	AS001002	Forging	865	5.5H	WATER	21	24	670	7.5H	AIR	/	/	/						
	UPPER BONNET	22DV0368	RT-3-057	AISI 4130 75K,Per ASTM A29	1	AS007159	Forging	860	6.0H	WATER	26	27	680	8.0H	AIR	/	/	/						
	LOWER BONNET	TX22-05907	RD-02-34	AISI 4130 75K,Per ASTM A29	1	AS001025	Forging	860	6.0H	WATER	26	39	670	11.0H	AIR	/	/	/						
	STEM	YX2212-2116	HY230227-1	PH17-4 105K,Per ASTM A564/564M	1	AS001041	Forging	1030	3.0H	WATER	17	20	630	4.5H	AIR	630	4.5H	AIR						
	BALANCE STEM	YX2211-1628	HY230114-1	PH17-4 105K,Per ASTM A564/564M	1	AP064361	Forging	1030	3.5H	WATER	12	15	630	5.0H	AIR	630	5.0H	AIR						
	GATE	122V-1118	HC2302005-01	AISI 410 75K,Per ASTM A276/276M	1	AS007141	Forging	960	3.0H	OIL	39	51	720	6.0H	AIR	680	6.0H	AIR						
	BODY BUSHING	122V-1118	HC2302005-01	AISI 410 75K,Per ASTM A276/276M	2	AS007111 AS007120	Forging	960	3.0H	OIL	39	51	720	6.0H	AIR	680	6.0H	AIR						
Melt No.	H.T. No.	Chemical Analysis (wt, %)													Physical Properties									
		C	Mn	Si	P	S	Cr	Ni	Mo	V	Co	W	Cu	Nb	Fe	Spec Size	Spec Origin	Tensile (MPa)	Yield (MPa)	Elongation (%)	ROA (%)	Impact(-46°C) Impact direction (Transverse)	Hardness	Equipment Type
TX22-05909	HY230321-3	0.31	0.66	0.29	0.008	0.004	1.06	0.21	0.211	0.006	/	/	0.03	/	/	8"x8"x10"	QTC	707	540	23.2	65.8	44/59/50	221HBW	JBW-300B/ WDW-300
22DV0368	RT-3-057	0.316	0.732	0.301	0.008	0.004	1.08	0.25	0.216	0.007	/	/	0.091	/	/	8"x8"x10"	QTC	695	541	29.0	70.0	83/98/85	229HBW	JBW-300B/ WDW-300
TX22-05907	RD-02-34	0.30	0.66	0.26	0.007	0.003	1.02	0.20	0.201	0.005	/	/	0.02	/	/	8"x8"x10"	QTC	676	545	43.0	50.0	59/56/55	221HBW	JBW-300B/ WDW-300
YX2212-2116	HY230227-1	0.024	0.55	0.36	0.032	0.002	15.66	4.08	/	/	/	/	3.62	0.235	/	Φ 80x200	QTC	1022	927	21.3	58.5	36/49/47	31HRC	JBW-300B/ WDW-300
YX2211-1628	HY230114-1	0.029	0.49	0.36	0.029	0.002	15.73	4.10	/	/	/	/	3.68	0.245	/	Φ 80x200	QTC	1027	930	19.5	60.1	55/51/42	30HRC	JBW-300B/ WDW-300
122V-1118	HC2302005-01	0.14	0.40	0.22	0.012	0.006	11.66	0.06	0.042	0.034	/	/	0.027	/	/	100x100x200	QTC	690	580	24.0	66.0	/	226HBW	JBW-300B/ WDW-300
122V-1118	HC2302005-01	0.14	0.40	0.22	0.012	0.006	11.66	0.06	0.042	0.034	/	/	0.027	/	/	100x100x200	QTC	690	580	24.0	66.0	/	226HBW	JBW-300B/ WDW-300

This is to certify that all above items have been tested and inspected per scope of specifications, drawings, and the purchase order and have been found to be satisfactory.

The information in this report is true and correct to our knowledge.

_____Xin Zheng_____

NAME of QA Manager, for and on the authority of COMPANY NAME



ANLAN TECHNOLOGY (JIANGSU) CO.,LTD

[illegible]

Method Used:	Impact Energy: 3000Kg.	Diameter of tungsten ball: 10mm	
Acceptable Hardness:	197HBW-235HBW	Approved By:	Examined By:
Judgments:	[☒] Conforms	Xin zheng	Zhengguo Yao
	[☐] Does Not Conform		



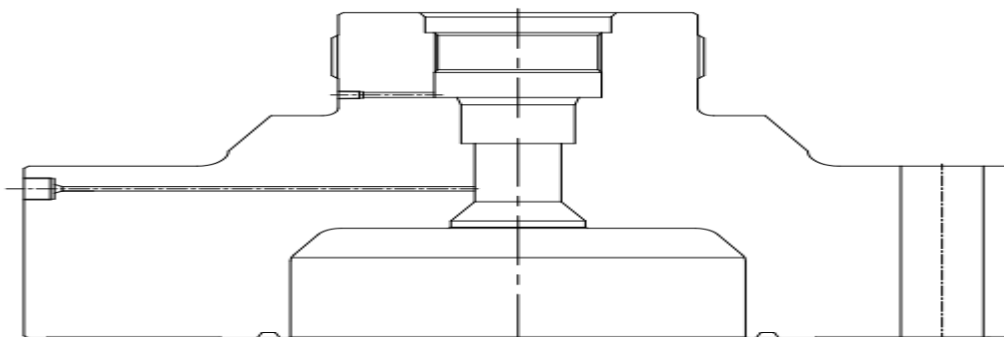
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ANLAN TECHNOLOGY (JIANGSU) CO.,LTD

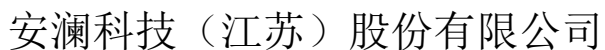
HARDNESS TEST REPORT

Customer:			Customer PO#:			Date:		
Drawing #:	PFF105/180A N-00	Specification:	API Spec 6A 21st /ASTM E10	API Monogram:	6A-2074	Report #:	HS-0328-005	
Part No.:	X-182585-01	Material:	AISI 4130 75K			Coating:	/	
Description:	7-1/16"15000psi Upper Bonnet					Quantity:	1	
Item	S/N	Heat Log No.	Hardness	Item	S/N	Heat Log No.	Hardness	
1	AS007159	RT-3-057	217HBW					

Sketch:



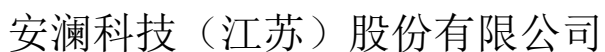
Method Used:	Impact Energy: 3000Kg.	Diameter of tungsten ball: 10mm	
Acceptable Hardness:	197HBW-235HBW	Approved By:	Examined By:
Judgments:	[V] Conforms	Xin zheng	Zhengguo Yao
	[] Does Not Conform		



ANLAN TECHNOLOGY (JIANGSU) CO.,LTD

[illegible]

Method Used:	Impact Energy: 3000Kg.	Diameter of tungsten ball: 10mm	
Acceptable Hardness:	197HBW-235HBW	Approved By:	Examined By:
Judgments:	[V] Conforms	Xin zheng	Zhengguo Yao
	[] Does Not Conform		

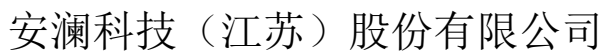


ANLAN TECHNOLOGY (JIANGSU) CO.,LTD

HARDNESS TEST REPORT

Sketch:





ANLAN TECHNOLOGY (JIANGSU) CO.,LTD

Customer:		Customer PO#:		Date:			
Drawing #:	PFF105/180A N-00	Specification:	API Spec 6A 21st /ASTM E10	API Monogram:	6A-2074	Report #:	20230406-01
Part No.:	X-182589-01	Material:	AISI 410 75K	Coating:	/		
Description:	7-1/16"15000psi Gate				Quantity:	1	
Item	S/N	Heat Log No.	Hardness	Item	S/N	Heat Log No.	Hardness
1	AS007141	HC2302005-01	234HBW				

Sketch:

Method Used:	Impact Energy: 3000Kg.	Diameter of tungsten ball: 10mm	
Acceptable Hardness:	207HBW-235HBW	Approved By:	Examined By:
Judgments:	[V] Conforms	Xin zheng	Zhengguo Yao
	[] Does Not Conform		



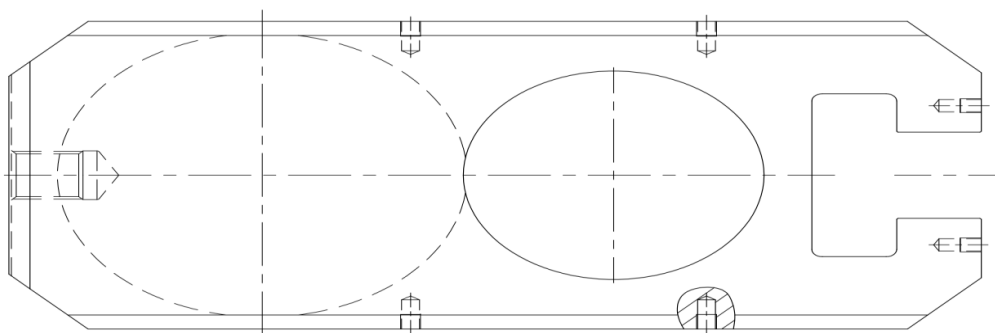
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ANLAN TECHNOLOGY (JIANGSU) CO.,LTD

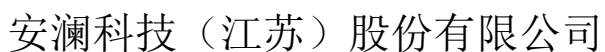
HARDNESS TEST REPORT

Customer:			Customer PO#:			Date:	
Drawing #:	PFF105/180A N-00	Specification:	API Spec 6A 21st /ASTM E92	API Monogram:	6A-2074	Report #:	20230406-03
Part No.:	X-182589-01	Material:	AISI 410 75K			Coating:	WC
Description:	7-1/16"15000psi Gate					Quantity:	1
Item	S/N	Heat Log No.	Hardness	Item	S/N	Heat Log No.	Hardness
1	AS007141	HC2302005-01	1171HV				

Sketch:

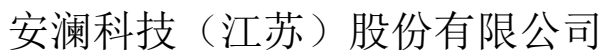


Method Used:	Impact Energy: 5Kg-f(49.03N).		
Acceptable Hardness:	≥1050HV	Approved By:	Examined By:
Judgments:	[V] Conforms	Xin zheng	Zhengguo Yao
	[] Does Not Conform		



HARDNESS TEST REPORT

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ANLAN TECHNOLOGY (JIANGSU) CO.,LTD

Customer:			Customer PO#:			Date:	
Drawing #:	PFF105/180A N-00	Specification:	API Spec 6A 21st /ASTM E92	API Monogram:	6A-2074	Report #:	20230406-04
Part No.:	X-182590-01	Material:	AISI 410 75K			Coating:	WC
Description:	7-1/16"15000psi Body bushing					Quantity:	2
Item	S/N	Heat Log No.	Hardness	Item	S/N	Heat Log No.	Hardness
1	AS007111	HC2302005-01	1197HV				
2	AS007120	HC2302005-01	1171HV				
Sketch:							
Method Used:		Impact Energy: 5Kg-f(49.03N).					
Acceptable Hardness:		≥1050HV		Approved By:		Examined By:	
Judgments:		[V] Conforms		Xin zheng		Zhengguo Yao	
		[] Does Not Conform					

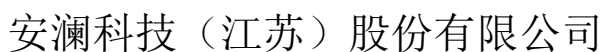


安澜科技（江苏）股份有限公司

ANLAN TECHNOLOGY (JIANGSU) CO.,LTD

HARDNESS TEST REPORT

Customer:				Customer PO#:	1456		Date:	2023.02
Drawing #:	PFF105/180A N-00	Specification:	API Spec 6A 21st /ASTM E18		API Monogram:	6A-2074	Report #:	HS-0222-004
Part No.:	X-182591-01	Material:	PH17-4 105K				Coating:	/
Description:	7-1/16"15000psi Balance Stem						Quantity:	1
Item	S/N	Heat Log No.	Hardness	Item	S/N	Heat Log No.	Hardness	
1	AP064361	HY230114-1	29HRC					
Sketch:								
Method Used:								
Acceptable Hardness:	27HRC-33HRC		Approved By:		Examined By:			
Judgments:	☐ V] Conforms		Xin zheng		Zhengguo Yao			
	☐] Does Not Conform							



ANLAN TECHNOLOGY (JIANGSU) CO.,LTD

Customer:			Customer PO#:	1456		Date:	2023.03
Drawing #:	PFF105/180A N-00	Specification:	API Spec 6A 21st /ASTM A388	API Monogram:	6A-2074	Report #:	UTS-0327-001
Part No.:	X-182734-01	Material:	AISI 4130 75K			Coating:	/
Description:	7-1/16"15000psi Body					Quantity:	1
Item	S/N	Heat Log No.	Result	Item	S/N	Heat Log No.	Result
1	AS001002	HY230321-3	Acceptable				
ABOVE FORGED ARE TESTED ULTRASONICALLY FOR INTERNAL DEFECTS, AND THERE WAS NO RECORDABLE INDICATION OBSERVED DURING THE TEST. HENCE ACCEPTABLE AS PER STANDARD.							
UT Code:	ASTM A388	Technique:	STRAIGHT PROBE		Examined By:	Dongkai Xu	
Exam. Stage:	Rough After	Calibration:	Block: CSK -I A Φ 1.6 FBH Block Φ 3.2 FBH Block Φ 6.4 FBH Block		Level as per UT:	II	
Equipment:	MUT-800C	Couplant:	OIL				
Date of calibration	2023.03.02						
Period of validity	2024.03.02						
Probe Used:	2.5P Φ 14+ Φ 20	Acceptance Criteria:	API Spec. 6A 21st		Approved by:	Xin Zheng	
Instrmt/Ident.#:	FD14082504	Test Gain:	Φ 1.6DAC+6dB Φ 3.2DAC+6dB Φ 6.4DAC+6dB		Level as per UT:	II	



安澜科技（江苏）股份有限公司

ANLAN TECHNOLOGY (JIANGSU) CO.,LTD

ULTRASONIC EXAMINATION REPORT

Customer:			Customer PO#:			Date:	
Drawing #:		Specification:		API Monogram:		Report #:	
Part No.:		Material:				Coating:	
Description:	7-1/16"15000psi Upper Bonnet					Quantity:	1
Item	S/N	Heat Log No.	Result	Item	S/N	Heat Log No.	Result
1	AS007159	RT-3-057	Acceptable				
ABOVE FORGED ARE TESTED ULTRASONICALLY FOR INTERNAL DEFECTS, AND THERE WAS NO RECORDABLE INDICATION OBSERVED DURING THE TEST. HENCE ACCEPTABLE AS PER STANDARD.							
UT Code:	ASTM A388	Technique:	STRAIGHT PROBE		Examined By:	Dongkai Xu	
Exam. Stage:	Rough After	Calibration:	Block: CSK -I A Φ 1.6 FBH Block Φ 3.2 FBH Block		Level as per UT:	II	
Equipment:	MUT-800C	Couplant:	OIL				
Date of calibration	2023.03.02						
Period of validity	2024.03.02						
Probe Used:	2.5P Φ 14+ Φ 20	Acceptance Criteria:	API Spec. 6A 21st		Approved by:	Xin Zheng	
Instrmt/Ident.#:	FD14082504	Test Gain:	Φ 1.6DAC+6dB Φ 3.2DAC+6dB		Level as per UT:	II	



安澜科技（江苏）股份有限公司

ANLAN TECHNOLOGY (JIANGSU) CO.,LTD

ULTRASONIC EXAMINATION REPORT

Customer:				Customer PO#:	1456		Date:	2023.03	
Drawing #:	PFF105/180A N-00	Specification:	API Spec 6A 21st /ASTM A388		API Monogram:	6A-2074	Report #:	UTS-0309-00 2	
Part No.:	X-182586-01	Material:	AISI 4130 75K				Coating:	/	
Description:	7-1/16"15000psi Lower Bonnet						Quantity:	1	
Item	S/N	Heat Log No.	Result	Item	S/N	Heat Log No.	Result		
1	AS001025	RD-02-34	Acceptable						
ABOVE FORGED ARE TESTED ULTRASONICALLY FOR INTERNAL DEFECTS, AND THERE WAS NO RECORDABLE INDICATION OBSERVED DURING THE TEST. HENCE ACCEPTABLE AS PER STANDARD.									
UT Code:	ASTM A388		Technique:	STRAIGHT PROBE		Examined By:	Dongkai Xu		
Exam. Stage:	Rough After		Calibration:	Block: CSK -I A Φ 1.6 FBH Block Φ 3.2 FBH Block		Level as per UT:	II		
Equipment:	MUT-800C		Couplant:	OIL					
Date of calibration	2023.03.02								
Period of validity	2024.03.02								
Probe Used:	2.5P Φ 14+ Φ 20		Acceptance Criteria:	API Spec. 6A 21st		Approved by:	Xin Zheng		
Instrmt/Ident.#:	FD14082504		Test Gain:	Φ 1.6DAC+6dB Φ 3.2DAC+6dB		Level as per UT:	II		



安澜科技（江苏）股份有限公司

ANLAN TECHNOLOGY (JIANGSU) CO.,LTD

ULTRASONIC EXAMINATION REPORT

Customer:				Customer PO#:	1456		Date:	2023.03	
Drawing #:	PFF105/180A N-00	Specification:	API Spec 6A 21st /ASTM A388	API Monogram:	6A-2074		Report #:	UTS-0307-00 2	
Part No.:	X-182588-01	Material:	PH17-4 105K			Coating:	/		
Description:	7-1/16"15000psi Stem						Quantity:	1	
Item	S/N	Heat Log No.	Result	Item	S/N	Heat Log No.	Result		
1	AS001041	HY230227-1	Acceptable						
ABOVE FORGED ARE TESTED ULTRASONICALLY FOR INTERNAL DEFECTS, AND THERE WAS NO RECORDABLE INDICATION OBSERVED DURING THE TEST. HENCE ACCEPTABLE AS PER STANDARD.									
UT Code:	ASTM A388		Technique:	STRAIGHT PROBE		Examined By:	Dongkai Xu		
Exam. Stage:	Rough After		Calibration:	Block: CSK -I A Φ 1.6 FBH Block Φ 3.2 FBH Block		Level as per UT:	II		
Equipment:	MUT-800C		Couplant:	OIL					
Date of calibration	2023.03.02								
Period of validity	2024.03.02								
Probe Used:	2.5P Φ 14+ Φ 20		Acceptance Criteria:	API Spec. 6A 21st		Approved by:	Xin Zheng		
Instrmt/Ident.#:	FD14082504		Test Gain:	Φ 1.6DAC+6dB Φ 3.2DAC+6dB		Level as per UT:	II		

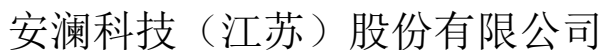


安澜科技（江苏）股份有限公司

ANLAN TECHNOLOGY (JIANGSU) CO.,LTD

ULTRASONIC EXAMINATION REPORT

Customer:			Customer PO#:			Date:	
Drawing #:	PFF105/180AN-00	Specification:	API Spec 6A 21st /ASTM A388	API Monogram:	6A-2074	Report #:	UTS-0212-003
Part No.:	X-182591-01	Material:	PH17-4 105K			Coating:	/
Description:	7-1/16"15000psi Balance Stem					Quantity:	1
Item	S/N	Heat Log No.	Result	Item	S/N	Heat Log No.	Result
1	AP064361	HY230114-1	Acceptable				
ABOVE FORGED ARE TESTED ULTRASONICALLY FOR INTERNAL DEFECTS, AND THERE WAS NO RECORDABLE INDICATION OBSERVED DURING THE TEST. HENCE ACCEPTABLE AS PER STANDARD.							
UT Code:	ASTM A388	Technique:	STRAIGHT PROBE		Examined By:	Dongkai Xu	
Exam. Stage:	Rough After	Calibration:	Block: CSK -I A Φ 1.6 FBH Block Φ 3.2 FBH Block		Level as per UT:	II	
Equipment:	MUT-800C	Couplant:	OIL				
Date of calibration	2023.03.02						
Period of validity	2024.03.02						
Probe Used:	2.5P Φ 14+Φ 20	Acceptance Criteria:	API Spec. 6A 21st		Approved by:	Xin Zheng	
Instrmt/Ident.#:	FD14082504	Test Gain:	Φ 1.6DAC+6dB Φ 3.2DAC+6dB		Level as per UT:	II	

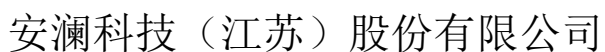


ANLAN TECHNOLOGY (JIANGSU) CO.,LTD

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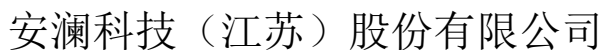
Fluorescent magnetic particle inspection was performed on all accessible wetted/sealing surfaces.

Evaluation & Disposition:	Found to be satisfactory		
Inspected by:	Dongkai Xu	Organization:	QC Department
Approved by:	Xin Zheng		
NDT Level:	MT II	Date:	2023.04



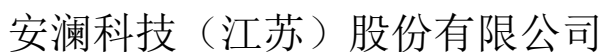
MAGNETIC PARTICLE INSPECTION REPORT

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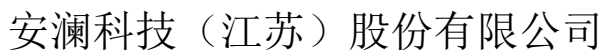
MAGNETIC PARTICLE INSPECTION REPORT

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ANLAN TECHNOLOGY (JIANGSU) CO.,LTD

Customer:		Customer PO#:	1456		Date:	2023.03	
Drawing #:	PFF105/180AN-00	Specification:	QJ/JJ07.01.03.02/ ASTM E165	API Monogram:	6A-2074	Report #:	PTS-0310-001
Part No.:	X-182588-01	Material:	PH17-4-105K			Coating:	/
Description:	7-1/16"15000psi Stem					Quantity:	1
Test Method:	Type II Method C	Acceptance Criteria:	API 6A 21st/PSL3	Penetrate Type:		DPT-5	
Remover Type:	DPT-5	Developer Type:	DPT-5	Light Intensity:		≥1076Lx	
Stage:	Machined	Penetrate Time:	10min	Develop Time:		10min	
Item	S/N	Heat Log No.	Result	Item	S/N	Heat Log No.	Result
1	AS001041	HY230227-1	Acceptable				
Inspection Coverage:							
Liquid penetrate examination was performed on all accessible wetted/sealing surfaces.							
Evaluation & Disposition:	Found to be satisfactory						
Inspected by:	Dongkai Xu			Organization:	QC Department		
Approved by:	Xin Zheng						
NDT Level:	MT II			Date:	2023.03		

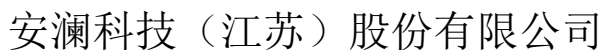


ANLAN TECHNOLOGY (JIANGSU) CO.,LTD

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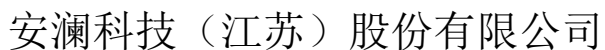
Fluorescent magnetic particle inspection was performed on all accessible wetted/sealing surfaces.

Evaluation & Disposition:	Found to be satisfactory		
Inspected by:	Dongkai Xu	Organization:	QC Department
Approved by:	Xin Zheng		
NDT Level:	MT II	Date:	2023.04



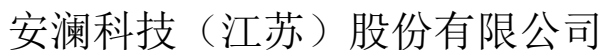
ANLAN TECHNOLOGY (JIANGSU) CO.,LTD

Customer:			Customer PO#:	1456		Date:	2023.04	
Drawing #:	PFF105/180AN-00	Specification:	QJ/JJ07.01.03.02/ ASTM E165		API Monogram:	6A-2074	Report #:	NCS-2304-H11
Part No.:	X-182589-01	Material:	AISI 410 75K			Coating:	WC	
Description:	7-1/16"15000psi Gate					Quantity:	1	
Test Method:	Type II Method C	Acceptance Criteria:		API 6A 21st/PSL3	Penetrate Type:		DPT-5	
Remover Type:	DPT-5	Developer Type:		DPT-5	Light Intensity:		≥1076Lx	
Stage:	Machined	Penetrate Time:		10min	Develop Time:		10min	
Item	S/N	Heat Log No.	Result	Item	S/N	Heat Log No.	Result	
1	AS007141	HC2302005-01	Acceptable					
Inspection Coverage:								
Liquid penetrate examination was performed on all accessible wetted/sealing surfaces.								
Evaluation & Disposition:		Found to be satisfactory						
Inspected by:		Dongkai Xu			Organization:	QC Department		
Approved by:		Xin Zheng						
NDT Level:		MT II			Date:	2023.04		



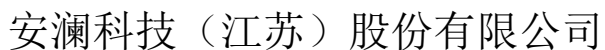
MAGNETIC PARTICLE INSPECTION REPORT

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ANLAN TECHNOLOGY (JIANGSU) CO.,LTD

Customer:			Customer PO#:	1456		Date:	2023.04	
Drawing #:	PFF105/180AN-00	Specification:	QJ/JJ07.01.03.02/ ASTM E165		API Monogram:	6A-2074	Report #:	NCS-2303-H12
Part No.:	X-182590-01	Material:	AISI 410 75K			Coating:	WC	
Description:	7-1/16"15000psi Body Bushing					Quantity:	2	
Test Method:	Type II Method C	Acceptance Criteria:		API 6A 21st/PSL3		Penetrate Type:		DPT-5
Remover Type:	DPT-5	Developer Type:		DPT-5		Light Intensity:		≥1076Lx
Stage:	Machined	Penetrate Time:		10min		Develop Time:		10min
Item	S/N	Heat Log No.	Result	Item	S/N	Heat Log No.	Result	
1	AS007111	HC2302005-01	Acceptable					
2	AS007120	HC2302005-01	Acceptable					
Inspection Coverage:								
Liquid penetrate examination was performed on all accessible wetted/sealing surfaces.								
Evaluation & Disposition:		Found to be satisfactory						
Inspected by:		Dongkai Xu			Organization:	QC Department		
Approved by:		Xin Zheng						
NDT Level:		MT II			Date:	2023.04		



ANLAN TECHNOLOGY (JIANGSU) CO.,LTD

Customer:			Customer PO#:	1456		Date:	2023.02	
Drawing #:	PFF105/180AN-00	Specification:	QJ/JJ07.01.03.02/ASTM E165		API Monogram:	6A-2074	Report #:	PTS-0221-001
Part No.:	X-182591-01	Material:	PH17-4-105K			Coating:	/	
Description:	7-1/16"15000psi Balance Stem					Quantity:	1	
Test Method:	Type II Method C	Acceptance Criteria:		API 6A 21st/PSL3	Penetrate Type:		DPT-5	
Remover Type:	DPT-5	Developer Type:		DPT-5	Light Intensity:		≥1076Lx	
Stage:	Machined	Penetrate Time:		10min	Develop Time:		10min	
Item	S/N	Heat Log No.	Result	Item	S/N	Heat Log No.	Result	
1	AP064361	HY230114-1	Acceptable					
Inspection Coverage:								
Liquid penetrate examination was performed on all accessible wetted/sealing surfaces.								
Evaluation & Disposition:		Found to be satisfactory						
Inspected by:		Dongkai Xu			Organization:		QC Department	
Approved by:		Xin Zheng						
NDT Level:		MT II			Date:		2023.02	



安澜科技（江苏）股份有限公司

ANLAN TECHNOLOGY (JIANGSU) CO.,LTD

HYDROSTATIC TEST REPORT

Customer:				Customer PO#:	1456		Date:	2023.04	
Drawing #:	PFF105/180A N-00	Specification:	API6A-21st	API Monogram:	6A-2074	Report #:	AS007F019		
Part No.:	X-182734-01	Material:	AISI 4130 75K			Coating:	/		
Description:	7-1/16"15000psi					Quantity:	1		
Item	Pressure	Method			Qty	Result			
Shell	22500psi	API 6A 21st			1	OK			
Seat	15000psi	API 6A 21st			1	OK			
Item	S/N	Heat Log No.	Result		Item	S/N	Heat Log No.	Result	
			A	B				A	B
1	AS001002	HY230321-3	OK	OK					
Drift Test:									
Diameter ϕ 179.7 mm drift test gauge can freely pass through the through hole of the valve.									
Inspection Coverage:									
Per Specification & Requirements: API 6A 21st									
					Approved By:		Examined By:		
Judgments:		[V] Conforms			Xin Zheng		Yifei Ma		
		[] Does Not Conform							



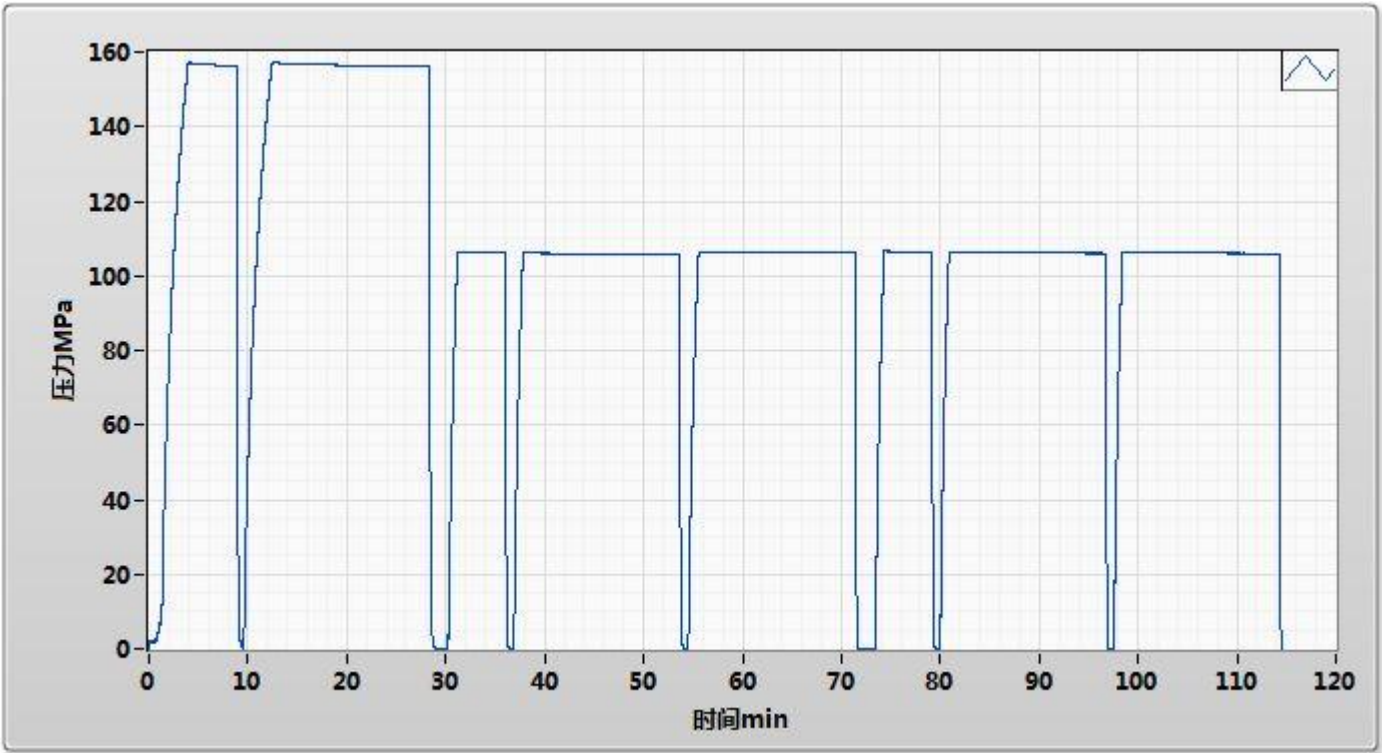
Pressure Test Report

Product Information

PRODUCT NAME	PRODUCT NO.	SPECS	PRESSURE TEST STANDARDS	TEST PART	EQUIPMENT NO.	BRAND
MANUAL GATE VALVE	AS007F019	7-1/16" 15000Psi	API 6A 21st	Shell & Seat	2#	

Test Data

LEVEL	INITIAL PRESSURE (Mpa)	TERMINATED PRESSURE (Mpa)	HOLDING TIME (Min)	PRESSURE DROPPING (Mpa)
1	156.90	156.23	4.0	0.67
2	157.03	156.13	15.0	0.90
3	106.45	106.37	4.0	0.08
4	106.09	105.88	15.0	0.21
5	106.39	106.16	15.0	0.24
6	106.53	106.36	4.0	0.17
7	106.35	106.02	15.0	0.32
8	106.24	105.99	15.0	0.25



TESTED BY:	INSPECTED BY:	REVIEWED BY:	DATE:
Yifei Ma	Xin Zheng	Zhicheng Feng	2023.04.07



REPORT INDEX

Purchase Order:1456

Quantity:1EA

Shipment No.:Crate#AS007F020

Shipment Date:April,2023

Activity No.	Characteristics	Reference Page
1	CERTIFICATE OF CONFORMITY	Page - 2
2	Metallurgical Test Certificate	Page - 3
2.1	Mechanical Testing	Page - 3
2.2	Chemical Testing	Page -3
2.3	Heat Treatment	Page - 3
3	Hardness Test	Page - 4-12
4	Ultrasonic Testing	Page - 13-17
5	Magnetic Particle Inspection Report	Page - 18-26
6	Hydrostatic Test	Page - 27-28



CERTIFICATE OF CONFORMITY

THE FOLLOWING ITEM IS IN CONFORMITY WITH PO # 1456, DRAWINGS AND ITS TECHNICAL REQUIREMENTS. IT IS MADE PER API – 6A MONOGRAM SPECIFICATIONS, EE-0.5 CLASS, PSL3, PR1, LU. AND IT IS MADE OF MATERIAL (4130,75K YIELD) FOR NACE H2S SERVICE UNDER THE CURRENT NACE MR0175 EDITION.

ITEM:

PO #: 1456

SERIAL NO.: AS007F020

PART NO.: PFF105/180AN-00

QANTITY: 1

INSPECTION STANDARD: API Spec 6A 21st EE-0.5, PSL3, PR1, LU

THIS COMMODITY HAS PASSED ALL THE TECHNICAL AND PERFORMANCE TESTS CARRIED BY QUALITY CONTROL/INSPECTION DEPARTMENT.

COMPANY NAME:

(STAMP)

Customer: _____

INSPECTOR:Zhicheng Feng

CHIEF ENGINEER: Xin Zheng

EX-FACTORY DATE: April,2023

P.O. Number: 1456



No.: AV00012

安澜科技（江苏）股份有限公司

ANLAN TECHNOLOGY (JIANGSU) CO.,LTD
Certified Material Test Report

Date:April,2023

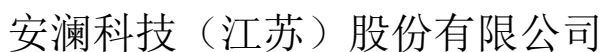
Customer		PO No.		Product				P/N		Serial No.	Qty	Size	WP (psi)	Material	PSL	Temp	Specifications							
		1456		MANUAL GATE VALVE				PFF105/180AN-00		AS007F020	1	7-1/16"	15000Psi	EE-0.5	PSL3	LU	API Spec 6A 21st							
Description							Melting Practice			Heat Treatment														
P/N	Parts	Melt No.	H.T. No.	Material Spec Standards		Qty	Serial No.	Finished	Austenized		Quenched			Temper(1)			Temper(2)							
									Temp (°C)	Time (min)	Medium	Start Temp	Finish Temp	Temp (°C)	Time (min)	Medium	Temp (°C)	Time (min)	Medium					
PFF105/180AN-00	BODY	TX22-05909	HY230325-1	AISI 4130 75K,Per ASTM A29		1	AS001005	Forging	870	5.5H	WATER	18	22	665	7.5H	AIR	/	/	/					
	UPPER BONNET	22DV0368	RT-3-053	AISI 4130 75K,Per ASTM A29		1	AS007153	Forging	860	6.0H	WATER	26	27	680	8.0H	AIR	/	/	/					
	LOWER BONNET	TX22-05907	RD-02-34	AISI 4130 75K,Per ASTM A29		1	AS001029	Forging	860	6.0H	WATER	26	39	670	11.0H	AIR	/	/	/					
	STEM	YX2212-2116	HY230227-1	PH17-4 105K,Per ASTM A564/564M		1	AS007180	Forging	1030	3.0H	WATER	17	20	630	4.5H	AIR	630	4.5H	AIR					
	BALANCE STEM	YX2211-1628	HY230114-1	PH17-4 105K,Per ASTM A564/564M		1	AP064375	Forging	1030	3.5H	WATER	12	15	630	5.0H	AIR	630	5.0H	AIR					
	GATE	122V-1118	HC2302005-01	AISI 410 75K,Per ASTM A276/276M		1	AS007143	Forging	960	3.0H	OIL	39	51	720	6.0H	AIR	680	6.0H	AIR					
	BODY BUSHING	122V-1118	HC2302005-01	AISI 410 75K,Per ASTM A276/276M		2	AS007116 AS007128	Forging	960	3.0H	OIL	39	51	720	6.0H	AIR	680	6.0H	AIR					
Melt No.	H.T. No.	Chemical Analysis (wt, %)													Physical Properties									
		C	Mn	Si	P	S	Cr	Ni	Mo	V	Co	W	Cu	Nb	Fe	Spec Size	Spec Origin	Tensile (MPa)	Yield (MPa)	Elongation (%)	ROA (%)	Impact(-46°C) Impact direction (Transverse)	Hardness	Equipment Type
TX22-05909	HY230325-1	0.31	0.66	0.29	0.008	0.004	1.06	0.21	0.211	0.006	/	/	0.03	/	/	8"x8"x10"	QTC	707	540	23.2	65.8	44/59/50	221HBW	JBW-300B/ WDW-300
22DV0368	RT-3-053	0.316	0.732	0.301	0.008	0.004	1.08	0.25	0.216	0.007	/	/	0.091	/	/	8"x8"x10"	QTC	695	541	29.0	70.0	83/98/85	229HBW	JBW-300B/ WDW-300
TX22-05907	RD-02-34	0.30	0.66	0.26	0.007	0.003	1.02	0.20	0.201	0.005	/	/	0.02	/	/	8"x8"x10"	QTC	676	545	43.0	50.0	59/56/55	221HBW	JBW-300B/ WDW-300
YX2212-2116	HY230227-1	0.024	0.55	0.36	0.032	0.002	15.66	4.08	/	/	/	/	3.62	0.235	/	Φ 80x200	QTC	1022	927	21.3	58.5	36/49/47	31HRC	JBW-300B/ WDW-300
YX2211-1628	HY230114-1	0.029	0.49	0.36	0.029	0.002	15.73	4.10	/	/	/	/	3.68	0.245	/	Φ 80x200	QTC	1027	930	19.5	60.1	55/51/42	30HRC	JBW-300B/ WDW-300
122V-1118	HC2302005-01	0.14	0.40	0.22	0.012	0.006	11.66	0.06	0.042	0.034	/	/	0.027	/	/	100x100x200	QTC	690	580	24.0	66.0	/	226HBW	JBW-300B/ WDW-300
122V-1118	HC2302005-01	0.14	0.40	0.22	0.012	0.006	11.66	0.06	0.042	0.034	/	/	0.027	/	/	100x100x200	QTC	690	580	24.0	66.0	/	226HBW	JBW-300B/ WDW-300

This is to certify that all above items have been tested and inspected per scope of specifications, drawings, and the purchase order and have been found to be satisfactory.

The information in this report is true and correct to our knowledge.

Xin Zheng

NAME of QA Manager, for and on the authority of COMPANY NAME



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The drawing consists of two parts. The top part is a plan view of a road intersection. It shows a horizontal road on the left and a vertical road intersecting it from the bottom. The intersection is marked with a dashed line. On the left side of the horizontal road, there are two small rectangular structures, possibly buildings or barriers. On the right side of the vertical road, there are two small rectangular structures, possibly buildings or barriers. The bottom part is a cross-section view of the intersection. It shows the vertical road as a central vertical line. On either side of this line, there are two curved lines representing the road's profile. The left side of the cross-section shows a road with a dashed center line and a solid edge line. The right side shows a road with a solid center line and a dashed edge line. The drawing is a technical illustration of a road intersection, showing both the plan and cross-section views.

4



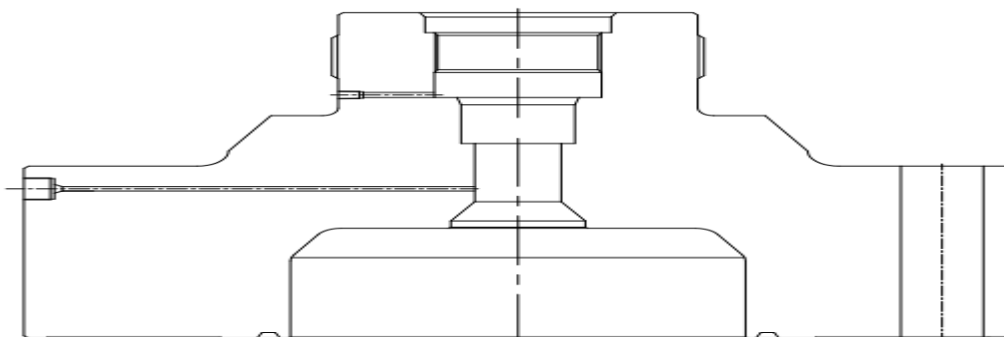
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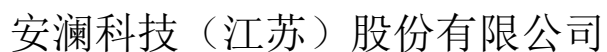
HARDNESS TEST REPORT

Customer:			Customer PO#:			Date:	
Drawing #:	PFF105/180A N-00	Specification:	API Spec 6A 21st /ASTM E10	API Monogram:	6A-2074	Report #:	HS-0328-005
Part No.:	X-182585-01	Material:	AISI 4130 75K			Coating:	/
Description:	7-1/16"15000psi Upper Bonnet					Quantity:	1
Item	S/N	Heat Log No.	Hardness	Item	S/N	Heat Log No.	Hardness
1	AS007153	RT-3-053	221HBW				

Sketch:

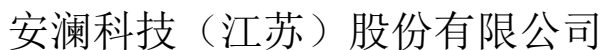


Method Used:	Impact Energy: 3000Kg.	Diameter of tungsten ball: 10mm	
Acceptable Hardness:	197HBW-235HBW	Approved By:	Examined By:
Judgments:	[V] Conforms	Xin zheng	Zhengguo Yao
	[] Does Not Conform		



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[illegible]6



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HARDNESS TEST REPORT							
Customer:			Customer PO#:			Date:	
Drawing #:	PFF105/180A N-00	Specification:	API Spec 6A 21st /ASTM E18	API Monogram:	6A-2074	Report #:	HS-0311-004
Part No.:	X-182588-01	Material:	PH17-4 105K			Coating:	/
Description:	7-1/16"15000psi Stem					Quantity:	1
Item	S/N	Heat Log No.	Hardness	Item	S/N	Heat Log No.	Hardness
1	AS007180	HY230227-1	29HRC				
Sketch:							
Method Used:							
Acceptable Hardness:		27HRC-33HRC	Approved By:		Examined By:		
Judgments:		[V] Conforms	Xin zheng		Zhengguo Yao		
		[] Does Not Conform					

HARDNESS TEST REPORT

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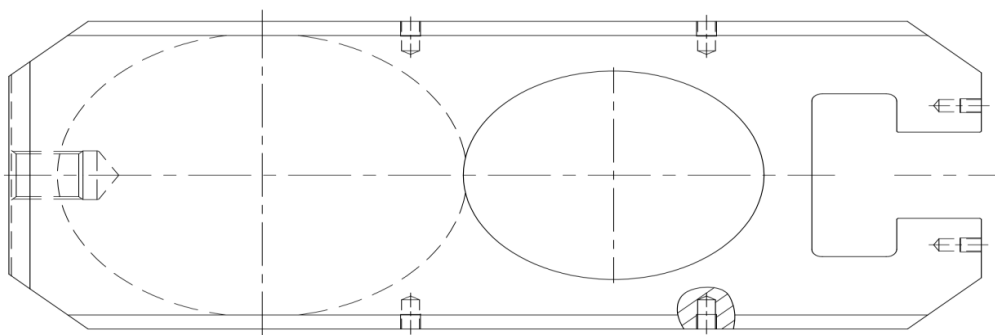
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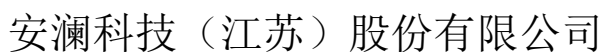
HARDNESS TEST REPORT

Customer:			Customer PO#:			Date:	
Drawing #:	PFF105/180A N-00	Specification:	API Spec 6A 21st /ASTM E92	API Monogram:	6A-2074	Report #:	20230406-03
Part No.:	X-182589-01	Material:	AISI 410 75K			Coating:	WC
Description:	7-1/16"15000psi Gate					Quantity:	1
Item	S/N	Heat Log No.	Hardness	Item	S/N	Heat Log No.	Hardness
1	AS007143	HC2302005-01	1197HV				

Sketch:

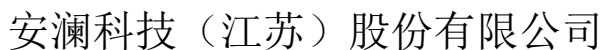


Method Used:	Impact Energy: 5Kg-f(49.03N).		
Acceptable Hardness:	≥1050HV	Approved By:	Examined By:
Judgments:	[V] Conforms	Xin zheng	Zhengguo Yao
	[] Does Not Conform		



ANLAN TECHNOLOGY (JIANGSU) CO.,LTD

Customer:			Customer PO#:				Date:	
Drawing #:	PFF105/180A N-00	Specification:	API Spec 6A 21st /ASTM E10		API Monogram:	6A-2074	Report #:	20230406-02
Part No.:	X-182590-01	Material:	AISI 410 75K				Coating:	/
Description:	7-1/16"15000psi Body bushing						Quantity:	2
Item	S/N	Heat Log No.	Hardness	Item	S/N	Heat Log No.	Hardness	
1	AS007116	HC2302005-01	211HBW					
2	AS007128	HC2302005-01	215HBW					
Sketch:								
Method Used:		Impact Energy: 3000Kg.		Diameter of tungsten ball: 10mm				
Acceptable Hardness:		207HBW-235HBW		Approved By:		Examined By:		
Judgments:		[V] Conforms		Xin zheng		Zhengguo Yao		
		[] Does Not Conform						



ANLAN TECHNOLOGY (JIANGSU) CO.,LTD

Customer:			Customer PO#:			Date:	
Drawing #:	PFF105/180A N-00	Specification:	API Spec 6A 21st /ASTM E92	API Monogram:	6A-2074	Report #:	20230406-04
Part No.:	X-182590-01	Material:	AISI 410 75K			Coating:	WC
Description:	7-1/16"15000psi Body bushing					Quantity:	2
Item	S/N	Heat Log No.	Hardness	Item	S/N	Heat Log No.	Hardness
1	AS007116	HC2302005-01	1171HV				
2	AS007128	HC2302005-01	1197HV				
Sketch:							
Method Used:		Impact Energy: 5Kg-f(49.03N).					
Acceptable Hardness:		≥1050HV		Approved By:		Examined By:	
Judgments:		[V] Conforms		Xin zheng		Zhengguo Yao	
		[] Does Not Conform					

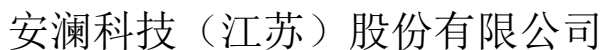


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ANLAN TECHNOLOGY (JIANGSU) CO.,LTD

HARDNESS TEST REPORT

Customer:				Customer PO#:	1456		Date:	2023.02
Drawing #:	PFF105/180A N-00	Specification:	API Spec 6A 21st /ASTM E18		API Monogram:	6A-2074	Report #:	HS-0222-004
Part No.:	X-182591-01	Material:	PH17-4 105K				Coating:	/
Description:	7-1/16"15000psi Balance Stem						Quantity:	1
Item	S/N	Heat Log No.	Hardness	Item	S/N	Heat Log No.	Hardness	
1	AP064375	HY230114-1	30HRC					
Sketch:								
								
Method Used:								
Acceptable Hardness:	27HRC-33HRC		Approved By:		Examined By:			
Judgments:	☐ V] Conforms		Xin zheng		Zhengguo Yao			
	☐] Does Not Conform							



ULTRASONIC EXAMINATION REPORT

ABOVE FORGED ARE TESTED ULTRASONICALLY FOR INTERNAL DEFECTS, AND THERE WAS NO RECORDABLE INDICATION OBSERVED DURING THE TEST. HENCE ACCEPTABLE AS PER STANDARD.



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ANLAN TECHNOLOGY (JIANGSU) CO.,LTD

ULTRASONIC EXAMINATION REPORT

Customer:			Customer PO#:			Date:	
Drawing #:		Specification:		API Monogram:		Report #:	
Part No.:		Material:				Coating:	
Description:	7-1/16"15000psi Upper Bonnet					Quantity:	1
Item	S/N	Heat Log No.	Result	Item	S/N	Heat Log No.	Result
1	AS007153	RT-3-053	Acceptable				
ABOVE FORGED ARE TESTED ULTRASONICALLY FOR INTERNAL DEFECTS, AND THERE WAS NO RECORDABLE INDICATION OBSERVED DURING THE TEST. HENCE ACCEPTABLE AS PER STANDARD.							
UT Code:	ASTM A388	Technique:	STRAIGHT PROBE		Examined By:	Dongkai Xu	
Exam. Stage:	Rough After	Calibration:	Block: CSK -I A Φ 1.6 FBH Block Φ 3.2 FBH Block		Level as per UT:	II	
Equipment:	MUT-800C	Couplant:	OIL				
Date of calibration	2023.03.02						
Period of validity	2024.03.02						
Probe Used:	2.5P Φ 14+ Φ 20	Acceptance Criteria:	API Spec. 6A 21st		Approved by:	Xin Zheng	
Instrmt/Ident.#:	FD14082504	Test Gain:	Φ 1.6DAC+6dB Φ 3.2DAC+6dB		Level as per UT:	II	



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ANLAN TECHNOLOGY (JIANGSU) CO.,LTD

ULTRASONIC EXAMINATION REPORT

Customer:				Customer PO#:	1456		Date:	2023.03	
Drawing #:	PFF105/180A N-00	Specification:	API Spec 6A 21st /ASTM A388	API Monogram:	6A-2074		Report #:	UTS-0309-00 2	
Part No.:	X-182586-01	Material:	AISI 4130 75K			Coating:	/		
Description:	7-1/16"15000psi Lower Bonnet					Quantity:	1		
Item	S/N	Heat Log No.	Result	Item	S/N	Heat Log No.	Result		
1	AS001029	RD-02-34	Acceptable						
ABOVE FORGED ARE TESTED ULTRASONICALLY FOR INTERNAL DEFECTS, AND THERE WAS NO RECORDABLE INDICATION OBSERVED DURING THE TEST. HENCE ACCEPTABLE AS PER STANDARD.									
UT Code:	ASTM A388		Technique:	STRAIGHT PROBE		Examined By:	Dongkai Xu		
Exam. Stage:	Rough After		Calibration:	Block: CSK -I A Φ 1.6 FBH Block Φ 3.2 FBH Block		Level as per UT:	II		
Equipment:	MUT-800C		Couplant:	OIL					
Date of calibration	2023.03.02								
Period of validity	2024.03.02								
Probe Used:	2.5P Φ 14+ Φ 20		Acceptance Criteria:	API Spec. 6A 21st		Approved by:	Xin Zheng		
Instrmt/Ident.#:	FD14082504		Test Gain:	Φ 1.6DAC+6dB Φ 3.2DAC+6dB		Level as per UT:	II		



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ANLAN TECHNOLOGY (JIANGSU) CO.,LTD

ULTRASONIC EXAMINATION REPORT

Customer:				Customer PO#:	1456		Date:	2023.03	
Drawing #:	PFF105/180A N-00	Specification:	API Spec 6A 21st /ASTM A388	API Monogram:	6A-2074		Report #:	UTS-0308-00 2	
Part No.:	X-182588-01	Material:	PH17-4 105K			Coating:	/		
Description:	7-1/16"15000psi Stem						Quantity:	1	
Item	S/N	Heat Log No.	Result	Item	S/N	Heat Log No.	Result		
1	AS007180	HY230227-1	Acceptable						
ABOVE FORGED ARE TESTED ULTRASONICALLY FOR INTERNAL DEFECTS, AND THERE WAS NO RECORDABLE INDICATION OBSERVED DURING THE TEST. HENCE ACCEPTABLE AS PER STANDARD.									
UT Code:	ASTM A388		Technique:	STRAIGHT PROBE		Examined By:	Dongkai Xu		
Exam. Stage:	Rough After		Calibration:	Block: CSK -I A Φ 1.6 FBH Block Φ 3.2 FBH Block		Level as per UT:	II		
Equipment:	MUT-800C		Couplant:	OIL					
Date of calibration	2023.03.02								
Period of validity	2024.03.02								
Probe Used:	2.5P Φ 14+ Φ 20		Acceptance Criteria:	API Spec. 6A 21st		Approved by:	Xin Zheng		
Instrmt/Ident.#:	FD14082504		Test Gain:	Φ 1.6DAC+6dB Φ 3.2DAC+6dB		Level as per UT:	II		

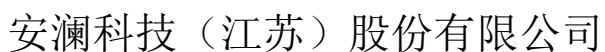


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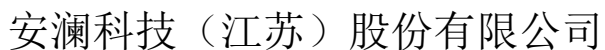
ULTRASONIC EXAMINATION REPORT

Customer:			Customer PO#:			Date:	
Drawing #:	PFF105/180AN-00	Specification:	API Spec 6A 21st /ASTM A388	API Monogram:	6A-2074	Report #:	UTS-0212-003
Part No.:	X-182591-01	Material:	PH17-4 105K			Coating:	/
Description:	7-1/16"15000psi Balance Stem					Quantity:	1
Item	S/N	Heat Log No.	Result	Item	S/N	Heat Log No.	Result
1	AP064375	HY230114-1	Acceptable				
ABOVE FORGED ARE TESTED ULTRASONICALLY FOR INTERNAL DEFECTS, AND THERE WAS NO RECORDABLE INDICATION OBSERVED DURING THE TEST. HENCE ACCEPTABLE AS PER STANDARD.							
UT Code:	ASTM A388	Technique:	STRAIGHT PROBE		Examined By:	Dongkai Xu	
Exam. Stage:	Rough After	Calibration:	Block: CSK -I A Φ 1.6 FBH Block Φ 3.2 FBH Block		Level as per UT:	II	
Equipment:	MUT-800C	Couplant:	OIL				
Date of calibration	2023.03.02						
Period of validity	2024.03.02						
Probe Used:	2.5P Φ 14+Φ 20	Acceptance Criteria:	API Spec. 6A 21st		Approved by:	Xin Zheng	
Instrmt/Ident.#:	FD14082504	Test Gain:	Φ 1.6DAC+6dB Φ 3.2DAC+6dB		Level as per UT:	II	



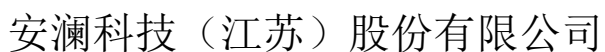
MAGNETIC PARTICLE INSPECTION REPORT

18



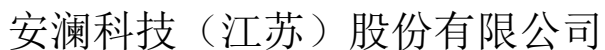
MAGNETIC PARTICLE INSPECTION REPORT

19



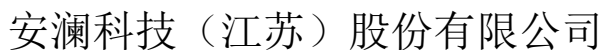
MAGNETIC PARTICLE INSPECTION REPORT

20



ANLAN TECHNOLOGY (JIANGSU) CO.,LTD

Customer:		Customer PO#:	1456		Date:	2023.03	
Drawing #:	PFF105/180AN-00	Specification:	QJ/JJ07.01.03.02/ ASTM E165	API Monogram:	6A-2074	Report #:	PTS-0311-001
Part No.:	X-182588-01	Material:	PH17-4-105K			Coating:	/
Description:	7-1/16"15000psi Stem					Quantity:	1
Test Method:	Type II Method C	Acceptance Criteria:	API 6A 21st/PSL3	Penetrate Type:		DPT-5	
Remover Type:	DPT-5	Developer Type:	DPT-5	Light Intensity:		≥1076Lx	
Stage:	Machined	Penetrate Time:	10min	Develop Time:		10min	
Item	S/N	Heat Log No.	Result	Item	S/N	Heat Log No.	Result
1	AS007180	HY230227-1	Acceptable				
Inspection Coverage:							
Liquid penetrate examination was performed on all accessible wetted/sealing surfaces.							
Evaluation & Disposition:	Found to be satisfactory						
Inspected by:	Dongkai Xu			Organization:	QC Department		
Approved by:	Xin Zheng						
NDT Level:	MT II			Date:	2023.03		

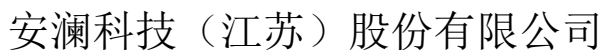


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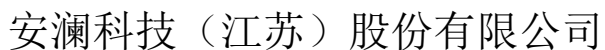
Fluorescent magnetic particle inspection was performed on all accessible wetted/sealing surfaces.

Evaluation & Disposition:	Found to be satisfactory		
Inspected by:	Dongkai Xu	Organization:	QC Department
Approved by:	Xin Zheng		
NDT Level:	MT II	Date:	2023.04



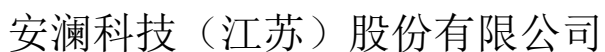
ANLAN TECHNOLOGY (JIANGSU) CO.,LTD

Customer:			Customer PO#:	1456		Date:	2023.04	
Drawing #:	PFF105/180AN-00	Specification:	QJ/JJ07.01.03.02/ ASTM E165		API Monogram:	6A-2074	Report #:	NCS-2304-H11
Part No.:	X-182589-01	Material:	AISI 410 75K			Coating:	WC	
Description:	7-1/16"15000psi Gate					Quantity:	1	
Test Method:	Type II Method C	Acceptance Criteria:		API 6A 21st/PSL3	Penetrate Type:		DPT-5	
Remover Type:	DPT-5	Developer Type:		DPT-5	Light Intensity:		≥1076Lx	
Stage:	Machined	Penetrate Time:		10min	Develop Time:		10min	
Item	S/N	Heat Log No.	Result	Item	S/N	Heat Log No.	Result	
1	AS007143	HC2302005-01	Acceptable					
Inspection Coverage:								
Liquid penetrate examination was performed on all accessible wetted/sealing surfaces.								
Evaluation & Disposition:		Found to be satisfactory						
Inspected by:		Dongkai Xu			Organization:	QC Department		
Approved by:		Xin Zheng						
NDT Level:		MT II			Date:	2023.04		



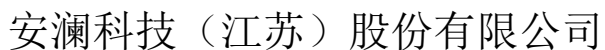
ANLAN TECHNOLOGY (JIANGSU) CO.,LTD

Customer:			Customer PO#:	1456		Date:	2023.04	
Drawing #:	PFF105/180AN-00	Specification:	API Spec 6A 21st /ASTM E709	API Monogram:	6A-2074	Report #:	NCS-2304-Q12	
Part No.:	X-182590-01	Material:	AISI 410 75K			Coating:	/	
Description:	7-1/16"15000psi Body Bushing					Quantity:	2	
Equipment:	CYD-5000	Acceptance Criteria:	API 6A 21st/PSL3		Circular AMPS:		3200A	
Test Method:	Fluorescence Wet Continuous	Particle Type:	Fluorescence		UV-Light Intensity:		≥1000Uw/cm²	
Stage:	Machined	Concentration:	0.2ml/100ml		Magnetizing Time:		1-3S	
Item	S/N	Heat Log No.	Result	Item	S/N	Heat Log No.	Result	
1	AS007116	HC2302005-01	Acceptable					
2	AS007128	HC2302005-01	Acceptable					
Inspection Coverage:								
Fluorescent magnetic particle inspection was performed on all accessible wetted/sealing surfaces.								
Evaluation & Disposition:		Found to be satisfactory						
Inspected by:	Dongkai Xu			Organization:	QC Department			
Approved by:	Xin Zheng							
NDT Level:	MT II			Date:	2023.04			



LIQUID PENETRATE EXAMINATION

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LIQUID PENETRATE EXAMINATION

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安澜科技（江苏）股份有限公司

ANLAN TECHNOLOGY (JIANGSU) CO.,LTD

HYDROSTATIC TEST REPORT

Customer:				Customer PO#:	1456		Date:	2023.04	
Drawing #:	PFF105/180A N-00	Specification:	API6A-21st	API Monogram:	6A-2074	Report #:	AS007F020		
Part No.:	X-182734-01	Material:	AISI 4130 75K			Coating:	/		
Description:	7-1/16"15000psi					Quantity:	1		
Item	Pressure	Method			Qty	Result			
Shell	22500psi	API 6A 21st			1	OK			
Seat	15000psi	API 6A 21st			1	OK			
Item	S/N	Heat Log No.	Result		Item	S/N	Heat Log No.	Result	
			A	B				A	B
1	AS001005	HY230325-1	OK	OK					
Drift Test:									
Diameter ϕ 179.7 mm drift test gauge can freely pass through the through hole of the valve.									
Inspection Coverage:									
Per Specification & Requirements: API 6A 21st									
					Approved By:		Examined By:		
Judgments:		[V] Conforms			Xin Zheng		Yifei Ma		
		[] Does Not Conform							



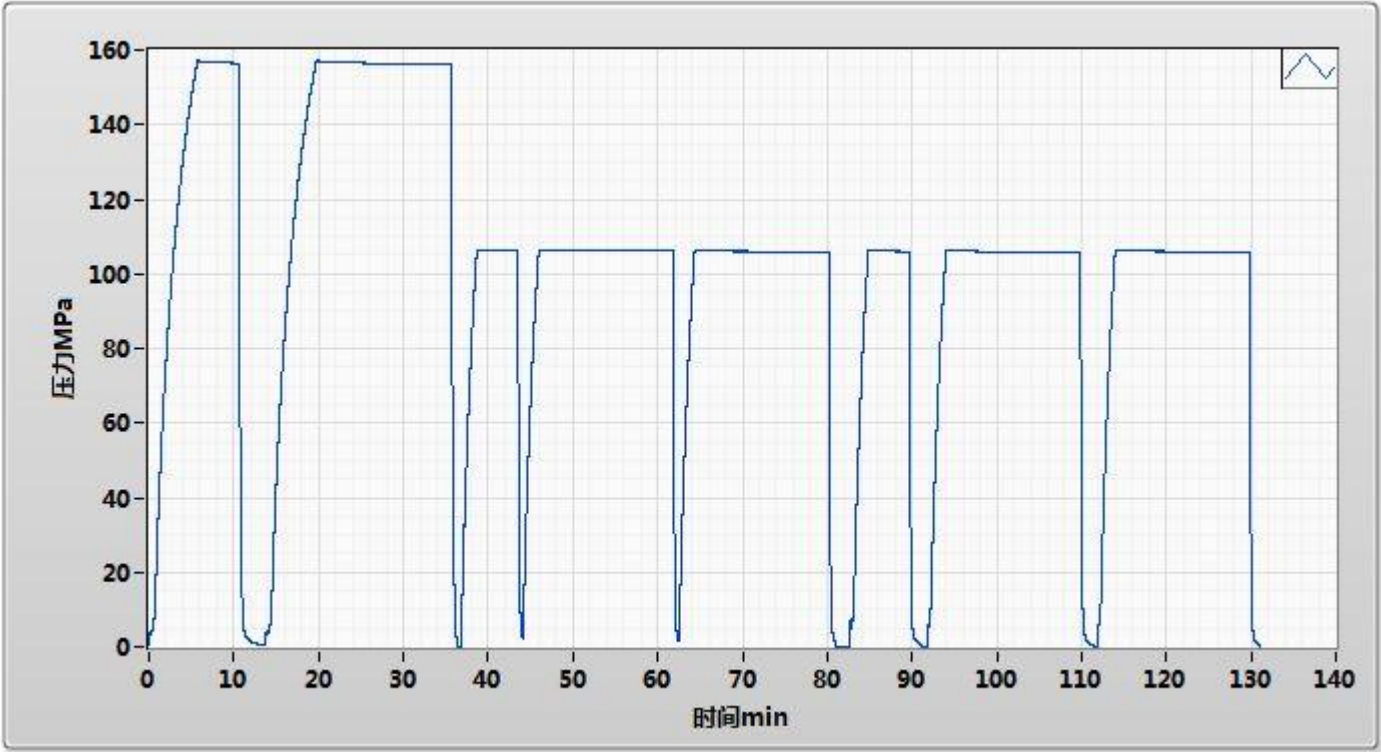
Pressure Test Report

Product Information

PRODUCT NAME	PRODUCT NO.	SPECS	PRESSURE TEST STANDARDS	TEST PART	EQUIPMENT NO.	BRAND
MANUAL GATE VALVE	AS007F020	7-1/16" 15000Psi	API 6A 21st	Shell & Seat	2#	

Test Data

LEVEL	INITIAL PRESSURE (Mpa)	TERMINATED PRESSURE (Mpa)	HOLDING TIME (Min)	PRESSURE DROPPING (Mpa)
1	156.93	156.44	4.0	0.48
2	156.95	156.12	15.0	0.83
3	106.27	106.22	4.0	0.05
4	106.25	106.08	15.0	0.17
5	106.13	105.95	15.0	0.18
6	106.18	105.99	4.0	0.19
7	106.18	105.80	15.0	0.38
8	106.20	105.89	15.0	0.31



TESTED BY:	INSPECTED BY:	REVIEWED BY:	DATE:
Yifei Ma	Xin Zheng	Zhicheng Feng	2023.04.10