



C&W International Fabricators

REPORT INDEX

Purchase Order: **ET2022168-3**

Quantity: **10 EA**

Shipment No. :

Shipment Date:

Activity No.	Characteristics	Reference Page
1.1	ADAPTER SPOOL 7 1/16" 15M X 5 1/8" 15M X 16"	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



C&W International Fabricators

METALLURGICAL TEST CERTIFICATE

Serial No. :	ET2022168-3-01....10	PO# :	ET2022168	Date:	2022-09-15							
Part No:		API Monogram:	YES	Report#:	20220915							
Specification:	API Spec 6A/ ASTM A370	Material:	4130 75k per ASTM A29									
Description:	ADAPTER SPOOL 7 1/16" 15M X 5 1/8" 15M X 16" EE LU PSL3 PR1			Qty:	10 EA							
TEST CONDITION												
Test Bar Size:	QTC, 4" x 4" x 8"		Bar Di:	12.7 mm (0.5")								
Melt Practice	EF + LF + VD		Reduction Ratio Min:	4:1								
Yield Stress	0.2% offset		Gauge Length	50.8mm								
CHEMICAL COMPOSITION												
Mill No. :	Qty	Test No.	C	Mn	Si	S	P	Ni	Cu	Mo	Cr	V
Spec Min			0.28	0.40	0.15	/	/	/	/	0.15	0.80	/
Spec Max			0.33	0.60	0.35	0.025	0.025	0.50	0.35	0.25	1.10	0.30
2016841Z	10	1	0.29	0.53	0.25	0.009	0.009	0.04	0.03	0.16	1.06	0.008
MECHANICAL COMPOSITION												
Heat Lot No.	QTY.	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 Later 1	Shear Fraction		
Spec Min			75K	95K	18.0	35.0	197	27J				
Spec Max			/	/	/	/	235	/				
TM2208260201	4	1	79.5 K	100.5 K	48.5	59.5	225	48;57;43				
TM2208280201	6	1	81.0 K	101.5 K	54.5	63.4	223	42;49;55				
HEAT TREATMENT												
Forgings:	4:1		Test Bar (OTC)									
Normalized:	903°C 5 HRS		Normalized:			903°C 5 HRS						
Austenitized:	870°C 5 HRS		Austenitized:			870°C 5 HRS						
Quenchant:	Water		Quenchant:			Water						
Start Temp:	29 °C		Start Temp:			29 °C						
End Temp:	38 °C		End Temp:			38 °C						
Temper:	670°C 7 HRS AIR		Temper:			670°C 7 HRS AIR						
We hereby certify that all test results and procedure information contained herein are correct and true as in contained the records of the company and also no welding or weld repair was performed on subject parts.												
Inspected by:	张全龙		Approved by:			徐俊						



Hardness Test Report

[illegible]



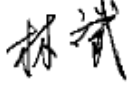
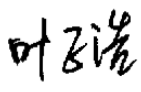
C&W International Fabricators

ULTRASONIC EXAMINATION REPORT

Serial No. :	ET2022168-3-01....10	PO# :	ET2022168	Date:	2022-09-15
Part No:		API Monogram:	YES	Report#:	20220915
Specification:	API Spec 6A/ ASTM A388	Material:	4130 75k per ASTM A29		
Description:	ADAPTER SPOOL 7 1/16" 15M X 5 1/8" 15M X 16" EE LU PSL3 PR1				Qty: 10 EA

Item	S/N	Heat Lot No.	Result	Item	S/N	Heat Lot No.	Result
1	ET2022168-3-01	TM2208260201	Acceptable				
2	ET2022168-3-02	TM2208260201	Acceptable				
3	ET2022168-3-03	TM2208260201	Acceptable				
4	ET2022168-3-04	TM2208260201	Acceptable				
5	ET2022168-3-05	TM2208280201	Acceptable				
6	ET2022168-3-06	TM2208280201	Acceptable				
7	ET2022168-3-07	TM2208280201	Acceptable				
8	ET2022168-3-08	TM2208280201	Acceptable				
9	ET2022168-3-09	TM2208260201	Acceptable				
10	ET2022168-3-10	TM2208260201	Acceptable				

Sketch:

UT Code:ASTM A388	Technique:Straight/Contact	Examined BY:	Approved by:
Exam. Stage: After heat treatment	Calibration Block:CSK IA		
Equipment:CTS-2020	Couplant: OIL		
Probe Used :2.5P Φ10	Acceptance Criteria: API 6A PSL 3		
Equipment Calibration Date :2022.09.10	Test Gain:20db + 5 db		
Equipment Due Date: 2023.09.09		Level as per UT II	Level as per UT II



C&W International Fabricators

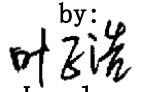
Magnetic Particle Inspection Report

Serial No. :		ET2022168-3-01....10		PO# :		ET2022168		Date:		2022-09-15			
Part No:				API Monogram:		YES		Report#:		20220915			
Specification:		API Spec 6A/ ASTM E709		Material:		4130 75k per ASTM A29							
Description:		ADAPTER SPOOL 7 1/16" 15M X 5 1/8" 15M X 16" EE LU PSL3 PR1										Qty:	10 EA
Item	S/N		Heat Lot No.	Result	Item	S/N		Heat Lot No.		Result			
1	ET2022168-3-01		TM2208260201	Acceptable									
2	ET2022168-3-02		TM2208260201	Acceptable									
3	ET2022168-3-03		TM2208260201	Acceptable									
4	ET2022168-3-04		TM2208260201	Acceptable									
5	ET2022168-3-05		TM2208280201	Acceptable									
6	ET2022168-3-06		TM2208280201	Acceptable									
7	ET2022168-3-07		TM2208280201	Acceptable									
8	ET2022168-3-08		TM2208280201	Acceptable									
9	ET2022168-3-09		TM2208260201	Acceptable									
10	ET2022168-3-10		TM2208260201	Acceptable									

Sketch/Inspection Coverage:

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

Evaluation & Disposition : Found to be satisfactory.

Equipment	CJD-9000	MT Code	ASTM E709	Examined BY:  Level as per MT II	Approved by:  Level as per MT II
Test Method	Fulcrum [] Cablel [✓]	Particle Type	Fluorescence Wet		
Exam. Stage	Rough After Ra ≅ 6.3μm	Test Piece	A1-30/100		
Magnetizing time	1-3S	Circular AMPS/Turns	900A/1		
Concentration	0.3ml/100ml	UV-Light Intensity	≥1000Uw/C m²		



C&W International Fabricators

REPORT INDEX

Purchase Order: **ET2022168-4**

Quantity: **10 EA**

Shipment No. :

Shipment Date:

Activity No.	Characteristics	Reference Page
1.1	ADAPTER SPOOL 7 1/16" 15M X 7 1/16" 10M X 16"	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



C&W International Fabricators

METALLURGICAL TEST CERTIFICATE

Serial No. :	ET2022168-4-01....10	PO# :	ET2022168	Date:	2022-09-17							
Part No:		API Monogram:	YES	Report#:	20220917							
Specification:	API Spec 6A/ ASTM A370	Material:	4130 75k per ASTM A29									
Description:	ADAPTER SPOOL 7 1/16" 15M X 7 1/16" 10M X 16" EE LU PSL3 PR1			Qty:	10 EA							
TEST CONDITION												
Test Bar Size:	QTC, 4" x 4" x 8"		Bar Di:	12.7 mm (0.5")								
Melt Practice	EF + LF + VD		Reduction Ratio Min:	4:1								
Yield Stress	0.2% offset		Gauge Length	50.8mm								
CHEMICAL COMPOSITION												
Mill No. :	Qty	Test No.	C	Mn	Si	S	P	Ni	Cu	Mo	Cr	V
Spec Min			0.28	0.40	0.15	/	/	/	/	0.15	0.80	/
Spec Max			0.33	0.60	0.35	0.025	0.025	0.50	0.35	0.25	1.10	0.30
2016841Z	10	1	0.29	0.53	0.25	0.009	0.009	0.04	0.03	0.16	1.06	0.008
MECHANICAL COMPOSITION												
Heat Lot No.	QTY.	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 Laterl	Shear Fraction		
Spec Min			75K	95K	18.0	35.0	197	27J				
Spec Max			/	/	/	/	235	/				
TM2208270301	10	1	80.5 K	100.5 K	51.5	63.2	227	43;56;52				
HEAT TREATMENT												
Forgings:	4:1		Test Bar (OTC)									
Normalized:	903°C 5 HRS		Normalized:			903°C 5 HRS						
Austenitized:	870°C 5 HRS		Austenitized:			870°C 5 HRS						
Quenchant:	Water		Quenchant:			Water						
Start Temp:	29 °C		Start Temp:			29 °C						
End Temp:	38 °C		End Temp:			38 °C						
Temper:	670°C 7 HRS AIR		Temper:			670°C 7 HRS AIR						
We hereby certify that all test results and procedure information contained herein are correct and true as in contained the records of the company and also no welding or weld repair was performed on subject parts.												
Inspected by:	张金龙		Approved by:		徐根							



Hardness Test Report

[illegible]



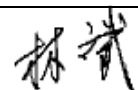
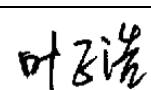
C&W International Fabricators

ULTRASONIC EXAMINATION REPORT

Serial No. :	ET2022168-4-01....10	PO# :	ET2022168	Date:	2022-09-17
Part No:		API Monogram:	YES	Report#:	20220917
Specification:	API Spec 6A/ ASTM A388	Material:	4130 75k per ASTM A29		
Description:	ADAPTER SPOOL 7 1/16" 15M X 7 1/16" 10M X 16"			EE LU PSL3 PR1	Qty: 10 EA

Item	S/N	Heat Lot No.	Result	Item	S/N	Heat Lot No.	Result
1	ET2022168-4-01	TM2208270301	Acceptable				
2	ET2022168-4-02	TM2208270301	Acceptable				
3	ET2022168-4-03	TM2208270301	Acceptable				
4	ET2022168-4-04	TM2208270301	Acceptable				
5	ET2022168-4-05	TM2208270301	Acceptable				
6	ET2022168-4-06	TM2208270301	Acceptable				
7	ET2022168-4-07	TM2208270301	Acceptable				
8	ET2022168-4-08	TM2208270301	Acceptable				
9	ET2022168-4-09	TM2208270301	Acceptable				
10	ET2022168-4-10	TM2208270301	Acceptable				

Sketch:

UT Code:ASTM A388	Technique:Straight/Contact	Examined BY:	Approved by:
Exam.Stage: After heat treatment	Calibration Block:CSK IA		
Equipment:CTS-2020	Couplant: OIL		
Probe Used :2.5P Φ10	Acceptance Criteria: API 6A PSL 3		
Equipment Calibration Date :2022.09.10	Test Gain:20db + 5 db		
Equipment Due Date: 2023.09.09		Level as per UT II	Level as per UT II



C&W International Fabricators

Magnetic Particle Inspection Report

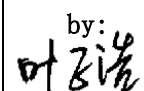
Serial No.:	ET2022168-4-01....10	PO# :	ET2022168	Date:	2022-09-17
Part No:		API Monogram:	YES	Report#:	20220917
Specification:	API Spec 6A/ ASTM E709	Material:	4130 75k per ASTM A29		
Description:	ADAPTER SPOOL 7 1/16" 15M X 7 1/16" 10M X 16"			EE LU PSL3 PR1	Qty: 10 EA

Item	S/N	Heat Lot No.	Result	Item	S/N	Heat Lot No.	Result
1	ET2022168-4-01	TM2208270301	Acceptable				
2	ET2022168-4-02	TM2208270301	Acceptable				
3	ET2022168-4-03	TM2208270301	Acceptable				
4	ET2022168-4-04	TM2208270301	Acceptable				
5	ET2022168-4-05	TM2208270301	Acceptable				
6	ET2022168-4-06	TM2208270301	Acceptable				
7	ET2022168-4-07	TM2208270301	Acceptable				
8	ET2022168-4-08	TM2208270301	Acceptable				
9	ET2022168-4-09	TM2208270301	Acceptable				
10	ET2022168-4-10	TM2208270301	Acceptable				

Sketch/Inspection Coverage:

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

Evaluation & Disposition : Found to be satisfactory.

Equipment	CJD-9000	MT Code	ASTM E709	Examined BY:  Level as per MT II	Approved by:  Level as per MT II
Test Method	Fulcrum [] Cablel [✓]	Particle Type	Fluorescence Wet		
Exam. Stage	Rough After Ra ≅ 6.3μm	Test Piece	A1-30/100		
Magnetizing time	1-3S	Circular AMPS/Turns	900A/1		
Concentration	0.3ml/100ml	UV-Light Intensity	≥1000Uw/C m²		



C&W International Fabricators

REPORT INDEX

Purchase Order: **ET2022173-4**

Quantity: **10 EA**

Shipment No. :

Shipment Date:

Activity No.	Characteristics	Reference Page
1.1	ADAPTER SPOOL 7 1/16" 15M X 5 1/8" 15M X 16"	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



C&W International Fabricators

METALLURGICAL TEST CERTIFICATE

Serial No. :	ET2022173-4-01....10	PO# :	ET2022173	Date:	2022-09-15							
Part No:		API Monogram:	YES	Report#:	20220915							
Specification:	API Spec 6A/ ASTM A370	Material:	4130 75k per ASTM A29									
Description:	ADAPTER SPOOL 7 1/16" 15M X 5 1/8" 15M X 16" EE LU PSL3 PR1			Qty:	10 EA							
TEST CONDITION												
Test Bar Size:	QTC, 4" x 4" x 8"		Bar Di:	12.7 mm (0.5")								
Melt Practice	EF + LF + VD		Reduction Ratio Min:	4:1								
Yield Stress	0.2% offset		Gauge Length	50.8mm								
CHEMICAL COMPOSITION												
Mill No. :	Qty	Test No.	C	Mn	Si	S	P	Ni	Cu	Mo	Cr	V
Spec Min			0.28	0.40	0.15	/	/	/	/	0.15	0.80	/
Spec Max			0.33	0.60	0.35	0.025	0.025	0.50	0.35	0.25	1.10	0.30
2016841Z	10	1	0.29	0.53	0.25	0.009	0.009	0.04	0.03	0.16	1.06	0.008
MECHANICAL COMPOSITION												
Heat Lot No.	QTY.	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 Laterl	Shear Fraction		
Spec Min			75K	95K	18.0	35.0	197	27J				
Spec Max			/	/	/	/	235	/				
TM2208280201	10	1	81.0 K	101.5 K	54.5	63.4	223	42;49;55				
HEAT TREATMENT												
Forgings:	4:1		Test Bar (OTC)									
Normalized:	903°C 5 HRS		Normalized:			903°C 5 HRS						
Austenitized:	870°C 5 HRS		Austenitized:			870°C 5 HRS						
Quenchant:	Water		Quenchant:			Water						
Start Temp:	29 °C		Start Temp:			29 °C						
End Temp:	38 °C		End Temp:			38 °C						
Temper:	670°C 7 HRS AIR		Temper:			670°C 7 HRS AIR						
We hereby certify that all test results and procedure information contained herein are correct and true as in contained the records of the company and also no welding or weld repair was performed on subject parts.												
Inspected by:	张全龙		Approved by:		徐俊							



Hardness Test Report

[illegible]



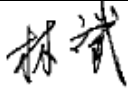
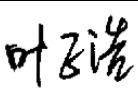
C&W International Fabricators

ULTRASONIC EXAMINATION REPORT

Serial No. :	ET2022173-4-01....10	PO# :	ET2022173	Date:	2022-09-15
Part No:		API Monogram:	YES	Report#:	20220915
Specification:	API Spec 6A/ ASTM A388	Material:	4130 75k per ASTM A29		
Description:	ADAPTER SPOOL 7 1/16" 15M X 5 1/8" 15M X 16" EE LU PSL3 PR1				Qty: 10 EA

Item	S/N	Heat Lot No.	Result	Item	S/N	Heat Lot No.	Result
1	ET2022173-4-01	TM2208260201	Acceptable				
2	ET2022173-4-02	TM2208260201	Acceptable				
3	ET2022173-4-03	TM2208260201	Acceptable				
4	ET2022173-4-04	TM2208260201	Acceptable				
5	ET2022173-4-05	TM2208280201	Acceptable				
6	ET2022173-4-06	TM2208280201	Acceptable				
7	ET2022173-4-07	TM2208280201	Acceptable				
8	ET2022173-4-08	TM2208280201	Acceptable				
9	ET2022173-4-09	TM2208260201	Acceptable				
10	ET2022173-4-10	TM2208260201	Acceptable				

Sketch:

UT Code:ASTM A388	Technique:Straight/Contact	Examined BY:	Approved by:
Exam. Stage: After heat treatment	Calibration Block:CSK IA	 Level as per UT II	 Level as per UT II
Equipment:CTS-2020	Couplant: OIL		
Probe Used :2.5P Φ10	Acceptance Criteria: API 6A PSL 3		
Equipment Calibration Date :2022.09.10	Test Gain:20db + 5 db		
Equipment Due Date: 2023.09.09			



C&W International Fabricators

Magnetic Particle Inspection Report

Serial No. :		ET2022173-4-01....10		PO# :		ET2022173		Date:		2022-09-15			
Part No:				API Monogram:		YES		Report#:		20220915			
Specification:		API Spec 6A/ ASTM E709		Material:		4130 75k per ASTM A29							
Description:		ADAPTER SPOOL 7 1/16" 15M X 5 1/8" 15M X 16" EE LU PSL3 PR1										Qty:	10 EA
Item	S/N		Heat Lot No.	Result	Item	S/N		Heat Lot No.		Result			
1	ET2022173-4-01		TM2208260201	Acceptable									
2	ET2022173-4-02		TM2208260201	Acceptable									
3	ET2022173-4-03		TM2208260201	Acceptable									
4	ET2022173-4-04		TM2208260201	Acceptable									
5	ET2022173-4-05		TM2208280201	Acceptable									
6	ET2022173-4-06		TM2208280201	Acceptable									
7	ET2022173-4-07		TM2208280201	Acceptable									
8	ET2022173-4-08		TM2208280201	Acceptable									
9	ET2022173-4-09		TM2208260201	Acceptable									
10	ET2022173-4-10		TM2208260201	Acceptable									

Sketch/Inspection Coverage:

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

Evaluation & Disposition : Found to be satisfactory.

Equipment	CJD-9000	MT Code	ASTM E709	Examined BY:  Level as per MT II	Approved by:  Level as per MT II
Test Method	Fulcrum [] Cablel [✓]	Particle Type	Fluorescence Wet		
Exam. Stage	Rough After Ra ≅ 6.3μm	Test Piece	A1-30/100		
Magnetizing time	1-3S	Circular AMPS/Turns	900A/1		
Concentration	0.3ml/100ml	UV-Light Intensity	≥1000Uw/C m²		



C&W International Fabricators

REPORT INDEX

Purchase Order: **ET2022173-4**

Quantity: **10 EA**

Shipment No. :

Shipment Date:

Activity No.	Characteristics	Reference Page
1.1	ADAPTER SPOOL 7 1/16" 15M X 5 1/8" 15M X 16"	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



C&W International Fabricators

METALLURGICAL TEST CERTIFICATE

Serial No. :	ET2022173-4-01....10	PO# :	ET2022173	Date:	2022-09-15							
Part No:		API Monogram:	YES	Report#:	20220915							
Specification:	API Spec 6A/ ASTM A370	Material:	4130 75k per ASTM A29									
Description:	ADAPTER SPOOL 7 1/16" 15M X 5 1/8" 15M X 16" EE LU PSL3 PR1			Qty:	10 EA							
TEST CONDITION												
Test Bar Size:	QTC, 4" x 4" x 8"		Bar Di:	12.7 mm (0.5")								
Melt Practice	EF + LF + VD		Reduction Ratio Min:	4:1								
Yield Stress	0.2% offset		Gauge Length	50.8mm								
CHEMICAL COMPOSITION												
Mill No. :	Qty	Test No.	C	Mn	Si	S	P	Ni	Cu	Mo	Cr	V
Spec Min			0.28	0.40	0.15	/	/	/	/	0.15	0.80	/
Spec Max			0.33	0.60	0.35	0.025	0.025	0.50	0.35	0.25	1.10	0.30
2016841Z	10	1	0.29	0.53	0.25	0.009	0.009	0.04	0.03	0.16	1.06	0.008
MECHANICAL COMPOSITION												
Heat Lot No.	QTY.	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 Laterl	Shear Fraction		
Spec Min			75K	95K	18.0	35.0	197	27J				
Spec Max			/	/	/	/	235	/				
TM2208280201	10	1	81.0 K	101.5 K	54.5	63.4	223	42;49;55				
HEAT TREATMENT												
Forgings:	4:1		Test Bar (OTC)									
Normalized:	903°C 5 HRS		Normalized:			903°C 5 HRS						
Austenitized:	870°C 5 HRS		Austenitized:			870°C 5 HRS						
Quenchant:	Water		Quenchant:			Water						
Start Temp:	29 °C		Start Temp:			29 °C						
End Temp:	38 °C		End Temp:			38 °C						
Temper:	670°C 7 HRS AIR		Temper:			670°C 7 HRS AIR						
We hereby certify that all test results and procedure information contained herein are correct and true as in contained the records of the company and also no welding or weld repair was performed on subject parts.												
Inspected by:	张全龙		Approved by:		徐俊							



Hardness Test Report

[illegible]



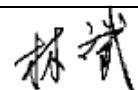
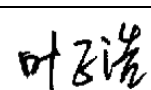
C&W International Fabricators

ULTRASONIC EXAMINATION REPORT

Serial No. :	ET2022173-4-01....10	PO# :	ET2022173	Date:	2022-09-15
Part No:		API Monogram:	YES	Report#:	20220915
Specification:	API Spec 6A/ ASTM A388	Material:	4130 75k per ASTM A29		
Description:	ADAPTER SPOOL 7 1/16" 15M X 5 1/8" 15M X 16" EE LU PSL3 PR1			Qty:	10 EA

Item	S/N	Heat Lot No.	Result	Item	S/N	Heat Lot No.	Result
1	ET2022173-4-01	TM2208260201	Acceptable				
2	ET2022173-4-02	TM2208260201	Acceptable				
3	ET2022173-4-03	TM2208260201	Acceptable				
4	ET2022173-4-04	TM2208260201	Acceptable				
5	ET2022173-4-05	TM2208280201	Acceptable				
6	ET2022173-4-06	TM2208280201	Acceptable				
7	ET2022173-4-07	TM2208280201	Acceptable				
8	ET2022173-4-08	TM2208280201	Acceptable				
9	ET2022173-4-09	TM2208260201	Acceptable				
10	ET2022173-4-10	TM2208260201	Acceptable				

Sketch:

UT Code:ASTM A388	Technique:Straight/Contact	Examined BY:	Approved by:
Exam.Stage: After heat treatment	Calibration Block:CSK IA		
Equipment:CTS-2020	Couplant: OIL		
Probe Used :2.5P Φ10	Acceptance Criteria: API 6A PSL 3		
Equipment Calibration Date :2022.09.10	Test Gain:20db + 5 db		
Equipment Due Date: 2023.09.09		Level as per UT II	Level as per UT II



C&W International Fabricators

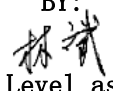
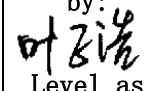
Magnetic Particle Inspection Report

Serial No. :	ET2022173-4-01....10	PO# :	ET2022173	Date:	2022-09-15
Part No:		API Monogram:	YES	Report#:	20220915
Specification:	API Spec 6A/ ASTM E709	Material:	4130 75k per ASTM A29		
Description:	ADAPTER SPOOL 7 1/16" 15M X 5 1/8" 15M X 16" EE LU PSL3 PR1			Qty:	10 EA

Item	S/N	Heat Lot No.	Result	Item	S/N	Heat Lot No.	Result
1	ET2022173-4-01	TM2208260201	Acceptable				
2	ET2022173-4-02	TM2208260201	Acceptable				
3	ET2022173-4-03	TM2208260201	Acceptable				
4	ET2022173-4-04	TM2208260201	Acceptable				
5	ET2022173-4-05	TM2208280201	Acceptable				
6	ET2022173-4-06	TM2208280201	Acceptable				
7	ET2022173-4-07	TM2208280201	Acceptable				
8	ET2022173-4-08	TM2208280201	Acceptable				
9	ET2022173-4-09	TM2208260201	Acceptable				
10	ET2022173-4-10	TM2208260201	Acceptable				

Sketch/Inspection Coverage:

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

Evaluation & Disposition :		Found to be satisfactory.			
Equipment	CJD-9000	MT Code	ASTM E709	Examined BY:  Level as per MT II	Approved by:  Level as per MT II
Test Method	Fulcrum [] Cablel [✓]	Particle Type	Fluorescence Wet		
Exam. Stage	Rough After Ra ≅ 6.3μm	Test Piece	A1-30/100		
Magnetizing time	1-3S	Circular AMPS/Turns	900A/1		
Concentration	0.3ml/100ml	UV-Light Intensity	≥1000Uw/C m²		



C&W International Fabricators

REPORT INDEX

Purchase Order: **ET2022152-1**

Quantity: **15 EA**

Shipment No. :

Shipment Date:

Activity No.	Characteristics	Reference Page
1.1	ADAPTER SPOOL 7 1/16" 15M X 7 1/16 10M X 16" LONG	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



C&W International Fabricators

METALLURGICAL TEST CERTIFICATE

Serial No.:	ET2022152-1-01...15	PO#:	ET2022152	Date:	2022-08-23
Part No:		API Monogram:	YES	Report#:	20220823
Specification:	API Spec 6A/ ASTM A370	Material:	4130 75k per ASTM A29		
Description:	ADAPTER SPOOL 7 1/16" 15M X 7 1/16 10M X 16" LONG EE LU PSL3 PR1			Qty:	15 EA

TEST CONDITION

Test Bar Size:	QTC, 4" x 4" x 8"	Bar Di:	12.7 mm (0.5")
Melt Practice	EF + LF + VD	Reduction Ratio Min:	4:1
Yield Stress	0.2% offset	Gauge Length	50.8mm

CHEMICAL COMPOSITION

Mill No.:	Qty	Test No.	C	Mn	Si	S	P	Ni	Cu	Mo	Cr	V
Spec Min			0.28	0.40	0.15	/	/	/	/	0.15	0.80	/
Spec Max			0.33	0.60	0.35	0.025	0.025	0.50	0.35	0.25	1.10	0.30
CD22-03-076	15	1	0.314	0.496	0.193	0.014	0.017	0.248	0.073	0.195	0.911	0.005

MECHANICAL COMPOSITION

Heat Lot No.	QTY.	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	Shear Fraction
Spec Min			75K	95K	18.0	35.0	197	27J		
Spec Max			/	/	/	/	235	/		
TM2208020201	8	1	81.5K	102..5K	55.5	64.2	225	56;44;61		

HEAT TREATMENT

Forgings:	4:1	Test Bar (OTC)	
Normalized:	903°C 5.5 HRS	Normalized:	903°C 5.5 HRS
Austenitized:	870°C 5.5 HRS	Austenitized:	870°C 5.5 HRS
Quenchant:	Water	Quenchant:	Water
Start Temp:	31 °C	Start Temp:	31 °C
End Temp:	42 °C	End Temp:	42 °C
Temper:	660°C 9 HRS AIR	Temper:	660°C 9 HRS AIR

We hereby certify that all test results and procedure information contained herein are correct and true as in contained the records of the company and also no welding or weld repair was performed on subject parts.

Inspected by:	张金龙	Approved by:	徐俊
---------------	-----	--------------	----



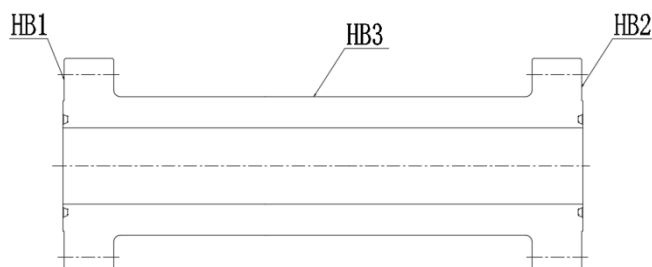
C&W International Fabricators

Hardness Test Report

Serial No.:	ET2022152-1-01...15	PO#:	ET2022152	Date:	2022-08-23
Part No:		API Monogram:	YES	Report#:	20220823
Specification:	API Spec 6A/ ASTM E10	Material:	4130 75k per ASTM A29		
Description:	ADAPTER SPOOL 7 1/16" 15M X 7 1/16 10M X 16" LONG EE LU PSL3 PR1			Qty:	15 EA

Item	S/N	Heat Lot No.	HB1	HB2	HB3	HB4	HB5	HB6	HB7	HB8
1	ET2022152-1-01	TM2208020201	229	231	229					
2	ET2022152-1-02	TM2208020201	225	229	227					
3	ET2022152-1-03	TM2208020201	231	229	229					
4	ET2022152-1-04	TM2208020201	223	225	221					
5	ET2022152-1-05	TM2208020201	225	229	227					
6	ET2022152-1-06	TM2208020201	229	231	229					
7	ET2022152-1-07	TM2208020201	223	229	225					
8	ET2022152-1-08	TM2208020201	231	229	229					
9	ET2022152-1-09	TM2208020201	225	221	223					
10	ET2022152-1-10	TM2208020201	223	225	221					
11	ET2022152-1-11	TM2208020201	231	229	229					
12	ET2022152-1-12	TM2208020201	229	225	225					
13	ET2022152-1-13	TM2208020201	223	225	223					
14	ET2022152-1-14	TM2208020201	225	229	227					
15	ET2022152-1-15	TM2208020201	231	229	229					

Sketch:



Method Used:	Impact Energy:3000Kg. Diameter of steel ball:10mm			
Acceptable Hardness	197HBW-235HBW	Inspected by:		Approved by:
Judgments:	[V] Conform	刘永友		徐俊
	[] Do not conform			



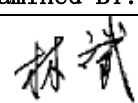
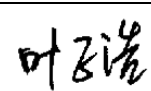
C&W International Fabricators

ULTRASONIC EXAMINATION REPORT

Serial No. :	ET2022152-1-01...15	PO# :	ET2022152	Date:	2022-08-23
Part No:		API Monogram:	YES	Report#:	20220823
Specification:	API Spec 6A/ ASTM A388	Material:	4130 75k per ASTM A29		
Description:	ADAPTER SPOOL 7 1/16" 15M X 7 1/16 10M X 16" LONG EE LU PSL3 PR1			Qty:	15 EA

Item	S/N	Heat Lot No.	Result	Item	S/N	Heat Lot No.	Result
1	ET2022152-1-01	TM2208020201	Acceptable				
2	ET2022152-1-02	TM2208020201	Acceptable				
3	ET2022152-1-03	TM2208020201	Acceptable				
4	ET2022152-1-04	TM2208020201	Acceptable				
5	ET2022152-1-05	TM2208020201	Acceptable				
6	ET2022152-1-06	TM2208020201	Acceptable				
7	ET2022152-1-07	TM2208020201	Acceptable				
8	ET2022152-1-08	TM2208020201	Acceptable				
9	ET2022152-1-09	TM2208020201	Acceptable				
10	ET2022152-1-10	TM2208020201	Acceptable				
11	ET2022152-1-11	TM2208020201	Acceptable				
12	ET2022152-1-12	TM2208020201	Acceptable				
13	ET2022152-1-13	TM2208020201	Acceptable				
14	ET2022152-1-14	TM2208020201	Acceptable				
15	ET2022152-1-15	TM2208020201	Acceptable				

Sketch:

UT Code:ASTM A388	Technique:Straight/Contact	Examined BY:	Approved by:
Exam.Stage: After heat treatment	Calibration Block:CSK IA		
Equipment:CTS-2020	Couplant: OIL		
Probe Used :2.5PΦ10	Acceptance Criteria: API 6A PSL 3		
Equipment Calibration Date :2021.09.09	Test Gain:20db + 5 db		
Equipment Due Date: 2022.09.09			
		Level as per UT II	Level as per UT II



C&W International Fabricators

Magnetic Particle Inspection Report

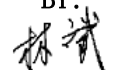
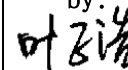
Serial No. :	ET2022152-1-01...15	PO# :	ET2022152	Date:	2022-08-23
Part No:		API Monogram:	YES	Report#:	20220823
Specification:	API Spec 6A/ ASTM E709	Material:	4130 75k per ASTM A29		
Description:	ADAPTER SPOOL 7 1/16" 15M X 7 1/16 10M X 16" LONG EE LU PSL3 PR1			Qty:	15 EA

Item	S/N	Heat Lot No.	Result	Item	S/N	Heat Lot No.	Result
1	ET2022152-1-01	TM2208020201	Acceptable				
2	ET2022152-1-02	TM2208020201	Acceptable				
3	ET2022152-1-03	TM2208020201	Acceptable				
4	ET2022152-1-04	TM2208020201	Acceptable				
5	ET2022152-1-05	TM2208020201	Acceptable				
6	ET2022152-1-06	TM2208020201	Acceptable				
7	ET2022152-1-07	TM2208020201	Acceptable				
8	ET2022152-1-08	TM2208020201	Acceptable				
9	ET2022152-1-09	TM2208020201	Acceptable				
10	ET2022152-1-10	TM2208020201	Acceptable				
11	ET2022152-1-11	TM2208020201	Acceptable				
12	ET2022152-1-12	TM2208020201	Acceptable				
13	ET2022152-1-13	TM2208020201	Acceptable				
14	ET2022152-1-14	TM2208020201	Acceptable				
15	ET2022152-1-15	TM2208020201	Acceptable				

Sketch/Inspection Coverage:

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

Evaluation & Disposition : Found to be satisfactory.

Equipment	CJD-9000	MT Code	ASTM E709	Examined BY:  Level as per MT II	Approved by:  Level as per MT II
Test Method	Fulcrum [] Cablel [✓]	Particle Type	Fluorescence Wet		
Exam. Stage	Rough After Ra ≤ 6.3μm	Test Piece	A1-30/100		
Magnetizing time	1-3S	Circular AMPS/Turns	900A/1		
Concentration	0.3ml/100ml	UV-Light Intensity	≥1000Uw/C m²		



C&W International Fabricators

REPORT INDEX

Purchase Order: **ET2022152-1**

Quantity: **15 EA**

Shipment No. :

Shipment Date:

Activity No.	Characteristics	Reference Page
1.1	ADAPTER SPOOL 7 1/16" 15M X 7 1/16 10M X 16" LONG	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



C&W International Fabricators

METALLURGICAL TEST CERTIFICATE

Serial No.:	ET2022152-1-01...15	PO#:	ET2022152	Date:	2022-08-23
Part No:		API Monogram:	YES	Report#:	20220823
Specification:	API Spec 6A/ ASTM A370	Material:	4130 75k per ASTM A29		
Description:	ADAPTER SPOOL 7 1/16" 15M X 7 1/16 10M X 16" LONG EE LU PSL3 PR1			Qty:	15 EA

TEST CONDITION

Test Bar Size:	QTC, 4" x 4" x 8"	Bar Di:	12.7 mm (0.5")
Melt Practice	EF + LF + VD	Reduction Ratio Min:	4:1
Yield Stress	0.2% offset	Gauge Length	50.8mm

CHEMICAL COMPOSITION

Mill No.:	Qty	Test No.	C	Mn	Si	S	P	Ni	Cu	Mo	Cr	V
Spec Min			0.28	0.40	0.15	/	/	/	/	0.15	0.80	/
Spec Max			0.33	0.60	0.35	0.025	0.025	0.50	0.35	0.25	1.10	0.30
CD22-03-076	15	1	0.314	0.496	0.193	0.014	0.017	0.248	0.073	0.195	0.911	0.005

MECHANICAL COMPOSITION

Heat Lot No.	QTY.	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	Shear Fraction
Spec Min			75K	95K	18.0	35.0	197	27J		
Spec Max			/	/	/	/	235	/		
TM2208020201	8	1	81.5K	102..5K	55.5	64.2	225	56;44;61		

HEAT TREATMENT

Forgings:	4:1	Test Bar (OTC)	
Normalized:	903°C 5.5 HRS	Normalized:	903°C 5.5 HRS
Austenitized:	870°C 5.5 HRS	Austenitized:	870°C 5.5 HRS
Quenchant:	Water	Quenchant:	Water
Start Temp:	31 °C	Start Temp:	31 °C
End Temp:	42 °C	End Temp:	42 °C
Temper:	660°C 9 HRS AIR	Temper:	660°C 9 HRS AIR

We hereby certify that all test results and procedure information contained herein are correct and true as in contained the records of the company and also no welding or weld repair was performed on subject parts.

Inspected by:	张金龙	Approved by:	徐俊
---------------	-----	--------------	----



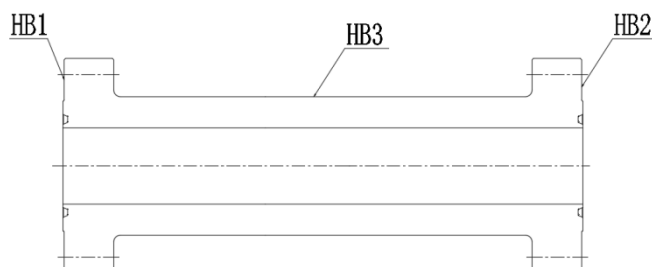
C&W International Fabricators

Hardness Test Report

Serial No.:	ET2022152-1-01...15	PO#:	ET2022152	Date:	2022-08-23
Part No:		API Monogram:	YES	Report#:	20220823
Specification:	API Spec 6A/ ASTM E10	Material:	4130 75k per ASTM A29		
Description:	ADAPTER SPOOL 7 1/16" 15M X 7 1/16 10M X 16" LONG EE LU PSL3 PR1			Qty:	15 EA

Item	S/N	Heat Lot No.	HB1	HB2	HB3	HB4	HB5	HB6	HB7	HB8
1	ET2022152-1-01	TM2208020201	229	231	229					
2	ET2022152-1-02	TM2208020201	225	229	227					
3	ET2022152-1-03	TM2208020201	231	229	229					
4	ET2022152-1-04	TM2208020201	223	225	221					
5	ET2022152-1-05	TM2208020201	225	229	227					
6	ET2022152-1-06	TM2208020201	229	231	229					
7	ET2022152-1-07	TM2208020201	223	229	225					
8	ET2022152-1-08	TM2208020201	231	229	229					
9	ET2022152-1-09	TM2208020201	225	221	223					
10	ET2022152-1-10	TM2208020201	223	225	221					
11	ET2022152-1-11	TM2208020201	231	229	229					
12	ET2022152-1-12	TM2208020201	229	225	225					
13	ET2022152-1-13	TM2208020201	223	225	223					
14	ET2022152-1-14	TM2208020201	225	229	227					
15	ET2022152-1-15	TM2208020201	231	229	229					

Sketch:



Method Used:	Impact Energy:3000Kg. Diameter of steel ball:10mm			
Acceptable Hardness	197HBW-235HBW	Inspected by:		Approved by:
Judgments:	[V] Conform	刘永友		徐俊
	[] Do not conform			



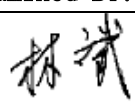
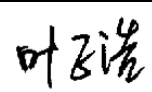
C&W International Fabricators

ULTRASONIC EXAMINATION REPORT

Serial No. :	ET2022152-1-01...15	PO# :	ET2022152	Date:	2022-08-23
Part No:		API Monogram:	YES	Report#:	20220823
Specification:	API Spec 6A/ ASTM A388	Material:	4130 75k per ASTM A29		
Description:	ADAPTER SPOOL 7 1/16" 15M X 7 1/16 10M X 16" LONG EE LU PSL3 PR1			Qty:	15 EA

Item	S/N	Heat Lot No.	Result	Item	S/N	Heat Lot No.	Result
1	ET2022152-1-01	TM2208020201	Acceptable				
2	ET2022152-1-02	TM2208020201	Acceptable				
3	ET2022152-1-03	TM2208020201	Acceptable				
4	ET2022152-1-04	TM2208020201	Acceptable				
5	ET2022152-1-05	TM2208020201	Acceptable				
6	ET2022152-1-06	TM2208020201	Acceptable				
7	ET2022152-1-07	TM2208020201	Acceptable				
8	ET2022152-1-08	TM2208020201	Acceptable				
9	ET2022152-1-09	TM2208020201	Acceptable				
10	ET2022152-1-10	TM2208020201	Acceptable				
11	ET2022152-1-11	TM2208020201	Acceptable				
12	ET2022152-1-12	TM2208020201	Acceptable				
13	ET2022152-1-13	TM2208020201	Acceptable				
14	ET2022152-1-14	TM2208020201	Acceptable				
15	ET2022152-1-15	TM2208020201	Acceptable				

Sketch:

UT Code:ASTM A388	Technique:Straight/Contact	Examined BY:	Approved by:
Exam.Stage: After heat treatment	Calibration Block:CSK IA	 Level as per UT II	 Level as per UT II
Equipment:CTS-2020	Couplant: OIL		
Probe Used :2.5PΦ10	Acceptance Criteria: API 6A PSL 3		
Equipment Calibration Date :2021.09.09	Test Gain:20db + 5 db		
Equipment Due Date: 2022.09.09			



C&W International Fabricators

Magnetic Particle Inspection Report

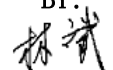
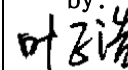
Serial No. :	ET2022152-1-01...15	PO# :	ET2022152	Date:	2022-08-23
Part No:		API Monogram:	YES	Report#:	20220823
Specification:	API Spec 6A/ ASTM E709	Material:	4130 75k per ASTM A29		
Description:	ADAPTER SPOOL 7 1/16" 15M X 7 1/16 10M X 16" LONG EE LU PSL3 PR1			Qty:	15 EA

Item	S/N	Heat Lot No.	Result	Item	S/N	Heat Lot No.	Result
1	ET2022152-1-01	TM2208020201	Acceptable				
2	ET2022152-1-02	TM2208020201	Acceptable				
3	ET2022152-1-03	TM2208020201	Acceptable				
4	ET2022152-1-04	TM2208020201	Acceptable				
5	ET2022152-1-05	TM2208020201	Acceptable				
6	ET2022152-1-06	TM2208020201	Acceptable				
7	ET2022152-1-07	TM2208020201	Acceptable				
8	ET2022152-1-08	TM2208020201	Acceptable				
9	ET2022152-1-09	TM2208020201	Acceptable				
10	ET2022152-1-10	TM2208020201	Acceptable				
11	ET2022152-1-11	TM2208020201	Acceptable				
12	ET2022152-1-12	TM2208020201	Acceptable				
13	ET2022152-1-13	TM2208020201	Acceptable				
14	ET2022152-1-14	TM2208020201	Acceptable				
15	ET2022152-1-15	TM2208020201	Acceptable				

Sketch/Inspection Coverage:

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

Evaluation & Disposition : Found to be satisfactory.

Equipment	CJD-9000	MT Code	ASTM E709	Examined BY:  Level as per MT II	Approved by:  Level as per MT II
Test Method	Fulcrum [] Cablel [✓]	Particle Type	Fluorescence Wet		
Exam. Stage	Rough After Ra ≤ 6.3μm	Test Piece	A1-30/100		
Magnetizing time	1-3S	Circular AMPS/Turns	900A/1		
Concentration	0.3ml/100ml	UV-Light Intensity	≥1000Uw/C m²		



C&W International Fabricators

REPORT INDEX

Purchase Order: **ET2022152-1**

Quantity: **15 EA**

Shipment No. :

Shipment Date:

Activity No.	Characteristics	Reference Page
1.1	ADAPTER SPOOL 7 1/16" 15M X 7 1/16 10M X 16" LONG	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



C&W International Fabricators

METALLURGICAL TEST CERTIFICATE

Serial No.:	ET2022152-1-01...15	PO#:	ET2022152	Date:	2022-08-23
Part No:		API Monogram:	YES	Report#:	20220823
Specification:	API Spec 6A/ ASTM A370	Material:	4130 75k per ASTM A29		
Description:	ADAPTER SPOOL 7 1/16" 15M X 7 1/16 10M X 16" LONG EE LU PSL3 PR1			Qty:	15 EA

TEST CONDITION

Test Bar Size:	QTC, 4" x 4" x 8"	Bar Di:	12.7 mm (0.5")
Melt Practice	EF + LF + VD	Reduction Ratio Min:	4:1
Yield Stress	0.2% offset	Gauge Length	50.8mm

CHEMICAL COMPOSITION

Mill No.:	Qty	Test No.	C	Mn	Si	S	P	Ni	Cu	Mo	Cr	V
Spec Min			0.28	0.40	0.15	/	/	/	/	0.15	0.80	/
Spec Max			0.33	0.60	0.35	0.025	0.025	0.50	0.35	0.25	1.10	0.30
CD22-03-076	15	1	0.314	0.496	0.193	0.014	0.017	0.248	0.073	0.195	0.911	0.005

MECHANICAL COMPOSITION

Heat Lot No.	QTY.	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	Shear Fraction
Spec Min			75K	95K	18.0	35.0	197	27J		
Spec Max			/	/	/	/	235	/		
TM2208020201	8	1	81.5K	102..5K	55.5	64.2	225	56;44;61		

HEAT TREATMENT

Forgings:	4:1	Test Bar (OTC)	
Normalized:	903°C 5.5 HRS	Normalized:	903°C 5.5 HRS
Austenitized:	870°C 5.5 HRS	Austenitized:	870°C 5.5 HRS
Quenchant:	Water	Quenchant:	Water
Start Temp:	31 °C	Start Temp:	31 °C
End Temp:	42 °C	End Temp:	42 °C
Temper:	660°C 9 HRS AIR	Temper:	660°C 9 HRS AIR

We hereby certify that all test results and procedure information contained herein are correct and true as in contained the records of the company and also no welding or weld repair was performed on subject parts.

Inspected by:	张金龙	Approved by:	徐俊
---------------	-----	--------------	----



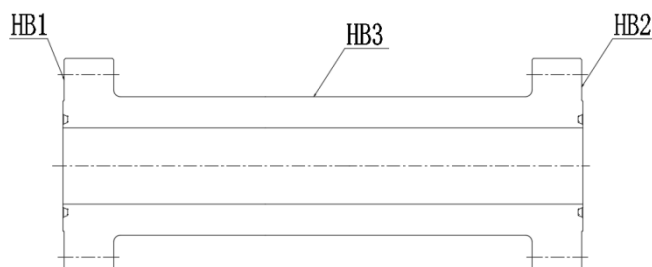
C&W International Fabricators

Hardness Test Report

Serial No.:	ET2022152-1-01...15	PO#:	ET2022152	Date:	2022-08-23
Part No:		API Monogram:	YES	Report#:	20220823
Specification:	API Spec 6A/ ASTM E10	Material:	4130 75k per ASTM A29		
Description:	ADAPTER SPOOL 7 1/16" 15M X 7 1/16 10M X 16" LONG EE LU PSL3 PR1			Qty:	15 EA

Item	S/N	Heat Lot No.	HB1	HB2	HB3	HB4	HB5	HB6	HB7	HB8
1	ET2022152-1-01	TM2208020201	229	231	229					
2	ET2022152-1-02	TM2208020201	225	229	227					
3	ET2022152-1-03	TM2208020201	231	229	229					
4	ET2022152-1-04	TM2208020201	223	225	221					
5	ET2022152-1-05	TM2208020201	225	229	227					
6	ET2022152-1-06	TM2208020201	229	231	229					
7	ET2022152-1-07	TM2208020201	223	229	225					
8	ET2022152-1-08	TM2208020201	231	229	229					
9	ET2022152-1-09	TM2208020201	225	221	223					
10	ET2022152-1-10	TM2208020201	223	225	221					
11	ET2022152-1-11	TM2208020201	231	229	229					
12	ET2022152-1-12	TM2208020201	229	225	225					
13	ET2022152-1-13	TM2208020201	223	225	223					
14	ET2022152-1-14	TM2208020201	225	229	227					
15	ET2022152-1-15	TM2208020201	231	229	229					

Sketch:



Method Used:	Impact Energy:3000Kg. Diameter of steel ball:10mm			
Acceptable Hardness	197HBW-235HBW	Inspected by:		Approved by:
Judgments:	[V] Conform	刘永友		徐俊
	[] Do not conform			



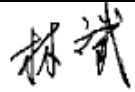
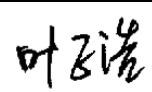
C&W International Fabricators

ULTRASONIC EXAMINATION REPORT

Serial No. :	ET2022152-1-01...15	PO# :	ET2022152	Date:	2022-08-23
Part No:		API Monogram:	YES	Report#:	20220823
Specification:	API Spec 6A/ ASTM A388	Material:	4130 75k per ASTM A29		
Description:	ADAPTER SPOOL 7 1/16" 15M X 7 1/16 10M X 16" LONG EE LU PSL3 PR1			Qty:	15 EA

Item	S/N	Heat Lot No.	Result	Item	S/N	Heat Lot No.	Result
1	ET2022152-1-01	TM2208020201	Acceptable				
2	ET2022152-1-02	TM2208020201	Acceptable				
3	ET2022152-1-03	TM2208020201	Acceptable				
4	ET2022152-1-04	TM2208020201	Acceptable				
5	ET2022152-1-05	TM2208020201	Acceptable				
6	ET2022152-1-06	TM2208020201	Acceptable				
7	ET2022152-1-07	TM2208020201	Acceptable				
8	ET2022152-1-08	TM2208020201	Acceptable				
9	ET2022152-1-09	TM2208020201	Acceptable				
10	ET2022152-1-10	TM2208020201	Acceptable				
11	ET2022152-1-11	TM2208020201	Acceptable				
12	ET2022152-1-12	TM2208020201	Acceptable				
13	ET2022152-1-13	TM2208020201	Acceptable				
14	ET2022152-1-14	TM2208020201	Acceptable				
15	ET2022152-1-15	TM2208020201	Acceptable				

Sketch:

UT Code:ASTM A388	Technique:Straight/Contact	Examined BY:	Approved by:
Exam.Stage: After heat treatment	Calibration Block:CSK IA	 Level as per UT II	 Level as per UT II
Equipment:CTS-2020	Couplant: OIL		
Probe Used :2.5PΦ10	Acceptance Criteria: API 6A PSL 3		
Equipment Calibration Date :2021.09.09	Test Gain:20db + 5 db		
Equipment Due Date: 2022.09.09			



C&W International Fabricators

Magnetic Particle Inspection Report

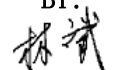
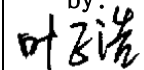
Serial No. :	ET2022152-1-01...15	PO# :	ET2022152	Date:	2022-08-23
Part No:		API Monogram:	YES	Report#:	20220823
Specification:	API Spec 6A/ ASTM E709	Material:	4130 75k per ASTM A29		
Description:	ADAPTER SPOOL 7 1/16" 15M X 7 1/16 10M X 16" LONG EE LU PSL3 PR1			Qty:	15 EA

Item	S/N	Heat Lot No.	Result	Item	S/N	Heat Lot No.	Result
1	ET2022152-1-01	TM2208020201	Acceptable				
2	ET2022152-1-02	TM2208020201	Acceptable				
3	ET2022152-1-03	TM2208020201	Acceptable				
4	ET2022152-1-04	TM2208020201	Acceptable				
5	ET2022152-1-05	TM2208020201	Acceptable				
6	ET2022152-1-06	TM2208020201	Acceptable				
7	ET2022152-1-07	TM2208020201	Acceptable				
8	ET2022152-1-08	TM2208020201	Acceptable				
9	ET2022152-1-09	TM2208020201	Acceptable				
10	ET2022152-1-10	TM2208020201	Acceptable				
11	ET2022152-1-11	TM2208020201	Acceptable				
12	ET2022152-1-12	TM2208020201	Acceptable				
13	ET2022152-1-13	TM2208020201	Acceptable				
14	ET2022152-1-14	TM2208020201	Acceptable				
15	ET2022152-1-15	TM2208020201	Acceptable				

Sketch/Inspection Coverage:

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

Evaluation & Disposition : Found to be satisfactory.

Equipment	CJD-9000	MT Code	ASTM E709	Examined BY:  Level as per MT II	Approved by:  Level as per MT II
Test Method	Fulcrum [] Cablel [✓]	Particle Type	Fluorescence Wet		
Exam. Stage	Rough After Ra ≤ 6.3μm	Test Piece	A1-30/100		
Magnetizing time	1-3S	Circular AMPS/Turns	900A/1		
Concentration	0.3ml/100ml	UV-Light Intensity	≥1000Uw/C m²		



C&W International Fabricators

REPORT INDEX

Purchase Order: **ET2022176-1**

Quantity: **10 EA**

Shipment No. :

Shipment Date:

Activity No.	Characteristics	Reference Page
1.1	ADAPTER SPOOL 7 1/16" 15M X 7 1/16" 10M X 16"	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



C&W International Fabricators

METALLURGICAL TEST CERTIFICATE

Serial No. :	ET2022176-1-01....10	PO# :	ET2022176	Date:	2022-09-27
Part No:		API Monogram:	YES	Report#:	20220927
Specification:	API Spec 6A/ ASTM A370	Material:	4130 75k per ASTM A29		
Description:	ADAPTER SPOOL 7 1/16" 15M X 7 1/16" 10M X 16" EE LU PSL3 PR1			Qty:	10 EA

TEST CONDITION

Test Bar Size:	QTC, 4" x 4" x 8"	Bar Di:	12.7 mm (0.5")
Melt Practice	EF + LF + VD	Reduction Ratio Min:	4:1
Yield Stress	0.2% offset	Gauge Length	50.8mm

CHEMICAL COMPOSITION

Mill No. :	Qty	Test No.	C	Mn	Si	S	P	Ni	Cu	Mo	Cr	V
Spec Min			0.28	0.40	0.15	/	/	/	/	0.15	0.80	/
Spec Max			0.33	0.60	0.35	0.025	0.025	0.50	0.35	0.25	1.10	0.30
2016841Z	10	1	0.29	0.53	0.25	0.009	0.009	0.04	0.03	0.16	1.06	0.008

MECHANICAL COMPOSITION

Heat Lot No.	QTY.	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	Shear Fraction
Spec Min			75K	95K	18.0	35.0	197	27J		
Spec Max			/	/	/	/	235	/		
TM2209120301	10	1	81.5 K	102.5 K	49.5	61.4	221	53;46;49		

HEAT TREATMENT

Forgings:	4:1	Test Bar (OTC)	
Normalized:	900°C 5.5 HRS	Normalized:	900°C 5.5 HRS
Austenitized:	860°C 5.5 HRS	Austenitized:	860°C 5.5 HRS
Quenchant:	Water	Quenchant:	Water
Start Temp:	29 °C	Start Temp:	29 °C
End Temp:	35 °C	End Temp:	35 °C
Temper:	660°C 8.5 HRS AIR	Temper:	660°C 8.5 HRS AIR

We hereby certify that all test results and procedure information contained herein are correct and true as in contained the records of the company and also no welding or weld repair was performed on subject parts.

Inspected by:		Approved by:	
---------------	--	--------------	--



Hardness Test Report

[illegible]



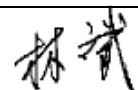
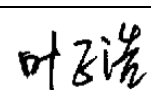
C&W International Fabricators

ULTRASONIC EXAMINATION REPORT

Serial No. :	ET2022176-1-01....10	PO# :	ET2022176	Date:	2022-09-27
Part No:		API Monogram:	YES	Report#:	20220927
Specification:	API Spec 6A/ ASTM A388	Material:	4130 75k per ASTM A29		
Description:	ADAPTER SPOOL 7 1/16" 15M X 7 1/16" 10M X 16"			EE LU PSL3 PR1	Qty: 10 EA

Item	S/N	Heat Lot No.	Result	Item	S/N	Heat Lot No.	Result
1	ET2022176-1-01	TM2209120301	Acceptable				
2	ET2022176-1-02	TM2209120301	Acceptable				
3	ET2022176-1-03	TM2209120301	Acceptable				
4	ET2022176-1-04	TM2209120301	Acceptable				
5	ET2022176-1-05	TM2209120301	Acceptable				
6	ET2022176-1-06	TM2209120301	Acceptable				
7	ET2022176-1-07	TM2209120301	Acceptable				
8	ET2022176-1-08	TM2209120301	Acceptable				
9	ET2022176-1-09	TM2209120301	Acceptable				
10	ET2022176-1-10	TM2209120301	Acceptable				

Sketch:

UT Code:ASTM A388	Technique:Straight/Contact	Examined BY:	Approved by:
Exam. Stage: After heat treatment	Calibration Block:CSK IA		
Equipment:CTS-2020	Couplant: OIL		
Probe Used :2.5P φ10	Acceptance Criteria: API 6A PSL 3		
Equipment Calibration Date :2022. 09. 10	Test Gain:20db + 5 db		
Equipment Due Date: 2023. 09. 09			
		Level as per UT II	Level as per UT II



C&W International Fabricators

Magnetic Particle Inspection Report

Serial No. :		ET2022176-1-01....10		PO# :		ET2022176		Date:		2022-09-27	
Part No:				API Monogram:		YES		Report#:		20220927	
Specification:		API Spec 6A/ ASTM E709		Material:		4130 75k per ASTM A29					
Description:		ADAPTER SPOOL 7 1/16" 15M X 7 1/16" 10M X 16"				EE LU PSL3 PR1			Qty:	10 EA	
Item	S/N		Heat Lot No.	Result	Item	S/N		Heat Lot No.	Result		
1	ET2022176-1-01		TM2209120301	Acceptable							
2	ET2022176-1-02		TM2209120301	Acceptable							
3	ET2022176-1-03		TM2209120301	Acceptable							
4	ET2022176-1-04		TM2209120301	Acceptable							
5	ET2022176-1-05		TM2209120301	Acceptable							
6	ET2022176-1-06		TM2209120301	Acceptable							
7	ET2022176-1-07		TM2209120301	Acceptable							
8	ET2022176-1-08		TM2209120301	Acceptable							
9	ET2022176-1-09		TM2209120301	Acceptable							
10	ET2022176-1-10		TM2209120301	Acceptable							

Sketch/Inspection Coverage:

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

Evaluation & Disposition : Found to be satisfactory.

Equipment	CJD-9000	MT Code	ASTM E709	Examined BY:  Level as per MT II	Approved by:  Level as per MT II
Test Method	Fulcrum [] Cablel [✓]	Particle Type	Fluorescence Wet		
Exam. Stage	Rough After Ra ≅ 6.3μm	Test Piece	A1-30/100		
Magnetizing time	1-3S	Circular AMPS/Turns	900A/1		
Concentration	0.3ml/100ml	UV-Light Intensity	≥1000Uw/C m²		



C&W International Fabricators

REPORT INDEX

Purchase Order: **ET2022229-1**

Quantity: **20 EA**

Shipment No. :

Shipment Date:

Activity No.	Characteristics	Reference Page
1.1	ADAPTER SPOOL 7 1/16" 15M X 5 1/8" 15M X 16"	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



C&W International Fabricators

METALLURGICAL TEST CERTIFICATE

Serial No. :	ET2022229-1-01....10	PO# :	ET2022229	Date:	2022-10-31							
Part No:		API Monogram:	YES	Report#:	20221031							
Specification:	API Spec 6A/ ASTM A370	Material:	4130 75k per ASTM A29									
Description:	ADAPTER SPOOL 7 1/16" 15M X 5 1/8" 15M X 16" EE LU PSL3 PR1			Qty:	20 EA							
TEST CONDITION												
Test Bar Size:	QTC, 4" x 4" x 8"		Bar Di:	12.7 mm (0.5")								
Melt Practice	EF + LF + VD		Reduction Ratio Min:	4:1								
Yield Stress	0.2% offset		Gauge Length	50.8mm								
CHEMICAL COMPOSITION												
Mill No. :	Qty	Test No.	C	Mn	Si	S	P	Ni	Cu	Mo	Cr	V
Spec Min			0.28	0.40	0.15	/	/	/	/	0.15	0.80	/
Spec Max			0.33	0.60	0.35	0.025	0.025	0.50	0.35	0.25	1.10	0.30
CD22-03-076	20	1	0.314	0.496	0.193	0.014	0.017	0.248	0.073	0.195	0.911	0.005
MECHANICAL COMPOSITION												
Heat Lot No.	QTY.	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 Later 1	Shear Fraction		
Spec Min			75K	95K	18.0	35.0	197	27J				
Spec Max			/	/	/	/	235	/				
TM2210240201	20	1	79.5 K	100.5 K	48.5	59.5	225	48;57;43				
HEAT TREATMENT												
Forgings:	4:1		Test Bar (OTC)									
Normalized:	903°C 5 HRS		Normalized:		903°C 5 HRS							
Austenitized:	870°C 5 HRS		Austenitized:		870°C 5 HRS							
Quenchant:	Water		Quenchant:		Water							
Start Temp:	29 °C		Start Temp:		29 °C							
End Temp:	38 °C		End Temp:		38 °C							
Temper:	660°C 7 HRS AIR		Temper:		660°C 7 HRS AIR							
We hereby certify that all test results and procedure information contained herein are correct and true as in contained the records of the company and also no welding or weld repair was performed on subject parts.												
Inspected by:	张全龙		Approved by:		徐根							



C&W International Fabricators

Hardness Test Report

Serial No. :	ET2022229-1-01....10			P0# :	ET2022229			Date:	2022-10-31		
Part No:				API Monogram:	YES			Report#:	20221031		
Specification:	API Spec 6A/ ASTM E10			Material:	4130 75k per ASTM A29						
Description:	ADAPTER SPOOL 7 1/16" 15M X 5 1/8" 15M X 16" EE LU PSL3 PR1							Qty:	20 EA		
Item	S/N	Heat Lot No.	HB1	HB2	HB3	HB4	HB5	HB6	HB7	HB8	
1	ET2022229-1-01	TM2210240201	229	225	227						
2	ET2022229-1-02	TM2210240201	231	229	229						
3	ET2022229-1-03	TM2210240201	225	223	221						
4	ET2022229-1-04	TM2210240201	231	229	229						
5	ET2022229-1-05	TM2210240201	229	231	229						
6	ET2022229-1-06	TM2210240201	223	225	223						
7	ET2022229-1-07	TM2210240201	231	235	232						
8	ET2022229-1-08	TM2210240201	231	229	231						
9	ET2022229-1-09	TM2210240201	223	225	221						
10	ET2022229-1-10	TM2210240201	229	231	229						
11	ET2022229-1-11	TM2210240201	232	235	231						
12	ET2022229-1-12	TM2210240201	229	225	229						
13	ET2022229-1-13	TM2210240201	225	229	227						
14	ET2022229-1-14	TM2210240201	225	229	229						
15	ET2022229-1-15	TM2210240201	229	231	231						
16	ET2022229-1-16	TM2210240201	2235	225	225						
17	ET2022229-1-17	TM2210240201	231	229	229						
18	ET2022229-1-18	TM2210240201	223	225	223						
19	ET2022229-1-19	TM2210240201	229	231	229						
20	ET2022229-1-20	TM2210240201	229	225	227						
Sketch:											
Method Used:		Impact Energy:3000Kg. Diameter of steel ball:10mm									
Acceptable Hardness		197HBW-235HBW			Inspected by:			Approved by:			
Judgments:		[V] Conform			刘永良			徐俊			
		[] Do not conform									



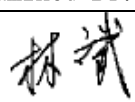
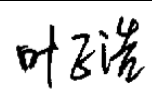
C&W International Fabricators

ULTRASONIC EXAMINATION REPORT

Serial No. :	ET2022229-1-01....10	PO# :	ET2022229	Date:	2022-10-31
Part No:		API Monogram:	YES	Report#:	20221031
Specification:	API Spec 6A/ ASTM A388	Material:	4130 75k per ASTM A29		
Description:	ADAPTER SPOOL 7 1/16" 15M X 5 1/8" 15M X 16" EE LU PSL3 PR1			Qty:	20 EA

Item	S/N	Heat Lot No.	Result	Item	S/N	Heat Lot No.	Result
1	ET2022229-1-01	TM2210240201	Acceptable				
2	ET2022229-1-02	TM2210240201	Acceptable				
3	ET2022229-1-03	TM2210240201	Acceptable				
4	ET2022229-1-04	TM2210240201	Acceptable				
5	ET2022229-1-05	TM2210240201	Acceptable				
6	ET2022229-1-06	TM2210240201	Acceptable				
7	ET2022229-1-07	TM2210240201	Acceptable				
8	ET2022229-1-08	TM2210240201	Acceptable				
9	ET2022229-1-09	TM2210240201	Acceptable				
10	ET2022229-1-10	TM2210240201	Acceptable				
11	ET2022229-1-11	TM2210240201	Acceptable				
12	ET2022229-1-12	TM2210240201	Acceptable				
13	ET2022229-1-13	TM2210240201	Acceptable				
14	ET2022229-1-14	TM2210240201	Acceptable				
15	ET2022229-1-15	TM2210240201	Acceptable				
16	ET2022229-1-16	TM2210240201	Acceptable				
17	ET2022229-1-17	TM2210240201	Acceptable				
18	ET2022229-1-18	TM2210240201	Acceptable				
19	ET2022229-1-19	TM2210240201	Acceptable				
20	ET2022229-1-20	TM2210240201	Acceptable				

Sketch:

UT Code:ASTM A388	Technique:Straight/Contact	Examined BY:	Approved by:
Exam. Stage: After heat treatment	Calibration Block:CSK IA	 Level as per UT II	 Level as per UT II
Equipment:CTS-2020	Couplant: OIL		
Probe Used :2.5P Φ10	Acceptance Criteria: API 6A PSL 3		
Equipment Calibration Date :2022. 09. 10	Test Gain:20db + 5 db		
Equipment Due Date: 2023. 09. 09			



C&W International Fabricators

Magnetic Particle Inspection Report

Serial No. :	ET2022229-1-01....10	PO# :	ET2022229	Date:	2022-10-31
Part No:		API Monogram:	YES	Report#:	20221031
Specification:	API Spec 6A/ ASTM E709	Material:	4130 75k per ASTM A29		
Description:	ADAPTER SPOOL 7 1/16" 15M X 5 1/8" 15M X 16" EE LU PSL3 PR1			Qty:	20 EA

Item	S/N	Heat Lot No.	Result	Item	S/N	Heat Lot No.	Result
1	ET2022229-1-01	TM2210240201	Acceptable				
2	ET2022229-1-02	TM2210240201	Acceptable				
3	ET2022229-1-03	TM2210240201	Acceptable				
4	ET2022229-1-04	TM2210240201	Acceptable				
5	ET2022229-1-05	TM2210240201	Acceptable				
6	ET2022229-1-06	TM2210240201	Acceptable				
7	ET2022229-1-07	TM2210240201	Acceptable				
8	ET2022229-1-08	TM2210240201	Acceptable				
9	ET2022229-1-09	TM2210240201	Acceptable				
10	ET2022229-1-10	TM2210240201	Acceptable				
11	ET2022229-1-11	TM2210240201	Acceptable				
12	ET2022229-1-12	TM2210240201	Acceptable				
13	ET2022229-1-13	TM2210240201	Acceptable				
14	ET2022229-1-14	TM2210240201	Acceptable				
15	ET2022229-1-15	TM2210240201	Acceptable				
16	ET2022229-1-16	TM2210240201	Acceptable				
17	ET2022229-1-17	TM2210240201	Acceptable				
18	ET2022229-1-18	TM2210240201	Acceptable				
19	ET2022229-1-19	TM2210240201	Acceptable				
20	ET2022229-1-20	TM2210240201	Acceptable				

Sketch/Inspection Coverage:

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

Evaluation & Disposition : Found to be satisfactory.

Equipment	CJD-9000	MT Code	ASTM E709	Examined	Approved
Test Method	Fulcrum [] Cable1 [✓]	Particle Type	Fluorescence Wet	BY: 林斌 Level as per MT II	by: 叶飞浩 Level as per MT II
Exam. Stage	Rough After Ra ≤ 6.3μm	Test Piece	A1-30/100		
Magnetizing time	1-3S	Circular AMPS/Turns	900A/1		
Concentration	0.3ml/100ml	UV-Light Intensity	≥1000Uw/C m²		