JET Fabrication, Inc.
6830 Leopard
Corpus Christi, TX 78409

(361) 299-1711
(361) 299-1377 FAX

Date: 02/24/2025

Customer: MARATHON

Vessel Description : 36" X 10' X 285# ASME CODE HORIZONTAL 3PHASE STAND ALONE SEPARATOR W/18" MANWAY

Serial numbers: JF-7568

PO# 4500321751-10
SKID #01
KENEDY FIELD OFFICE

U-1A FORMS & PARTIAL DATA REPORTS

Mfg. Representative: [signature] Date: 1-3-25 Page 1 of 2
Authorized Inspector: [signature] Date: 1/3/25

FORM U-1A MANUFACTURER'S DATA REPORT FOR PRESSURE VESSELS
(Alternative Form for Single Chamber, Completely Shop or Field Fabricated Vessels Only)
As Required by the Provisions of the ASME Boiler and Pressure Vessel Code Rules, Section VIII, Division 1

1. Manufactured and certified by: Jet Fabrication, 6830 Leopard Street, Corpus Christi, Texas 78409, USA (Name and address of Manufacturer)

2. Manufactured for: Marathon Oil (Name and address of Purchaser)

3. Location of installation: Unknown (Name and address)

4. Type: Horizontal (Horizontal or vertical, tank) | JF-7568 (Manufacturer's serial number) | N/A (CRN) | 09-2414-1 Rev.0 (Drawing number) | 5439 (National Board number) | 2024 (Year built)

5. ASME Code, Section VIII, Division 1: 2023 Edition [Edition and Addenda, if applicable (date)] | None (Code Case numbers) | N/A [Special service per UG-120(d)]

6. Shell: SA-516 70N (Material spec. number, grade) | 0.375" (Nominal thickness) | 0.0625" (Corr. allow.) | 2'-11.25" (Inner diameter) | 10'-0" [Length (overall)]

Body Flanges on Shells

No.	Type	ID	OD	Flange Thk	Min Hub Thk	Material	How Attached	Location	Bolting: Num & Size	Bolting: Bolting Material	Bolting: Washer (OD, ID, Thk)	Bolting: Washer Material
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

7. Seams: Type 1 [Long. (welded, dbl., sngl., lap, butt)] | Full [R.T. (spot or full)] | 100% (Eff., %) | None (H.T. temp.) | N/A (Time, hr) | Type 2 [Girth (welded, dbl., sngl., lap, butt)] | Spot [R.T.(Spot or Full)] | 65% (Eff., %) | 1 (No. of courses)

8. Heads: (a) SA-516 70N (Material spec. number, grade or type) (H.T. - time and temp.) (b) SA-516 70N (Material spec. number, grade or type) (H.T. - time and temp.)

	Location (Top, Bottom, Ends)	Thickness: Min.	Thickness: Corr.	Radius: Crown	Radius: Knuckle	Elliptical Ratio	Conical Apex Angle	Hemispherical Radius	Flat Diameter	Side to Pressure: Convex	Side to Pressure: Concave	Category A: Type	Category A: Full, Spot, None	Category A: Eff.
(a)	END	0.3146"	0.0625"	N/A	N/A	2:1	N/A	N/A	N/A	N/A	X	N/A	None	N/A
(b)	END	0.3146"	0.0625"	N/A	N/A	2:1	N/A	N/A	N/A	N/A	X	N/A	None	N/A

Body Flanges on Heads

	Location	Type	ID	OD	Flange Thk	Min Hub Thk	Material	How Attached	Bolting: Num & Size	Bolting: Bolting Material	Bolting: Washer (OD, ID, Thk)	Bolting: Washer Material
(a)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
(b)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

9. MAWP: 285 psi (Internal) | N/A (External) at max. temp. 100 °F (Internal) | N/A (External).

Min. design metal temp. -20 °F at 285 psi. Hydro., pneu., or comb. test pressure Hydro. at 370 psi.
Proof test N/A.

10. Nozzles, inspection, and safety valve openings:

Purpose (Inlet, Outlet, Drain, etc.)	No.	Diameter or Size	Type	Material: Nozzle	Material: Flange	Nozzle Thickness: Nom.	Nozzle Thickness: Corr.	Reinforcement Material	Attachment Details: Nozzle	Attachment Details: Flange	Location (Insp. Open.)
Inlet/Anode (N1)(N7)	2	4"-150#	RFLWN	SA-105 N	SA-105 N	0.75"	0"	N/A	UW-16.1(c)	N/A	Left Head
Inspection (C10A)(C10B)	2	2"-3000#	CPLG	SA-105	N/A	0.313"	0"	N/A	UW-16.1(c)	N/A	Left Head/Right Head
Gas Outlet (N2)	1	4"-150#	RFLWN	SA-105 N	SA-105 N	0.75"	0"	N/A	UW-16.1(c)	N/A	Shell
Oil/Water Outlet (N3)(N4)	2	2"-150#	RFLWN	SA-105 N	SA-105 N	0.53"	0"	N/A	UW-16.1(c)	N/A	Shell
Level Controller/Relief (C7)(C8)(C1)	3	2"-3000#	CPLG	SA-105	N/A	0.313"	0"	N/A	UW-16.1(c)	N/A	Shell/Right Head
Level Gauge (C4A)(C4B)(C5A/B)	4	3/4"-3000#	CPLG	SA-105	N/A	0.165"	0"	N/A	UW-16.1(c)	N/A	Shell/Right Head

Additional Nozzles - See attached ...

11. Supports: Skirt: No (Yes or no) Lugs: N/A (Number) Legs: N/A (Number) Other: Saddles (Describe) Attached: Shell - Welded (Where and how)

12. Remarks: Manufacturer's Partial Data Reports properly identified and signed by Commissioned Inspectors have been furnished for the following items of the report: Item#6, Shell Cylinder done by Cyclone Steel Services, LLC, U-61,742 SN# 211533-1-B (Name of part, item number, Manufacturer's name and identifying stamp)

Impact Test exempt per UCS-66

Manway (MW) and ASME B16.5/16.47 Blind on ASME B16.5/16.47 flange attached to Manway (MW) use Appendix 46.

See attached U-4 Form.

Form U-1A

Manufactured by Jet Fabrication

Manufacturer's Serial No. JF-7568 CRN N/A National Board No. 5439

CERTIFICATE OF SHOP/FIELD COMPLIANCE

We certify that the statements made in this report are correct and that all details of design, material, construction, and workmanship of this vessel conform to the ASME BOILER AND PRESSURE VESSEL CODE, Section VIII, Division 1. "U" Certificate of Authorization number 35,284 expires 08/19/2026.

Date 1-3-25 Co. name Jet Fabrication (Manufacturer) Signed [signature] (Representative)

CERTIFICATE OF SHOP/FIELD INSPECTION

Vessel constructed by Jet Fabrication at 6830 Leopard Street Corpus Christi, Texas 78409 USA,
I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and employed by Bureau Veritas Inspection & Insurance Company of Lynn, MA
have inspected the component described in this Manufacturer's Data Report on 1/3/25, and state that, to the best of my knowledge and belief, the Manufacturer has constructed this pressure vessel in accordance with ASME BOILER AND PRESSURE VESSEL CODE, Section VIII, Division 1. By signing this certificate neither the Inspector nor his/her employer makes any warranty, expressed or implied, concerning the pressure vessel described in this Manufacturer's Data Report. Furthermore, neither the Inspector nor his/her employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

Date 1/3/25 Signed [signature] (Authorized Inspector) Commissions NB 16659 (National Board Authorized Inspector Commission number)

(07/21)

FORM U-2A MANUFACTURER'S PARTIAL DATA REPORT (ALTERNATIVE FORM)

A Part of a Pressure Vessel Fabricated by One Manufacturer for Another Manufacturer

As Required by the Provisions of the ASME Boiler and Pressure Vessel Code Rules, Section VIII, Division 1

1. Manufactured and certified by Cyclone Steel Services, LLC 4950 West Greens Rd. Houston, Tx. 77066
(Name and address of Manufacturer)

2. Manufactured for Jet Specialty Inc. 6830 Leopard St. Corpus Christi, Texas 78409
(Name and address of Purchaser)

3. Location of installation
(Name and address)

4. Type Shell (Description of vessel part (shell, two piece head, tube bundle)) 211533-1-A,B (Manufacturer's serial number) (CRN)

(National Board number) (Drawing number) Client (Drawing prepared by) 2024 (Year built)

5. ASME Code, Section VIII, Div. 1 2023 (Edition and Addenda if applicable (date)) (Code Case number) (Special service per UG-120(d))

6. Shell: (a) Number of courses 1 (b) Overall length 120"

Course(s)			Material	Thickness		Long. Joint (Cat. A)			Circum. Joint (Cat. A, B, & C)			Heat Treatment	
No.	Diameter	Length	Spec./Grade or Type	Nom.	Corr.	Type	Full, Spot, None	Eff.	Type	Full, Spot, None	Eff.	Temp.	Time
1	36" OD	120"	SA 516-70N	.375"		t	Full						

Body Flanges on Shells

No.	Type	ID	OD	Flange Thk.	Min. Hub Thk.	Materia	How Attached	Location	Bolting			
									Num. & Size	Bolting Material	Washer (OD, ID, Thk)	Washer Material

7. Heads: (a) (Material spec. number, grade or type) (H.T. — time and temp.) (b) (Material spec. number, grade or type) (H.T. — time and temp.)

	Location (Top, Bottom, Ends)	Thickness		Radius		Elliptical Ratio	Conical Apex Angle	Hemis. Radius	Flat Diameter	Side to Pressure		Category A		
		Min.	Corr.	Crown	Knuckle					Convex	Concave	Type	Full, Spot, None	Eff.
(a)														
(b)														

Body Flanges on Heads

	Location	Type	ID	OD	Flange Thk.	Min. Hub Thk.	Material	How Attached	Bolting			
									Num. & Size	Bolting Material	Washer (OD, ID, Thk.)	Washer Material
(a)												
(b)												

8. MAWP (Internal) (External) at max. temp (Internal) (External) Min. design metal temp. at

9. Impact test No (Indicate yes or no and the component(s) impact tested) at test temperature of

10. Hydro., pneu., or comb. test pressure Not Hydro Tested Proof test

11. Nozzles, inspection, and safety valve openings:

Purpose (Inlet, Outlet, Drain, etc.)	No.	Diameter or Size	Type	Material		Nozzle Thickness		Reinforcement Material	Attachment Details		Location (Insp. Open.)
				Nozzle	Flange	Nom.	Corr.		Nozzle	Flange	

12. Identification of part(s)

Name of Part	Quantity	Line No.	Mfr's. identification No.	Mfr's. Drawing No.	CRN	National Board No.	Year Built

13. Supports: Skirt (Yes or no) Lugs (Number) Legs (Number) Other (Describe) Attached (Where and how)

14. Remarks

WPS qualified in PWHT and as welded condition
No design function was performed by Cyclone Steel Services LLC

FORM U-2A

Manufactured by Cyclone Steel Services, LLC 4950 West Greens Rd Houston, Tx 77066

Manufacturer's Serial No 211533-1-A,B CRN _____ National Board No _____

CERTIFICATE OF SHOP/FIELD COMPLIANCE

We certify that the statements made in this report are correct and that all details of material, construction, and workmanship of this pressure vessel part conform to the ASME BOILER AND PRESSURE VESSEL CODE, Section VIII, Division 1

U or PRT VIII-1 Certificate of Authorization no 61,742 Expires July 29 2027

Date 10-14-2024 Name Cyclone Steel Services, LLC (Manufacturer) Signed _____ (Representative)

CERTIFICATE OF SHOP/FIELD INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and employed by Bureau Veritas Inspection and Insurance Company of Lynn, MA.

have inspected the pressure vessel part described in this Manufacturer's Data Report on 10/14/2024 and state that, to the best of my knowledge and belief, the Manufacturer has constructed this pressure vessel part in accordance with ASME BOILER AND PRESSURE VESSEL CODE, Section VIII, Division 1. By signing this certificate neither the Inspector nor his/her employer makes any warranty, expressed or implied, concerning the pressure vessel part described in this Manufacturer's Data Report. Furthermore, neither the Inspector nor his/her employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

Date 10/14/2024 Signed _____ (Authorized Inspector) Commissions NB16195 (National Board Authorized Inspector Commission number)

FORM U-4 MANUFACTURER'S DATA REPORT SUPPLEMENTARY SHEET
As Required by the Provisions of the ASME Boiler and Pressure Vessel Code Rules, Section VIII, Division 1

1. Manufactured and certified by: Jet Fabrication 6830 Leopard Street Corpus Christi, Texas 78409 USA (Name and address of Manufacturer)
2. Manufactured for: Marathon Oil (Name and address of Purchaser)
3. Location of installation: Unknown (Name and address)
4. Type: Horizontal (Horizontal, vertical, or sphere) | Separator (Tank, separator, heat exch., etc.) | JF-7568 (Manufacturer's serial number)

N/A (CRN) | 09-2414-1 Rev.0 (Drawing Number) | 5439 (National Board number) | 2024 (Year built)

Additional Nozzles:

Purpose (Inlet, Outlet, Drain, etc)	No.	Diameter or Size	Type	Material		Nozzle Thickness		Reinforcement Material	Attachment Details		Location (Insp. Open.)
				Nozzle	Flange	Nom.	Corr.		Nozzle	Flange	
LSL/LSH (C3A)(C3B)(C9A)(C9B)	4	1"-3000#	CPLG	SA-105	N/A	0.218"	0"	N/A	UW-16.1(c)	N/A	Shell
Supply Gas (C6)	1	1/2"-3000#	CPLG	SA-105	N/A	0.14"	0"	N/A	UW-16.1(c)	N/A	Shell
Manway (MW)	1	18"-150#	RFLWN	SA-105 N	SA-105 N	1"	0"	N/A	UW-16.1(c)	N/A	Shell
Temp (C2)	1	3/4"-3000#	CPLG	SA-105	N/A	0.16"	0"	N/A	UW-16.1(c)	N/A	Shell
Drain (N5A/B)	2	2"-150#	RFLWN	SA-105 N	SA-105 N	0.53"	0"	N/A	UW-16.1(c)	N/A	Shell

Certificate of Authorization: Type U No. 35,284 Expires 08/19/2026

Date 1-3-25 Name Jet Fabrication (Manufacturer) Signed [signature] (Representative)

Date 1/3/25 Signed [signature] (Authorized Inspector) Commissions NB 16659 (National Board Authorized Inspector Commission number)

MILL TEST REPORTS

FORT WORTH F&D HEAD CO.
P.O. BOX 79700
FORT WORTH, TEXAS 76179-0700

COVER SHEET

CUSTOMER			CUSTOMER P.O. NUMBER			DATE
JET SPECIALTY			**FAB12492**			**10/4/2024**
CODE LETTER	QTY	SIZE-OD OR ID	THICKNESS	PLATE MFG.	HEAT NUMBER	SLAB NUMBER
DIXF	**2**	**36"OD**	**3/8"NOM**	**NUCOR**	**4602617**	**07**
DIXE	**2**	**36"OD**	**3/8"NOM**	**JSW STEEL**	**S35497**	**04C**

HOT FORMED **X**

STYLE: **2:1 ELLIPTICAL**

MATERIAL: **SA516-70**

SF: **2"**
BEVEL: **30 DEG** **OUTSIDE**
DR:
MIN: **.3146"**
LAND:
IRC:

WO# **282169**

FORT WORTH F& D HEAD COMPANY CERTIFIES THAT HEADS MANUFACTURED FROM MATERIAL REPRESENTED BY THIS REPORT COMPLY WITH ASME CODE SECTION II & SECTION VIII, DIVISION I. ALL HEADS COMPLY WITH UCS-79 & UG-81(a).

WE CERIFY THAT THESE HEADS WERE HOT FORMED ABOVE 1,650 DEGREES FAHRENHEIT, HELD FOR A MINIMUM OF 30 MINUTES, AND AIR COOLED.

Roxanne Taylor

FORT WORTH F&D HEAD CO.

NUCOR
PLATE MILL GROUP
P.O.Box 279
Winton, NC 27986
(252) 356-3700

Mill Test Report

Page 1

1505 River Rd
Cofield, NC 27922
(252) 356-3700
NUCOR
NUCOR STEEL HERTFORD COUNTY

Issuing Date : 06/11/2024 **B/L No. :** 673389 **Load No. :** 693303 **Our Order No. :** 214061/1 **Cust. Order No. :** 16279

Vehicle No: LW 62021

Sold To: RANGER STEEL SERVICES LP
1225 NORTH LOOP W STE 650
HOUSTON,TX 77008

Ship To: MATERIAL TRANSPORT TRUCKING & STORAGE
10354 HICKS FIELD ROAD
FT WORTH,TX 76179

Specification: 0.3750" x 96.000" x 480.000"
ASTM A516 70-17/ASME SA516 70 PVQ 2021/2023 Normalized Test Coupons at 1650F Hold 30 Min per inch of thickness Air Cooled NACE MR0175 Annex 2.1.2 (2015), MR0103(2010) Section 2.1.2 (2015) 13.1.1, 13.1.2) Compliant

Marking :

Heat No	C	Mn	P	S	Si	Cu	Ni	Cr	Mo	Al(tot)	V	Nb	Ti	N	Ca	B	Sn	Ceq	Pcm
4602617	0.20	1.03	0.008	0.002	0.20	0.17	0.09	0.07	0.01	0.026	0.003	0.004	0.002		0.0060	0.0001	0.008	0.40	0.27

DIXF

Plate Serial No	Pieces	Tons	Tensile Test Dir	(psi) Yield	(psi) Tensile	Elong % in 2"	Elong % in 8"	
4602617-05	5	12.25	T	52,900	77,800		25.8	
			T	47,200	70,900		49.8	N
4602617-06	5	12.25	T	54,300	78,300		20.9	
			T	58,400	82,700		25.3	N
4602617-07	5	12.25	T	51,600	76,700		24.8	
			T	53,000	70,000		26.0	N
4602617-08	3	7.35	T	52,700	77,800		24.3	
			T	47,400	70,900		46.1	N
4602617-09	5	12.25	T	53,400	78,300		24.0	
			T	52,900	74,000		27.1	N
4602617-10	5	12.25	T	53,300	78,100		24.4	
			T	49,400	72,100		25.4	N

> DIXF

Qc by EC

Test coupons only, normalized 30 minutes per inch of thickness at 1650 F ± 25 F. Hold 30 minutes minimum. ;

Manufactured to fully killed fine grain practice by Electric Arc Furnace. Welding or weld repair was not performed on this material. Mercury has not been used in the direct manufacturing of this material. Produced as continuous cast discrete plate as-rolled, unless otherwise noted in Specification. For Mexico shipments:nhc-SalesMX@nucor.com
Yield by 0.5EUL method unless otherwise specified. Ceq = C+(Mn/6)+((Cr+Mo+V)/5)+((Cu+Ni)/15)
Pcm = C+(Si/30)+(Mn/20)+(Cu/20)+(Ni/60)+(Cr/20)+(Mo/15)+(V/10)+5B
Melted and Manufactured in the USA. ISO 9001:2015 certified. PED 2014/68/EU. 97/23/EC 7/2 Annex 1, Para. 4.3 Compliant. API Q1-1851 DIN 50049 3.1 B/EN 10204 3.1(2004) 3.1B(1993)/ DIN EN 10204 3.1(2005) compliant. ABS QA-3624366

We hereby certify that the contents of this report are accurate and correct. All test results and operations performed by the material manufacturer are in compliance with the applicable specifications, including customer specifications.

8/19/24 PO 55179

6/11/2024 3:14:31 PM

James McCoy,
Product Metallurgist

Ranger Steel
QC Approved

JSW Steel (USA) INC.
5200,East McKinney Road.
BAYTOWN, TX 77523 USA insidesalesdesk@jswsteel.us 281-383-5100

METALLURGICAL TEST REPORT

Document MET - 04 Rev. No.: 4 Rev. Date:08/16/22
MTR Rev. 0 Issue Date: 5/14/2024

Bulletin	Order Item	Heat	PO No.	Shipping Mode	Order Dimensions	Slab Origin	MTR Number
R172655	JSW28549-01	S35497	16240	RAIL	0.375x96x480	USA	R172655-5497-1

MEETS NACE MR0175 — MELTED AND MANUFACTURED IN THE USA.

DIXE

Plates Certified for the Following grades
ASTM-A516-70, ASME-SA516-70 2021 EDITION TN

Hot Rolled Carbon Steel Plates
Plates Manufactured In the USA

Sold To: RANGER STEEL 1225 NORTH LOOP WEST HOUSTON, TX 77008
Ship To: RANGER STEEL BNSF TRACK 9005 FORT WORTH, TX 76179

Specifications
TEST NORMALIZED AT 1650 °F FOR 30 MINS

Marking Instructions
Stencil in 2 location(s): X Loc. 18 Y Loc. 30; CUST; MADEINUSA PN PO; DIM GRADE; FREIGHT ORDERITEM PLATEID SHIPWEEK SLABID TRANSMODE Stamp in 2 location(s): X Loc. 18 Y Loc. 12; Slab ID; Slab ID; Slab ID

Complies with ASME SA516 2023, Complies with ASTM A516 2017

Test	C	Mn	P	S	Si	Cu	Ni	Cr	Mo	Sn	Al	N	V	B	Ti	Nb	Ca	CE
LADLE	0.21	1.13	0.008	0.001	0.18	0.106	0.056	0.027	0.007	0.006	0.031	0.010	0.003	0.0001	0.001	0.000	0.0022	0.41

DIXE

Carbon Equivalent CE = C + Mn/6 + (Cr + Mo + V)/5 + (Ni + Cu)/15
PCM = C + Si/30 + Mn/20 + Cu/20 + Ni/60 + Cr/20 + Mo/15 + V/10 + 5B
AWS = C + (Mn+Si)/6 + (Cr + Mo + V)/5 + (Ni + Cu)/15

Plate Tested	Smpl. Loc.	Slab Identity	Gauge Tested	Test Cond	Test Dir.	Yield Point (KSI)	Ten. Stgth. (KSI)	Elong In 2"	YS/UTS Ratio	Yield Strength Determined At
1372290	A	04C	0.3750	AR	T	58	83	30.0%	0.70	0.2%
1372290	A	04C	0.3750	TN	T	54	80	31.0%	0.68	0.2%

DIXE

Plates Certified For The Above Tests

Material	Thick(IN)	Width (IN)	Len(IN)	Wgt(LB)	Material	Thick(IN)	Width(IN)	Len (IN)	Wgt(LB)	Material	Thick(IN)	Width(IN)	Len(IN)	Wgt(LB)
1372290A	0.3750	96.000	480.00	4900.608	1372290B	0.3750	96.000	480.00	4900.608					

DIN: EN 10204 2004 3.1 This is to certify that the product decribed herein was manufactured, sampled, and tested in accordance with the specifications and requirements in such specifications. Fine Grain, Si-Al Fully Killed Steel. We certify that delivery of this product with the requirement of the specification and purchase order received from customer. DRC Conflict Free. No intentional addition of Pb, Se, S, Hg or B. JSW Steel USA, Inc is an ISO 9001:2015 certified facility.

QC by EC

PO 55179
8/19/24

April Watkins 83238 QC Approved

Ranger Steel

FCI FORGED COMPONENTS INC. 24/7

14527 Smith Rd.
Humble, Texas 77396
TEL: (281) 441-4088
FAX: (281) 441-8899

REPORT # 24-067285
DATE: 11/13/2024
FCI ORDER # 127113

CUSTOMER ORDER # FAB12503
SOLD / SHIPPED TO: JET SPECIALTY

Item	Quantity	Description	
3	1	18" X 150 X 15" LG RF LWN	JOB# 09-2414

Heat Number: WW067 **Steel Origin (melt): USA**
Material Type: SA105N (2023)

CHEMICAL ANALYSIS

C		.19
Mn		1.17
P		.008
S		.002
Si		.25
Cr		.07
Mo		.02
V		.02
Cu		.17
Ni		.06
Cb(Nb)		.00
N		.007
Sn		.006
As		.004
Sb	<	.005
Ti		.00
Al		.024
B		.0004
C E		0.42

CuNiCrMoV	0.34
CrMo	0.09

PHYSICAL PROPERTIES

Heat Treatment	**NORMALIZED**
Temperature	1650 °F
Time at Temperature	4-1/2 HRS
Cooling Media	AIR
Yield PSI	51,000
Tensile PSI	76,200
Elongation %	37
Reduction of Area %	72
Hardness	143/152 HBW

ELECTRIC FURNACE/VACUUM DEGASSED. FULLY KILLED. MADE TO FINE GRAIN PRACTICE.

This certification is in compliance with EN 10204 3.1. Flange dimensions and bolt hole patterns comply with latest revision of ASME B16.5, B16.47 & MSS SP-44. Hub profile for reinforcing nozzles per ASME Section VIII Div 1 Appendix 2 (Figure 2-4). Fine grain practice stated as applicable. NACE MR0175-2021/ISO 15156-2:2020, Annex A (A. 2.1.2, A2.1.3). Tensile Testing Per ASTM E8; Brinell Hardness Per ASTM E10, Charpy Testing Per ASTM E23; Yield strength was determined using the 2% offset method, unless otherwise noted. FCI is registered with ISO 9001:2015 (Reg # 8278) and PED 2014/68/EU Annex 1 Section 4.3. (Reg # HSB ME-23-02-053). No mercury, or radioactive substances came in contact with this material during manufacturing. No welding performed. We hereby certify that all test results and process information contained herein are correct and true as contained in the records of the company.

Prepared by: _____

Name: Cynthia Madrid Title: QA Representative

FCI FORGED COMPONENTS INC. 24/7

14527 Smith Rd.
Humble, Texas 77396
TEL: (281) 441-4088
FAX: (281) 441-8899

REPORT # 24-066599
DATE: 10/24/2024
FCI ORDER # 127113

CUSTOMER ORDER # FAB12503
SOLD / SHIPPED TO: JET SPECIALTY

Item	Quantity	Description	
1	8	2" X 150 X 7" LG RF LWN	JOB# 09-2414

Heat Number: B74662K
Steel Origin (melt): SOUTH KOREA

Material Type: SA105N/SA350LF2CL1 (2023)

CHEMICAL ANALYSIS

C	.18
Mn	1.27
P	.011
S	.003
Si	.24
Cr	.03
Mo	.01
V	.00
Cu	.01
Ni	.02
Cb(Nb)	.00
Sn	
As	
Sb	
Ti	.00
Al	.029
B	.0050
C E	0.40

CuNiCrMoV	0.07
CrMo	0.04

PHYSICAL PROPERTIES

Heat Treatment		NORMALIZED
Temperature		1706 °F
Time at Temperature		1/2 HR/IN THK MIN
Cooling Media		AIR
Yield PSI		42,700
Tensile PSI		81,100
Elongation %		31.6
Reduction of Area %		62.9
Hardness		162/162 HBW
CVN -50 °F	FT LBS	31/53/41
	% Shear	20/20/20
	MLE	.022/.048/.036

ELECTRIC FURNACE/VACUUM DEGASSED. FULLY KILLED. MADE TO FINE GRAIN PRACTICE.

This certification is in compliance with EN 10204 3.1. Flange dimensions and bolt hole patterns comply with latest revision of ASME B16.5, B16.47, & MSS SP-44. Hub profile for reinforcing nozzles per ASME Section VIII Div.1 Appendix 2 (Figure 2-4). Fine grain practice stated as applicable. NACE MR0175-2021/ISO 15156-2:2020, Annex A (A.2.1.2, A2.1.3). Tensile Testing Per ASTM E8, Brinell Hardness Per ASTM E10; Charpy Testing Per ASTM E23; Yield strength was determined using the 2% offset method unless otherwise noted. FCI is registered with ISO 9001:2015 (Reg.# 8278) and PED 2014/68/EU Annex 1 Section 4.3. (Reg.# HSB IE-23-02-053). No mercury or radioactive substances came in contact with this material during manufacturing. No welding performed. We hereby certify that all test results and process information contained herein are correct and true as contained in the records of the company.

Prepared by: Nancy Loos

Name: Nancy Loos Title: QA Representative

2023 letter Date printed: 10/24/2024 9:47:10 AM

FCI FORGED COMPONENTS INC. 24/7

14527 Smith Rd.
Humble, Texas 77396
TEL: (281) 441-4088
FAX: (281) 441-8899

REPORT # 24-066600
DATE: 10/24/2024
FCI ORDER # 127113

CUSTOMER ORDER # FAB12503
SOLD / SHIPPED TO: JET SPECIALTY

Item	Quantity	Description	
2	2	4" X 150 X 12" LG RF LWN	JOB# 09-2414

Heat Number: B69439B

Steel Origin (melt): SOUTH KOREA

Material Type: SA105N/SA350LF2CL1 (2023)

CHEMICAL ANALYSIS

C	.18
Mn	1.25
P	.011
S	.004
Si	.24
Cr	.02
Mo	.00
V	.00
Cu	.01
Ni	.01
Cb(Nb)	.00
Sn	
As	
Sb	
Ti	.00
Al	.023
B	.0002
C E	0.39

CuNiCrMoV	0.04
CrMo	0.02

PHYSICAL PROPERTIES

Heat Treatment		NORMALIZED
Temperature		1706 °F
Time at Temperature		4 HRS
Cooling Media		AIR
Yield PSI		47,600
Tensile PSI		74,100
Elongation %		34.9
Reduction of Area %		74.0
Hardness		153/153 HBW
CVN -50 °F	FT LBS	99/93/94
	% Shear	100/100/100
	MLE	.082/.078/.080

ELECTRIC FURNACE/VACUUM DEGASSED. FULLY KILLED. MADE TO FINE GRAIN PRACTICE.

This certification is in compliance with EN 10204 3.1. Flange dimensions and bolt hole patterns comply with latest revision of ASME B16.5, B16.47, & MSS SP-44. Hub profile for reinforcing nozzles per ASME Section VIII Div 1 Appendix 2 (Figure 2-4). Fine grain practice stated as applicable. NACE MR0175-2021/ISO 15156-2:2020 Annex A (A.2.1.2, A2.1.3). Tensile Testing Per ASTM E8, Brinell Hardness Per ASTM E10, Charpy Testing Per ASTM E23; Yield strength was determined using the 2% offset method, unless otherwise noted. FCI is registered with ISO 9001:2015 (Reg.# 8278) and PED 2014/68/EU Annex 1 Section 4.3 (Reg.# HSB IE-23-02-053). No mercury or radioactive substances came in contact with this material during manufacturing. No welding performed. We hereby certify that all test results and process information contained herein are correct and true as contained in the records of the company.

Prepared by: Nancy Loos

Name: Nancy Loos Title: QA Representative

2023 letter Date printed: 10/24/2024 9:49:06 AM

FCI FORGED COMPONENTS INC. 24/7

14527 Smith Rd.
Humble, Texas 77396
TEL: (281) 441-4088
FAX: (281) 441-8899

REPORT # 24-067046
DATE: 11/5/2024
FCI ORDER # 127141

CUSTOMER ORDER # FAB12505
SOLD / SHIPPED TO: JET SPECIALTY

Item	Quantity	Description	
3	4	2" X 150 X 7" LG RF LWN	JOB# 08-2403A

Heat Number: B74662K
Steel Origin (melt): SOUTH KOREA
Material Type: SA105N/SA350LF2CL1 (2023)
Manufactured in: USA

CHEMICAL ANALYSIS

C	.18
Mn	1.27
P	.011
S	.003
Si	.24
Cr	.03
Mo	.01
V	.00
Cu	.01
Ni	.02
Cb(Nb)	.00
Sn	
As	
Sb	
Ti	.00
Al	.029
B	.0050
C E	0.40
CuNiCrMoV	0.07
CrMo	0.04

PHYSICAL PROPERTIES

Heat Treatment		NORMALIZED
Temperature		1706 °F
Time at Temperature		1/2 HR/IN THK MIN
Cooling Media		AIR
Yield PSI		42,700
Tensile PSI		81,100
Elongation %		31.6
Reduction of Area %		62.9
Hardness		162/162 HBW
CVN -50 °F	FT LBS	31/53/41
	% Shear	20/20/20
	MLE	.022/.048/.036

ELECTRIC FURNACE/VACUUM DEGASSED. FULLY KILLED. MADE TO FINE GRAIN PRACTICE.

This certification is in compliance with EN 10204 3.1. Flange dimensions and bolt hole patterns comply with latest revision of ASME B16.5, B16.47, & MSS SP-44. Hub profile for reinforcing nozzles per ASME Section VIII Div.1 Appendix 2 (Figure 2-4). Fine grain practice stated as applicable. NACE MR0175-2021/ISO 15156-2:2020, Annex A (A.2.1.2, A2.1.3). Tensile Testing Per ASTM E8, Brinell Hardness Per ASTM E10; Charpy Testing Per ASTM E23. Yield strength was determined using the 2% offset method unless otherwise noted. FCI is registered with : ISO 9001:2015 (Reg # 8278) and PED 2014/68/EU Annex 1 Section 4.3 (Reg # HSB/E-23-02-053). No mercury or radioactive substances came in contact with this material during manufacturing. No welding performed. We hereby certify that all test results and process information contained herein are correct and true as contained in the records of the company.

Prepared by Nancy Loos

Name Nancy Loos Title QA Representative

2023 letter Date printed: 11/5/2024 2:55:01 PM

FCI FORGED COMPONENTS INC. 24/7

14527 Smith Rd.
Humble, Texas 77396
TEL: (281) 441-4088
FAX: (281) 441-8899

REPORT # 24-067048
DATE: 11/5/2024
FCI ORDER # 127141

CUSTOMER ORDER # FAB12505
SOLD / SHIPPED TO: JET SPECIALTY

Item	Quantity	Description
3	1	2" X 150 X 7" LG RF LWN

JOB# 08-2403A

Heat Number: GG370 **Steel Origin (melt): ITALY**
Material Type: SA105N/SA350LF2CL1 (2023)

CHEMICAL ANALYSIS

C	.17
Mn	1.22
P	.010
S	.002
Si	.30
Cr	.17
Mo	.04
V	.01
Cu	.20
Ni	.18
Cb(Nb)	.00
N	.006
Sn	.009
As	.004
Sb	.001
Ti	.00
Al	.024
B	.0001
C E	0.44

CuNiCrMoV	0.60
CrMo	0.21

PHYSICAL PROPERTIES

Heat Treatment		NORMALIZED
Temperature		1650 °F
Time at Temperature		4 HRS
Cooling Media		AIR
Yield PSI		52,700
Tensile PSI		78,000
Elongation %		32.8
Reduction of Area %		74.1
Hardness		154/159 HBW
CVN -50 °F	FT LBS	45/57/86
	% Shear	
	MLE	.034/.044/.069

ELECTRIC FURNACE/VACUUM DEGASSED. FULLY KILLED. MADE TO FINE GRAIN PRACTICE.

This certification is in compliance with EN 10204 3.1. Flange dimensions and bolt hole patterns comply with latest revision of ASME B16.5, B16.47, & MSS SP-44. Hub profile for reinforcing nozzles per ASME Section VIII Div.1 Appendix 2 (Figure 2-4). Fine grain practice stated as applicable. NACE MR0175-2021/ISO 15156-2:2020, Annex A (A.2.1.2, A2.1.3). Tensile Testing Per ASTM E8. Brinell Hardness Per ASTM E10; Charpy Testing Per ASTM E23. Yield strength was determined using the 2% offset method, unless otherwise noted. FCI is registered with: ISO 9001:2015 (Reg.# 8278) and PED 2014/68/EU Annex 1 Section 4.3. (Reg.# HSB IE-23-02-053). No mercury, or radioactive substances came in contact with this material during manufacturing. No welding performed. We hereby certify that all test results and process information contained herein are correct and true as contained in the records of the company.

Prepared by: Nancy Loos

Name: Nancy Loos Title: QA Representative

FCI FORGED COMPONENTS INC. 24/7

14527 Smith Rd.
Humble, Texas 77396
TEL: (281) 441-4088
FAX: (281) 441-8899

REPORT # 24-067049
DATE: 11/5/2024
FCI ORDER # 127141

CUSTOMER ORDER # FAB12505
SOLD / SHIPPED TO: JET SPECIALTY

Item	Quantity	Description	
3	1	2" X 150 X 7" LG RF LWN, SA105N	JOB# 08-2403A

Heat Number: GG389 **Steel Origin (melt):** ITALY
Material Type: SA105N (2023)

CHEMICAL ANALYSIS

C	.17
Mn	1.23
P	.015
S	.009
Si	.22
Cr	.11
Mo	.05
V	.01
Cu	.23
Ni	.23
Cb(Nb)	.01
Sn	
As	.005
Sb	
Ti	
Al	.025
B	
C E	0.44

CuNiCrMoV	0.63
CrMo	0.16

PHYSICAL PROPERTIES

Heat Treatment		NORMALIZED
Temperature		1650 °F
Time at Temperature		4 HRS
Cooling Media		AIR
Yield PSI		52,400
Tensile PSI		79,400
Elongation %		34.6
Reduction of Area %		68.8
Hardness		150/150 HBW
CVN -50 °F	FT LBS	32/41/35
	% Shear	
	MLE	.029/.032/.030

ELECTRIC FURNACE/VACUUM DEGASSED. MADE TO FINE GRAIN PRACTICE.

This certification is in compliance with EN 10204 3.1. Flange dimensions and bolt hole patterns comply with latest revision of ASME B16.5, B16.47, & MSS SP-44. Hub profile for reinforcing nozzles per ASME Section VIII Div.1 Appendix 2 (Figure 2-4). Fine grain practice stated as applicable. NACE MR0175-2021/ISO 15156-2:2020, Annex A (A.2.1.2, A2.1.3). Tensile Testing Per ASTM E8; Brinell Hardness Per ASTM E10; Charpy Testing Per ASTM E23; Yield strength was determined using the 2% offset method. Unless otherwise noted FCI is registered with ISO 9001:2015 (Reg.# 8276) and PED 2014/68/EU Annex 1 Section 4.3. (Reg.# HSB IE-23-02-053). No mercury, or radioactive substances came in contact with this material during manufacturing. No welding performed. We hereby certify that all test results and process information contained herein are correct and true as contained in the records of the company.

Prepared by: Nancy Loos

Name: Nancy Loos Title: QA Representative

2023 letter Date printed: 11/5/2024 3:15:49 PM

X-RAY READER SHEETS

IRISNDT

RADIOGRAPHIC INSPECTION REPORT

US4970-RT-1634
Page 1 of 1

Procedure: NDT 3.0 Rev 8
Gamma Type: IR 192 **Film Brand:** AGFA
Curies: 38 **Film Type:** D5
EFSS: .118 **#Film/Cassette:** 1
Code: ASME Sect VIII Div. 1 UW-52
Material/Material Group: C/S

Client: JET SPECIALTY, INC.
IRISNDT #: CON2400890
Location: CC,TEXAS
Item Inspected: Piping
Line #: JF-7568
Sensitivity: .013(IN)7B

Date: 2024-Dec-18
Job #: 09-2414
Other: 30"

Film ID	Interval	Welder ID	Size, Thickness	M.W.R.	IQI	S.O.D. Inches	O.F.D. Inches	Density	Technique	Type & Location of Discontinuities Rejectable discontinuities in square brackets [ ]	(A)ccept (R)eject
SPOT A	1-2	044/080	36"/.375"	.156"	ASTM	17.469"	.531"	2.6	RT-1		A
SPOT B	1-2	044/080	36"/.375"	.156"	B WIRE	17.469"	.531"	2.7	RT-1		A

RT Techniques

Exposure	Viewing	Technique
S.W.E.	S.W.V.	1,2,2A,6,6A,7
D.W.E.	S.W.V.	3,3A
D.W.E.	D.W.V.	4,5,8

M.W.R. = Maximum Weld Reinforcement
O.D.D. = Object-to-Detector Distance
O.F.D. = Distance from source side of Object-to-Film
O.P.D. = Object-to-Plate Distance
S.O.D. = Source-to-Object Distance
O.D. = Outside Diameter Nom. = Nominal Thk. = Thickness

CK - Crack
IF - Incomplete Fusion
IP - Incomplete Penetration
EI - Elongated Indication

Inspection Limitation(s): -

Personnel: E.VENCES,J.HERNANDEZ,S.HUERMAN,J.ARAPOC

Film Details:

Quantity	Size	Type
2	4 ½ x 10	D5

Radiography Performed and Interpretation By:

Randy Hernandez
(Print)

(Sign)

SNT-TC-1A: II (Level) CERT #: 1773

Client Representative:

(Print)

(Sign)

I am in full agreement with report contents.

PAINT COATING PROCESS

COATING INSPECTION REPORT

JOB# 09-2414 JOB NAME Marathon

SERIAL# # 1) 7568 # 2)7569

ITEM: 36" O.D X 120" S/S Horizontal Separator

SURFACE PREPARATION	DATE	TIME
	1/8/2025	7:00 AM

Metal Surface Temp	80°	Correct Abrasive Blasting Equipment	Y
Correct Abrasive & Size	Y	Abrasive Clean & Dry	Y
Compressed Air Clean & Dry	Y	Nozzle Pressure	130 PSI
Surface Free of Oil & Grease, Clean & Dry	Y		

Surface Profile Specified: SP-10 NEAR WHITE Profile Achieved: 3.9 Surface Anchor Profile 4.5

TIME	DRY BULB TEMP	WET BULB TEMP	RELATIVE HUMIDITY	DEW POINT	SURFACE
7:00 AM	80°	72°	68%	68°	80°
11:30 AM	90°	81°	68%	78°	90°

PAINT APPLICATION	DATE	TIME
	1/8/2025	11:30 AM

Compressed Air Clean & Dry	Y	Metal Substrate Clean & Dry	Y
Primer Applied w/in 4 Hours of Blasting	Y	Mixed in Accordance w/ Manuf. Instructions	Y

Coating		Batch# A	Batch# B	Expiration Date	
PRIMER	NOVA PLATE WHITE	GC0444AZ	XM1024BU	4/11/2025	Thinner
Material	Sherwin Williams	Temp	90°		#104

Application Method:

Airless Spray _____ Conventional Spray X Roller _____ Other _____

Wet Film Thickness Avg.	16-36	Range	16-36
Dry Film Thickness Avg.	18-20	Range	15-35

Recoat Time Allowed Between Coats: **Total System Dry Film Thickness** 18-20 Avg.

Comments

Inspector Enrique Ruiz

Calibration 10/15/2025

Calibration 1622

DMT: 316625

COATING INSPECTION REPORT

JOB# 09-2414 JOB NAME Marathon
SERIAL# # 1) 7568 # 2)7569
ITEM: 36" O.D X 120" S/S Horizontal Separator

SURFACE PREPARATION DATE 1/15/2025 TIME 7:00 AM

Metal Surface Temp	80°	Correct Abrasive Blasting Equipment	Y
Correct Abrasive & Size	Y	Abrasive Clean & Dry	Y
Compressed Air Clean & Dry	Y	Nozzle Pressure	130 PSI
Surface Free of Oil & Grease, Clean & Dry	Y		

Surface Profile Specified: SP-10 NEAR WHITE Profile Achieved: 2.9 Surface Anchor Profile 3.0

TIME	DRY BULB TEMP	WET BULB TEMP	RELATIVE HUMIDITY	DEW POINT	SURFACE
7:00 AM	80°	72°	68%	68°	80°
11:45 AM	86°	78°	70%	75°	86°

PAINT APPLICATION DATE 1/15/2025 TIME 11:45 AM

Compressed Air Clean & Dry	Y	Metal Substrate Clean & Dry	Y
Primer Applied w/in 4 Hours of Blasting	Y	Mixed in Accordance w/ Manuf. Instructions	Y

Coating

		Batch# A	Batch# B	Expiration Date	
PRIMER	646 MACROPOXY GRAY	XM0604TF	XM2414AB	2/28/2027	**Thinner**
Material	Sherwin Williams	Temp	86°		#15

Application Method:

Airless Spray		Conventional Spray	X	Roller		Other	
Wet Film Thickness Avg.	7-13			**Range**	7-13		
Dry Film Thickness Avg.	9			**Range**	5-10		

Recoat Time Allowed Between Coats: **Total System Dry Film Thickness** 9

Comments

Inspector Enrique Ruiz
Calibration 10/15/2025
Calibration #
DMT: 316625

COATING INSPECTION REPORT

JOB# 09-2414 JOB NAME Marathon
SERIAL# # 1) 7568 # 2)7569
ITEM: 36" O.D X 120" S/S Horizontal Separator

TIME	DRY BULB TEMP	WET BULB TEMP	RELATIVE HUMIDITY	DEW POINT	SURFACE
5:45 PM	84°	74°	62%	69°	84°

PAINT APPLICATION DATE 1/15/25 TIME 5:45 PM

Compressed Air Clean & Dry Y
Metal Substrate Clean & Dry Y
Primer Applied w/in 4 Hours of Blasting Y
Mixed in Accordance w/ Manuf. Instructions Y

Coating		Batch# A	Batch# B	Expiration Date	
TOPCOAT	POLYURETHANE TAN #10475	GC2544VP	MQ2344ER	9/10/27	Thinner
Material	Sherwin Williams	Temp	84°		#58

Application Method:

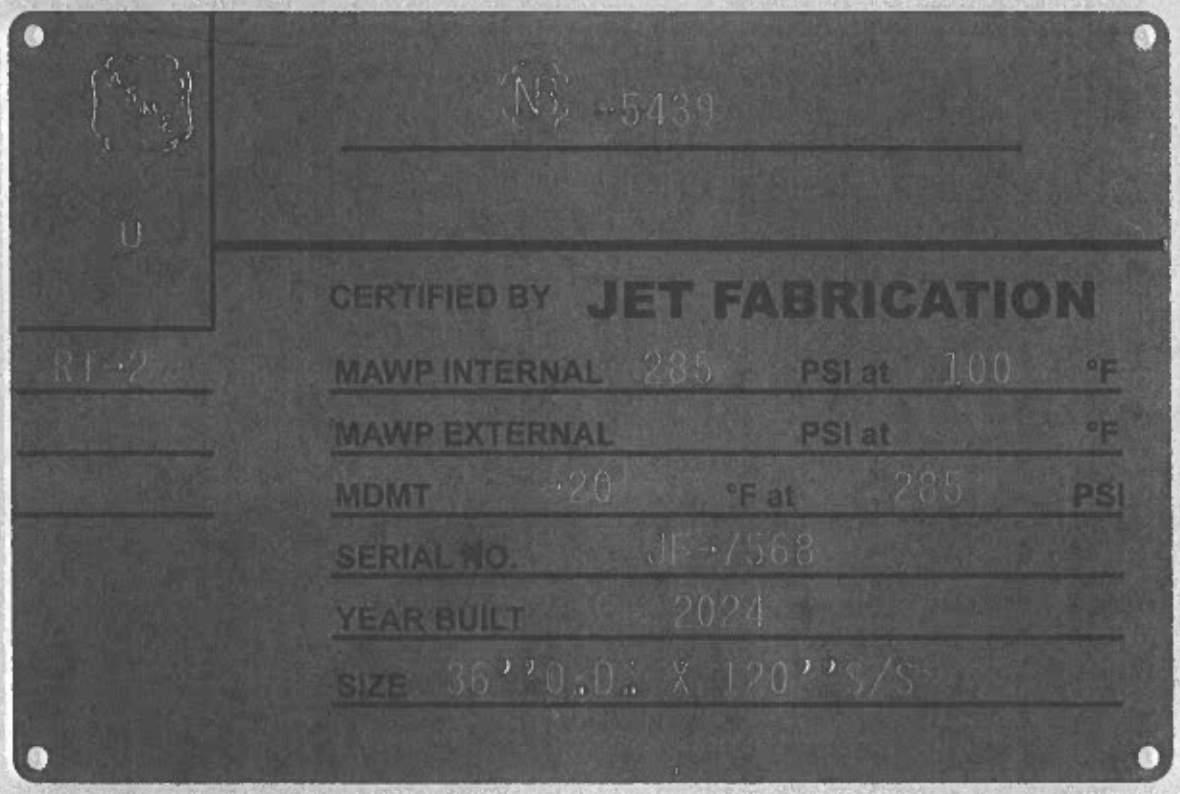
Airless Spray _____ Conventional Spray X Roller _____ Other _____

Wet Film Thickness Avg. 4-8 **Range** 4-8
Dry Film Thickness Avg. 3 **Range** 3-5

Recoat Time Allowed Between Coats: **Total System Dry Film Thickness** 12
Comments

Inspector **Enrique Ruiz**
Calibration 10/15/2025
Calibration #
DMT: 316625

DIGITAL COPY OF DATA PLATE


U
(NB) -5439
CERTIFIED BY JET FABRICATION
RT-2
MAWP INTERNAL 285 PSI at 100 °F
MAWP EXTERNAL PSI at °F
MDMT -20 °F at 285 PSI
SERIAL NO. JF-17568
YEAR BUILT 2024
SIZE 36"O.D. X 120" S/S

DRAWING

BILL OF MATERIAL

ITEM	QTY.	MARK	DESCRIPTION	MATERIAL
1	2	HEADS	36" O.D. x 3/8" NOM. 0.3[illegible]" MIN. THK. ASME 2:1 ELLIPTICAL HEAD w/2" SF PER UG-81 & UCS-79(d)	SA-516-70N
2	1	SHELL	3/8" PLATE x 120" (ROLLED TO 36" O.D.)	"
3	2	SADDLE	3/8" PLATE 31 1/4" x 32 11/16"	SA-36
4	4	"	6" x 3/8" FLAT BAR x 32 11/16" LONG	"
5	2	BASE PLT	6" x 3/8" FLAT BAR x 28" LONG	"
6	2	N1/N7	4" 150# LWN x 6" LONG	SA-105N
7	1	N2	4" 150# LWN x 7" LONG	"
8	2	N3/N4	2" 150# LWN x 7" LONG	SA-105N
9	2	N5A/B	2" 150# LWN x 7" LONG	"
10	1	MW	18" 150# LWN x 18" LONG	"
11	2	C1/C7	2" 3000# CPLG x 2" LONG	SA-105
12	1	C2	3/4" 3000# CPLG x 2" LONG	"
13	2	C3A/B	1" 3000# CPLG x 2 1/2" LONG	"
14	2	C10A/B	3/4" 3000# CPLG x 3" LONG	"
15	2	C4A/B	3/4" 3000# CPLG x 4 1/2" LONG	"
16	1	C6	1/2" 3000# CPLG x 2" LONG	SA-105
17	1	C5	2" 3000# CPLG x 4" LONG	"
18	1	C8A	1" 3000# CPLG x 2 1/2" LONG	"
19	1	C8B	1" 3000# CPLG x 2" LONG	"
20	1	C9A/B	2" 3000# CPLG x 3" LONG	"
21	1	WEIR	3/8" PLATE 30" x 35 1/4"	SA-516-70N
22	1.5 LF	VRT BRK	4" x 3/8" FLAT BAR	"
23	1.5 LF	CENTER	6" x 3/8" FLAT BAR	"
24	3 LF	DEM SPT	6" x 3/8" FLAT BAR	SA-516-70N
25	18 LF	"	1 1/2" x 1/4" FLAT BAR	"
26	1	VANE PK	6" WIDE VANE PACK 18 1/2" x 30" x 17 1/2"	304 S.S.
27	1	MW	18" 150# BLIND FLANGE	SA-105
28	1	DAVIT	SEE DWG (09-2414-3) FOR BOM & DETAIL	
29				
30				
31				

GENERAL NOTES

1. ALL BOLT HOLES TO STRADDLE NORMAL ℄'S UNLESS NOTED.
2. VESSEL SHALL BE THOROUGHLY CLEANED AND DRIED PRIOR TO SHIPPING.
3. FLANGED OPENING SHALL BE COVERED WITH ½" PLYWOOD PRIOR TO SHIPPING.
4. USE NACE MR0175 MATERIAL FOR VESSEL FABRICATION OF VESSEL WITH NACE MR0175 QUALIFIED WELDING PROCEDURE (HARDNESS TEST FOR WELDING PROCEDURE QUALIFICATION SHALL BE CARRIED OUT USING VICKERS HV 10 OR 5 OR ROCKWELL METHOD PER MR0175 PROFILES) AND REQUIRES WRITTEN APPROVAL BY MARATHON INSPECTION.
5. HARDNESS TESTING SHALL BE PERFORMED PER NACE MR0175.
6. ALL VESSELS, PIPE, VALVES, ETC. MATERIALS TO SATISFY NACE MR0175.
7. VESSEL HYDRO OF 1 HR. @ 1.3xMAWP IS ACCEPTABLE.
8. THE CHAMFERING OR ROUNDING OF EXPOSED EDGES IS REQUIRED.

MATERIAL SPECIFICATIONS

1. SHELL: SA-516-70N
2. HEADS: SA-516-70N
3. SUPPORTS: SA 36
4. FLANGES: SA-105N
5. NOZZLE NECKS:
6. REINFORCING PADS:
7. FITTINGS: SA 105
8. GASKETS:
9. INTERNALS: SA-516-70N
10. INTERNAL BOLTING:
11. EXTERNALS:
12. EXTERNAL BOLTING:
13. PAINT: PER MARATHON SPECS (MARATHON TAN)
14. COATING: INTERNALLY COAT PER MARATHON SPECS

NAMEPLATE DETAILS

NB

U

RT-2

CERTIFIED BY JET FABRICATION

MAWP 285 PSI @ 100 °F

MDMT -20 °F @ 285 PSI

SERIAL NO.

YEAR BUILT 2024

SIZE 36" O.D. x 10'-0" S/S

DESIGNED IN ACCORDANCE WITH SECTION VIII DIV. 1 OF ASME CODE 2023 EDITION

DESIGN PRESSURE: 285 PSI

DESIGN TEMP: 100 °F

CORROSION ALLOW: 1/16"

PWHT: NONE

HYDRO TEST: 371 PSI 70 °F

X-RAY: FULL LG SM SPOT CIRC. SM

WEIGHT: EMPTY: 2,776 # WET: 7,652 #

WELDING SPECIFICATIONS

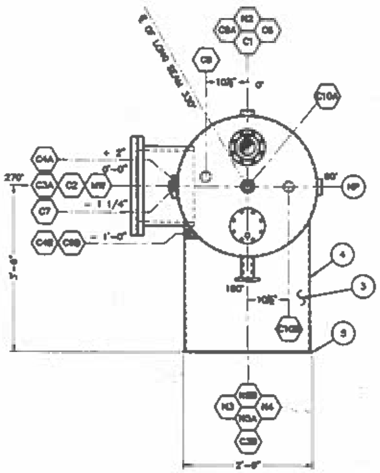
WPS 505-AIF

REFERENCE SPECIFICATIONS

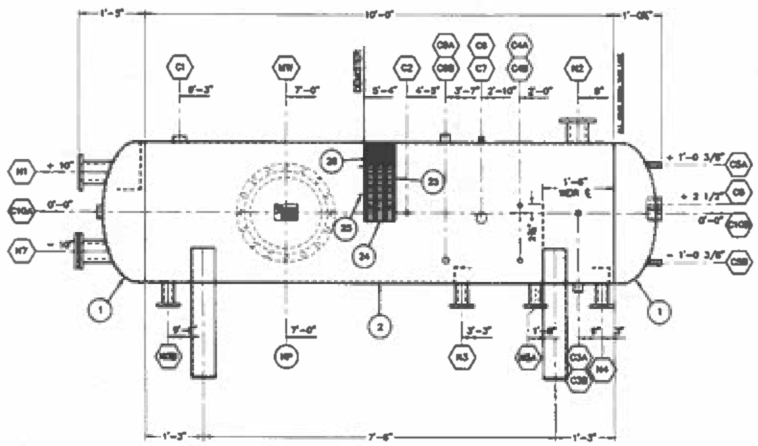
NACE MR0 175

DESIGN NOTES

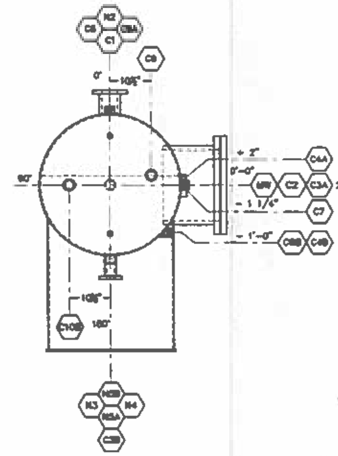
APPENDIX 46



LEFT SIDE ORIENTATION

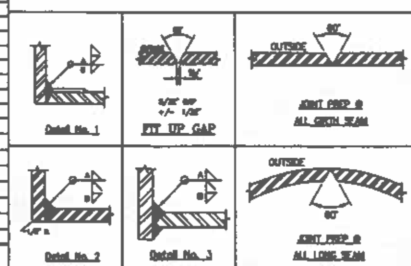


ELEVATION



RIGHT SIDE ORIENTATION

MARK	QTY.	SIZE	RATING	TYPE	NECK	FLG. (B.M. ITEM NO'S)	NECK (B.M. ITEM NO'S)	PAD (B.M. ITEM NO'S)	O.S. (PROJECTION)	I.S. (PROJECTION)	REINF. PAD	WELD "A"	WELD "B"	ATTACH. DET'L	SERVICE
MW	1	18"	150#	RFWN		10/27			18"	1"		3/8"	1/2"	3	MANWAY
C9B	1	2"	3000#	CPLG		20			SEE ELEV.	FLUSH		3/8"		2	INSPECTION
C9A	1	2"	3000#	CPLG		20				FLUSH		3/8"		2	INSPECTION
C8B	1	1"	3000#	CPLG		19				FLUSH		3/8"		2	LSH WATER
C8A	1	1"	3000#	CPLG		18				FLUSH		3/8"		2	LSL WATER
C5	1	2"	3000#	CPLG		17			SEE ELEV.	FLUSH		3/8"		2	OIL LEVEL CONTROLLER
C7	1	2"	3000#	CPLG		11				FLUSH		3/8"		2	WATER LEVEL CONTROLLER
C6	1	1/2"	3000#	CPLG		16				FLUSH		3/8"		2	SUPPLY GAS
C4A/B	2	3/4"	3000#	CPLG		15			SEE ELEV.	FLUSH		3/8"		2	OIL LEVEL GAUGE
C10B	1	3/4"	3000#	CPLG		14				FLUSH		3/8"		2	WATER LEVEL GAUGE
C10A	1	3/4"	3000#	CPLG		14				FLUSH		3/8"		2	WATER LEVEL GAUGE
C3B	1	1"	3000#	CPLG		13				FLUSH		3/8"		2	LSH OIL
C3A	1	1"	3000#	CPLG		13				FLUSH		3/8"		2	LSL OIL
C2	1	3/4"	3000#	CPLG		12				FLUSH		3/8"		2	TEMP
C1	1	2"	3000#	CPLG		11				FLUSH		3/8"		2	RELIEF
N7	1	4"	150#	RFWN		6			SEE ELEV.	FLUSH		3/8"		2	ANODE
N5A/B	2	2"	150#	RFWN		9			6"	FLUSH		3/8"		2	DRAIN
N4	1	2"	150#	RFWN		8			6"	FLUSH		3/8"		2	OIL OUTLET
N3	1	2"	150#	RFWN		8			6"	FLUSH		3/8"		2	WATER OUTLET
N2	1	4"	150#	RFWN		7			6"	FLUSH		3/8"		2	GAS OUTLET
N1	1	4"	150#	RFWN		6			SEE ELEV.	FLUSH		3/8"		2	INLET



REVISIONS

REV.	DATE:	DESCRIPTION	DWN:	CKD:	APP:
0	[illegible]	ISSUED FOR CONSTRUCTION	RC		

REF. DRAWINGS

FILE NAME	DESCRIPTION
09-2414-2	SADDLE & INTERNALS
09-2414-3	DAVIT DETAIL
[illegible]	JET FAB

DRAWN BY: RC RG 9-19-24

APPROVED BY: RG 9-19-24

CUST APPROVAL: G. JONES

SCALE: N.T.S.

JET FABRICATION

6830 LEOPARD

CORPUS CHRISTI, TEXAS 78409

PHONE: (361) 289-1711

CUSTOMER: MARATHON OIL

LOCATION: EAGLEFORD

CUSTOMER P.O.

JOB NO. 09-2414

TITLE: 36"x10'-0" HORIZONTAL L.P. SEPARATOR GENERAL ARRANGEMENT

DATE: 22AUG19

DRAWING NO. 09-2414-1

REV. 0