

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 : AXH air-coolers, LLC - 401 EAST LOWRY ROAD - CLAREMORE, OKLAHOMA 74017
 (Name and address of manufacturer)

2. Manufactured for: MARATHON OIL CO., 5555 SAN FILIPE, HOUSTON, TX 77056

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

4. Type HORZ. H. EXCHANGER 208239A-B.2 NONE 208239-HDR-MIX1 R0 46476-46477 2020
 (Horizontal, or vertical, tank) (Manufacturer's serial no.) (CRN) (Drawing number) (National Board number) (Year built)

5. ASME CODE, SECTION VIII, DIVISION 1 2019 EDITION / NONE
 [Edition and Addenda, if applicable (date)] (Code Case numbers) [Special service per UG-120(D)]

6. Shell TUBE/PLUG: SA-516-70N FR & BK 1 3/8" .1250" FR & BK 3 1/4" X 5 1/8" 6' 11 1/2"
 (Material spec. number, grade) (Nominal thickness) (Corr. Allow.) (Inner diameter) (Length (overall))

Body Flanges on Shells									Bolting			
No.	Type	ID	OD	Flange Thk	Min Hub Thk	Material	How Attached	Location	Num & Size	Bolting Material	Washer (OD, ID, thk)	Washer Material
-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-

7. Seams CORNER JOINT NONE 1.0 1150 1 - - - *2
 [Long. (welded, dbl., sngl., lap, butt)] (R.T. (spot or Full)) (Eff., %) (H.T. temp. °F) (Time, hr) [Girth (welded, dbl., sngl., lap, butt)] [R.T. (spot or full)] (Eff., %) (No. of courses)

8. Heads (a) Material WRAPPERS: SA-516-70N (b) Material ENDS: SA-516-70N
 (Spec. no., grade) (Spec. no., grade)

	Location (Top, Bottom, Ends)	Minimum Thickness	Corrosion Allowance	Crown Radius	Knuckle Radius	Elliptical Ratio	Conical Apex Angle	Hemispherical Radius	Flat Diameter	Side to Pressure (Convex or Concave)
(a)	WRAPPERS	7/8"	.1250"	-	-	-	-	-	**	FLAT
(b)	ENDS	3/4"	.1250"	-	-	-	-	-	***	FLAT

Body Flanges on Heads									Bolting			
	Location	Type	ID	OD	Flange Thk	Min Hub Thk	Material	How Attached	Num & Size	Bolting Material	Washer (OD, ID, thk)	Washer Material
(a)	-	-	-	-	-	-	-	-	-	-	-	-
(b)	-	-	-	-	-	-	-	-	-	-	-	-

9. MAWP 1440 psi. N/A at max. temp 350 °F N/A
 (Internal) (External) (Internal) (External)
 Min. design metal temp. -20 °F at 1440 psi. Hydro., pneu. or comb. test pressure 1872 psi.
 Proof test NONE

10. Nozzles, inspection, and safety valve openings:

Purpose (Inlet, Outlet, Drain)	No.	Diameter or size	Type	Material		Nozzle Thickness		Reinforcement Material	Attachment Details		Location (Insp. Open.)
				Nozzle	Flange	Nom.	Corr.		Nozzle	Flange	
INLET/OUTLET	2	4"-900#	PIPE/RFWN	SA-106-B	SA-105N	S/160	.1250"	NONE	UW-16(a)	UW-12(1)	HEADER
PLUGS	436	3/4"-16	UNF	SA-105	-	-	-	-	-	-	HEADER

11. Supports: Skirt NO Lugs N/A Legs N/A Other STRUCTURE Attached BOLTED
 (Yes or no) (Number) (Number) (Describe) (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:

(Name of part, item number, Manufacturer's name and identifying stamp)

*2 HEADERS, ONE AT EACH END. **WRAPPERS: 3 1/4" X 6' 11 1/2". ***ENDS: 3 1/4" X 5 1/8".

218 TUBES SA214 5/8" O.D. X .060 MW 44' 0" LG.

IMPACTS EXEMPT PER UG-20(f), UCS-66(c). PRESSURE RELIEF DEVICE BY OTHERS PER UG-125.

FORM U-1A

Page 2 of 2Manufactured by AXH air-coolers, LLC - 401 EAST LOWRY ROAD - CLAREMORE, OKLAHOMA 74017Manufacturer's Serial No. 208239A-B.2 CRN NONE National Board No. 46476-46477

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 34,950

expires 02/07/2023Date 9/14/2020 Co. name

AXH air-coolers, LLC.

Signed

(Manufacturer)

(Representative)

CERTIFICATE OF SHOP / FIELD INSPECTION

Vessel constructed by AXH air-coolers, LLC. at 401 E. LOWRY ROAD - CLAREMORE, OKLAHOMA 74017

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and employed by

ONECIS INSURANCE COMPANY OF LYNN, MA

have inspected the component described in this Manufacturer's Data Report on 9-10-20, 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 9-15-20 Signed

Commissions

(Authorized Inspector)

(National Board Authorized Inspector Commission number)