

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

①649860

1. Manufactured and certified by AIR COOLED EXCHANGERS, INC. ONE ACE AVE. BROKEN ARROW, OK. 74013
(Name and address of manufacturer)

2. Manufactured for WATERFLOOD SERVICES P O BOX 1490 ESTEVAN, SASKATCHEWAN S4A 2L7
(Name and address of purchaser)

3. Location of installation UNKNOWN
(Name and address)

4. Type VERTICAL 01012-3 M-5200.23 01012-H 2085 2001
(Horiz or vert., tank) (Mfg'r's serial No.) (CRN) (Drawing No.) (Mat'l. Bd. No.) (Year built)

5. The chemical and physical properties of all parts meet the requirements of material specifications of the ASME BOILER AND PRESSURE VESSEL CODE. The design, construction, and workmanship conform to ASME Rules, Section VIII Division 1 1998
Year

to A2000 NONE NONE
Addenda (Date) Code Case Nos. Special Service per UG-120(d)

Tube & Plug SA-516-70 1" 1/16" 5-1/2" 1'-2-7/8"
Mat'l. (Spec. No., Grade) Nom. Thk. (in.) Corr. Allow. (in.) Diam. I.D. (ft. & in.) Length (overall) (ft. & in.)

6. Shell: SA-516-70 1" 1/16" 5-1/2" 1'-2-7/8"
Mat'l. (Spec. No., Grade) Nom. Thk. (in.) Corr. Allow. (in.) Diam. I.D. (ft. & in.) Length (overall) (ft. & in.)

7. Seams: SINGLE BEVEL NA NA NA NA NA NA NA
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, Partial, or Full) No. of Courses

8. Heads: (a) Mat'l. SA-516-70 (b) Mat'l. SA-516-70
(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)	TOP & BTM	1/2"	1/16"	NA	NA	NA	NA	NA	4"	NA
(b)	ENDS	1/2"	1/16"	NA	NA	NA	NA	NA	4"	NA

If removable, bolts used (describe other fastenings) SERVICE: OIL (Mat'l., Spec. No., Gr., Size, No.)

9. MAWP 250 psi at max. temp. 233 °F
Min. design metal temp. -20 °F at 250 psi. Hydro., pneu., or comb. test pressure 325 psi.

10. Nozzles, inspection and safety valve openings: SAFETY RELIEF VALVE TO BE PROVIDED ELSEWHERE BY OTHERS

Purpose (Inlet, Outlet, Drain)	No.	Diam. Or Size	Type	Mat'l.	Nom. Thk.	Reinforcement Mat'l.	How Attached	Location
IN/OUTLET	2	2"	PIPE	SA-106B	SCH 160	MATERIAL & WELD	UW16.1(a)	-----
	2	2"	RFWN	SA-105	150#	MATERIAL & WELD	WELDED	-----

11. Supports: Skirt NO Lugs 2 Legs 0 Other NA Attached TUBESHEET/WELDED
(Yes or no) (No.) (No.) (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: CONSTRUCTED IN CONFORMANCE WITH APPENDIX 28, IMPACT EXEMPT PER UG-20(f)(1)(b)
(Name of part, item number, Mfg'r's name and identifying stamp)

TUBES:(44) SA-214 X 5/8" OD X .060" MW X 6' LONG STRAIGHT TYPE

PLUGS:(88) SA-105 SHOULDER

CERTIFICATE OF SHOP 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 Code for Pressure Vessels, Section VIII, Division 1, "U" Certificate of Authorization No. <u>7616</u> expires <u>4/30</u> , 20 <u>02</u> .	
Date <u>2-2-01</u> Co. name <u>AIR COOLED EXCHANGERS, INC.</u> (Manufacturer)	Signed <u>Ralph Bailey</u> (Representative)
CERTIFICATE OF SHOP INSPECTION	
Vessel constructed by <u>AIR COOLED EXCHANGERS, INC.</u> at <u>BROKEN ARROW,</u>	
I the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and/or the State or Province of <u>OKLAHOMA</u> and employed by <u>COMMERCIAL UNION INSURANCE CO. BOSTON, MASS.</u>	
have inspected the component described in this Manufacturer's Data Report on <u>2-24</u> , 20 <u>01</u> , and state that, to the best of my knowledge and belief, the Manufacturer has constructed this pressure vessel in accordance with ASME Code, Section VIII, Division 1. By signing this certificate neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the pressure vessel described in this Manufacturer's Data Report. Furthermore, neither the Inspector nor his 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 <u>2-24-01</u> Signed <u>AL C. Stout</u> (Authorized Inspector)	Commissions <u>NB. 8432-A OK. 266</u> (Mat'l. Board Encl. endorsement), State, Prov. and No.)