



FORM R-1 REPORT OF REPAIR
in accordance with provisions of the *National Board Inspection Code*



(Authorized Rep. initials)


(Inspectors initials)

(Form "R" Registration no.)
220525

(P.O. no., job no., etc.)

1. WORK PERFORMED BY: Tiger Industries, Inc.
(name of repair organization)
8909 JACKRABBIT RD, SUITE B HOUSTON, TX 77095
(address)

2. OWNER: Tiger Industries, Inc.
(name)
8909 JACKRABBIT RD, SUITE B HOUSTON, TX 77095
(address)

3. LOCATION OF INSTALLATION: Unknown
(name)

(address)

4. ITEM IDENTIFICATION: Air Cooled Heat Excha NAME OF ORIGINAL MANUFACTURER: AXH Air-Coolers
(boiler, pressure vessel, or piping)

5. IDENTIFYING NOS: 149385G.1 29699 2014
(mfg. serial no.) (National Board no.) (jurisdiction no.) (other) (year built)

6. NBIC EDITION/ADDENDA: 2019
(edition) (addenda)
Original Code of Construction for Item: ASME Section VIII, Division I 2013
(name / section / division) (edition / addenda)
Construction Code Used for Repair Performed: ASME Section VIII, Division I 2019
(name / section / division) (edition / addenda)

7. REPAIR TYPE: welded graphite pressure equipment FRP pressure equipment DOT

8. DESCRIPTION OF WORK: Form R-4, Report Supplementary Sheet is attached FFS Form (NB-403) is attached
(use Form R-4, if necessary)

Added another 3" inlet and another 3" outlet nozzle.

Hydro-Static Pressure Test, if applied 1674 psi MAWP 1287 psi
(Liquid, Pneumatic, Vacuum, Leak)

9. REPLACEMENT PARTS: (Attached are Manufacturer's Partial Data Reports or Form R-3's properly completed for the following items of this report):
(name of part, item number, data report type or Certificate of Compliance, mfg's. name and identifying stamp)

10. REMARKS:

(Form "R" Registration no.)
220525
(P.O. no., job no., etc.)

CERTIFICATE OF COMPLIANCE

I, Austin Karl, certify that to the best of my knowledge and belief the statements made in this report are correct and that all material, construction, and workmanship on this Repair conforms to the *National Board Inspection Code*. National Board "R" Certificate of Authorization No. R-8878 Expiration date: October 26, 2024

Repair Organization: Tiger Industries, Inc.

Signed:  (authorized representative)

Date: 7-26-22

CERTIFICATE OF INSPECTION

I, John Washington, holding a valid commission issued by The National Board of Boiler and Pressure Vessel Inspectors and certificate of competency, where required, issued by the Jurisdiction of TX and employed by TUV Rheinland AIA Services of Houston, TX have inspected the work described in this report on July 26th, 2022 and state that to the best of my knowledge and belief, this work complies with the applicable requirements of the *National Board Inspection Code*. By signing this certificate, neither the undersigned nor my employer makes any warranty, expressed or implied, concerning the work described in this report. Furthermore, neither the undersigned nor my employer shall be liable in any manner for any personal injury, property damage, or loss of any kind arising from or connected with this inspection.

Commissions: NB 2004 BR TX 925
(National Board and Jurisdiction no. including endorsement)

Signed:  (inspector)

Date: 7-26-22

FORM 1 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: VALERUS FIELD SERVICES, 919 MILAM, SUITE 1000, HOUSTON, TX 77002-5386

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

4. Type HORZ. H. EXCHANGER 149385G.1 NONE 149385-HDR-AC R0 29699 2014
(Horizontal or vertical, tank) (Manufacturer's serial no.) (CRN) (Drawing number) (National Board number) (Year built)

5. ASME CODE, SECTION VIII, DIVISION 1 2013 EDITION / NONE
(Edition and Addenda, if applicable (date)) (Code Case numbers) (Special service per UG-120(D))

6. Shell TUBE/PLUG: SA-516-70 FR & BK 1" .125" FR & BK 0' 5 1/4" 6' 5 1/4"
(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 SEE REMARKS 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-516-70 (b) Material ENDS: 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)	WRAPPERS	3/4"	.125"	-	-	-	-	-	**	FLAT
(b)	ENDS	5/8"	.125"	-	-	-	-	-	***	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 1287 psi. N/A at max. temp 300 °F N/A
(Internal) (External) (Internal) (External)

Min. design metal temp. -20 °F at 1287 psi. Hydro. pneu. or comb. test pressure 1674 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	3"-600#	PIPE/RFWN	SA-106-B	SA-105	S/160	.125"	NONE	UW-16(a)	UW-12(1)	HEADER
INSTRUMENT	1	1"	CPLG	SA-105	-	6000#	.125"	NONE	UW-16(a)	-	HEADER
PLUGS	304	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 FLAT DIA. 2 1/2" X 6' 5 1/4". ***ENDS FLAT DIA. 2 1/2" X 3 3/4".
152 TUBES SA-179 5/8" O.D. X .065 MW 7' 0" LG. RADIOGRAPH PER CUSTOMER SPECIFICATION'S.
IMPACTS EXEMPT PER UG-20(f). PRESSURE RELIEF DEVICE BY OTHERS. CONSTRUCTED IN ACCORDANCE WITH APPENDIX 28.

FORM U-1A (Back)

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 02/07/2017

Date 8-7-2014 Co. name AXH air-coolers, LLC. Signed [Signature]
(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 8-5-14, 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 8-7-14 Signed [Signature] Commissions NB12461A OK883
(Authorized Inspector) (National Board (incl. endorsements))