



**108" Gas Cooler
CLR-806**

Engine

Arrow A-54
S/N: P-4545C
Hours: Unknown

Cooler

East Texas Radiator 108"
S/N: 1795
Mfr Date: October 2008
1445# MAWP


Discharge Scrubber

East Texas Radiator
S/N: S1725
30" x 84" S/S
1440# MAWP

This cooler was packaged by McClung Energy Services and comes complete with a discharge scrubber, fuel gas scrubber, Murphy TTD control panel with EMIT edge NG air-fuel ratio controller and push-button start, and muffler with catalyst. Inlet and outlet flanges are 6" 900# raised face.

The cooler was inspected and failed a hydro-test by Roughneck Radiator on 11/25/19. The cooler needs a full re-tube which was quoted by Roughneck Radiator for \$20,000. The engine has not been inspected and will at least need a good PM before running.

AIR COOLED HEAT EXCHANGER SPECIFICATION SHEET

1			100 Coolant Ln.		Reference #	1002.1407	
2			Longview, TX 75604		Revision	A	
3			Phone: 903-759-3877		Date	8/26/2020	
4			Fax: 903-759-5931		Customer		
5			sales@etxrad.com		Customer Ref. #	ETR 1407, 1409, 1709, 1795, 1796	
6			www.etxrad.com		Service	1 STAGE NAT GAS	
7	Design Specifications:				Size - Type	168-119-S108-VFE (Forced)	
8	Code stamped sections per ASME Sect. VIII, Div. 1, 2017; National Board Registered				Est. Weight (lbs)	12200	
9	Check Rate 8.26.20				Elevation (FASL)	7200'	
10					Ambient Air Temp.	100°F	
11							
12	Service		AC				
13	Design Conditions	Fluid Circulated	NAT GAS				
14		Specific Gravity	0.6422				
15		Fluid Flow Rate (MMSCFD/GPM)	20.000				
16		Vapor Flow-Inlet (lbs/hr)	40,839				
17		Liquid Flow-Inlet (lbs/hr)	0				
18		Condensed Liquid-Outlet (lbs/hr)	0				
19		Fluid Temperature-Inlet (°F)	120				
20		Fluid Temperature-Outlet (°F)	104				
21		Pressure-Inlet (psig)	250				
22		Pressure Drop (psi)	2.2				
23		Heat Exchanged (BTU/hr)	351,800				
24		U-Finned (BTU/ft ² -hr-F)	2.9				
25		EMTD (°F)	7.9				
26		Surface Area-Finned (ft ²)	15436				
27	Fouling Factor (ft ² -hr-F/BTU)	0.001					
28	Header Info	Header Type	BOX				
29		Header Material	SA-516-70				
30		Header Width (ft)	9.89				
31		Design Pressure (psig)	1445				
32		Design Temperature (°F)	350/-20				
33		ASME Code Stamp	YES				
34	Corrosion Allowance (in)	0					
35	Nozzles	Inlet / Outlet Size	6"/6"				
36		Rating - Type	900# RFWN				
37		Auxillary Nozzles					
38	Tubes	Tube Length (in)	168				
39		Tube O.D. (in)	1				
40		Number of Tubes	206				
41		Rows / Passes	4/2				
42		Tube Wall Thickness (in)	0.083				
43		Tube Material	SA-214				
44	Aluminum Fin Type	PLAIN L-FOOT					
45	Fin Height (in) / Fins Per Inch	.6250/10					
46	Tube Pitch (in)	2.25					
47	Options	Louvers	MANUAL				
48		Core Guard	NO				
49		Turbulators	NO				
50	Fan & Drive	Fan Mfg	Moore	Fan Type	C10K-S30-LH	Speed Reducer	V-BELT
51		HP/Fan	14.87	No of Fans	1	Driver Type	
52		Fan Dia (in)	108	No of Blades	6	Driver HP	
53		Fan RPM	424	Tip Speed (fpm)	11988	Driver RPM	
54		Airflow (ACFM)	104480	Static Press (inH2O)	0.529	Motor Enclosure	
55		Blade Material	Aluminum	Blade Angle	12.4	Motor V-P-C	
56		Air Temp Out	104°F	Fan SPL dBA @ 1m	87.0	Vibration Switches	
57	Additional Info.	Finish: inside/outside 2 mils ETR gray primer				CLO U-Tube	
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62							

Roughneck Radiator, LLC
 1716 Toledo Circle
 Longview, TX 75604



Hydro Test Report

	MAWP	Hydro Test Pressure	Actual Test Pressure	Gauge Size
EJW	PSI	PSI	PSI	
TAW	PSI	PSI	PSI	
IC-1	PSI	PSI	PSI	
IC-2	PSI	PSI	PSI	
AC	1445 PSI	1879 PSI <i>Fail</i>	1879 PSI	5000

Location: Kilgore TX

Unit: 1114-08
806

Date: 11-25-19

Hydro Tester Signature: Juan Colonides

UNIT 108