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AIR COOLED HEAT EXCHANGER SPECIFICATION SHEET

Equipment / Item No.: _____

Customer: TAS / Shell _____
 Location: Colorado _____
 Service: Lube Oil Cooling _____

Number Required: 3
 SBS Serial Number: TBD

Specification No.: _____
 Project Number: _____
 Original Date: 1-May-08
 Prepared By: Gary S. Berwick PE
 Revision No. / Date: 5 / 1-May-08

1	Size	Model HP-5064-1F	Draft Type	Forced	Number of Bays	1
2	Surface / Unit, Extended	3,372 ft	Bare Tube	157 ft	Number of Bundles	1
3	Dimensions (outside),	Length 7.33 ft	Width 5.50 ft	Height 4.92 ft		
PERFORMANCE						
4	Heat Exchanged	258,000 Btu/hr	Temperature Diff.	34.00 °F		
5	Transfer Rate, Service (extended)	2.65 Service (bare)	Btu/hr-ft. -°F			
6	Natural Convection Duty	Btu/hr				
7		(In) Tube Side (Out)				
8	Fluid Name	CP-4624-46 Lube Oil	Air Quantity	SCFM		
9	Fluid Quantity	GPM 101.6	LB/HR	40,872	Air Quantity	ACFM 22666
10	Vapor				Air Quantity	lb/hr 70961
11	Liquid				Temperature In	°F 96
12	Steam				Temperature Out	°F 107
13					Minimum Air Temp	°F -20
14	Temperature	°F 140			Altitude	ft 6500
15	Specific Gravity, Liquid	0.805			Face Velocity	FPM 866.0
16	Viscosity, Liquid	cst 27.4			Static Pressure Drop	in water 0.75
17	Molecular Weight, Vapor				Air Quality	
18	Specific Heat (v/l)	Btu/lb-°F 0.55				
19	Thermal Cond. (v/l)	Btu-ft/hr-ft. -°F 0.087				
20	Latent Heat	Btu/lb @ °F				
21	Inlet Pressure	psig 450				
22	Velocity	ft/sec 3.3				
23	Pressure Drop Allow / Calc	psig 10 / 12.7				
24	Fouling Resistance	hr-ft. -°F/Btu 0.005				
CONSTRUCTION						
25	Design Pressure	550 psig	Test Pressure	715 psig	Design Temperature	450 °F
Fan		Driver		Speed Reducer(Note 2)		
26	Manufacturer	Air Turbine	Type	WEG electric motor	No./Bay	N/A
27	Model	X-41.5-11	RPM	1165	Ratio	N/A
28	Blade Material	Galvanized Steel	HP/Driver	7.5	Mfr/Model	N/A
29	Hub Material	Galvanized Steel	No./Bay	1	Type	N/A
30	No./Bay	1	HP/Fan	7.5	Volts	460
31	Diameter	41.5 in	Phase	3	HP Rating	N/A
32	RPM	1165	Hertz	60	Belt Width	N/A in
33	No. Blades	4	Enclosure	TEFC	Belt Length	N/A in
34	Pitch Fixed	Yes	Service Factor	1.25	Driven Sheave Dia.	N/A in
35	Pitch Adjustment	None			Driver Sheave Dia.	N/A in
Headers		Tubes		Fins		
36	Type	Welded Box	No./Bundle	100	Type	L-foot
37	Material	PVQ Carbon Steel	Material	SA-214 carbon steel	Material	Aluminum
38	No. Passes	6	Size OD	1.00 in	No./Inch	10
39	Plug Design	1-1/8"-12	Wall Thickness	16 BWG	Height	0.625 in
40	Plug Material	SA-105 Forged Steel	Length	6 ft	Thickness	0.007 in
41	Gasket Material	Steel	Pitch	2.3800 in	Attachment	Shoulder Tension
42	Corr Allowance	0.063 in	Max Length Allowed	ft		
General		Options		Nozzles		
43	Slope Direction		Louvers	None	No.	Size
44	Slope Pitch	0 in/ft	Steam Coil	None	1	3"
45	Min Recirculation	gpm	Vibration Switch	None	Outlet	1
46	Internal Volume	53 gallons	Hail Guard	Optional	Vent	1
47			Fan Guard	Yes	Drain	2
48			Cold Weather Operation		Inspection	

Notes:

1. Fan is direct-drive.
2. ASME "U" Code stamp and National Board registered
3. Unit has 0% excess capacity
4. Tubes have turbulator inserts