

	AIR COOLED HEAT EXCHANGER DATA SHEET (API-661 FORMAT)	
	PROJECT TITLE: HUSKY OIL	
	PLANT LOCATION: WESTERN CANADA	
	EQUIP. No.: WESTERN CANADA	No. Required: _____
SERVICE NAME: EJW/ELOW		AXC QUOTE NO. 125050-A1R0
REV.: _____ DATE: _____		DATE: 10/3/2012 Service 1 of 3

1	Customer:	ENERFLEX		
2	Purch. Inq. No:	UNIT 12605, PO MP551522	Purch. Ord. No:	
3	Size & Type:	AXC MODEL 156EH-122-24 FORCED		No. of Bays 1
4	Surface per Unit-Finned Tube, ft2	8280	Bare Tube, ft2	521
5	Heat Exchanged, btu/hr	3717237	MTD. Eff.	46.20
6	Transfer Rate-Finned, btu/(hr)(ft2)(°F)	9.85	Transfer Rate-Bare, btu/(hr)(ft2)(°F)	156.55
7	Fluid Name	50%GLY	Lethal Service (yes) (no)	NO
8	Total Fluid Entering, lb/hr	177363	Density, Liq/Vap	lb/ft3
9				64.28
10	Temperature °F	190	Specific Heat, Liq/Vap	btu/(lb)(°F)
11	Liquid	177363	Therm Cond., Liq/Vap	btu/(hr)(ft)(°F)
12	Vapor		Latent Heat	btu/lb
13	Noncond.		Surface Tension	
14	Stream		Tube inlet velocity (allow./calc.)	ft/s
15	Water		Inlet Pressure	psia
16	Viscosity Liq/Vap	0.914	Pressure Drop (allow./calc.)	psi
17		1.132	Fouling Resist, Inside	(hr)(ft2)(°F)/btu
18			Fouling Resist, Airside	(hr)(ft2)(°F)/btu

18	PERFORMANCE DATA - AIR SIDE			
19	Air Quantity, Total (SCFM)	239534	Alt. Above Sea Level, ft	1890
20	Air Quantity, /Fan (ACFM)	271858	Min. Ambient, °F	-20
21	Mass Velocity (Net Free Area) lb/(hr)(ft2)		Temperature In (Design Dry Bulb), °F	104
22	Face Velocity SFPM	954	Temperature Out, °F	154.3
23	Actual Static Pressure, in(h20)	0.8438	Max. Allow. Static Pressure, in(h20)	

24	DESIGN - MATERIAL - CONSTRUCTION			
25	Design Pressure, psig	14	Test Pressure, psig	14
26	TUBE BUNDLE		Design Temp. °F	*300/
27	Size	4.3ft Wide X 24ft Long	HEADER, Type	RECT. TUBE
28	No. Tube Rows	4	Material	SA500 GR.B
29	Arrangement		OD, in	5/8X16 BWG
30	Bundle	1	No. Passes	1
31	Bays	1	Slope, in/ft	None
32	Frame Finish	PAINTED	Min. Wall Thick, in	0.06
33	Header Finish	PAINTED	Plug Material	B-16 BRASS
34	MISCELLANEOUS		No./Bundle	134
35	Struct. Mount.		Length, ft	24
36	Struct. Finish	PAINTED	Gasket Material	B36 ALLOY 6
37	Louvers(Auto/Man.)	MANUAL	Tube Pitch, in	1.5
38			Corrosion Allowance, in	None
39			FIN, Type/Material	L-TENSION/WHEEL/ALUMINUM
40			No., Size Inlet Nozzle, in	(1)-6 in
41			Efficiency, %	
42			No., Size Outlet Nozzle, in	(1)-6 in
43			OD, in	1.5
44			Stock Thk, in	.014 X .500
45			No/in	10
46			Design Temp, °F	
47			Code-ASME VIII. Div. 1	NO
48			Vents/Drains	.75-3000# CPLG(VENT & DRAIN)
49			FABRICATION SPEC.	
50			Temp/Press	NONE
51			ABSA REGISTERED	

52	MECHANICAL EQUIPMENT			
53	FAN, Mfg.	MOORE-CL10K Ser. 60-HDVT	DRIVER, Type	ENGINE DRIVE
54	No./Bay	1	REDUCER, Type	BY OTHERS
55	Dia., ft	13	Mfr. & Model	
56	Man/Auto	Man	Rating, HP/SF	
57	Blade Matl.	Alum	AGMA Rating, hp	
58	HP/Fan, Des.	60.7	Speed Ratio	
59	Vib. Switches	NONE	Support (Structure) (Pedestal)	
60			Wgt. fan and motor, lbs	
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101	Control Action on Air Failure-Fan Pitch (Maximum) (Lockup)		Louvres (Open) (Close) (Lockup)	N/A
102	Degree Control of Outlet Process Temperature (Maximum Cooling) (+/- °F)			
103	Recirc. System	STYLE: LARGE EH	Steam Coil	
104				
105	Critical Exposure Temp, °F		Sour Service	No
106	Bug Screen		Fan Guard	YES
107	Noise Specs.		Belt Guard	BY OTHERS
108	Notes: * Actually built to standard 50# design. Designated 14# to eliminate necessity of Provincial registration.			
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	EQUIP. No.: WESTERN CANADA	No. Required: _____
SERVICE NAME: TAW/CW		AXC QUOTE NO. 125050-A1R0
REV.: _____ DATE: _____		DATE: 10/3/2012 Service 2 of 3

1	Customer:	ENERFLEX		
2	Purch. Inq. No:	UNIT 12605, PO MP551522	Purch. Ord. No:	
3	Size & Type:	AXC MODEL 156EH-122-24 FORCED		No. of Bays 1
4	Surface per Unit-Finned Tube, ft2	16930	Bare Tube, ft2	1065
5	Heat Exchanged, btu/hr	3659127	MTD. Eff.	22.73
6	Transfer Rate-Finned, btu/(hr)(ft2)(°F)	9.69	Transfer Rate-Bare, btu/(hr)(ft2)(°F)	154
7	Fluid Name	50%GLY	Lethal Service (yes) (no)	NO
8	Total Fluid Entering, lb/hr	217419	Density, Liq/Vap	lb/ft3
9				65.27
10	Temperature °F	150	Specific Heat, Liq/Vap	btu/(lb)(°F)
11	Liquid	217419	Therm Cond., Liq/Vap	btu/(hr)(ft)(°F)
12	Vapor		Latent Heat	btu/lb
13	Noncond.		Surface Tension	
14	Stream		Tube inlet velocity (allow./calc.)	ft/s
15	Water		Inlet Pressure	psia
16	Viscosity Liq/Vap	1.351	Pressure Drop (allow./calc.)	psi
17		1.712	Fouling Resist, Inside	(hr)(ft2)(°F)/btu
18			Fouling Resist, Airside	(hr)(ft2)(°F)/btu

18	PERFORMANCE DATA - AIR SIDE			
19	Air Quantity, Total (SCFM)	239534	Alt. Above Sea Level, ft	1890
20	Air Quantity, /Fan (ACFM)	271858	Min. Ambient, °F	-20
21	Mass Velocity (Net Free Area) lb/(hr)(ft2)		Temperature In (Design Dry Bulb), °F	104
22	Face Velocity SFPM	954	Temperature Out, °F	128.2
23	Actual Static Pressure, in(h20)	0.8438	Max. Allow. Static Pressure, in(h20)	

24	DESIGN - MATERIAL - CONSTRUCTION			
25	Design Pressure, psig	14	Test Pressure, psig	14
26	TUBE BUNDLE		Design Temp. °F	*300/
27	Size	8.8ft Wide X 24ft Long	HEADER, Type	RECT. TUBE
28	No. Tube Rows	4	TUBE, Material	SA214
29	Arrangement		Material	SA500 GR.B
30	Bundle	1	OD, in	5/8X16 BWG
31	Bays	1	Slope, in/ft	None
32	Frame Finish	PAINTED	Min. Wall Thick, in	0.06
33	Header Finish	PAINTED	No./Bundle	274
34	MISCELLANEOUS		Length, ft	24
35	Struct. Mount.		Gasket Material	B36 ALLOY 6
36	Struct. Finish	PAINTED	Tube Pitch, in	1.5
37	Louvers(Auto/Man.)	et(s) ; Standard Mounting	Corrosion Allowance, in	None
38			FIN, Type/Material	L-TENSION/WHEEL/ALUMINUM
39			No., Size Inlet Nozzle, in	(1)-6 in
40			Efficiency, %	
41			No., Size Outlet Nozzle, in	(1)-6 in
42			OD, in	1.5
43			Stock Thk, in	.014 X .500
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45			Design Temp, °F	
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57	Vib. Switches	NONE	Support (Structure) (Pedestal)	
58			Wgt. fan and motor, lbs	
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63	Critical Exposure Temp, °F		Sour Service	No
64	Bug Screen	Hail Guard	Fan Guard	YES
65	Noise Specs.		Belt Guard	BY OTHERS

Notes: * Actually built to standard 50# design. Designated 14# to eliminate necessity of Provincial registration.				

