Summary:

- Description: 1-4 Shell & Tube Heat Exchanger
- Shells per Pass: 1
- Surface area: 59.8 m^2

Operating Data for One Unit			
Units		**Shell Side**	**Tube Side**
Description of fluids		**Kerosene**	**Cooling Water**
Liquid Flow Rate	kg/h	15500	46625.49
Density	kg/m^3	775	993
Absolute Viscosity	cp	1	0.7
Specific Heat	J/kg °C	2155	4179
Thermal Conductivity	W/m °C	0.138	0.64
Temperature	°C	Inlet-110 Outlet-40	Inlet-33 Outlet-45
Maximum Pressure Drop	kg/cm^2	0.7	0.7
Operating Pressure Drop	kg/cm^2	0.13	0.3
Number of Passes		1	4
Velocity	m/s	0.82	0.39
Fouling Resistance	m^2 °C/W	0.0002	0.00024

- Overall Heat Transfer Coefficient: 550 W/m^2 °C (assumed), 530 W/m^2 °C (estimated)
- Material: Brass
- Tube OD: 1 inch, Length: 16 feet, Pitch: 1.25 inch (triangular)
- Shell ID: 0.573 m

- Baffle Spacing: 0.1146 mm, Baffle Cut: 25%
- Shell Head Cover: Split-ring floating head
- Thermal Conductivity: 109 W/m °C
- No. of tubes: 170
- Corrosion Allowance: 3 mm