



Enriching Lives

Engine Data Sheet
Kirloskar Oil Engines Limited
Laxmanrao Kirloskar Road
Khadki, Pune - 411003 (India)

Basic Engine Model:
KFP6R-UF25

Reference Number : EDS - UF25 - 00

Revision Date : 13.02.2014

Rev. Number : 01

General Engine Data

Engine Manufacturer.....	KOEL
Ignition Type.....	Compression (Diesel)
Number of Cylinders.....	6
Bore and Stroke - in.(mm).....	4.13 x 4.92 (105 x 125)
Displacement - in. ³ (L).....	395.4 (6.48)
Compression Ratio.....	17.6 : 1
Valve per cylinder - Intake.....	1
Exhaust.....	1
Combustion System.....	Direct Injection
Engine Type.....	In-Line, 4 Stroke Cycle
Aspiration.....	Turbocharged, Aftercooled
Firing Order.....	1-5-3-6-2-4
Charge Air Cooling Type.....	Raw Watercooled
Rotation(Viewed from Flywheel end) - Clockwise..	Not Available
Counter-Clockwise.....	Standard
Engine Crankcase Vent System.....	Open
Installation Drawing.....	6H.2583.00.00

Cooling system

	1760	2100	2200	2350	2600
Engine Coolant Heat - Btu/sec.(kW).....	87.4(92)	100.8(106)	106.7(112)	113.8(120)	135.3(143)
Engine Radiated Heat - Btu/sec.(kW).....	20.4(21.5)	23.5(24.8)	24.9(26.2)	26.6(28)	31.6(33.3)
Heat Exchanger minimum Flow					
59°F (15°C) Raw Water - gal/min. (LPM)....	13.2(50)	14(53)	15.3(58)	16.6(63)	18.2(69)
95°F (35°C) Raw Water - gal/min. (LPM)....	15.8(60)	17(65)	18.5(70)	20(76)	22(83)
Heat Exchanger Maximum Cooling Water					
Inlet Pressure - bar (lb./in. ²) (kPa).....	4 (60)(400)				
Flow - gal/min. (LPM).....	42(160)				
Thermostat, Start to Open - °F (°C).....	165.2(74)				
Fully Opened - °F (°C).....	183.2(84)				
Engine Cooling capacity - L.....	18				
Engine Coolant Temperature (Maximum) - °F (°C)..	203(95)				
Engine Coolant Temperature (Minimum) - °F (°C)..	165.2(74)				
Engine Coolant Low Temperature Switch - °F (°C)..	89.6(32) - 100.4(38)				
Raw water High Temperature Switch - °F (°C).....	143.6(62) - 154.4(68)				

Continued.....

Electric System - DC

System Voltage (Nominal).....	12 V
Battery Capacity for Ambients above 32 ⁰ F (0 ⁰ C)	
Voltage (Nominal).....	12 V
Qty. per Battery Bank.....	1
SAE size per J537.....	4D - 640
CCA at 0 ⁰ F (-18 ⁰ C).....	640
Reserve Capacity - Min.....	280
Battery Cable Circuit*, Max. Resistance - ohm.....	0.0012
Battery Cable Minimum Size	
0 - 120 in. Circuit* Length.....	0
121 - 160 in. Circuit* Length.....	0
161 - 200 in. Circuit* Length.....	0
Charging Alternator Output - Amp.....	55
Starter Cranking Amps - at 60 ⁰ F (15 ⁰ C).....	440
*Positive and Negative Cables Combined Length	

Exhaust System

	1760	2100	2200	2350	2600
Exhaust Flow - ft ³ /min (m ³ /min).....	817(23.1)	1060(30)	1163(32.9)	1241(35.1)	1476(41.8)
Exhaust Temperature - ⁰ F (⁰ C).....	932(500)	932(500)	932(500)	932(500)	932(500)
Max. Allowable Back Pressure - in. of H ₂ O(kPa)...	18.7 (4.6) at 1760 rpm and 27 (6.6) at 2600 rpm				
Exhaust pipe Dia. In. (mm)** for further exhaust piping(Min.).....	5 (125)				

Fuel System

	1760	2100	2200	2350	2600
Fuel Consumption - gal./hr. (L/hr.).....	6.9(31.2)	7.9(35.9)	8.4(38.1)	8.9(40.6)	10.6(48.3)
Fuel Return - gal./hr. (L/hr.).....	20.7(93.8)	23.7(107.7)	25(114)	26(128.4)	32(145.7)
Total Supply Fuel Flow - gal./hr. (L/hr.).....	27.6(125)	31.6(143.6)	33.4(152)	34.9(169)	42(194)
Fuel Pressure - lb./in. ² (kPa).....	36.25(250)				
Fuel Supply Line Size(Min.) - in.(mm)	0.5(12.7)				
Fuel Return Line Size(Min.) - in.(mm).....	0.375(9.5)				
Max. Allowable Fuel Pump Suction With Clean Filter - in. H ₂ O (m H ₂ O).....	31(0.8)				
Max. Allowable Fuel Head Above Fuel Pump Supply or Return - m (ft.).....	2.7(9)				
Fuel Filter Size - Micron.....	10				

Heater System

Jacket Water Heater.....	Standard
Wattage (Nominal).....	2000
Voltage - AC, 1P.....	240

Continued.....

Induction Air System

	1760	2100	2200	2350	2600
Air Cleaner Type.....	Dry				
Air Intake Restriction Maximum Limit					
Dirty Air Cleaner - in. of Water (kPa).....	10 (2.5) at 1760 rpm and 20 (5) at 2600 rpm				
Clean Air Cleaner - in. of Water (kPa)...	6 (1.5)				
Engine Air Flow - ft.3/min. (m3/min).....	298.6(8.5)	389.4(11)	428(12.1)	456(12.9)	542.7(15.4)
Air Temperature(At Engine Inlet) - °F (°C)***	113(45) Max. Allowable				

Lubrication System

Oil Pressure(Normal) - lb./in. ² (kPa).....	36.26 to 72.52 (250 to 500)				
Oil Temperature(In Pan) - °F (°C) (max.).....	230 - 248 (110 - 120)				
Oil Pan Capacity, High - L.....	15				
Low - L.....	13.5				
Total Oil Capacity with filter - L.....	17				

Performance

	1760	2100	2200	2350	2600
BMEP - lb./in. ² (kPa).....	168(1162)	159(1100)	156(1078)	151(1045)	152(1047)
Piston Speed - ft./min (m/min).....	1444(40)	1723(525)	1805(550)	1928(587.5)	2133(650)
Mechanical Noise - dB(A) at 1m.....	102 approx				
Power Curve.....	Performance curve No. EPC - UF25 - 00				