



Enriching Lives

Engine Materials & Construction

Kirloskar Oil Engines Limited
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**Basic Engine Model:
KFP4R-FM05D1**

Ref. No.: EMC - FM05D1 - 00

Revision Date : 28.07.2018

Rev. Number : 00

Air Cleaner

Type : Dry type, Indoor service
Material : Cellulose Paper
Housing : Partial Enclosed

Crankshaft

Material : 39Cr5V
Type of Balance : Integral Balance weight

Camshaft

Material : C-45
Location : Inside Crankcase
Drive : Gear, Helical
Type of Cam : Cam Ground

Coolant Pump

Type : Centrifugal
Drive : Belt

Coolant Thermostat

Type : Spring Loaded
Quantity : 1

Connecting Rod

Type : Horizontal Split
Material : EN19 / 42 Cr Mo4

Crank Pin Bearings

Type : Bi-metallic
Number : One pair per cylinder
Material : 'P' Copper-Lead Steel Back

Crankcase

Type : Modular
Material : Gray CI Grade FG260

Piston Pin

Type : Modular
Material : 17Cr3

Piston Rings

Number Per Piston : 3
Top : KV1, Chrome Plated
Second : STD/GOE-13
Third : STD/GOE-13, Chrome plated

Cylinder Head

Type : Integral Type
Material : Gray CI Grade FG260

Cylinder Liners

Type : Wet Liner
Material : Cast Iron

Valves

Type : Poppet
Arrangement : Overhead Valve
Number per Cylinder : 1 Intake & 1 Exhaust
Operating Mechanism : Mechanical Rocker Arm
Type of Lifter : Flat Follower
Valve Seat Insert : Replaceable

Heat Exchanger

Type : Tube & Shell
Materials, Tube & Shell
Tube : Brass
Shell : Aluminium

Injection Pump

Type : Inline Pump
Drive : Gear Drive

Lubrication Cooler

Cooler Type : Plate Type

Lubrication Pump

Pump, Type : G-Rotor (Positive Displacement)
Drive : Gear Drive

Main Bearings

Type : Bi-metallic
Material : Copper Lead with Steel back

Piston

Type and Material : Al Alloy - CSA12
Cooling : Jet Oil spray Cooling

Cooling Loop

Solenoid Valve : Brass
Pressure Regulator : Stainless Steel
Ball valve & Strainer : Stainless Steel
Pipe, Elbows & Tees : Stainless Steel