



Enriching Lives

Engine Materials & Construction

Kirloskar Oil Engines Limited
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Basic Engine Model:

KFP4R-UF16R1

Reference No.: EMC - UF16R1 - 00

Revision Date : 28.05.2018

Rev. Number : 00

Air Cleaner

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

Crankshaft

Material : 42 Cr M04
Type of Balance : Balance weight attached

Camshaft

Material : C45
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 : 45 Angular Split
Material : 39 Cr5V

Crank Pin Bearings

Type : Bi-metallic
Number : 4
Material : Copper-Lead with overlay plating

Crankcase

Type : Modular
Material : Gray CI Grade FG260

Piston Pin

Type : Modular
Material : 17Cr3

Piston Rings

Number Per Piston : 3
Top : RIK - 20A
Second : RIK - 40
Third : RIK - 40

Charge Air Cooler

Cooler Type : Raw Water Cooled
Materials
Tubes : Copper
Header : M.S.

Cylinder Head

Type : Integral Type
Material : Gray CI- Grade FG260

Cylinder Liners

Type : Wet Liner
Material : Gray CI- Grade FG150

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
Drive : Gear Drive

Main Bearings

Type : Bi-metallic
Material : Steel back C10 - Copper lead

Piston

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

Cooling Loop

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