



Enriching Lives

## Engine Materials & Construction

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

**Basic Engine Model:**

**KFP4R-UF16R2**

Reference No.: EMC - UF16R2 - 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