



Fire Power

Engine Materials and Construction

Cummins Fire Power
DePere, WI 54115
<http://www.cumminsfirepower.com>

Basic Engine Model

CFP83-F40

Curve Number: **FR - 90940**

CPL Code: **8000**

Configuration Number: **D413035GX02**

Installation Drawing: **8710**

Engine Family: **Industrial**

Revision Date: **June 2006**

Engine

Camshaft

Type.....Precision Ground
Material.....Forged Steel
Location.....In Block
Drive.....Gear

Connecting Rods

Type.....I-Beam, Fracture-split
Material.....Nickel Chrome Molybdenum

Crankshaft

Type.....Precision Ground
Material.....Forged Steel

Crankshaft Main Bearings

Type.....Precision Half Shells
Material.....Steel, Copper with Soft Metal Overlay

Crankshaft Rod Bearings

Type.....Precision Half Shells
Material.....Steel, Copper with Soft Metal Overlay

Cylinder Block

Type.....Wet Lined
Material.....Cast Iron Alloy

Cylinder Head

Type.....1 Common, 12 Valve
Material.....Cast Iron Alloy

Cylinder Liners

Type.....Centrifugal Casting, Mid Stop
Material.....Cast Iron Alloy

Pistons

Type.....1 Piece Cast
Material.....Aluminum Alloy

Piston Pins

Type.....Full Floating
Material.....Forged Steel

Piston Rings

First.....Chrome Coated Ductile Cast Iron
Second.....Keystone, Hardened Grey Cast Iron
Third.....Chrome Coated Composite

Valves

Type.....Poppet
Arrangement.....Overhead Valve
Number per Cylinder...1 Intake, 1 Exhaust
Mechanism Type.....Mechanical Rocker Arm
Lifter Type.....Solid Push Tube

Air Handling

Air Cleaner

Type.....Single Element, Disposable
Material.....Cellulose

Turbocharger

Type.....Cummins Turbo Tech HX40W
Design.....Wastegated

Cooling System

Charge Air Cooler Heat Exchanger

Type.....Tube and Shell
Material.....
Covers.....83600 Red Brass
Headers.....36500 Muntz
Plumbing.....316 Stainless Steel Brass, Copper & Silicone
Tubes.....Copper

Coolant Heat Exchanger

Type.....Tube and Shell
Material.....
Electrode.....Zinc
Headers.....Copper
Shell.....Copper
Tubes.....Copper

Coolant Pump

Type.....Centrifugal
Drive.....Belt, Multi VCC

Thermostat

Type.....Modulating
Quantity.....1

Fuel System

Fuel Injection Pump

Type.....Inline
Drive.....Mechanical, Gear Driven

Fuel Lift Pump

Type.....Piston
Drive.....Mechanical, Gear Driven

Lubrication System

Oil Pump

Type.....Gerotor
Drive.....Gear

Lubrication Cooler

Type.....Plate
Material.....Braided Stainless Steel