RODUCT BULLETIN

Cummins[®]: 4B/3.9L **Diesel Engine**

ISSUE: 3.9L-H

ENGINE OVERVIEW

The 4B/3.9L Cummins is a popular engine used in step van applications including bread, snack, uniform, and other commercial delivery vehicles. This engine is also used in various industrial and construction applications.

Reviva utilizes torque plating methods for boring and honing to ensure block straightness, which reduces break-in time and crankcase pressure. In addition, Reviva uses OEM or equivalent pistons, rings, bearings, valves and gaskets, making sure that this engine will stand the test of time.

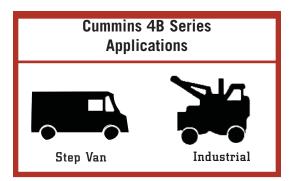
To Place AN Order

Before calling to request price and availability, please gather the following information:

- The original engine serial number
- The original engine CPL number
- ++The CPL and serial numbers are located on the injection pump side of the engine on the front gear cover.

REVIVA DYNO TEST

All of Reviva's Complete Drop-In engines are 100% dyno tested prior to shipment. Computer controls ensure that each engine dyno test is conducted under standard, repeatable settings. Every engine is run through a warm up cycle; three separate cruise segments simulating light, medium and heavy throttle conditions; maximum torque and horsepower tests; both high and low idle tests; and a black light leak detection test with dyed oil, coolant and fuel.



Warranty Coverage

On-Road Complete Drop-In configurations: 2yr/unlimited mileage. 2nd year long block coverage only. Off-Road Complete Drop-In configurations: 1yr/2,000 hours. Some restrictions apply; see limited warranty details or call for more information.

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4B Complete Drop-In



COMPLETE DROP-IN INCLUDES:

- Block
- Rods
- Crank gear
- Piston assemblies
- Head
- Rear cover & seal
- Oil filter assembly
- Water pump
- Side cover/crankcase breather
- Valve train (lifters, pushrods & rocker arms)
- Lift pump
- Low & high pressure lines
- Fuel filter assembly
- Turbocharger
- Intake cover & connection
- Thermostat housing
- Oil pickup tube
- Air crossover tube if required

- Injection pump
- Injectors

Crankshaft

• Oil pump

• Cam gear

Camshaft

Oil cooler

Gasket set

Valve cover(s)

Front gear housing

- Damper pulley
- Thermostat

• Oil pan

- Exhaust manifold
- Gear cover & sea

(877) 357-7634 www.reviva.com



Reviva and OE Equivalence

REVIVA

Reviva is a privately owned gas and diesel engine remanufacturer located in a 70,000 sq. ft. state-of-the-art facility in Minneapolis, Minnesota. Since 1945, Reviva has been remanufacturing engines and engine components for Original Equipment Manufacturers (OEMs), direct national fleet accounts, and state and local governments using the latest in remanufacturing processes and technologies. OEMs, including Ford, Freightliner, and Detroit Diesel, Perkins and Chrysler have relied on Reviva to remanufacture quality engines and components to distribute through their dealerships. OEMs also use Reviva engines and components as warranty replacement units. National fleet accounts, including UPS, Interstate Brands, Aramark, Unifirst, Sara Lee, and state and local governments also depend on Reviva to provide quality products that reduce operating costs and extend the life of their vehicles. Reviva has experienced rapid growth in this market segment because it offers the highest quality product at a fair price. Reviva stands behind being equal to or better than equivalent OEM products.

Employees

Our employees are our greatest asset. Reviva's employees have, on average, nine years engine remanufacturing experience and are among the highest skilled in the nation. Our employees are continuously trained and participate frequently in Kaizen (continuous improvement) events. They are also very skilled in the latest gas and diesel engine technology. Our employees participate in ASE certification tests which are offered twice a year.

Quality Control

Reviva ensures a quality product by following documented standard procedures including work sequence charts with specifications, standard work instructions and engineering change orders. Processes are continuously improved using 6-sigma and Kaizen methodologies to eliminate variation and prevent defects thereby ensuring the highest quality product available.

Components

Reviva sources components from companies that supply OEMs. If a supplier of a component can not be found that meets or exceeds the OEM specification, Reviva will source that component directly from the OEM.

Warranty Coverage

On-Road Complete Drop-In configurations: 2yr/unlimited mileage. 2nd year long block coverage only. Off-Road Complete Drop-In configurations: 1yr/2,000 hours. Some restrictions apply, see limited warranty details or call for more information.

Manufacturing Processes

Reviva is at the forefront in adapting the latest remanufacturing processes and techniques. Our manufacturing methods are based on lean manufacturing principals used in the Toyota production system. These principles focus on eliminating waste in the process to improve quality, reduce cost, reduce lead time and improve workplace safety. This philosophy combined with Reviva's use of many NC controlled machines including block line bore and cylinder boring, torque plate honing, block and head resurfacing, micro-polishing and balancing, the latest fuel system test benches, and computer controlled dyno testing, ensure that Reviva produces the highest possible quality product.

Configuration

Reviva builds most of its product into a Complete Drop-in configuration. The Drop-in includes intake and exhaust manifolds, high and low pressure fuel lines and other fuel system components, tin ware, many electronic sensors, and cooling system components. Every Complete Drop-in engine is dyno tested to ensure the engine meets OE specifications and that all systems are performing as required. Drop-in engines are 100% blacklight checked for oil, water and fuel leaks. Engines are then drained of break-in oil and shipped, ready to be installed by the customer.



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