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Ford 7.3L Powerstroke "Cackle" (Noisy) Injector

Application:

1998-2003 7.3L Diesel E Series
1999-2003 7.3L Diesel Super Duty F Series
2000-2003 7.3L Diesel Excursion

Problem:

Some vehicles may experience a misfire or "cackle".

Cause:

The injectors in the 7.3L diesel run off of the high pressure engine oil pump. The number 8 injector is the farthest away from the oil pump, causing a filling problem, which may result in a misfire. Ford replaced the number 8 injector in some vehicles as needed with a different injector to solve the problem.

Solution:

Most vehicles use eight AB or AD type injectors, but your 7.3L Powerstroke vehicle may use seven AB or AD and one AE type. CARDONE has made the AB, AD and AE types available. Identify the type installed in your vehicle by checking the 2 digit alpha code on top of the solenoid. Note that the AE type may also be labeled LL, which stands for "Long Lead". The part number for the AB type is 2J-204, the AD type number is 2J-205, and the AE type is 2J-209.



Note:

This ProTech bulletin is supplied as technical information only and is not an authorization for repair.

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Ford Diesel 7.3L Injector Replacement Tips

Application:

1994 to 2002 Ford Diesel Powerstroke 7.3L

Problem:

Possible engine damage from oil and/or fuel entering the cylinder piston area.

Cause:

Engine oil and fuel galleys run between the fuel injectors in the cylinder heads. When the injector is removed, oil and fuel can enter into the combustion chamber and collect on top of the piston. This will dilute the engine oil and can potentially cause major engine damage from hydraulic lock-up upon starting. The hydraulic lock-up can also cause damage to the starter, flywheel, cylinder heads and valve train components.

Solution:

Drain all oil and fuel from cylinder heads prior to removal of the fuel injector. Remove the drain plugs under the valve covers and at the rear of the cylinder heads. Then remove the oil rail drain plugs located in the cylinder head between two of the push tubes. After the cylinder heads are drained, the fuel injectors can be removed and replaced with minimal oil and fuel drainage into the cylinders.

Caution:

Serious engine damage can result if excessive amounts of fluids are allowed to drain into the engine cylinders.

Note:

Refer to manufacturers service manual for repairs and specifications on these engines.

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ProTech Bulletin Summary: Fuel Systems

Ensure the best performance and durability of the replacement unit by correcting any related vehicle issues. Most failures are caused by a problem external to the unit, so installing a replacement unit without correcting the root problem will lead to early failure. The ProTech bulletins listed below cover topics that will assist with part selection, describe typical installation problems, and provide diagnostic suggestions and service advice. Always refer to the vehicle service manual for specific installation procedures and specifications.

Turbo and Superchargers

Before Installaton:

- PT 2T-0004 Turbocharger installation tips and hints
- PT 2T-0005 Exhaust restriction leads to turbo failure – things to check
- PT 2T-0006 Supercharger belt tension can cause bearing failure
- PT 2T-0007 Clogged oil line can lead to Neon and PT Cruiser turbo failure

During Installaton:

- PT 2T-0002 Turbo pre-lube critical to successful installation

After Installaton:

- PT 2T-0003 Heat is the killer – avoid hot shut-down

Injectors and pumps

Before Installaton:

- PT 2J-0001 Injector installation tips and hints
- PT 2J-0002 Ford 7.3L “Cackle” or misfire – injector number 8 upgrade

CARDONE Technical Service develops ProTech bulletins that are intended to help the installer avoid common installation and service errors. The information presented is derived from our own experience and product knowledge gained from component analysis and research. Following these tips will ensure the best possible performance and service life of the replacement unit.

Please note that these bulletins are provided for your technical information only and are not authorization for repair.