

Solenoid for Power Stroke and HEUI Injectors

DIPACO has added the solenoid for HEUI type injectors, part number DPS0037. The DPS0037 solenoid is used in the following HEUI injectors applications:

Ford	Caterpillar
Power Stroke 7.3L	3126B
Navistar	3408E
T444E	3412E
DT466E	
I530E	



Following is technical information regarding solenoid operation:

The precision contact between the surface of the solenoid and the injector valve body is critical in electromechanical injectors to provide the level of compression needed to atomize the diesel fuel for a successful ignition event. Consider a piston in an engine having either worn compression rings or worse yet, a hole in the piston itself. The total efficiency of the engine is compromised. Used solenoids have been exposed to dramatic fluctuations in temperature and pressure and have labored under a very demanding duty cycle. The result is that the surface flatness, smoothness (finish) and squareness to the valve body can be worn out of specification. For these reasons, a used solenoid may not meet the geometric and operating performance specifications of a new solenoid. The physical imperfections caused by use can make the used solenoid less efficient and substandard. A new solenoid combined with a rebuilt injector will provide more power, greater efficiency and improved emissions control. Cleaning up old solenoids and running them over fine grit sandpaper or steel wool will not improve long term performance.

Obvious Solenoid Damage Includes:

- o Damaged or broken terminals / connectors.
- o Shorted coil – No resistance or Open coil – Infinite resistance.
- o Deformed or cracked stator housings.
- o Stator warp (Out of flatness).

Less Obvious (Hidden) Solenoid Damage Includes:

- o Cracked connectors, housings or surfaces enabling diesel fluid penetration and failure.
- o Fissures / cavities on the working surface which will exponentially worsen, allowing the cavity to enlarge much more quickly, leading to fluid penetration and failure.
- o High / Low resistance values making the stator less efficient due to rise times, strength of magnetic force, etc. A slowed solenoid drags on the efficiency of an engine and a weakened solenoid does not open fully and starves the engine of fuel during the metering injection cycle.

