



Fuel Injector Sleeve Replacement On 2005-2013 Navistar MAXXFORCE DT 9 & 10 Diesel Engines

The AERA Technical Committee offers the following information on fuel injector sleeve replacement on 2005-2013 Navistar Maxxforce DT9 & 10 diesel engines. This information applies only to the electronic fuel injected engines. To correctly remove and replace the fuel injector sleeves on this engine, follow the steps listed below.

While it is possible to perform this repair in-chassis, it is suggested a bench repair will be much more successful.

Removal

1. With a set of long needle nose pliers or other suitable tool, install a protective plug into injector sleeve bore (for engine in chassis installation).
2. Lubricate tap assembly (Injector Sleeve Remover ZTSE4643) then insert tap assembly and guide into fuel injector sleeve bore.
3. Screw tap assembly into fuel injector sleeve bore. Thread tap assembly completely into bore or sleeve until it bottoms out on tap guide with a suitable tool.
NOTE: To accommodate injector cup remover assembly cut threads a minimum of $\frac{3}{4}$ " deep. Use a 20 MM socket 4-, 8-, or 12-point, suitable ratchet handle along with an extension.
4. Remove tap assembly and guide from injector sleeve bore.
5. Place remover assembly in threads cut into injector sleeve. With injector cup remover tee handle, thread remover into injector sleeve until it bottoms out.
NOTE: Fuel injector sleeve puller must thread sufficiently into injector sleeve.
6. With a wrench on injector cup remover nut, rotate nut clockwise holding tee handle of injector cup remover to extract injector sleeve from bore.
7. Use an appropriate adapter from Injector Sleeve Remover ZTSE4643 on fuel injector sleeve puller tool to remove fuel injector sleeve from bore.

Installation

1. Use Injector Sleeve Installer (ZTSE4642) without a bent pilot shaft or any nicks in area where sleeve seats.
2. Install a NEW fuel injector sleeve on end of sleeve installer.
3. Coat area around outside bottom of injector sleeve and around beginning of taper at middle of sleeve with Loctite 620 retaining compound.
4. Insert fuel injector sleeve with injector sleeve installer into injector bore.



5. Using a hammer, carefully drive fuel injector sleeve in injector bore then use a soft nylon brush to clean fuel injector sleeve.
6. Inspect inside surfaces of installed fuel injector sleeve for nicks or scratches, replace sleeve if damaged. Ensure Injector Sleeve Installer is not cause of damage, use another installer if necessary.

To complete the installation, clean the fuel injector sleeve with a nylon brush, Part #ZTSE4304, and compressed air. It is also recommended to pressure check the head once all sleeves have been installed.