

## TT00006

### N3 Injector Tube Installation For 60 Series Detroit Diesel Engines

S. B. International, Inc., offers the following information regarding the N3 injector tube installation for 60 Series Detroit Diesel engines. Beginning in 2004, these engines started using a N3 injector which required a different housing than previous injectors.

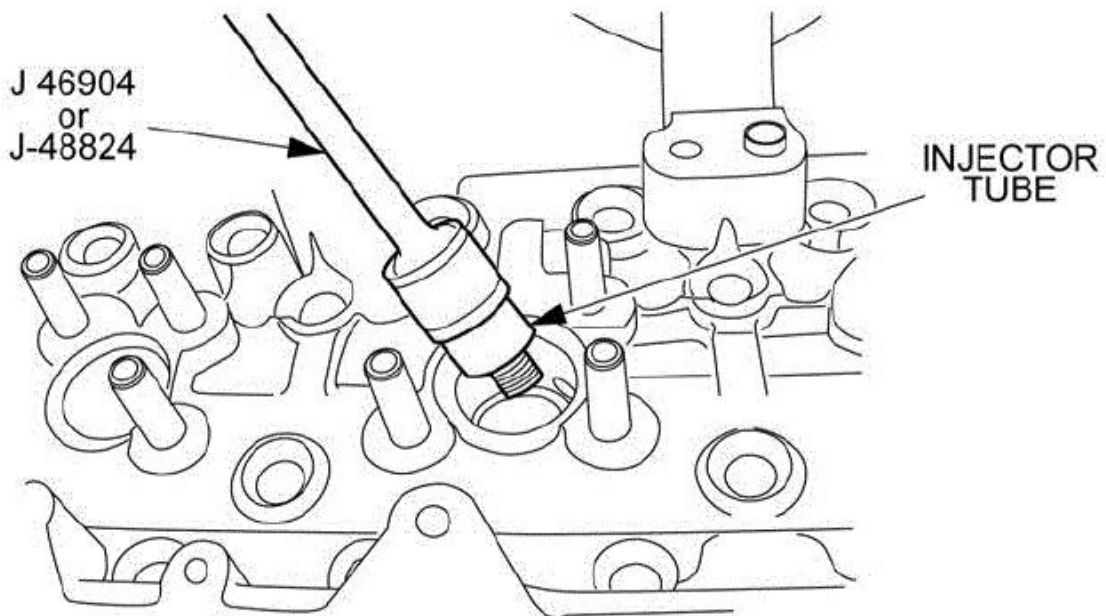
The injector sleeve for these engines screws into the head. Detroit Diesel has updated their service information to expand on the previously published information. The tool selection has been updated to include the use of either J-46904 or J-48824 to remove and install the sleeve.

#### Removal of the N3 Injector Tube

Install injector tube service tool (J-46904 or J-48824, see **Figure 1.**) into injector tube. Ensure tabs are engaged in tube and tool is completely seated.

1. Turn tool counterclockwise to remove the injector tube from the cylinder head. Observe and record locations of any shims installed under the injector sleeve.
2. If using J-48824 to remove the injector tube, turn the center bolt to expand the fingers located on the end of the tool.

*Figure 1.*



## Installation of the N3 Injector Tube

**NOTE:** When the injector tube is removed, check the bottom of the tube and tube bore to see if a shim has been installed. If a shim is installed on the removed injector tube and the tube is being replaced, the new tube will also need a shim. The shim is used to adjust the height of the injector cup after the cylinder head has been resurfaced.

There are three shims currently available. Replace injector tube O-ring with a new O-ring when injector tube is removed or replaced.

1. Select the appropriate shim if required, install over the threaded area of tube.
2. Install O-ring in groove on injector tube; a small amount of silicone-based O-ring lubrication will aid in the installation.
3. Coat the threads of the injector tube with a high temperature nickel-based anti-seize lubricant. If an injector tube shim was removed during disassembly, verify that a shim is in place before installing the tube. Use **Table 2** and **Figure 2** to select the correct shim size. Using injector tube tool J-48824 or J-46904, install the injector tube in the injector bore.
4. Torque the injector tube to 26-33 ft/lbs (35-45 Nm).
5. Release torque approximately 180 degrees.
6. Final torque injector tube to 26-33 ft/lbs (35-45 Nm).

**NOTE:** If the cylinder head is removed from the engine, verify that the threads of the injector tube are not protruding into the combustion chamber. Select the correct shim size to position the tube as close to the deck without protruding.

**Table 2.** Shims (see **Figure 2.**)

<u>Part Number</u>	<u>Shim Size</u>	<u>eCutout</u>
23536862	0.007"	NONE
23536863	0.012"	ONE
23536864	0.018"	TWO

**Figure 2.**

