Injector Sleeve Installation on Isuzu 4HK1 & 6HK1 Diesel Engines

The AERA Technical Committee offers the following information concerning the installation of injector sleeves for Isuzu 4HK1 & 6HK1 diesel engines. This information should be considered anytime the cylinder head is being worked on.

Obtaining special tool nozzle sleeve installer J-43266, shown below, is the first step in preparation for sleeve installation. Information on proper sleeve installation is not included with the packaging of a new injector sleeves, follow the illustrations and steps listed below. Before installing the new injector sleeves, clean them and the cylinder head with a fast drying alcohol cleaning agent.

![Figure 1. Cylinder Head & Injector Sleeve Detail](image)

Legend
(1) O-Ring Marked White
(2) O-Ring
(3) Seal Material
(4) Engine Oil

- Support the cylinder head on both ends so there is at least ½” clearance between the head deck and the bench below it.
- Install the O-rings on the nozzle sleeve, applying clean engine oil while doing so.
- Apply seal material (Loctite 290 or equivalent) on the taper section above 3.
- Apply lightly a limited amount of clean engine oil to area 4 in Figure 1.
- Install the nozzle sleeve on the cylinder head, insert the guide sleeve.
- Use the guide sleeve to push in so that the nozzle sleeve fully contacts with the under surface of the cylinder head.
• Insert the sleeve and secure it by tightening bracket bolt #6 shown in Figure 2.
• Insert the ball (bearing steel ball .375" (9.525 MM)) into the guide sleeve, attach the punch bar and drive the ball through the injector sleeve.

**Legend**
(1) Punch Bar
(2) Ball
(3) Guide Sleeve
(4) Nozzle Sleeve
(5) Bracket
(6) Bolt

**Figure 2. Tooling Detail**

This information is provided from the best available sources. However, AERA does not assume responsibility for data accuracy or consequences of its application. Members and others are not authorized to reproduce or distribute this material in any form, or issue it to their branches, divisions, or subsidiaries, etc. at a different location, without written permission.

© AERA Engine Builders Association. All rights reserved.