

Corrective Action for Loose Oil Filter Spuds

M-222-001

(May 2008)

Valid for

All CXU,CHU,GU,MRU,LEU Models with an MP7-MP8 engine

Case description

During the process of removing the oil filters on an MP7 or MP8 engine, the spuds may unscrew from the oil filter mounting adapter and remain in the filters. Should this occur, remove the spud from the filter and apply Loctite® 638 to the threads before reinstallation in the filter mounting adapter. Additionally, the spuds that remained in the filter mounting adapter should be also be removed, Loctite® 638 applied to the threads and reinstalled. To perform these procedures, an Oil Filter Spud (Nipple) Installation kit (tool No. 9998691) is required. This kit consists of one wrench, a large nut tool and jam nut tool for installing the bypass filter spud, and a small nut tool and jam nut tool for installing the full-flow filter spuds.

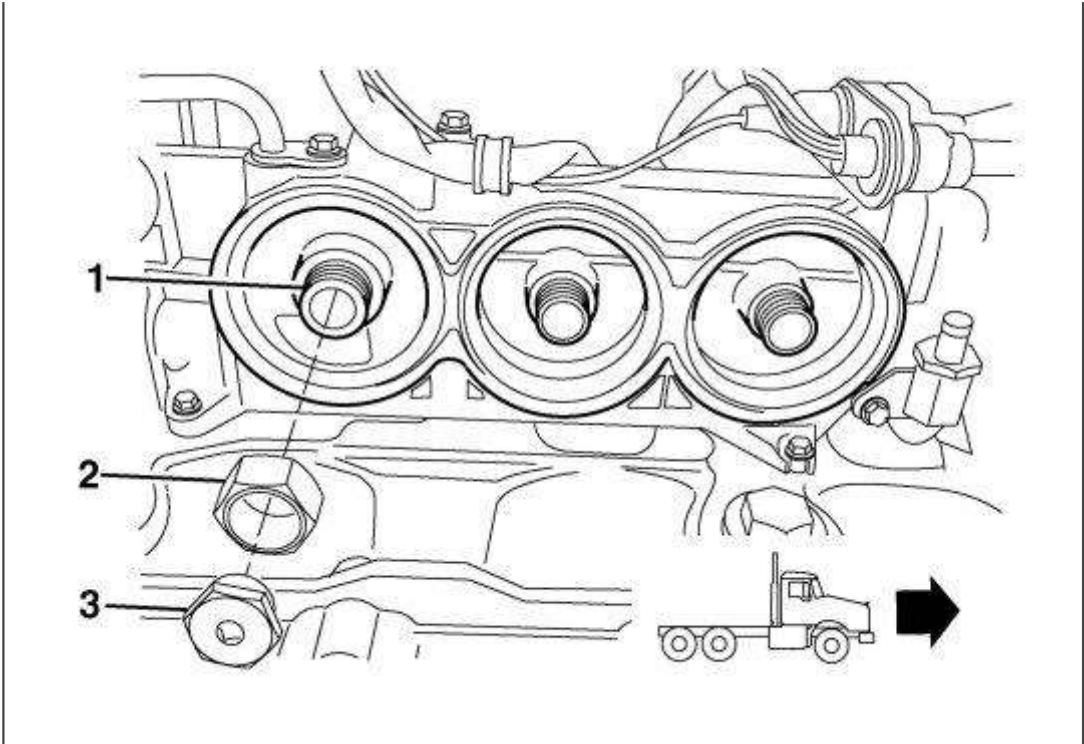
Oil Filter Spud (Nipple) Installer Kit (Tool No. 9998691)



Removing the Spuds from the Oil Filter Mounting Adapter

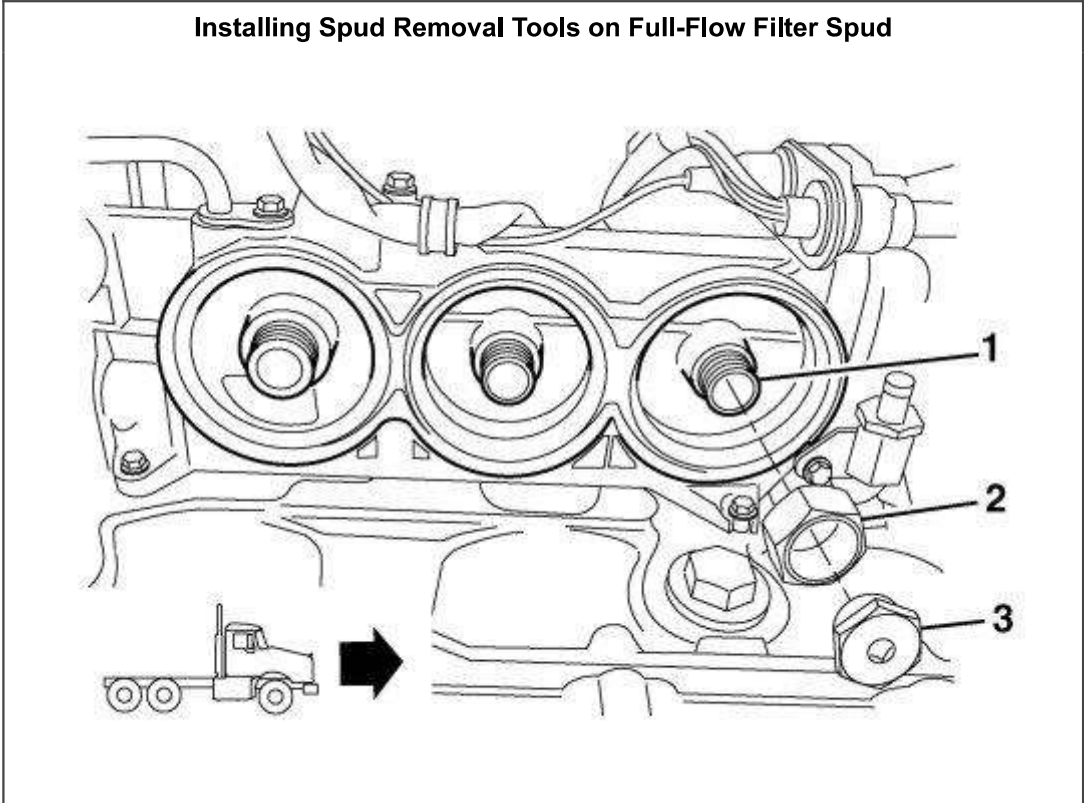
1. After removing the oil filters, thoroughly clean the oil filter mounting adapter.
2. Install the large nut (tool No. 9809703) and jam nut (tool No. 98909705) included in the installation kit (kit No. 9998691) onto the by-pass filter spud. While holding the large nut with the open-end wrench supplied in the kit, tighten the jam nut securely.

Installing Spud Removal Tools on By-Pass Filter Spud



1. By-Pass Filter Spud	3. Jam Nut Tool (9809705)
2. Large Nut Tool (9809703)	

3. Install a breaker bar into the end of the jam nut tool, and then loosen and remove the spud.
4. Install the small nut (tool No. 9809702) and jam nut (tool No. 9809704) included in the installation kit (kit No. 9998691) onto the full-flow filter spud. While holding the large nut with the open-end wrench supplied in the kit, tighten the jam nut securely.

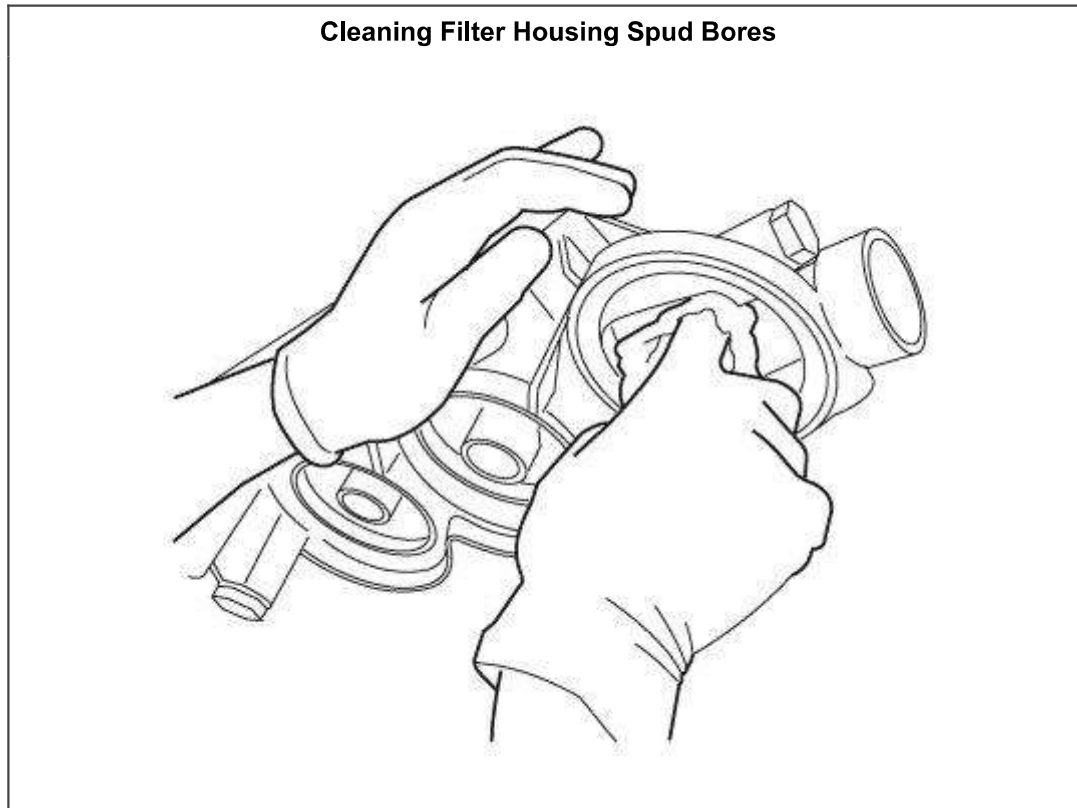


1. Full-Flow Filter Spud	3. Jam Nut Tool (9809704)
2. Small Nut Tool (9809702)	

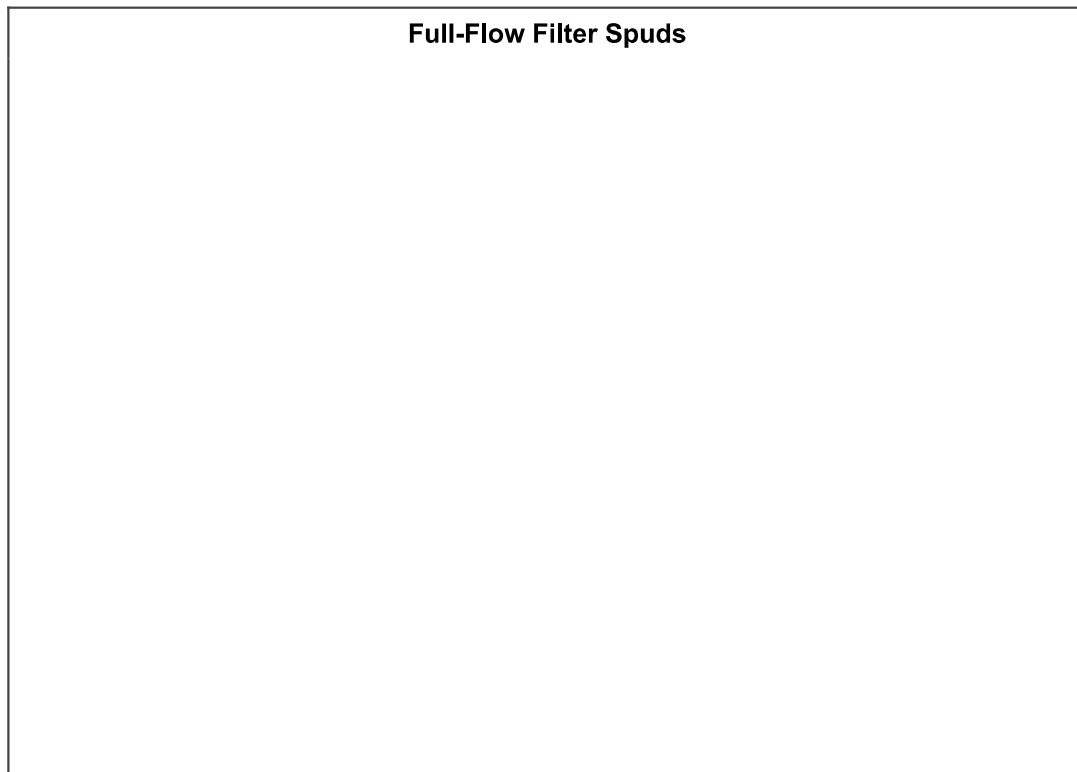
5. Install a breaker bar into the end of the jam nut tool, and then loosen and remove the spud.

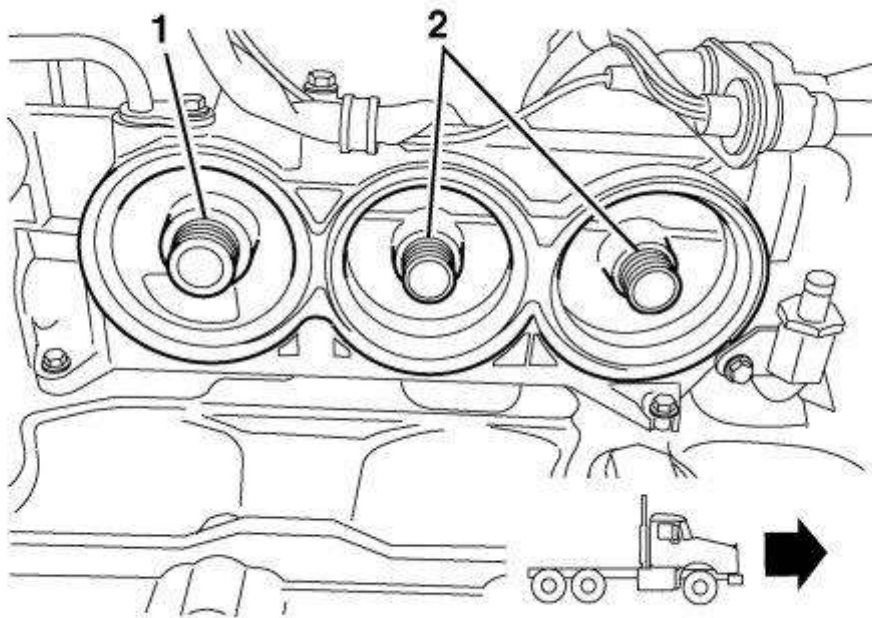
Applying Loctite® and Installing Spuds in Filter Mounting Adapter

1. Clean the threaded spud bores in the filter mounting adapter with Loctite® 7072 solvent. This solvent is designed for cleaning and degreasing surfaces, which are to be bonded with Loctite® adhesives.



2. If the spuds are in good condition, the spuds can be reused. Should the spud threads be damaged, replace the damaged spud(s) with new. Part numbers for the replacement spuds are given in the following chart.

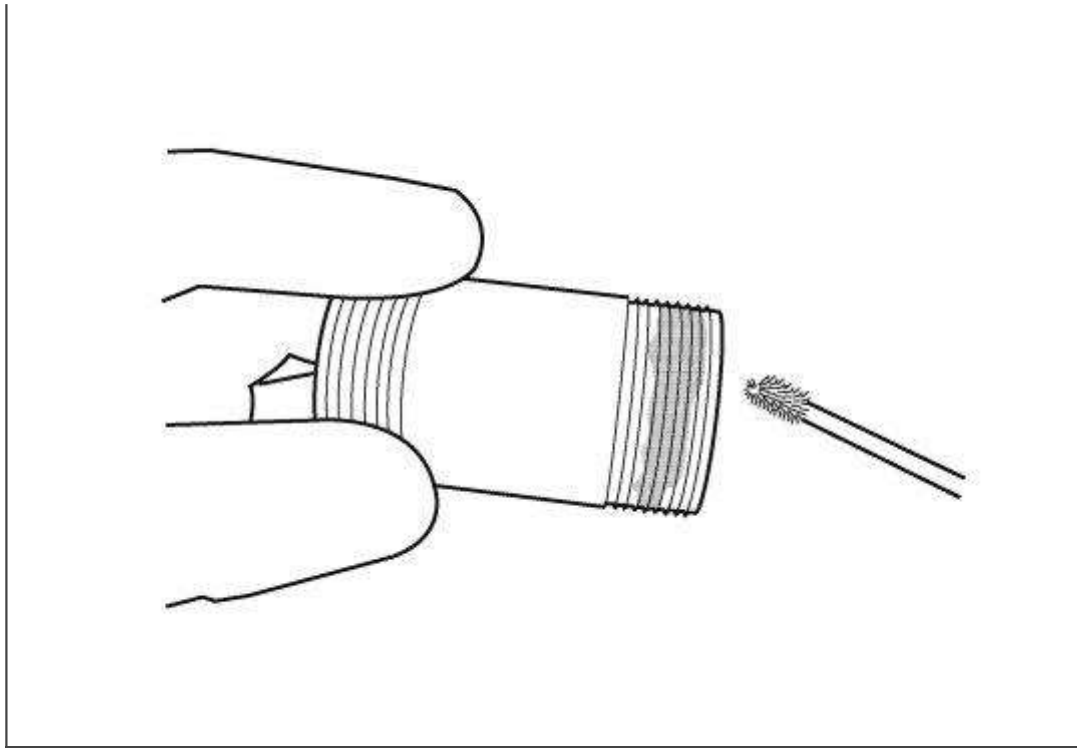




Key	Qty.	Part number	Description
1	1	20768918	Spud, by-pass filter, MP7 engines
	1	20542058	Spud, by-pass filter, MP8 engines
2	2	466623	Spud, full-flow filter, MP7 engines
	2	20542060	Spud, full-flow filter, MP8 engines

3. After cleaning the spud with Loctite® 7072, apply Loctite® 638 to the threads. Cover approximately five to six threads with three drops of adhesive.

Loctite Application



4. Install the by-pass and full-flow filter spud into the oil filter mounting adapter and hand-tighten.
5. Install the small nut (tool No. 9809702) and jam nut (tool No. 9809704) included in the installation kit (kit No. 9998691) onto the full-flow filter spuds. Hold the small nut with the open-end wrench (also included in the kit) and tighten the jam nut securely. Using a torque wrench, torque-tighten the spuds to the following specification:
 - MP7 engines, full-flow filter spuds — 48 Nm (35 lb-ft)
 - MP8 engines, full-flow filter spuds — 60 Nm (44 lb-ft)

Full-Flow Filter Spuds

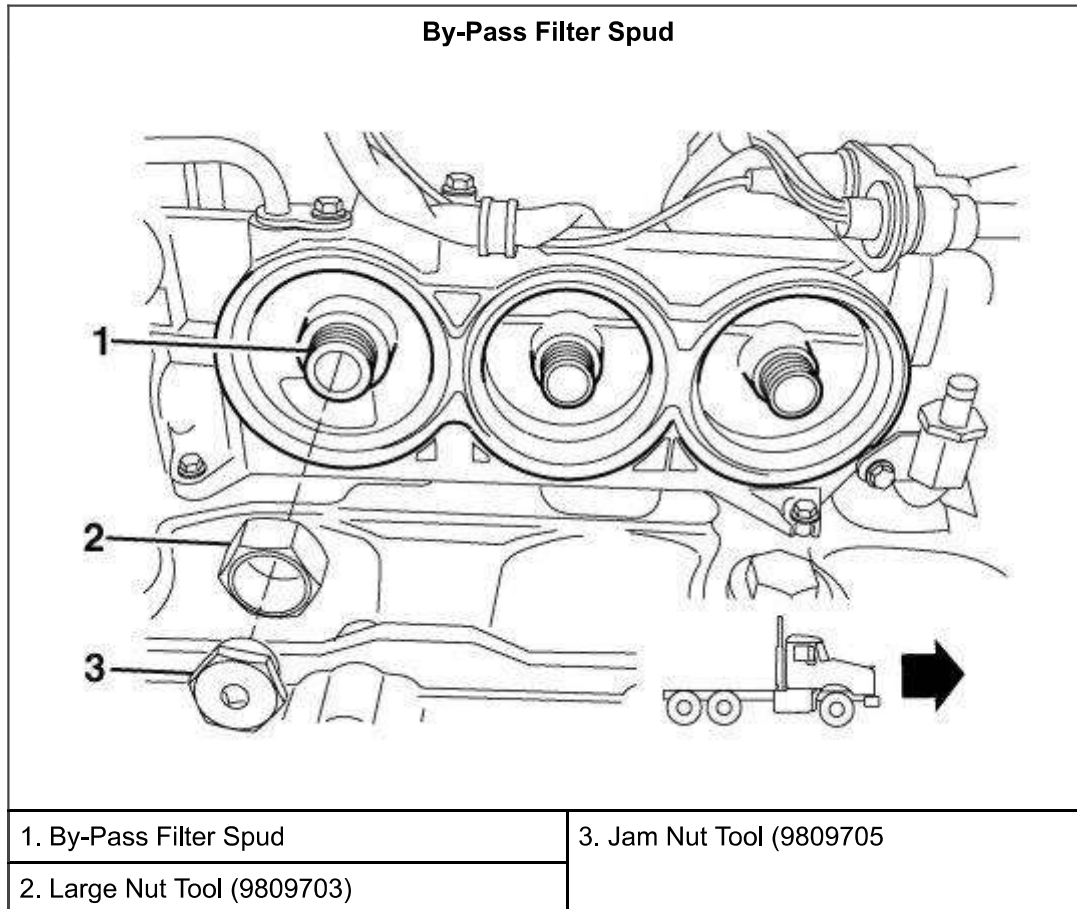
The diagram shows a top-down view of an engine block with three full-flow filter spuds. A truck icon with an arrow points to the engine. A legend at the bottom identifies the components:

1. Full-Flow Filter Spuds	3. Jam Nut Tool (9809704)
2. Small Nut Tool (9809702)	

6. While holding the small nut tool with the open-end wrench supplied in the kit, remove the jam nut tool, and then remove small nut tool from the full flow filter spuds.

Note: Ensure that the spud does not turn during jam nut removal.

7. Install the large nut (tool No. 9809703) and jam nut (tool No. 9809705) included in the installation kit (kit No. 9998691) onto the by-pass filter spud. Hold the large nut with the open-end wrench supplied in the kit and tighten the jam nut securely. Using a torque wrench, torque-tighten the spud to the following specification:
 - MP7 engines, by-pass filter spuds — 48 Nm (35 lb-ft)
 - MP8 engines, by-pass filter spuds — 60 Nm (44 lb-ft)



8. While holding the large nut tool with the open-end wrench supplied in the kit, remove the jam nut tool, and then the large nut tool from the by-pass spuds.

Note: Ensure that the spuds do not turn during jam nut removal.

9. Install the new by-pass and full-flow filters as follows:

Note: Allow the Loctite® adhesive to cure at least one hour before installing the oil filters.

- a. Apply a film of clean engine oil to the sealing gasket of each new oil filter.
- b. Install the filters and tighten 3/4 to 1 turn after the gasket contacts the base.

10. Top off the crankcase with the recommended engine oil.
11. Start the engine and check for leaks. Run the engine for approximately five minutes, then shut it off and recheck the oil level. Add oil if necessary.

Warranty information

Reimbursement

This repair may be eligible for reimbursement if a product failure was experienced within time and mileage limits of the applicable Warranty coverage. Reimbursement is obtained via the normal claim handling process.	
Claim Type (used only when uploading from the Dealer Bus. Sys.)	W
Labor Code	219 2A 00 80 –0.6 hr.– Time allowed to remove and reinstall or replace (as required) the oil filter spuds and apply Loctite® 638 to threads. Does not include “take-charge” time.

Issued by

Technical Service

Mack Trucks, Inc. engages in a continuous program of testing and evaluating to provide the best possible product. Mack Trucks, Inc., however, is not committed to, or liable for updating existing chassis.