

TECHNICAL INFORMATION



No: 12/01/99/NAS
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Sump Bolt Oil Seep

AFFECTED VEHICLE RANGE:

- DISCOVERY Series II (LT)** Up to XA221000
4.0L - Up to engine # 56D08872A
- RANGE ROVER (LP)** Up to XA422000
with "Thor" engines
4.0L – Up to engine # 58D02395A
4.6L – Up to engine # 60D05874A

SITUATION:

SUMP BOLT OIL SEEP ON 1999 "THOR" V8 ENGINES

The two rear most structural sump bolts that thread into the rear main bearing cap may be the source of an oil leak on some 99 MY "THOR" V8 engines. (Positions 15 and 17 in Figure 1) Vehicles produced with engines after the above engine number, or vehicles marked by Land Rover on the engine sump, have had the condition corrected.

RESOLUTION:

PERFORM BOLT HEAD SEALING REPAIR

Application of Permatex/Loctite "THE RIGHT STUFF" ® to the underside of each leaking bolt head as outlined in this procedure will stop the oil seepage.

Vehicles prior to the above safe VIN/engine numbers, which do not have the correct marking on the sump, are to be corrected as part of the PDI process.

When addressing oil leak complaints on delivered vehicles, perform the repair as outlined in this TIB using the labor operation 12.60.89/34.

PARTS INFORMATION:

LRNA25223....Permatex/Loctite "THE RIGHT STUFF" ®

WARRANTY CLAIMS:

- 12.60.89/36†Time 0.20 hrs.
At PDI apply sealant to #17 and #15 sump bolts to seal bolt heads
Material allowance included in time allocation
- 12.60.89/34Time 0.40 hrs.
Correct oil leak by removing #17 and #15 sump bolts and seal bolt heads
Material allowance included in time allocation.

Fault Code: N

Normal warranty policy and procedures apply

† Because this repair is to be performed on all potentially affected vehicles at PDI, the allowance does not include extra time for engine warm-up and diagnosis.

TIB 12/01/99/NAS	CIRCULATE: TO	Service Mgr X	Warranty X	Workshop X	Body Shop X	Parts X
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REPAIR PROCEDURE:

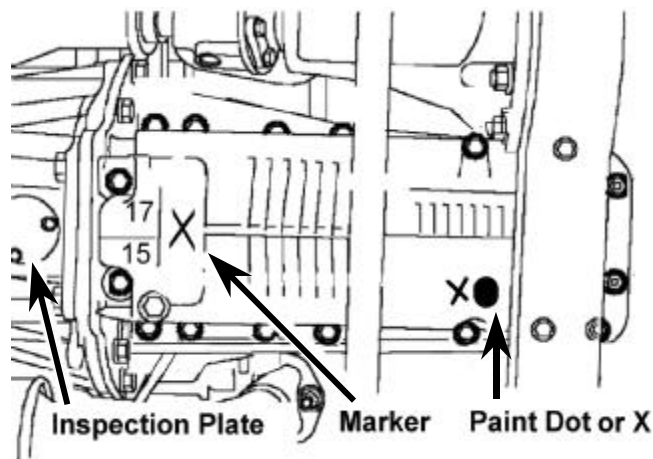
INSPECT AND VERIFY PREVIOUS REPAIRS



NOTE: The procedure is intended to stop oil from seeping down the specified sump bolts only. If oil is exiting from an area other than these sump bolts (such as the bell housing inspection plate), refer to the WSM engine section where the correct process for sealing the structural sump is clearly described.

- At PDI inspect engine sump for any markings indicating that a prior repair has been completed on vehicles before the safe engine numbers. (Figure 1)
 - "X" with marker pen just in front of bolts 15 and 17 indicates a line repair.
 - A yellow or blue paint dot or "X" at the front of the sump indicates a repair completed at engine assembly.
- At PDI if the sump is *not* marked and the vehicle is before the safe VIN, perform the following procedure and claim SRO 12.60.89/36.
- If a leak from the specified sump bolts has been detected after vehicle delivery, perform the following procedure and claim SRO 12.60.89/34 which includes drive-in/drive-out plus diagnostic time.

Figure 1



SEAL BOLT HEAD TO PREVENT OIL LEAK



CAUTION: Perform the bolt head-sealing repair only on one bolt at a time.

- Remove **one** bolt (Figure 1 - #15 or #17) and clean thoroughly.
- Clean the bearing cap threads and the sump casting of all oil.



CAUTION: Make sure to keep the bolt threads free of "RIGHT STUFF."

- Apply a small amount of Permatex/Loctite "THE RIGHT STUFF" ® to the underside of the bolt head.
- Install treated bolt and torque to **22 Nm (16 lbf. ft.)**.
- Remove second bolt and repeat steps 1 through 4 for that bolt.
- Verify that entire sump bolt area is clean and free of all oil and oil residue.
- Mark the sump with an "X" near the sealed bolts as indicated in Figure 1.
- Start engine and check for oil leaks.