

TECHNICAL SERVICE BULLETIN

SUBJECT:
Engine Buck, Surge Or
Noise - Oil Pump Drive
Gear Wear

NO.: 18-08-93 Rev. A
GROUP: Driveability
DATE: Nov. 26, 1993

This Bulletin is Supplied As Technical Information Only And is Not An Authorization For Repair. Reprint Of This Material Not Authorized Unless Approved.

THIS BULLETIN SUPERSEDES TECHNICAL SERVICE BULLETIN 18-08-93, ISSUED ON 6/18/93, WHICH SHOULD BE REMOVED FROM YOUR FILES. THIS BULLETIN ADDS CAUTIONS TO THE PROCEDURE, WHICH ARE HIGHLIGHTED WITH **ASTERISKS AND PRINTED IN RED.**

MODELS:

1992 - 1993 (AB) Ram Van/Wagon
(AD) Ram Pickup/Ramcharger
(AN) Dakota
1993 (ZJ) Grand Cherokee/Grand Wagoneer
1994 (AB) Ram Van/Wagon

NOTE: THIS BULLETIN APPLIES TO VEHICLES EQUIPPED WITH 3.9L/5.2L MPI (MULTI-POINT FUEL INJECTED) ENGINES.

SYMPTOM/CONDITION:

Vehicle exhibits warm engine surging, light bucking, or cold engine lack of power or burst spark knock. Engine noises (light knock or tapping sound at rear of engine) may also be experienced with no driveability complaint. These conditions may be caused by excessive oil pump drive gear wear.

DIAGNOSIS:

Remove the distributor cap and grasp the rotor and using a rotational motion, check the total clockwise/counter-clockwise movement at the rotor tip. If the rotor tip movement is 5.0 mm (3/16") or more, proceed with the following repair procedure.

PARTS REQUIRED:

1 53020546 Oil Pump Drive Gear
1 01737725 Block Bushing

P-3748

Index # **036104**



REPAIR PROCEDURE:

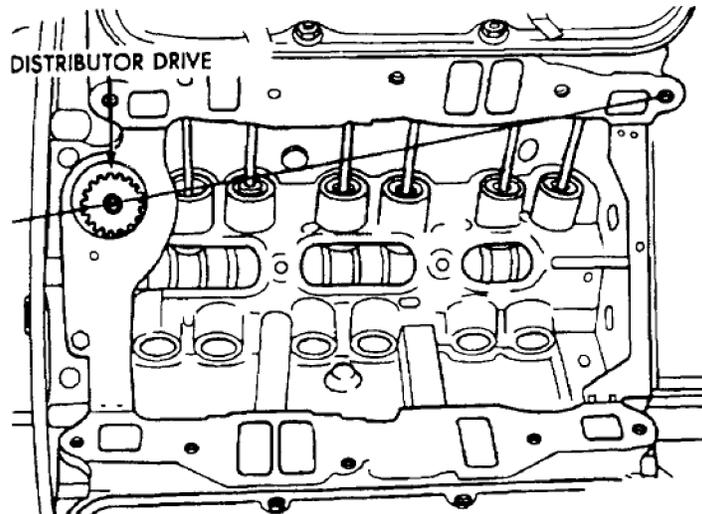
This bulletin involves replacing the oil pump drive gear with a revised part and the drive gear block bushing.

1. Remove distributor and distributor/oil pump drive gear block bushing as outlined in the appropriate service manual.

****NOTE:** TOOL NUMBER C-3052 (DISTRIBUTOR DRIVE SHAFT BUSHING PULLER) MUST BE USED TO REMOVE DISTRIBUTOR/OIL PUMP DRIVE GEAR AND TOOL NUMBER C-3053 (DISTRIBUTOR DRIVE SHAFT BUSHING DRIVER/BURNISHER) MUST BE USED TO INSTALL THE NEW DISTRIBUTOR/OIL PUMP DRIVE GEAR BUSHING.**

2. Install new drive gear block bushing P/N 01737725 and revised oil pump drive gear P/N 53020546 as outlined in the appropriate service manual.

****NOTE:** THE CORRECT POSITION FOR THE DISTRIBUTOR/OIL PUMP DRIVE GEAR BUSHING IS SHOWN BELOW.**



3. Change engine oil and filter.
4. Perform the required distributor indexing procedure as outlined in the appropriate service manual or use the alternate procedure outlined in steps 5-9.

ALTERNATE DISTRIBUTOR INDEXING PROCEDURE

- 5. Connect a voltmeter to the distributor sensor connector by removing the end seal and carefully back probing the connector. Connect the positive lead to the sensor output pin (pin 3, either a tan wire with a yellow tracer or a gray wire, depending on vehicle application). Connect the negative lead to the sensor ground pin (pin 2, a black wire with a light blue tracer).
- 6. Rotate the engine clockwise as viewed from the front, until the number one piston is at Top Dead Center (TDC) of the compression stroke. The timing mark on the vibration damper should line up with the zero degree (TDC) mark on the timing chain case cover.
- 7. Continue to rotate the engine slowly clockwise until the V6 or V8 mark (depending on engine type) lines up with the zero degree (TDC) mark on the timing chain case cover. The V8 mark is 17.5° after TDC and the V6 mark is 147° after TDC.

NOTE: DO NOT ROTATE THE ENGINE COUNTER CLOCKWISE. IF THE ENGINE IS ROTATED BEYOND THE MARK, RETURN TO STEP 6 AND REPEAT THE PROCEDURE.

- 8. With the distributor clamp bolt loose and the ignition switch in the ON position, rotate the distributor slightly in either direction until the voltmeter switches between the sensor transition point of 0 and 5 volts.
- 9. Adjust the distributor as close as possible to either side of this transition point and tighten the distributor clamp bolt to 170-230 in. lbs. (19-26 N·m).

POLICY: Reimbursable within the provisions of the warranty.

TIME ALLOWANCE:
Labor Operation No.

| | | |
|-------------|---|----------|
| 09-65-36-90 | AB, AD, AN | 1.3 Hrs. |
| | ZJ | 4.2 Hrs. |
| 09-65-36-60 | ZJ Optional Air Conditioning Equipped | 0.7 Hrs. |

FAILURE CODE: 37 - Excessive Wear