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## Service Information Bulletin

SUBJECT	DATE
Symptom Diagnostics - Low Engine Compression	July 2014

### Additions, Revisions, or Updates

Publication Number / Title	Platform	Section Title	Change
DDC-SVC-MAN-0084	DD Platform	Symptom Diagnostics - Low Engine Compression	This is a new section.
DDC-SVC-MAN-0184	Euro IV	Symptom Diagnostics - Low Engine Compression	This is a new section.



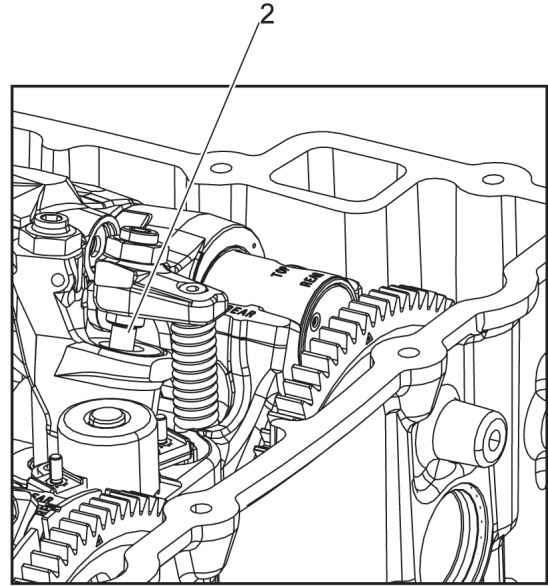
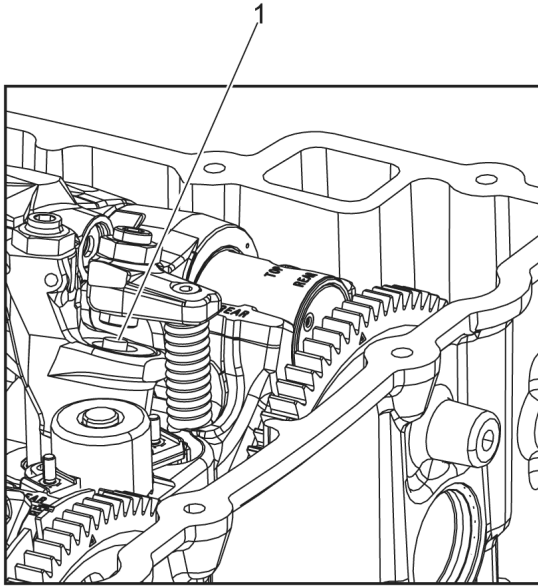
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## 2 Symptom Diagnostics - Low Engine Compression

Check as follows:

**NOTE:** This diagnostic should only be performed after a manual compression test has been performed to ensure low engine compression is verified.

1. Are all the actuator pistons on the engine brake rocker arms retracted (1)?



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- a. Yes; Go to step 2.
  - b. No; replace the engine brake rocker(s) that have a stuck actuator piston (2). Refer to section "Removal of the Rocker Shaft Assembly".
2. Check the camshaft timing. Refer to section "Camshaft Timing Verification". Do the camshaft timing marks line up per procedures?
    - a. Yes; Go to step 3.
    - b. No; correct engine/camshaft timing and verify repair. Refer to section "Timing the Camshafts with the Gear Train Installed".
  3. Check valve lash and engine brake adjustments. Refer to section "Valve Lash Adjustments". Was valve lash adjustment required?
    - a. Yes; Go to step 4.
    - b. No; Go to step 5.
  4. Conduct a Mechanical Cylinder Compression Test. Refer to section "Mechanical Cylinder Compression Test". Is compression within specification?
    - a. Yes; reassemble the engine and verify repairs.
    - b. No; Go to step 5.
  5. Remove the cylinder head.
    - a. For the DD13, Refer to section "Removal of the DD13 Cylinder Head".
    - b. For the DD15 and DD16, Refer to section "Removal of the DD15 and DD16 Cylinder Head".

6. Inspect the cylinder head gasket for damage or exhaust leaks around the fire seals. Is the seal damaged or showing evidence of exhaust leaks?
  - a. Yes; measure the liner protrusion. Refer to section "Installation of the Cylinder Liner".
  - b. No; Go to step 7.
7. Inspect the following engine components:
  - a. Refer to section "Inspection of the Cylinder Head".
  - b. Refer to section "Inspection of the Cylinder Liner".
  - c. Refer to section "Further Analysis of the Cylinder Liner".
  - d. Refer to section "Inspection of the Piston".
  - e. Refer to section "Inspection of the Intake and Exhaust Valves".
8. If necessary, inspect the main bearings. Refer to section "Inspection of the Main and Connecting Rod Bearing in Chassis".
9. Has the cause of low compression been identified?
  - a. Yes; complete repairs, verify and release vehicle.
  - b. No; contact Detroit™ Customer Support Center at 800-445-1980.