



Cylinder Head Gasket Selection On 2005-2009 Jeep 2.8L Diesel Engines

The AERA Technical Committee offers the following information regarding cylinder head gasket selection on 2005-2009 Jeep 2.8L diesel engines. Selecting and using the wrong head gasket on this engine could cause engine damage.

Jeep offers three different thickness head gaskets for this four-cylinder VM diesel engine. The proper gasket to use depends on the amount of piston protrusion present. When measuring piston protrusion, make sure that you measure each of the four cylinder locations. The gasket to use should be based on the average of the values recorded. Tools used to measure piston protrusion are available from Jeep or VMdiesel.

CAUTION: DO NOT Rotate the engine with the cylinder head off without first installing the cylinder liner retainers VM1076. Failure to do so may result in the cylinder liner moving and a false piston protrusion reading. A false piston protrusion reading may result in a wrong cylinder head gasket selection.

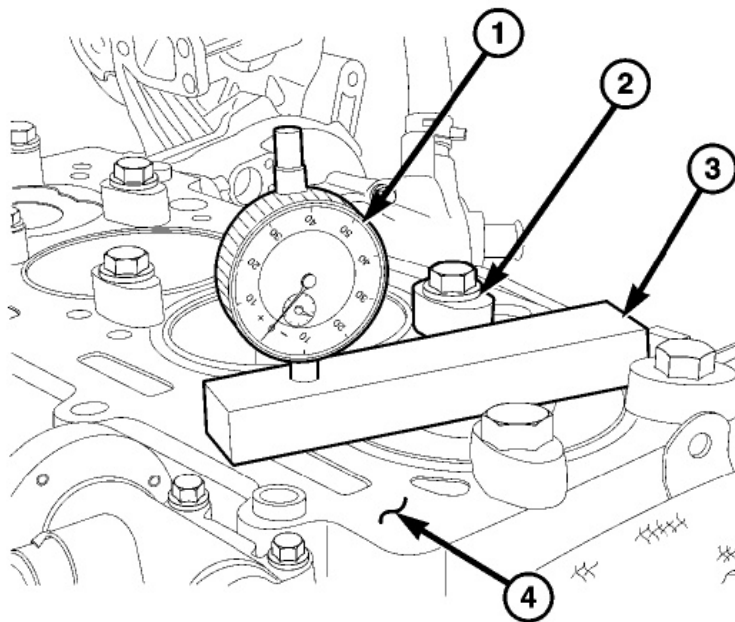


Figure 1. PISTON PROTRUSION SET-UP

- 1. VM1010 Dial Indicator**
- 2. VM1076 Cylinder Liner Retainers**
- 3. VM1013 Straight-Edge Block**
- 4. Cylinder Block Deck**



1. Make sure that the deck of the block is clean of all gasket material, carbon or any other material. Use special tool VM1010 with dial indicator special tool VM1013.
2. Install the cylinder liner retainers VM1076 before rotating the engine.
3. Lie the straight edge special tool VM1010 across the cylinder sleeve and “zero” the dial indicator on the cylinder block mating surface as shown in Figure 1.
4. Lie the straight edge special tool VM1010 across the cylinder sleeve, setup the dial indicator on the piston crown (above the center of the piston pin) 1/8” (5.00 mm) from the edge of the piston.
5. Rotate the engine through TDC while noting the maximum reading on the dial.

Obtain and record the maximum value of projection for each of the four pistons. Establish the thickness of the steel gasket by averaging the four protrusion readings and determine the gasket grade using the information in the chart below.

| Gasket Grade | Projection Value | Thickness | Grade | Part Number |
|---------------------|------------------------------|---------------------|--------------|--------------------|
| A (NO-HOLE) | .018-.024" (.460-.609 MM) | .052" (1.320 MM) | A | 5072675AA |
| B (ONE-HOLE) | .024-.028" (.610-709 MM) | .056" (1.420 MM) | B | 5072676AA |
| C (TWO-HOLE) | .028-.032" (.710-.810 MM) | .060" (1.520 MM) | C | 5072677AA |