

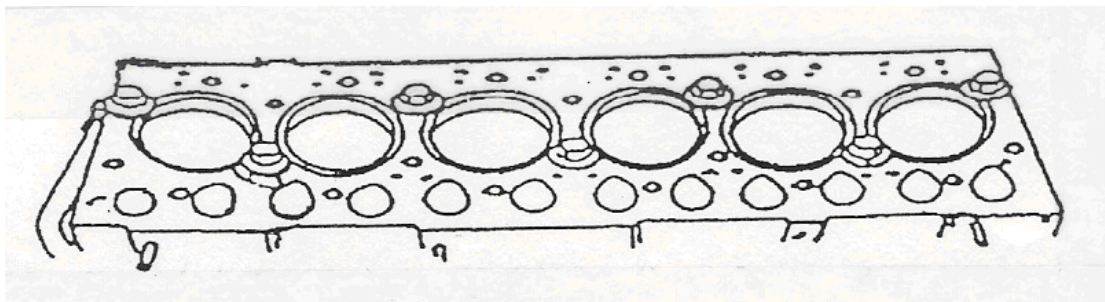
Liner Standout.

One of the most important elements in the rebuilding of diesel engines is the correct cylinder liner height or the liner standout from the cylinder block deck. This specified dimension assures the correct registration of the liner within the cylinder block preventing any liner misalignment or movement. Inconsistent liner height can cause head gasket failure.

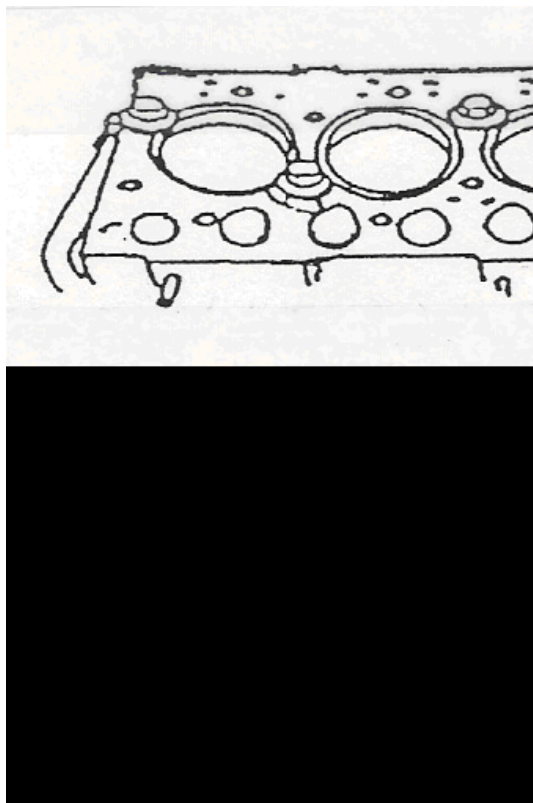
To measure cylinder liner height:

Clean the deck of the cylinder block and the cylinder liner counterbores thoroughly and remove all debris with an air nozzle.

Bolt down the liners, without the O-rings, in the locations as shown.



Using a dial indicator on a magnetic base, determine the liner standout from the cylinder block deck.



RELIANCE[®]

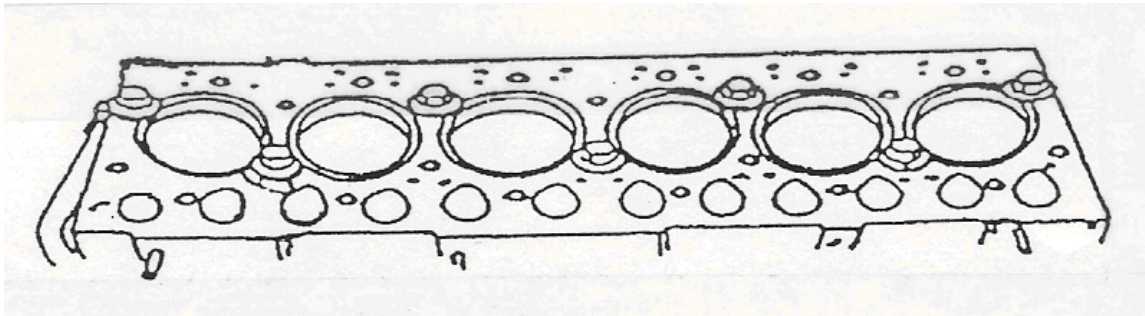
Bulletin No. REL-1.62-6 Group No. 1.62

December 10, 1998

Page 2 of 2

Liner Standout.

Measure and record the standout at 1, 5, 7 and 11 o'clock positions, viewed from the flywheel end of the engine.



Liners that have acceptable and consistent measurements at these 4 points, but are not within the specified standout dimension, can be corrected by the use of liner shims.

To determine liner shim thickness:

If the liner flange thickness is within specification but the recorded standout from the block deck is no more than .003" below the block deck; install liner shims on the bottom of the liner flange.

Install no more than 2 liner shims on any one liner. Never cut shims in an effort to install them with the liner still in the block. The tabs on the I.D. of some shims is for centering the shim on the liner.

