



Cylinder Liner Adjustment on 1991-2000 Cummins N14 Engines

The AERA Technical Committee offers the following information on cylinder liner adjustment for 1991-2000 Cummins N14 engines. This information should be referenced any time the blocks counterbores are being worked on.

The use of liner shims on both standard and oversize liners is acceptable to properly set the liner protrusion of .0040-.0070" (.100-.180 MM). Cummins offers varies thicknesses of shims, depending on the liner being used. To properly measure liner protrusion the use of a liner bridge tool bolted to the top of the liner to hold it down in place.

To establish reusable bores, check the parent bore for the proper size;

Standard Lower Press Fit:	6.2930-6.2950" (159.842-159.893 MM)
Oversize Lower Press Fit Bore:	6.3300-6.3350" (160.858-160.909 MM)
Standard Counterbore Depth:	.351-.352" (8.915-8.941 MM)

If the parent bore measures other than the above tolerances, it **must** be bored again or sleeved to the correct lower press fit.

To establish reusable counterbores, check the flange diameter for proper size;

Standard Lower Press Fit:	6.5640-6.5700" (166.730-166.880 MM)
Oversize Lower Press Fit Bore:	6.5840-6.5900" (167.230-167.390 MM)
Standard Counterbore Depth:	.371-.372" (9.423-9.449 MM)

If the counterbore is less than 6.5840" (167.23 MM), it must be machined again. Using a concentricity gauge, such as Part #ST-1252, measure the relationship between the upper and the lower bore. The dial indicator reading must not exceed 0110" (.279 MM)

Sealing Ring Sizes

Standard Lower Press Fit Liner	Oversize Lower Press Fit Liner
Sealing Ring .0195" (.500 MM)	Sealing Ring .0180" (.460MM)
Sealing Ring .0205" (.520 MM)	Sealing Ring .0200" (.510MM)
Sealing Ring .0215" (.550 MM)	Sealing Ring .0220" (.560MM)
Sealing Ring .0225" (.570 MM)	Sealing Ring .0310" (.790MM)
Sealing Ring .0235" (.600 MM)	
Sealing Ring .0245" (.620 MM)	
Sealing Ring .0310" (.790 MM)	
Sealing Ring .0620" (1.580 MM)	