

# Technical Tips, Modifications & Questions

## Changing Rings on V12 Engine with Heads Off

It is an easy matter to change the rings while the heads are off, without having to remove the block from the car and remove the sump.

Liners can also be changed this way if you have a damaged one.

Before you remove the liners, use plenty of air to blow out all the crud, scale and deposits in the water chamber around the liners, so absolutely no dirt or foreign matter can drop down into sump!

The pistons are then exposed to remove the rings, clean up the pistons and put new rings on.

Rotate crankshaft with **7/8" spanner on crankshaft pulley**, to bring each piston clear of block

Make a Cam wheel holder from sheet metal to hold cam wheels in place while heads are off.



I used a large worm drive hose clip to hold the rings into the piston, not too tight it wont move.



The liner has a small chamfer on the leading edge, slip it over the piston, push down till the hose clip is below rings and they are in the liner, then remove hose clip and push liners home.

Remember before this to thoroughly clean the seat of the liner and where it sits in the block, and use a good quality sealant, such as Loctite 518 Flange Sealant.

Its very straight forward and only takes a few hours to change all 12 ring sets.

After all the liners have been replaced, use large washers to hold the liners in place, while rotating crankshaft to set No 01 piston to TDC, and check the accuracy of the TDC mark adjacent to the crankshaft pulley.



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