

EB1886MODP – Fitting instructions for modified valve stem seals to the early post-War cars with 6 cylinder engine.

These modern valve stem seals replace the original waxed asbestos rope grommet type of seal. The modern type of control seal limits the oil to the valve stem, but also ensures it stays there and is not sucked or blown out thereby improving valve stem lubrication.

These modified seals use Viton as the noble material. The sealing lip is spring-loaded to compensate for any valve stem or seal wear over very long periods. They have been selected for their quality, extremely long life and ideal valve stem protection. On all post-War cars, they may be fitted without removing the cylinder head.

No special tooling or machining is necessary, but the use of a suitable valve compressor or lever will be required to compress the valve springs. A simple lever may be made easily from a piece of flat steel.

As the inner valve spring acts as a gland spring, the domed grommet housing must be replaced by the flat washer of a very slightly greater thickness which is provided with the modified seals.

Removal of the valve springs in-situ is covered in the workshop manual as follows:

1. Remove all spark plugs and block the holes with tissue paper.
2. Remove the rocker covers and the rocker gear. Plug all the oil and pushrod holes with tissue paper.
3. Turn the crankshaft so that the cylinder to be worked upon is somewhat below top dead centre.
4. Insert the valve-stopping tool (Fig. 2 below) and locate the centre of the face of the inlet valve. Secure the tool against any possible rotation
5. Turn the crankshaft slowly until the piston is firm against the tool. This prevents the valves from dropping once the valve springs are removed.
6. Using the spring compression device (Fig. 1 below), compress the spring and remove the valve collets. Release the compression device, remove the valve stem end circlip, and remove the valve springs.
7. Discard the valve grommet housing and the original valve stem seal.
8. Inspect the sharp edge at the top of the valve guide. If it is razor sharp, it is advisable to flatten the top of the guide a little, best done with a miniature grinding wheel with a bore of at least 11/32" to slide down the valve stem. By hand, rotate the grinder until the guide head is blunt.
9. Polish the outer face of the guide with 320 grit sandpaper and clean away all debris
10. Slide the special new washer over the valve guide.
11. Lubricate the outside of the guide with light grade petroleum jelly. Grit-free hand cleaner is an ideal lubricant.
12. Fit the new valve stem seals. These should be fitted using an appropriate drift to ensure a perfectly square fit on the valve guide. A suitable drift is a used gudgeon pin or a long-reach 14mm (9/16") socket.
13. Fill the valve spring cap centre hole with a high-temperature silicone gasket (RTV) sealant (such as Silastic 732) and also apply some liberally to the cotters.
14. Prior to fitting the collets and top washer, ensure that they are degreased and the valve tip area around the collet locating groove is wiped clean. Arrange the collets in pairs on a clean surface and apply RTV sealant along one edge of one collet so that it abutts the uncoated edge of the other.

Allow 10 minutes to elapse before assembly. Fit the valve spring and its top washer, and compress the valve spring to fit the collets. Keep the gaps between the collets equal and wipe any excessive sealant from the valve tip and top washer.

Allow a further period of at least twelve hours to elapse from applying the sealant to running the engine.

15. Reassemble the valve train once all valves have been completed.

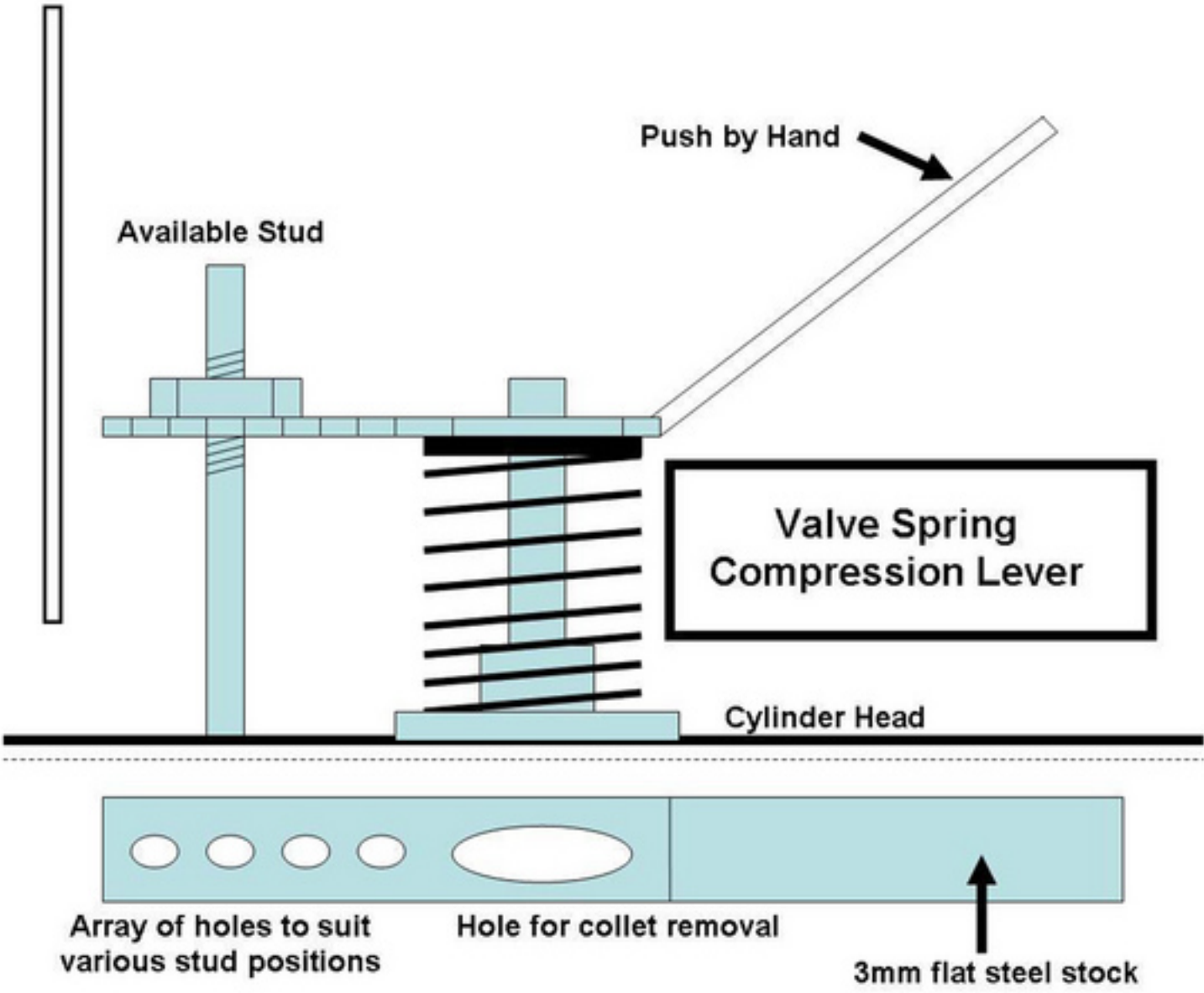


Figure 1

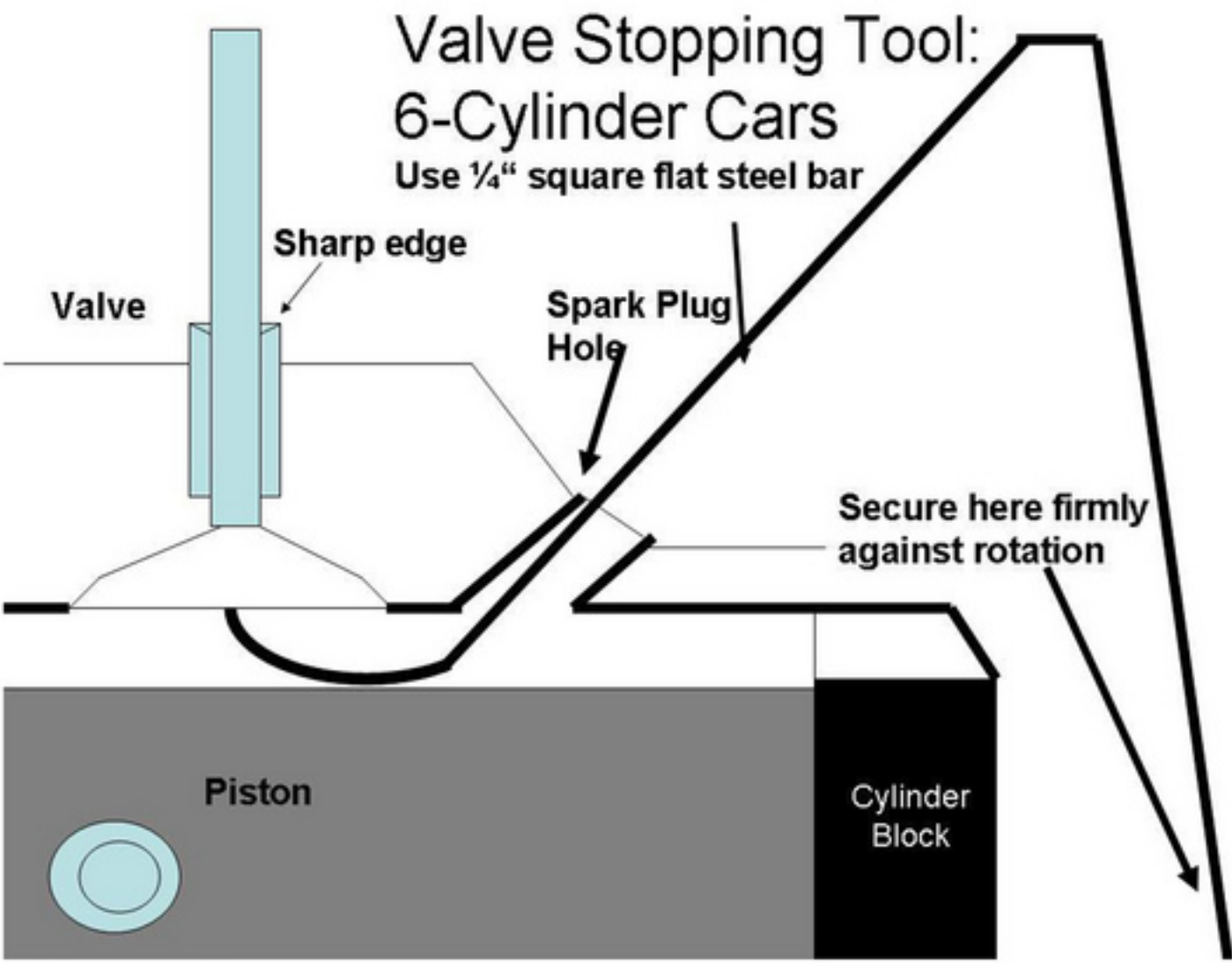


Figure 2