

UE7428NFP – Valve Stem Seal Fitting Instructions

These fitting instructions relate to the fitting of replacement valve stem seals UE7428NFP to V8 engines from the Silver Cloud II & S2 through to the Silver Spirit and Mulsanne models prior to VIN 6750 (when this type of seal was fitted as standard).

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.

Removal of the valve springs in-situ is covered in workshop manual TSD5000 Chapter E8 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 exactly at top dead centre. This prevents the valves from dropping more than a few millimetres once the valve springs are removed.
4. Using the spring compression device, compress the spring and remove the valve collets. Release the compression device and remove the valve spring.
5. Remove and discard the gland spring, valve grommet housings and the original valve stem seal.
6. 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 3/8" to slide down the valve stem. By hand, rotate the grinder until the guide head is blunt.
7. Polish the outer face of the guide with 320 grit sandpaper and clean away all debris.
8. Coat the outside of the guide with light grade petroleum jelly. Grit-free hand cleaner is an ideal lubricant
9. Fit the new valve stem seals. These should be fitted using an appropriate drift to ensure a square fit on the valve guide. A suitable drift is a used gudgeon pin or a long-reach 14mm (9/16") socket.
10. Fill the valve spring cap centre hole with a high-temperature silicone gasket RTV and also liberally apply some to the cotters.
11. Fit the valve spring and its top washer, and compress the valve spring to fit the collets. Once the spring is released, ensure that the RTV gives a good seal between the valve stem and the spring cap, and remove excess RTV.
12. Reassemble the valve train once all valves have been completed.

Further information on application of RTV:

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 Silastic 732 RTV sealant along one edge of each collet so that it abutts the uncoated edge of the other.

Allow 10 minutes to elapse before assembly. 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.