TECHNICAL BULLETIN

NO: 38

Rocker Cover Gasket Fitment.

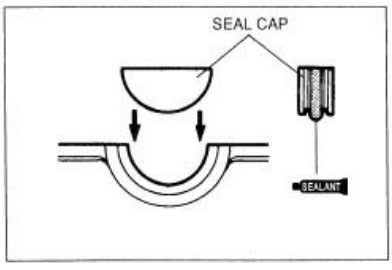
When fitting rocker cover gaskets to most modern engines, there are some important procedures that need to be adhered to, to assure trouble free installation without leaks.

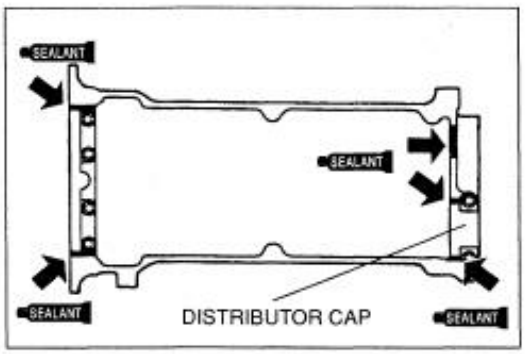
PLEASE NOTE – While these recommendations will suit most applications, there are some exceptions to every rule, please refer to the OEM workshop manual for full and precise fitting instructions.

1 – Please ensure that all parts are CLEAN and DRY. Use an air gun to blow out any liquid or debris that may be in the channel of the cover and all other surfaces.

2 – Make sure the gasket and any other components are correct for your application. These should fit neatly without signs of distortion.

3 – The use of sealants in most cases should only be used sparingly where directed to according to the OEM recommendations. Most applications will call for a small amount of sealer in the corner of each cam arch and where there is a join such as between a head and front engine cover or where the cam plugs sit. Cam plugs should have a bead of 1 -2 mm on the curved side that sits into the head, push these into place and wipe away any excess sealant.





The use of a good quality sensor safe sealant such as ThreeBond TB004 is recommended. Apply to areas as required (see illustration as a guide) and allow 7 – 10 minutes for the sealant to surface dry then fit parts immediately. Tighten cover to specified torque.

4 – Check the condition of the rocker cover washers. If worn or "flattened" replace them. Flattened rocker cover washers can severely reduce the amount of clamping load that is applied to the gasket and cause premature failure.

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5 – Spark plug tube gaskets should be replaced (if required) at the same time as the rocker cover gasket. This will ensure that there is not height difference in any of the components that could contribute towards an early failure due to parts miss match.

The overuse of silicon sealers is the number 1 common cause of early rocker cover gasket failure that we see. It is a common misconception that the application of silicon sealers will enhance the seal but in fact, in most instances, is more detrimental.
Sealant applied to the channel of a valve cover (that is not designed for it) can split the rubber as the silicon will be trapped between the gasket and cover and "hydraulic" its way out via the easiest route. Same applies if the silicon is laid on the flat of the gasket between the gasket and head.
Some cheaper brands of silicon when cured with heat etc will become very hard and brittle and can shear the softer rubber in some cases. This is especially common when the rocker cover bolts are retightened to try and stop a leak. In these instances you are better off to completely remove the rocker cover again and clean away any foreign material. Inspect the gasket and if in doubt replace it.

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