

3500GT Scavenge Pump Overhaul/ Modification

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The V-belt driven external scavenge pump on the six cylinder engine is a scarce item. Replacement is probably impossible. The following description of an overhaul/ modification may be of value to some owners.

Disassembly can be difficult, especially if any gasket sealant was used on assembly, as no provision was made in the design of this unit for separating the fragile alloy castings. During separation care must be taken not to damage the small alloy impeller I attest to this from sad experience.

With the faceplate removed the necessary repairs can be assessed. In the case of the example shown, the only part salvageable was the main casting, which had to have fatigue cracks at the gusset webs TIG welded. All other parts were replaced in a fashion that duplicates the original appearance but is much more serviceable.

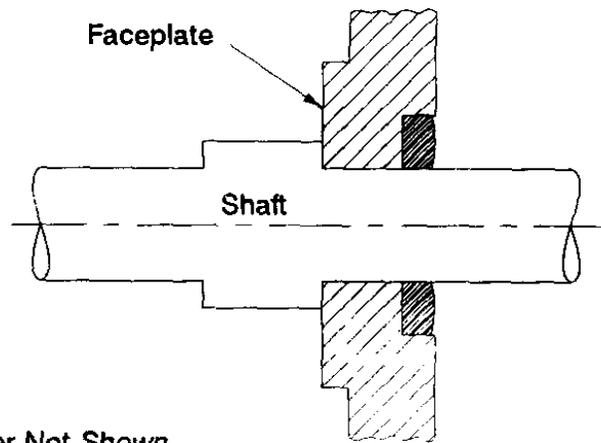
Originally the impeller shaft was supported by bushings in the casting and faceplate. My impeller was broken and the shaft so worn that these items needed replacement. In planning the repairs to my pump I decided to do what Maserati should have done in the original design and incorporate a ball bearing in the faceplate-a modification that requires no change in any external dimension.

The original impeller shaft has a shoulder between the impeller and the faceplate to limit end play. In order to support the outer end of the shaft with a bearing it is only necessary to fabricate a new faceplate with more thickness. This added thickness is made in the form of a shoulder that fits inside the pump body, and that same amount is removed from the shoulder of the new shaft. It is possible that your original shaft may be able to be machined to the required dimensions. Voila, a bulletproof oil pump that looks totally original.

I will not attempt to provide accurate machining details; any competent machinist can derive suitable dimensions from the original parts, but a standard SKF 6002 bearing (15mm x 32mm x 9mm) and a compatible 5805 oil seal (15mm x 26mm x 7mm) will work. Hopefully the photos and drawings enclosed will suffice. If anyone would like further details please contact this writer.

NOT TO SCALE

ORIGINAL



Impeller Not Shown

MODIFIED

