**WATER PUMP**

**Triumph Stag, TR7, Dolomite**

Part Number: GWP206 + GWP207

Read through these instructions before commencement of any work. Ensure all procedures are followed carefully. Use a workshop manual to assist in the tasks. This water pump is a precision product and will be damaged or fail in service if not fitted corectly. Work only on a cold engine.

REMOVAL

l. Remove inlet manifold and hoses from water pump cover.

2. Remove pump cover and gasket(s)

3. Remove impeller-retaining bolt (left hand thread) by turning clockwise until either:-

A) The water pump (including brass cage) can be withdrawn or,

B) The impeller bolt only is removed. If this occurs, use a slide hammer (available through your supplier)

to remove the pump. NOTE, if the brass cage remains in the block, prise out carefully avoiding any damage to the engine block.

INSPECTION

Count the number of vanes on the impeller to check that the correct pump has been purchased. There are two types of pump cover which must only be used with the corresponding 6 or 12 vane pump. Compare the profiles of the internal face of the pump cover and the pump vanes. They should be the same. The 12 vane purnp is of later specification may be fitted to any engine providing the corresponding pump cover

is also fitted. Carefully examine the old pump gear and the jackshaft gear for damage. The teeth should have square edges (not pointed).

If either set of gear teeth shows any damage or excessive wear (parlicularly if drive has been lost resulting in lack of water circulation), further investigation should be carried out to determine the cause of failure.

This may include:-

• Excessive end float of jackshaft (check manufacturers tolerances quoted in a factory rvorkshop manual).

• If in doubt, jackshaft should be removed and engine block journal checked for wear.

• Oil starvation to eithet gear teeth and/or jackshaft bush resulting in overheating and accelerated wear of gears or, partial seizure of jackshaft in block. Check for correct oil circulation.

• Wear or damage to pump spigot bush located in block. Replace bush as a matter of course. Incorrect shimming of pump cover to block on previous fitment resulting in incorrect meshing, pre-load and running clearance ol the pump, jackshaft and gears.

• Incorrectly fitted or worn out distributor. Check run-out of distributor spindle. Check for excess vertical movement of distributor spindle. Distributor should have 2 mounting lugs intact and be bolted downsquarely.

• Incorrectly fitted or worn out timing chains, guides, sprockefs and tensioners causing undue stress on jackshaft and bearings.

Once the inspection has been carried out, commence fitment of new pump.

FITTING

1) Thoroughly clean pump housing in the engine block and pump cover. Ensure all traces of old gasket are removed.

2) Fit new spigot bush (145022) to block.

3) Lubricate pump housing 'O' rings with washing up liquid, and fit pump into block ensuring gears align and mesh freely.

4) With the pump firmly pressed into position (refer to workshop manual) refit pump cover (without gasket). Fit three

retaining bolts finger tight ensuring that the gap between the pump cover and biock is equal.

5) a) Measure and record the gap between the pump cover and block using feeler gauges.

b) Add 0.010' - 0.025" to the figure recorded at a) abovetp give the correct running clearance.

Select and fit gasket(s) equal to the combined figure. Three thickness ofgasket are supplied:- 0.0I0", 0.020", 0.030"

6) Remove pump cover:- Check backlash of pump skew gears. Fit selected gasket(s). Refit pump cover. Torque tighten bolts to 20lbs

ft(27Nm)

7) Re-fit ancillaries, check anti-freeze content, run-up and check for air locks in cooling system.

We reconrrnend that these instmctions be rigidly rdhered to. Failtrre to cornply may cfluse irreparable damage and

invalidate pump warranty.

Note:- The impeller retaining bolt (LH thread) is torque tightened to 14 lbs ft (19 Nm) by the water pump manufacturer.