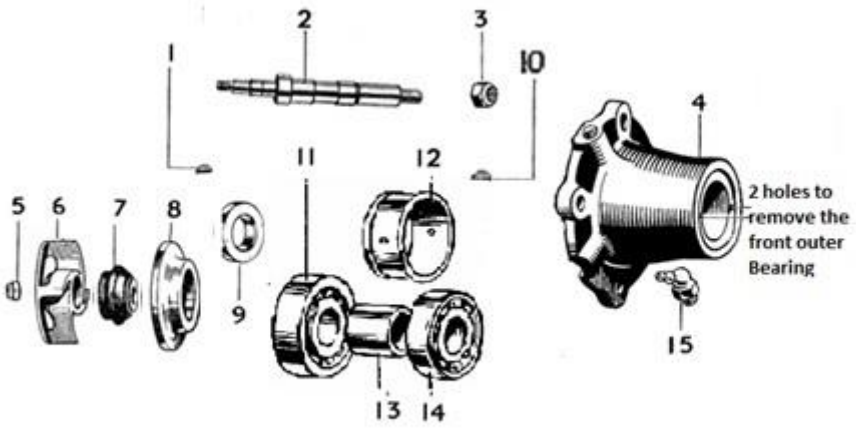
The Riley RM Centre Information Slip

Assembly Hints for RM22 and RM22B Water Pump Kits



This kit contains parts numbered 1,2,3,5,6,7,9,10,11, and 14 in the diagram shown above. It does not contain items 8 and 15 which are available from the Spares Centre or items 4,12 and 13 which are not available from the Spares Centre, and so must be retained for reuse.

Before attempting to fit this kit you should study the relevant areas of the Workshop manual sections A14 and AA14 which apply to both 1 ½ and early 2 ½ cars and should be read together. Take all normal precautions as normal for whenever you work on your vehicle. It is recommended that a qualified technician checks all repairs carried out, upon completion of the work.

When removing an original style outer race from bearing number 14 the bearing race is punched out of housing 4 using the 2 punch holes in the front face, see diagram. Trying to force the bearing the wrong way will result in damage to the housing. Another place on the housing which is prone to damage is the area around the grease nipple hole which easily cracks due to over tightening of the grease nipple. They have been known to crack at little more than "finger" tight. Care is advised because these housings are not available as new replacements.

During stripping down operations you should identify, retrieve and retain for reassembly the bearing spacers 12 and 13, A12.19 and 22 for the 2½ model or AA4.13 and 17 for the 1½ pump. These spacers if lost are not available from the Spares Centre and their loss will not allow correct bearing alignment and adjustment.

The bearings have sealing shrouds fitted to both sides. The shrouds retain the lubricating grease in the bearing during operation as the bearing will be sealed for life and render the grease nipple redundant. If you wish to retain the ability the grease the pump remove one of the shrouds from each bearing. Then the outer bearing shroud replaces the felt seal as fitted originally and faces forward. The inner bearing shroud faces backwards towards the grease seal 9. Lubricate the grease seal 9 during assembly. As original, some grease will always leak forward if the pump is over lubricated.

Sometimes especially on earlier cars it is necessary to replace the water sealing plate 8 (A12.65) to allow the water seal 7 to fit correctly. The replacement sealing plate A12.65 is the same for both 1½ and early RMB type 2½ models.

It is good practice to gently lap the machined area of the impellor that contacts the carbon ring on the water seal with some very fine 1200 grade wet and dry paper. This must be done on a perfectly smooth surface to ensure the face remains flat and square. Doing this helps the seal to bed in faster and stop the inevitable initial slight leak which occurs until bedding in is complete. Antifreeze also acts as a lubricant on the water seal and can also slow down bedding in, but antifreeze must be used if temperatures mean that freezing is liable to take place.

Upon assembly make sure the pump rotates smoothly both before and after fitting; sometimes a small amount of metal needs to be removed from the rear of the impellor blades to prevent rubbing on the inside face of the water pump body, or corrosion build up removed from the pump body.

The Riley RM Centre Ltd

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DRAWN	ISS	CHANGE	APP	DATE	NOTES	**RM22 – RM22B Assembly**	A4
SP	1			22/3/18			
						DWG NO. **RM22-RM22B-IS**	SHEET 1