



Rear Main Bearing Oil Seal Kit Fitting Instructions

Part Number: 837-006
Description: Rear Main Bearing Oil Seal Kit
Applications: 4 Cylinder Triumph
Contents:

Description	Qty.
Alloy Housings	2 (Matched Pair)
Garter Spring	1
Split Lip Seal	1
Washer, Plain	8
Lubricant Sachet	1

Safety First

When working under or on a raised vehicle, ensure that it is safely supported with axles stands supported on the body. Performance parts put higher than normal loads on all other components. All components should be inspected for wear and for damage. They should be replaced if there is any doubt as to their condition. Moss Europe Ltd. accepts no liability whatsoever for damage, loss or injury incurred as a result of using this literature.

Notes

Use the Triumph workshop manual for all operations not mentioned in these instructions.

Instructions

1. Machine the thrower scroll off the crank leaving a ground bearing surface with a diameter of 63.5mm + 0.1mm - 0.00mm. Leave a corner radius of 4mm (not a sharp corner) to the face of the flywheel boss. This new surface must be concentric with the bearing journal and must be polished after machining to a surface finish suitable for a lip seal to run on. A rough surface will result in premature seal failure. An engine reconditioning machine shop will be able to do this work for you. Give them the complete seal kit and these instructions so that there will be no misunderstandings about that you want achieved.

2. WARNING: The crankshaft must not, under any circumstances, be ground under 63.5mm.

3. Assuming this work is being done in conjunction with an engine rebuild, dummy assemble the crankshaft with the correct bearings and select the correct thrust bearings to be used to achieve the correct crankshaft end float. Ensure the crank rotates freely. Remove the crankshaft from the block.



4. Screw one half of the oil seal retaining housing into position on the block using the original screws and spring washers along with the plain washers supplied. Coat the surface facing the block with a good quality jointing compound. The housing edge should be aligned with the block with a straight edge. Tighten the screws sufficiently to hold the housing in place but not too tight at this stage.
5. With the crankshaft out of the engine, assemble the garter spring around the oil seal surface of the crankshaft. Bring the two ends, the hook and the eye, adjacent to one another, and then insert the hook into the eye. Care must be taken to ensure that during this operation the spring is not stretched at all. Some garter springs have two loops and no hook. To disassemble and reassemble this type of spring, open one loop with your finger nail or a small tool and slide the other look through the gap in a similar way to assembling keys onto a wound wire key ring.
6. Apply Grease to the crankshaft oil seal surface; the lip and both end faces of the split oil seal.
7. Open the split oil seal sufficiently to allow it to be fitted over the crankshaft oil seal surface behind the garter spring. The recess in the oil seal which accommodates the garter spring must be facing forwards (facing the internals of the engine). The oil seal must not be repeatedly fitted and removed from the crankshaft, as this can damage the sealing lip and the hinge.
8. Ensure that the hook and eye joint of the garter spring is located midway between the split and hinge of the oil seal (At 90° to the split). Then, using a small screwdriver or similar tool, gently ease the spring into the recess in the oil seal. Be very careful not to damage the seal, garter spring or crank in any way.
9. Rotate the oil seal until the split is on the vertical axis pointing towards the cylinder head and in its approximate lateral running position on the crankshaft surface. This positioning is important to ensure the crankshaft can be lowered into position so that the seal can drop into the upper half of the housing without the need to shift the seal along the crankshaft too much.
10. Apply sealing compound to the recess that will accommodate the seal in both halves of the oil seal housing.
11. With the main bearings and thrust washers already in place in the block, offer the crankshaft, complete with oil seal, into the block carefully locating the oil seal, and pushing it down into it's housing as you do so. This requires much care, as the seal is a tight push fit to its housings.
12. Coat the mating surfaces of the oil seal housing with sealing compound.
13. Loosely screw the lower seal housing to the main bearing cap using spring and plain washers.
14. Fit the rear main bearing cap carefully with its bearing and thrust washers, pushing down the oil seal housing as you go over the seal. Ensure the two mating faces of the oil seal housing are pushed together. Fit the remaining main bearing caps.
15. When the main cap bolts are correctly tightened, tap the oil seal housings carefully so that both halves mate squarely with one another. These housings are precision made components and when aligned perfectly so that the edges of the housings are perfectly in line, the oil seal will be perfectly concentric with the crankshaft. Tighten the attachment screws to 10 ft/lb.
16. Check that the crankshaft rotates freely and that the seal is sitting correctly.
17. Continue the engine build in accordance with the triumph workshop manual.

