



SPARES for ROYAL ENFIELD & AMAL

**HITCHCOCK'S MOTORCYCLES LTD**  
**OLDWICH LANE WEST**  
**CHADWICK END**  
**SOLIHULL**  
**B93 OEY**                      **ENGLAND**

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### **SPRAG CLUTCH REPLACEMENT FOR ELECTRIC START CLASSIC ENGINE AND ELECTRA X**

These notes will help with some of the tricky aspects of replacing the sprag clutch.

1. Place a tray under the primary drive cover to catch any oil that will be released. Remove the outer cover. Remove the clutch, alternator, stator, primary chain and engine sprocket. (For help with these jobs see 'Technical Notes: Gearbox and Clutch – Changing Gearbox Sprocket' on our website.)
2. Remove the primary chain tensioner, the 3 allen bolts and the small nut (if fitted) behind the clutch. The inner chaincase should now pull away with the complete sprag clutch unit.
3. Turn the chaincase over to reveal the 5 socket screws holding the cover in place. Remove the 5 screws with a 5 mm allen key.



4. The cover may be tight and require a gently tap with a suitable drift and hammer.





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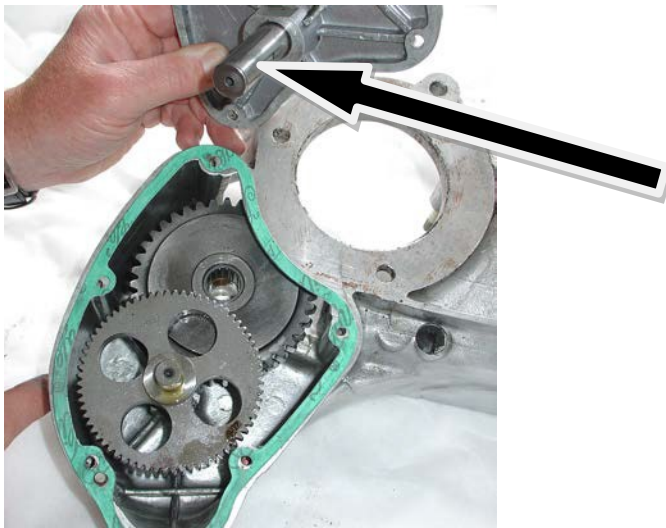
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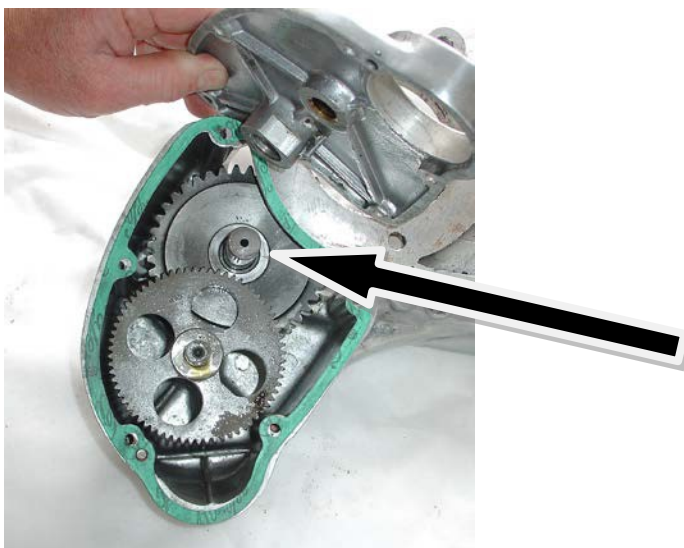
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5. If the cover comes away with the spindle still in the inner case (arrowed in the picture) it is a simple job to remove the sprag gears to renew the damaged parts.



6. If the spindle stays in the centre of the gear (arrowed in the picture) it may be necessary to pour hot water on the gear surrounding the spindle to ease the spindle free.





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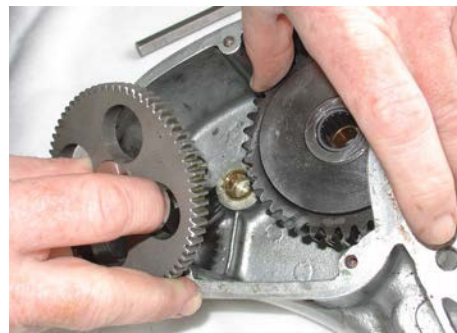
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7. The sprag gears may now be removed and the damaged parts replaced.



8. The sprag gear assembly comprises two gears and the sprag clutch bearing. The bearing allows the gears to rotate freely in only one direction. PLEASE NOTE: it is essential that the gears are replaced so they rotate in the correct direction. Take careful note of the direction of rotation as you dismantle the components - mark the gears with a permanent felt tippen.



9. Split the driven and driving gears. The sprag bearing is located inside the driving gear and held by a circlip - arrowed in the picture on the right below.



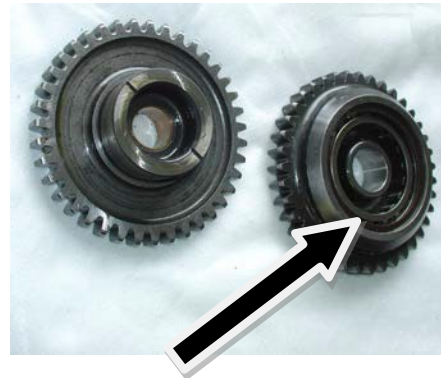
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10. Remove the circlip and extract the sprag bearing (as pictured below).



11. Place the new bearing in the gear, replace the circlip and turn the gears carefully to ensure that the assembly has been fitted to give the correct rotation.



#### **Replacement parts**

Sprag clutch bearing and gears set  
560042

Sprag clutch gear only  
560011

Needle bearing  
560016