

SIMPLE TO REPLACE

TRI-LOBED SPROCKET

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Generic images shown to illustrate the Evo-System's functionality.
Engine and outputs may vary according to market destination.

RUBBER COUPLING

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evolution[®]

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Note: This procedure is a two person operation and must only be attempted with the engine completely COLD!

The rubber coupling is part of the transmission system of the Evo-engine. It is a 'wearing part' and should be checked every 250 hours for serviceability. The following instructions are intended for owner/operators who are familiar with and have competence/ experience in the maintenance procedures required for small capacity 4 stroke petrol engines. If you do not feel completely confident with the following instructions, please contact our helpline for extra advice.

 Note the position of the recoil starting handle for future re-installation. Remove the recoil starting system by undoing and removing the 3 x ø8 mm (Evolution Engine) or 3 x ø10 mm (Mitsubishi Engine) securing bolts and washers. Store these and the recoil system safely.



Removing the recoil starting system will give access to the ø21 mm nut on the end of the engine crankshaft.



This nut can be held with a spark plug spanner to prevent the crankshaft from rotating.

• Hold the crankshaft securely to prevent it from rotating.



 Loosen the ø19 mm AF bolt on the opposite end of the crankshaft by using a 19mm socket with a tommy bar attached. The socket can be 'pushed' into the machine to gain extra security for the socket on the bolt head.

The ø19 mm bolt is tightened to a reasonably high torque and may need to be 'shocked loose' by subjecting the socket tommy bar to a sharp blow (use a rubber mallet).



EVOLUTION BUILD®



Between 6 – 8 full turns of the bolt head should be sufficient for the dog clutch to be disconnected from the engine crankshaft. This however may not be apparent to the operator as the bolt may not withdraw from the dog clutch.

• Gently pull on the dog clutch and ease the assembly from the engine.



The rubber coupling can now be inspected in 'situ' or removed from the inside of the dog clutch for closer inspection. For close inspection, gently ease the rubber coupling from the inside of the dog clutch by pulling it outwards. A flat bladed screwdriver can be used to help ease the rubber coupling from the dog clutch, but exercise care so as not to score or otherwise damage any of the parts.



Inspect the 6 'teeth' of the rubber element for wear or damage.

Slight surface hairline fractures of the

rubber compound are to be expected and are acceptable. Cracks or missing rubber is not acceptable, and if detected the element must be replaced.

If you are at all doubtful of the serviceability of the rubber element replace it as a matter of course.

Replacement of the rubber element and dog clutch is a reversal of the removal procedure.

However note the following:

- The rubber element is a precise fit within the dog clutch.
- The rubber element within the dog clutch must be aligned with the tri-lobed drive sprocket on the engine crankshaft.



• The ø19 mm bolt must be screwed fully 'home' into the 'top hat bush'



- Gently push the dog clutch into place within the engine.
- Hold the crankshaft so that it cannot rotate.
- Tighten the ø19 mm bolt using a 19mm socket and tommy bar drawing the dog clutch into its operational position on the output side of the engine.
- Tighten the ø19 mm bolt to 'Hand Tightness'. In operation the bolt is 'self tightening'.
- Replace the recoil starting system, which is a reversal of the removal procedure.
- Ensure that the recoil system is re-fitted in the same position it occupied prior to removal.

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