Overload clutch for Rotax engine 912 UL

1) General:

The overload clutch (slipping clutch) ❶ completes the power transmission to the propeller shaft and is fitted into the reduction gear box. This overload clutch is standard on the type 912 A and listed as option for 912 UL. The difference of weight with or without clutch is 2,0 kg.

2) Supplementary Conversion:

A later adaption of the overlaod clutch is possible. The additional parts needed are the clutch ass'y ❶, disk springs ❸ and ❹ and the step collar ❻.

◆ NOTE: The 6 mm thick spacer between shims ❼ and the step collar ❻ is to be removed without substitute. All the other parts remain unchanged, if in good condition.

Pre-tensioning of the disksprings has to be carried out anew. The procedure differs with or without overload clutch. Consult Chapter 6.15) in the Repair Manuel for Rotax Engine 912 UL.

3) Function:

In case of overload, for instance due to ground contact of the propeller the torque transmitted will be limited by the overload clutch to a harmless value and therefore damage of the crankshaft is ruled out to the greatest possible extent.

The 8 sinterdisks and 9 steeldisks are loaded by two disksprings pretensioned via the collar nut ❷, resulting in a slipping torque of 450 Nm.
An additional torsional shock absorption, smoothing the torque, represents the action of the springs ❸ and ❹ on the ramps ❺ of the dog clutch.

4) Ground contact:

After a ground contact withdraw, disassemble and service the reduction gear. Inspect propeller shaft for cracks. The correct slipping torque of 450 Nm ±30 Nm can be checked with engine installed and crankshaft locked.

Repair work is carried out by our authorized Service Partners.