



# REVOLUTION

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Service Information Letter #051799

Subject: Drive clutch installation

1. A number of customers are reporting movement of the outer race of the clutch bearing within the Clutch Bearing Housing part #0209, excessive heat in this area, and general difficulties with proper installation. In order to help prevent any misalignment in installation, which will cause the above noted difficulties, the following procedure has been developed. This letter supersedes steps 10 through 20, Section 6, page 15, in the Mini-500 Assembly Manual, dated April, 1995.

2. Lapp the clutch onto the engine output shaft, even if it already has sufficient clearance as discussed in step 10, page 6-15. This is important to assure proper grip between the two parts without the use of adhesives such as Loctite. Remove the clutch and thoroughly clean the mating surfaces of lapping compound and any other contaminants.

3. Install Engine in frame in accordance with **fig. 53**. Loop main drive belt and fan belt over engine output shaft.

4. Check the fit of the Clutch Bearing Retaining Bushing part #0132 in Clutch Bearing part #0571. You should be able to press this part into the bearing with (hard) hand pressure. If you cannot, sand lightly with Emery cloth until proper fit is obtained with parts at room temperature. You are after a .00050" to .0010" interference fit. Less than .0050" will have to be removed from the diameter, so go slowly. This action also completes step 11 on page 6-15. Apply no adhesives to this part upon installation.

5. If you have not yet had your clutch balanced, you need to do so. If your clutch has been balanced, and if the clutch pack has ever come off of the spindle, check that the balance timing marks are in alignment. Marks are located on the end of the spindle and adjacent part of clutch pack, and will be covered by bearing retaining bushing part #0132. Lock the engine crankshaft with the tool supplied in your Rotax tool kit as per **fig. 56**. Place clutch on engine output shaft. Install clutch bolt, lock washer, bearing retainer, and bearing (part numbers 0436, 0691, 0132, and 0571) to front of clutch as shown in **fig. 55**, use Loctite #262 on bolt threads. Torque bolt part #0436 to 30 Ft. lb.

6. Install left and right Clutch Support Plates, part #0206 and 0207, leaving bolts part #0444 loose enough that the Support Plates can be moved by hand. Heat Clutch Bearing Housing part #0209 in an oven at 200 degrees for 15 minutes. Apply a very thin layer of Loctite 7331 to bearing outer race. Using gloves, put the hot Clutch Bearing Housing in place. Quickly install bolts part #0392 and 0393, snug these and bolts part #0444. You have approximately a minute and a half of working time before the plate tightens on the retainer. Once all bolts are snug, place a cold damp cloth on plate to cool it.

7. Continue with step 21, page 6-15.

**NOTE:** An item of non-mechanical nature that can cause high heat in this area is pilot technique. Do not hesitate or delay your run up when going from idle to 100% RPM. The more drawn out the clutch engagement, the hotter it gets. Roll the throttle on smoothly and positively (not abruptly) to minimize the time the clutch is slipping.

If you have any questions about this procedure, contact us at (816)-637-2800.