

Introduction

The TA removal tool (Patented) offers a positive method for removing a TA Taper equipped Quadrive from the driven shaft. This method uses the torque multiplying characteristic of the drive to separate the drive from the bushing and driven shaft.

The removal tool is available in kit form suitable for use with Sizes 5407 thru 5608. The kit can be ordered from your Rexnord-Falk Distributor by specifying "TA Removal Kit -Part 0769407." **NOTE:** Use of this tool requires a minimum axial clearance ("M" shown in Figure 1 and Table 1), from the seal cage stud.

CAUTION: DO NOT modify the tool in any way OR use it in another manner except to loosen the bushing nut as instructed herein.

Figure 1

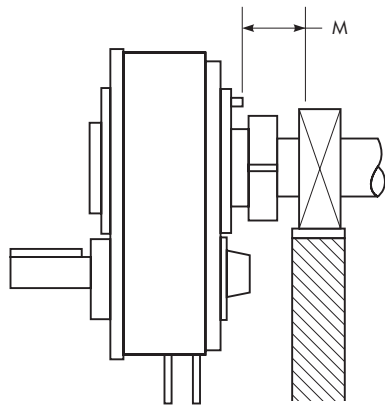


TABLE 1 — Minimum Tool Clearance

| DRIVE SIZE | M Dimension — Inches (mm) |
|------------|---------------------------|
| 5407 | 5.12 (130) |
| 5415 | 5.12 (130) |
| 5507 | 5.38 (137) |
| 5608 | 5.12 (130) |

Preparation For Removal

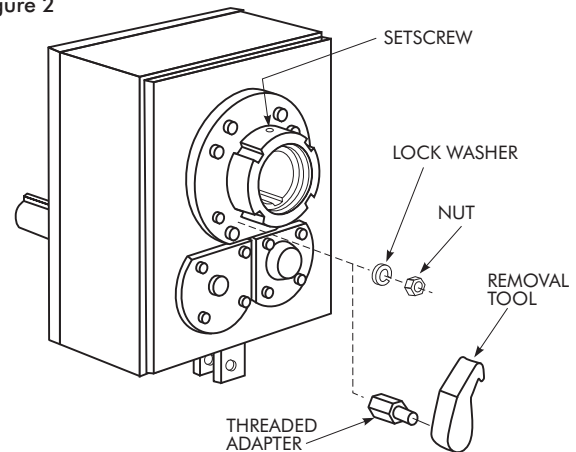
WARNING: Always "lock out" prime mover before working on the Quadrive.

1. Quadrive shafts, high speed and hollow, must be free to rotate.
 - a. Remove any external load on the driven shaft.
 - b. Remove belts from high speed shaft sheave.
 - c. Remove the backstop (if so equipped) when:
 - Type J14 & J24 input shaft rotation indicator is clockwise.
 Refer to Owners Manual 378-206 (Section II, Step 10), for removal instructions.

WARNING: DO NOT disconnect the drive from its torque arm until the removal process is completed. In addition, the drive must be supported during removal process. Use a sling around the motor mount or as recommended in Owners Manual 378-206(SECTION I, Step 6). Be sure to take up the slack in the sling before proceeding.

2. Loosen the setscrew on the O.D. of the bushing nut. Remove the most convenient seal cage nut and lock washer from the stud. Figure 2.

Figure 2



3. Select the proper adapter from the tool kit. (Adapters are marked with the Quadrive Size and part number.) Thread the appropriate adapter onto the stud and apply tightening torque from Table 2.
4. Mount the removal tool as illustrated in Figure 3 or 4. It is generally preferable to install the tool in a position where its weight will tend to keep it engaged into the nut. Rotate the high speed shaft until the tool hook engages one of the slots in the nut.

TABLE 2 — Adapter Tightening Torque

| DRIVE SIZE | Part Number | Torque lb-ft (Nm) |
|------------|-------------|-------------------|
| 5407 | 2111960 | 108 (146) |
| 5415 | 2111960 | 108 (146) |
| 5507 | 2111961 | 120 (163) |
| 5608 | 2111960 | 108 (146) |

Figure 3 SIZES 5407, 5415, & 5608

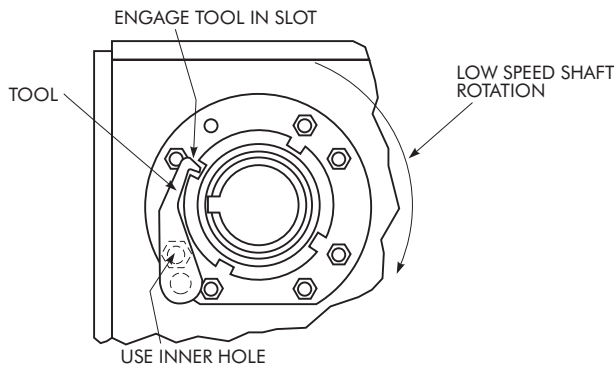
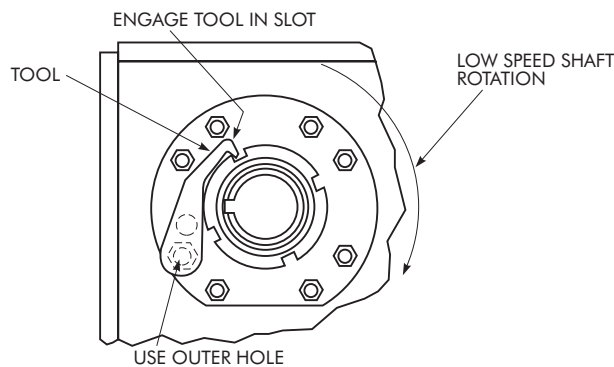


Figure 4 SIZE 5507



Removal Of Quadrive

- Use a spanner wrench to apply torque through the high speed shaft keyway (Type J05 clockwise; Types J14 or J25 counter-clockwise) to loosen the bushing nut.

WARNING: Never use the prime mover to produce the torque needed. This could result in severe personal injury or damage to the equipment.

CAUTION: To avoid damage to the drive or the removal tool, DO NOT exceed the H.S. shaft torque values listed in Table 3.

NOTE: The nut will rotate freely for approximately 180° as it moves from the locked to the removal position. Resistance will indicate that unseating is occurring. Turn until the nut and bushing are completely free. Now, prepare the drive for lifting by disconnecting the torque arm at the drive end.

- ALTERNATE METHOD** — Torque may be applied to the sheave or sprocket mounted on the high speed shaft.

TABLE 3 —Maximum Torque - High Speed Shaft lb-ft (Nm)

| DRIVE SIZE | Drive Reduction | | |
|------------|-----------------|-----------|-----------|
| | J05 | J14 | J25 |
| 5407 | 843 (1143) | 302 (410) | 167 (226) |
| 5415 | 902 (1224) | 337 (456) | 183 (249) |
| 5507 | ... | 372 (504) | 205 (278) |
| 5608 | ... | 422 (572) | 230 (312) |