



# INSTRUCTIONS FOR 890 SERIES MOTOR DISASSEMBLY AND ASSEMBLY

Form Z511  
Date 9-98/A  
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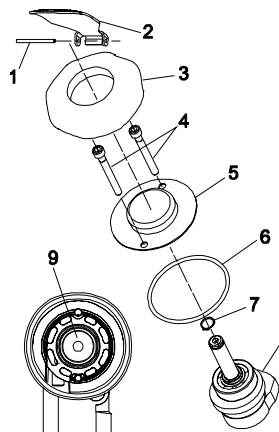


FIGURE1

## AIR MOTOR DISASSEMBLY FIGURE1

1. Tap out roll pin (item 1) with punch and remove valve lever (item 2).
2. Remove housing cover (item 3).
3. Remove 2 each socket head screws (item 4).
4. Remove housing cap (item 5) and "O"-ring (item 6).
5. Remove retaining ring (item 7) and press rotor shaft (item 8) out of motor and housing.
6. Turn unit upside down and press on lower end plate (item 9) to remove motor from housing.
7. Motor can then be disassembled.

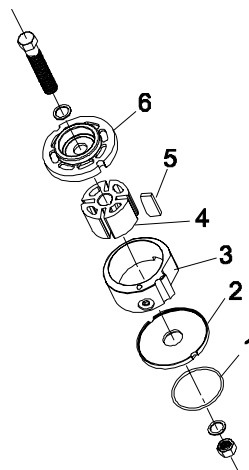


FIGURE2

## AIR MOTOR ASSEMBLY FIGURE2

1. Assemble lower end plate (item 2) and "O"-ring (item 1), cylinder (item 3) with "O"-ring recess as shown, rotor (item 4), 4 vanes (item 5), and upper end plate (item 6) as shown.
- Note: a 3/8" bolt (1 1/2" minimum length), nut and 2 washers can be used to hold the motor together until it is placed into the housing.

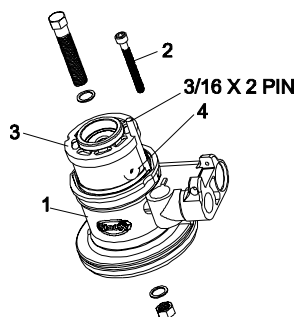


FIGURE3

## FIGURE3

2. Put 3/16" diameter x 2" long pin in groove in housing (item 1).
3. Lubricate "O"-ring (item 4) with "O"-ring lube or grease and put in cylinder (item 3) recess.
4. Align deeper end plate grooves and groove in cylinder with 3/16" pin in housing, and slip motor assembly into housing, making sure "O"-ring stays in recess.
5. Replace 3/16" pin with screw (item 2) in back of housing. Tighten screw to hold motor in place. Remove 3/8" bolt, nut and 2 washers.

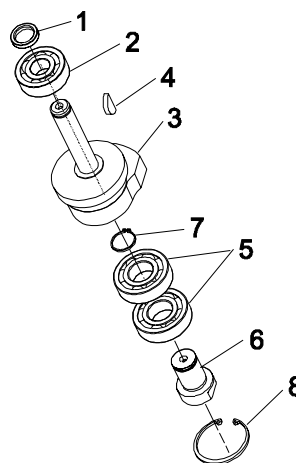


FIGURE4

## FIGURE4

6. Press bearing (item 2) and spacer (item 1) onto rotor spindle (item 3).
7. Press woodruff key (item 4) into rotor spindle.
8. Press 2 bearings (item 5) onto pad spindle (item 6) and add retaining ring (item 7).
9. Press pad spindle assembly into rotor spindle (item 3).
10. Add retaining ring (item 8) to rotor spindle.

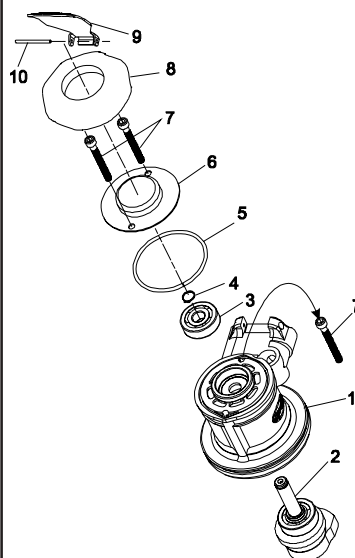


FIGURE5

## FIGURE5

11. Pick up housing and motor assembly (item 1) and insert above rotor spindle assembly (item 2) thru lower end plate, rotor, and upper end plate. Note: Rotor spindle must be started into rotor and woodruff key lined up with keyway in rotor before pressing into motor assembly.
12. Place above assembly on an arbor press with pad spindle end down and rotor spindle resting on steel plate of press.
13. Place bearing (item 3) on rotor spindle and press into place. Install retaining ring (item 4) with convex side up.
14. Remove screw (item 7), install "O"-ring (item 5), housing cap (item 6), and 2 each screws (item 7).
15. Assemble housing cover (item 8), valve lever (item 9), and roll pin (item 10).

Note: When installing bearings, press on inner race of the bearing, not the outer race.

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