

PARTS LIST

TORQUE REQUIREMENTS
NOTE: DO NOT OVERTIGHTEN FASTENERS.
 (134) Torque to 15 - 20 in. lbs (1.7 - 2.3 Nm), wait 10 minutes, then re-torque to 15 - 20 in. lbs (1.7 - 2.3 Nm).

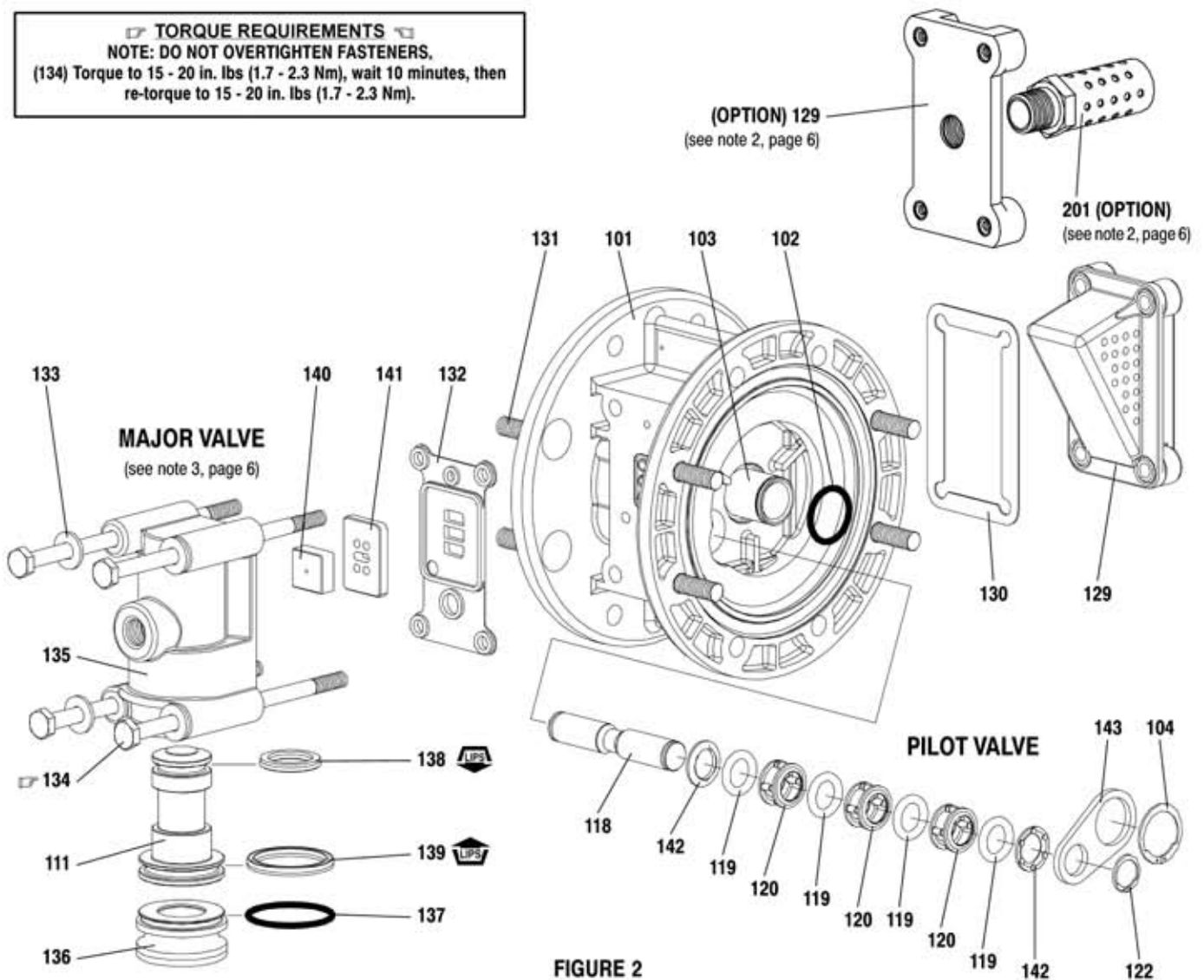


FIGURE 2

AIR MOTOR SECTION SERVICE

Service is divided into two parts - 1. Pilot Valve, 2. Major Valve.
 • Air Motor Section Service is continued from Fluid Section repair.

PILOT VALVE DISASSEMBLY

1. Remove (122) and (104) snap rings.
2. Remove (143) plates.
3. Remove (103) sleeve and (102) "O" rings.
4. Remove (118) piston, (142) washers, (119) "O" rings and (120) spacers from (101) center body.

PILOT VALVE REASSEMBLY

1. Assemble (119) "O" rings, (120) spacers and (142) washers on (118) pilot rod.
2. Insert the stack into the (101) body. Sleeve (103) may be used to assist pressing stack into body.
3. Install (103) sleeve and (102) "O" rings into (101) body.
4. Install (143) plates and (122) and (104) snap rings.

MAJOR VALVE DISASSEMBLY

1. Remove (129) exhaust cover and (130) gasket.
2. Pull (135) valve block assembly from (101) body.
3. Remove (134) bolts, (133) washers and (132) gasket from (135) valve block.
4. Remove (141) valve plate and (140) valve insert.
5. Remove (136) plug and (111) spool.

MAJOR VALVE REASSEMBLY

1. Install new (139) and (138) "U" cups on (111) spool - **LIPS MUST FACE EACH OTHER.**
2. Insert (111) spool into (135) valve block.
3. Install (137) "O" ring on (136) plug, insert plug into (135) valve block.
4. Install (140) valve insert and (141) valve plate into (135) valve block. Note: After 9/92, parts (140, 141) are white (ceramic), the dished side of the (140) valve insert should be against the shiny face of (141) valve plate for best performance.
5. Replace (132) gasket and install valve block assembly on (101) body.

TROUBLE SHOOTING

Product discharged from air exhaust.

- Check for diaphragm rupture.
- Check tightness of (6) diaphragm nut.

Air Bubbles in Product Discharge.

- Check connections of suction plumbing.
- Check band clamps on intake manifold.
- Check "O" rings between intake manifold and fluid caps.
- Check tightness of diaphragm nut.

Pump blows air out main exhaust when stalled on either stroke.

- Check "U" cups on (111) spool in major valve.
- Check (141) valve plate and (140) insert for wear.
- Check (103) sleeve and (2) "O" ring on diaphragm connecting rod.
- Check (119) "O" rings on (118) piston for wear.

Low output volume.

- Check air supply.
- Check for plugged outlet hose.
- For the pump to prime itself, it must be mounted in the vertical position so that the balls will check by gravity.
- Check for pump cavitation – suction pipe should be 1/2" min. or larger if high viscosity fluids are being pumped. Suction hose must be non-collapsible type, capable of pulling a high vacuum.
- Check all joints on intake manifolds and suction connections. These must be airtight.
- Check for sticking or improperly seating check valves.
- If pump cycles at a high rate or runs erratically, check (119) piston "O" rings for wear.

DIMENSIONAL DATA

Dimensions shown are for reference only, they are shown in inches and millimeters (mm).

