



Tool & Hoist Products

OPERATOR'S MANUAL

INCLUDING: OPERATION, INSTALLATION & MAINTENANCE

"O" SERIES POWER MOTOR

Released: 2-22-93

Revised:

Model 7759

IMPORTANT: READ THIS MANUAL CAREFULLY BEFORE INSTALLING, OPERATING OR SERVICING THIS EQUIPMENT.

OPERATING AND SAFETY PRECAUTIONS

Pneumatic tools should always be installed and used in accordance with A.N.S.I. B186.1 "Safety Code For Portable Air Tools."

CAUTION:

- Keep hands and clothing away from rotating end of tool.
- Wear suitable eye protection while operating tool.
- Use tool only for purposes for which it was intended.
- SHUT OFF and DISCONNECT AIR SUPPLY from tool BEFORE performing maintenance, service or disassembly of tool.

WARNING: Repeated prolonged operator exposure to vibrations which may be generated in the use of certain hand-held tools may produce Raynaud's phenomenon, commonly referred to as Whitefinger disease. The phenomenon produces numbness and burning sensations in the hand and may cause circulation and nerve damage as well as tissue necrosis. Repetitive users of hand-held tools who experience vibrations should closely monitor duration of use and their physical condition.

ROUTINE LUBRICATION REQUIREMENTS

Lack of or an excessive amount of lubrication will affect the performance and life of this tool. Use only recommended lubricants at below time intervals:

EVERY 8 HOURS OF TOOL OPERATION – Fill lubricator reservoir of recommended F.R.L. with spindle oil (29665). If an in line or air line lubricator is not used, apply several drops of spindle oil (29665) in air inlet.

EVERY 160 HOURS OF TOOL OPERATION – Lubricate gearing. Pack bearings, coat shafts and lubricate gears with NLGI #1 "EP" grease (33153).

AIR SUPPLY REQUIREMENTS

For maximum operating efficiency, the following air supply specifications should be maintained to this air tool:

- AIR PRESSURE – 90 PSIG (6 bar)
- AIR FILTRATION – 50 micron
- LUBRICATED AIR SUPPLY
- HOSE SIZE – 5/16" (8 mm) I.D.

An ARO® model 128231-800 air line FILTER/REGULATOR/LUBRICATOR (F.R.L.) is recommended to maintain the above air supply specifications.

RECOMMENDED LUBRICANTS

After disassembly is complete, all parts, except sealed or shielded bearings, should be washed with solvent. To relubricate parts, or for routine lubrication, use the following recommended lubricants:

| Where Used | ARO Part # | Description |
|-----------------------|------------|-----------------------------|
| Air Motor | 29665 | 1 qt. Spindle Oil |
| "O" Rings & Lip Seals | 36460 | 4 oz. Stringy Lubricant |
| Gears and Bearings | 33153 | 5 lb. "EP" – NLGI #1 Grease |

For parts and service information, contact your local ARO distributor, or the Customer Service Dept. of the Ingersoll-Rand Distribution Center, White House, TN at PH: (615) 672-0321, FAX: (615) 672-0601.

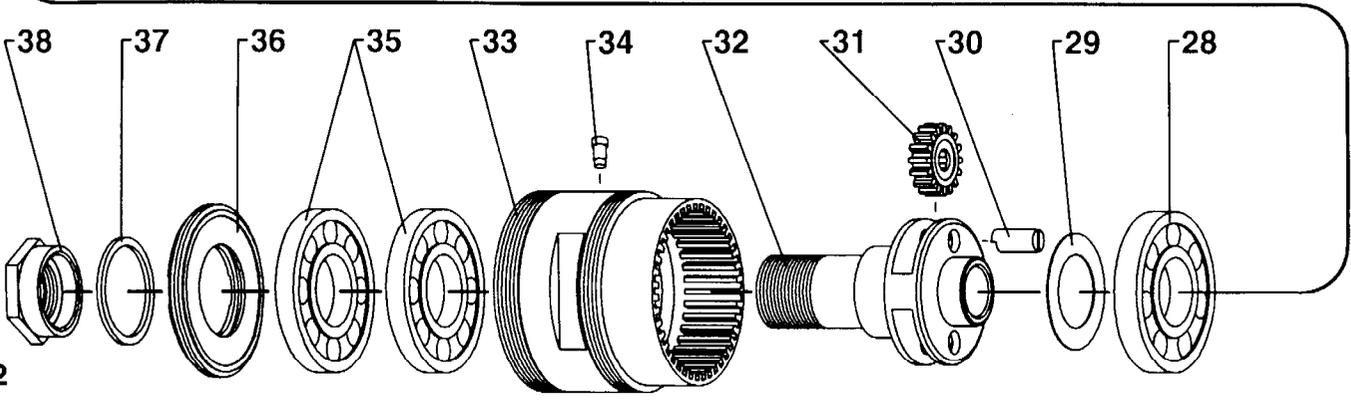
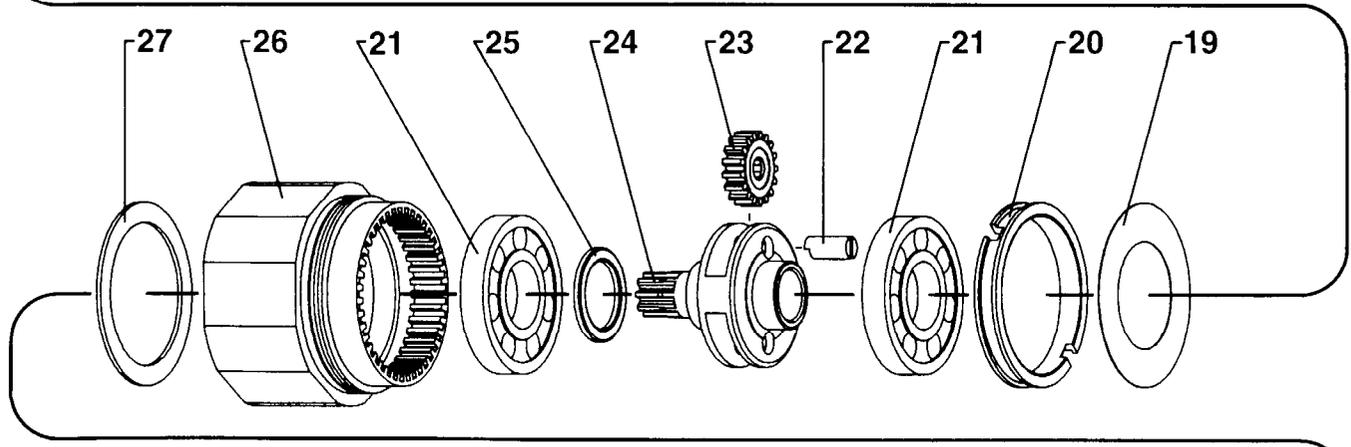
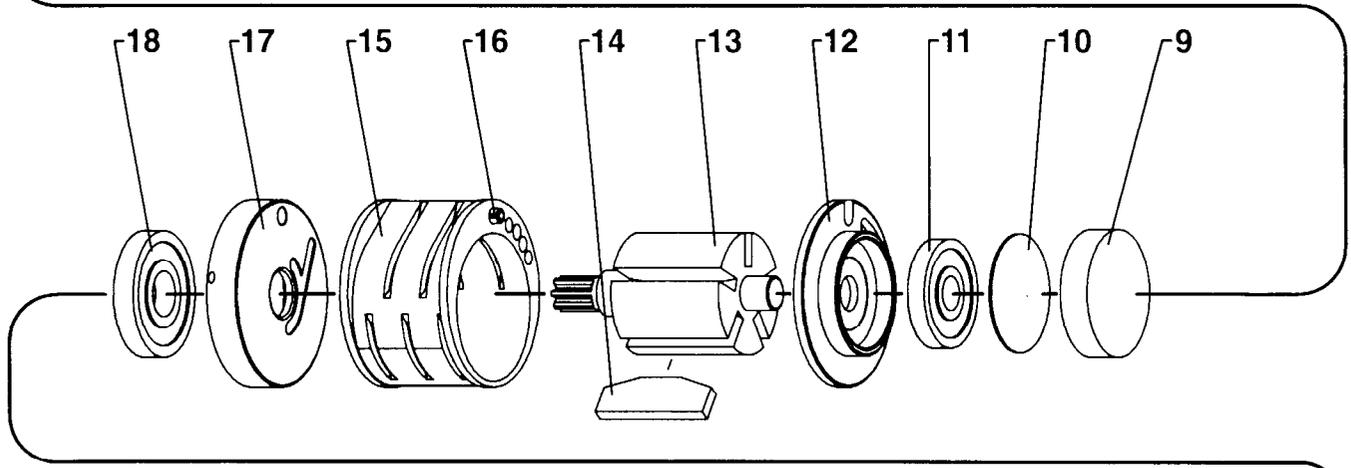
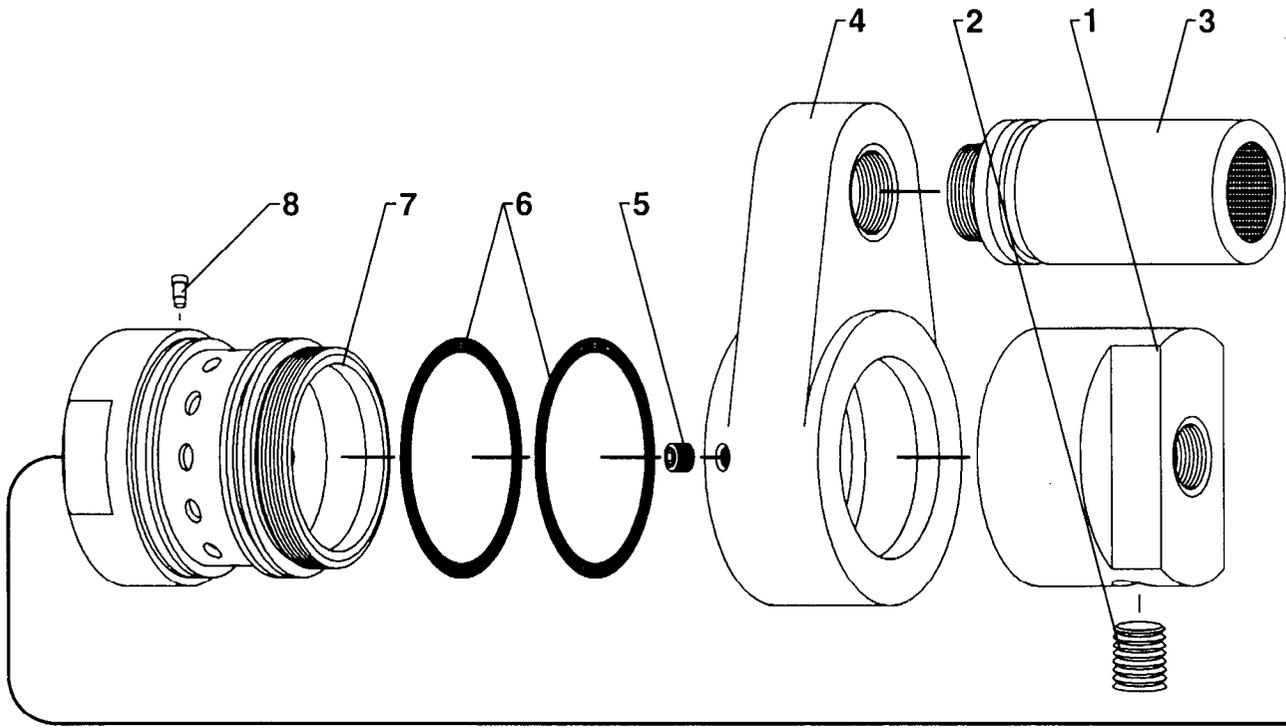
ARO Tool & Hoist Products

Ingersoll-Rand Company

1725 U.S. No. 1 North • P.O. Box 8000 • Southern Pines, NC 28388-8000

©1993 THE ARO CORPORATION • PRINTED IN U.S.A.

INGERSOLL-RAND®
PROFESSIONAL TOOLS



PART NUMBER FOR ORDERING

PART NUMBER FOR ORDERING

| | | | | | |
|----|---|----------|----|---|---------|
| 1 | Head | 42519 | 20 | Spacer | 32305 |
| 2 | Pipe Plug | Y227-3 | 21 | Bearing (2 req'd) | 32325 |
| 3 | Muffler | 43551-3 | 22 | Shaft (2 req'd) | 33436 |
| 4 | Manifold (includes item 5) | 43556 | 23 | Gear (2 req'd) | 33438 |
| 5 | Set Screw | Y23-102 | 24 | Spindle | 39849 |
| 6 | "O" Ring (2 req'd) | Y325-127 | 25 | Spacer | 39850 |
| 7 | Motor Housing (includes item 8) | 43634 | 26 | Adapter | 38892 |
| 8 | Grease Fitting | 35967 | | GEARING ASSEMBLY 6.86:1 (includes items 20 thru 26) | 42658 |
| 9 | Cap | 38783 | 27 | Spacer | 38894 |
| 10 | Shield | 38805 | 28 | Bearing | 32325 |
| 11 | Bearing | Y65-7 | 29 | Spacer | 37676 |
| 12 | Rear End Plate | 37956 | 30 | Shaft (2 req'd) | 33436 |
| 13 | Rotor | 31633 | 31 | Gear (2 req'd) | 33440 |
| 14 | Blade (5 req'd) | 31363 | 32 | Spindle | 38889 |
| 15 | Cylinder (includes item 16) | 37958 | 33 | Ring Gear (includes item 34) | 38882 |
| 16 | Roll Pin (2 req'd) | Y178-22 | 34 | Grease Fitting | 35967 |
| 17 | Front End Plate | 31158 | 35 | Bearing (2 req'd) | 48305-1 |
| 18 | Bearing | Y65-15 | 36 | Lock Nut | 38250 |
| | MOTOR ASSEMBLY (includes items 9 thru 18) | 37960-1 | 37 | Seal | 38895 |
| 19 | Spacer | 32310 | 38 | Spindle Nut | 38893-1 |

DISASSEMBLY/ASSEMBLY INSTRUCTIONS

- Never apply excessive pressure by a holding device which may cause distortion of a part.
 - Apply pressure evenly to parts which have a press fit.
 - Apply even pressure to the bearing race that will be press fitted to the mating part.
 - Use correct tools and fixtures when servicing this tool.
 - Don't damage "O" rings when servicing this tool.
 - Use only genuine ARO replacement parts for this tool.
- When ordering, specify part number, description, tool model number and serial number.

DRIVE GEARING DISASSEMBLY

- Using wrenches on flats of ring gear (33) and adapter (26), unthread and remove drive gearing from tool.
- Unthread and remove spindle nut (38).
- Grasp ring gear in one hand and tap threaded end of spindle with a soft face hammer; spindle and components will loosen from ring gear.
- Using a suitable punch or similar tool, alternately tap ends of shafts (30), loosening bearing (28).
- Remove bearing (28), spacer (29) and shafts (30), releasing gears (31).
- To remove bearings (35), remove lock nut (36). NOTE: Lock nut (36) has been assembled with thread adhesive.

DRIVE GEARING ASSEMBLY

- Pack bearings and lubricate gears and shafts liberally with ARO 33153 grease, or equivalent, during assembly. Gearing should contain approximately 1/8 oz. (3.5 g) of grease.
- Assemble bearings (35) into ring gear (33), pressing on outer race of bearings. NOTE: Bearings (35) are flush face type bearings and must be assembled with the unmarked faces together.
- Assemble lock nut (36) to ring gear, securing bearings.
- Assemble seal (37) to groove in lock nut.
- Assemble gears (31) to spindle, securing with shafts (30). Align notch in end of shaft with step on spindle.
- Assemble spacer (29) and bearing (28) to spindle, pressing on inner race of bearing.
- Assemble spindle and components into ring gear.
- Assemble spindle nut (38) to spindle.

- Assemble gearing to tool and tighten securely.

AUXILIARY GEARING DISASSEMBLY

- Remove drive gearing from tool.
- Using wrenches on flats of adapter (26) and motor housing (7), unthread and remove gearing from tool.
- Grasp adapter in one hand and tap drive end of spindle with a soft face hammer; spindle and components will loosen from adapter.
- Remove spacer (20).
- Remove bearing (21) and spacer (25) from drive end of spindle.
- Alternately tap ends of shafts (22), loosening bearing (21).
- Remove bearing (21) and shafts (22), releasing gears (23).

AUXILIARY GEARING ASSEMBLY

- Pack bearings and lubricate gears and shafts liberally with ARO 33153 grease, or equivalent, during assembly. Gearing should contain approximately 1/8 oz. (3.5 g) of grease.
- Assemble spacer (25) and bearing (21) to drive end of spindle, pressing on inner race of bearing.
- Assemble gears (23) to spindle, securing with shafts (22). NOTE: Align notch in end of shaft with spacer.
- Assemble bearing (21) to spindle, pressing on inner race of bearing.
- Assemble spacer (20) to gearing and assemble gearing to tool, tightening securely.
- Assemble spacer (27) and drive gearing to tool.

MOTOR DISASSEMBLY

- Using wrenches on flats of adapter (26) and motor housing (7), unthread and remove gearing from tool.
- Remove spacer (19) and motor assembly from motor housing.
- Remove cap (9) and shield (10) from motor.
- Grasp cylinder in one hand and tap splined end of rotor with a soft face hammer; motor will come apart.

DISASSEMBLY/ASSEMBLY INSTRUCTIONS

MOTOR ASSEMBLY

- Assemble bearing (11) to end plate (12), pressing on outer race of bearing.
- Assemble end plate (12) to rotor, pressing on inner race of bearing.
- Coat i.d. of cylinder (15) with ARO 29665 spindle oil and assemble cylinder to end plate, aligning roll pin in cylinder with hole in end plate.
- Coat blades (14) with ARO 29665 spindle oil and insert into rotor slots – straight side out.
- Assemble bearing (18) to end plate (17), pressing on outer race of bearing.
- Assemble end plate (17) to cylinder, pressing on inner race of bearing. NOTE: Align hole in end plate with roll pin in cylinder.
- Be sure rotor turns without binding (if rotor binds, tap splined end of rotor lightly to loosen).
- Assemble shield (10) and cap (9) to end plate (12).
- Assemble motor assembly and spacer (19) into motor housing (7).
- Assemble gearing to tool and tighten securely.

HEAD AND MANIFOLD DISASSEMBLY

- Using wrenches on flats of head (1) and motor housing (7), unthread and remove head.
- Loosen set screw (5) and pull manifold (4) from motor housing (7).
- Remove “O” rings (6), if necessary.

HEAD AND MANIFOLD ASSEMBLY

- Grease “O” rings (6) and assemble to grooves in motor housing (7).
- Assemble manifold (4) to motor housing (7).
- Assemble head (1) to motor housing, tightening securely.
- Rotate manifold to orient muffler and tighten set screw (5) to secure.

