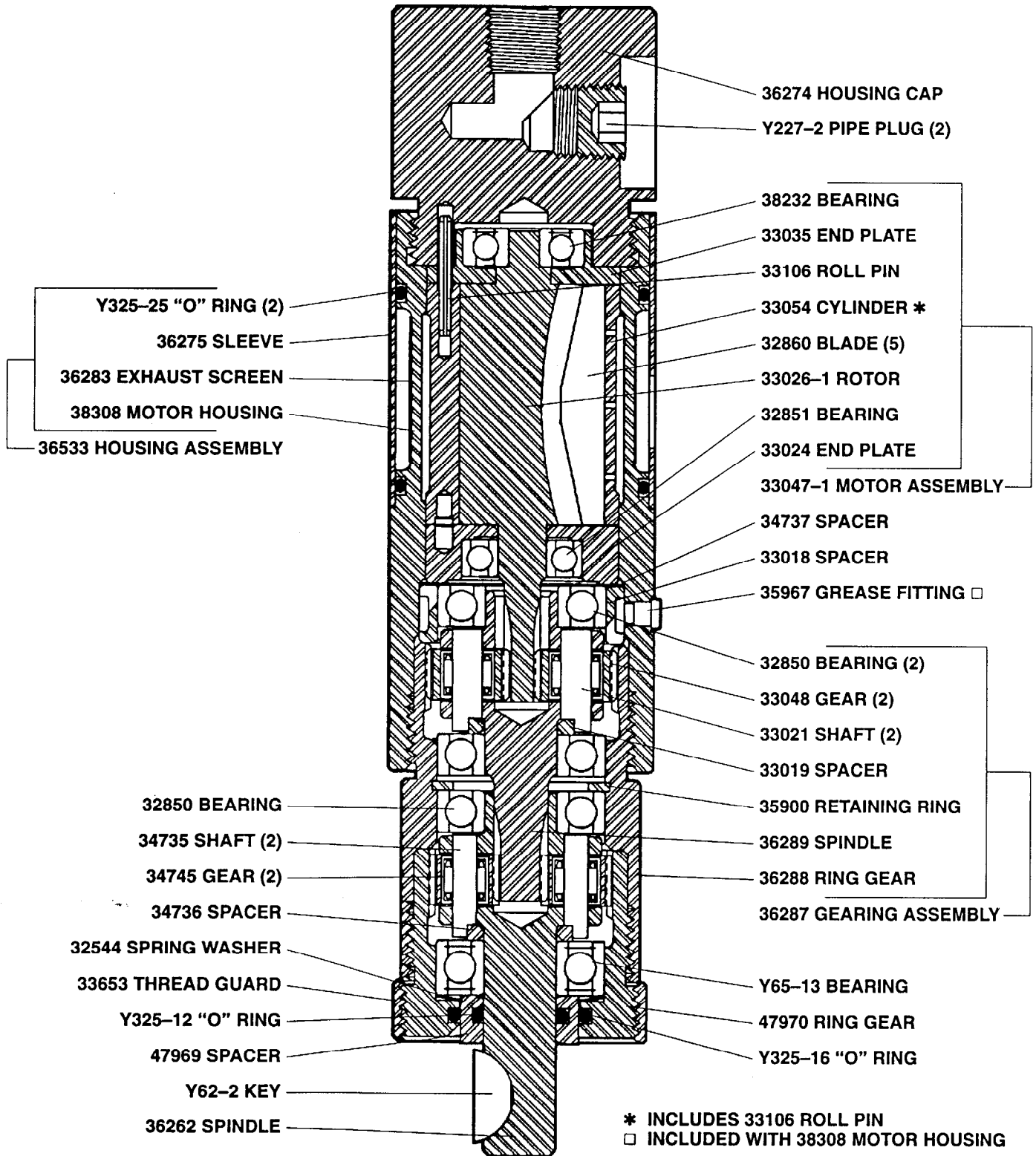




**PARTS LIST**  
**MODEL 7599-A**  
 "000" SERIES POWER UNIT  
 REVERSIBLE 550 R.P.M.

FORM: 3284-2

DATE: 6-1-95



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) 672-0801.

**ARO Tool Products**

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**INGERSOLL-RAND®**  
**PROFESSIONAL TOOLS**

## AIR AND LUBE REQUIREMENTS

Air pressure of 90 p.s.i.g. (6 bar) at the air inlet of the tool is required for maximum motor efficiency. If necessary, an air regulator should be installed to maintain this air pressure when the tool is in operation.

Filtered and oiled air will allow the tool to operate more efficiently and yield a longer life to operating parts and mechanisms. A line filter capable of filtering particles larger than 50 microns should be used with a line oiler.

Filter-Regulator-Lubricator (F-R-L) assembly model C28231-810 is recommended for use with this air tool. The capacity of this F-R-L is adequate to provide clean (40 micron) oiled and regulated air for the tool.

Flush tool with a solution of three parts cleaning solvent and one

part light oil after each 40 hours of operation. After flushing, apply a small amount of spindle oil in air inlet and run free for one minute to insure proper lubrication.

Gearing should be grease lubricated a minimum of once a month. CAUTION: An excessive amount of lubricant in a tool will affect the speed and power. Each set of planetary gearing should contain approximately 1/16 oz. (1.8 g) of grease.

Recommended hose size – 5/16" (8 mm) nominal inside diameter. Recommended lubricants: spindle oil 29665, 1 qt. (.9 liter) container for oiler and air inlet; grease 33153, 5 lb. (2.3 kg) can for gears and bearings, "O" ring lubricant 36460, 4 oz. (113 g) tube for lubrication and installation of "O" rings.

## MAINTENANCE

Disconnect air supply from tool or shut off air supply line to tool and exhaust (drain) air line to tool of compressed air before performing service or maintenance to tool.

Air tools are made of precision parts and should be handled with reasonable care when servicing. Excessive pressure exerted by a holding device may cause distortion of a part. Apply pressure evenly when disassembling (or assembling) parts which have a press fit. When removing or installing bearings, apply pressure to the bearing race that will be press fit to the mating part; if this is not practiced, Brinelling of the bearing races will occur, making replacement necessary. It is important that the correct tools and fixtures are used when servicing this air tool.

Disassembly should be done on a clean work bench with a clean cloth spread to prevent the loss of small parts. After disassembly is completed, all parts should be thoroughly washed in a clean solvent, blown dry with air and inspected for wear levels, abuse and

contamination.

Double sealed or shielded bearings should never be placed in solvent unless a good method of relubricating the bearing is available. Open bearings may be washed but should not be allowed to spin while being blown dry. When replacement parts are necessary, consult drawing containing the part for identification.

Before reassembling, lubricate parts where required. Use 33153 grease, or equivalent, in bearings. Use 36460 lubricant for "O" ring assembly. When assembling "O" rings, care must be exercised to prevent damage to the rubber sealing surfaces. A small amount of grease will usually hold steel balls and other small parts in place while assembling.

When ordering parts, be sure to list **part number, part name, model number and serial number of tool**. Use only genuine ARO® replacement parts

## DISASSEMBLY AND ASSEMBLY OF TOOLS

### DISASSEMBLY

**DRIVE GEARING** – Remove thread guard (33653), key (Y62-2) and spacer (47969). NOTE: Thread guard has left hand threads. Using wrenches on flats of ring gear (47970) and ring gear (36288), unthread and remove drive gearing from tool. Tap drive end of ring gear (47970) with a soft face hammer; spindle and components will loosen from ring gear. NOTE: Do not disassemble further unless damage is evident. To disassemble, remove spring washer (32544), bearing (Y65-13) and spacer (34736) from drive end of spindle. Alternately tap ends of shafts to remove bearing (32850). Remove shafts, releasing gears.

**AUXILIARY GEARING** – Remove drive gearing. Unthread and remove gearing assembly (36287) from tool. Disassembly of auxiliary gearing is similar to that of drive gearing.

**MOTOR** – Place tool in a suitable holding device, locating on flats of housing cap (36274). Using a wrench on motor housing (38308), unthread and remove from housing cap. Remove motor assembly (33047-1) from housing. Grasp cylinder in one hand and tap drive end of rotor with a soft face hammer; motor will come apart. After removing motor housing from housing cap, sleeve (36275) and screen (36283) may be removed.

### ASSEMBLY

**MOTOR** – Pack bearings with ARO 33153 grease before assembling. Assemble bearing (38232) to end plate (33035), pressing on outer race of bearing. Assemble end plate (33035) to rotor, pressing on inner race of bearing. Coat blades (32860) with ARO 29665 spindle oil and assemble to rotor slots – straight side out. Coat i.d. of cylinder (33054) with spindle oil and assemble over rotor, aligning roll pin in cylinder with hole in end plate (33035). Assemble bearing (32851) to end plate (33024), pressing on outer

race of bearing. Assemble end plate to cylinder, pressing on inner race of bearing. Be sure rotor does not bind. Lubricate "O" rings (Y325-25) and assemble to motor housing. Assemble screen (36283) and sleeve (36275) to motor housing. Place housing cap (36274) in a suitable holding device, locating on flats, with motor end positioned upward. Place motor assembly on housing cap, aligning roll pin in cylinder with hole provided in housing cap (.078" diameter x 5/16" deep). Assemble motor housing over motor and secure to housing cap. Assemble spacers (34737 and 33018) to tool.

**AUXILIARY GEARING** – Pack bearings and lubricate gears liberally with ARO 33153 grease before assembling. Gearing should contain approximately 1/16 oz. (1.8 g) of grease. Assemble spacer (33019) and bearing (32850) to drive end of spindle (36289). Assemble gears (33048) to spindle, securing with shafts (33021). Align notch in shafts with spacer. Assemble bearing (32850) to spindle and assemble spindle to ring gear (36288). Assemble ring gear to tool.

**DRIVE GEARING** – Pack bearings and lubricate gears liberally with ARO 33153 grease before assembling. Gearing should contain approximately 1/16 oz. (1.8 g) of grease. Lubricate "O" ring (Y325-16) and assemble to ring gear. Assemble spacer (34736) and bearing (Y65-13) to spindle. Assemble gears (34745) to spindle, securing with shafts (34735). Align notch in shafts with spacer. Assemble bearing (32850) to spindle. Assemble spring washer (32544) and spindle to ring gear (47970). NOTE: Assemble spring washer with large diameter facing bearing. Assemble ring gear to tool. Assemble thread guard to tool. NOTE: Thread guard has left hand threads. Lubricate "O" ring (Y325-12) and assemble to groove in spacer (47969) and assemble spacer to spindle.