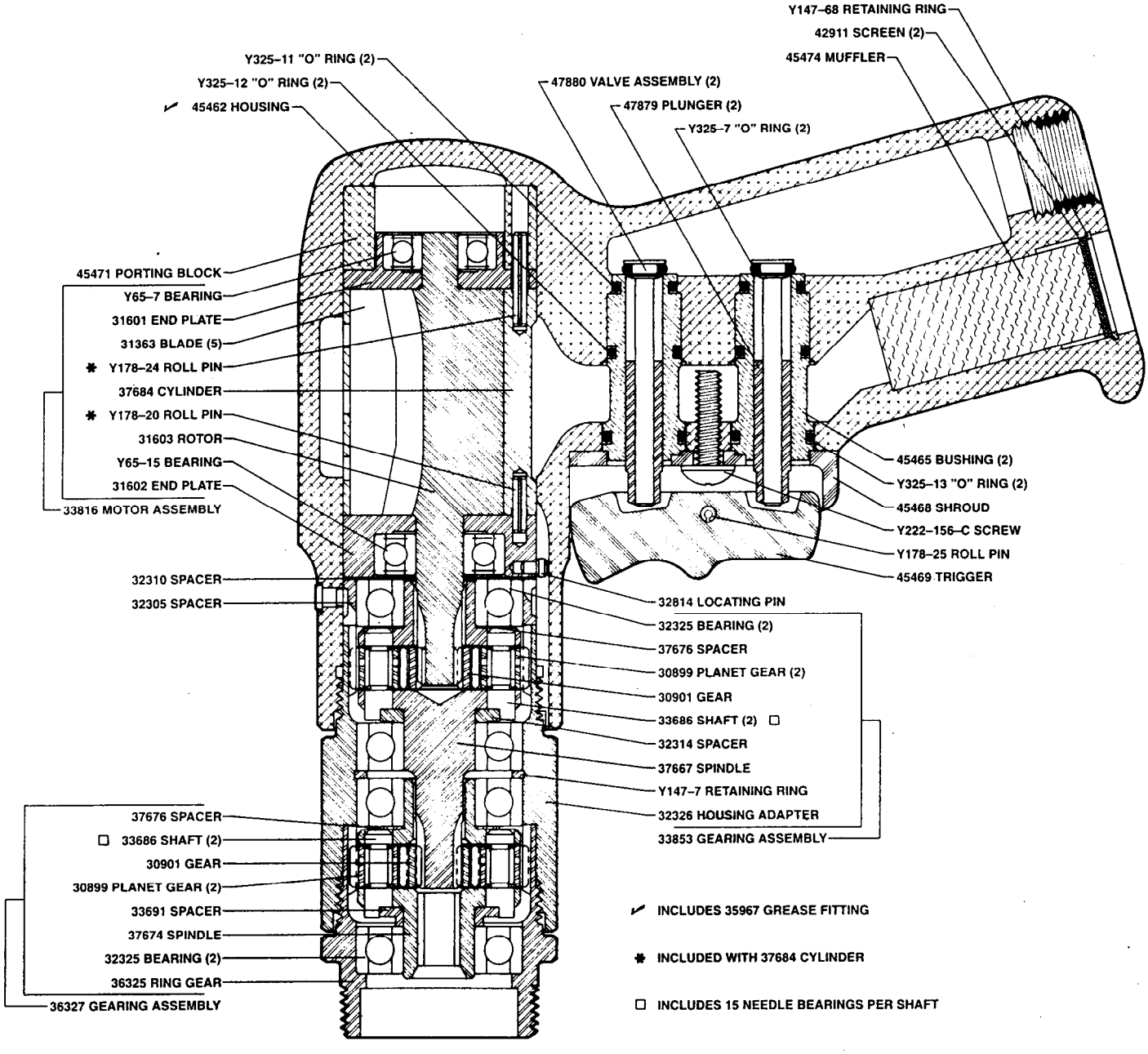
PARTS LIST

MODEL 8518
"O" SERIES POWER UNIT
PISTOL GRIP REVERSIBLE 900 R.P.M.

FORM 2918-2
REV. 11–9–92



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
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INGERSOLL-RAND®
PROFESSIONAL TOOLS

OPERATING PRECAUTIONS

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.

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 pressure when 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 128231–800 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.

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 the press fit to the mating part; if this is not practiced, Brinelling of the bearing races may 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 re–lubricating 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 REASSEMBLY OF TOOLS

DISASSEMBLY

DRIVE GEARING – Using wrenches on flats of ring gear and housing adapter, unthread and remove drive gearing assembly (36327) from tool. Tap drive end of ring gear 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 bearing (32325) and spacer (33691) from drive end of spindle. Alternately tap ends of shafts to remove bearing. Remove shafts, releasing gears.

AUXILIARY GEARING – Remove drive gearing. Unthread and remove gearing assembly (33853) from tool. Disassembly of auxiliary gearing is similar to that of drive gearing.

MOTOR – Remove gearing from tool. Tap front edge of housing to remove motor assembly. Grasp cylinder in one hand and tap drive end of rotor with a soft face hammer; motor will come apart.

HOUSING – Remove roll pin (Y178–25), releasing trigger (45469). Remove screw (Y222–156–C), releasing shroud (45468). Grasp end of valve assembly (47880) and pull to remove valve assembly and bushing (45465). Remove retaining ring (Y147–68), releasing screens (42911) and muffler (45474).

REASSEMBLY

HOUSING – NOTE: Whenever a part containing "O" rings has been removed from tool, it is recommended the "O" rings be replaced. Grease all "O" rings before assembly. Assemble "O" rings (Y325–13, Y325–12 and Y325–11) to bushing (45465). Assemble "O" ring (Y325–7) to valve assembly (47880). Lubricate plunger (47879) and valve assembly (47880) with ARO 29665 spindle oil. Assemble plunger (47879) and valve assemblies (47880) to bushings (45465) and assemble bushings to housing, aligning flats of bushings with flats of shroud. Assemble shroud (45468) to housing, securing with screw (Y222–156–C). Assemble trigger to shroud, securing with roll pin (Y178–25). Assemble muffler (45474) and screens (42911) to housing, securing with retaining ring (Y147–68).

MOTOR – Assemble bearing (Y65–7) to end plate (31601), pressing on outer race of bearing. Assemble end plate (31601) to rotor (31603), pressing on inner race of bearing. Coat blades (31363) with ARO 29665 spindle oil and assemble to rotor slots – straight side out. Coat i.d. of cylinder (37684) with spindle oil and assemble over rotor, aligning roll pin (Y178–24) with hole in end plate (31601). Assemble bearing (Y65–15) to end plate (31602), pressing on outer race of bearing. Aligning hole in end plate with roll pin (Y178–20), assemble end plate to cylinder, pressing on inner race of bearing. Assemble locating pin (32814) to end plate (31602). Assemble porting block (45471) to end plate (31601), with milled areas towards the end plate. Be sure rotor does not bind and assemble motor to housing, aligning locating pin with slot in housing. Assemble spacers (32310 and 32305) to tool.

AUXILIARY GEARING – Pack bearings and lubricate gears liberally with ARO 33153 grease when assembling. Gearing should contain approximately 1/8 oz. of grease. Assemble spacer (32314) and gears (30899 and 30901) to spindle, securing gears (30899) with shafts (33686). Align notch in shafts with spacer. NOTE: Shafts (33686) contain 15 needle bearings per shaft. Assemble spacer (37676) and bearings (32325) to spindle. Assemble spindle to housing adapter (32326)and assemble to tool.

DRIVE GEARING – Assembly of drive gearing is similar to that of auxiliary gearing.