



Tool & Hoist Products

# PARTS LIST

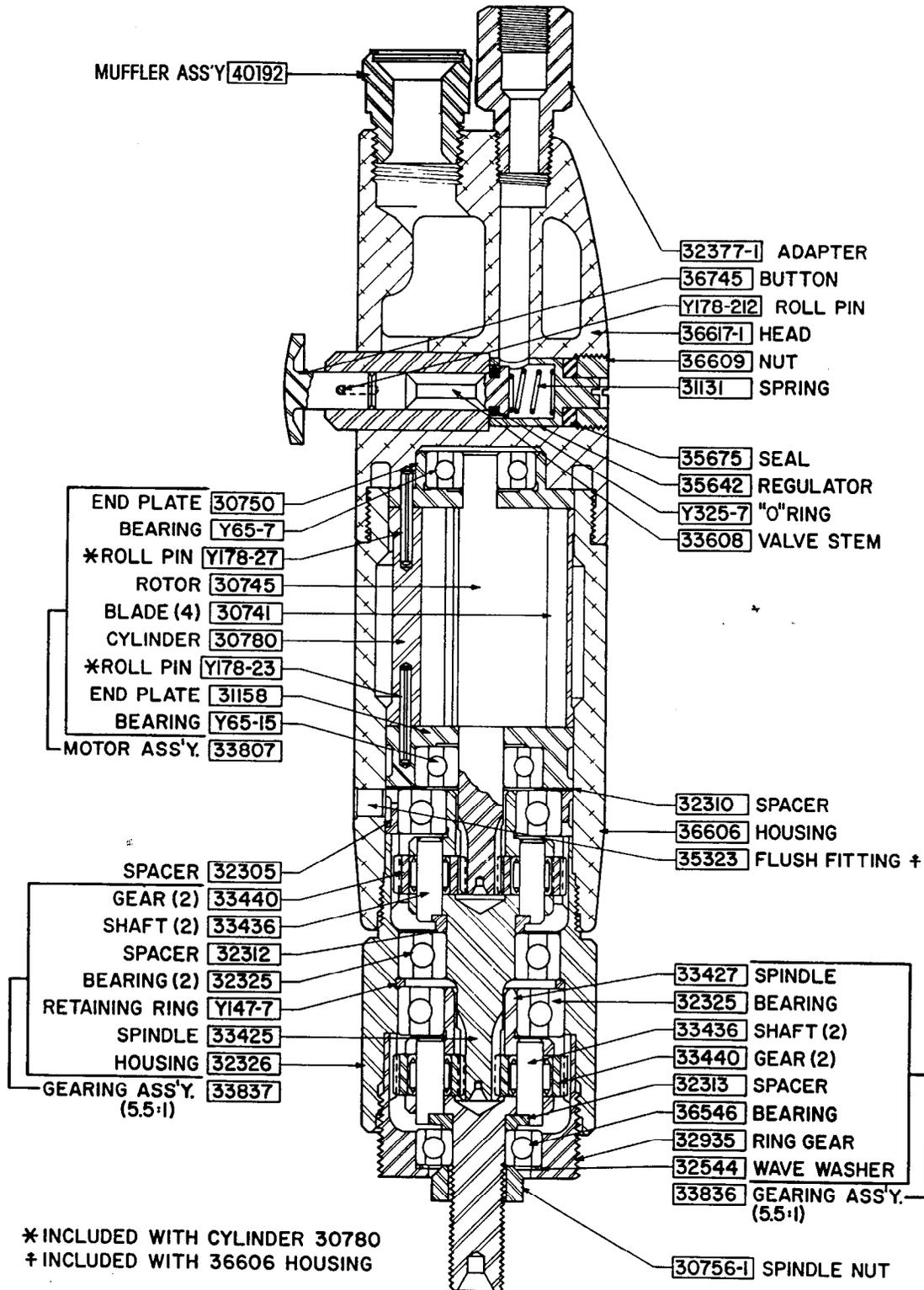
"O" SERIES DRILL  
MODEL 7254-C1

FORM 2106-2

BUTTON TYPE

500 R.P.M.

REV. 8-31-92



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 128241-800 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 contami-

nation.

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 seating 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

**HEAD** — To remove valve components from housing, remove nut (36609).

**GEARING** — Holding motor housing with a strap wrench, remove gearing from tool. Separate drive and auxiliary gearing assemblies using wrenches on flats of housing and ring gear. Grasp ring gear in one hand and tap drive end of spindle with a soft face hammer; spindle and components will loosen from ring gear. Gearing should not be disassembled further unless it is necessary to replace a part, as Brinelling of the bearing races may occur, making replacement necessary. To disassemble completely, remove bearing (36546) and spacer (32313) from drive end of spindle. Alternately tap ends of shafts to loosen bearing (32325) from opposite end of spindle. Remove shafts to remove gears from spindle. Disassembly of auxiliary gearing will be similar to that of drive gearing.

**MOTOR** — Motor assembly may be removed from housing after the removal of gearing. Remove motor from housing, grasp cylinder in one hand and tap splined end of rotor with a soft face hammer; motor will come apart.

### REASSEMBLY

**HEAD** — Lubricate "O" ring (Y325-7) and assemble to valve stem (33608). Assemble valve stem, spring (31131), air regulator (35642) and seal (35675) into valve opening in head and secure with nut (36609). Be sure air inlet of regulator is aligned with air inlet of

housing.

**MOTOR** — Assemble bearings into end plates and assemble end plate (30750) to rotor. When assembling bearing to rotor, be sure pressure is applied squarely to the inside race of bearing. Coat i.d. of cylinder with spindle oil and assemble cylinder over rotor, aligning air inlets and roll pin of cylinder with air inlet and hole in end plate for roll pin. Assemble blades to rotor and assemble front end plate (31158) to rotor, aligning hole in end plate with roll pin in cylinder. Be sure rotor does not bind (if rotor binds, tap splined end lightly to loosen) and assemble to tool.

**NOTE:** To assemble motor to tool, place head of tool in a suitable holding device, with the "motor end" in an upright position. Assemble motor assembly to head, aligning roll pin in motor with hole provided in head. Slip motor housing over motor and secure to head. Assemble spacers (32310 and 32305) and gearing to tool.

**GEARING** — Assemble spacer and bearing to drive end of spindle. Assemble gears to spindle and secure with shafts, aligning notch in end of shafts with spacer. Assemble bearing to opposite end of spindle. Be sure large diameter of washer (32544) is facing bearing and assemble, with spindle and components, to ring gear. Gearing should contain approximately 1/8 oz. of grease. Assembly of auxiliary gearing will be similar to that of drive gearing. Assemble gearing (33837), gearing (33836) and spindle nut to tool.