



Tool & Hoist Products

SALES AND ENGINEERING DATA

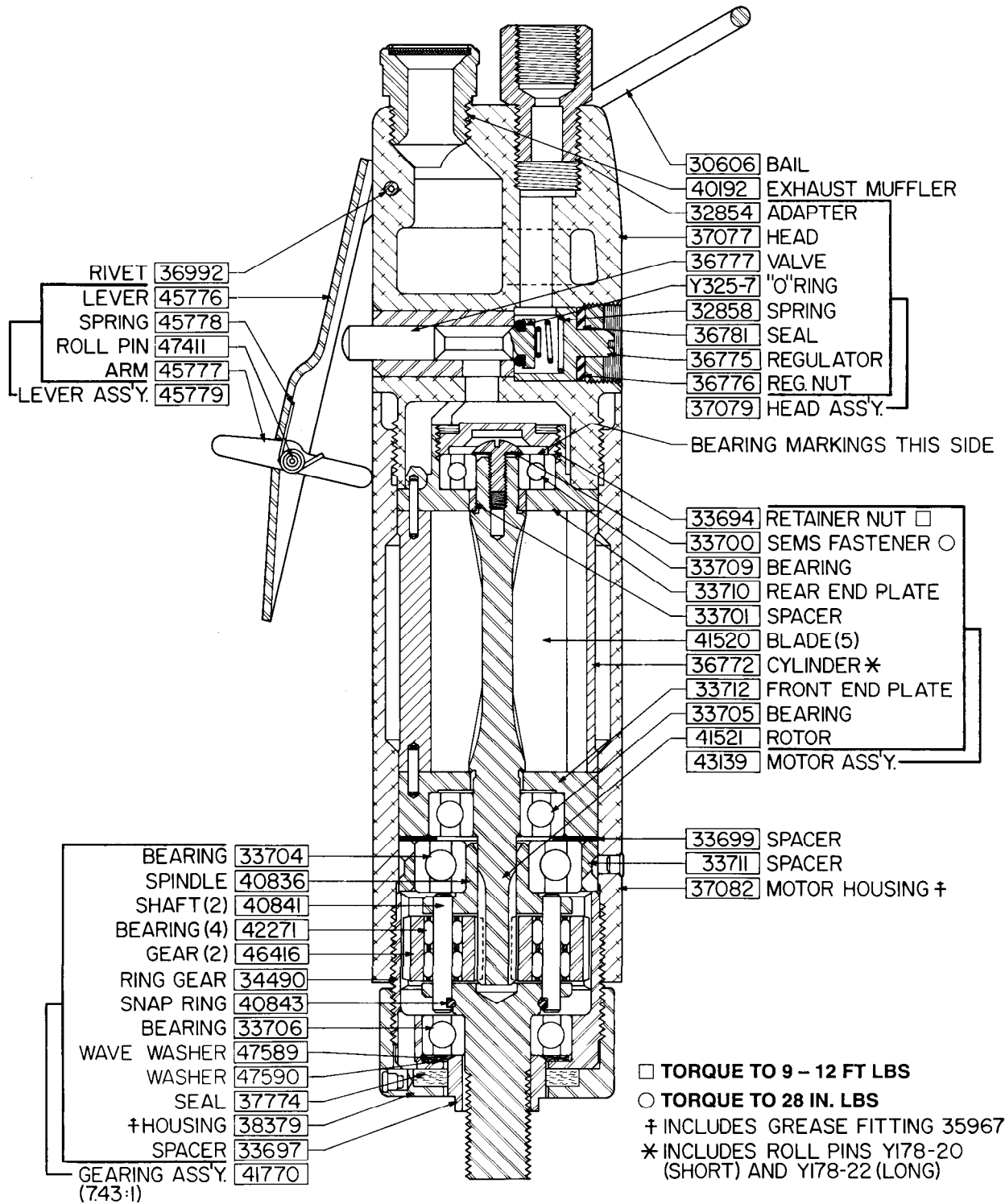
2200 SERIES POWER UNIT
MODEL 7852-E-1

2,400 R.P.M.

LEVER THROTTLE

FORM: 2201-2

DATE: 8-9-93



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

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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 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 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 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

GEARING – Use a wrench on flats of housing (38379) to remove from tool. Using a wrench on flats of ring gear (34490), unthread and remove gearing assembly from tool. Tap threaded 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 (33706) from threaded end of spindle. Rotate snap ring so open portion of ring will allow removal of shaft (40841) and gear (46416). Repeat for opposite shaft and gear. To remove bearing (33704), insert shafts into spindle and alternately tap ends of shafts, loosening bearing from spindle.

MOTOR – The motor assembly may be removed from housing after the removal of gearing or head. Remove retaining nut (33694) and fastener (33700). Grasp cylinder in one hand and tap splined end of rotor with a soft face hammer; motor will come apart.

HEAD – Remove nut (36776) and valve parts may easily be removed.

ASSEMBLY

HEAD – Assemble "O" ring (Y325-7) and throttle valve (36777), spring (32858), air regulator (36775) and seal (36781) into valve opening in head and secure with nut (36776).

MOTOR – Assemble rear end plate (33710), spacer (33701) and bearing (33709) to rotor (41521) and secure with sems fastener (33700). NOTE: Torque fastener to 28 in. lbs. Assemble rotor blades (41520) to rotor and assemble cylinder (36772) over rotor to rear end plate. Assemble front end plate (33712) and bearing (33705) to cylinder. Assemble retaining nut (33694) to rear end plate. Be sure rotor spins freely and assemble motor assembly to motor housing (37082). Assemble motor housing to head assembly (37079). Assemble spacer (33699) into motor housing.

GEARING – Pack bearings and lubricate gears liberally with ARO 33153 grease, or equivalent, when assembling. Assemble gears and shafts to spindle, aligning notch in shafts with snap ring. Rotate open portion of snap ring 90° from shafts, securing shafts in place. Assemble bearings to spindle and assemble spindle, with washer (47590) and wavy washer (47589), into ring gear. Assemble gearing to tool. Assemble housing (38379), with seal (37774) and spacer (33697), to tool.