ARO Tool Products

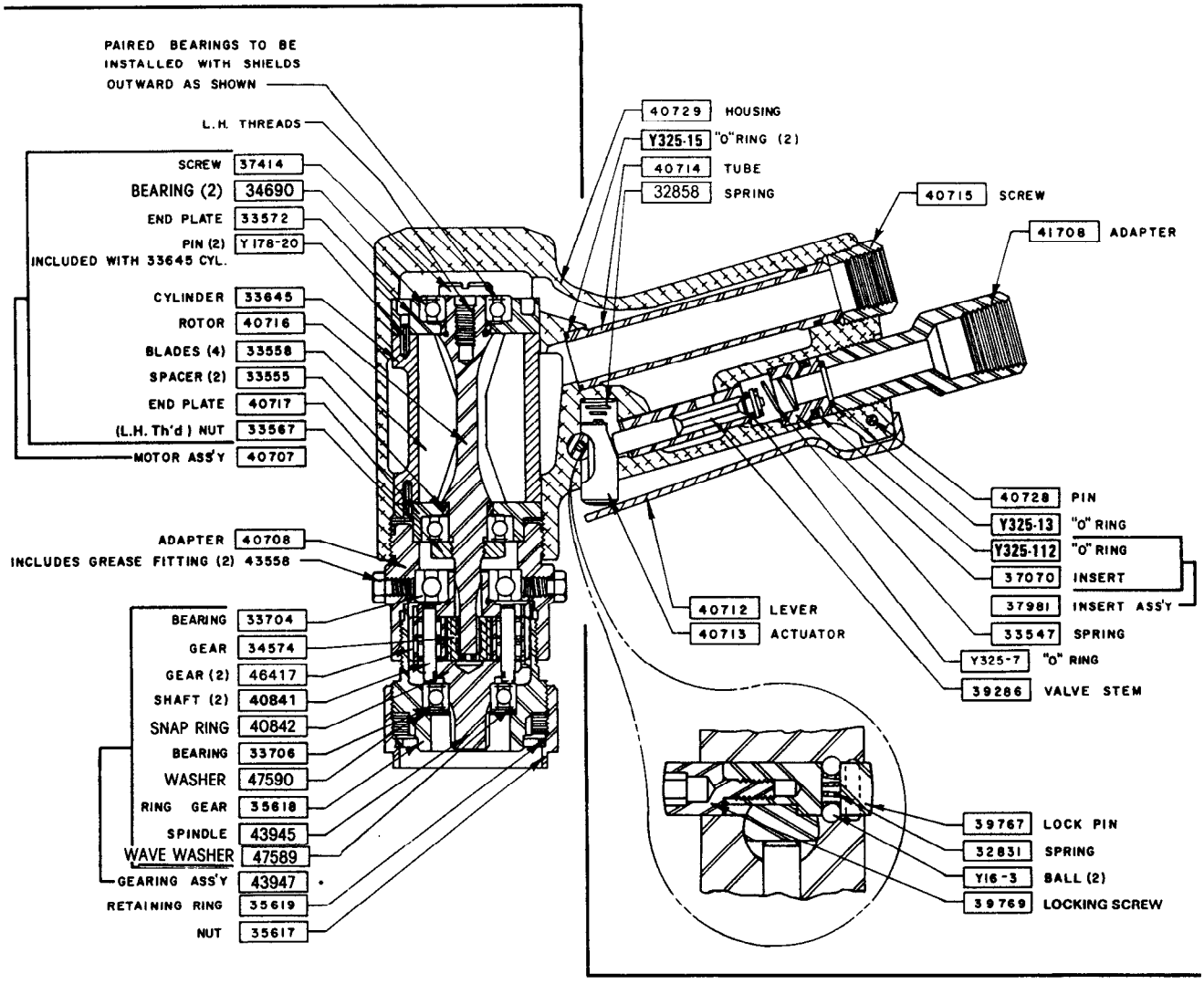
SALES AND ENGINEERING DATA

PISTOL GRIP POWER UNIT
MODEL 8086–1
4000 R.P.M.

FORM: 797–2

DATE: 11–10–95

NOTE: INSTALL MOTOR WITH EXHAUST PORTS DIRECTED APPROXIMATELY 180° TO THE PISTOL GRIP HANDLE.



NOTE: PARTS LISTED ABOVE HEAVY LINES ARE INCLUDED IN 40706 HOUSING AND VALVE ASSEMBLY.

* INCLUDES 42271 BEARING (4)

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

Ingersoll–Rand Company
1725 U.S. No. 1 North • P.O. Box 8000 • Southern Pines, NC 28388–8000

ARO®

Part of worldwide Ingersoll-Rand

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 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.

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–Remove ring gear (35618) from adapter (40708). Tap splined end of spindle (43945) to remove from ring gear. Remove bearing (33706). Rotate snap ring (40842) to clear one shaft (40841). Remove shaft, releasing one gear (46417). Repeat for opposite shaft and gear.

MOTOR – Remove adapter (40708), grasp end of rotor and remove motor assembly (40707) from housing. Remove nut (33567) and screw (37414). NOTE: Nut (33567) and screw (37414) have LEFT HAND threads. Grasp cylinder (33645) in one hand and tap splined end of rotor with a soft face hammer; motor will come apart.

VALVE – Remove adapter (41708), depress lever (40712) and valve parts will drop out of housing. To remove actuator (40713), remove locking screw (39769) and lock pin (39767), releasing actuator and spring (32858).

ASSEMBLY

VALVE – Assemble spring (32858) and actuator (40713) to housing. Assemble spring (32831) and balls (Y16–3) to lock pin (39767) and assemble to housing. Secure lock pin and actuator with locking screw (39769). Assemble valve stem (39286) and "O" ring (Y325–7) to housing. Assemble "O" ring (Y325–112) and spring (33547) to insert (37070) and assemble to housing. Assemble "O" ring (Y325–13) to adapter (41708) and assemble to housing.

GEARING – When assembling gearing, pack bearing (33704) with ARO 33153 grease. Pack inner bearings of gears with ARO 33153 grease. Coat all gear teeth, teeth of ring gear and teeth of rotor shaft with ARO 33153 grease. Assemble bearing (33704) and snap ring (40842) to spindle. Rotate snap ring to allow the installation of one shaft (40841) in spindle. Assemble one gear (46417) and two needle bearings (42271) to spindle and secure with shaft. Rotate snap ring to clear opposite shaft hole. Assemble gear (34574) and gear (46417), with needle bearings (42271), to spindle and secure with shaft (40841). Rotate snap ring approximately 90° from either shaft, locking shafts in place. Assemble bearing (33706) to spindle and assemble spindle, with washer (47590) and wave washer (47589), to ring gear. Gearing should contain approximately 1/4 oz. (3.5 g) of grease and should be lubricated to a minimum of once a month. Assemble gearing to adapter (40708).

MOTOR – Pack bearings (34690) with ARO 33153 grease and assemble into end plates with shielded sides out. NOTE: Press on outer race of bearings. Assemble end plate (33572) and spacer (33555) to rotor, pressing on inner race of bearing. Secure with screw (37414). Assemble cylinder over rotor to end plate, aligning air inlet holes in cylinder with inlet holes in end plate. Assemble blades to rotor – straight side out. Assemble end plate (40717) and spacer (33555) to rotor and cylinder, aligning roll pin with hole in end plate. NOTE: Press on inner race of bearing. Secure with nut (33567) – LEFT HAND THREADS. Be sure the motor does not bind and assemble to housing. NOTE: Install motor assembly into housing with the exhaust ports directed approximately 180° to the pistol grip handle. Secure motor into housing with adapter (40708).