



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
©1995 THE ARO CORPORATION • PRINTED IN U.S.A.



Part of worldwide Ingersoll-Rand

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

RIGHT-ANGLE ATTACHMENT – Loosen lock ring (35617) completely and pull right-angle from gearing. Remove lock nut (38272) and pull shaft and components from housing. To remove gear, remove nut (38228). Remove lock nut (35622-1) to remove pinion and bearing (33706) from housing.

DRIVE GEARING – Separate gearing assemblies by using wrenches on flats of ring gear. Holding ring gear in one hand, remove spline coupler (35621) and tap splined end of spindle with a soft face hammer; spindle and components will loosen from ring gear. Remove bearing. Rotate snap ring (40842) to allow removal of one shaft. Remove shaft, releasing gear from spindle. Repeat for opposite shaft and gear.

AUXILIARY GEARING – Loosen lock nut (35831) on ring gear. Using a wrench on flats of motor housing and on flats of ring gear, unthread and remove. Hold ring gear in one hand and tap splined end of spindle with a soft face hammer; spindle and components will loosen from ring gear. Remove bearing. Rotate snap ring so the open portion of ring will allow the removal of one shaft. Remove shaft, releasing gear from spindle. Repeat for opposite shaft and gear.

MOTOR – After removal of gearing, motor assembly may be removed from housing. Remove nut (33694) and sems fastener (33700). Grasp ring gear in one hand and tap splined end of rotor with a soft face hammer; motor will come apart. To remove manifold, unscrew housing from head and slip "O" ring and manifold off.

ASSEMBLY

MOTOR – Assemble bearings into end plates. NOTE: Assemble bearing (33709) into end plate (34485) with lettered face outward. Assemble end plate (34485), with spacer (33701), to rotor and secure with sems fastener (33700). NOTE: Torque fastener to 28 in. lbs. Assemble cylinder over rotor and to end plate, aligning roll pin with hole in end plate. Assemble blades to rotor. Assemble end plate (34486) to rotor and cylinder, aligning hole in end plate with roll pin in cylinder.

Assemble nut (33694) to end plate (34485) and tighten to 9–12 lbs. Insure rotor does not bind. If rotor binds, lightly tap splined end of rotor with a soft face hammer.

Remove housing cap (34497) from housing (44160) and secure in a suitable holding device, motor end up. Place motor on housing cap, aligning roll pin with hole in cap. Slip motor housing, with manifold and "O" ring attached, over motor and secure to housing cap. Assemble spacers (33699 and 33711) and gearing to tool.

AUXILIARY GEARING – Assemble snap ring (40842) to spindle (40839), if removed, and rotate opening in ring, allowing shaft to be inserted and assemble one gear (46417) and shaft to spindle. Insert gear (34574) and repeat for assembly of other gear and shaft. After both gears and shafts are assembled to spindle, rotate opening of ring to insure both shafts are secured by ring. Assemble bearings to spindle and assemble to ring gear with retaining ring (33708). Gearing should contain approximately 1/4 oz. grease. Assemble gearing to housing with lock nut (35831).

DRIVE GEARING – Assemble snap ring to spindle (43945), if removed, and rotate snap ring (40842), allowing shaft to be inserted and assemble one gear (46417) and shaft to spindle. Insert gear (34574) and repeat for assembly of other gear and shaft. After both gears and shafts are assembled to spindle, rotate snap ring (40842) to insure both shafts are secured. Assemble bearings (33704 and 33706) to ring gear (35618) with washer (47590) and wave washer (47589). Gearing should contain approximately 1/4 oz. grease. Assemble gearing to tool.

RIGHT-ANGLE ATTACHMENT – Assemble bearing (33706) to pinion and assemble to housing. Secure pinion to housing with lock nut (35622-1). Assemble bearing (35629) and gear to shaft and secure with nut (38228). Assemble shaft and spacer (32797) to housing and secure with lock nut (38272). Assemble splined coupling (35621) and right-angle to tool. Right-angle assembly should contain 1/8 oz. grease.