



Tool & Hoist Products

SALES AND ENGINEERING DATA

0/2200 SERIES POWER UNIT
MODEL 8049-4B

500 R.P.M. TWIST THROTTLE

FORM: 1551-2

DATE: 8-9-93

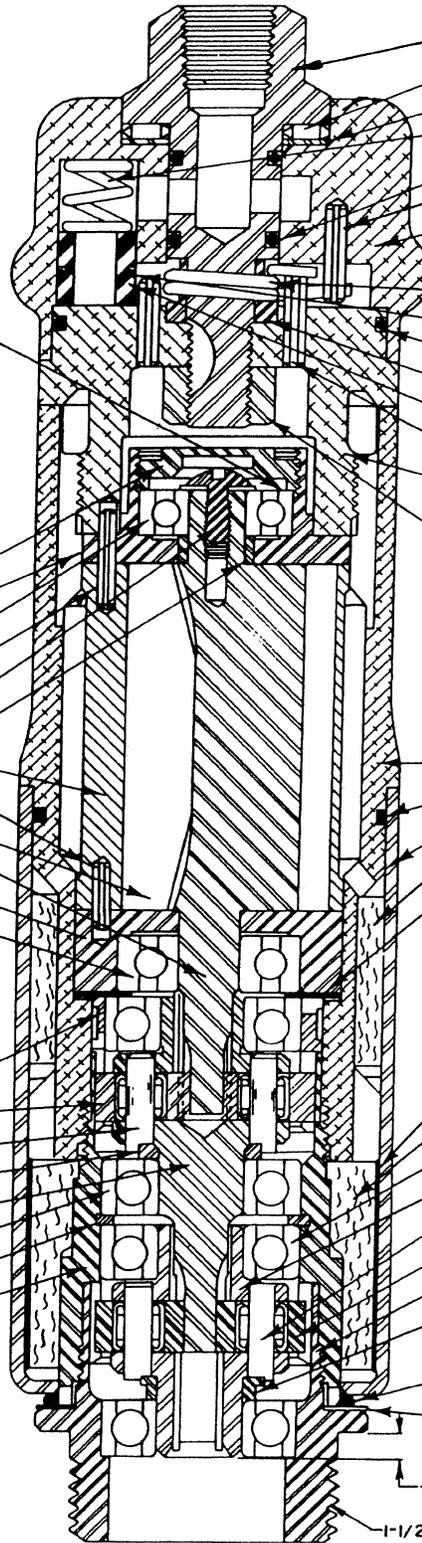
□ TORQUE TO 9 - 12 FT LBS

○ TORQUE TO 28 IN. LBS

BEARING IDENTIFICATION
MARKINGS THIS SIDE

- NUT 33694
- REAR END PLATE 34485
- BEARING 33709
- * ROLL PIN Y178-23
- SCREW 33700
- SPACER 33701
- CYLINDER 38301-1
- * ROLL PIN Y178-20
- BLADE (5) 41520
- ROTOR 39942-1
- FRONT END PLATE 34486
- BEARING 33705
- MOTOR ASSY 39947-1

- SPACER 32305
- GEAR (2) 33440
- SHAFT (2) 33436
- SPACER 32312
- SPINDLE 33425
- BEARING (2) 32325
- RETAINING RING Y147-7
- HOUSING 38653
- (5.56:1) GEARING ASSY 38679



- 42690 ADAPTER
- 38995 THRUST BEARING
- 38996 BEARING RACE
- 38993 SPRING (2)
- 34276 "O" RING (2)
- Y178-39 ROLL PIN
- 44827 SLEEVE
- 44829 SLEEVE & PIN ASS'Y
- 39965-1 SPRING
- Y325-11 "O" RING (2)
- Y325-31 "O" RING
- 40340 SPACER
- 38992 BUSHING (2)
- Y178-39 ROLL PIN (2)
- 39964 HEAD
- 39966 HEAD & PIN ASS'Y
- Y11-6-C NUT
- Y16-204 BALL
- 31247 SPRING
- 44830 HEAD ASS'Y

● PARTS NOT SHOWN

- 44826 HOUSING
- Y325-32 "O" RING
- 44825 EXHAUST SLEEVE
- 43943 MUFFLER PAD
- 33699 SPACER

* INCLUDED WITH CYLINDER 38301-1

- 43944 SCREEN
- 44831 MUFFLER PAD
- 32325 (2) BEARING
- 36326 SPINDLE
- 33436 (2) SHAFT
- 33440 (2) GEAR
- 38654 RING GEAR
- 33693 SPACER
- 38655 (5.56:1) GEARING ASSY
- Y325-028 "O" RING
- 44828 WASHER

.103
.130
1-1/2 - 12-U.N.F. TH'D

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
1725 U.S. No. 1 North • P.O. Box 8000 • Southern Pines, NC 28388-8000
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INGERSOLL-RAND®
PROFESSIONAL TOOLS

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. The filter-regulator-lubricator must be installed on the stationary air line, in that order, with the lubricator nearest to the tool. Never mount the unit on the detachable flexible hose to 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.

Gearing should be grease lubricated approximately every 160 hours of operation. **CAUTION:** An excessive amount of lubricant in a tool will affect the speed and power. Each set of planetary gearing should contain approximately 1/8 oz. (3.5 g) of grease.

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 - Unthread and remove gearing assembly (38655). Remove exhaust sleeve, screen and muffler pads to remove auxiliary gearing assembly. Remove spindle and components from ring gear. Remove bearing(s) and shafts to remove gears from spindle.

MOTOR - Unthread and remove motor housing from head assembly. Remove motor assembly from housing and remove 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 ASSEMBLY - Unthread and remove motor housing and motor assembly from head. Remove nut (Y11-6-C). Secure head (39964) and unthread and remove adapter (42690), releasing sleeve assembly (44829) and components.

ASSEMBLY

HEAD ASSEMBLY - Lubricate "O" rings with "O" ring lube and assemble "O" rings to adapter (42690), bushings (38992) and head (39964). Assemble springs (38993), bushings (38992), torsion spring (39965-1) and spacer (40340) to sleeve (44829) and assemble to head, taking care to align legs of torsion spring with roll

pins. Assemble bearing race and thrust race to sleeve. Thread adapter to head and assemble nut (Y11-6-C) to adapter.

MOTOR - Pack bearings with ARO 33153 grease, or equivalent, and coat i.d. of cylinder with ARO 29665 spindle oil. Assemble bearing (33709) to end plate (34485) with identification markings on bearing facing out. Assemble bearing (33705) to end plate (34486). 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, aligning air inlets of cylinder and end plate and roll pin (Y178-23) with end plate. Assemble blades to rotor and assemble end plate (34486) to rotor and cylinder, aligning roll pin (Y178-20) with hole in end plate. Assemble nut (33694) to end plate and torque to 9 - 12 ft lbs. Be sure rotor does not bind (if rotor binds, tap splined end lightly with a soft face hammer to loosen) and assemble to housing, with spacer (33699).

GEARING - Pack bearings and lubricate gears liberally with ARO 33153 grease, or equivalent. Assemble spacer and gears to spindle and secure gears with shafts, aligning notch in ends of shafts with spacer. Assemble bearings to spindle and assemble to ring gear.