



**Part No. 49999-514**

Edition 2

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## **Power Motors**

**8599, Lever Head (225 RPM)**

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# **Operation and Maintenance Information**



**Save These Instructions**



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**⚠ WARNING**

**General Product Safety Information**

- Read and understand this manual before operating this product.
  - It is your responsibility to make this safety information available to others that will operate this product.
  - Failure to observe the following warnings could result in injury.
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**⚠ WARNING**

- Always operate, inspect and maintain this tool in accordance with American National Standards Institute Safety Code for Portable Air Tools (ANSI B186.1).
  - For safety, top performance and maximum durability of parts, operate this motor at 90 psig (6.2 bar/620 kPa) air pressure at the inlet with 5/16" air supply hose.
  - Always turn off the air supply and disconnect the air supply hose before installing, removing or adjusting any accessory on this tool or before performing any maintenance on this tool.
  - Do not use damaged, frayed or deteriorated air hoses and fittings.
  - Keep hands, loose clothing and long hair away from rotating end of tool.
  - Always wear eye protection when operating or performing maintenance on this tool.
  - Always wear hearing protection when operating this tool.
  - Anticipate and be alert for sudden changes in motion during start up and operation of any power tool.
  - Motor shaft may continue to rotate briefly after throttle is released.
  - Do not lubricate tool with flammable or volatile liquids such as kerosene, diesel or jet fuel.
  - Do not remove any labels. Replace any damaged label.
  - Use accessories recommended by Ingersoll Rand.
  - This tool is not designed for working in explosive atmospheres.
  - This tool is not insulated against electric shock.
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**NOTICE**

- The use of other than genuine **Ingersoll Rand** replacement parts may result in safety hazards, decreased Motor performance and increased maintenance, and may invalidate all warranties.
  - **Ingersoll Rand** is not responsible for customer modification of motors for applications on which **Ingersoll Rand** was not consulted.
  - Repairs should be made only by authorized, trained personnel. Consult your nearest **Ingersoll Rand** Authorized Servicenter.
  - It is the responsibility of the employer to place the information in this manual into the hands of the operator.
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**Safety Symbol Identification**



Wear Respiratory Protection



Wear Eye Protection



Wear Hearing Protection



Read Manuals Before Operating Product

(Dwg. MHP2598)

**Safety Information - Explanation of Safety Signal Words**

<b>⚠ DANGER</b>	Indicates an imminently hazardous situation which, if not avoided, will result in death or serious injury.
<b>⚠ WARNING</b>	Indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.
<b>⚠ CAUTION</b>	Indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury or property damage.
<b>NOTICE</b>	Indicates information or a company policy that relates directly or indirectly to the safety of personnel or protection of property.

## Routine Lubrication Requirements

Lack of or an excessive amount of lubrication will affect the performance and life of this tool. Use only recommended lubricants at below time intervals:

Every 8 Hours of Tool Operation - Fill lubricator reservoir of recommended F.R.L. with spindle oil (29665). If an in line or air line lubricator is not used, apply several drops of spindle oil (29665) in air inlet.

## Air Supply Requirements

For maximum operating efficiency, the following air supply specifications should be maintained to this air tool:

- Air Pressure - 90 p.s.i.g. (6.2 Bar)
- Air Filtration - 50 Micron
- Lubricated Air Supply
- Hose Size - 5/16" (8 mm) I. d.

## Recommended Lubricants

After disassembly is complete, all parts, except sealed or shielded Bearings, should be washed with solvent. To relubricate parts, or for routine lubrication, use the following recommended lubricants:

Where Used	Ingersoll Rand Part #	Description
Air Motor	29665	1 qt Spindle Oil
O-Rings & Lip Seals	36460	4 oz. Stringy Lubricant
Gears and Bearings	33153	5 lb. "EP" - NLGI # 1 Grease

## Inspection, Maintenance And Installation

Disconnect air supply from the tool or shut off air supply and exhaust (drain) line of compressed air before performing maintenance or service to the tool. It is important that the tools be serviced and inspected at regular intervals for maintaining safe, trouble-free operation of the tool. Be sure the tool is receiving adequate lubrication, as failure to lubricate can create hazardous operating conditions resulting from excessive wear. Be sure that the air supply lines and connectors are of proper size to provide a sufficient quantity of air to the tool.

Tool maintenance and repair shall be performed by authorized, trained, competent personnel. Tools, hose and fittings shall be replaced if unsuitable for safe operation and responsibility should be assigned to be sure that all tools requiring guards or other safety devices shall be kept in legible condition. Maintenance and repair records should be maintained on all tools. Frequency of repair and the nature of the repairs can reveal unsafe application. Scheduled maintenance by competent authorized personnel should detect any mistreatment or abuse of the tool and worn parts. Corrective action should be taken before returning the tool for use.

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 re-lubricating the bearing is available. Open bearings may be washed but should not be allowed to spin while being blown dry.

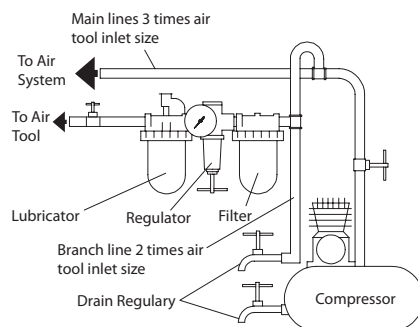
Upon reassembling, lubricate parts where required. Use 33153 grease, or equivalent, in bearings. Use 36460 lubricant for O-Ring assembly. When assembling O-Rings or parts adjacent O-Rings, care must be exercised to prevent damage to the rubber sealing surfaces. A small amount of grease will usually hold steel balls and other small parts in place while assembling. When replacement parts are necessary, consult drawing containing the part for identification.

Every 160 Hours of Tool Operation - Flush tool with a solution of three (3) parts cleaning solvent to one (1) part spindle oil (or use kerosene).

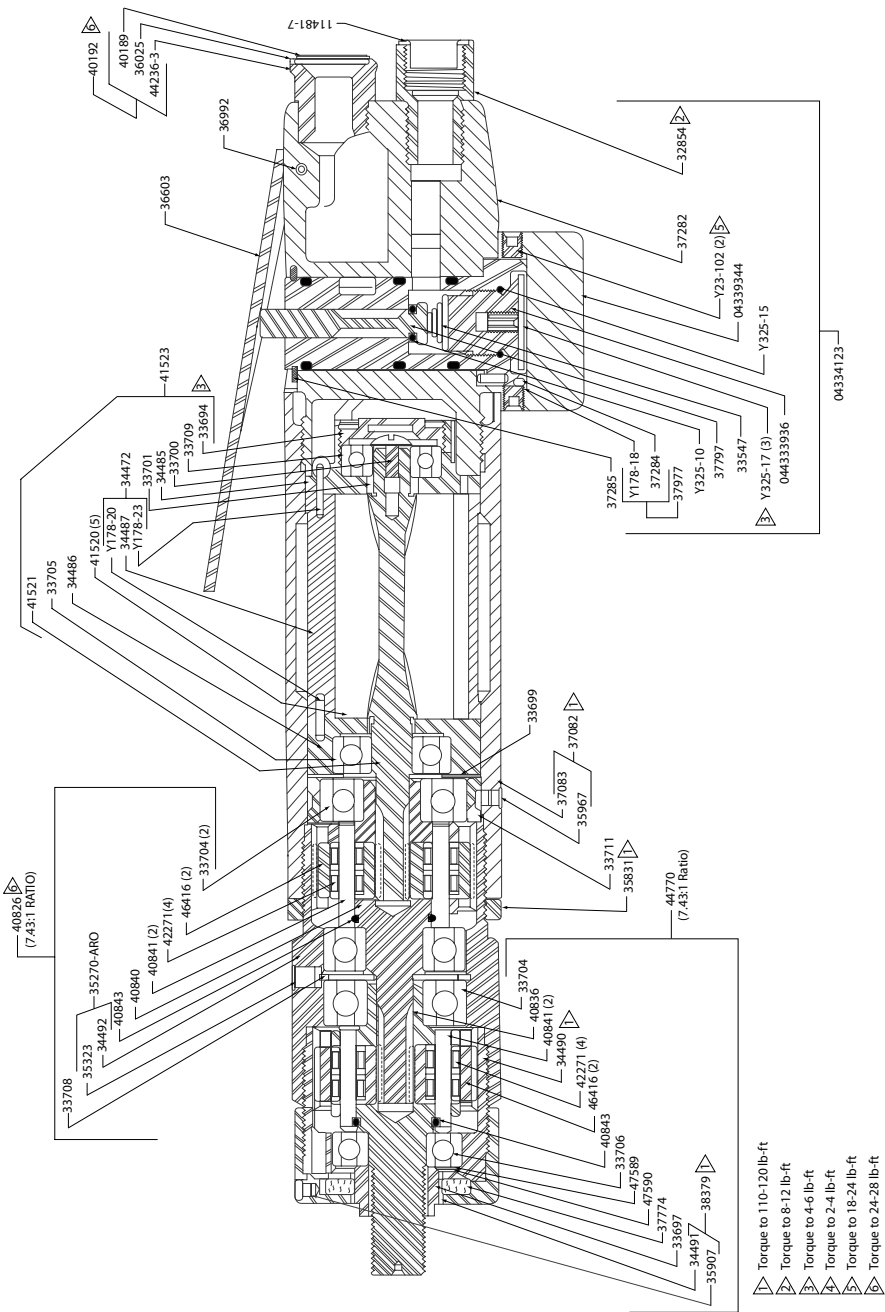
Every 160 Hours of Tool Operation - Lubricate gearing. Pack bearings, coat shafts and lubricate gears with NLGI #1 "EP" grease (33153).

A model C28221-800 air line FILTER/REGULATOR/LUBRICATOR (F.R.L.) is recommended to maintain the above air supply specifications.

Always use clean, dry air. Dust, corrosive fumes and/or excessive moisture can damage the motor of an air tool. An air line filter can greatly increase the life of an air tool. The filter removes rust, scale, moisture and other debris from the air lines. Low air pressure (less than 90 p.s.i.g.) reduces the speed of the air tool. High air pressure (more than 90 p.s.i.g.) raises performance beyond the rated capacity of the tool and could cause injury. Shown below is a typical piping arrangement.



Lever Head (225 RPM) (55.2:1 Total Reduction)- Sectional View



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