

Operating Instructions

Please read and save these instructions. Read carefully before attempting to assemble, install, operate or maintain the product described. Protect yourself and others by observing all safety information. Failure to comply with instructions could result in personal injury and/or property damage! Retain instructions for future reference.



3/8" Ratchet

Description

Ratchets are air tools designed for removing and installing spark plugs and different engine parts such as water pumps, radiators, etc.

Specifications

Avg SCFM & PSI	.4.8 @ 90 PSIG (25% usage)
Continuous SCFM	.19.2 @ 90 PSIG (100% usage)
Max. RPM	150
Max Torque	.50 ft.lb
Working Torque	10-45 ft.lb
Gear Type	3 Idler Planetary
Bolt Capacity	.3/8"
Air Inlet	.1/4" NPT (Female)
Drive	.3/8" Sq
Weight	2.5 lbs.

Unpacking

When unpacking this product, carefully inspect for any damage that may have occurred during transit.

General Safety Information

This product is a part of a high pressure system and the following safety precautions must be followed at all times along with any other existing safety rules.

1. Read all manuals included with this product carefully. Be thoroughly familiar with the controls and the proper use of the equipment.



2. Only persons well acquainted with these rules of safe operation should be allowed to use the air tool.

CAUTION Do not exceed the maximum operating pressure of the air tool (90 psi). This can reduce the life of the tool.

3. Do not exceed any pressure rating of any component in the system. Maximum operating pressure of 90 psi is measured at the tool inlet while the tool is running. The pressure drop between the compressor and tool needs to be compensated for at the compressor.
4. Disconnect the air tool from air supply before changing tools or attachments, servicing and during nonoperation.

WARNING

Safety glasses and ear protection must be worn during operation.



5. Do not wear loose fitting clothing, scarves, or neck ties. Loose clothing may become caught in moving parts and result in serious personal injury.
6. Do not wear jewelry when operating any tool. Jewelry may become caught in moving parts and result in serious personal injury.
7. Do not depress trigger when connecting the air supply hose.
8. Always use attachments designed for use with air powered tools. Do not use damaged or worn attachments.
9. Never trigger the tool when not applied to a work object. Attachments must be securely attached. Loose attachments can

cause serious injury.

10. Protect air lines from damage or puncture.
11. Never point an air tool at oneself or any other person. Serious injury could occur.
12. Check air hoses for weak or worn condition before each use. Make sure all connections are secure.

WARNING

Release all pressure from the system before attempting to install, service, relocate or perform any maintenance.



13. Keep all nuts, bolts and screws tight and ensure equipment is in safe working condition.
14. Do not put hands near or under moving parts.
15. Always secure workpiece in a vise or clamp.

Operation

LUBRICATION

Proper lubrication is the owner's responsibility. Failure to lubricate the air tool properly will dramatically shorten the life of the tool and will void the warranty.

CAUTION This air tool requires lubrication before the initial use and before and after each additional use.

Air tools require lubrication throughout the life of the tool. Air tool oil is recommended because this oil cleans, lubricates and inhibits rust all in one step.

⚠WARNING *After an air tool has been lubricated, oil will discharge through the exhaust port during the first few seconds of operation. Thus, the exhaust port must be covered with a towel before applying air pressure. Failure to cover the exhaust port can result in serious injury.*

Connect the air tool to the air supply and cover the exhaust port with a towel. Run the air tool for 7 to 10 seconds. Oil will discharge from the exhaust port when air pressure is applied.

The ratchet should never be used to set the torque. Use a torque wrench to set the torque.

SPEED ADJUSTMENT

⚠WARNING *When tightening, do not torque down the nuts or bolts with the ratchet as typically done with a hand wrench. This can damage the tool by breaking parts in the ratchet mechanism.*

AIR TOOL SETUP

To remove nuts, turn the forward/reverse dial to the right. To install nuts, turn the forward/reverse dial to the left. Reverse the procedure if the threads are left-handed. Do not overtighten the nuts.

NOTE: It is not recommended to install a quick coupler between the air tool and the leader (whip) hose.

⚠WARNING *Use of a whip hose prevents accidental triggering of the tool when pressurized air is connected to the system.*

In addition, the tool's vibration wears out quick couplers prematurely.

Using fittings or air hoses which are too small can create a pressure drop and reduce the power of the tool. A 3/8" (I.D.) fitting with 1/4" NPT threads is recommended. Most compressors are shipped with a short, 1/4" I.D. hose. For proper performance and more convenience, use a 3/8" I.D. hose. Hoses longer than 50 feet should have a 1/2" I.D.

⚠WARNING *Never carry a tool by the hose or pull the hose to move the tool or a compressor. Keep hoses away from heat, oil and sharp edges. Replace any hose that is damaged, weak or worn.*

STORAGE

The air tool must be lubricated before storing. Follow the air piston lubrication instructions with an exception to step 4. Only run the air tool for 2 to 3 seconds instead of 7 to 10 seconds because more oil needs to remain in the air tool when storing.

Technical Service

For information regarding the operation or repair of this product, please call 1-800-543-6400. If you are calling from Ohio or outside the continental United States, please call 1-513-367-1182.

Operating Instructions

Troubleshooting Chart

Symptom	Possible Cause(s)	Corrective Action
Tool runs slowly or will not operate	1. Grit or gum in tool	1. Flush the tool with air tool oil, gum solvent, or an equal mixture of SAE 10 motor oil and kerosene. If air tool oil is not used, lubricate the tool after cleaning
	2. No oil in tool	2. Lubricate the tool according to the lubrication instructions in this manual
	3. Low air pressure	3a. Adjust the regulator on the tool to the maximum setting (If applicable)
		3b. Adjust the compressor regulator to tool maximum while the tool is running free
	4. Air hose leaks	4. Tighten and seal hose fittings if leaks are found
	5. Pressure drops	5a. Be sure the hose is the proper size. Long hoses or tools using large volumes of air may require a hose with an I.D. of 1/2" or larger depending on the total length of the hose
		5b. Do not use a multiple number of hoses connected together with quick connect fittings. This causes additional pressure drops and reduces the tool power. Directly connect the hoses together
6. Worn rotor blade in motor	6. Replace rotor blade	
7. Worn ball bearing in motor	7. Remove and inspect bearing for rust, dirt and grit or worn race. Replace or clean and regrease bearing with bearing grease	
Moisture blowing out of tool	1. Water in tank	1. Drain tank. (See air compressor manual). Oil tool and run until no water is evident. Oil tool again and run 1-2 seconds
	2. Water in the air lines/hoses	2a. Install a water separator/filter (PA2121). NOTE: Separators only work properly when the air passing through the separator is cool. Locate the separator/filter as far as possible from the compressor
		2b. Install an air dryer
		2c. Anytime water enters the tool, the tool should be oiled immediately
Ratchet mechanism slips or will not loosen nut	1. Ratchet mechanism is dirty	1a. Clean mechanism with air tool oil 1b. Replace worn mechanism