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.

1/2" Impact Wrench

Description

This is a rocking dog type impact wrench designed for DIY projects and general purpose applications such as maintenance, car repair, and lawn and garden equipment. Not intended for assembly line applications or heavy duty usage. Do not operate tool with air pressure above 95 PSI.

Unpacking

When unpacking this product, carefully inspect for any damage that may have occurred during transit. Make sure any loose fittings, bolts, etc., are tightened before putting this product into service.

Specifications

Avg SCFM & PSI	5.1 @ 90 PSIG (20% usage)
Continuous SCFM	25.4 @ 90 PSIG (100% usage)
Max. RPM	7000
Max Torque	250 ft.lb
Working Torque	60-200 ft.lb
Impact Mechanism Type	Rocking Dog
Bolt Capacity	1/2"
Air Inlet	1/4" NPT (Female)
Drive	1/2" Sq
Weight	5 lbs.

General Safety

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.

⚠DANGER

Do not exceed maximum operating pressure of the air tool (90 PSI). The air tool could explode and result in death or serious personal injury.

3. Do not exceed any pressure rating of any component in the system.
4. Disconnect the air tool from air supply before changing tools or attachments, servicing and during non-operation.
5. Always wear safety glasses during operation.

6. Do not wear loose fitting clothing, scarves, or neck ties. Loose clothing may become caught in moving parts and result in serious personal injury.
7. Do not wear jewelry when operating any tool. Jewelry may become caught in moving parts and result in serious personal injury.
8. Do not depress trigger when connecting the air supply hose.
9. Always use attachments designed for use with air powered tools. Do not use damaged or worn attachments.

⚠WARNING ***Do not use hand-tool sockets. Use impact quality sockets only. Hand tool sockets are "glass-hard" and will shatter and can cause serious personal injury if used with air tools.***

10. Never trigger the tool when not applied to a work object. Attachments must be securely attached. Loose attachments can cause serious injury.
11. Protect air lines from damage or puncture.
12. Never point an air tool at oneself or any other person. Serious injury could occur.
13. 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.

14. Keep all nuts, bolts and screws tight and ensure equipment is in safe working condition.
15. Do not put hands near or under moving parts.

⚠WARNING ***Do not misuse this product. Excessive exposure to vibration, work in awkward positions, and repetitive work motions can cause injury to hands and arms. Stop using any tool if discomfort, numbness, tingling, or pain occur, and consult a physician.***

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 impact wrench requires lubrication BEFORE the initial use and BEFORE and AFTER each additional use.***

Impact wrenches require lubrication throughout the life of the tool and must be lubricated in two separate areas: the air motor and the impact mechanism. Air tool oil is recommended because this oil cleans, lubricates and inhibits rust all in one step.

AIR MOTOR LUBRICATION

The motor must be lubricated daily. An air motor cannot be oiled too often.

⚠WARNING ***Disconnect the impact wrench from the air supply before lubricating.***

1. Disconnect the impact wrench from the air supply.
2. Turn the impact wrench upside down.
3. While pulling the trigger, squeeze approximately a 1/4 oz. of airtool oil in the air inlet. Then, push the forward and reverse button in both directions.

⚠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.***

4. Connect the impact wrench to the air supply and cover the exhaust port with a towel. Run the impact wrench in both the forward and reverse directions for 20 to 30 seconds. Oil will discharge from the exhaust port when air pressure is applied.

IMPACT MECHANISM LUBRICATION

Lubricate the impact mechanism monthly.

⚠WARNING ***Disconnect the impact wrench from the air supply before lubricating.***

1. Disconnect the impact wrench from the air supply.
2. Remove the slotted screw or allen head screw from the oil port hole.
3. Squeeze approximately 1 oz. of air tool oil in the oil port hole. Replace the screw.
4. Reconnect the air supply to the impact wrench and run for 20 to 30 seconds. Lubricate the entire impact mechanism by rotating the tool upside down and sideways while running the tool.
5. Remove the screw and hold the oil port hole over a suitable container to allow excess oil to drain. Sometimes triggering the tool when dumping the oils helps to force out the excess oil.
6. If the oil is dirty, repeat the procedure above until the oil comes out clear. Install the screw and tighten. The residual oil remaining in the impact mechanism chamber is all that is needed for proper lubrication.

SPEED ADJUSTMENT

The impact wrench should never be used to set torque. Use a torque wrench to set the torque. All models are equipped with regulators for speed adjustment.

To remove lugs or bolts, set the regulator to the maximum setting. When installing, always use a torque wrench to attain the proper torque of the lugs or bolts.

⚠WARNING ***When re-assembling be careful not to overtighten. Bolts may fail or cause a hazardous condition. Be sure to set the regulator to the minimum setting then use a torque wrench to set torque.***

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

Using fittings or air hoses which are too small can create a pressure drop and reduce the power of the tool. For 3/8, 1/2 and 3/4" impact wrenches use 3/8" (I.D.) fittings with 1/4" NPT threads. 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.

For 1" impact wrenches use 1/2" (I.D.) fittings with 1/2" NPT threads and a 1/2" I.D. hose. Hoses longer than 50 feet should have a 1" 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 impact wrench must be lubricated before storing. Follow the air motor lubrication instructions with an exception to step 4. Only run the impact wrench for 2 to 3 seconds instead of 20 to 30 seconds because more oil needs to remain in the impact wrench 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.

General Troubleshooting Guide

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	3. a. Adjust the regulator on the tool to the maximum setting b. 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	5. a. 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 b. 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	2. a. Install a water separator/filter. 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 b. Install an air dryer c. If the original separator will not separate all the water from the air, install a belt air filter

Impact Mechanism Troubleshooting Guide

Symptom	Possible Cause(s)	Corrective Action
Impacts slowly or will not impact	1. Lack of lubrication	1. Lubricate the air motor and the impact mechanism. (See Lubrication section of this manual)
	2. Tool regulator set in wrong position	2. Adjust the regulator on the tool to the maximum setting
	3. In-line regulator or compressor regulator set too low	3. Adjust regulators in the air system
Impacts rapidly but will not remove bolts	1. Worn impact mechanism	1. a. Replace worn impact mechanism components b. Return impact wrench to Authorized Service Center for repair
Does not impact	1. Broken impact mechanism	1. a. Replace broken impact mechanism components b. Return impact wrench to an Authorized Service Center for repair