



OPERATING INSTRUCTIONS

IMPACT WRENCH

MODELS TL1002, TL1017 AND TL1049

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.

Description

Do-It-Yourself (DIY) impact wrenches are air tools designed for removing and installing nuts and bolts such as lug nuts, exhaust system clamps, etc.

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.

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.

⚠ 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 nonoperation.
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.

General Safety (Continued)

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.

Operation

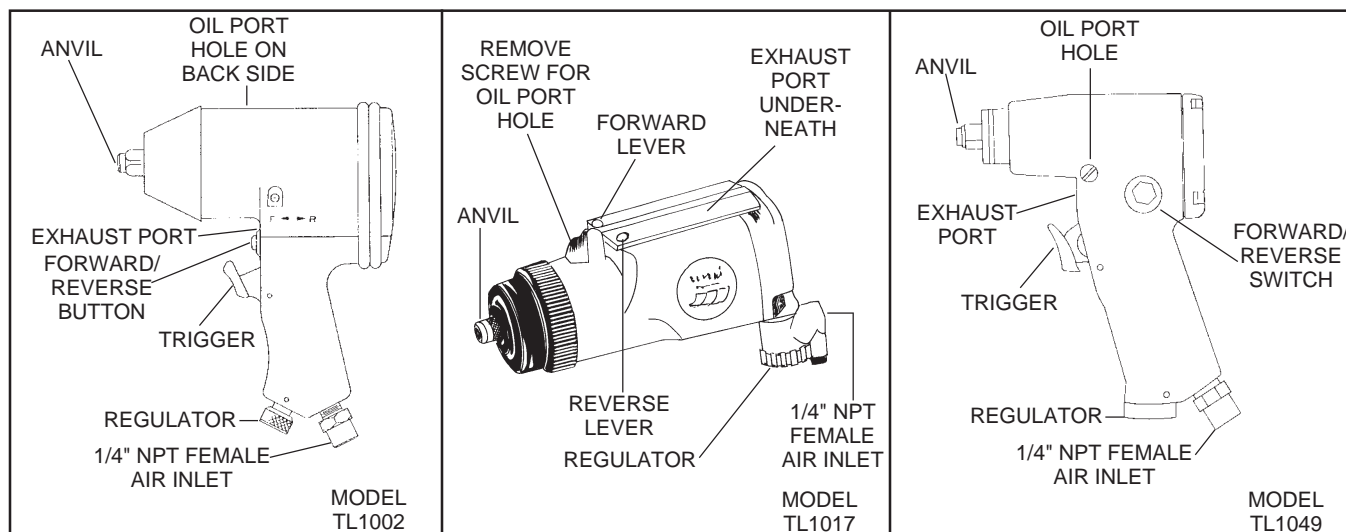
LUBRICATION

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:

Operation (Continued)**Figure 1 Impact Wrench Features**

the air motor and the impact mechanism. Follow the outlined procedures and refer to Figure 1 for details. Campbell Hausfeld air tool oil (ST127000AV) 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. Simultaneously (at the same time), pull the trigger and pour a teaspoon of Campbell Hausfeld 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 (See Figure 1). 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.

The impact mechanism should be lubricated monthly.

⚠ WARNING ⚠

DISCONNECT THE IMPACT WRENCH FROM THE AIR SUPPLY BEFORE LUBRICATING.

1. Disconnect the impact wrench from the air supply.
2. Remove the allen head screw from the oil port hole on the right side of the tool that has "OIL" stamped below the hole for model TL1002. For model TL1049, the screw is located on the left hand side of the tool near the exhaust port. For model TL1017, the screw is located in front of the forward/reverse lever.
3. Put three teaspoons of Campbell Hausfeld 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.
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.

Operation (Continued)

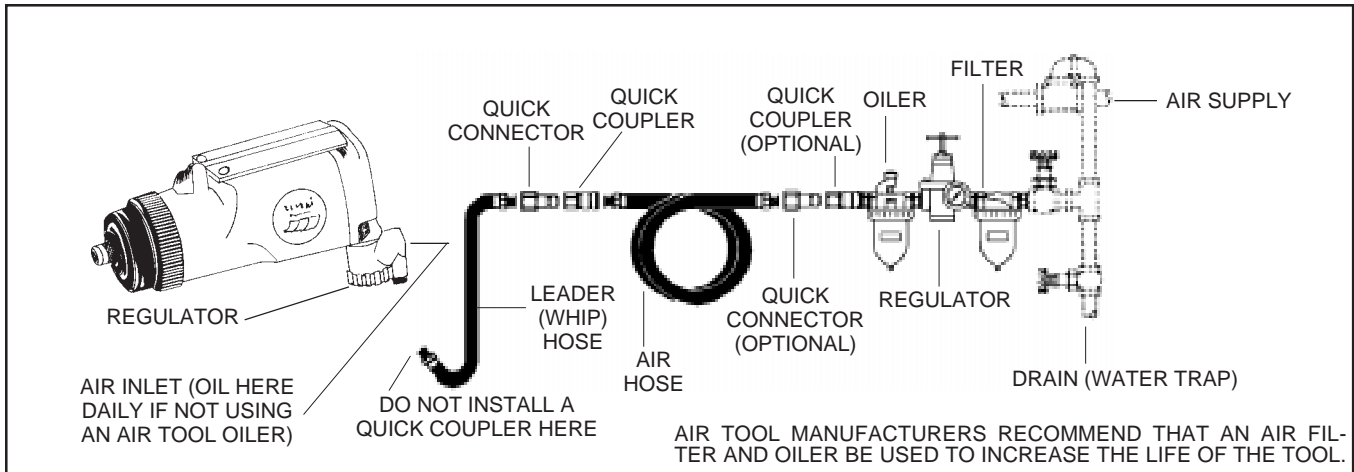


Figure 2 - Air Hose Hook-up

SPEED ADJUSTMENT

The impact wrench should **never** be used to set torque. Use a torque wrench to set the torque. Models TL1002, TL1017 and TL1049 are equipped with regulators for speed adjustment (See Figure 2).

To remove nuts, set the regulator to the maximum setting. To install nuts, set the regulator to the minimum to medium setting. Do not overtighten the nuts.

AIR HOSE

Figure 2 illustrates a recommended air hose hook-up.

NOTE: It is not recommended to install a quick coupler between the impact wrench and the leader (whip) hose (See Figure 2).

Using fittings or air hoses which are too small can create a pressure drop and reduce the power of the tool. For models TL1002, TL1017 and TL1049, using 3/8" (I.D.) fittings with 1/4" NPT threads are 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 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 collect, 1-513-367-1182.

Specifications & Performance

MODEL #	AVERAGE SCFM & PSI	MAX RPM	MAX TORQUE	AIR INLET	DRIVE	WEIGHT	EXTENDED ANVIL
TL1002	5.1 @ 90	7000	230 ft/lb	1/4" NPT (Female)	1/2" Sq	5 lb	NA
TL1017	2.4 @ 90	10,000	75 ft/lb	1/4" NPT (Female)	3/8" Sq	2 lb	N/A
TL1049	2.5 @ 90	10,000	75 ft/lb	1/4" NPT (Female)	3/8" Sq	3 lb	NA

General Troubleshooting Guide

SYMPTOM	POSSIBLE CAUSE (S)	CORRECTIVE ACTION
Tool runs slowly or will not operate.	<ol style="list-style-type: none"> 1. Grit or gum in tool. 2. No oil in tool. 3. Low air pressure. 4. Air hose leaks. 5. Pressure drops. 6. Worn rotor blade in motor. 7. Worn ball bearing in motor. 	<ol style="list-style-type: none"> 1. Flush the tool with Campbell Hausfeld air tool oil, gum solvent, or an equal mixture of SAE 10 motor oil and kerosene. If Campbell Hausfeld oil is not used, lubricate the tool after cleaning. 2. Lubricate the tool according to the lubrication instructions in this manual. 3.a. Adjust the regulator on the tool to the maximum setting. 3.b. Adjust the compressor regulator to tool maximum while the tool is running free. 4. Tighten and seal hose fittings if leaks are found. 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. 5.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. Replace rotor blade. 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	<ol style="list-style-type: none"> 1. Water in tank. 2. Water in the air lines/hoses. 	<ol style="list-style-type: none"> 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.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. 2. b. Install an air dryer. 2. c. If the original separator will not separate all the water from the air, install a Campbell Hausfeld belt air filter (MP2121).

Impact Mechanism Troubleshooting Guide

Impacts slowly or will not impact.	<ol style="list-style-type: none"> 1. Lack of lubrication. 2. Tool regulator set in wrong position. 3. In-line regulator or compressor regulator set too low. 	<ol style="list-style-type: none"> 1. Lubricate the air motor and the impact mechanism. (See Lubrication section of this manual). 2. Adjust the regulator setting of the tool. 3. Adjust regulators in the air system (See Figure 2).
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Limited Warranty

1. DURATION: One year from the date of purchase by the original purchaser.
 2. WHO GIVES THIS WARRANTY (WARRANTOR):
Campbell Hausfeld
The Scott Fetzer Company
100 Production Drive
Harrison, Ohio, 45030
Telephone: (513) 367-4811.
 3. WHO RECEIVES THIS WARRANTY (PURCHASER): The original purchaser (other than for purposes of resale) of the Campbell Hausfeld product.
 4. WHAT PRODUCTS ARE COVERED BY THIS WARRANTY: Any Campbell Hausfeld portable air compressor, air tool or supplementary air accessory supplied or manufactured by Warrantor.
 5. WHAT IS COVERED UNDER THIS WARRANTY: Defects on material and workmanship which occur within the duration of the warranty period.
 6. WHAT IS NOT COVERED UNDER THIS WARRANTY:
A. Implied warranties, including those of merchantability and FITNESS FOR A PARTICULAR PURPOSE ARE LIMITED TO ONE YEAR FROM THE DATE OF ORIGINAL PURCHASE. Some states do not allow limitations on how long an implied warranty lasts, so the above limitations may not apply to you.
B. ANY INCIDENTAL, INDIRECT, OR CONSEQUENTIAL LOSS, DAMAGE, OR EXPENSE THAT MAY RESULT FROM ANY DEFECT, FAILURE, OR MALFUNCTION OF THE CAMPBELL HAUSFELD PRODUCT. Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you.
C. Any failure that results from an accident, purchaser's abuse, neglect or failure to operate products in accordance with instructions provided in the owner's manual(s) supplied with product.
D. Pre-delivery service, i.e. assembly, oil or lubricants, and adjustment.
E. Normal adjustments which are explained in the owner's manual(s) provided with the product, i.e. belts, pressure switch.
F. Items or service that are normally required to maintain the product, i.e. lubricants, filters and gaskets.
G. Electric motor and gasoline engine components are expressly excluded from coverage under this limited warranty. Such components should be returned by the purchaser to the original manufacturer or to its authorized repair stations for service.
 7. RESPONSIBILITIES OF WARRANTOR UNDER THIS WARRANTY: Repair or replace, at Warrantor's option, products or components which have failed within duration of the warranty period.
 8. RESPONSIBILITIES OF PURCHASER UNDER THIS WARRANTY:
A. Deliver or ship the Campbell Hausfeld product or component to the nearest Campbell Hausfeld Authorized Service Center. Freight costs, if any, must be borne by the purchaser.
B. Use reasonable care in the operation and maintenance of the products as described in the owner's manual(s).
 9. WHEN WARRANTOR WILL PERFORM REPAIR OR REPLACEMENT UNDER THIS WARRANTY:
A. Repair or replacement will be scheduled and serviced according to the normal work flow at the servicing location, and depending on the availability of replacement parts.
B. If the purchaser does not receive satisfactory results from the Authorized Service Center, the purchaser should contact the Campbell Hausfeld Product Service Department (see paragraph 2).
- This Limited Warranty gives you specific legal rights and you may also have other rights which vary from state to state.