



1" DRIVE INDUSTRIAL AIR IMPACT WRENCH

Model 94108

ASSEMBLY AND OPERATING INSTRUCTIONS



Due to continuing improvements, actual product may differ slightly from the product described herein.

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For technical questions and replacement parts, please call 1-800-444-3353.
Manual Revised 11h

Specifications

Torque	1,250 FT./LBS.
Working Pressure	100 PSI, 115 PSI = maximum air pressure
Air Consumption	14 CFM Average
Air Inlet	1/2 inch – 14 NPT with screen
Drive	One inch, Inline air impact; 6" extended anvil
Regulator on Unit	3 torque settings: 1, 2, & 3; Left and Right direction
Overall Dimensions	22" (L) x 8 1/4" (W) x 6 1/2" (H) with side handle
Weight	25.8 LBS.

Save This Manual

You will need the manual for the safety warnings and precautions, assembly instructions, operating and maintenance procedures, parts list and diagram. Keep your invoice with this manual. Write the invoice number on the inside of the front cover. Keep the manual and invoice in a safe and dry place for future reference.

Safety Warnings and Precautions

WARNING: When using tool, basic safety precautions should always be followed to reduce the risk of personal injury and damage to equipment.

Read all instructions before using this tool!

1. **Keep work area clean.** Cluttered areas invite injuries.
2. **Observe work area conditions.** Do not use machines or power tools in damp or wet locations. Don't expose to rain. Keep work area well lighted. Do not use electrically powered tools in the presence of flammable gases or liquids.
3. **Keep children away.** Children must never be allowed in the work area. Do not let them handle machines, tools, or extension cords.
4. **Store idle equipment.** When not in use, tools must be stored in a dry location to inhibit rust. Always lock up tools and keep out of reach of children.
5. **Use the right tool for the job.** Do not attempt to force a small tool or attachment to do the work of a larger industrial tool. There are certain applications for which this tool was designed. It will do the job better and more safely at the rate for which it was intended. Do not modify this tool and do not use this tool for a purpose for which it was not intended.
6. **Dress properly.** Do not wear loose clothing or jewelry as they can be caught in moving parts. Protective, electrically non-conductive clothes and non-skid footwear are recommended when working. Wear restrictive hair covering to contain long hair.
7. **Do not overreach.** Keep proper footing and balance at all times. Do not reach over or across running machines.
8. **Use eye and ear protection.** Always wear ANSI approved impact safety goggles.

Wear a full face shield if you are producing metal filings or wood chips. Wear an ANSI approved dust mask or respirator when working around metal, wood, and chemical dusts and mists.

9. **Maintain tools with care.** Keep tools sharp and clean for better and safer performance. Follow instructions for lubricating and changing accessories. Inspect tool cords periodically and, if damaged, have them repaired by an authorized technician. The handles must be kept clean, dry, and free from oil and grease at all times.
10. **Disconnect power.** Unplug tool when not in use.
11. **Remove adjusting keys and wrenches.** Check that keys and adjusting wrenches are removed from the tool or machine work surface before plugging it in.
12. **Avoid unintentional starting.** Be sure the switch is in the Off position when not in use and before plugging in. Do not carry any tool with your finger on the trigger, whether it is plugged in or not.
13. **Stay alert.** Watch what you are doing, use common sense. Do not operate any tool when you are tired.
14. **Check for damaged parts.** Before using any tool, any part that appears damaged should be carefully checked to determine that it will operate properly and perform its intended function. Check for alignment and binding of moving parts; any broken parts or mounting fixtures; and any other condition that may affect proper operation. Any part that is damaged should be properly repaired or replaced by a qualified technician. Do not use the tool if any switch does not turn On and Off properly.
15. **Replacement parts and accessories.** When servicing, use only identical replacement parts. Use of any other parts will void the warranty. Only use accessories intended for use with this tool. Approved accessories are available from Harbor Freight Tools.
16. **Do not operate tool if under the influence of alcohol or drugs.** Read warning labels if taking prescription medicine to determine if your judgment or reflexes are impaired while taking drugs. If there is any doubt, do not operate the tool.
17. **Maintenance.** For your safety, service and maintenance should be performed regularly by a qualified technician.
18. **Use both hands when operating.** This tool requires the use of both hands when operating. This helps maintain tool stability and keeps hands away from the working area of the tool.

Note: Performance of this tool may vary depending on variations in air compressor performance.

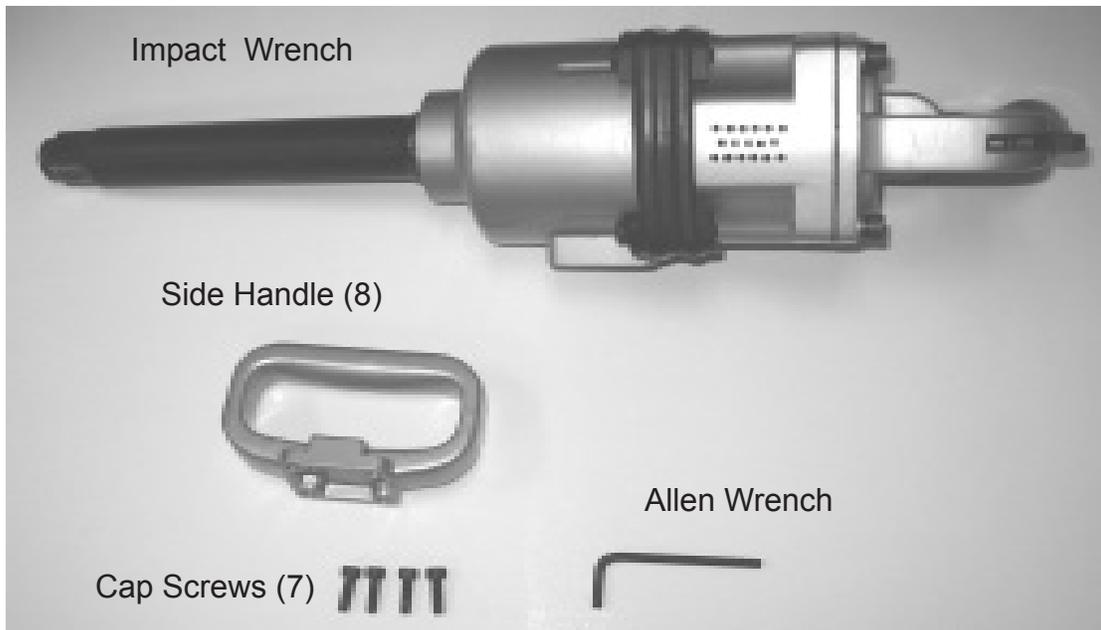
Impact Wrench Safety Precautions

19. **Only use Impact Sockets with this tool. Standard sockets will not withstand the force applied by this tool, and may break, possible causing personal injury and/or property injury.**
20. **Use only specified operating air pressure.** Never operate tool above the recommended working pressure of 100 PSI.
21. **Do not use combustible gases.** Do not use combustible gases as a power source, or use tool in areas where combustible gases are stored.
22. **OSHA Guidelines.** Industrial applications must follow OSHA guidelines.
23. **Air Compressor.** Read and adhere to all warnings and instructions of the Air Compressor Instruction Manual.

Warning: The warnings, cautions, and instructions discussed in this instruction manual cannot cover all possible conditions and situations that may occur. It must be understood by the operator that common sense and caution are factors which cannot be built into this product, but must be supplied by the operator.

Unpacking

When unpacking, check to make sure the following components shown below are included. If any parts are missing or broken, please call Harbor Freight Tools at the number on the cover of this manual as soon as possible.



Assembly

The only assembly required is to install Side Handle (8), per the following instructions. Using Cap Screws (7), and the supplied Allen Wrench, mount the Side Handle (8) to the Front Casing (5). Securely tighten all Cap Screws (7).

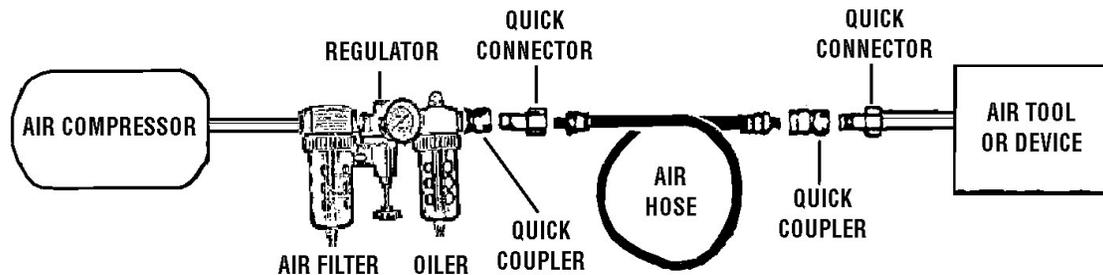
Note: Use pipe thread seal or Teflon tape on all threaded connections.

Oiler and Filter Connection

Dirt, water, and the lack of pneumatic tool oil are major causes for tool wear. It is recommended to install an optional oiler-filter, as illustrated below for better performance.

Connect the air tool, air hoses, filter, and oiler to the Compressor Air Outlet as illustrated below. The filter and oiler (not supplied) are recommended but not mandatory for operation.

A few drops of pneumatic tool oil must be added through the air inlet before each use if an oiler is not used.



AIR SUPPLY CONNECTION

1. Install a standard 1/2" Air Connector (not included) to the Air Inlet (51). First wrap the threaded portion of the 1/2" air connector with pipe thread seal tape before threading it into the Air Inlet (51). Tighten securely.
2. Set the air pressure regulator at no more than 100 PSI.
3. Check the air line and its connections for air leaks, make note of these, and repair them before using this tool.

WARNING: Do not exceed the recommended working pressure of 100 PSI. Damage to your tool, and possible personal injury may result.

OPERATION

NOTE: Turn off your air compressor and disconnect the air pressure hose before changing sockets or making any adjustments to this tool. Severe injury or property damage may result otherwise.

WARNING: This tool generates considerable torque when in use. Always hold the tool with both hands when using, and brace yourself to resist the torque which will be delivered to the work piece.

1. Select the appropriate size 1" square drive socket (not included) for your needs. Push and snap the socket onto the Anvil (13).

NOTE: On this tool the designation "R" refers to forward or clockwise rotation. "L" refers to reverse or counterclockwise rotation. Always be aware of the direction of the threading of the fasteners you are working on. While most fasteners install with clockwise rotation, some threads are intentionally the reverse.

2. Set the directions of the Air Impact Wrench to Forward (R=right or clockwise) or Reverse (L=left or counterclockwise) by adjusting the Rotation/Torque Knob (38). You may control the amount of torque to be applied by selecting any of the 3 torque settings (1=low, 2=medium, 3=high).

NOTE: The actual torque delivered at each of the 3 torque settings will depend on the air pressure supplied to the tool. We suggest that you test the actual torque by tightening a nut or bolt at each setting, then observing the resultant torque by using a mechanical torque wrench (not supplied).

3. If installing a nut or bolt, set it as tight as possible by hand.
4. Place and push on a appropriate size impact socket onto Anvil (13) and place the Impact Socket (not included) over the fastener.
5. Grip the Air Impact Wrench tightly with both hands, and squeeze the Trigger (36). The tool will operate and tighten the fastener.



Rotation / Torque Knob (38)

Air Inlet Connector (51)

OPERATION (continued)

Caution: Never increase pressure at the air compressor regulator to achieve more torque.

7. When finished, release the Trigger (36), and lift the Impact Wrench off the nut.
8. Remove the air supply hose, then squeeze the Trigger (36) again to release any remaining air pressure in the Impact Wrench air chamber.

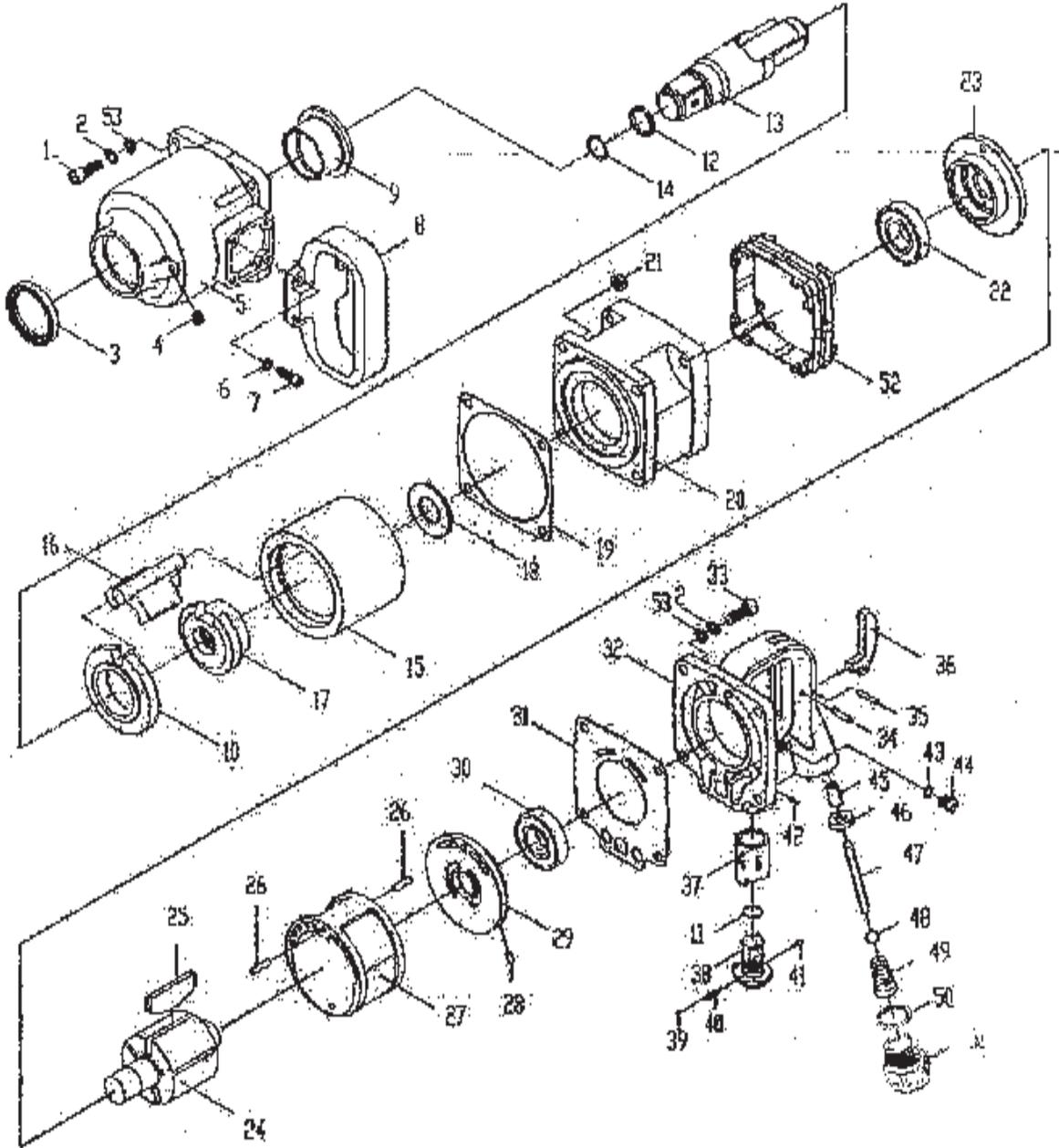
Maintenance

1. After each use, wipe the Impact Wrench with a clean cloth to remove any dirt and grease buildup.
2. To maintain tool life, always lubricate the air line by adding a few drops of pneumatic tool oil to the air line (or Air Inlet) before each use. Or, install the automatic oiler-filter system as illustrated on page 5.
3. Before each use, drain water out of the air compressor tank and condensation from the air lines. Refer to the Air Compressor Operation Manual.
4. Store the Impact Wrench in a clean and dry location.

Parts List

No.	Part Name	Quantity	No.	Part Name	Quantity
1	Screw	4	28	Spring-type Straight Pin	1
2	Lock Washer	8	29	Rear Plate	1
3	Oil Seal	1	30	Bearing #205	1
4	Hex Socket Head Set Screw	1	31	Rear Cylinder Gasket	1
5	Front Casing	1	32	Rear Casing	1
6	Lock Washer	4	33	Hex Socket Cap Screw	4
7	Hex Socket Cap Screw	4	34	Spring-type Straight Pin	1
8	Side Handle	1	35	Spring-type Straight Pin	1
9	Anvil Bushing	1	36	Trigger	1
10	Front Washer	1	37	Reverse Valve Bushing	1
11	O-Ring	1	38	Rotation / Torque Knob	1
12	Retaining Ring	1	39	Steel Ball	1
13	Anvil	1	40	Spring	1
14	O-Ring	1	41	Spring-type Straight Pin	1
15	Hammer Cage	1	42	Spring-type Straight Pin	1
16	Hammer	1	43	O-Ring	1
17	Hammer Cam	1	44	Screw	1
18	Rear Spacer	1	45	Throttle Valve Bushing	1
19	Front Cylinder Gasket	1	46	Rubber Seal	1
20	Motor Housing	1	47	Throttle Valve Plunger	1
21	All-metal Locking Nut	4	48	Steel Ball	1
22	Bearing #60205	1	49	Spring	1
23	Front Plate	1	50	O-Ring	1
24	Rotor	1	51	Air Inlet Connector	1
25	Vane	5	52	Rubber Shield	1
26	Spring-type Straight Pin	2	53	Flat Washer	8
27	Cylinder	1			

Assembly Drawing



NOTE: Some parts are listed and shown for illustration purposes only and are not available individually as replacement parts.

Lubrication

Gear oil should be added in part #4, use MoS2 lubricating grease. It should be added monthly. The amount is 0.033-0.044 lb. each time. Gear oil should be added in part #44, use Spindle Oil. Add 5-10 drops every day, before operating the tool.

90 Day Warranty

Harbor Freight Tools Co. makes every effort to assure that its products meet high quality and durability standards, and warrants to the original purchaser that this product is free from defects in materials and workmanship for the period of 90 days from the date of purchase. This warranty does not apply to damage due directly or indirectly, to misuse, abuse, negligence or accidents, repairs or alterations outside our facilities, criminal activity, improper installation, normal wear and tear, or to lack of maintenance. We shall in no event be liable for death, injuries to persons or property, or for incidental, contingent, special or consequential damages arising from the use of our product. Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation of exclusion may not apply to you. THIS WARRANTY IS EXPRESSLY IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING THE WARRANTIES OF MERCHANTABILITY AND FITNESS.

To take advantage of this warranty, the product or part must be returned to us with transportation charges prepaid. Proof of purchase date and an explanation of the complaint must accompany the merchandise. If our inspection verifies the defect, we will either repair or replace the product at our election or we may elect to refund the purchase price if we cannot readily and quickly provide you with a replacement. We will return repaired products at our expense, but if we determine there is no defect, or that the defect resulted from causes not within the scope of our warranty, then you must bear the cost of returning the product.

This warranty gives you specific legal rights and you may also have other rights which vary from state to state.