

CRAFTSMAN

Owner's Manual
Model No. 875.199810

3/8-in. Impact Wrench



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.

WARNING: Please read and save these safety and operating 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.

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Features & Benefits

The Craftsman Model 875.199810 3/8" Square Drive Impact Wrench is ideal for general assembly, automotive, agricultural and industrial applications. Features a Built-in regulator for power output adjustment; pin type clutch for increased power output; ring-type socket retainer allows quick socket changes.

Specifications

Drive size	3/8"
Impacts per minute	1,100 IPM
Free speed (No Load)	9,000 RPM
Ultimate torque	145 ft. lbs.
Weight	2.8 lbs.
Overall length	6.5"
Average air consumption	3.5 SCFM
Recommended hose size	3/8" I.D.
Air inlet	1/4" NPT
Maximum Air Pressure	90 PSI

Warranty

ONE YEAR FULL WARRANTY ON CRAFTSMAN TOOL

If this Craftsman tool fails to give complete satisfaction within one year from the date of purchase, RETURN IT TO ANY SEARS STORE OR OTHER CRAFTSMAN OUTLET IN THE UNITED STATES FOR FREE REPLACEMENT.

If this Craftsman tool is ever used for commercial or rental purposes, this warranty applies for only 90 days from the date of purchase. This warranty does not include expendable parts, such as lamps, batteries, bits or blades. This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

Sears, Roebuck and Co.,
Hoffman Estates, IL 60179

Min. Compressor Requirements

- Light Use - 12 Gallon
- Typical Use - 17 Gallon
- Heavy Use - 33 Gallon Professional

Important Safety Instructions

Read Operating Instructions

Please become familiar with all the instructions and warnings before operating any pneumatic tool.

Always Wear Approved Eye Protection

Impact resistant eye protection should meet or exceed the standards set forth in ANSI Z87.1, Occupational and Educational Eye and Face Protection. Look for marking Z87.1 on your eye protection to ensure that it is an approved style.

Hearing Protection is Recommended

Hearing protection should be used when the noise level exposure equals or exceeds an 8 hour time-weighted average sound level of 85dBA. Process noise, reflective surfaces, other tools being operated nearby, all add to the noise level in a given work area. If you are unable to determine your noise level exposure, we recommend the use of hearing protection.

Avoid Prolonged Exposure to Vibration

Pneumatic tools can vibrate during use. Prolonged exposure to vibration or very repetitive hand and arm movements can cause injury. Discontinue the use of any tool if you experience tingling, numbness, discomfort or pain in your hands or arms. You should consult your physician before resuming use of tool.

90 PSI Maximum

This tool is designed to operate at an air pressure of 90 pounds per square inch gauge pressure (90 PSI) maximum, at the tool. Use of higher air pressure can, and may cause injury. Also, the use of higher air pressure places the internal components under loads and stresses they were not designed for, causing premature tool failure.

WARNING

California Prop 65

Some dust created by power sanding, sawing, grinding, drilling and other construction activities contains chemicals known to cause cancer, birth defects or other reproductive harm. Some examples of these chemicals are:

Lead from lead based paint, crystalline silica from bricks and cement and other masonry products, arsenic and chromium from chemically-treated lumber.

Your risk from those exposures varies, depending on how often you do this type of work. To reduce your exposure to these chemicals: work in a well ventilated area, and work with approved safety equipment, such as dust masks that are specifically designed to filter out microscopic particles.

Disconnect the air tool from air supply before changing tools or attachments, servicing and during non-operation.

Do not wear loose fitting clothing, scarves, or neck ties in work area. Loose clothing may become caught in moving parts and result in serious personal injury. Do not wear jewelry when operating any tool. Jewelry may become caught in moving parts and result in serious personal injury.

Do not depress trigger when connecting the air supply hose.

Never trigger the tool when not applied to a work object.

Attachments must be securely attached. Loose attachments can cause serious injury.

Protect air lines from damage or puncture.

Never point an air tool at oneself or any other person. Serious injury could occur.

Check air hoses for weak or worn conditions before each use. Make sure all connections are secure.

CAUTION

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

Keep all nuts, bolts and screws tight and ensure equipment is in safe working condition.

WARNING

Use attachments designed for use with air powered tool. Always examine accessories before mounting for chips, cracks, or signs of damage.

Never use mounted points or other accessories that have been dropped or exposed to water, solvent or extreme temperature changes. It is a good practice to operate the tool in a protected enclosure for one minute after mounting any accessory.

WARNING

Always use accessories with an RPM rating that meets or exceeds the tool RPM rating.

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.

WARNING

Inhalation hazard: Abrasive tools, such as grinders, sanders and cut-off tools generate dust and abrasive materials which can be harmful to human lungs and respiratory system. Always wear MSHA/NIOSH approved, properly fitting face mask or respirator when using such tools.



Some materials such as adhesives and tar, contain chemicals whose vapors could cause serious injury with prolonged exposure. Always work in a clean, dry, well ventilated area.

WARNING



Tools which contain moving elements, or drive other moving tools, such as grinding wheels, sockets, sanding discs, etc., can become entangled in hair, clothing, jewelry and other loose objects, resulting in severe injury.

Never wear loose fitting apparel which contains loose straps or ties, that could become tangled in moving parts of the tool. Remove any jewelry, watches, etc., which might become caught by the tool. Keep hands away from moving parts. Tie up or cover long hair.

WARNING

Improperly maintained tools and accessories can cause serious injury. Maintain the tool with care. A properly maintained tool, with sharp cutting edges, reduces the risk of binding and is easier to control.

There is a risk of bursting if the tool is damaged. Check for misalignment or binding of moving parts, breakage of parts and any other condition that affects the tool's operation. If damaged, have the tool serviced before using.

WARNING

Tools which cut, shear, drill, staple, punch, chisel, etc. are capable of causing serious injury. Keep the working part of the tool away from hands and body.

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.

WARNING

Use Only Impact Sockets & Accessories. Only use sockets designated "FOR USE WITH IMPACT WRENCHES." Hand tool sockets can break, creating a hazard from flying pieces. Always check sockets, retainers and drives regularly for wear or damage and replace when necessary.

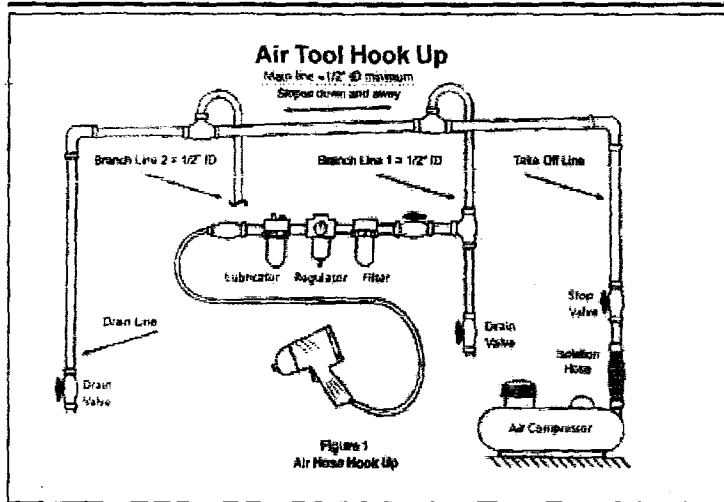


Figure 1
Air Hose Hook Up

Pre-Operation /Installation

Before the tool is connected to the air supply, clear the air hose of accumulated dust and moisture by running air freely through the air hose for 5-10 seconds.

Air Hoses for your Air Tools

Figure 1 illustrates a recommended air hose hook up.

A 3/8 inch ID air hose is required up to a length of 25 feet. A 3/8 inch ID hose longer than 25 feet will cause a pressure drop and may impede performance. If more length is required, a 1/2 inch ID air hose is recommended. Be sure all hoses and fittings are the correct size and correctly secured before using the tool.

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.

Small (home) shop hard piping:

A piping diagram for a typical home shop is shown. Some helpful tips are:

- Always use hoses and pipes rated for higher pressure than your system will encounter.
- Never use PVC pipes for compressed air piping systems as explosion and serious injury may result.
- The connection from the compressor to the initial take-off hard pipe must

be a flexible hose in order to isolate movement of the compressor.

- Route the initial take-off line (pipe) as straight up the shop wall and as high as possible. This will help minimize water leaving the compressor and traveling through system
- Slope the main lines down at least 3/4 inch per 10 feet of pipe away from air compressor; this will draw the condensate with the flow of air and away from the compressor.
- Place the first drop as far from the compressor as the size of your shop will allow (50 feet is optimal, although unrealistic for a small shop). The further the drop, the more that condensation can occur, and the drier the air will be when it reaches the water separator.

- In order to reduce the amount of water and contaminants that get into the water separator, install the take-off line on the top of the main air supply line for each air drop.
- A Drain line should be placed at the end of the main line for condensate drainage.
- Drain valves should be placed at the end of branch lines and the drain line, and drained daily.

Operation

This tool features a power regulator valve (fig. 2). Rotate regulator until desired output is achieved. The settings on the regulator are only for reference and do not denote a specific power output. Turn regulator to position with smaller circle being the least amount of power and larger circle being for the most amount of power. The tool only operates at maximum power in reverse.

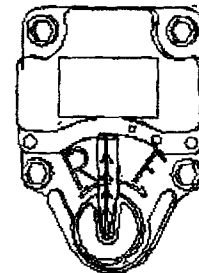


Figure 2
Regulator Valve

AWARNING

Once a bolt or fastener is seated, impacting for longer than five (5) seconds will cause excessive wear and possible damage to the impacting mechanism. If it takes longer than five seconds to tighten or loosen your bolt or fastener, we recommend the use of a larger size impact wrench.

Maintenance

Lubrication

An in-line filter-regulator-lubricator (fig 1) is recommended as it increases tool life and keeps the tool in sustained operation. The in-line lubricator should be regularly checked and filled with air tool oil. Proper adjustment of the in-line lubricator is performed by placing a sheet of paper next to the tools exhaust ports and holding the throttle open approximately 30 seconds. The lubricator is properly set when a light stain of oil collects on the paper.

Excessive amounts of oil should be avoided. In the event that it becomes necessary to store the tool for an extended period of time (overnight, weekend, etc.), it should receive a generous amount of lubrication through the air inlet (Figure 3). The tool should be run for approximately 30 seconds to ensure oil has been evenly distributed throughout the tool. The tool should be stored in a clean and dry environment.

Recommended Lubricants

Use air tool oil or any other high grade turbine oil containing moisture absorbent, rust inhibitors, metal wetting agents and an EP (extreme pressure) additive. See Figure 3 for location/air inlet.

IMPACT MECHANISM LUBRICATION

The impact mechanism transfers power from the tool to a nut or bolt. Oil in the mechanism is forced out and must be replaced. Lubricate the impact mechanism one time a year, more often if a tool is used more than ten hours a week.

To lubricate and clean the impact mechanism and the front bearing:

1. Disconnect the impact wrench from the air supply.
2. Remove the slotted screw or Allen head screw from the oil port hole (Ref. No. 51) (Refer to figure 3).
3. Squeeze approximately 1 oz. of 30 weight oil through 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.

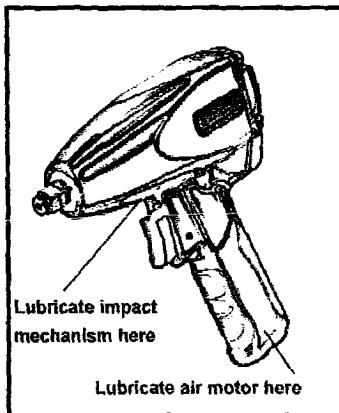
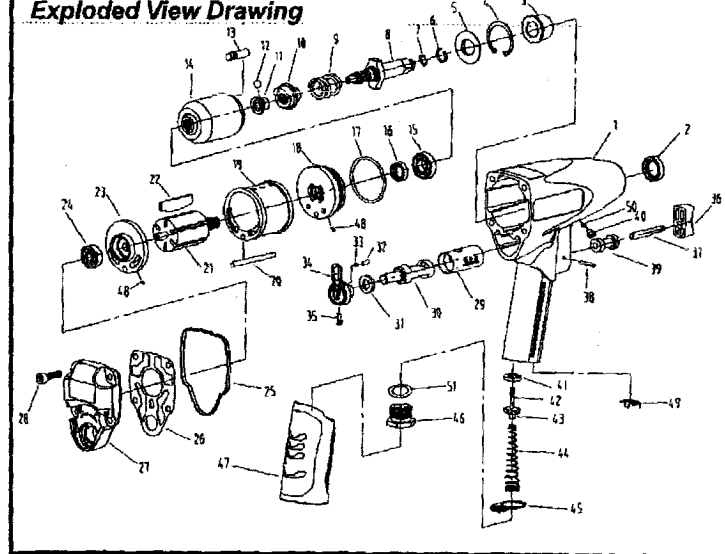


Figure 3

Exploded View Drawing



Parts List

Ref #	Part #	Description	Qty	Ref #	Part #	Description	Qty
1	9106207	Housing	1	27	9106233	End Cap	1
2	9106204	Oil Seal	1	28	9106234	Cap Screw	4
3	9106209	Anti Bushing	1	29	9106235	Reverse Bushing	1
4	9106210	Retainer Ring	1	30	9106236	Reverse Valve	1
5	9106211	Washer	1	31	910624	O-Ring	1
6	9106212	Socket Retainer	1	32	9106237	Locking Pin	1
7	9150070	O-Ring	1	33	9106238	Spring	1
8	9106214	Anti	1	34	9106239	Reverse Switch	1
9	9106215	Spring	1	35	9106240	Screw	1
10	9106218	Cam	1	36	9106241	Trigger	1
11	9106217	Drive Ball Seal	1	37	9106242	Trigger Pin	1
12	9106218	Steel Ball	1	38	9106243	Spring Pin	1
13	9106218	Hammer Pin	2	39	9106255	Trigger Sleeve	1
14	9106220	Hammer Cage	1	40	9106009	Oil Plug	1
15	9106221	Ball Bearing	1	41	9106244	Valve Seat	1
16	9106222	Oil Seal	1	42	9106245	Valve Stem	1
17	9106223	O-Ring	1	43	9106246	Throttle Valve	1
18	9106224	Front End Plate	1	44	9106247	Valve Spring	1
19	9106225	Cylinder	1	45	9106248	Exhaust Deflector	1
20	9106226	Dowel Pin	1	46	9106252	Air Inlet Bushing	1
21	9106227	Rotor	1	47	9106253	Handle Grip	1
22	9106228	Rotor Blade	6	48	9106254	Plug	4
23	9106229	Rear End Plate	1	49	966349	Muffler Cover	1
24	9106230	Ball Bearing	1	50	921007	Spring	1
25	9106231	Ornamental Gasket	1	51	9106363	O-Ring	1
26	9106232	Gasket	1				

Troubleshooting

Tool runs slow 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. 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 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.

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. 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.

Troubleshooting

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. Replace worn impact mechanism components
	Does not impact	1. Broken impact mechanism components

Notes:

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