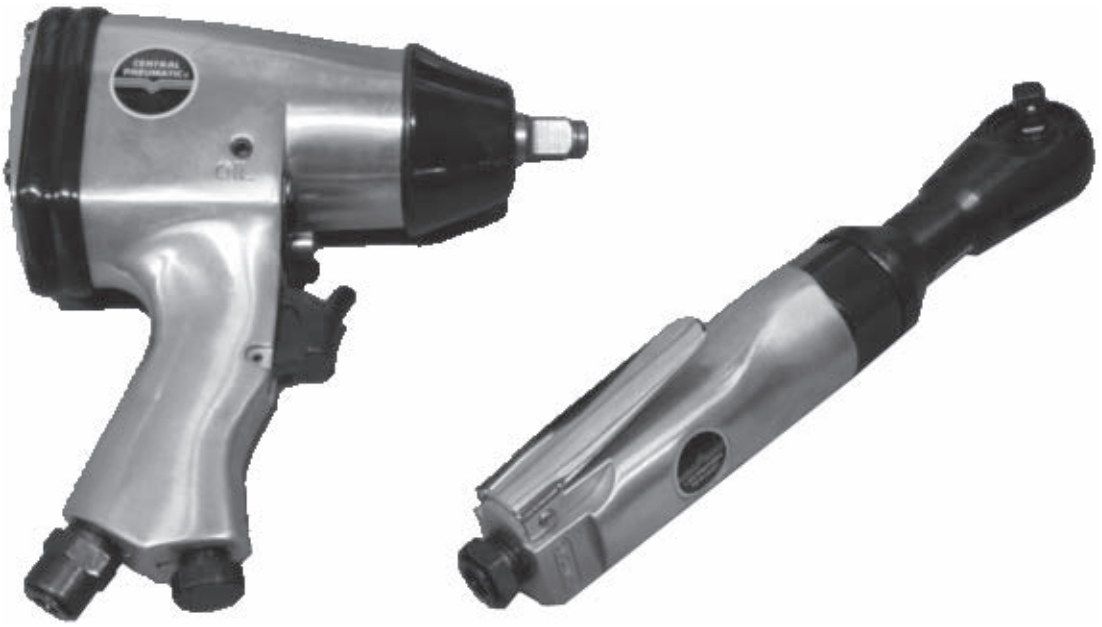
# CENTRAL PNEUMATIC®
# COMBO RATCHET/IMPACT SET

# Model 33567

**Assembly and Operating Instructions**



Distributed Exclusively by
HARBOR FREIGHT TOOLS®

3491 Mission Oaks Blvd. / Camarillo, CA 93011



**For technical questions and replacement parts, please call 1-800-444-3353.**

**REVISED 12/02 05/04**

## SPECIFICATIONS

| | |
|---|---|
| **RATCHET WRENCH** | — |
| Average Air Consumption | 4 CFM |
| Recommended Air Pressure | 90 PSI |
| Air Inlet | ¼" NPT |
| Free Speed | 150 RPM |
| Maximum Torque (ft. lbs.) | 45 |
| **IMPACT WRENCH** | — |
| Bolt Capacity | 1/2" |
| Speed | 7000 RPM |
| Air Inlet | ¼" NPT |
| Sockets | 7/16" – 1" |
| Maximum Torque (ft. lbs.) | 230 |

## SAVE THIS MANUAL

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

## SAFETY WARNING & CAUTIONS

WARNING: When using pneumatic equipment, basic safety precautions should always be followed to reduce the risk of personal injury and hazards due to over pressurization. **READ ALL INSTRUCTIONS BEFORE USING THIS TOOL!**

1. KEEP WORK AREA CLEAN. Cluttered areas invite injuries.

2. OBSERVE WORK AREA CONDITIONS. Do not use tools in damp, wet, or poorly lit locations. Don't expose to rain. Keep work area well lit. Do not use electrically powered air compressors 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 hoses. Keep others a safe distance from tool while tool is in operation as accidental actuation may occur, possibly causing injury.

4. STORE IDLE EQUIPMENT. When not in use, tools must be locked up in a dry location to inhibit rust. Always lock up tools and keep out of reach of children.

5. DO NOT FORCE THE TOOL. It will do the job better and more safely at the rate for which it was intended. Do not use inappropriate attachments in an attempt to exceed the tool's capacities.

6. 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. Do not use a tool for a purpose for which it was not intended.

7. DRESS PROPERLY. Do not wear loose clothing or jewelry as they can be caught in moving parts. Non-skid footwear is recommended. Wear restrictive hair covering to contain long hair.

8. USE EYE AND EAR PROTECTION. Always wear ANSI-approved chemical splash goggles when working with chemicals. Always wear ANSI-approved impact safety goggles at other times. 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. When operating for extended periods of time, use approved ear protection. Safety goggles and ear protectors are available from Harbor Freight Tools.

9. DO NOT ABUSE THE POWER CORD. Do not yank compressor's cord to disconnect it from the receptacle. Do not carry tools by the cord.

10. DO NOT OVERREACH. Keep proper footing and balance at all times. Do not reach over or across running machines.

11. MAINTAIN TOOLS WITH CARE. Keep tools sharp and clean for better and safer performance. Follow instructions for lubricating and changing accessories. Inspect compressor's cord periodically and, if damaged, have it repaired by an authorized technician. Inspect all hoses for leaks prior to use. The handles must be kept clean, dry, and free from oil and grease at all times.

12. REMOVE ADJUSTING KEYS AND WRENCHES. Make it a habit to check that keys and adjusting wrenches are removed from the tool or machine work surface before plugging it in.

13. AVOID UNINTENTIONAL STARTING. Do not carry any tool with your finger on the trigger, whether it is connected to the compressor or not.

14. STAY ALERT. Watch what you are doing; use common sense. Do not operate any tool when you are tired.

15. CHECK 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.

16. 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.

17. DO NOT OPERATE TOOL IF UNDER THE INFLUENCE OF ALCOHOL OR DRUGS. Read warning labels on prescriptions to determine if your judgment or reflexes are impaired while taking drugs. If there is any doubt, do not operate the tool.

18. DRAIN COMPRESSOR EVERY DAY. Do not allow moisture to build up inside the compressor. Do not allow compressor to sit pressurized for longer than one hour.

19. MAKE SURE ALL EQUIPMENT IS RATED TO THE APPROPRIATE CAPACITY. Make sure that the regulator is set at least 10 PSI lower than the lowest rated piece of equipment you are using.

20. DO NOT USE OXYGEN, COMBUSTIBLE GASES, OR BOTTLED GASES AS A POWER SOURCE. The tool may explode, possibly causing injury.

21. DO NOT EXCEED the recommended air pressure of 90 PSI.

22. TOOL MUST NOT HOLD PRESSURE WHEN AIR SUPPLY IS DISCONNECTED. If a wrong fitting is used, the tool can remain charged with air after disconnecting and thus will be able to cycle after the air line is disconnected possibly causing injury.

23. ALWAYS DISCONNECT AIR SUPPLY: Before making adjustments, when servicing the tool, when clearing a jam, when tool is not in use, or when moving to a different work area, as accidental actuation may occur, possibly causing injury.

24. DISCONNECT POWER. Unplug compressor when not in use.

25. OUTDOOR EXTENSIONS CORDS. When the equipment is operated outdoors, use only extension cords intended for outside use. See chart under “Extension Cords” for the proper AWG rating depending on the length of the cord(s) being used.

26. DO NOT ABUSE THE POWER CORD. Do not yank it to disconnect it from the receptacle. Do not carry tools by the cord.

27. GUARD AGAINST ELECTRIC SHOCK. Prevent body contact with grounded surfaces such as pipes, radiators, ranges, and refrigerator enclosures.

## GROUNDING INSTRUCTIONS

### *If compressor has a three-prong plug*

1. This machine has a three-prong plug. The third prong (round) is the ground. Plug the machine's cord only into three-prong receptacles. Never cut off the round prong. Cutting off the ground will result in a safety hazard and void the warranty.

2. If a three-prong receptacle is not available, you may use an adapter. Extending from the male end of the adapter, you will find a ring connector or wire lead with a ring connector where the ground (round prong) would be. Remove the center screw of the outlet cover and put the screw through the ring connector and back into the hole of the outlet cover. Do not over-tighten or you will crack the outlet cover.

### *If compressor has a two-prong plug*

This machine has a polarized plug. One prong is wider than the other prong. This plug will fit in polarized outlet only one way. If the plug does not fit fully in the outlet reverse the plug. If it still does no fit, contact a qualified electrician to install the proper outlet. Do not attempt to modify the plug in any way. Modifying the plug will result in a safety hazard and void the warranty.

## UNPACKING

When unpacking, check to make sure the following parts are included. All sizes listed below are approximate. If any parts are missing or broken, please call Harbor Freight Tools at the number on the cover of this manual.

| Item# | Description | Item# | Description |
|---|---|---|---|
| N/A | 3/8" Ratchet Wrench | N/A | Impact Sockets (7/16" – 1") |
| N/A | 1/2" Impact Wrench | N/A | Oil Pot |
| N/A | 3/8" to 1/2" Adapter | N/A | Air Coupler |
| N/A | 4mm Hex Wrench | | |

## ASSEMBLY

Your Air Ratchet comes completely assembled.

### *Air Connection for Ratchet*

Step 1: Remove the plastic cap from the rear of the CONNECTION HEAD (#2).

Step 2: Wrap the threads of the Air Coupler with pipe thread seal tape (not included). Attach the Air Coupler to the CONNECTION HEAD. Tighten the fitting.

Step 3: Your Air Ratchet is ready for use.

### *Impact Wrench*

This Impact Wrench develops a maximum of 230 ft/lbs. of torque. The amount of torque can be increased or decreased using the AIR REGULATOR (#11). When the Air Regulator is completely screwed in it is at it's lowest setting. Air pressure increases as you loosen the Air Regulator.

## OPERATION

***Setup***

Frequent, but not excessive, lubrication is required for best performance. Oil added through the airline connection will lubricate internal parts. An automatic airline oiler is recommended but oil may be added manually before every operation or after about 1 hour of continuous use. Only a few drops of oil at a time are necessary. Too much oil will collect inside the tool and be blown out during the exhaust cycle. **ONLY USE PNEUMATIC TOOL OIL.** Do not use detergent oil or additives as these lubricants will cause accelerated wear to the seals in the tool.

Dirt and water in the air supply are major causes of pneumatic tool wear. Use a filter/oiler for better performance and longer life. The filter must have adequate flow capacity for the specific application. Consult the manufacturer's instructions for proper maintenance of your filter.

The connector on the tool must not hold pressure when the air supply is disconnected. If the wrong fitting is used, the tool can remain charged with air after being disconnected and still be able to drive a fastener. See Figure 1 for the recommended accessories and connection order.

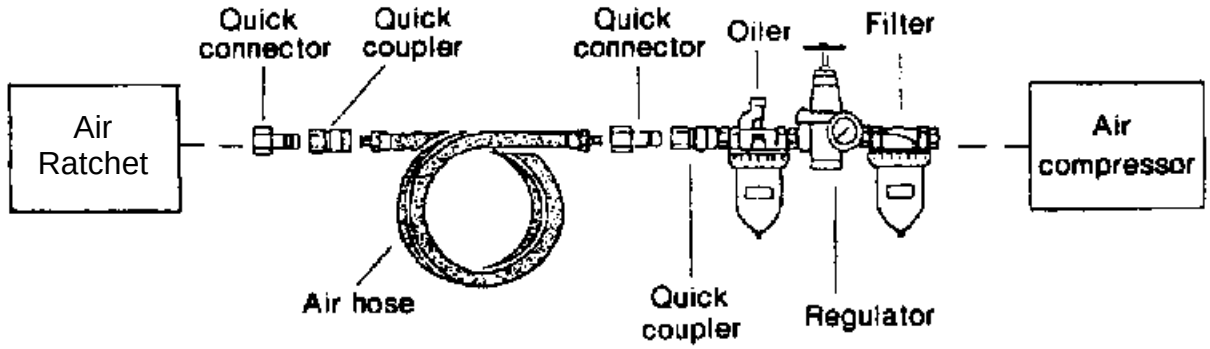



***Figure 1 — Airline Oiler Assembly***

***Air Ratchet Operation***

Step 1: Select the appropriate socket for your needs.

Step 2: Attach the socket to the RATCHET ANVIL (#18) as shown in Figure 2.

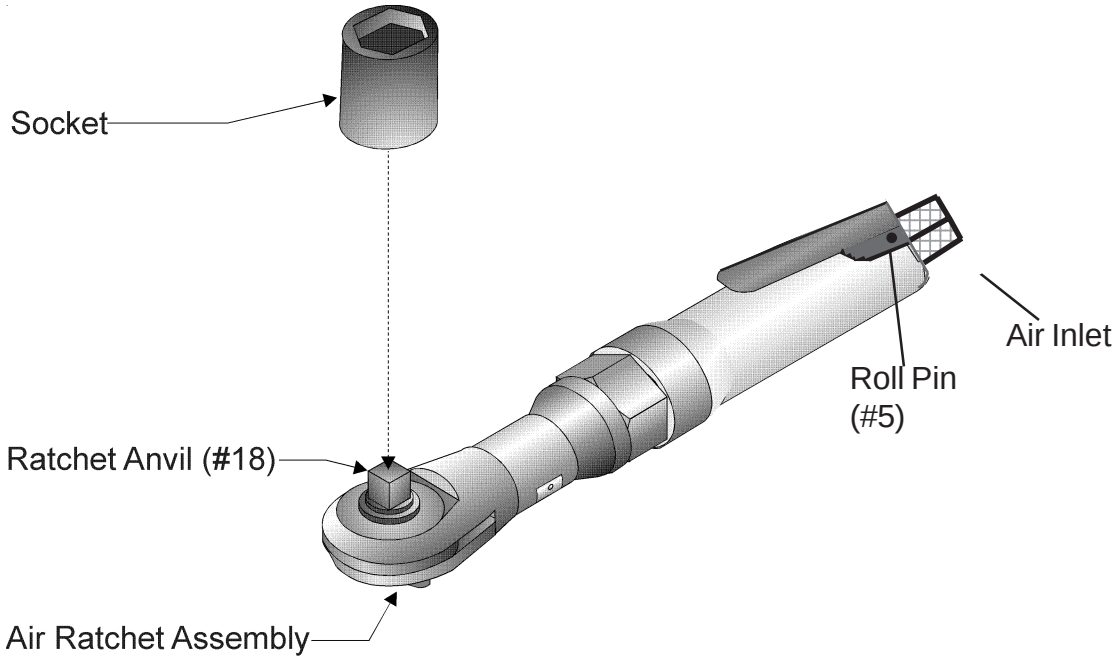



***Figure 2 — Attaching the Socket***

Step 3: Set the compressor's pressure regulator to 90 PSI. Do not set the compressor's outlet regulator over 90 PSI.

Step 4: Connect the Air Ratchet to the air compressor's hose. If leaking is detected, disconnect the air hose and repair before use.

**Loosening**

Step 1: Check the direction of the drive by pressing the TRIGGER (#4) as shown in Figure 3.

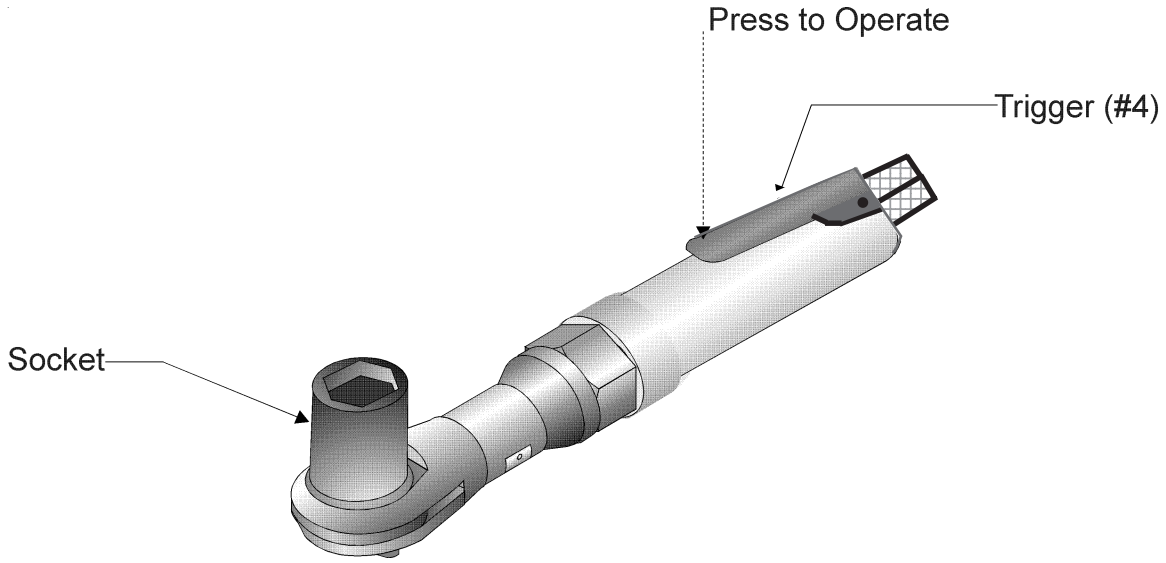



***Figure 3 — Operating the Air Ratchet***

Step 2: If the Air Ratchet is going counterclockwise (the correct direction to loosen), then proceed to Step 4.

Step 3: To change the direction of the drive to loosen, turn the dial marked “R-F” clockwise as shown in Figure 4.

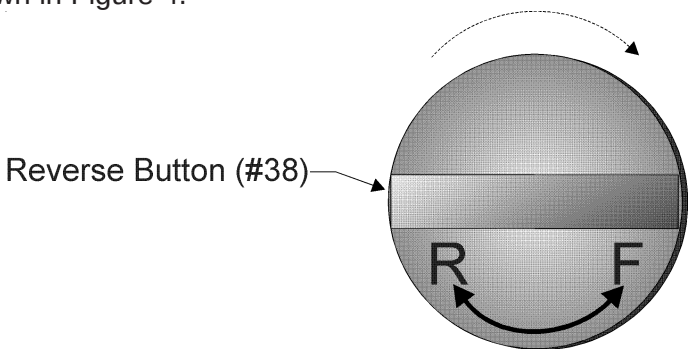



***Figure 4 — Changing Direction of the Drive***

Step 4: Place the socket over the nut to loosen.

Step 5: Grip the Air Ratchet firmly. Press the TRIGGER to begin loosening.

Step 6: If the Air Ratchet cannot loosen the nut, DO NOT raise the outlet pressure of the air compressor. Do not continue attempts to loosen with the Air Ratchet. Use appropriate tools and methods to loosen the nut.

Step 7: When the nut is removed, stop the Air Ratchet by releasing the TRIGGER and remove the Air Ratchet. Remove the nut from the socket if needed.

***Tightening***

Step 1: Check the direction of the drive by pressing the TRIGGER (#4) as shown in Figure 3.

Step 2: If the Air Ratchet is going clockwise (the correct direction to tighten), then proceed to Step 4.

Step 3: To change the direction of the drive in order to tighten, turn the dial marked “R-F” counterclockwise as shown in Figure 5

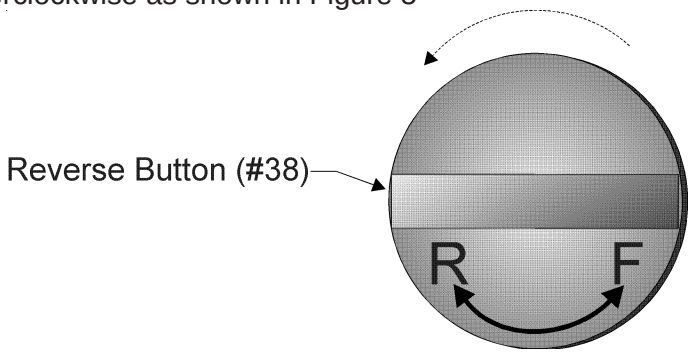



***Figure 5 — Changing the Direction of the Drive***

Step 4: Thread the nut on as far as you can by hand.

Step 5: Place the socket on the nut. To begin tightening the nut, press the TRIGGER.

Step 6: If the Air Ratchet stalls while tightening, do not continue attempts to tighten the nut with the Air Ratchet. DO NOT raise the outlet pressure of the air compressor. Use the appropriate tools and methods to tighten the nut.

Step 7: When the nut has been tightened, remove the Air Ratchet and socket.

Step 8: If available, check the recommended torque specification for the nut. You should use a torque wrench to torque the nut after using the Air Ratchet.

## MAINTENANCE

Your Air Ratchet is best operated with an Airline Oiler. If you are using the Air Tool without an Airline Oiler, follow the steps below.

Step 1: Disconnect the Air Ratchet from the air hose.

Step 2: Apply a few drops of **PNEUMATIC TOOL OIL** through the air inlet before each use, or every hour if used continuously.

**CAUTION**
Do not use detergent oil or additives as these lubricants will cause accelerated wear to the seals in the tool.

Step 3: Apply a few drops of oil to the VALVE (#6), location shown in Figure 6. Work the TRIGGER a few times to lubricate.

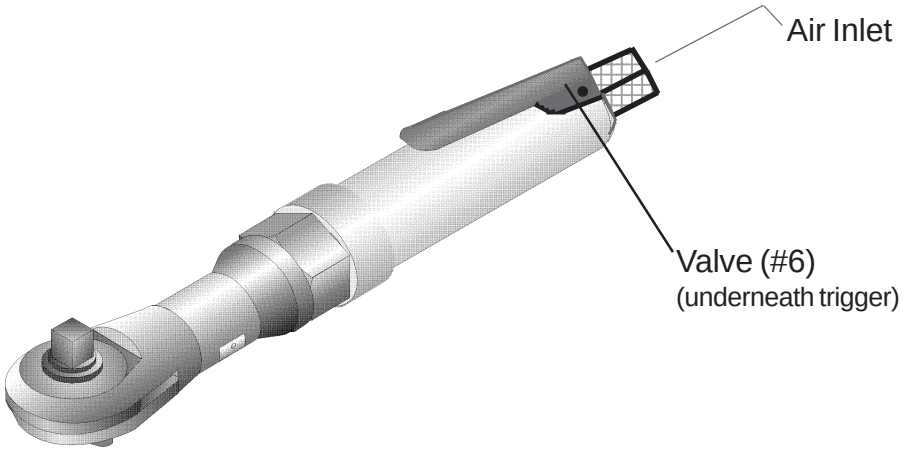



***Figure 6 — Lubrication Points***

***For technical questions, please call 1-800-444-3353.***

### *Impact Wrench Operation*

Step 1: Set the compressor's pressure regulator to a maximum of 90 PSI. 90 PSI is satisfactory without harming this tool.

Step 2: Remove the plastic cap from the rear of the HOSE ADAPTER (#10).

Step 3: Wrap the threads of the Air Coupler with pipe thread seal tape (not included). Attach the Air Coupler to the HOSE ADAPTER. Tighten the fitting.

Step 4: Determine the socket size necessary for the job you need to do. Attach the appropriate 1/2" drive socket to the Impact Wrench as shown in Figure 7.

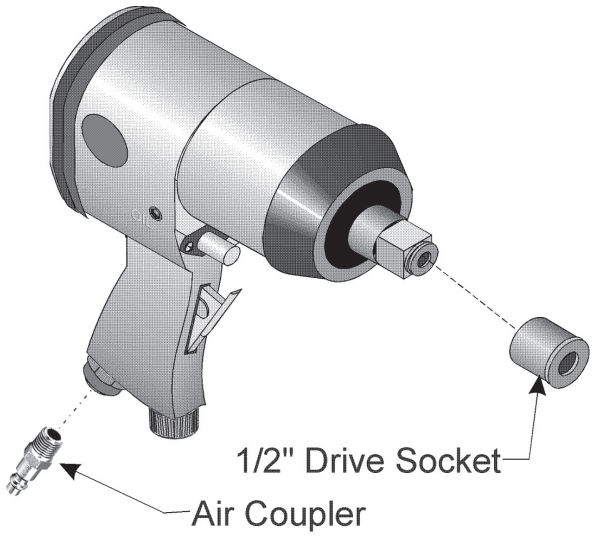



***Figure 7 — Attaching the Air Coupler and Socket***

Step 5: Connect the Impact Wrench to the air compressor's hose. If leaking is detected, disconnect the air hose and repair before use.

Step 6: Select the power setting for Loosening by pushing in and turning the AIR REGULATOR (#11) located on the bottom of the Impact Wrench as shown in Figure 8. When the Air Regulator is completely screwed in it is at it's lowest setting. Air pressure increases as you push in and turn the Air Regulator.

**CAUTION**
Use the Setting Appropriate for the Job. Do Not Set the Power Setting Higher Than Needed. Damage to Parts Could Result.

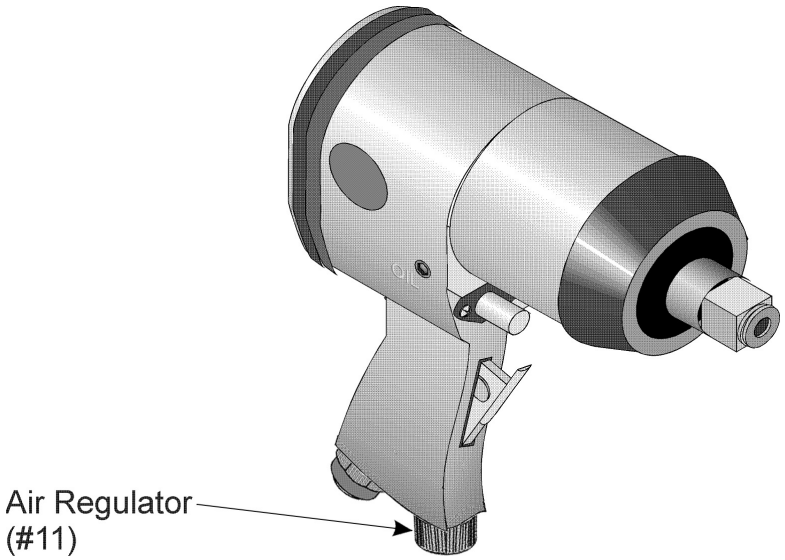



***Figure 8 — Adjusting the Reverse Power Setting***

Step 7: Select the direction of the Wrench (forward or reverse) by pushing the REVERSE VALVE (#3) located on the handle of the Impact Wrench as shown in Figure 9.

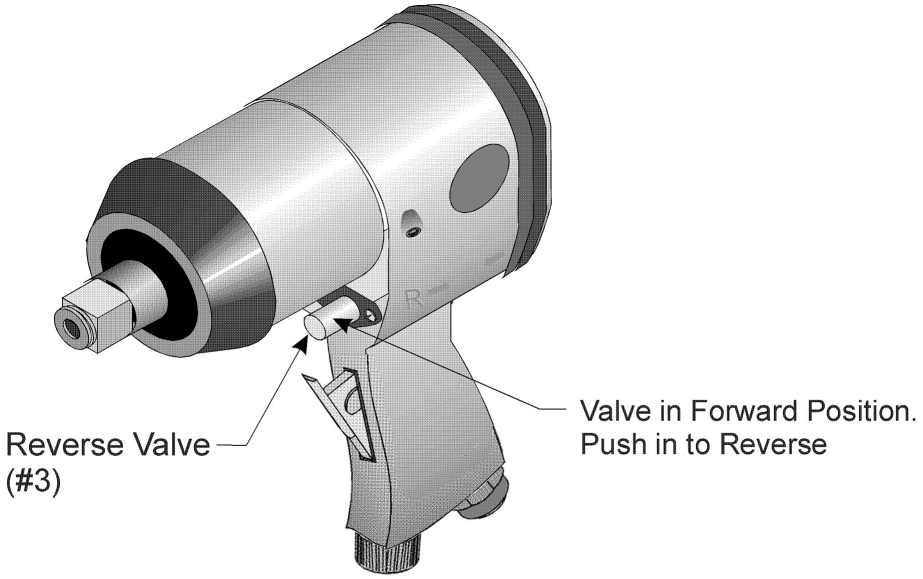



***Figure 9 — Selecting Reverse Direction***

***For technical questions, please call 1-800-444-3353.***

Step 8: Press the TRIGGER (#4) to test the Impact Wrench. The Impact Wrench should spin freely as shown if Figure 10.

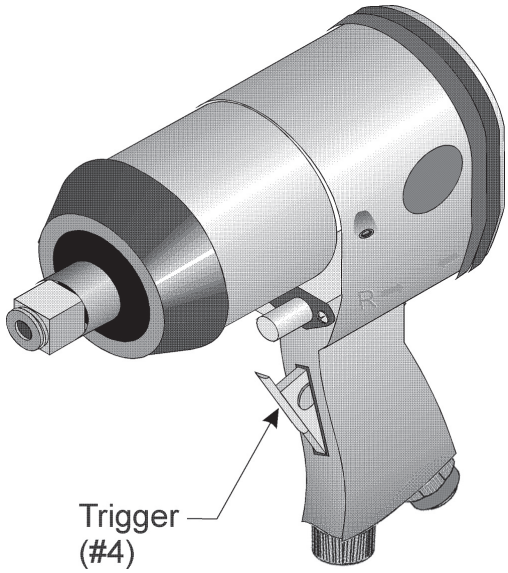



***Figure 10 — Pressing Trigger***

**Loosening**

Step 1: Verify that the power level is correct for your needs and that the REVERSE VALVE (#3) has been shifted (pressed) completely to the right. If not, refer to Steps 6 through 7 under ***Impact Wrench Operation*** before proceeding.

Step 2: Place your work in as clear a location as possible. Make sure the air hose will reach as far as needed without stressing any connections.

Step 3: With the correct socket attached to the Impact Wrench, slide the socket over the nut or bolt.

Step 4: Grip the Impact Wrench with both hands, especially with higher power settings. Make sure you are in a stable position and spread your feet shoulder-width apart.

Step 5: Press the TRIGGER (#4) to loosen the bolt.

Step 6: If the bolt will not loosen, and you are on a low power setting for Loosening, try increasing the power setting and attempt again.

**WARNING**
The Impact Wrench May Kick Back During Operation. If This Happens, Release the TRIGGER **IMMEDIATELY!**

Step 7: If the bolt will not loosen with the Impact Wrench on a higher power setting, do not repeat attempts to loosen. You may snap the bolt or strip the threads of the stud or nut. Try another method to loosen the bolt or nut.

***Tightening***

Step 1: Verify that the power level is correct for your needs and that the REVERSE VALVE (#3) has been shifted (pressed) completely to the left. If not, refer to Steps 6 through 7 under ***Impact Wrench Operation*** before proceeding.

Step 2: Place your work in as clear a location as possible. Make sure the air hose will reach as far as needed without stressing any connections.

Step 3: Thread the nut or bolt on as far as possible by hand. This is to prevent cross-threading.

Step 4: If you have torque specs for the nut or bolt you are working on, refer to them. If a low torque setting is given, it is recommended that you use a socket wrench or a manual torque wrench to tighten as the Impact Wrench may provide too much torque, even in the lowest power setting.

Step 5: Place the socket onto the nut or bolt.

Step 6: Grip the Impact Wrench with both hands, especially with higher power settings. Make sure you are in a stable position and spread your feet shoulder-width apart.

Step 7: Press the TRIGGER to tighten the bolt.

Step 8: When the bolt is tight, release the TRIGGER. DO NOT OVER TIGHTEN!

## MAINTENANCE

There are no user-serviceable parts in your Impact Wrench. Attempts to repair or make adjustments on your tool are prohibited and will VOID your warranty.

Refer to **OPERATIONS *Setup*** for information on maintaining your tool.

Wipe down your tool after every use and store it in a drawer or other safe place.

## WARRANTY

Air Tools covered under Central Pneumatic 1 year warranty.

Sockets covered under Pittsburgh Limited Lifetime warranty.

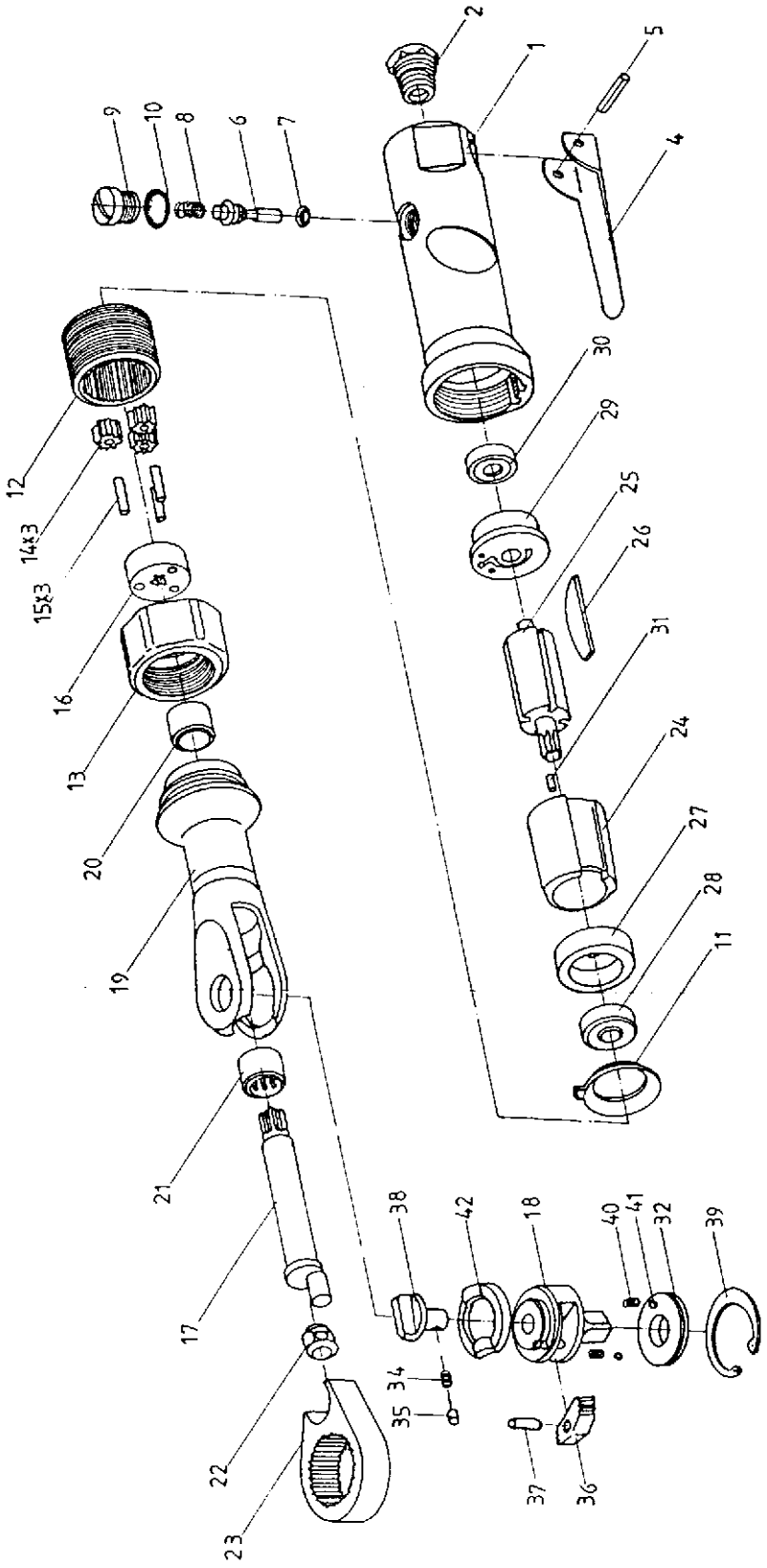
***For technical questions, please call 1-800-444-3353.***

## PARTS LIST – RATCHET WRENCH

| Item# | Parts No. | Description | Item# | Parts No. | Description |
|---|---|---|---|---|---|
| 1 | HY150-01 | Housing | 23 | HY150-23 | Ratchet Yoke |
| 2 | HY150-02 | Connection Head | 24 | HY150-24 | Cylinder |
| 4 | HY150-04 | Trigger | 25 | HY150-25 | Rotor |
| 5 | HY150-05 | Roll Pin | 26 | HY150-26 | Rotor Blade |
| 6 | HY150-06 | Valve | 27 | HY150-27 | Front Plate |
| 7 | HY130-18 | O-Ring | 28 | HY150-28 | Front Bearing |
| 8 | HY150-08 | Spring | 29 | HY150-29 | Rear Plate |
| 9 | HY150-09 | Valve Plug | 30 | HY150-30 | Rear Bearing |
| 10 | HY160-12 | O-Ring | 31 | HY150-31 | Cylinder Pin |
| 11 | HY150-11 | Washer | 32 | HY150-32 | Thrust Washer (3/8") |
| 12 | HY150-12 | Thread Ring Gear | 33 | HY150-33 | Thrust Washer (1/2") |
| 13 | HY150-13 | Clamp Nut | 34 | HY150-34 | Spring |
| 14 | HY150-14 | Idler Gear | 35 | HY150-35 | Lock Pin |
| 15 | HY150-15 | Idler Gear Pin | 36 | HY150-36 | Ratchet Pawl |
| 16 | HY150-16 | Idler Gear Plate | 37 | HY150-37 | Pin |
| 17 | HY150-17 | Crank Shaft | 38 | HY150-38 | Reverse Button |
| 18 | HY150-18 | Ratchet Anvil | 39 | HY150-39 | Retainer Ring |
| 19 | HY150-19 | Ratchet Housing | 40 | HY150-40 | Spring |
| 20 | HY150-20 | Spacer | 41 | HY150-41 | Steel Ball |
| 21 | NY150-21 | Needle Bearing | 42 | HY150-42 | Washer |
| 22 | HY150-22 | Drive Bushing | | | |

***For technical questions, please call 1-800-444-3353.***

# Exploded View Diagram - Ratchet Wrench



## PARTS LIST – AIR IMPACT WRENCH

| Item# | Parts No. | Description | Item# | Parts No. | Description |
|---|---|---|---|---|---|
| 1 | 16001 | Housing | 23 | 16023 | Ball Bearing (X2) |
| 2 | 16002 | Valve Sleeve | 24 | 16024 | Cylinder |
| 3 | 16003 | Reverse Valve | 25 | 16025 | Rotor |
| 4 | 16004 | Trigger | 26 | 16026 | Rotor Blade (X6) |
| 5 | 16005 | Spring Pin | 27 | 16027 | Front End Plate |
| 6 | 16006 | Valve Stem | 28 | 16028 | Spring Pin |
| 7 | 16007 | Bushing | 29 | 16029 | Rear End Plate |
| 8 | 16008 | Steel Ball | 30 | 16030 | Spring Pin |
| 9 | 16009 | Spring | 31 | 16031 | Oil Seal |
| 10 | 16010 | Hose Adapter | 32 | 16032 | Rear Gasket |
| 11 | 16011 | Air Regulator | 33 | 16059 | O-Ring |
| 12 | 16012 | O-Ring | 34 | 16033 | Rear Cover |
| 13 | 16013 | Set Screw | 35 | 16035 | Cap Screw (X4) |
| 14 | 16014 | Spring | 36 | 16036 | Pin |
| 15 | 16015 | Anvil Bushing | 37 | 16037 | Spring |
| 16 | 16016 | Anvil Collar | 38 | 16038 | Set Screw |
| 17 | 16017 | O-Ring | 39 | 16039 | Exhaust Deflector |
| 18 | 16018 | Anvil | 40 | 16040 | Tapping Screw (X2) |
| 19 | 16019 | Hammer Cage | 41 | 16041 | Set Screw |
| 20 | 16020 | Hammer Pin | 42 | 16042 | Protecting Rubber |
| 21 | 16021 | Hammer Dog | 43 | 16043 | Rubber |
| 22 | 16022 | Drive Cam | | | |

***For technical questions, please call 1-800-444-3353.***

# Exploded View Diagram -- Air Impact Wrench