

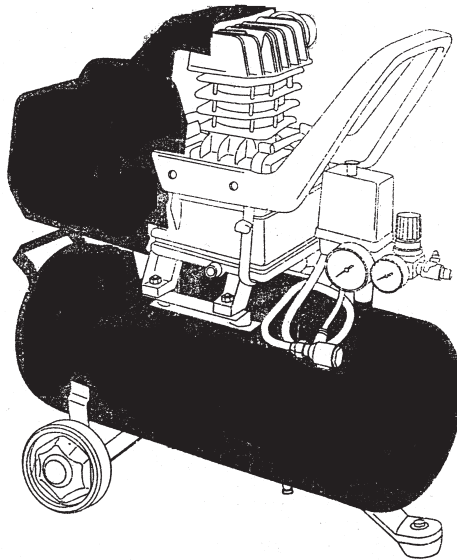
**CENTRAL PNEUMATIC®**

# **AIR COMPRESSOR**

## **2 HP - 8 GALLON**

**Model 40400**

### **ASSEMBLY & OPERATING INSTRUCTIONS**



Diagrams within this manual may not be drawn proportionally.  
Due to continuing improvements, actual product may differ slightly from the product described herein.

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**Read this material before using this product.**  
**Failure to do so can result in serious injury.**  
**SAVE THIS MANUAL.**

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

REV 01h, 09c

## **SPECIFICATIONS**

Motor	Single Phase, 120 V~, 60 Hz, 15.5 A, 3,360 RPM
Air Tank	8 Gallon
Pump Type	Single Stage
Max. Working Pressure	115 PSI
Air Flow	6 SCFM at 40 PSI, 5 SCFM at 90 PSI, 4.2 SCFM at 115 PSI
Press Switch	70 PSI
Materials	Cast Iron Piston and Connecting Rod Cast Aluminum Crankcase
Piston Diameter	1.886"
Cylinder Honing	45° Crosshatch
Overall Dimensions	26" x 11-3/4" x 27"
Outlet Fittings	1/4" – 18 NPT



## **SAVE THIS MANUAL**

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

## **GENERAL SAFETY WARNINGS AND PRECAUTIONS**

- KEEP WORK AREA CLEAN AND DRY.** Cluttered, damp, or wet work areas invite injuries.
- KEEP CHILDREN AWAY FROM WORK AREA.** Do not allow children to handle this product.
- STORE IDLE EQUIPMENT.** When not in use, tools and equipment should be stored in a dry location to inhibit rust. Always lock up tools and equipment, and keep out of reach of children.
- DO NOT USE THIS PRODUCT IF UNDER THE INFLUENCE OF ALCOHOL OR DRUGS.** Read warning labels on prescriptions to determine if your judgement or reflexes are impaired while taking drugs. If there is any doubt, do not attempt to use this product.
- USE EYE AND HAND PROTECTION.** Wear ANSI-approved safety impact goggles and heavy-duty work gloves when using this product.
- DRESS SAFELY.** Do not wear loose clothing or jewelry, as they can become caught in moving parts. Wear a protective hair covering to prevent long hair from becoming caught in moving parts. If wearing a long-sleeve shirt, roll sleeves up above elbows.
- DO NOT OVERREACH.** Keep proper footing and balance at all times to prevent tripping, falling, back injury, etcetera.
- INDUSTRIAL APPLICATIONS MUST FOLLOW OSHA REQUIREMENTS.**
- STAY ALERT.** Watch what you are doing at all times. Use common sense. Do not use this product when you are tired or distracted from the job at hand.
- CHECK FOR DAMAGED PARTS.** Before using this product, carefully check that it will operate properly and perform its intended function. Check for damaged parts and any other conditions that may affect the operation of this product. Replace or repair damaged or worn parts immediately.
- REPLACEMENT PARTS AND ACCESSORIES:** When servicing, use only identical replacement parts. Only use accessories intended for use with this product. Approved accessories are available from Harbor Freight Tools.
- MAINTAIN THIS PRODUCT WITH CARE.** Keep this product clean and dry for better and safer performance.

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13. **MAINTENANCE:** For your safety, service and maintenance should be performed regularly by a qualified technician.
14. **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.
15. **WARNING:** Make sure to fill the Air Compressor with a premium quality, 30-weight, non-detergent oil before each use. Running the Air Compressor with no oil or low oil will cause damage to the equipment. **Note:** The oil reservoir has an optimal capacity of 30 ounces of oil.
16. **WHEN CHECKING THE OIL LEVEL:** Make sure to **unscrew** (do not pull) the Dip Stick out.
17. **MAKE SURE ALL TOOLS AND EQUIPMENT USED WITH THE AIR COMPRESSOR ARE RATED TO THE APPROPRIATE CAPACITY.** Do not use any tool or equipment that does not operate at the regulator setting being used.
18. **DRAIN AIR COMPRESSOR EVERY DAY.** Do not allow moisture to build up inside the Air Compressor.  
**(See "INSPECTION, MAINTENANCE, AND CLEANING" section of this manual.)**
19. **MAINTAIN A SAFE WORKING ENVIRONMENT.** Keep the work area well lit. Make sure there is adequate surrounding workspace. Do not use the Air Compressor in areas near flammable chemicals, dusts, and vapors.
20. **AVOID INJURY:** Never direct the air stream at people or animals.
21. **DO NOT ALTER OR REMOVE THE FACTORY SEALED PRESSURE RELEASE VALVE.**
22. **TO REDUCE THE RISK OF FIRE OR EXPLOSION, NEVER SPRAY FLAMMABLE LIQUIDS IN A CONFINED AREA.** Do not smoke while spraying. Do not spray where sparks or flames are present. Keep compressor as far from spray area as possible.
22. **DO NOT OPEN THE WATER DRAIN VALVE SO THAT MORE THAN FOUR THREADS ARE SHOWING.**
23. **AN EXTENSION CORD MUST NEVER BE USED WITH THIS ITEM.** Connecting this item to an outlet through an extension cord **MAY CAUSE ELECTRICAL DAMAGE TO THE MOTOR** and could present a **FIRE HAZARD.**
24. **THIS COMPRESSOR MAY REQUIRE A DEDICATED ELECTRICAL CIRCUIT AS THE AMPERAGE DRAW UNDER FULL LOAD COMBINED WITH USE OF ANY OTHER ITEM MAY OVERLOAD YOUR CIRCUIT.**
25. The brass components of this product contain lead, a chemical known to the State of California to cause birth defects (or other reproductive harm). (California Health & Safety code § 25249.5, *et seq.*)
26. **WARNING:** People with pacemakers should consult their physician(s) before using this product. Operation of electrical equipment in close proximity to a heart pacemaker could cause interference to or failure of the pacemaker.
27. **Never weld on the air tank of this Compressor.** Welding of the tank could affect tank strength and result in an extremely hazardous condition.
28. **To decrease the potential for electric shock, never use this Compressor outdoors when it is raining, and never use the Compressor on a wet surface.**
29. Not suitable for breathing air supply purposes.
30. **WARNING:** The warnings, precautions, and instructions discussed in this manual cannot cover all possible conditions and situations that may occur. The operator must understand 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 all parts are included. Refer to the Assembly Drawing and Parts List at the end of this manual. 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.

**Note:** There is a square black plastic shipping insert that is placed between the Shroud and the Cylinder Head. You must remove it before turning on the compressor. See Assembly Diagram page 8.

## **Assembly**

The Wheels need to be assembled to the Air Compressor. Insert the Axle (54) through one of the Wheels (55). With these two assembled together, insert Axle (54) through the bracket on the bottom of the Tank Assembly (50). Slide on Washer (56) and the Lock Washer (57) and tighten with the Nut (58). Once assembled, roll the Air Compressor to test the operation of the wheels. Periodically check to insure that wheel and axle hardware is secure. Next connect the Rubber Foot (52) to the compressor. Secure it using Bolt (51), Washer (60), and Nut (61). See Assembly Diagram page 8.

## **Before Operation Check**

To assist you with operation, please refer to the Assembly Diagram and Parts List located on pages 6, 7 and 8.

**Warning: Fill with compressor oil before using; running with NO OIL or LOW OIL voids warranty.**

### **Checking the Oil**

**Make certain to add compressor oil prior to operation.** The Oil Fill Plug and Oil Sight is shown on the illustration on page 6. Only use a good quality, 30-weight, non-detergent compressor oil.

Change the oil after every 500 hours of operation.

1. By checking the level of fluid in the Oil Sight (20), you will be able to determine the oil level. The oil level should be even with the dot in the center of the Oil Sight (20). If low, add oil until it is at the proper level.
2. Oil is added by removing the Oil Plug (14) and, using a funnel to avoid spills, adding oil to the Compressor. After Oil is added, replace the Oil Plug.

## **Operation**

1. Plug the power cord into an electrical outlet with a grounding prong.
2. Pull up on the Power switch to turn on (see illustration on page 6). Push down on the switch to turn the compressor off.
3. Allow the tank to fill to 80 PSI before using. With the Air Compressor on, its operation is automatic and under the control of the internal pressure switch.

**Warning: Do not remove the factory sealed Air Control Valve (see illustration on page 6); removal of this valve voids warranty.**

### **Hose Connections**

1. Close the Air Control Valve (turn to right or left).
2. Connect the high pressure air hose to the air outlet. The outlet is 1/4" NPT. Note: For easy connection or removal, a quick coupler (not included) should be installed on the end of the outlet.
3. Turn the Air Control Valve to the middle position to allow the air to pass.

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## Operation (continued)

**WARNING!** The automatic Pressure Switch (46) is factory set. It should only be adjusted to have the original settings restored and this should only be done by a qualified technician. Adjustments made by unqualified personnel or adjusting the pressure valve to other settings will VOID THE WARRANTY and may cause damage to the compressor or PERSONAL INJURY.

### The Safety Valve

The Safety Valve (see illustration on page 6 for location) is used as a backup to help prevent the tank from exceeding its maximum safe pressure. Check before each use as follows: Pull on the Safety Valve ring to release pressure; the valve is spring-loaded and has resistance, but it should move without sticking.

### Empty Air and Condensation

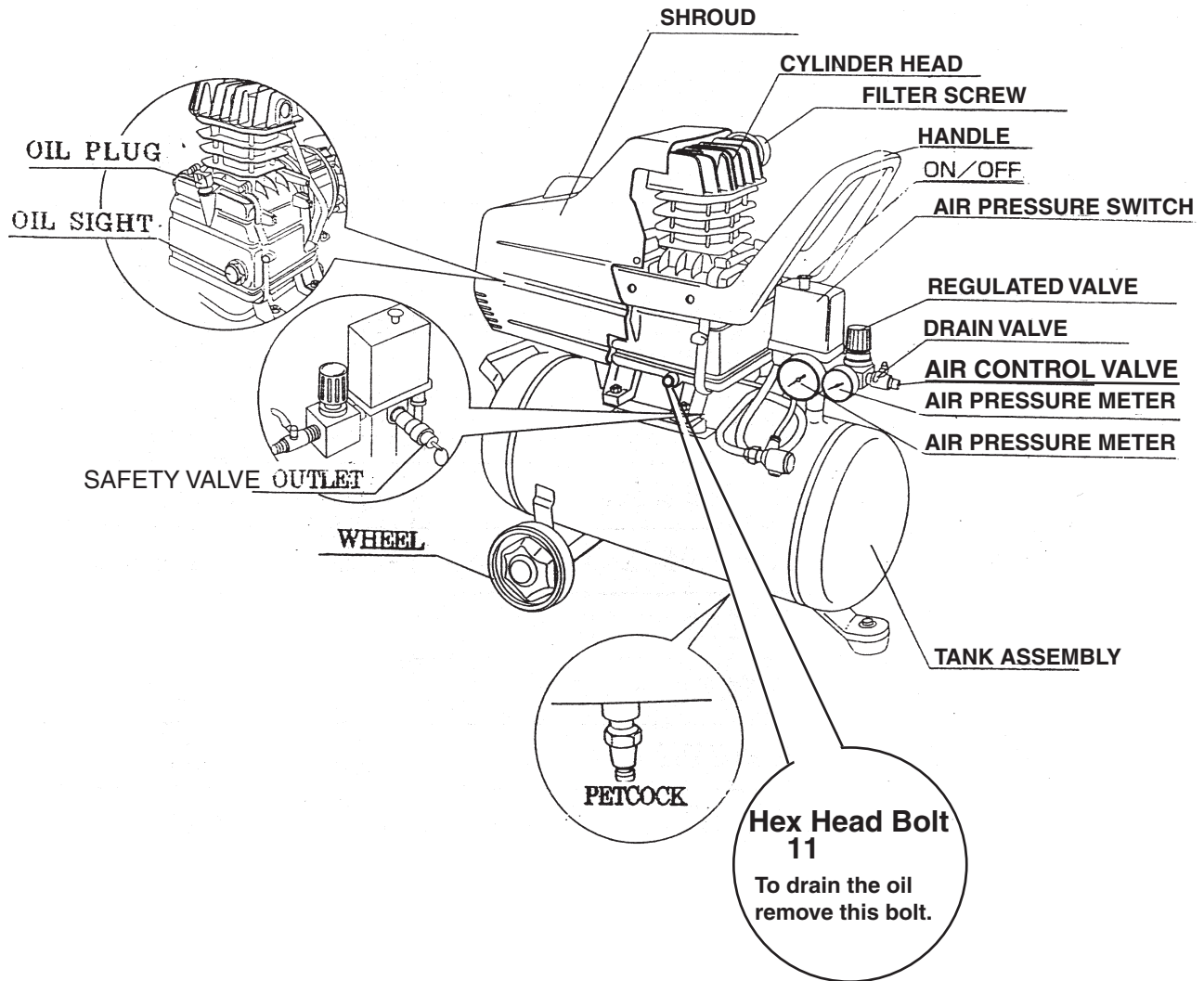
The Petcock (53) release valve is located underneath the Tank Assembly (50). It must be used daily to release all trapped air and moisture through this valve. It will also get rid of any condensation that may cause tank corrosion.

**Warning:** Do not open the Petcock (53) so that more than four threads are showing.

1. Push down on the Power switch to turn the compressor off.
2. Unscrew the Petcock (53) two to three turns *only*.
3. When all pressure is released, close the Petcock (53) again.

**NOTE: IF THE COMPRESSOR SUDDENLY SHUTS OFF, check and reset the unit's Overload Protection (59). Ensure that an extension cord is not being used.**

## Component Diagram



### PLEASE READ THE FOLLOWING CAREFULLY

THE MANUFACTURER AND/OR DISTRIBUTOR HAS PROVIDED THE PARTS DIAGRAM IN THIS MANUAL AS A REFERENCE TOOL ONLY. NEITHER THE MANUFACTURER NOR DISTRIBUTOR MAKES ANY REPRESENTATION OR WARRANTY OF ANY KIND TO THE BUYER THAT HE OR SHE IS QUALIFIED TO MAKE ANY REPAIRS TO THE PRODUCT OR THAT HE OR SHE IS QUALIFIED TO REPLACE ANY PARTS OF THE PRODUCT. IN FACT, THE MANUFACTURER AND/OR DISTRIBUTOR EXPRESSLY STATES THAT ALL REPAIRS AND PARTS REPLACEMENTS SHOULD BE UNDERTAKEN BY CERTIFIED AND LICENSED TECHNICIANS AND NOT BY THE BUYER. THE BUYER ASSUMES ALL RISK AND LIABILITY ARISING OUT OF HIS OR HER REPAIRS TO THE ORIGINAL PRODUCT OR REPLACEMENT PARTS THERETO, OR ARISING OUT OF HIS OR HER INSTALLATION OF REPLACEMENT PARTS THERETO.

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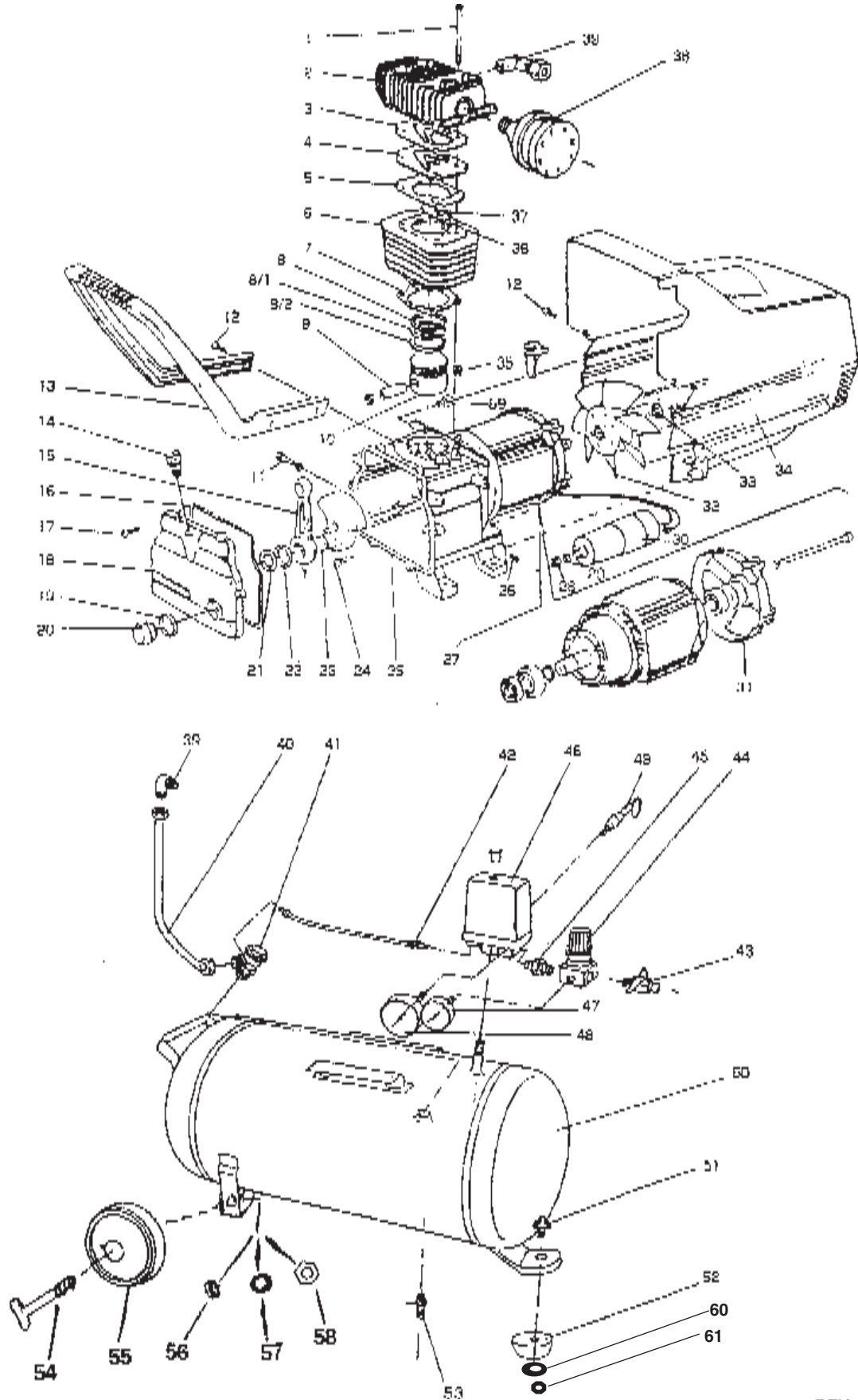
## Parts List

Part	Description	Qty	Part	Description	Qty
1	Socket Screw	4	30	Capacitor	1
2	Cylinder Head	1	31	Back Cover	1
3	Cylinder Head Gasket	1	32	Forced Air Fan	1
4	Valve	1	33	Stem Ring	1
5	Cylinder Gasket	1	34	Shroud	1
6	Cylinder	1	35	Stem Ring	2
7	Gasket	1	36	Pin	2
8, 8-1	Compression Ring	2	37	Strip Valve	1
8-2	Piston	1	38	Filter/Filter Screw	1
9	Wrist Pin Piston	1	39	Elbow, 90°	1
10	Piston	1	40	Drain Tube	1
11	Hex Head Nut	1	41	Check Valve	1
12	Crossed Screw	4	42	Tube	1
13	Handle	1	43	Drain Valve	1
14	Oil Retainer	1	44	Regulated Valve	1
15	Connecting Rod	1	45	Outlet	1
16	Gasket Crankcase	1	46	Air Pressure Switch	1
17	Hex Head Bolt	6	47	Air Pressure Meter	1
18	End Cover Assembly	1	48	Air Pressure Meter	1
19	Washer	1	49	Safety Valve	1
20	Oil Sight	1	50	Tank Assy	1
21	Stem Ring	1	51	Bolt	1
22	Washer	1	52	Rubber Foot	1
23	Crankshaft Cone Assy	1	53	Petcock	1
24	Inner Hex Head Bolt	1	54	Axle	2
25	Crank Case	1	55	Wheel	2
26	Cross-head Self-tapping Screw	1	56	Washer	2
27	Motor Drive	1	57	Lock Washer	2
28	Nut	1	58	Nut	2
29	Washer	1	59	Overload Protection	1
30	Capacitor	1	60	Washer	1
			61	Nut	1

**Note:** Some parts listed and shown on this page are for illustration purposes only and are not available individually as replacement parts.

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# Assembly Diagram





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## LIMITED 1 YEAR WARRANTY

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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 one year from the date of purchase (90 days if used by a professional contractor or if used as rental equipment). This warranty does not apply to damage due directly or indirectly, to misuse, abuse, negligence or accidents, repairs or alterations outside our facilities, 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.

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