

CENTRAL MACHINERY

®

OSCILLATING SPINDLE SANDER

Model 95088

ASSEMBLY AND OPERATION INSTRUCTIONS



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



3491 Mission Oaks Blvd., Camarillo, CA 93011

Visit our website at: <http://www.harborfreight.com>

**TO PREVENT SERIOUS INJURY, READ AND UNDERSTAND
ALL WARNINGS AND INSTRUCTIONS BEFORE USE.**

Copyright© 2006 by Harbor Freight Tools®. All rights reserved. No portion of this manual or any artwork contained herein may be reproduced in any shape or form without the express written consent of Harbor Freight Tools.

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

PRODUCT SPECIFICATIONS

Electrical Requirements	120 VAC, 60 Hz, 3.5 Amps
Speed	2,000 RPM, 5/8" Stroke
Oscillating Range	58 OPM
Dust Port	1-1/2" OD
Construction	100% sealed ball bearing construction
Table Size	14-11/32" L x 11-15/32" W
Overall Dimensions	15-9/16" L x 14-1/8" W x 17" H
Spindle Dimensions	1/2" x 1.5 mm thread
Tool Weight	33 Lb.



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. Write the product's serial number in the back of the manual near the assembly diagram, or write month and year of purchase if product has no number. Keep this manual and invoice in a safe and dry place for future reference.

GENERAL SAFETY RULES



READ AND UNDERSTAND ALL INSTRUCTIONS
Failure to follow all instructions listed below may result in
electric shock, fire, and/or serious injury.
SAVE THESE INSTRUCTIONS

WORK AREA

1. **Keep your work area clean and well lit.** Cluttered benches and dark areas invite accidents. Make sure there is adequate surrounding workspace.
2. **Do not operate power tools in explosive atmospheres, such as in the presence of flammable liquids, gases, or dust.** Power tools create sparks which may ignite the dust or fumes.
3. **Keep bystanders, children, and visitors away while operating a power tool.** Distractions can cause you to lose control. Protect others in the work area from debris such as chips and sparks. Provide barriers or shields as needed.

ELECTRICAL SAFETY

4. **Grounded tools must be plugged into an outlet properly installed and grounded in accordance with all codes and ordinances. Never remove the grounding prong or modify the plug in any way. Do not use any adapter plugs. Check with a qualified electrician if you are in doubt as to whether the outlet is properly grounded.** If the tools should electrically malfunction or break down, grounding provides a low resistance path to carry electricity away from the user.
5. **Double insulated tools are equipped with a polarized plug (one blade is wider than the other). This plug will fit in a polarized outlet only one way. If the plug does not fit fully in the outlet, reverse the plug. If it still does not fit, contact a qualified electrician to install a polarized outlet. Do not change the plug in any way.** Double insulation eliminates the need for the three wire grounded power cord and grounded power supply system.
6. **Avoid body contact with grounded surfaces such as pipes, radiators, ranges, and refrigerators.** There is an increased risk of electric shock if your body is grounded.
7. **Do not expose power tools to rain or wet conditions.** Water entering a power tool will increase the risk of electric shock.
8. **Do not abuse the Power Cord. Never use the Power Cord to carry the tools or pull the Plug from an outlet. Keep the Power Cord away from heat, oil, sharp edges, or moving parts. Replace damaged Power Cords immediately.** Damaged Power Cords increase the risk of electric shock.
9. **When operating a power tool outside, use an outdoor extension cord marked “W-A” or “W”.** These extension cords are rated for outdoor use, and reduce the risk of electric shock.

PERSONAL SAFETY

10. **Stay alert. Watch what you are doing, and use common sense when operating a power tool. Do not use a power tool while tired or under the influence of drugs, alcohol, or medication.** A moment of inattention while operating power tools may result in serious personal injury.
11. **Dress properly. Do not wear loose clothing or jewelry. Contain long hair. Keep your hair, clothing, and gloves away from moving parts.** Loose clothes, jewelry, or long hair can be caught in moving parts.
12. **Avoid accidental starting. Be sure the Power Switch is off before plugging in.** Carrying power tools with your finger on the Power Switch, or plugging in power tools with the Power Switch on, invites accidents.
13. **Remove adjusting keys or wrenches before turning the power tool on.** A wrench or a key that is left attached to a rotating part of the power tool may result in personal injury.

14. **Do not overreach. Keep proper footing and balance at all times.** Proper footing and balance enables better control of the power tool in unexpected situations.
15. **Use safety equipment. Always wear eye protection.** Dust mask, nonskid safety shoes, hard hat, or hearing protection must be used for appropriate conditions. Always wear ANSI approved safety goggles and a dust mask/respirator when using or performing maintenance on this tool.

TOOL USE AND CARE

16. **Use clamps (not included) or other practical ways to secure and support the workpiece to a stable platform.** Holding the work by hand or against your body is unstable and may lead to loss of control.
17. **Do not force the tool. Use the correct tool for your application.** The correct tool will do the job better and safer at the rate for which it is designed. Do not force the tool and do not use the tool for a purpose for which it is not intended.
18. **Do not use the power tool if the Power Switch does not turn it on or off.** Any tool that cannot be controlled with the Power Switch is dangerous and must be replaced.
19. **Disconnect the Power Cord Plug from the power source before making any adjustments, changing accessories, or storing the tool.** Such preventive safety measures reduce the risk of starting the tool accidentally. **Always unplug the tool from its electrical outlet before performing any inspection, maintenance, or cleaning procedures.**
20. **Store idle tools out of reach of children and other untrained persons.** Tools are dangerous in the hands of untrained users.
21. **Maintain tools with care. Keep cutting tools sharp and clean.** Properly maintained tools with a sharp cutting edge are less likely to bind and are easier to control. Do not use a damaged tool. Tag damaged tools "Do not use" until repaired.
22. **Check for misalignment or binding of moving parts, breakage of parts, and any other condition that may affect the tool's operation. If damaged, have the tool serviced before using.** Many accidents are caused by poorly maintained tools.
23. **Use only accessories that are recommended by the manufacturer for your model.** Accessories that may be suitable for one tool may become hazardous when used on another tool.
24. **Tool service must be performed only by qualified repair personnel.** Service or maintenance performed by unqualified personnel could result in a risk of injury.
25. **When servicing a tool, use only identical replacement parts. Follow instructions in the "Inspection, Maintenance, And Cleaning" section of this manual.** Use

of unauthorized parts or failure to follow maintenance instructions may create a risk of electric shock or injury.

SPECIFIC SAFETY RULES

1. **Maintain labels and nameplates on the Sander.** These carry important information. If unreadable or missing, contact Harbor Freight Tools for a replacement.
2. **Avoid unintentional starting.** Make sure you are prepared to begin work before plugging in the Sander.
3. **WARNING! People with pacemakers should consult their physician(s) before using this product.** Electromagnetic fields in close proximity to a heart pacemaker could cause interference to or failure of the pacemaker.
In addition, people with pacemakers should adhere to the following:
 - Avoid operating power tools alone.
 - If powered via a power cord be certain that the tool is properly grounded. A ground fault interrupt (GFCI) system is also a good precaution. This inexpensive device is a good safety measure because it prevents a sustained electrical shock.
 - Properly maintain and inspect all tools before use to avoid electrical shock.
4. **Never leave the Sander unattended when it is plugged into an electrical outlet.** Turn off the tool, and unplug it from its electrical outlet before leaving.
5. **WARNING!** Some dust created by power sanding, sawing, grinding, drilling, and other construction activities, contain chemicals known (to the State of California) to cause cancer, birth defects or other reproductive harm.
Some examples of these chemicals are:
 - Lead from lead-based paints.
 - Crystalline silica from bricks and cement or other masonry products.
 - Arsenic and chromium from chemically treated lumber.Your risk from these 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 those dust masks that are specially designed to filter out microscopic particles.
(California Health & Safety Code § 25249.5, *et seq.*)
6. **Take caution as some woods contain preservatives such as copper chromium arsenate (CCA) which can be toxic.** When cutting these materials extra care should be taken to avoid inhalation and minimize skin contact.
7. **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.

Note: Performance of this tool (if powered by line voltage) may vary depending

on variations in local line voltage. Extension cord usage may also affect tool performance.

GROUNDING

 **WARNING!**

Improperly connecting the grounding wire can result in the risk of electric shock. Check with a qualified electrician if you are in doubt as to whether the outlet is properly grounded. Do not modify the power cord plug provided with the tool. Never remove the grounding prong from the plug. Do not use the tool if the power cord or plug is damaged. If damaged, have it repaired by a service facility before use. If the plug will not fit the outlet, have a proper outlet installed by a qualified electrician.

GROUNDING TOOLS: TOOLS WITH THREE PRONG PLUGS

1. Tools marked with “Grounding Required” have a three wire cord and three prong grounding plug. The plug must be connected to a properly grounded outlet. If the tool should electrically malfunction or break down, grounding provides a low resistance path to carry electricity away from the user, reducing the risk of electric shock. **(See Figure A.)**
2. The grounding prong in the plug is connected through the green wire inside the cord to the grounding system in the tool. The green wire in the cord must be the only wire connected to the tool’s grounding system and must never be attached to an electrically “live” terminal. **(See Figure A.)**
3. Your tool must be plugged into an appropriate outlet, properly installed and grounded in accordance with all codes and ordinances. The plug and outlet should look like those in the following illustration. **(See Figure A.)**

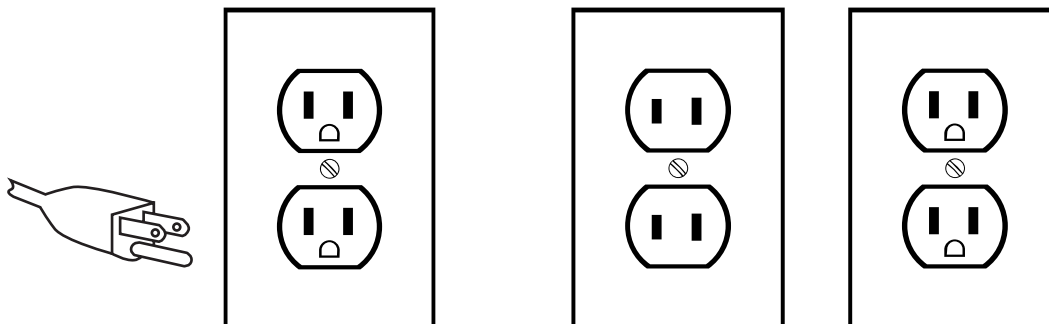


FIGURE A

FIGURE B

DOUBLE INSULATED TOOLS: TOOLS WITH TWO PRONG PLUGS

1. Tools marked “Double Insulated” do not require grounding. They have a special double insulation system which satisfies OSHA requirements and complies with the applicable standards of Underwriters Laboratories, Inc., the Canadian Standard Association, and the National Electrical Code. **(See Figure B.)**
2. Double insulated tools may be used in either of the 120 volt outlets shown in the preceding illustration. **(See Figure B.)**




EXTENSION CORDS

1. ***Grounded*** tools require a three wire extension cord. ***Double Insulated*** tools can use either a two or three wire extension cord.
2. As the distance from the supply outlet increases, you must use a heavier gauge extension cord. Using extension cords with inadequately sized wire causes a serious drop in voltage, resulting in loss of power and possible tool damage. **(See Figure C, next page.)**
3. The smaller the gauge number of the wire, the greater the capacity of the cord. For example, a 14 gauge cord can carry a higher current than a 16 gauge cord. **(See Figure C.)**
4. When using more than one extension cord to make up the total length, make sure each cord contains at least the minimum wire size required. **(See Figure C.)**
5. If you are using one extension cord for more than one tool, add the nameplate amperes and use the sum to determine the required minimum cord size. **(See Figure C.)**
6. If you are using an extension cord outdoors, make sure it is marked with the suffix “W-A” (“W” in Canada) to indicate it is acceptable for outdoor use.
7. Make sure your extension cord is properly wired and in good electrical condition. Always replace a damaged extension cord or have it repaired by a qualified electrician before using it.
8. Protect your extension cords from sharp objects, excessive heat, and damp or wet areas.

RECOMMENDED MINIMUM WIRE GAUGE FOR EXTENSION CORDS* (120 OR 240 VOLT)					
NAMEPLATE AMPERES (at full load)	EXTENSION CORD LENGTH				
	25 Feet	50 Feet	75 Feet	100 Feet	150 Feet
0 – 2.0	18	18	18	18	16
2.1 – 3.4	18	18	18	16	14
3.5 – 5.0	18	18	16	14	12
5.1 – 7.0	18	16	14	12	12
7.1 – 12.0	18	14	12	10	-
12.1 – 16.0	14	12	10	-	-
16.1 – 20.0	12	10	-	-	-

FIGURE C * Based on limiting the line voltage drop to five volts at 150% of the rated amperes.


SYMBOLOLOGY

	Double Insulated
	Canadian Standards Association
	Underwriters Laboratories, Inc.
V~	Volts Alternating Current
A	Amperes
n ₀ xxxx/min.	No Load Revolutions per Minute (RPM)

UNPACKING

When unpacking, check to make sure that the item is intact and undamaged. If any parts are missing or broken, please call Harbor Freight Tools at the number shown on the cover of this manual as soon as possible.

INSTALLING AND CHANGING SANDING SLEEVES

 **WARNING!** Always make sure the Power Cord (73) of the Spindle Sander is unplugged from its electrical outlet *prior* to making any adjustments to the tool.

1. To install the sanding sleeve you must first locate the corresponding sanding spindle and throat plate. **Example: The 3/4 inch Sanding Sleeve (103) goes with the 3/4 inch Rubber Spindle (108) and the 3/4" Throat Plate (97). See pages 11 through 14.**
2. First place the Throat Plate on the Cast Iron Table (7) in the round recessed area. Next place the Rubber Spindle over the Spindle (55). **Note: the 1/2" sanding sleeve is the only sanding sleeve that goes directly onto the Spindle (55).**
3. Place the Sanding Sleeve over the Rubber Spindle, and put the correct size Spindle Washer on top of that. Finally thread the Hex Nut (1) onto the Spindle (55) and secure it using a wrench.

OPERATION

NOTE: For additional information regarding the parts listed in the following pages, refer to the **Assembly Diagram on pages 11 through 14.**

1. After you have put on the appropriate safety gear covered on page 3 of this manual, and you have installed the sanding sleeve you want to use, plug in the Sander.
2. Turn the sander on using the Switch (80). Always run the Sander for a few seconds before contacting the work piece.
3. Contact the work piece with minimal pressure. If the Spindle Sander is not removing enough material, try a coarser grit sanding sleeve. Keep a firm grip on the stock material as you move the stock material into the spinning sanding sleeve.
4. Occasionally check the sanding sleeves for tears, wear, or fraying. Replace if necessary. Stop using if sanding sleeve is damaged.
5. When you are finished, turn off the Switch (80). Remove the yellow Safety Lock and store it out of the reach of children.

INSPECTION, MAINTENANCE, AND CLEANING

BEFORE EACH USE, inspect the general condition of the Spindle Sander. Check for loose screws, misalignment or binding of moving parts, cracked or broken parts, damaged electrical wiring, and any other condition that may affect its safe operation. If abnormal noise or vibration occurs, have the problem corrected before further use. **Do not use damaged equipment.**

TROUBLESHOOTING

1. Over time, if the performance of the tool diminishes, or it stops working completely, it may be necessary to replace the Carbon Brushes (34) by removing the Brush Holder (33). This procedure should be completed by a qualified technician. If the Carbon Brushes are not worn down, try cleaning the Carbon Brush tips with an ink eraser.
2. If the Sanding Sleeve stops rotating when you touch it or press the stock material against it, turn off the machine at once. Unplug the machine and check to make sure that the Hex Nut (1) is threaded on tight to the Spindle (55).

PARTS LIST

No.	Descriptions	Qty.	No.	Descriptions	Qty.
1	Hex nut 10mm	1	49	Spring	1
2	Upper spindle washer	1	50	Spring washer	2
3	Sander sleeve	1	51	Spindle washer	2
4	Rubber spindle	1	52	Screw 4.2 x 13	4
5	Throat plate	1	53	Wheel plate	1
6	Lower spindle washer	1	54	Wheel (I)	1
7	Cast iron table	1	55	Spindle	1
8	Dust washer	1	56	Pin	1
9	Dust cover	1	57	Wheel (II)	1
10	Washer Ø5	5	58	Bearing sleeve	1
11	Spring washer Ø5	5	59	Wheel plate	1
12	Screw 5 x 12	5	60	Screw 4.2 x 13	4
13	Belt	1	61	Screw 4.2 x 13	4
14	Belt II	1	62	Bearing support	1
15	Belt wheel	1	63	Bearing 6203zz	1
16	Spring washer	2	64	Rubble washer	1
17	Tension roller assembly	1	65	Felt	1
18	Screw 4.2 x 13	4	66	Wheel support	1
19	Orientation plate assembly	1	67	Wire assembly (I)	1
20	Screw 4.2 x 22	4	68	Wire assembly (II)	1
21	Washer Ø6	4	69	Rectifier	1
22	Spring washer Ø6	4	70	Screw 4.2 x 19	1
23	Screw 6 x 16	4	71	Wire assembly (III)	1
24	Cord clamp	1	72	Wire assembly (IV)	1
25	Screw 4.2 x 15	2	73	Cord	1
26	Bearing 6001zz	1	74	Cord clamp	1
27	Spring washer	1	75	Switch orientation plate	1
28	Armature assembly	1	76	Housing base	1
29	Bearing 608zz	1			
30	Connection plate	1	78	Logo label	1
31	Field assembly	1	79	Switch orientation (I)	1
32	Rear cover	1	80	Switch	1
33	Brush holder	2	81	Switch orientation (II)	1
34	Carbon brush	2	82	Switch assistant orientation	1
35	Brush spring	2	83	Screw 4 x 16	4
36	Cord clamp	2	84	Warning label (I)	1
37	Washer Ø4	4	85	Cord clamp	1
38	Screw 4.2 x 13	4	86	Screw 4.2 x 15	2
39	Washer Ø4	2	87	Thread	2
40	Screw 4.2 x 110	2	88	Screw 4.2 x 10	2
41	Screw 4.2 x 22	4	89	Rubble foot	4
42	Bearing cover	1	90	Washer Ø6	6
43	Felt	1	91	Spring washer Ø6	6
44	Rubber washer	1	92	Screw 6 x 16	6
45	Bearing 6203zz	1	93	Bottom plate	1
46	Bearing support	1	94	Screw 4.2 x 13	6
47	Screw 4.2 x 15	4	95	Warning label (II)	1
48	Bearing sleeve	1			

PARTS LIST CONTINUED

Part	Description	Q'ty
96	1/2" Throat Plate	1
97	3/4" Throat Plate	1
98	1" Throat Plate	1
99	1-1/2" Throat Plate	1
100	2" Throat Plate	1
101	3" Throat Plate	1
102	1/2 " Sanding Sleeve (80 grit)	1
103	3/4 " Sanding Sleeve (80 grit)	1
104	1 " Sanding Sleeve (80 grit)	1
105	1-1/2 " Sanding Sleeve (80 grit)	1
106	2 " Sanding Sleeve (80 grit)	1
107	3 " Sanding Sleeve (80 grit)	1
108	3/4" Rubber Spindle	1
109	1" Rubber Spindle	1
110	1-1/2" Rubber Spindle	1
111	2" Rubber Spindle	1
112	3" Rubber Spindle	1
113	5/8" OD Spindle Washer	1
114	7/8" OD Spindle Washer	1
115	1-3/4" OD Spindle Washer	1

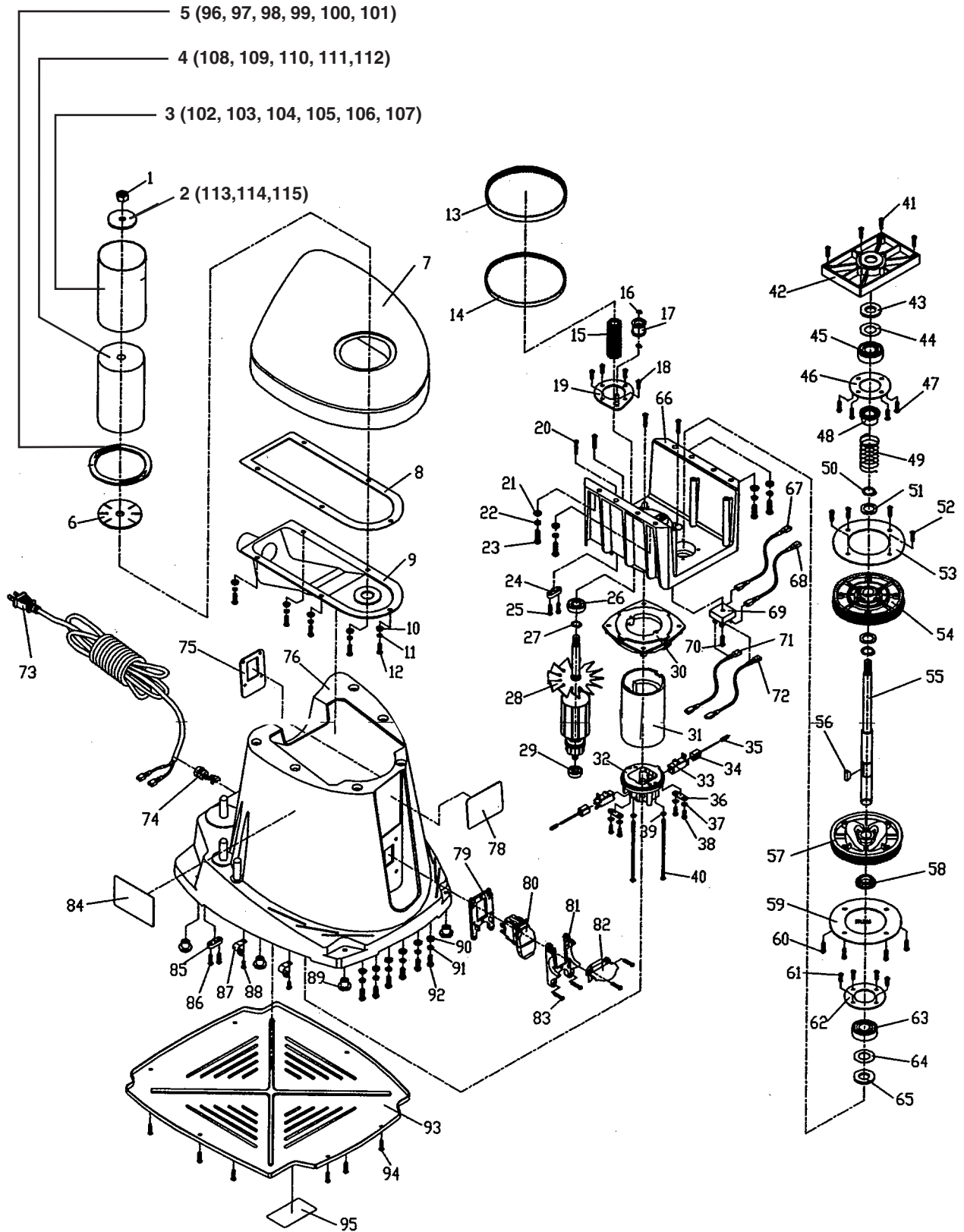
Record **Product's Serial Number Here:** _____

Note: If product has no serial number, record month and year of purchase instead.

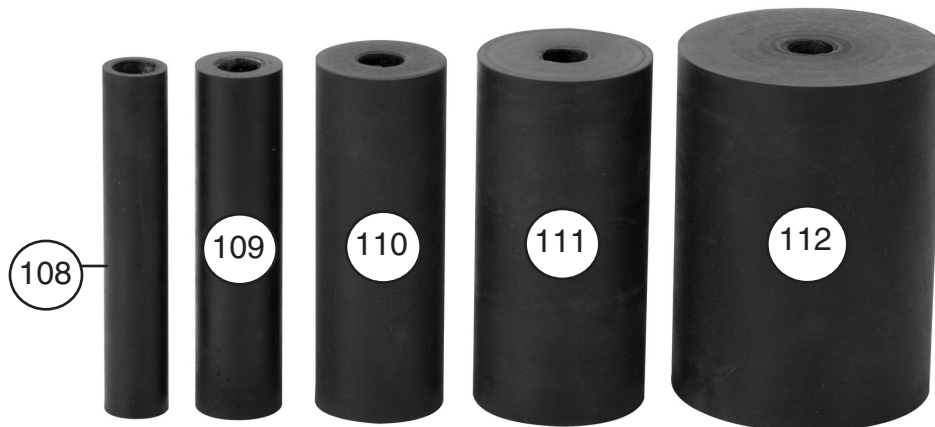
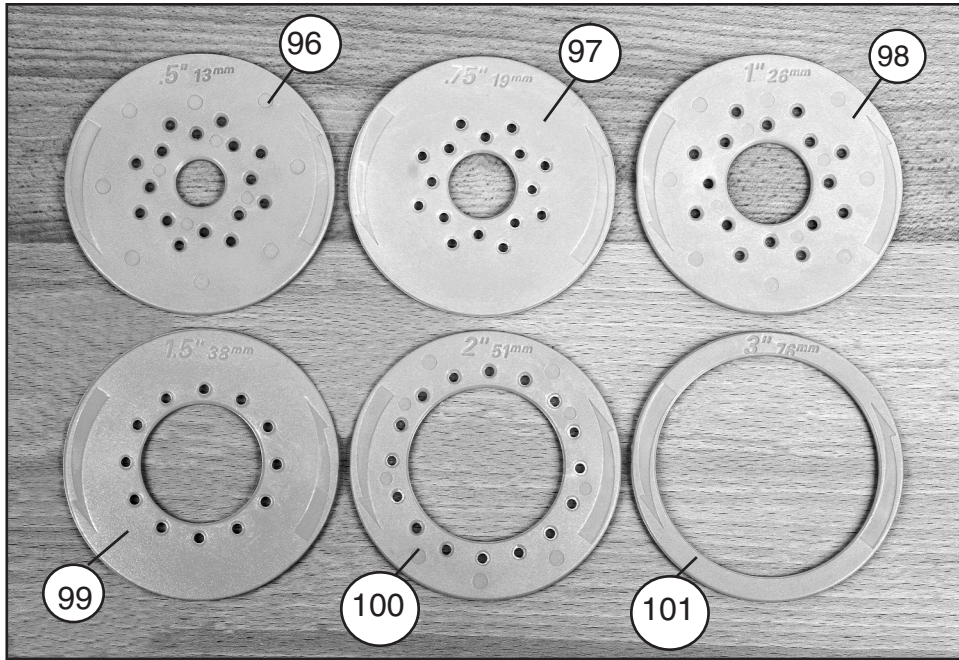
Note: Some parts are listed and shown for illustration purposes only, and are not available individually as replacement parts.

REV 07d

ASSEMBLY DIAGRAM



ASSEMBLY DIAGRAM CONTINUED



LIMITED 1 YEAR / 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 for a period of one year from date of purchase that the tank is free of defects in materials and workmanship (90 days if used by a professional contractor or if used as rental equipment). Harbor Freight Tools also warrants to the original purchaser, for a period of ninety days from date of purchase, that all other parts and components of the product are free from defects in materials and workmanship. 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.

3491 Mission Oaks Blvd. • PO Box 6009 • Camarillo, CA 93011 • (800) 444-3353

PLEASE READ THE FOLLOWING CAREFULLY

THE MANUFACTURER AND/OR DISTRIBUTOR HAS PROVIDED THE PARTS LIST AND ASSEMBLY DIAGRAM IN THIS MANUAL AS A REFERENCE TOOL ONLY. NEITHER THE MANUFACTURER OR DISTRIBUTOR MAKES ANY REPRESENTATION OR WARRANTY OF ANY KIND TO THE BUYER 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 RISKS 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.

07g