

NOT FOR HOME USE

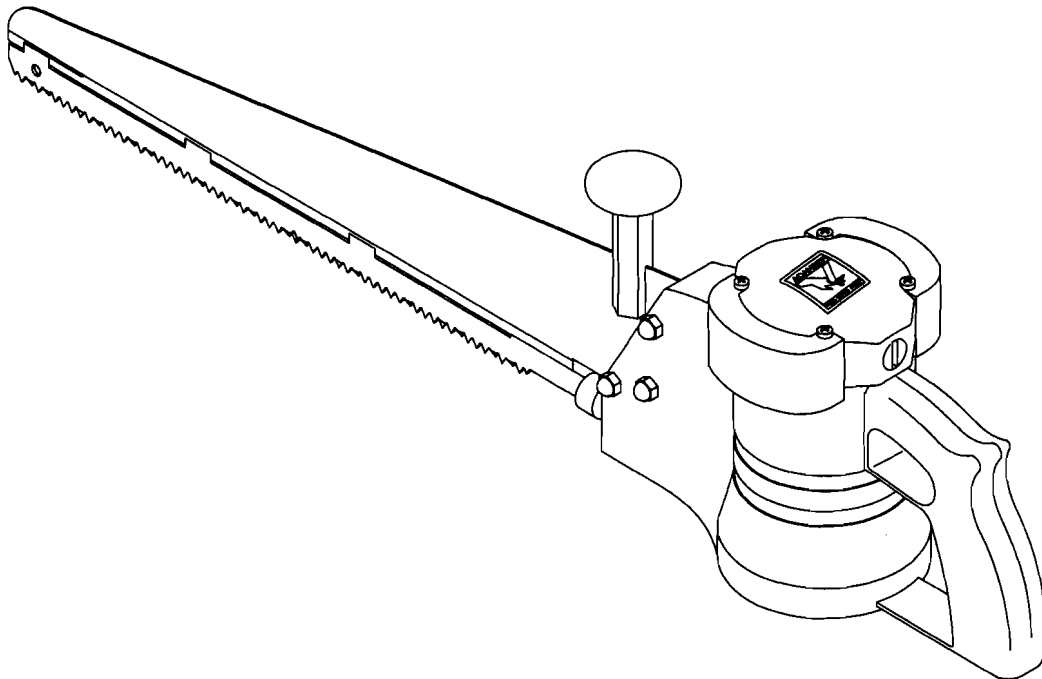
Owner's Manual For:

JARVIS Wellsaw

PORTABLE POWER SAW

MODEL 400

| Table Of Contents: | Page |
|---|-------------|
| •Notice to Employer and Safety Director | 2 |
| •Notice to Operators, Maintenance and Cleanup Personnel | 3 |
| •Parts Diagram | 4 |
| •Parts List | 5 |
| •Installation Instructions | 6 |
| •General Safety Instructions | 7 |
| •Operation Instructions | 8 |
| •Maintenance Instructions | 10 |



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33 ANDERSON ROAD, MIDDLETOWN, CONNECTICUT 06457-4926

UNITED STATES OF AMERICA

FAX 860-347-6978 TEL. 860-347-7271



NOTICE TO EMPLOYER AND SAFETY DIRECTOR
AVOID INJURY

1. **Remove** and **repair** any tool that malfunctions. **All** personnel must be instructed to remove any malfunctioning equipment.
2. **Ensure** that all employees who use this tool are trained in the proper use of this tool and are aware of the dangers that may arise if they do not follow the procedures outlined in this brochure.
3. Enclosed are four (4) copies of "**NOTICE TO OPERATORS, MAINTENANCE AND CLEAN-UP PERSONNEL.**" Post one copy on the employees' bulletin board; give one copy to operator(s); give one copy to the maintenance foreman; and give one copy to the sub-contract cleanup / internal cleanup foreman. *Additional copies will be provided upon request.*
4. The tool is designed and intended to be powerful. That fact should be obvious to your employees, but you must emphasize it to them.
5. **Never** make modifications or alterations to the tool. *Replace any missing or illegible labels.*
6. **Always** disconnect the tool from its power supply when it is not in use.
7. **Follow** our installation and maintenance instructions for proper installation and care of the tool.
8. **Ensure** that employees wear eye protection in accordance with OSHA's eye and face protection requirements (29 CFR 1910.133) at all times.
9. **Hand/Wrist/Arm** injury and other Cumulative Trauma Disorders may result from repetitive work, motion or vibration. You must make your employees aware of hazards, symptoms of injury and appropriate prevention. See OSHA's "Ergonomics Program Management Guidelines for Meatpacking Plants."
10. **Avoid** injury. Do not permit the tool to be misused.
11. **If you resell or distribute** a Jarvis product, you must provide the purchaser with the appropriate safety sheets and tool brochure. *Additional copies of safety sheets and tool brochures will be provided upon request.*

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NOTICE TO OPERATORS, MAINTENANCE AND CLEANUP PERSONNEL
REMOVE ANY MALFUNCTIONING TOOL FROM SERVICE
REPORT ANY PROBLEMS TO YOUR SUPERVISOR

1. **Always** wear eye protection in accordance with OSHA's eye and face protection requirements (29 CFR 1910.133), and when needed, a dust mask.
2. **Do not** operate near flammable liquids or in gaseous atmospheres.
3. **Do not** operate in outdoor locations or in damp or wet locations.
4. **Do not** overreach; keep proper footing and balance when using the tool.
5. **Disconnect** the power supply in accordance with OSHA's lockout/tagout procedures (29 CFR 1910.147) before changing the blade.
6. **Disconnect** the power supply in accordance with OSHA's lockout/tagout procedures (29 CFR 1910.147) before performing any repair or maintenance.
7. **Disconnect** the power supply – or have the power supply disconnected – in accordance with OSHA's lockout/tagout procedures (29 CFR 1910.147) before performing any cleanup.
8. **Disconnect** the power supply when the tool is not in use.
9. **Never** put fingers, hands or other parts of the body on the cutting edge of the blade or in the cutting path.
10. **Test** the tool prior to use or daily. **Depress** the trigger and the tool should start. **Release** the trigger and the tool should stop. *If the tool malfunctions, remove it from service and report or repair it immediately.*
11. **Never** depress the trigger unless you are going to use or test the tool.
12. **Never** make any alterations to the tool. *Report or replace any missing or illegible labels.*
13. **Always** use both hands when starting and operating the tool to avoid the risk of possible "kick back" or "recoil." Continue holding the tool with both hands until the saw blade comes to a complete stop.

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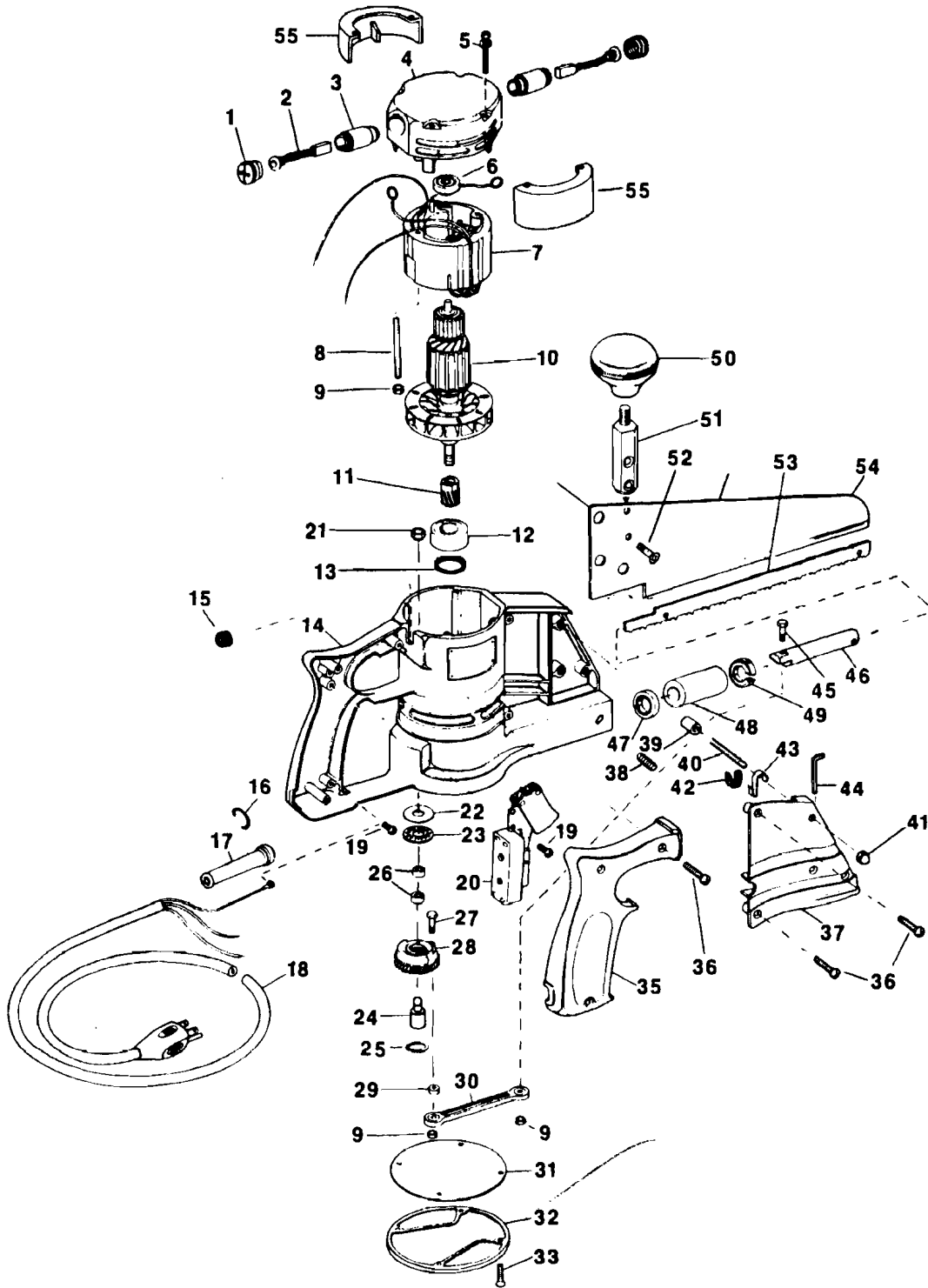
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| ITEM | JARVIS PART NO. | OLD PART NO. | PART NAME | QTY |
|------|-----------------|--------------|--------------------------|-----|
| 1 | 1063112 | 501022-005 | brush cap | 2 |
| 2 | 1063111 | 501022-004 | brush and spring | 2 |
| 3 | 1063110 | 501022-003 | brush holder | 2 |
| 4 | 1002191 | 501002 | top cap | 1 |
| 5 | 1055427 | 100101-002 | screw, set of 12 | 4 |
| 6 | 1021215 | 100423-003 | ball bearing | 1 |
| 7 | 1063119 | 501224-003 | stator 115v | 1 |
| 7 | 1063120 | 501224-004 | stator 230v | 1 |
| 8 | 1027040 | 501021 | stator stud | 2 |
| 9 | 1007164 | 100105-001 | locknut | 4 |
| 10 | 1063117 | 501224-001 | armature 115v | 1 |
| 10 | 1063118 | 501224-002 | armature 230v | 1 |
| 11 | 1026072 | 501225 | pinion | 1 |
| 12 | 1021227 | 100422-004 | ball bearing — | 1 |
| 13 | 1035193 | 501120-001 | seal | 1 |
| 14 | 1016213 | 501001-005 | housing | 1 |
| | 1017030 | 501023 | info label 115v, English | 1 |
| | 1017031 | 501084 | info label 230v, English | 1 |
| | 1017052 | | info label 115v, French | 1 |
| | 1017235 | | info label 230v, French | 1 |
| | 1054173 | | label retaining screw | 4 |
| 15 | 1063109 | 100647 | grommet | 1 |
| 16 | 1013137 | 501295 | clamp ring | 1 |
| 17 | 1063125 | 501294 | strain relief | 1 |
| 18 | 3001008 | 501336 | cord and plug 115v | 1 |
| 18 | 3001011 | 501337 | cord and plug 230v | 1 |
| 19 | 1055438 | 100101-003 | screw, set of 12 | 3 |
| 20 | 1005038 | 100739-001 | switch | 1 |
| 21 | 1007166 | 501376 | gear stud nut | 1 |
| 22 | 1004149 | 100426-001 | thrust bearing race | 1 |
| 23 | 1021218 | 100425-001 | needle thrust bearing | 1 |
| 24 | 1020133 | 501377 | gear stud | 1 |
| 25 | 1514502 | 100069-013 | snap ring | 1 |
| 26 | 1021216 | 100424-001 | needle bearing — | 2 |
| 27 | 1027043 | 501081 | drive stud | 1 |
| 28 | 3026024 | 501223 | gear and stud | 1 |
| 29 | 1029185 | 501082 | spacer | 1 |
| 30 | 3028030 | 501053 | connecting rod & bearing | 1 |
| 31 | 1035191 | 501008 | gasket | 1 |
| 32 | 1002193 | 501005 | bottom plate | 1 |
| 33 | 1055426 | 100101-001 | screw | 4 |
| 34 | 1062003 | | gear grease 16 oz. | |
| 35 | 1002203 | 501004-002 | handle cover | 1 |
| 36 | 1055439 | 100102-002 | screw | 5 |
| 37 | 1002192 | 501003 | blade support clamp | 1 |
| 38 | 1055424 | 100035-002 | set screw | 1 |
| 39 | 1036120 | 501273 | insert | 3 |
| 40 | 1027048 | 501272 | stud — | 3 |
| 41 | 1007162 | 100022-006 | cap nut | 6 |
| 42 | 1012047 | 501043 | "u" clip (rubber) | 1 |
| 43 | 1012046 | 501042 | "s" clip | 1 |
| 44 | 8030031 | 100099-001 | hex key | 1 |

| ITEM | JARVIS PART NO. | OLD PART NO. | PART NAME | QTY |
|------|-----------------|--------------|----------------------|-----|
| 45 | 1027041 | 501046 | rod stud | 1 |
| 46 | 3065009 | 501068 | push rod and stud | 1 |
| 47 | 1035192 | 501103 | seal — | 1 |
| 48 | 1036116 | 501171 | bushing — | 1 |
| 49 | 1036117 | 501186 | bushing spacer | 1 |
| 50 | 1006021 | 501066 | knob | 1 |
| 51 | 1027042 | 501065 | handle stud | 1 |
| 52 | 1055429 | 100102-003 | screw | 2 |
| 55 | 1015006 | 501174 | deflector | 2 |
| 56 | 1062023 | 501083-005 | blade support grease | 1 |

blades, blade supports
and accessories

| ITEM | JARVIS PART NO. | OLD PART NO. | PART NAME | QTY |
|------|-----------------|--------------|-------------------------------|-----|
| 53 | 1023125 | 501104 | blade 8" (8 tooth) <i>STD</i> | 1 |
| 53 | 1023126 | 501108 | blade 8" (12 tooth) | 1 |
| 53 | 1023128 | 501151 | blade 8" (knife) <i>FAB</i> | 1 |
| 53 | 1023127 | 501116 | blade 16" (8 tooth) | 1 |
| 53 | 1023129 | 501155 | blade 16" (knife) | 1 |
| 53 | 1023120 | 501121 | blade 16" (combo knife 8t.) | 1 |
| 53 | 1023166 | 501007T | blade 24" (knife) | 1 |
| 54 | 1058065 | 501071 | blade support 8" | 1 |
| 54 | 1058069 | 501058T | blade sup. 8", for dp. gage | 1 |
| 54 | 1058066 | | blade support 16" | 1 |
| 54 | 1058097 | | blade support 24" | 1 |
| | 3058037 | 501352-002 | depth gage assembly | 1 |

replacement kits

| ITEM | JARVIS PART NO. | OLD PART NO. | PART NAME | QTY |
|------|-----------------|--------------|---------------------------------------|-----|
| | 3063010 | 501351-001 | armature and bearing (no pinion) 115v | |
| | 3063011 | 501351-002 | armature and bearing (no pinion) 230v | |
| | 3063007 | 501235-001 | armature, bearing and pinion 115v | |
| | 3063008 | 501235-002 | armature, bearing and pinion 230v | |
| | 3063013 | 501232 | armature and pinion 115v | |
| | 3063014 | 501233 | armature and pinion 230v | |
| | 3001008 | 501006 | cord assembly 115v | |
| | 3001010 | 501089 | cord assembly 230v | |
| | 3026023 | 501088 | gear & bearing assembly | |

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INSTALLATION INSTRUCTIONS

These instructions have been prepared to assure you of satisfactory operation through proper use of your Jarvis Wellsaw.

Read them carefully and keep them for future reference.

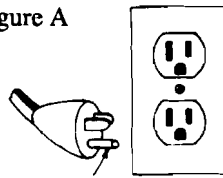
POWER SUPPLY

Your Jarvis Wellsaw operates on 50 or 60 Hz., single phase alternating current. Its voltage rating is indicated on the name plate (either 115 or 230 Volt). If an extension cord is to be used, be sure that the wire size is adequate to maintain full line voltage to the tool.

GROUNDING

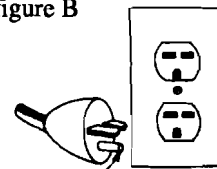
Your Jarvis Wellsaw should be grounded to prevent the user from electric shock or electrocution. The Jarvis Wellsaw is equipped with an approved three conductor cord and three prong grounding-type plug to fit the proper grounding-type receptacle. The green conductor in the cord is the grounding wire. Never connect the green wire to a live terminal. If your Jarvis Wellsaw is the 115 volt model, it has a plug that looks like figure "A". If your Jarvis Wellsaw is the 230 volt model, it has a plug that looks like figure "B".

figure A



grounding blade

figure B



grounding blade

Do not use any adapters with the Jarvis Wellsaw

EXTENSION CORDS

Make sure your extension cord is in good condition. When using an extension cord, be sure to use one heavy enough to carry the current your Jarvis Wellsaw will draw. An undersized cord will cause a drop in line voltage resulting in loss of power and overheating. The table below shows the correct size to use depending on cord length and nameplate ampere rating. If in doubt, use the next heavier gage. The smaller the gage number, the heavier the cord.

Minimum Wire Gage for Extension Cords

| Volts | Total Length of Cord in Feet | | | |
|-------|------------------------------|--------|---------|---------|
| | 0-25 | 26-50 | 51-100 | 101-150 |
| 120 | 0-25 | 26-50 | 51-100 | 101-150 |
| 240 | 0-50 | 51-100 | 101-200 | 201-300 |

| Amp Rating | Wire Size (AWG) | | | |
|------------|-----------------|----|----|----|
| | 18 | 16 | 14 | 12 |
| 0-6 | 18 | 16 | 14 | 12 |
| 6-10 | 18 | 16 | 14 | 12 |

When tool is used outdoors, use only extension cords labeled for outdoor use.

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GENERAL SAFETY INSTRUCTIONS

For Operators, Employers and Maintenance Personnel

WARNING: When using electric tools, basic safety precautions should always be followed to reduce the risk of fire, electric shock and personal injury, including the following:

Working Precautions:

1. **READ ALL INSTRUCTIONS.**
 - Know your **Jarvis Wellsaw** and understand safety notices, manuals and instructions in the literature provided. Become familiar with the **Jarvis Wellsaw**, its dangers, limitations and applications.
2. **INSTALL THE TOOL PROPERLY.**
 - Ground the tool. See instructions provided in the installation section of this manual.
 - Use the proper extension cord. See instructions provided in the installation section of this manual.
3. **USE THE RIGHT TOOL AND ATTACHMENTS.**
 - Select the proper tool to do the job. The **Jarvis Wellsaw** is designed for meat and bone cutting; wood cutting; non-woven and geo-textile cutting. Do not use the **Jarvis Wellsaw** for non-intended purposes.
4. **KEEP WORK AREAS CLEAN AND WELL LIT.**
 - Cluttered, oily and poorly lit work areas invite accidents.
 - Keep visitors a safe distance from the work areas.
5. **AVOID DANGEROUS ENVIRONMENTS.**
 - Do not expose the power tool to rain.
 - Do not use the tool in presence of flammable liquids or gases.
6. **WEAR PROPER APPAREL.**
 - Avoid being pulled by moving parts of the **Jarvis Wellsaw**. Do not wear loose clothing or dangling objects. Restrain long hair.
7. **MAINTAIN THE JARVIS WELLSAW AND ACCESSORIES WITH CARE.**
 - Keep the **Jarvis Wellsaw** sharp and clean for the best and safest performance.
 - Follow the instructions for lubricating and changing the blades.
 - Inspect the **Jarvis Wellsaw** regularly. If the **Jarvis Wellsaw** is malfunctioning, remove it from service and report any problems to your supervisor.
 - Keep the handles dry, clean and free from oil and grease.
8. **STAY ALERT.**
 - Watch what you are doing and use common sense.
9. **SAVE THESE INSTRUCTIONS.**

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OPERATION INSTRUCTIONS

Before starting regular operation of the Jarvis Wellsaw, we recommend that you make a few cuts with a fine pitch blade to acquaint yourself with the operation of the tool before using any of the coarser blades.

A. AVERAGE CUTTING AND RIPPING:

1. Place your work piece on a solid support at a convenient working height.
2. Adjust the material so that the line of cut will be close to the support. Secure it firmly.
3. To prevent starting torque of the motor from pulling the saw away from line of cut, the operator should make a few short strokes until the blade has cut into the material about 1/4 inch before squeezing trigger switch.
4. Both hands should be on the saw at all times while cutting. Continue holding the tool with both hands until the saw blade comes to a complete stop.
5. The saw should be kept at a 90 degree angle to the work piece while cutting material that is thicker than 1 inch. For thin materials a 12-tooth blade and a 30 degree cutting angle are recommended.
6. The saw should be pushed firmly into the material while cutting.
7. Do not allow the saw blade or the blade support to leave the work piece while cutting.
8. Never allow the saw blade to float into material while cutting.
9. Never permit any part of the saw, except the blade or the blade support, to contact the work piece during the cut.

B. LARGE CROSS SECTIONS:

1. Rocking the saw in the cut will speed up the cutting action. An 8-tooth blade is recommended.

C. SINKING THE BLADE THROUGH A SURFACE:

1. Your power hand saw is not designed for regular use in starting its own hole by sinking blades through a surface, commonly called "plunge cutting". If attempted, the operator must:
 - a. Keep the saw blade as parallel to the work as possible.
 - b. Immediately, as the blade makes contact with the work piece, start to draw the saw back slowly from the starting point.
 - c. Repeat the operation outlined in "b", if necessary.
 - d. Have room to draw the saw at least 4-6 inches before cutting through a 1 inch thickness.
 - e. Do not force the saw blade, but keep it moving slowly on the draw back from the starting point. After the break through cut has been made and the end of the blade support extends through the material at least 1-1/2 inches, the saw may be tipped to a normal cutting angle.

D. NOT FOR CUTTING METAL:

1. Due to the blade speed and design, your Jarvis Wellsaw is not for cutting metal.

E. NOT FOR CUTTING SMALL RADII:**JARVIS**[®]

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MAINTENANCE INSTRUCTIONS

Always disconnect the saw from its power supply before performing any maintenance.

Item numbers: refer to the parts diagram on page 4.

A. LUBRICATION:

1. The gear case should be kept 1/3 full of grease. To check the grease level, remove the bottom plate and its gasket. It should be checked every thirty days for saws that are used moderately and every two weeks for saws that are used daily. If replacement grease is required it should be obtained from **Jarvis**.

B. BLADE SUPPORT INSTALLATION:

1. Tap (3) inserts (item 39) gently into the bores on blade support clamp (item 37).
2. Align the blade support clamp onto saw housing (item 14), making sure the inserts stay in place.
3. Assemble (3) studs (item 40) with cap nuts (item 41) and place them through the saw housing and the blade support clamp.
4. Draw down all (3) cap nuts evenly until the inserts are bottomed out into the saw housing.
5. Remove the cap nuts and the blade support clamp. (The inserts should now be properly set into the saw housing).
6. Assemble blade support (item 54) over the inserts on the saw housing. Place the blade support clamp on the saw housing and fasten with the studs, the cap nuts and phillips screws (item 36).

7. Install handle stud (item 51) using two larger phillips screws (item 52).

C. BLADE REMOVAL:

NOTE: Your **Jarvis** Wellsaw is equipped with a hex key (item 44) for removing the blade. This wrench is located in the housing directly behind the blade support knob (item 50).

1. Insert the hex key through the hole in the outer end of blade (item 53) and pull the blade to the outer end of the stroke.
2. Loosen the blade holding set screw (item 38) about 1/2 turn. *The set screw must be loosened through the hole in the housing.*
3. Reinsert the hex key in the hole at the outer end of the blade and pull the blade out.

D. BLADE INSTALLATION:

1. Insert hex key (item 44) into set screw (item 38).
2. Fasten the set screw (through the hole in housing) into the hole in the end of push rod (item 46). *The hole in the housing must be aligned with the hole in the push rod for the set screw to be fastened. (It may be necessary to turn the armature fan to adjust the push rod properly).* Do not tighten.
3. Align blade (item 53) with blade support (item 54). *The blade should extend approximately 3 inches from the end of the blade support.*
4. Slide the blade onto the blade support until the crimp in the blade is touching the end of the blade support.

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5. Use a rubber hammer and tap the end of blade towards the body of the saw until the crimp in the blade slides into the slot in the blade support.
6. Slide the blade into the push rod as far as it will go.
7. Tighten set screw (item 38) with the hex key. The set screw must be fully tightened before running the saw or damage to the saw will occur.

E. GENERAL DISASSEMBLY:

1. Remove blade (item 53) and blade support (item 54).
2. Remove handle cover (item 35).
3. Remove switch (item 20). Remove the top two wires by inserting a 1/16 inch diameter pin punch directly adjacent to the stator wires.
4. Remove brush cap (item 1) and brushes (item 2).
5. Remove deflectors (item 55).
6. Remove top cap (item 4) – stator (item 7) will be attached.
7. Remove armature (item 10). Hold the armature in one hand and tap housing (item 14) with a rubber hammer with the other hand to loosen the ar-

mature. (*Pinion gear – item 11 – on armature has a left hand thread.*)

8. Remove bottom plate (item 32) and gasket (item 31).
9. Insert a small block of wood between the connecting rod (item 30) and the housing (item 14) to stop the rotation of the connecting rod. Remove lock nuts (item 9). Remove the connecting rod.
10. Using a 5/16 inch hex key, loosen gear stud (item 24) – *left hand thread*. Be sure not to spin gear stud nut (item 21). Remove items 22–28.
11. Remove the push rod and stud (item 46) through the center of the housing.
12. Clean the gear housing cavity to remove any contaminated lubricant.
13. Remove and replace any faulty parts and reassemble by reversing these steps.

NOTE (when reassembling):

- a. Step 10: Use *Loctite 271* on gear stud nut (item 21) before fastening gear stud (item 24).
- b. Step 7: Reassemble armature (item 10) in housing (item 14) by using a center punch to tap the armature until its bearing is fully seated.

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