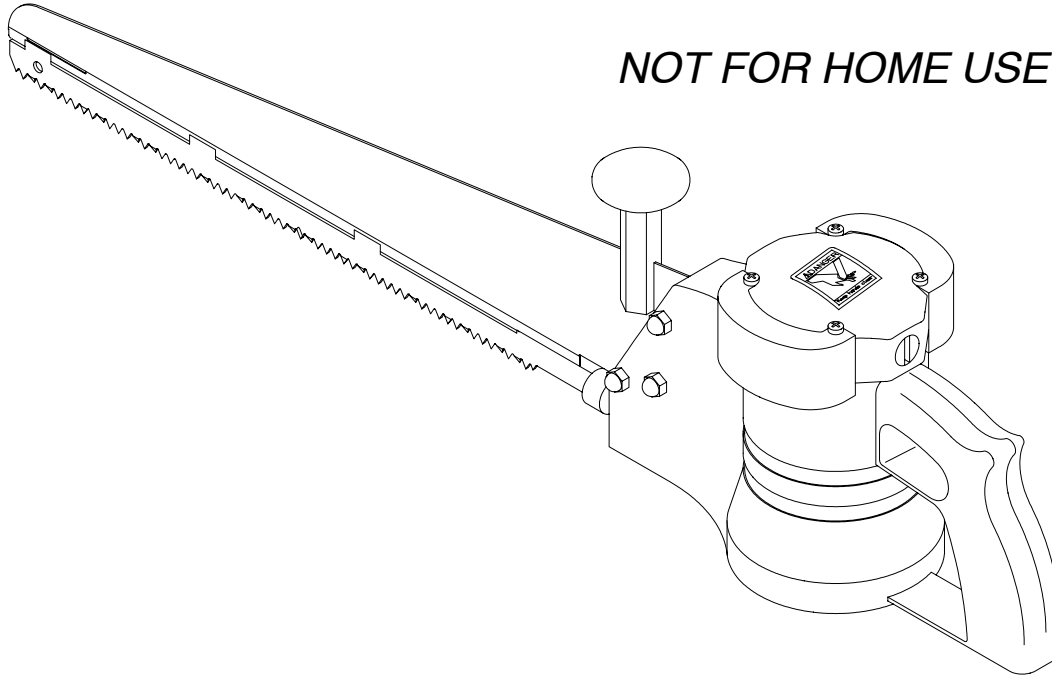




Model 400 Wellsaw Air Powered Reciprocating Saw



NOT FOR HOME USE

EQUIPMENT SELECTION Ordering No.

| | |
|-------------------------------------|---------|
| Model 400 115V | |
| Wood Cutting, 8TPI, 8 in Blade ... | 4005200 |
| Wood Cutting, 12TPI, 8 in Blade .. | 4005202 |
| Wood Cutting, 8TPI, 16 in Blade .. | 4005208 |
| Geotextiles, 16 inch Knife Blade .. | 4005210 |
| Geotextiles, 24 inch Knife Blade .. | 4005278 |
| Model 400 230V | |
| Wood Cutting, 8TPI, 8 in Blade ... | 4005204 |
| Wood Cutting, 8TPI, 16 in Blade .. | 4005212 |
| Blades | |
| 8 TPI, 8 inch | 1023125 |
| 12 TPI, 8 inch | 1023126 |
| 8 TPI, 16 inch | 1023127 |
| Geotextile, 8 inch | 1023128 |
| Geotextile, 16 inch | 1023129 |
| Geotextile, 24 inch | 1023166 |
| Supports | |
| 8 inch blade | 1058065 |
| 16 inch blade | 1058066 |
| 24 inch blade | 1058097 |
| Accessories | |
| Jarvis Wellsaw Lubricant | 1062023 |
| Balancer | 4042028 |

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SAFETY MESSAGES TO EMPLOYER AND SAFETY DIRECTOR

AVOID INJURY

1. **Ensure** that employees wear eye protection in accordance with OSHA's eye and face protection requirements (29 CFR 1910.133) at all times.
2. **Follow** our installation and maintenance instructions for proper installation and care of the tool.
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. **Always** disconnect the tool from its power supply when it is not in use.
6. **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.
7. **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."
8. **Remove** and **repair** any tool that malfunctions. **All** personnel must be instructed to remove any malfunctioning equipment.
9. **Never** make modifications or alterations to the tool. *Replace any missing or illegible labels.*
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.*



**SAFETY MESSAGES TO OPERATORS, MAINTENANCE AND CLEANUP
PERSONNEL**

REMOVE ANY MALFUNCTIONING TOOL FROM SERVICE

REPORT ANY PROBLEMS TO YOUR SUPERVISOR

1. **Disconnect** the power supply in accordance with OSHA's lockout/tagout procedures (29 CFR 1910.147) before changing the blade.
2. **Disconnect** the power supply in accordance with OSHA's lockout/tagout procedures (29 CFR 1910.147) before performing any repair or maintenance.
3. **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.
4. **Disconnect** the power supply when the tool is not in use.
5. **Always** wear eye protection in accordance with OSHA's eye and face protection requirements (29 CFR 1910.133), and when needed, a dust mask.
6. **Do not** operate near flammable liquids or in gaseous atmospheres.
7. **Do not** operate in outdoor locations or in damp or wet locations.
8. **Do not** overreach; keep proper footing and balance when using the tool.
9. **Never** put fingers, hands or other parts of the body on the cutting edge of the blade or in the cutting path.
10. **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.
11. **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.*
12. **Never** depress the trigger unless you are going to use or test the tool.
13. **Never** make any alterations to the tool. *Report or replace any missing or illegible labels.*

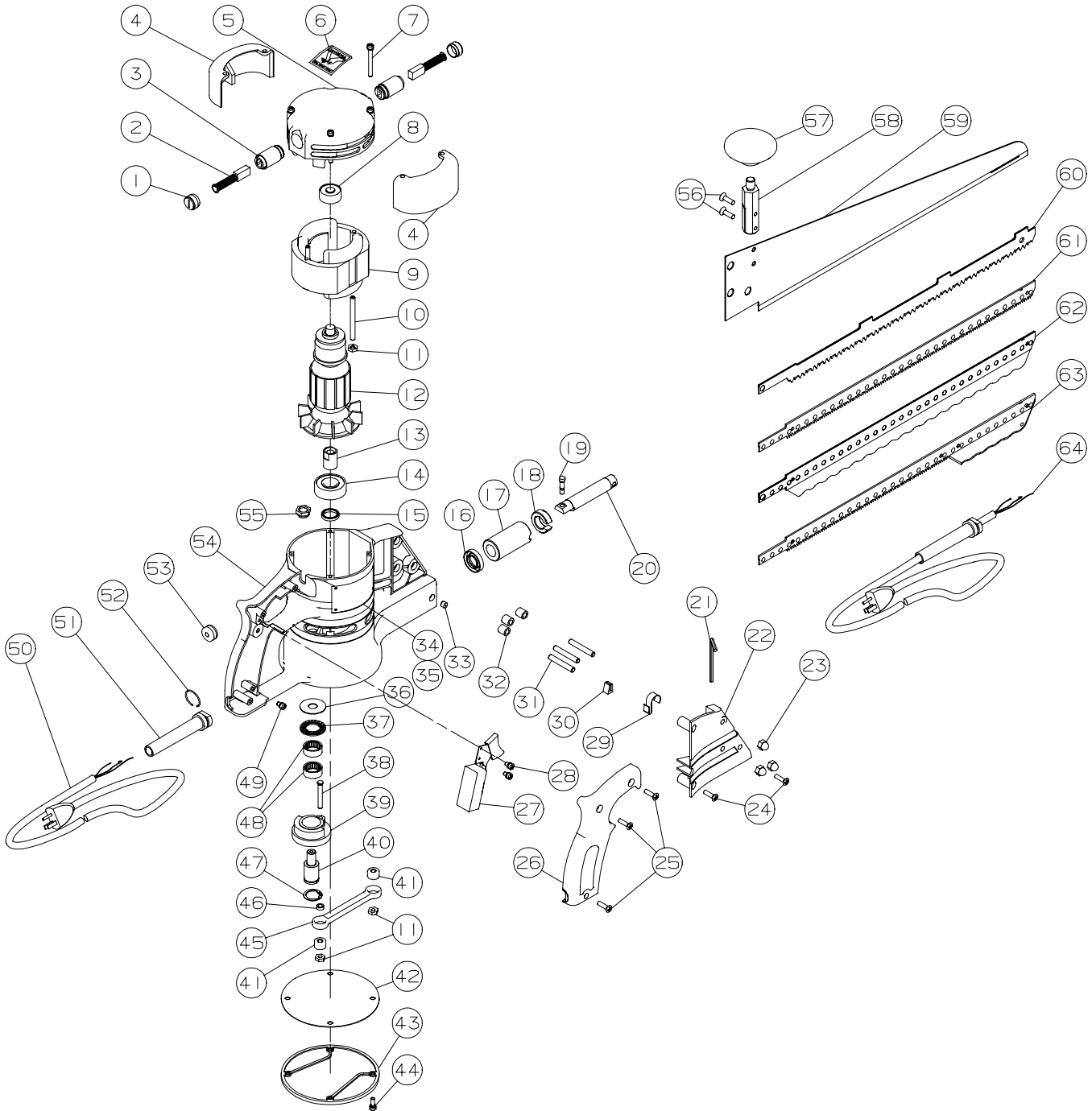
JARVIS ®

6205005:::

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| IT. | 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 | 1015006 | 501174 | Deflector | 2 |
| 5 | 1002191 | 501002 | Top Cap | 1 |
| 6 | 1017083 | | Danger Label | 1 |
| 7 | 1055428 | 100101-004 | Screw, Flat Head Phil | 4 |
| | 1055427 | 100101-002 | Screw, Set of 12 | |
| 8 | 1021215 | 100243-003 | Ball Bearing | 1 |
| 9 | 1063119 | 501224-003 | Stator 115V | 1 |
| | 1063120 | 501224-004 | Stator 230V | 1 |
| 10 | 1027040 | 501021 | Stator Stud | 2 |
| 11 | 1007164 | 100105-001 | Locknut | 4 |
| 12 | 1063117 | 501224-001 | Armature 115V | 1 |
| | 1063118 | 501224-002 | Armature 230V | 1 |
| 13 | 1026072 | 501225 | Pinion Gear | 1 |
| 14 | 1021227 | 100422-004 | Ball Bearing | 1 |
| 15 | 1035193 | 501120-001 | Seal | 1 |
| 16 | 1035192 | 501103 | Seal | 1 |
| 17 | 1036116 | 501171 | Bushing | 1 |
| 18 | 1036117 | 501186 | Bushing Spacer | 1 |
| 19 | 1027041 | 501046 | Rod Stud | 1 |
| 20 | 3065009 | 501058 | Push Rod and Stud | 1 |
| 21 | 8030031 | 100099-001 | Hex Key | 1 |
| 22 | 1002192 | 501003 | Blade Support Cover | 1 |
| 23 | 1007162 | 100022-006 | Cap Nut | 6 |
| 24 | 1055439 | 100102-002 | Screw, Oval Head Phil | 2 |
| 25 | 1054076 | 501380 | Coated Screw | 3 |
| 26 | 1002203 | 501004-002 | Handle Cover | 1 |
| 27 | 1005038 | 100739-001 | Switch | 1 |
| 28 | 1073190 | | Screw, Round Head | 2 |
| 29 | 1012046 | 501042 | "S" Clip | 1 |
| 30 | 1012047 | 501043 | "U" Clip (rubber) | 1 |
| 31 | 1027048 | 501272 | Stud | 3 |
| 32 | 1036120 | 501273 | Insert | 3 |
| 33 | 1055424 | 100035-002 | Set Screw | 1 |
| 34 | 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 |
| 35 | 1054173 | | Label Retaining Screw | 4 |
| | 1045013 | 100131-001 | Label Retaining Rivet | 4 |
| 36 | 1004149 | 100426-001 | Thrust Bearing Race | 1 |
| 37 | 1021218 | 100425-001 | Needle Thrust Bearing | 1 |
| 38 | 1027043 | 501081 | Drive Stud | 1 |
| 39 | 3026024 | 501223 | Gear and Drive Stud | 1 |
| 40 | 1020133 | 501377 | Gear Stud | 1 |
| 41 | 1021228 | | Needle Bearing | 2 |
| 42 | 1035191 | 501008 | Gasket | 1 |
| 43 | 1002193 | 501005 | Bottom Plate | 1 |
| 44 | 1055452 | | Screw, Flat Head Phil | 4 |
| | 1055426 | 100101-001 | Screw, Set of 12 | |
| 45 | 3028030 | 501053 | Connecting Rod & Brgs | 1 |
| 46 | 1029185 | 501082 | Spacer | 1 |
| 47 | 1013310 | 100069-013 | Snap Ring | 1 |
| 48 | 1021216 | 100424-001 | Needle Bearing | 2 |
| 49 | 1055454 | | Screw, Round Head | 1 |
| 50 | 3001011 | 501337 | Cord without Strain Rel | 1 |
| 51 | 1063125 | 501294 | Strain Relief | 1 |

| IT. | JARVIS PART NO. | OLD PART NO. | PART NAME | QTY |
|-----|-----------------|--------------|-----------------------|-----|
| 52 | 1013137 | 501295 | Clamp Ring | 1 |
| 53 | 1063109 | 100647 | Grommet | 1 |
| 54 | 1016213 | 501001-005 | Housing | 1 |
| 55 | 1007166 | 501376 | Gear Stud Nut | 1 |
| 56 | 1055429 | 100102-003 | Screw, Oval Head Phil | 2 |
| 57 | 1006021 | 501066 | Knob | 1 |
| 58 | 1027042 | 501065 | Handle Stud | 1 |

blades, blade supports and accessories

| IT. | JARVIS PART NO. | OLD PART NO. | PART NAME | QTY |
|-----|-----------------|--------------|--------------------------|-----|
| 59 | 1058065 | 501007T | Blade Support 8 inch | 1 |
| | 1058069 | 501071 | Blade Sup. 8" depth gage | 1 |
| | 1058066 | 501058T | Blade Support 16 inch | 1 |
| | 1058097 | | Blade Support 24 inch | 1 |
| 60 | 1023122 | 501246 | Blade, 8 inch (4 TPI) | 1 |
| | 1023121 | 501247 | Blade, 16 inch (4 TPI) | 1 |
| 61 | 1023125 | 501104 | Blade 8 inch (8 TPI) | 1 |
| | 1023126 | 501108 | Blade 8 inch (12 TPI) | 1 |
| | 1023127 | 501116 | Blade 16 inch (8 TPI) | 1 |
| 62 | 1023128 | 501151 | Blade 8 inch (knife) | 1 |
| | 1023129 | 501155 | Blade 16 inch (knife) | 1 |
| | 1023166 | | Blade 24 inch (knife) | 1 |
| 63 | 1023120 | 501121 | Blade 16 inch (combo) | 1 |
| | 3058037 | 501352-002 | Depth Gage Assembly | 1 |
| | 1062003 | | Gear Grease, 1 Lb Can | 1 |
| | 1062023 | | Blade Grease, Tube | 1 |

replacement kits

| IT. | JARVIS PART NO. | OLD PART NO. | PART NAME |
|-----|-----------------|--------------|---|
| | 3063010 | 501351-001 | Armature & Bearing without Pinion Gear 115V |
| | 3063011 | 501351-002 | Armature & Bearing without Pinion Gear 230V |
| | 3063007 | 501235-001 | Armature & Bearing with Pinion Gear 115V |
| | 3063008 | 501235-002 | Armature & Bearing with Pinion Gear 230V |
| | 3063013 | 501232 | Armature & Pinion 115V |
| | 3063014 | 501233 | Armature & Pinion 230V |
| 64 | 3001008 | 501006 | Cord & Molded St Rel 115V |
| 64 | 3001010 | 501089 | Cord & Molded St Rel 230V |
| | 3026023 | 501088 | Gear & Bearing Assembly |
| | 3016118 | 501168-001 | Housing, Seals & Bushing |
| | 3061530 | | Service Kit (items 11, 13, 27, 33, 38 and 42) |

SPECIFICATIONS

| | | |
|------------------------------|--|----------|
| Motor Power | 1 hp | 745 W |
| Operating Volt/Amp | 230V/3.5A, 1 phase, 50/60 Hz 115V/7A, 1 phase, 50/60 Hz | |
| Stroke | 1.13 in | 29 mm |
| Blade Speed | 8000 strokes / min | |
| Control Handle | Single Trigger | Electric |
| Blade Length | 8 in | 203 mm |
| | 16 in | 406 mm |
| Overall Length (16 in blade) | 32 in | 813 mm |
| Weight (without blade) | 9.8 lbs | 4.5 kg |

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.

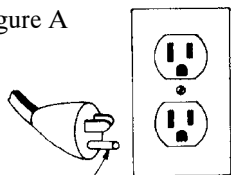
POWER SUPPLY

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

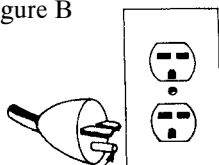
Your **Jarvis Wellsaw** should be grounded to prevent the user from electric shock or *electrocution*. The **Jarvis Wellsaw** is equipped with an approved three conductor cord and three prong grounding-type plug to fit the proper grounding-type receptacle. The green conductor in the cord is the grounding 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 | | | |
|-------|------------------------------|--------|---------|---------|
| 120 | 0-25 | 26-50 | 51-100 | 101-150 |
| 240 | 0-50 | 51-100 | 101-200 | 201-300 |

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

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

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 tpi (tooth per inch) 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:

F. HEAVY & CONTINUOUS WOOD CUTTING:

1. For heavy or continuous wood cutting, lubricate the blade groove with oil or **Jarvis Wellsaw** lubricant 1062023.
2. When cutting wet or gummy wood or other material where there is a tendency for a deposit to build up on the sides of the blades, use a 50-50 mixture of kerosene and lubricating oil and place it on the sides of the blade and the blade support.

G. ALWAYS KEEP A SHARP BLADE ON THE SAW:

1. Cutting with a dull or badly worn blade can overload the saw and cause damage from overheating.
2. New blades can be purchased from **Jarvis**.

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 (item 43) and its gasket (item 42). 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 32) gently into the bores on blade support cover (item 22).
2. Align the blade support cover (item 22) onto saw housing (item 54), making sure the inserts stay in place.
3. Assemble (3) studs (item 31) with cap nuts (item 23) and place them through the saw housing and the blade support cover.
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 cover. The inserts should now be properly set into the saw housing.
6. Assemble blade support (item 59) over the inserts on the saw housing. Place the blade support cover on the saw housing and fasten with the studs, the cap nuts and oval head screws (item 24).
7. Install handle stud (item 58) using two larger oval head screws (item 56).

C. BLADE REMOVAL:

NOTE: Your **Jarvis** Wellsaw is equipped with a hex key (item 21) for removing the blade. This wrench is located in the housing directly behind the blade support knob (item 57).

1. Insert the hex key through the hole in the outer end of blade (item 60, 61, 62 or 63) and pull the blade to the outer end of stroke.
2. Loosen the blade holding set screw (item 33) about 1/2 turn.
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 21) into set screw (item 33).
2. Fasten the set screw (through the hole in housing) into the hole in the end of push rod (item 20). *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 60, 61, 62 or 63) with blade support (item 59). *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.
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 33) 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 60, 61, 62 or 63) and blade support (item 59).
2. Remove handle cover (item 26).
3. Remove switch (item 27). Remove the two wires from the stator (item 9) and the two wires from the cord (item 50).
4. Remove brush cap (item 1) and brushes (item 2).
5. Remove deflectors (item 4).
6. Remove top cap (item 5) – stator (item 9) and danger label (item 6) will be attached.
7. Remove armature (item 12). Hold the armature in one hand and tap housing (item 54) with a rubber hammer with the other hand to loosen the armature. *(Pinion gear - item 13 - on armature has a left hand thread).*
8. Remove bottom plate (item 43) and gasket (item 42).
9. Insert a small block of wood between the connecting rod (item 45) and the housing (item 54) to stop the rotation of the connecting rod. Remove lock nuts (item 11). Remove the connecting rod and bearings (item 45) and spacer (item 46).
10. Using a 5/16 inch hex key, loosen gear stud (item 40) – *left hand thread*. Be sure not to spin gear stud nut (item 55). Remove items 36-40, 47 and 48.
11. Remove the push rod and stud (item 20) 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 55) before fastening gear stud (item 40).
- b. Step 7: Reassemble armature (item 12) in housing (item 54) by using a center punch to tap the armature until its bearing is fully seated.