

# Operating Instructions and Parts Manual 22-inch Woodworking Scroll Saw Model JWSS-22B



For serial no. 18011801 and higher

#### JET

427 New Sanford Road LaVergne, Tennessee 37086 Ph.: 800-274-6848 www.jettools.com Part No. M-727200B

Edition 4 01/2018 ECR 171108102444 Copyright © 2018 JET



# 1.0 IMPORTANT SAFETY INSTRUCTIONS

#### WARNING – To reduce risk of injury:

- 1. Read and understand the entire owner's manual before attempting assembly or operation.
- 2. Read and understand the warnings posted on the machine and in this manual. Failure to comply with all of these warnings may cause serious injury.
- 3. Replace the warning labels if they become obscured or removed.
- 4. This scroll saw is designed and intended for use by properly trained and experienced personnel only. If you are not familiar with the proper and safe operation of a scroll saw, do not use until proper training and knowledge have been obtained.
- 5. Do not use this scroll saw for other than its intended use. If used for other purposes, JET disclaims any real or implied warranty and holds itself harmless from any injury that may result from that use.
- Always wear ANSI Z87.1 approved safety glasses or face shield while using this machine. (Everyday eyeglasses only have impact resistant lenses; they are *not* safety glasses.)
- Before operating this scroll saw, remove tie, rings, watches and other jewelry, and roll sleeves up past the elbows. Do not wear loose clothing. Confine long hair. Non-slip footwear or anti-skid floor strips are recommended. Do **not** wear gloves.
- 8. Wear ear protectors (plugs or muffs) if noise exceeds safe levels.
- 9. WARNING: Drilling, sawing, sanding or machining wood products generates wood dust and other substances known to the State of California to cause cancer. Avoid inhaling dust generated from wood products or use a dust mask or other safeguards to avoid inhaling dust generated from wood products.
- 10. Wood products emit chemicals known to the State of California to cause birth defects or other reproductive harm. (California Health and Safety Code Section 25249.6)
- 11. Do not operate this machine while tired or under the influence of drugs, alcohol or any medication.

- 12. Make certain the switch is in the OFF position before connecting the machine to the power supply.
- 13. Make certain the machine is properly grounded.
- 14. Make all machine adjustments or maintenance with the machine unplugged from the power source.
- 15. Remove adjusting keys and wrenches. Form a habit of checking to see that keys and adjusting wrenches are removed from the machine before turning it on.
- 16. Keep safety guards in place at all times when the machine is in use. If removed for maintenance purposes, use extreme caution and replace the guards immediately after completion of maintenance.
- 17. Check damaged parts. Before further use of the machine, a guard or other part that is damaged should be carefully checked to determine that it will operate properly and perform its intended function. Check for alignment of moving parts, binding of moving parts, breakage of parts, mounting and any other conditions that may affect its operation. A guard or other part that is damaged should be properly repaired or replaced.
- 18. Provide for adequate space surrounding work area and non-glare, overhead lighting.
- 19. Keep the floor around the machine clean and free of scrap material, oil and grease.
- 20. Keep visitors a safe distance from the work area. Keep children away.
- 21. Make your workshop child proof with padlocks, master switches or by removing starter keys.
- 22. Give your work undivided attention. Looking around, carrying on a conversation and "horse-play" are careless acts that can result in serious injury.
- 23. Maintain a balanced stance at all times so that you do not fall into the blade or other moving parts. Do not overreach or use excessive force to perform any machine operation.
- 24. Use the right tool at the correct speed and feed rate. Do not force a tool or attachment to do a job for which it was not designed. The right tool will do the job better and more safely.
- 25. Use recommended accessories; improper accessories may be hazardous.
- 26. Maintain tools with care. Keep saw blades sharp and clean for the best and safest performance. Follow instructions for lubricating and changing accessories.
- 27. Turn off the machine before cleaning. Use a brush or compressed air to remove chips or debris do not use your hands.

- 28. Do not stand on the machine. Serious injury could occur if the machine tips over.
- 29. Never leave the machine running unattended. Turn the power off and do not leave the machine until it comes to a complete stop.
- 30. Remove loose items and unnecessary work pieces from the area before starting the machine.
- 31. Keep hands and fingers away from moving saw blade.
- 32. Don't use in dangerous environment. Don't use power tools in damp or wet location, or expose them to rain. Keep work area well lighted.

#### Additional safety instructions for scroll saws

- 33. Scroll saw must be secured to a sturdy foundation. If there is a tendency for the stand or workbench to move, it must also be secured to the floor.
- 34. Blade must be properly tensioned before operating. Failure to do so could result in blade breakage and possible injury.
- 35. Never start saw with workpiece contacting blade.
- 36. Always keep fingers and hands away from blade. Avoid awkward hand positions where a sudden slip might cause hand to move into or toward the blade.

- 37. Always hold stock firmly against table. The provided hold-down should be correctly positioned over the workpiece.
- 38. Do not attempt to saw any stock that does not have a flat surface, without a suitable support. Do not cut pieces of material too small to hold by hand.
- 39. Care must be taken when cutting material with an irregular cross section. The blade could pinch before the cut is completed. Any stock, such as frame molding, must lie flat on the table surface and not be allowed to rock.
- 40. Dowels or tubing have a tendency to roll while being cut and cause the blade to "bite." Round material should be held firmly against the table.
- 41. Turn off saw before backing stock out of an incomplete cut. Only remove jammed cut-off pieces after blade has stopped.
- 42. Make "relief" cuts before cutting long curves.
- 43. When cutting large or oversize stock, always make sure material is supported at table height.
- 44. Do not feed workpiece too fast while cutting. Feed workpiece only fast enough for the blade to cut.
- 45. Never reach under the table while blade is moving.

#### Familiarize yourself with the following safety notices used in this manual:

ACAUTION This means that if precautions are not heeded, it may result in minor injury and/or possible machine damage.

**AWARNING** This means that if precautions are not heeded, it may result in serious, or possibly even fatal, injury.

# SAVE THESE INSTRUCTIONS

#### 1.2 Switch lock-out

To safeguard your machine from unauthorized operation and accidental starting by young children, the use of a padlock (not included) is highly recommended. See Figure 1. Place the key in a location that is inaccessible to children and others not qualified to use the tool.



Figure 1

# 2.0 About this manual

This manual is provided by JET, covering the safe operation and maintenance procedures for a JET Model JWSS-22B Scroll Saw. This manual contains instructions on installation, safety precautions, general operating procedures, maintenance instructions and parts breakdown. Your machine has been designed and constructed to provide consistent, long-term operation if used in accordance with the instructions as set forth in this document.

This manual is not intended to be an exhaustive guide to scroll saw operational methods, choice of blades or wood stock, etc. Additional knowledge can be obtained from experienced users or trade articles. Whatever accepted methods are used, always make personal safety a priority.

If there are questions or comments, please contact your local supplier or JET. JET can also be reached at our web site: www.jettools.com.

Retain this manual for future reference. If the machine transfers ownership, the manual should accompany it.

# **AWARNING** Read and understand the entire contents of this manual before attempting assembly or operation! Failure to comply may cause serious injury!

Register your product using the mail-in card provided, or register online: http://www.jettools.com/us/en/service-and-support/product-registration/

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# 4.0 Glossary

Some terms relevant to the scroll saw:

**Beam strength:** A blade's resistance to backward deflection caused by pressure of the workpiece.

**Bevel edge cut:** Tilt of blade between 0° and 45° to perform angled cutting operation.

**Blade drift:** Deviation of blade from a straight line. The smaller the blade, the more prone to drifting.

**Blade tracking:** How the blade moves through the cutting path.

**Contour cut:** Cutting outside the workpiece line.

**Crosscut:** A cut made across the grain of a workpiece.

**Deflection:** Tendency of blade to be pushed backward under pressure from the workpiece.

Feed rate: Linear travel of workpiece into blade.

**Freehand:** Moving the workpiece into the blade using only the hands, without a fixed positioning device.

**Fret work:** Cutting inside the workpiece; also called open work, or pierce cutting.

Kerf: The resulting cut or gap made by the blade.

**Kickback, or Lift:** The tendency of workpiece to rise off the table due to being caught by the blade.

**Leading edge:** Edge of workpiece that first gets pushed into blade.

**Parallel:** Position of saw arm equal in distance at every point to the table surface.

**Parallel link:** style of scroll saw in which a motor pushes rods in upper and lower arms that move articulated arms holding the blade. (The JET scroll saw is this type.) **Perpendicular:** 90° (right angle) intersection or position of vertical and horizontal planes, such as saw blade to table.

**Pin-end blade:** Blade that requires a pin to secure it to the saw. (These are not suitable for intricate fretwork.)

**Plain-end blade:** Blade that slides into a clamp without need of a pin holder. These are preferred for delicate fretwork. (The JET scroll saw uses this type.)

**Rake angle:** Angle of a blade tooth in respect to a line perpendicular to the back edge of blade.

**Relief cut:** Extra cut to remove waste material and prevent the blade from binding when cutting a curve.

**Rip Cut:** A cut made along the grain of the workpiece.

**Scroller:** User of a scroll saw. Sometimes called "scroll-sawyer".

**Scroll work:** General term for designs with spirals and rolling curves.

**Stack cutting:** Placing multiple workpieces together for simultaneous cutting. (CAUTION: Pieces must be properly taped or glued together to prevent sliding.)

**Throat capacity:** Distance from blade to body column; identifies maximum workpiece size.

**Trailing edge**: Edge of workpiece that last contacts blade.

# 5.0 Specifications

Model number	JWSS-22B
Stock numbers:	
Scroll saw with foot switch	
Scroll saw with foot switch and stand	
Optional stand only	

#### Motor and electricals:

Motor type	brushed DC
Horsepower	
Phase	single
Voltage	
Cycle	60Hz
Listed FLA (full load amps)	1.3 A
Starting amps	
Running amps (no load)	0.5 A
On/off switch	rocker style, and foot pedal
Power cord	
Power plug installed (saw and foot pedal)	
Foot pedal cord length	
Recommended circuit and fuse/breaker size <sup>1</sup>	15A
Overload fuse	

#### Blade and capacities:

#### Main materials:

Body and tool tray	steel
Main table	
Trunnion	steel
Arm	steel, plastic cover

#### Table:

Table dimensions (LxW)	
Table slot width	5 mm
Table height from floor, on optional stand	adjustable; 32 to 38 in.
Distance front edge of table to blade (approximate)	
	, , , , , , , , , , , , , , , , , , , ,

#### **Dimensions:**

Optional stand footprint (LxW)	
Overall dimensions – saw only (LxWxH)	
Overall dimensions - saw on stand (LxWxH)	
Shipping dimensions – saw only	

#### Dust collection:

Dust port outside diameter	
Recommended dust extraction volume	300-350 CFM (8.5-10 CMM)

#### Weights:

Net weight, saw only	68.2 lbs (31 kg)
Net weight, optional stand only	. 21.5 lbs (9.8 kg)

<sup>1</sup> subject to local/national electrical codes.

L = length; W = width; H = height

Specifications in this manual were current at time of publication, but because of our policy of continuous improvement, JET reserves the right to change specifications at any time and without prior notice, without incurring obligations.

## 5.1 Mounting hole pattern



# 6.0 General features



Figure 3: JWSS-22B features

# 7.0 Setup and assembly

## 

Read and understand all assembly instructions before attempting assembly. Saw must remain unplugged from power source during assembly procedures.

## 7.1 Shipping contents

Refer to Figure 4.

- 1 Scroll saw (not shown)
- 4 Leveling feet with hex nuts
- 2 Lower blade holders
- Foot pedal assembly 1
- Dust port 1
- Blade rack 1
- Blades, skip type (not shown) 5
- Rubber washer (HP5) 4
- Operator's manual (not shown) 1
- 1 Product registration card (not shown)



Figure 4: contents (not to scale)

#### Stand (Optional Accessory)

Refer to Figure 10, or sect. 15.4.1.

- 2 Long top braces - (#3)
- 2 Short top braces -(#4)
- Short bottom braces (#7) 2
- 2 Long bottom braces - (#8)
- Legs (#5) 4
- 4 Leg extensions – (#10)
- Hardware package (see Figure 5); contains: 1
  - 4 Hex cap screws 5/16x1 (HP1)
  - 24 Carriage bolts 5/16x1/2 (HP2)
  - 32 Flat washers 5/16 (HP3)
  - 28 Hex nuts 5/16 (HP4)

## 7.2 Tools required for assembly

14mm open-end wrench (for foot pads) 12mm wrench (for optional stand only) 3mm hex wrench (for blade guide)

#### #2 Cross-point screwdriver (for blade rack)



Figure 5: hardware package JWSS22B-SHP

## 7.3 Unpacking and cleanup

- 1. Remove all contents from shipping carton. Remove protective coating from the table using a soft cloth moistened with a solvent. (Do not use acetone, gasoline or lacquer thinner for this purpose, as these will damage painted and plastic parts.)
- 2. Inspect contents for shipping damage or missing parts. Report any damage or part shortages to your distributor. (Note: Check saw for any pre-installed parts before reporting part shortage.)

## 7.4 Transporting saw

ACAUTION Do NOT lift scroll saw beneath arm (Figure 6) which may result in damage to linkage system. Always lift using motor and edge of table (Figure 7).



Figure 6: INCORRECT lifting



Figure 7: correct lifting

## 7.5 Mounting to bench or stand

**ACAUTION** The scroll saw should be installed upon a sturdy, flat surface with all four legs contacting the surface. Do NOT install with saw partially hanging over edge of table or workbench.

If scroll saw will not be bolted down to a surface, install the four foot pads to reduce vibration. See Figure 8. Lower hex nut may be adjusted for height. Tighten top hex nut down against saw foot.



Figure 8: leveling foot

The preferred method is to mount the saw directly to a solid workbench or table, or to the optional JET stand. If mounting to a workbench, use a pad (provided rubber washers) between saw and bench to minimize vibration. See Figure 9.



Figure 9: bench mounting (fasteners not included)

If a non-permanent method is preferred, an alternative is to fasten the saw to a thick plywood board (minimum 3/4-inch), then attach the board to a table using clamps.

## 7.6 Assembling stand (optional)

1. Assemble stand pieces, referring to Figure 10. (Refer to exploded view, *sect. 15.4.1*, if further clarification is needed.) **Only hand-tighten** all fasteners at this time.

NOTE: One end of each leg (#5) forms a slight "V" shape – this end goes at the top. The bottom edge of the leg forms a straight line.

2. The leg extensions (#10, Figure 10) can be adjusted for height.

- 3. If stand will not be bolted to the floor, install the leveling feet (shown in Figure 8) that were included with the scroll saw, onto the bottoms of the stand leg extensions (Figure 10).
- 4. Position stand upright on level floor. Push down on stand assembly to settle it on floor, then fully tighten all fasteners with 12mm wrench.
- 5. Some scrollers prefer to tilt the saw toward them for convenience. If this is desired, adjust only the two front leg extensions.
- 6. Mount scroll saw to stand, using fasteners shown (also identified in Figure 5).



Figure 10: stand assembly (optional accessory)

## 7.7 Blade storage

The blade rack (Figure 11) can be mounted to either side of the scroll saw. It contains holes for storage of blades inside "test tubes" (not provided). Additionally, four slots provide storage for blades pre-inserted into a blade holder.



Figure 11: blade storage

## 7.8 Foot pedal

Connect plug from scroll saw into receptacle on back of foot pedal. Then plug foot pedal into power source. (If not using foot pedal, plug saw directly into power source; the on/off switch is then pressed to start and stop the saw.) It is strongly recommended the foot pedal be secured in place using screws through the two holes. It may be secured directly to the floor or a wide board laid beneath the saw.

## 7.9 Dust collection

Slide dust port into the slot on underside of table. A dust collector or shop vacuum can be connected to the dust port with a hose and reducing adaptor (not provided).

# 8.0 Electrical connections

The JWSS-22B Scroll Saw is prewired for 120-volt power. The saw comes with a plug designed for use on a circuit with a *grounded outlet* that looks like the one pictured in **A**, Figure 12.

Before connecting to power source, be sure switch is in *off* position.

It is recommended that the scroll saw be connected to a dedicated 15 amp circuit with circuit breaker or fuse. If connected to a circuit protected by fuses, use time delay fuse marked "D". Local codes take precedence over recommendations.

## 8.1 **GROUNDING INSTRUCTIONS**

This machine must be grounded. In the event of a malfunction or breakdown, grounding provides a path of least resistance for electric current to reduce the risk of electric shock. This tool is equipped with an electric cord having an equipment-grounding conductor and a grounding plug. The plug must be plugged into a matching outlet that is properly installed and grounded in accordance with all local codes and ordinances.

Do not modify the plug provided - if it will not fit the outlet, have the proper outlet installed by a qualified electrician.

Improper connection of the equipment-grounding conductor can result in a risk of electric shock. The conductor with insulation having an outer surface that is green with or without yellow stripes is the equipment-grounding conductor. If repair or replacement of the electric cord or plug is necessary, do not connect the equipment-grounding conductor to a live terminal.

## 

**AWARINING** Check with a qualified electrician or service personnel if the grounding instructions are not completely understood, or if in doubt as to whether the tool is properly grounded. Failure to comply may cause serious or fatal injury.

Use only 3-wire extension cords that have 3-prong grounding plugs and 3-pole receptacles that accept the tool's plug.

Repair or replace damaged or worn cord immediately.

This tool is for use on a nominal 120-V circuit, and has a grounded plug that looks like the plug illustrated in sketch A in Figure 12. A temporary adaptor that looks like the adaptor illustrated in sketches B and C may be used to connect this plug to a 2-pole receptacle as shown in sketch B if a properly grounded outlet is not available. The temporary adaptor should be used only until a properly grounded outlet (sketch A) can be installed by a qualified electrician. The green colored rigid ear, lug, or the like extending from the adaptor must be connected to a permanent ground such as a properly grounded outlet box cover. Whenever the adaptor is used, it must be held in place by a metal screw.

In Canada, the use of a temporary adaptor is not permitted by the Canadian Electrical Code, C22.1.



Figure 12: plug configuration

## 8.2 Extension cords

The use of extension cords is discouraged; try to position machines near the power source. If an extension cord is necessary, make sure it is in good condition. When using an extension cord, be sure to use one heavy enough to carry the current your product will draw. An undersized cord will cause a drop in line voltage resulting in loss of power and overheating. Table 1 shows correct size to use depending on cord length and nameplate ampere rating. If in doubt, use the next heavier gauge. The smaller the gauge number, the heavier the cord.

Ampere Rating		Volts	Total length of cord in feet			
More	Not	120	25	50	100	150
Than	Than		AWG			
0	6		18	16	16	14
6	10		18	16	14	12
10	12		16	16	14	12
12	16		14	12	Not Recom	mended

Extension Cord Recommendations Table 1

# 9.0 Adjustments

AWARNING Before making adjustments to saw, push rocker switch to OFF. Also unplug saw from power if working around blade area.

#### 9.1 Arm tilt

The table remains stationary, so the operator's hands can remain in the same comfortable position, with no risk of the workpiece sliding off the table. The arm can be tilted up to 45-degrees left or right for beveled cuts, which are frequently used in projects such as marquetry.

#### Refer to Figure 13.

- Loosen lock handle (A). 1.
- 2. Make sure upper guard and blower nozzle positions will not conflict with table.
- 3. Rotate handle (B) to desired angle. Preset stops are available at 90°, 45°, 30° and 22.5°, left and right. Push detent pin (C) while rotating handle (B) until pin engages hole.
- 4. Tighten lock handle (A) and release pin.

Lock handle (A) is adjustable to prevent obstruction when in angled position: Pull out handle and rotate on pin, then release, making sure it reseats on pin.



Figure 13: arm tilt adjustment

## 9.2 Installing blade

- 1. Turn off saw.
- 2. Insert lower blade holder (Figure 14) into hole in blade rack for leverage, and loosen knob.
- Slide blade into holder deep enough to gain 3. sufficient clamping, but not all the way which can result in blade being too short for sufficient gripping by upper guide. Make sure blade teeth point down, toward the blade holder. Tighten blade holder knob.

NOTE: If the blade holder set screw is backed out, turn it in with a 3mm hex wrench until it touches the tip of the knob when knob is tightened down. You may need to stabilize the blade holder with a 10mm wrench on the flats while doing this.



Figure 14: installing blade into holder

- 4. Flip clamping lever (D, Figure 15) toward front of saw to release guide.
- 5. Push blade holder into clip (E) while guiding blade through table slot.
- Push top end of blade into upper guide (F), 6. making sure it rests between the contact points of guide set screws, and against the back stop.
- Flip clamping lever (D) toward rear of saw to 7. tension blade. Do not over-tension blade; this can result in blade breakage or premature wear to clamping surfaces.



Figure 15: installing blade into guides

- 8. Check that blade teeth point forward and down toward table.
- Try moving blade by hand to make sure it is 9. secure. Pluck the blade with your finger, as you would a guitar string - it should emit a clear note if properly tensioned.

TIP: If changing a blade while cutting fretwork, you may first push blade through pilot hole in workpiece, then install blade to saw. See Figure 16. This prevents having to raise the arm for the first cut.



Figure 16: installing blade with workpiece

## 9.3 Adjusting blade tension

If blade refuses to be clamped tightly according to the above steps, one or both of the following adjustments may be needed (Figure 17):

- Upper clamp spring pressure can be adjusted by lifting handle (D) to vertical position. Rotate handle clockwise one turn to increase pressure, then push handle into clamping position. Note: Too much handle rotation will prevent clamping.
- Turn set screws (G) with 3mm hex wrench clockwise to reduce gap between clamping surfaces.



Figure 17: tension adjustment

Either of the above steps should resolve blade tension problems. If problem still exists:

• Rotate arm adjustment knob (Figure 18) clockwise by hand. This will raise arm and apply more tension to blade.

**IMPORTANT**: Rotating arm adjustment knob for tension purposes should only be done if absolutely needed, as it will affect later blade oscillation settings (sect. 9.7).



Figure 18: arm adjustment knob

## 9.4 Material hold-down

Refer to Figure 19.

Adjust material hold-down as close to workpiece as possible without impeding workpiece movement.

For vertical adjustment, Loosen knob (H, Figure 19) and slide hold-down to position. Tighten knob.

For forward/back movement and angling to table, loosen socket head screw (J) and adjust. Tighten screw.



Figure 19: hold-down

#### 9.5 Speed control

Refer to Figure 3.

Rotate speed control knob while saw is running – clockwise to increase blade strokes per minute, counterclockwise to decrease.

## 9.6 Squaring blade to table

Refer to Figures 20 and 21.

The blade may get out of alignment with the table over time, depending upon how often the saw is used, and frequent use of the tilt mechanism.

Periodically check squareness of blade to table as follows.

- 1. Turn off saw, unplug from power source.
- 2. Make sure blade is fully tensioned.
- 3. Set blade tilt to "0" (90 degrees).

 Place a machinists square or other 90-degree measuring device on table and against blade (Figure 20). Do not deflect blade by pushing into it.



Figure 20: inspecting blade squareness

- If side of blade does not lie flush against square, first check that the set screws (see G, Figure 17) protrude evenly into the clamping area. Adjust if needed.
- If blade is still not perpendicular, loosen eight screws on trunnion plates, at front and back of saw (Figure 21)
- 7. Nudge trunnion/arm assembly until side of blade is flush to square.
- 8. Tighten all screws at front and back.
- 9. If needed, loosen screw on pointer (K) and adjust it to zero. Tighten screw.



Figure 21: squaring blade to table

## 9.7 Adjusting blade oscillation

#### Refer to Figure 22.

Blade movement can be adjusted to accommodate different wood stock and types of operations. For example, for faster, more aggressive cutting the blade can be adjusted for slight backward movement on the upstroke, and slight forward movement into the wood on the downstroke. For slower, fine detail work and more control, completely vertical blade movement is often preferred. This adjustment is based upon user's preference; as the scroller gains experience, he/she will get a feel for the oscillation that is most efficient for the work at hand.

- 1. Turn off saw and remove blade.
- First verify that upper arm is parallel to table surface (Figure 22). Push arm down, and measure at front and back of arm; if measurements are different, rotate arm adjustment knob (L) until upper arm is parallel.



Figure 22: arm/table parallelism

- Adjustments to blade oscillation can be subtle; place a square or block of wood on table and alongside blade as reference.
- 4. Loosen screws on motor flange (M, Figure 23) with 4mm hex wrench. *Only loosen screws enough to allow motor rotation.*
- 5. Turn motor shaft (N, Figure 23) with flat-blade screwdriver to observe blade motion. Alternatively, you may turn on saw to slowest speed to observe blade motion.



Figure 23: blade oscillation

 Slowly rotate entire motor by hand to adjust oscillation. Clockwise rotation will make blade movement more aggressive on downstroke. Counterclockwise will make blade more aggressive on upstroke. See Figure 23.

TIP: If more rotation is needed, *turn off saw* and install motor mount screws in second set of holes behind motor flange.

7. When desired oscillation is achieved, securely tighten motor mount screws (M).

#### 9.8 Arm lift retention

#### Refer to Figure 24.

If arm will not remain in position after being raised, loosen hex nut (14mm wrench) and slightly turn adjustment screw clockwise with flat blade screwdriver, until arm remains in raised position. *Do not overtighten*. Tighten hex nut.



Figure 24: tightening arm lift

#### 9.9 Blower nozzle

Adjust blower nozzle away from operator, and as close to blade as needed without interfering with blade or workpiece movement.

# 10.0 **Operations**

#### 10.1 General operating tips

- 1. Always use a clean, sharp blade.
- 2. Maintain proper posture to avoid strain. Saw table should be set approximately level with operator's elbows.
- 3. Avoid wrist or finger strain which can occur by constantly pushing workpiece against table. Always use hold-down whenever possible.
- 4. Guide the wood into the blade slowly to prevent blade breakage.
- 5. You will achieve best results when cutting wood less than 1-inch thick. When cutting stock thicker than 1-inch, guide the stock very slowly into the blade, taking care not to bend or twist the blade.
- 6. Blade should have minimum 3 teeth in contact with workpiece at all times.

- 7. Make relief cuts as needed to prevent binding of blade in workpiece.
- 8. A blade has a tendency to follow the wood grain. Be prepared to compensate for this to achieve accurate cuts.
- 9. Use caution when sawing round pieces, such as dowels, which tend to roll while cutting.
- 10. Keep fingers away from cutting path. Avoid awkward hand positions or getting fingers wedged between saw arm and workpiece when cutting small workpieces.
- 11. For fretwork, drill all needed pilot holes at the same time before moving to the scroll saw. Drill pilot holes as close as possible to reference lines.
- 12. As a general rule, select the narrowest blades recommended for intricate curve cutting, and widest blades for straight cuts or large curve cuts.
- 13. Run saw only at high enough speed to efficiently do the work. Constant running at maximum speed is not necessary for most operations, may reduce control of the cutting process, and may hasten wear on the saw.

## 10.2 On/off controls

With foot pedal: Push on/off switch to ON position (I). Press foot pedal to operate saw, release pedal to stop.

Without foot pedal: Push on/off switch to ON position (I); saw will operate. Press switch to OFF position (O) to stop.

#### **AWARNING** If foot pedal is not used and power outage occurs during operation, blade will resume motion when power is restored. Turn off switch immediately after power outage to avoid accidental restart.

#### 10.3 Procedure

- 1. Install blade appropriate for desired operation. Make sure blade is properly tensioned, and teeth point forward and down toward table.
- 2. Position blower nozzle and hold-down.

For straight cutting or outside curve cutting:

- 3. Turn on saw and allow blade to reach full operating speed.
- 4. Set speed using variable control knob.
- Hold workpiece firmly against table and feed workpiece directly into front edge of blade with steady pressure. See Figures 25 and 26. Do not use excessive pressure – allow the blade to do the work. Compensate for blade drift.



Figure 25: straight cutting



Figure 26: outside curve cutting

For fretwork (inside cutting):

- Drill pilot holes in workpiece just large enough 1. for blade insertion.
- 2. Release clamp lever (D, Figure 27) and raise arm.
- 3. Guide blade through pilot hole in workpiece.
- 4. Lower arm and tighten clamp lever (D).
- 5. Hold workpiece tightly against table and turn on saw. Set speed using variable control knob.
- Smoothly guide workpiece into blade, using 6. light pressure. Avoid coming to a complete stop while cutting.



Figure 27: fretwork cutting

# 11.0 User-maintenance

AWARNING Always unplug scroll saw from power before performing maintenance. Failure to comply may result in serious personal injury.

## 11.1 General maintenance

Clean wood dust from the saw frequently, using a vacuum or compressed air, or damp cloth. Use a soft bristle brush for crevices.

## AWARNING Use proper eye and respiratory protection if using compressed air.

Keep the table clean. Periodically apply a light coat of paste wax or spray protectant to the table to prevent rust and maintain a smooth surface.

When finished cutting, release blade from upper clamp to remove unneeded tension on clamp spring. Remove blade if saw will be stored for longer periods.

Periodically inspect the prongs of the lower spring plate (see E, Figure 15). Bend upward slightly if needed to ensure a firm grip upon lower blade holder.

## 11.2 Lubrication

Periodically apply light dabs of grease to front and rear trunnions (Figure 28) where parts slide against one another.



Figure 28

Bearings in the drive mechanism are pre-lubricated and sealed; no further attention is needed for these.

## 11.3 Fuse inspection

The scroll saw is equipped with a 5-amp fuse for overload protection. If the saw stops working, inspect fuse:

- Unscrew fuse cap (Figure 29) and pull fuse out 1. of cap.
- 2. If fuse has blown, replace it.
- Install new fuse into cap, then screw cap into 3. hole.



Figure 29

#### 11.4 Commutator brush inspection

To maintain motor efficiency, inspect the two carbon brushes every two months, or more frequently if saw is heavily used. Stalling or loss of power may be a symptom of worn carbon brushes. If one brush is worn out, replace both at the same time.

#### **ACAUTION** Continued use of a damaged or worn brush may result in damage to motor armature.

- Unplug saw from power source. 1.
- 2. Unscrew and remove cap with flat blade screwdriver. See Figure 30.
- 3. Gently pry up an edge of the brass clip, until the spring causes it to disengage from hole. (Notice orientation of brush as you remove it; it should be inserted in the same manner; curvature of brush will match curvature of motor.)

- Pull out brush and inspect. Brush should be 4. replaced if any of the following are discovered:
  - Brush has worn to about 1/2-inch long.
  - Signs of crumbling, burning or breaking. •
  - End of brush is rough or pitted. •
  - Abnormal coloration of spring •
  - Broken lead in spring .
  - Collapsed spring •
- Install new brush (or reinstall current brush) and 5. gently press it all the way into hole until the brass clip is secured.
- 6. Install cap.
- Repeat for other brush. 7.

NOTE: It is recommended that saw be run without load for several minutes to seat new brushes.



Figure 30

# 12.0 Blade selection

Refer to Figures 31 and 32.

The following information is general in nature. The scroller is encouraged to research specific options to meet project needs. Note that the same specifications may vary among manufacturers.

A wide array of blades are available for the scroll saw. Woodworking blade sizes range from #3/0 to #12.

Here are factors to consider when selecting a blade:

- Type of material to be cut (hardwood, softwood?).
- Thickness of workpiece (thicker pieces will require larger blades).
- Features of workpiece (straight cuts, sweeping curves or tight fretwork?).

These factors are important because they involve basic concepts of blade design. There are 5 blade features that normally vary to meet certain kinds of sawing requirements. They are:

- 1. width
- 2. pitch (number of teeth per inch)
- 3. tooth set
- 4. blade material
- 5. tooth form

#### 12.1 Width

Width is measured from back edge of blade to tip of tooth. Generally, wider blades are used for making straight cuts and long curves. Narrow blades are suited for cuts with tight corners, such as fretwork. When cutting straight lines with a narrow blade, the blade may have a tendency to drift (called "blade lead").

#### 12.2 Pitch

Pitch is measured in "teeth per inch" (TPI) and can be constant or variable.

A fine pitch (more teeth per inch) will cut slowly but more smoothly, and minimize vibration. A coarse pitch (fewer teeth per inch) will cut faster but more roughly.

Try to use a blade that will have a minimum of 3 teeth engaged in the workpiece at any given time.

#### 12.3 Set

"Set" refers to the manner in which the blade teeth are bent or positioned. Bending the teeth creates a kerf that is wider than the back of the blade. This helps the operator more easily pivot a workpiece through curve cuts, and decreases friction between blade and workpiece on straight cuts. Two common sets are the straight (or alternating) and the raker.



Figure 31: blade anatomy

#### 12.4 Material

Blades are manufactured by stamping, milling, or grinding.

- Stamped blades are punched out on a press from sheet steel. The teeth are given an alternate set to allow clearance in the kerf.
- Milled blades are made by flattening a steel wire, cutting the teeth through a "milling" process, then heat-hardening the steel.
- Ground blades have high-carbon steel teeth which tend to hold their sharpness longer, and provide smooth cuts.

**Special styles** are also available, such as twist and spiral blades, which cut from all sides.

Most blades offered are 5 inches long; if a longer blade is acquired the end can be snipped off to accommodate the saw.

Optimally, a blade (and the operator's technique) should leave smooth, clean cuts that do not require sanding, as it is often very difficult to sand inside cuts after they are made.

Instead of purchasing a wide assortment of styles from the start, the scroller may find a few carefullyselected styles will serve most of his or her needs. The selection can be expanded as the scroller gains experience.

## 12.5 Tooth form

Figure 32 shows common blade forms. Tooth form has an effect on cutting rate.

**Regular:** Standard blade form with evenly spaced teeth and zero-degree rake angle. Offers clean cuts at slower feed rates.

**Skip Tooth:** More space between teeth, for good chip removal and fast cuts.

**Double Tooth:** A skip tooth with larger gaps between tooth sets; good chip removal, fast cutting.

**Reverse Tooth:** Prevents underside tear-out, leaves clean edge.

**Spiral:** Cuts on all sides without turning workpiece; limited applications but good for looser fretwork.

**Crown Tooth:** Cuts on both up and down strokes for clean, splinter-free edges. Depending on blade oscillation settings, a crown tooth blade may often be turned over for a fresh set of cutting teeth.



Figure 32: blade forms

# 13.0 **Optional accessories**

These accessory items, purchased separately, can enhance the functionality of your scroll saw. Contact your dealer to order, or call JET at the phone number on the cover.



727200S – Steel stand for JWSS-22B 727201 – Lower Blade Holder (set of 3)

# 14.0 Troubleshooting JWSS-22B Scroll Saw

Symptom	Possible Cause	Correction *
Motor will not start.	Low voltage.	Check power line for proper voltage.
	Open circuit in motor or loose connection.	Inspect all lead connections on motor for loose or open connections.
	Damaged cord or plug.	Inspect and replace.
	Carbon brushes worn.	Replace brushes.
Motor will not start: fuses blow or circuit	Short circuit in line cord or plug.	Inspect cord or plug for damaged insulation and shorted wires.
breaker trips.	Short circuit in motor or loose connections.	Inspect all connections on motor for loose or shorted terminals or worn insulation.
	Incorrect fuses or circuit breakers in power line.	Install correct fuses or circuit breakers.
Machine slows when operating.	Applying too much pressure to workpiece.	Feed workpiece more slowly.
Tilting mechanism difficult to move.	Caked dust or other obstruction in trunnion assemblies.	Clean trunnion areas and apply light dabs of grease to contacting parts.
Blades frequently	Incorrect blade tension.	Set proper tension.
break.	Blade being overworked.	Reduce feed rate.
	Wrong blade for job.	Select proper blade.
	Blade twisting in workpiece.	Avoid side pressure on blade. Reduce feed rate.
	Too few teeth per inch.	Blade should have minimum 3 teeth in contact with workpiece.
Blade refuses to tension properly, or	Blade not seated properly.	Inspect entry of blade into upper and lower blade chucks.
keeps slipping.	Clamping lever needs tightening.	Tighten clamp lever.
	Set screws in upper blade chuck are backed out, not contacting blade.	Tighten set screws.
	Blade clamp has oil or debris on it.	Clean blade clamp, ends of set screws.
Blade drift.	Some drift is unavoidable depending upon size of blade and type of cut.	Compensate by manipulation of workpiece into blade.
	Incorrect blade tension.	Increase tension.
Excessive vibration.	Saw improperly mounted.	Secure saw properly to bench or stand.
	Unsuitable mounting surface.	Less vibration will occur with a heavier work bench. Use pads or fiber washers at mounting contact points.
	Arms/linkage system not tight.	Tighten trunnion lock knob.
	Loose motor mounting.	Tighten motor mount screws.

\* **WARNING:** Some corrections may require a qualified electrician or service personnel.

Table 2

# 15.0 Replacement Parts

Replacement parts are listed on the following pages. To order parts or reach our service department, call 1-800-274-6848 Monday through Friday, 8:00 a.m. to 5:00 p.m. CST. Having the Model Number and Serial Number of your machine available when you call will allow us to serve you quickly and accurately.

Some parts are shown for reference only and may not be available individually.

Non-proprietary parts, such as fasteners, are usually available at local hardware stores or may be ordered from JET.



# 15.1.2 JWSS-22B Upper & Lower Arm Assembly – Parts List

Index No	Part No	Description	Size	Qty
1	F009668	. Button Head Socket Screw	#10-32x1/4	2
2	JWSS22B-202	. Top Cover		1
3	JWSS22B-203	. Switch Rubber Cover		1
4	JWSS22B-204	. Switch		1
5	TS-1521031	. Socket Set Screw	M4x8	1
6	JWSS22B-206	. VR Knob with Speed Label		1
7	JWSS22B-207	Upper Arm		1
8	E009916	Button Head Socket Screw	#10-32x5/16	7
9	F009670	Button Head Socket Screw	#10-32x3/8	2
10	IW/SS228-210	Dust Blower		
11	TS-081B022	Pap Hoad Scrow	#8-37v3/8	າ າ
12	IN/9822	Hold Down Mount Plate	#0-32x3/0	ے۲
12	JVV 3322D-212	Hold Down Clown Sarow		ا۱ ۱
13	JW 3322D-213	List Wesher	A / A "	ا۱
14		. Flat Washer	1/4	
15	JWSSZZB-Z15	. Hold Down Clamp Knob	•••••	1
16	JWSS22B-216	. Hold Down Bar	•••••	1
17	JWSS22B-217	. Air Nozzle		1
18	TS-0206022	. Socket Head Cap Screw	#10-32x1/2	1
19	JWSS22B-219	. Hold Down Fork		1
20	JWSS22B-220	. Main Body		1
21	5508073	. Hex Nylon Lock Nut	#10-32	3
22	F009917	. Button Head Socket Screw	#10-32x2-1/4	3
23	TS-0680021	. Flat Washer	1/4	1
24	TS-0640071	. Hex Nylon Lock Nut	1/4-20	2
25	F009918	. Button Head Socket Screw	1/4-20x2-1/2	2
26	TS-130205	Lock Washer	1/4	1
27	TS-081B012	Phillips Pan Head Machine Screw	#8-32x1/4	2
28	TS-0720041	External Tooth Lock Washer	#8	2
20	TS-0561031	Hev Nut	3/8-16	
30	IW/SS228-230	Ball Set Screw	3/8-16v5/8	1
21	IN/98220-200	Housing Cross Plack		1
20	JW 3322D-231	Cross Black Batainar		۱۱ ۱
JZ	JW 3322D-232			۱۱
24	JW 3322D-233	Ctroin Dollof		۱۱
34	JWSSZZB-Z34	. Strain Relier	•••••	Z
35	JWSS22B-235			1
36	JWSS22B-236	. Arm Adjustment Knob	•••••	1
	JWSS22B-237A	. PC Board with VR (#37,38,39)	•••••	1
37		. Variable Resistor		1
38		. Control Cable		1
39	JWSS22B-239	. PC Board		1
40	JWSS22B-240	. Machine Screw	M4x8	4
41	JWSS22B-241	. Cover Plate		1
42	TS-0254021	. Button Head Socket Screw	1/4-20x1/2	3
43	JWSS22B-243	. Sponge Block		1
44	JWSS22B-244	. Power Cord	3x18AWG	1
45	JET-92	. JET Logo	92x38mm	2
46	JWSS22B-246	Upper Blade Guard		1
47	TS-2361041	Lock Washer	M4	2
48	TS-081B012	Phillips Pan Head Machine Screw	#8-32x1/4	2
49	JWSS228-249	Switch Protector		1
50	WSS22B-250	File	3 154	1
51	IM/SS22D-250	Fuse Holder	0.107	۱۱ ۱
57	IN/980220-201	Lower Plade Cuard		۱۱ ۸
JZ	JVV JJZZD-ZJZ NA/QQDDD DED	East Switch Assambly		ا۱ ا
55 E4	JVV JJZZD-ZJJ	. FUUL OWILLII ASSEITIDIY	20,140,0	11
54	LIVIUUU187	. warning Label (not snown)	30X102mm	1
55	LIVIUUU188	. vvarning Labei (not snown)	49x100mm	1
56	LIVIUUU189	. ID Label, JWSS-22B (not shown)		1



# 15.2.2 JWSS-22B Table & Cabinet Assembly – Parts List

Index No	Part No	Description	Size	Qty
1	JWSS22B-301	. Blade Tilt Locking Lever		1
2	TS-0680021	. Flat Washer	1/4	1
3	JWSS22B-303	. Tilt Adjust Knob		1
4	JWSS22B-304	. Blade Tilt Washer		2
5	JWSS22B-305	. Tilt Lock Draw Rod		1
6	JWSS22B-306	. Detent Plunger		1
7	JWSS22B-307	. Spring		1
8	JWSS22B-308	. Tilt Detent Barrel		1
9	JWSS22B-309	. E-Ring	ETW-3	1
10	JWSS22B-310	. Pointer		1
11	TS-1550021	. Flat Washer	M4	1
12	TS-2284061	. Phillips Pan Head Machine Screw	M4x6	1
13	TS-0254061	. Button Head Socket Screw	1/4-20x1	2
14	JWSS22B-314	. Angle Indicator Bracket		1
15	JWSS22B-315	. Blade Tilt Drive Gear		2
16	JWSS22B-316	. Angle Follower		2
17	F009916	. Button Head Socket Screw	#10-32x5/16	8
18	TS-069204	. Flat Washer	#10x12x1	8
19	JWSS22B-319	. Front Trunnion Plate		1
20	JWSS22B-320	. Hex Flange Nut	1/4-20UNC	12
21	JWSS22B-321	. Trunnion		2
22	JWSS22B-322	. Side Panel		2
23	TS-0254041	. Button Head Socket Screw	1/4-20x3/4	8
24	TS-0680021	. Flat Washer	1/4	9
25	JWSS22B-325	. Rear Trunnion Plate		1
26	TS-0720071	. Lock Washer	1/4	3
27	TS-0050011	. Hex Cap Screw	1/4-20x1/2	1
28	JWSS22B-328	. Table		1
29	TS-0273062	. Socket Set Screw	1/4-20x1	4
30	JWSS22B-330	. Dust Collect Plate		1
31	JWL1015-124	. Button Head Socket Screw	#10-24x1/4	4
32	JWSS22B-332	. Dust Port	1-1/2 OD	1
33	TS-0561082	. Hex Nut	3/8-16	8
34	JWSS22B-334	. Leveling Foot	3/8-16x1-1/4	4
35	JWSS22B-335	. Blade Rack		1
36	TS-2286121	. Pan Head Screw	M6x12	2
37	JWSS22B-337	. Sponge		1
38	F002095	. External Tooth Lock Washer	M4	1
39	TS-0050031	. Hex Cap Screw	1/4-20x3/4	2

# 15.3.1 JWSS-22B Drive Link Assembly – Exploded View



## 15.3.2 JWSS-22B Drive Link Assembly – Parts List

Index No	Part No	Description	Size	Qty
1	.JWSS22B-401	Motor		1
	.JWSS22B-MCB	. Motor Carbon Brush (not shown)		2
	.JWSS22B-MCBC	Motor Carbon Brush Cap (not shown)		2
	.LM000190	Motor Label, JWSS-22B (not shown)		1
2	.JWSS22B-402	Balance Block		1
3	.TS-1523011	. Socket Set Screw	. M6x6	1
4	.TS-0254021	. Button Head Socket Screw	1/4-20x1/2	3
5	.TS-0720071	. Lock Washer	. 1/4	3
6	.TS-0680021	. Flat Washer	. 1/4	3
7	.JWSS22B-407	. Motor Cover Plate		1
8	.TS-1514021	. Socket Head Flat Screw	.M6x16	4
	.JWSS22B-CDLA	. Complete Drive Link Assembly (#9 thru 27, #52)		1
9	.BB-608ZZ	. Ball Bearing	608ZZ	1
10	.TS-1550061	. Flat Washer	. M8	6
11	.JWSS22B-411	. Motor Cam		1
12	.JWSS22B-412	. Nut	M8xP1.25LH	1
13	.JWSS22B-413	. Bearing	. 810	3
14	.JWSS22B-414	. Inner Bearing Sleeve	.@8.046x21.5mm	1
15	.TS-1541011	. Hex Nylon Lock Nut	. M5	1
16	.TS-1550031	. Flat Washer	. M5	2

17       JWS22E-417.       Rocker Cam.       1         18       JWS22E-418.       Bearing       0609.       12         19       JWS22E-419.       Inner Bearing Sleeve (Long).       06.03x16.5mm       12         20       F005667       Socket Head Cap Screw       M5328.50mm       1         21       JWSS22E-422       Bearing Cover       21       21         23       JWSS22E-422       Bearing Cover       21       24         24       JWSS22E-422       Bearing Cover       24       24         25       JTS-150021       Flat Washer       M4       8         26       JWS22E-424.2       Rocker Mount       24       27         27       TS-1501071       Socket Head Cap Screw       M4x45       2         28       JWS22E-430       Air Pump Bellows.       2       2         29       JWS22E-431       Inner Bearing Sleeve – Front Rocker       Ø8.03x18.40mm       2         23       JWS22E-433       Inner Bearing Sleeve (Long)       Ø6.03x37mm       2         24       JWS22E-436.       Strut       2       JWS22E-438.       Strut       2         24       JWS22E-438.       Strup Rocker       2       3	Index No	Part No	Description	Size	Qty
18       JWS22B-418       Bearing       0609       12         20       JWS22B-419       Inner Bearing Sleeve (Long)       06.03x16.5mm       2         21       JWS22B-421       Main Rocker Pivot       014.04x35.50mm       1         21       JWS22B-422       Bearing Cover       2       2         23       JWS22B-423       Bearing Cover       2       2         24       JWS22B-424       Bushing       1       1         25       TS-1550021       Flat Washer       M4       8         26       TS-1541001       Hex Nylon Lock Nut.       M4       12         27       TS-15401071       Socket Head Cap Screw       M44/25       2         29       F005359       Socket Head Cap Screw       M4/45       2         20       JWS522B-430       Air Pump Bellows.       2       2         31       JWS522B-433       Inner Bearing Sleeve – Front Rocker       08.03x37mm       2         34       JWS522B-435       Strut       2       JWS522B-435       Strut       2         34       JWS522B-436       Lower Blade Chuck Kit (#26.36,37,59,64)       1       1         35       JWS522B-4438       Set Screw       M6x55	17	.JWSS22B-417	. Rocker Cam		1
19       JWSS22B-419.       Inner Bearing Sleeve (Long).       Q6Ax16.5mm       2         20       F005667       Socket Head Cap Screw       M5x28.       1         21       JWSS22B-422       Bearing Cover.       Q14.04x35.50mm       1         22       JWSS22B-422       Bearing Cover.       Q       2         23       JWSS22B-424       Bushing       1       1         24       JWSS22B-424       Bushing       1       1         25       TS-1550021       Flat Washer       M4       8         26       TS-1541001       Hex Nyion Lock Nut.       M4       12         27       TS-1501071       Socket Head Cap Screw       M4x45       2         29       F005359       Socket Head Cap Screw       M4x45       2         30       JWSS22B-431       Inner Bearing Sleeve (Long)       Q6.03x18.40mm       2         21       JWSS22B-432       Front Rocker       Q8.03x18.40mm       2         31       JWSS22B-433       Inner Bearing Sleeve (Long)       Q6.03x37mm       2         34       JWSS22B-435       Strut       Nos       1       1         35       JWS322B-436       Strut       180       180       1	18	.JWSS22B-418	. Bearing	0609	12
20         F005667         Socket Head Cap Screw         MIS X228         1           21         JWSS22B-422         Bearing Cover         21         21         Q14.04x35.50mm         1           22         JWSS22B-422         Bearing Cover         21         Q14.04x35.50mm         1           23         JWSS22B-423         Bearing Cover         1412         2           24         JWSS22B-424         Bushing         1         1           25         TS-1550021         Flat Washer         M4         8           26         TS-1510171         Socket Head Cap Screw         M4x25         6           28         JWSS22B-430         Air Pump Bellows.         2         2           30         JWSS22B-431         Inner Bearing Sleeve - Front Rocker         Ø8.03x18.40mm         2           31         JWSS22B-432         Front Rocker         2         3         JWSS22B-433         Inner Bearing Sleeve (Long)         Ø6.03x37mm         2           34         JWSS22B-433         Inner Bearing Sleeve         Ø6.03x37mm         2         JWSS22B-433         Inner Bearing Sleeve         Ø6.03x37mm         2           34         JWSS22B-433         Inner Bearing Sleeve (Long)         Ø6.03x16mm         2 </td <td>19</td> <td>.JWSS22B-419</td> <td>. Inner Bearing Sleeve (Long)</td> <td>Ø6.03x16.5mm</td> <td>2</td>	19	.JWSS22B-419	. Inner Bearing Sleeve (Long)	Ø6.03x16.5mm	2
21       JWSS22B-421       Main Rocker Pivot.       Ø14.04x35.50mm       1         22       JWSS22B-423       Bearing       1412       2         23       JWSS22B-424       Bushing       1         24       JWSS22B-424       Bushing       1         25       TS-1550021       Flat Washer       M4       8         26       TS-1540101       Hex Nylon Lock Nut.       M4       12         27       TS-1501071       Socket Head Cap Screw       M4x25       6         28       JWSS22B-428       Rocker Mount       22         29       F005369       Socket Head Cap Screw       M4x45       2         20       JWSS22B-430       Air Pump Bellows.       22         21       JWSS22B-432       Front Rocker       Ø8.03x18.40mm       2         23       JWSS22B-433       Inner Bearing Sleeve (Long)       Ø6.03x37mm       2         24       JWSS22B-435       Strut       2       JWSS22B-436       Lower Blade Chuck kit (#26.36.37,59.64)       1         25       JWSS22B-436A       Lower Blade Chuck with Magnet       1       1       3         36       JWSS22B-438       Set Screw       M4x22       2       2 <t< td=""><td>20</td><td>. F005667</td><td>. Socket Head Cap Screw</td><td>M5x28</td><td>1</td></t<>	20	. F005667	. Socket Head Cap Screw	M5x28	1
22       JWSS22B-422.       Bearing Cover.       2         23       JWSS22B-423.       Bearing       1412.       2         24       JWSS22B-424.       Bushing       1         25       TS-1550021       Flat Washer       M4       8         26       TS-1541001       Hex Nylon Lock Nut.       M4       12         27       TS-16510171       Socket Head Cap Screw       M4x25       6         28       JWSS22B-428.       Rocker Mount       2       2         29       F005359       Socket Head Cap Screw       M4x45       2         31       JWSS22B-431.       Inner Bearing Sleeve – Front Rocker       Ø8.03x18.40mm       2         32       JWSS22B-432.       Front Rocker       New Long)       Ø6.03x37mm       2         34       JWSS22B-434.       Inner Bearing Sleeve (Long)       Ø6.03x16mm       2         34       JWSS22B-436.       Lower Blade Chuck Kit (#26,36,37,59,64)       1         35       JWSS22B-436.       Lower Blade Chuck Kit (#38,40,56 thrus 58), set of 3       1         36       JWSS22B-438.       Set Screw       M6x5       5         372701       Lower Blade Holder       0       30         30	21	.JWSS22B-421	. Main Rocker Pivot	Ø14.04x35.50mm	1
23       JWSS22B-423.       Bearing       1412.       2         24       JWSS22B-424.       Bushing.       1         25       TS-1550021       Flat Washer       M4       18         26       TS-1540101       Hex Nylon Lock Nut.       M4       12         27       TS-15010171       Socket Head Cap Screw       M4x25.       66         28       JWSS22B-428.       Rocker Mount.       22         29.       F005359.       Socket Head Cap Screw       M4x45.       22         20       JWSS22B-430.       Air Pump Bellows.       2       2         21       JWSS22B-432.       Front Rocker       20       20       06.03x18.40mm 2         23       JWSS22B-434.       Inner Bearing Sleeve (Long).       Ø6.03x16mm 2       2         24       JWSS22B-435.       Strut       2       Strut       2         35       JWSS22B-436.       Inver Blade Chuck kit (#26,36,37,59,64).       1       2         36       JWSS22B-436.       Lower Blade Chuck with Magnet       1       3         37       F005668.       Socket Head Cap Screw       M4x22       2       2         38       JWSS22B-433.       Tension Lever       12 <td< td=""><td>22</td><td>.JWSS22B-422</td><td>. Bearing Cover</td><td></td><td>2</td></td<>	22	.JWSS22B-422	. Bearing Cover		2
24       JWSS22B-424.       Bushing       1         25       TS-1550021       Flat Washer       M4       8         26       TS-1541001       Hex Nylon Lock Nut       M4       12         27       TS-151001       Socket Head Cap Screw       M4x25       6         28       JWSS22B-428       Rocker Mount       2         29       F005359       Socket Head Cap Screw       M4x45       2         30       JWSS22B-431       Inner Bearing Sleeve – Front Rocker       Ø8.03x18.40mm       2         31       JWSS22B-432       Front Rocker       2       Ø6.03x37mm       2         34       JWSS22B-433       Inner Bearing Sleeve (Long)       Ø6.03x37mm       2         34       JWSS22B-A35       Strut       2       JWSS22B-A436       Inner Bearing Sleeve (Long)       Ø6.03x16mm       2         35       JWSS22B-A436       Lower Blade Chuck Kit (#26.36,37,59,64)       1       Serial no. 18011801 and higher       1       1         36       JWSS22B-438       Set Screw       M6x5       5       727201       Lower Blade Holder Assembly (#38, 40, 56 thru 58), set of 3       1         40       JWSS22B-443       Tension Lever       1       4       JWSS22B-444	23	.JWSS22B-423	. Bearing	1412	2
25       TS-1550021       Flat Washer       M4       8         26       TS-1541001       Hex Nylon Lock Nut.       M4       12         27       TS-1501071       Socket Head Cap Screw       M4x25       6         28       JWSS22B-428.       Rocker Mount       2         29       F005359.       Socket Head Cap Screw       M4x45       2         30       JWSS22B-430.       Air Pump Bellows.       2       JWSS22B-431.       Inner Bearing Sleeve – Front Rocker       2         31       JWSS22B-433.       Inner Bearing Sleeve (Long).       Ø6.03x37mm       2         34       JWSS22B-435.       Strut       2       JWSS22B-435.       Strut       2         35       JWSS22B-436.       New Lower Blade Chuck Kit (#26.36.37.59.64).       1       2         35       JWSS22B-436.       Lower Blade Chuck with Magnet       1       3         36       JWSS22B-436.       Socket Head Cap Screw       M4x22       2         37       F005668.       Socket Head Cap Screw       M4x22       2         38       JWSS22B-443.       Lower Blade Holder Assembly (#38, 40, 56 thru 58), set of 3       1         40       JWSS22B-443.       Innet Bearing Beave (Lower)       1 <t< td=""><td>24</td><td>.JWSS22B-424</td><td>.Bushing</td><td></td><td>1</td></t<>	24	.JWSS22B-424	.Bushing		1
26       TS-1541001       Hex Nylon Lock Nut.       M4       12         27       TS-1501071       Socket Head Cap Screw       M4x25       6         28       JWSS22B-428       Rocker Mount       2         29       F005359       Socket Head Cap Screw       M4x45       2         30       JWSS22B-430       Air Pump Bellows.       2       2         31       JWSS22B-431       Inner Bearing Sleeve – Front Rocker       Ø8.03x18.40mm       2         32       JWSS22B-433       Inner Bearing Sleeve (Long).       Ø6.03x37mm       2         34       JWSS22B-435       Strut       2       2       JWSS22B-436       1         25       JWSS22B-436       Strut       2       2       JWSS22B-436       1         26       JWSS22B-436       Lower Blade Chuck KIt (#26,36,37,59,64)       1       1         36       JWSS22B-438       Lower Blade Chuck KIt (#26,36,37,59,64)       1       1         37       F006668       Socket Head Cap Screw       M6x5       5       7         38       JWSS22B-443       Ser Screw       M6x5       1       1         40       JWSS22B-443       Tension Lever       1       1       1       1 <td>25</td> <td>.TS-1550021</td> <td>. Flat Washer</td> <td>M4</td> <td>8</td>	25	.TS-1550021	. Flat Washer	M4	8
27.       TS-1501071       Socket Head Cap Screw       M4x25       6         28.       JWSS22B-428.       Rocker Mount       2         29.       F005359       Socket Head Cap Screw       M4x45       2         30.       JWSS22B-430.       Air Pump Bellows.       2       2         31.       JWSS22B-431.       Inner Bearing Sleeve – Front Rocker       Ø8.03x18.40mm       2         32.       JWSS22B-432.       Front Rocker       Ø6.03x37mm       2         34.       JWSS22B-434.       Inner Bearing Sleeve       Ø6.03x16mm       2         35.       JWSS22B-435.       Strut       2       2       3       JWSS22B-436.       1         36.       JWSS22B-436.       Lower Blade Chuck Kit (#26,36,37,59,64).       1       1         37.       F005668.       Socket Head Cap Screw       M4x22       2       2         38.       JWSS22B-436.       Lower Blade Holder Assembly (#38, 40, 56 thru 58), set of 3       1       1         40.       JWSS22B-440.       Lower Blade Holder       2       2       3         42.       JWSS22B-442.       Blade       0.36mm (t) x 1.1mm (W) x 130mm (L) x 11 TPL 5       1         43.       JWSS22B-444.       Tension Lever.	26	.TS-1541001	. Hex Nylon Lock Nut	M4	12
28       JWSS22B-428.       Rocker Mount       2         29       F005359.       Socket Head Cap Screw       M4x45.       2         20       JWSS22B-430.       Air Pump Bellows.       2         31       JWSS22B-431.       Inner Bearing Sleeve – Front Rocker.       Ø8.03x18.40mm       2         32       JWSS22B-432.       Front Rocker.       Ø6.03x37mm       2         33       JWSS22B-433.       Inner Bearing Sleeve (Long).       Ø6.03x37mm       2         34       JWSS22B-435.       Strut       2       2         JWSS22B-A35.       Strut       2       2       3       JWSS22B-435.       2         JWSS22B-436.       New Lower Blade Chuck Kit (#26,36,37,59,64).       1       1       5       1         6       JWSS22B-436.       Lower Blade Chuck with Magnet       1       3       1       1         77       F005668       Socket Head Cap Screw       M4x22       2       2       3       1         40       JWSS22B-443.       Lower Blade Holder Assembly (#38, 40, 56 thru 58), set of 3       1       1         41       JWSS22B-443.       Screw.       3       3       1         42       JWSS22B-443.       Screw. <td< td=""><td>27</td><td>TS-1501071</td><td>. Socket Head Cap Screw</td><td>M4x25</td><td>6</td></td<>	27	TS-1501071	. Socket Head Cap Screw	M4x25	6
29       F005359       Socket Head Cap Screw       M4x45       2         30       JWSS22B-430       Air Pump Bellows       2         31       JWSS22B-431       Inner Bearing Sleeve – Front Rocker       Ø8.03x18.40mm       2         32       JWSS22B-432       Front Rocker       Ø6.03x37mm       2         34       JWSS22B-433       Inner Bearing Sleeve       Ø6.03x37mm       2         34       JWSS22B-434       Inner Bearing Sleeve       Ø6.03x16mm       2         35       JWSS22B-435       Strut       2       2         34       JWSS22B-NLBCK       New Lower Blade Chuck Kit (#26,36,37,59,64)       1         37       F005668       Socket Head Cap Screw       M4x22       2         38       JWSS22B-438       Set Screw       M6x5       5         727201       Lower Blade Holder Assembly (#38, 40, 56 thru 58), set of 3       1       1         40       JWSS22B-442       Blade       Older Assembly (#38, 40, 56 thru 58), set of 3       1         43       JWSS22B-443       Tension Lever       2       3       3       1         44       JWSS22B-444       Screw       3       1       4       3       3       1         4	28	.JWSS22B-428	. Rocker Mount		2
30       JWSS22B-430.       Air Pump Bellows.       2         31       JWSS22B-431.       Inner Bearing Sleeve – Front Rocker       Ø8.03x18.40mm       2         32       JWSS22B-432.       Front Rocker       2       3         34       JWSS22B-433.       Inner Bearing Sleeve (Long).       Ø6.03x37mm       2         34       JWSS22B-434.       Inner Bearing Sleeve (Long).       Ø6.03x16mm       2         35       JWSS22B-436.       Strut       2       2         JWSS22B-436.       New Lower Blade Chuck Kit (#26,36,37,59,64).       1       2         36       JWSS22B-436.       Lower Blade Chuck with Magnet       1         37       F005668.       Socket Head Cap Screw       M6x5       5         37       F005668.       Socket Head Cap Screw       M6x5       5         3727201       Lower Blade Holder Assembly (#38, 40, 56 thru 58), set of 3       1       1         40       JWSS22B-443.       Tension Lever       1       1         41       JWSS22B-444.       Screw       3       3       1         42       JWSS22B-444.       Screw       3       4       1       1         43       JWSS22B-444.       Screw       3	29	. F005359	. Socket Head Cap Screw	M4x45	2
31       JWSS22B-431       Inner Bearing Sleeve – Front Rocker       Ø8.03x18.40mm       2         32       JWSS22B-432       Front Rocker       2         33       JWSS22B-433       Inner Bearing Sleeve (Long)       Ø6.03x37mm       2         34       JWSS22B-434       Inner Bearing Sleeve (Long)       Ø6.03x37mm       2         35       JWSS22B-435       Strut       2       Ø6.03x37mm       2         34       JWSS22B-436       New Lower Blade Chuck Kit (#26,36,37,59,64)       1       2         36       JWSS22B-NLBCK       New Lower Blade Chuck with Magnet       1       2         37       F005668       Socket Head Cap Screw       M4x22       2       2         38       JWSS22B-440       Lower Blade Holder       2       4       2       2       3       3       1         40       JWSS22B-442       Blade       Dider       Assembly (#38, 40, 56 thru 58), set of 3       1       2         41       JWSS22B-443       Tension Lever       1       4       3       3       3       3       3       3       1       1       1       1       1       1       1       1       1       1       1       1       1 <t< td=""><td>30</td><td>.JWSS22B-430</td><td>. Air Pump Bellows</td><td></td><td>2</td></t<>	30	.JWSS22B-430	. Air Pump Bellows		2
32       JWSS22B-432.       Front Rocker       2         33       JWSS22B-433.       Inner Bearing Sleeve (Long)       Ø6.03x37mm       2         34       JWSS22B-434.       Inner Bearing Sleeve       Ø6.03x16mm       2         JWSS22B-435.       Strut       2       Ø6.03x16mm       2         JWSS22B-435.       Strut       2       Ø6.03x16mm       2         JWSS22B-436.       New Lower Blade Chuck Kit (#26,36,37,59,64)       1         36       JWSS22B-436A       Lower Blade Chuck with Magnet       1         37       F005668       Socket Head Cap Screw       M4x22       2         38       JWSS22B-438.       Set Screw       M6x5       5         727201       Lower Blade Holder Assembly (#38, 40, 56 thru 58), set of 3       1         40       JWSS22B-443.       Tension Lever       1         41       JWSS22B-443.       Tension Lever       1         42       JWSS22B-444.       Screw       3         35       T5-1541011       Hex Nylon Lock Nut.       M5       1         46       JWSS22B-446.       Bolt.       1         47       JWSS22B-448.       Spring       1         48       JWSS22B-445. <t< td=""><td>31</td><td>.JWSS22B-431</td><td>. Inner Bearing Sleeve – Front Rocker</td><td>Ø8.03x18.40mm</td><td>2</td></t<>	31	.JWSS22B-431	. Inner Bearing Sleeve – Front Rocker	Ø8.03x18.40mm	2
33       JWSS22B-433       Inner Bearing Sleeve (Long)       Ø6.03x37mm       2         34       JWSS22B-435       Inner Bearing Sleeve       Ø6.03x16mm       2         35       JWSS22B-435       Strut       2         JWSS22B-436A       New Lower Blade Chuck Kit (#26,36,37,59,64)       1         Serial no. 18011801 and higher       1         36       JWSS22B-436A       Lower Blade Chuck with Magnet       1         37       F005668       Socket Head Cap Screw       M6x5       5         727201       Lower Blade Holder Assembly (#38, 40, 56 thru 58), set of 3       1         40       JWSS22B-440       Lower Blade Holder       2         42       JWSS22B-442       Blade.       0.36mm (t) x 1.1mm (W) x 130mm (L) x 11 TPI       5         43       JWSS22B-444       Screw       33         45       TS-1541011       Hex Nylon Lock Nut.       M5       1         46       JWSS22B-447       Upper Blade Chuck       1       1         47       JWSS22B-448       Spring       1       1         48       JWSS22B-447       Upper Blade Chuck       1       1         49       JWSS22B-449       Bearing Sleeve (Short)       Ø6.03x21mm       2	32	.JWSS22B-432	Front Rocker		2
34       JWSS22B-434.       Inner Bearing Sleeve       Ø6.03x16mm       2         35       JWSS22B-A35.       Strut       2         JWSS22B-NLBCK.       New Lower Blade Chuck Kit (#26,36,37,59,64).       1         36       JWSS22B-436A.       Lower Blade Chuck with Magnet.       1         37       F005668.       Socket Head Cap Screw       M4x22       2         38       JWSS22B-438.       Set Screw       M6x5       5         727201       Lower Blade Holder Assembly (#38, 40, 56 thru 58), set of 3       1         40       JWSS22B-440.       Lower Blade Holder       2         22       JWSS22B-443.       Tension Lever       1         44       JWSS22B-444.       Screw       3         45       TS-1541011       Hex Nylon Lock Nut.       M5       1         46       JWSS22B-444.       Screw       3       1         47       JWSS22B-446.       Bolt.       1       1         47       JWSS22B-448.       Spring       1         48       JWSS22B-449.       Bearing       1       2         49       JWSS22B-445.       Blade Clamp Assembly (includes #38).       1       1         51       JWSS22B-455.	33	.JWSS22B-433	. Inner Bearing Sleeve (Long)	Ø6.03x37mm	2
35       JWSS22B-435.       Strut       2         JWSS22B-NLBCK       New Lower Blade Chuck Kit (#26,36,37,59,64)       1         Serial No. 18011801 and higher       1         36       JWSS22B-436A       Lower Blade Chuck with Magnet       1         37       F005668       Socket Head Cap Screw       M4x22       2         38       JWSS22B-438       Set Screw       M6x5       5         727201       Lower Blade Holder Assembly (#38, 40, 56 thru 58), set of 3       1         40       JWSS22B-442       Blade       0.36mm (t) x 1.1mm (W) x 130mm (L) x 11 TPI       5         31       JWSS22B-443       Tension Lever       1       1         44       JWSS22B-444       Screw       3       1         45       T5-1541011       Hex Nylon Lock Nut       M5       1         46       JWSS22B-448       Spring       1       1         47       JWSS22B-448       Spring       1       1         48       JWSS22B-448       Spring       1       1         49       JWSS22B-445       Blade Clamp Assembly (includes #38)       1       1         51       JWSS22B-455       Drive Link Assembly       2       2       3       2	34	.JWSS22B-434	Inner Bearing Sleeve	Ø6.03x16mm	2
JWSS22B-NLBCK.       New Lower Blade Chuck Kit (#26,36,37,59,64)       1         Serial no. 18011801 and higher       36       JWSS22B-436A       Lower Blade Chuck with Magnet       1         37       F005668       Socket Head Cap Screw       M4x22       2         38       JWSS22B-438       Set Screw       M6x5       5         727201       Lower Blade Holder Assembly (#38, 40, 56 thru 58), set of 3       1         40       JWSS22B-442       Blade       2         42       JWSS22B-443       Tension Lever       2         43       JWSS22B-444       Screw       3         44       JWSS22B-444       Screw       3         45       TS-1541011       Hex Nylon Lock Nut       M5       1         46       JWSS22B-448       Bolt       1         47       JWSS22B-448       Spring       1         48       JWSS22B-447       Upper Blade Chuck       1         48       JWSS22B-448       Spring       1         49       JWSS22B-445       Blade Clamp Assembly (includes #38)       1         51       JWSS22B-450       Blade Clamp Assembly (mcludes #38)       1         52       JWSS22B-455       Inner Bearing Sleeve (Short)       Ø6	35	.JWSS22B-435	. Strut		2
Serial no. 18011801 and higher           36         JWSS22B-436A         Lower Blade Chuck with Magnet.         1           37         F005668         Socket Head Cap Screw         M4x22         2           38         JWSS22B-438         Set Screw         M6x5         5		.JWSS22B-NLBCK	. New Lower Blade Chuck Kit (#26,36,37,59,64)		1
36       JWSS22B-436A       Lower Blade Chuck with Magnet       1         37       F005668       Socket Head Cap Screw       M4x22       2         38       JWSS22B-438       Set Screw       M6x5       5         727201       Lower Blade Holder Assembly (#38, 40, 56 thru 58), set of 3       1         40       JWSS22B-442       Blade       0.36mm (t) x 1.1mm (W) x 130mm (L) x 11 TPI       5         43       JWSS22B-442       Blade       0.36mm (t) x 1.1mm (W) x 130mm (L) x 11 TPI       5         44       JWSS22B-444       Screw       3         45       TS-1541011       Hex Nylon Lock Nut       M5       1         46       JWSS22B-446       Bolt       1       1         47       JWSS22B-446       Bolt       1       1         48       JWSS22B-448       Spring       1       1         49       JWSS22B-449       Bearing       R4ZZ       4         50       JWSS22B-450       Blade Clamp Assembly (includes #38)       1       1         51       JWSS22B-455       Inner Bearing Sleeve (Short)       Ø6.03x21mm       2         55       JWSS22B-456       Thumb Screw       1       1       5         56 <t< td=""><td></td><td></td><td>Serial no. 18011801 and higher</td><td></td><td></td></t<>			Serial no. 18011801 and higher		
37       F005668       Socket Head Cap Screw       M4x22       2         38       JWSS22B-438       Set Screw       M6x5       5         727201       Lower Blade Holder Assembly (#38, 40, 56 thru 58), set of 3       1         40       JWSS22B-440       Lower Blade Holder       2         42       JWSS22B-442       Blade       0.36mm (t) x 1.1mm (W) x 130mm (L) x 11 TPI       5         43       JWSS22B-443       Tension Lever       1         44       JWSS22B-444       Screw       3         45       TS-1541011       Hex Nylon Lock Nut       M5       1         46       JWSS22B-448       Spring       1       1         47       JWSS22B-448       Spring       1       1         48       JWSS22B-448       Spring       1       1         49       JWSS22B-448       Spring       1       1         49       JWSS22B-449       Bearing       1       1         51       JWSS22B-4451       Plate       1       1         52       JWSS22B-452       Drive Link Assembly       2       2         55       JWSS22B-4548       Thumb Screw Assembly (#56 thru 58)       1       1 <t< td=""><td>36</td><td>.JWSS22B-436A</td><td>. Lower Blade Chuck with Magnet</td><td></td><td>1</td></t<>	36	.JWSS22B-436A	. Lower Blade Chuck with Magnet		1
38       JWSS22B-438       Set Screw       M6x5       5         727201       Lower Blade Holder Assembly (#38, 40, 56 thru 58), set of 3       1         40       JWSS22B-440       Lower Blade Holder       2         42       JWSS22B-442       Blade       0.36mm (t) x 1.1mm (W) x 130mm (L) x 11 TPI       5         43       JWSS22B-443       Tension Lever       1         44       JWSS22B-444       Screw       3         45       TS-1541011       Hex Nylon Lock Nut       M5       1         46       JWSS22B-444       Screw       1       1         47       JWSS22B-446       Bolt       1       1         47       JWSS22B-448       Spring       1       1         47       JWSS22B-448       Spring       1       1         48       JWSS22B-445       Blade Clamp Assembly (includes #38)       1       1         51       JWSS22B-451       Plate       1       1         52       JWSS22B-455       Inner Bearing Sleeve (Short)       Ø6.03x21mm       2         55       JWSS22B-455       Inner Bearing Sleeve (Short)       1       1         56       JWSS22B-456       Thumb Screw       1       1	37	. F005668	. Socket Head Cap Screw	M4x22	2
	38	.JWSS22B-438	. Set Screw	M6x5	5
40       JWSS22B-440       Lower Blade Holder       2         42       JWSS22B-442       Blade       0.36mm (t) x 1.1mm (W) x 130mm (L) x 11 TPI       5         43       JWSS22B-443       Tension Lever       1         44       JWSS22B-444       Screw.       3         45       TS-1541011       Hex Nylon Lock Nut.       M5       1         46       JWSS22B-446       Bolt.       1       1         47       JWSS22B-448       Spring       1         48       JWSS22B-448       Spring       1         49       JWSS22B-448       Spring       1         49       JWSS22B-449       Bearing       R4ZZ       4         50       JWSS22B-450       Blade Clamp Assembly (includes #38)       1         51       JWSS22B-451       Plate       1         52       JWSS22B-452       Drive Link Assembly       2         55       JWSS22B-455       Inner Bearing Sleeve (Short)       Ø6.03x21mm       2         56       JWSS22B-457       O-Ring       1       1         57       JWSS22B-458       Press Bar       1       1         58       JWSS22B-458       Press Bar       1       1			Lower Blade Holder Assembly (#38, 40, 56 thru 58	), set of 3	1
42       JWSS22B-442       Blade       0.36mm (t) x 1.1mm (W) x 130mm (L) x 11 TPI       5         43       JWSS22B-443       Tension Lever       1         44       JWSS22B-444       Screw       3         45       TS-1541011       Hex Nylon Lock Nut       M5       1         46       JWSS22B-446       Bolt       1       1         47       JWSS22B-446       Bolt       1       1         48       JWSS22B-448       Spring       1       1         49       JWSS22B-449       Bearing       R4ZZ       4         50       JWSS22B-451       Plate       1       1         51       JWSS22B-452       Drive Link Assembly (includes #38)       1       1         51       JWSS22B-452       Drive Link Assembly       2       2       2         55       JWSS22B-452       Drive Link Assembly       2       2       2       1         56       JWSS22B-458       Inner Bearing Sleeve (Short)       Ø6.03x21mm       2       2         56       JWSS22B-458       Press Bar       1       1       1       1       1       1       1       1       1       1       1       1       1 <td>40</td> <td>.JWSS22B-440</td> <td>Lower Blade Holder</td> <td></td> <td>2</td>	40	.JWSS22B-440	Lower Blade Holder		2
43       JWSS22B-443       Tension Lever       1         44       JWSS22B-444       Screw       3         45       TS-1541011       Hex Nylon Lock Nut       M5       1         46       JWSS22B-446       Bolt       1       1         47       JWSS22B-446       Bolt       1       1         47       JWSS22B-447       Upper Blade Chuck       1       1         49       JWSS22B-448       Spring       1       1         49       JWSS22B-449       Bearing       R4ZZ       4         50       JWSS22B-450       Blade Clamp Assembly (includes #38)       1       1         51       JWSS22B-451       Plate       1       1         52       JWSS22B-452       Drive Link Assembly       2       2         55       JWSS22B-455       Inner Bearing Sleeve (Short)       Ø6.03x21mm       2         56       JWSS22B-456       Thumb Screw       1       1         56       JWSS22B-457       O-Ring       1       1         57       JWSS22B-458       Press Bar       1       1         58       JWSS22B-459A       Inner Bearing Sleeve       Ø6.03x14.2mm       1	42	.JWSS22B-442	. Blade0.36mm (t) x 1.1mm (W) >	(130mm (L) x 11 TPI	l 5
44       JWSS22B-444.       Screw	43	.JWSS22B-443	. Tension Lever		1
45       TS-1541011       Hex Nylon Lock Nut       M5       1         46       JWSS22B-446       Bolt       1         47       JWSS22B-447       Upper Blade Chuck       1         48       JWSS22B-448       Spring       1         49       JWSS22B-449       Bearing       1         50       JWSS22B-450       Blade Clamp Assembly (includes #38)       1         51       JWSS22B-451       Plate       1         52       JWSS22B-452       Drive Link Assembly       2         55       JWSS22B-455       Inner Bearing Sleeve (Short)       Ø6.03x21mm       2         56       JWSS22B-456       Thumb Screw Assembly (#56 thru 58)       1       1         56       JWSS22B-457       O-Ring       1       1         57       JWSS22B-458       Press Bar       1       1         58       JWSS22B-459A       Inner Bearing Sleeve       Ø6.03x14.2mm       1         59       JWSS22B-459A       Inner Bearing Sleeve       Ø6.03x14.2mm       1         62       F005673       Socket Head Cap Screw       M4x27       2         63       TS-150081       Socket Head Cap Screw       M4x30       2         64 <td>44</td> <td>.JWSS22B-444</td> <td>. Screw</td> <td></td> <td>3</td>	44	.JWSS22B-444	. Screw		3
46       JWSS22B-446       Bolt       1         47       JWSS22B-447       Upper Blade Chuck       1         48       JWSS22B-448       Spring       1         49       JWSS22B-449       Bearing       R4ZZ       4         50       JWSS22B-450       Blade Clamp Assembly (includes #38)       1       1         51       JWSS22B-451       Plate       1       1         52       JWSS22B-452       Drive Link Assembly       2       2         55       JWSS22B-455       Inner Bearing Sleeve (Short)       Ø6.03x21mm       2         56       JWSS22B-456       Thumb Screw Assembly (#56 thru 58)       1         57       JWSS22B-457       O-Ring       1         58       JWSS22B-458       Press Bar       1         59       JWSS22B-459A       Inner Bearing Sleeve       Ø6.03x14.2mm       1         62       F005673       Socket Head Cap Screw       M4x27       2         63       TS-1501081       Socket Head Cap Screw       M4x30       2         64       TS-1550021       Flat Washer       M6       2         65       TS-1550041       Flat Washer       M6       2         66	45	TS-1541011	. Hex Nylon Lock Nut	M5	1
47       JWSS22B-447       Upper Blade Chuck       1         48       JWSS22B-448       Spring       1         49       JWSS22B-449       Bearing       R4ZZ       4         50       JWSS22B-450       Blade Clamp Assembly (includes #38)       1         51       JWSS22B-451       Plate.       1         52       JWSS22B-452       Drive Link Assembly       2         55       JWSS22B-455       Inner Bearing Sleeve (Short)       Ø6.03x21mm       2         56       JWSS22B-456       Thumb Screw Assembly (#56 thru 58)       1       1         57       JWSS22B-457       O-Ring       1       1         58       JWSS22B-458       Press Bar       1       1         59       JWSS22B-459A       Inner Bearing Sleeve       Ø6.03x14.2mm       1         59       JWSS22B-459A       Inner Bearing Sleeve       Ø6.03x14.2mm       1         62       F005673       Socket Head Cap Screw       M4x27       2         63       TS-1550021       Flat Washer       M4       8         64       TS-1550041       Flat Washer       M6       2         66       F005672       Socket Head Cap Screw       M4x24       2 <td>46</td> <td>.JWSS22B-446</td> <td>Bolt</td> <td></td> <td>1</td>	46	.JWSS22B-446	Bolt		1
48       JWSS22B-448       Spring       1         49       JWSS22B-449       Bearing       R4ZZ         50       JWSS22B-450       Blade Clamp Assembly (includes #38)       1         51       JWSS22B-451       Plate       1         52       JWSS22B-452       Drive Link Assembly       2         55       JWSS22B-455       Inner Bearing Sleeve (Short)       Ø6.03x21mm         56       JWSS22B-TSA       Thumb Screw Assembly (#56 thru 58)       1         57       JWSS22B-456       Thumb Screw       1         58       JWSS22B-457       O-Ring       1         58       JWSS22B-458       Press Bar       1         59       JWSS22B-459A       Inner Bearing Sleeve       Ø6.03x14.2mm         62       F005673       Socket Head Cap Screw       M4x27         63       TS-1501081       Socket Head Cap Screw       M4x30         64       TS-1550021       Flat Washer       M4         65       TS-1550041       Flat Washer       M6         66       F005672       Socket Head Cap Screw       M4x24         67       JWSS22B-267       Cable, Main Switch to PCB (not shown)       1	47	.JWSS22B-447	. Upper Blade Chuck		1
49       JWSS22B-449       Bearing       R4ZZ       4         50       JWSS22B-450       Blade Clamp Assembly (includes #38)       1         51       JWSS22B-451       Plate       1         52       JWSS22B-452       Drive Link Assembly       2         55       JWSS22B-455       Inner Bearing Sleeve (Short)       Ø6.03x21mm       2         56       JWSS22B-456       Thumb Screw Assembly (#56 thru 58)       1       1         57       JWSS22B-457       O-Ring       1       1         58       JWSS22B-458       Press Bar       1       1         59       JWSS22B-459A       Inner Bearing Sleeve       Ø6.03x14.2mm       1         62       F005673       Socket Head Cap Screw       M4x27       2         63       TS-1501081       Socket Head Cap Screw       M4x30       2         64       TS-1550021       Flat Washer       M4       8         65       TS-1550041       Flat Washer       M6       2         66       F005672       Socket Head Cap Screw       M4x24       2         67       JWSS22B-267       Cable, Main Switch to PCB (not shown)       1	48	.JWSS22B-448	. Spring		1
50       JWSS22B-450       Blade Clamp Assembly (includes #38)       1         51       JWSS22B-451       Plate.       1         52       JWSS22B-452       Drive Link Assembly       2         55       JWSS22B-455       Inner Bearing Sleeve (Short)       Ø6.03x21mm       2        JWSS22B-456       Thumb Screw Assembly (#56 thru 58)       1         56       JWSS22B-456       Thumb Screw       1         57       JWSS22B-457       O-Ring       1         58       JWSS22B-458       Press Bar       1         59       JWSS22B-459A       Inner Bearing Sleeve       Ø6.03x14.2mm       1         62       F005673       Socket Head Cap Screw       M4x27       2         63       TS-1501081       Socket Head Cap Screw       M4x30       2         64       TS-1550021       Flat Washer       M6       2         65       TS-1550041       Flat Washer       M6       2         66       F005672       Socket Head Cap Screw       M4x24       2         67       JWSS22B-267       Cable, Main Switch to PCB (not shown)       1	49	.JWSS22B-449	. Bearing	R4ZZ	4
51       JWSS22B-451       Plate       1         52       JWSS22B-452       Drive Link Assembly       2         55       JWSS22B-455       Inner Bearing Sleeve (Short)       Ø6.03x21mm       2         JWSS22B-TSA       Thumb Screw Assembly (#56 thru 58)       1         56       JWSS22B-456       Thumb Screw       1         57       JWSS22B-457       O-Ring       1         58       JWSS22B-458       Press Bar       1         59       JWSS22B-459A       Inner Bearing Sleeve       Ø6.03x14.2mm       1         62       F005673       Socket Head Cap Screw       M4x27       2         63       TS-1501081       Socket Head Cap Screw       M4x30       2         64       TS-1550021       Flat Washer       M4       8         65       TS-1550041       Flat Washer       M6       2         66       F005672       Socket Head Cap Screw       M4x24       2         67       JWSS22B-267       Cable, Main Switch to PCB (not shown)       1	50	.JWSS22B-450	. Blade Clamp Assembly (includes #38)		1
52       JWSS22B-452       Drive Link Assembly       2         55       JWSS22B-455       Inner Bearing Sleeve (Short)       Ø6.03x21mm       2         JWSS22B-TSA       Thumb Screw Assembly (#56 thru 58)       1         56       JWSS22B-456       Thumb Screw       1         57       JWSS22B-457       O-Ring       1         58       JWSS22B-458       Press Bar       1         59       JWSS22B-459A       Inner Bearing Sleeve       Ø6.03x14.2mm       1         62       F005673       Socket Head Cap Screw       M4x27       2         63       TS-1501081       Socket Head Cap Screw       M4x30       2         64       TS-1550021       Flat Washer       M4       8         65       TS-1550041       Flat Washer       M6       2         66       F005672       Socket Head Cap Screw       M4x24       2         67       JWSS22B-267       Cable, Main Switch to PCB (not shown)       1	51	.JWSS22B-451	. Plate		1
55       JWSS22B-455       Inner Bearing Sleeve (Short)       Ø6.03x21mm       2         JWSS22B-TSA       Thumb Screw Assembly (#56 thru 58)       1         56       JWSS22B-456       Thumb Screw       1         57       JWSS22B-457       O-Ring       1         58       JWSS22B-458       Press Bar       1         59       JWSS22B-459A       Inner Bearing Sleeve       Ø6.03x14.2mm       1         62       F005673       Socket Head Cap Screw       M4x27       2         63       TS-1501081       Socket Head Cap Screw       M4x30       2         64       TS-1550021       Flat Washer       M4       8         65       TS-1550041       Flat Washer       M6       2         66       F005672       Socket Head Cap Screw       M4x24       2         67       JWSS22B-267       Cable, Main Switch to PCB (not shown)       1	52	.JWSS22B-452	. Drive Link Assembly		2
JWSS22B-TSA       Thumb Screw Assembly (#56 thru 58)       1         56       JWSS22B-456       Thumb Screw	55	.JWSS22B-455	. Inner Bearing Sleeve (Short)	Ø6.03x21mm	2
56       JWSS22B-456       Thumb Screw       1         57       JWSS22B-457       O-Ring       1         58       JWSS22B-458       Press Bar       1         59       JWSS22B-459A       Inner Bearing Sleeve       Ø6.03x14.2mm       1         62       F005673       Socket Head Cap Screw       M4x27       2         63       TS-1501081       Socket Head Cap Screw       M4x30       2         64       TS-1550021       Flat Washer       M4       8         65       TS-1550041       Flat Washer       M6       2         66       F005672       Socket Head Cap Screw       M4x24       2         67       JWSS22B-267       Cable, Main Switch to PCB (not shown)       1		.JWSS22B-TSA	. Thumb Screw Assembly (#56 thru 58)		1
57       JWSS22B-457       O-Ring       1         58       JWSS22B-458       Press Bar       1         59       JWSS22B-459A       Inner Bearing Sleeve       Ø6.03x14.2mm       1         62       F005673       Socket Head Cap Screw       M4x27       2         63       TS-1501081       Socket Head Cap Screw       M4x30       2         64       TS-1550021       Flat Washer       M4       8         65       TS-1550041       Flat Washer       M6       2         66       F005672       Socket Head Cap Screw       M4x24       2         67       JWSS22B-267       Cable, Main Switch to PCB (not shown)       1	56	.JWSS22B-456	Thumb Screw		1
58       JWSS22B-458       Press Bar       1         59       JWSS22B-459A       Inner Bearing Sleeve       Ø6.03x14.2mm       1         62       F005673       Socket Head Cap Screw       M4x27       2         63       TS-1501081       Socket Head Cap Screw       M4x30       2         64       TS-1550021       Flat Washer       M4       8         65       TS-1550041       Flat Washer       M6       2         66       F005672       Socket Head Cap Screw       M4x24       2         67       JWSS22B-267       Cable, Main Switch to PCB (not shown)       1	57	.JWSS22B-457	. O-Ring		1
59       JWSS22B-459A       Inner Bearing Sleeve       Ø6.03x14.2mm       1         62       F005673       Socket Head Cap Screw       M4x27       2         63       TS-1501081       Socket Head Cap Screw       M4x30       2         64       TS-1550021       Flat Washer       M4       8         65       TS-1550041       Flat Washer       M6       2         66       F005672       Socket Head Cap Screw       M4x24       2         67       JWSS22B-267       Cable, Main Switch to PCB (not shown)       1	58	.JWSS22B-458	. Press Bar		1
62       F005673       Socket Head Cap Screw       M4x27       2         63       TS-1501081       Socket Head Cap Screw       M4x30       2         64       TS-1550021       Flat Washer       M4       8         65       TS-1550041       Flat Washer       M6       2         66       F005672       Socket Head Cap Screw       M4x24       2         67       JWSS22B-267       Cable, Main Switch to PCB (not shown)       1	59	.JWSS22B-459A	. Inner Bearing Sleeve	Ø6.03x14.2mm	1
63       TS-1501081       Socket Head Cap Screw       M4x30       2         64       TS-1550021       Flat Washer       M4       8         65       TS-1550041       Flat Washer       M6       2         66       F005672       Socket Head Cap Screw       M4x24       2         67       JWSS22B-267       Cable, Main Switch to PCB (not shown)       1	62	. F005673	. Socket Head Cap Screw	M4x27	2
64       TS-1550021       Flat Washer       M4       8         65       TS-1550041       Flat Washer       M6       2         66       F005672       Socket Head Cap Screw       M4x24       2         67       JWSS22B-267       Cable, Main Switch to PCB (not shown)       1	63	TS-1501081	Socket Head Cap Screw	M4x30	2
65       TS-1550041       Flat Washer       2         66       F005672       Socket Head Cap Screw       M4x24       2         67       JWSS22B-267       Cable, Main Switch to PCB (not shown)       1	64	.TS-1550021	. Flat Washer	M4	8
66	65	TS-1550041	. Flat Washer	M6	2
67JWSS22B-267 Cable, Main Switch to PCB (not shown)1	66	. F005672	. Socket Head Cap Screw	M4x24	2
	67	.JWSS22B-267	. Cable, Main Switch to PCB (not shown)		1

# 15.4.1 Stand (OPTIONAL) for JWSS-22B Scroll Saw – Exploded View



## 15.4.2 Stand (OPTIONAL) for JWSS-22B Scroll Saw – Parts List

Index No	Part No	Description	Size	Qty
	727200S	Stand for Scroll Saw (#1 thru 10)		
1	TS-0051051	Hex Cap Screw	5/16"-18 x 1"	4
2	TS-0680031	Flat Washer	5/16"	
3	JWSS22B-103	Top Short Brace		2
4	JWSS22B-104	Top Long Brace		2
5	JWSS22B-105	Leg		4
6	TS-0570021	Hex Nut	5/16"-18	
7	JWSS22B-107	Bottom Short Brace		2
8	JWSS22B-108	Bottom Long Brace		2
9	JWSS22B-109	Round Hd. Carriage Bolt, b.oxide	5/16"-18 x 1/2"	24
10	JWSS22B-110	Leg Extension		4
11	JWSS22B-111	Rubber washer (included with saw hardware)		4
	JWSS22B-SHK	Stand Hardware Kit (#1,2,6,9)		

# 16.0 Electrical Connections – JWSS-22B Scroll Saw



# 17.0 Warranty and service

JET<sup>®</sup> warrants every product it sells against manufacturers' defects. If one of our tools needs service or repair, please contact Technical Service by calling 1-800-274-6846, 8AM to 5PM CST, Monday through Friday.

#### Warranty Period

The general warranty lasts for the time period specified in the literature included with your product or on the official JET branded website.

- JET products carry a limited warranty which varies in duration based upon the product. (See chart below)
- Accessories carry a limited warranty of one year from the date of receipt.
- Consumable items are defined as expendable parts or accessories expected to become inoperable within a reasonable amount of use and are covered by a 90 day limited warranty against manufacturer's defects.

#### Who is Covered

This warranty covers only the initial purchaser of the product from the date of delivery.

#### What is Covered

This warranty covers any defects in workmanship or materials subject to the limitations stated below. This warranty does not cover failures due directly or indirectly to misuse, abuse, negligence or accidents, normal wear-and-tear, improper repair, alterations or lack of maintenance. JET woodworking machinery is designed to be used with Wood. Use of these machines in the processing of metal, plastics, or other materials outside recommended guidelines may void the warranty. The exceptions are acrylics and other natural items that are made specifically for wood turning.

#### Warranty Limitations

Woodworking products with a Five Year Warranty that are used for commercial or industrial purposes default to a Two Year Warranty. Please contact Technical Service at 1-800-274-6846 for further clarification.

#### How to Get Technical Support

Please contact Technical Service by calling 1-800-274-6846. Please note that you will be asked to provide proof of initial purchase when calling. If a product requires further inspection, the Technical Service representative will explain and assist with any additional action needed. JET has Authorized Service Centers located throughout the United States. For the name of an Authorized Service Center in your area call 1-800-274-6846 or use the Service Center Locator on the JET website.

#### More Information

JET is constantly adding new products. For complete, up-to-date product information, check with your local distributor or visit the JET website.

#### How State Law Applies

This warranty gives you specific legal rights, subject to applicable state law.

#### Limitations on This Warranty

JET LIMITS ALL IMPLIED WARRANTIES TO THE PERIOD OF THE LIMITED WARRANTY FOR EACH PRODUCT. EXCEPT AS STATED HEREIN, ANY IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE EXCLUDED. SOME STATES DO NOT ALLOW LIMITATIONS ON HOW LONG AN IMPLIED WARRANTY LASTS, SO THE ABOVE LIMITATION MAY NOT APPLY TO YOU. JET 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 PRODUCTS. SOME STATES DO NOT ALLOW THE EXCLUSION OR LIMITATION OF INCIDENTAL OR CONSEQUENTIAL DAMAGES, SO THE ABOVE LIMITATION OR EXCLUSION MAY NOT APPLY TO YOU.

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#### Product Listing with Warranty Period

90 Days – Parts; Consumable items
1 Year – Motors; Machine Accessories
2 Year – Metalworking Machinery; Electric Hoists, Electric Hoist Accessories; Woodworking Machinery used
for industrial or commercial purposes
3 Year – Air Compressors
5 Year – Woodworking Machinery
Limited Lifetime – JET Parallel clamps; VOLT Series Electric Hoists; Manual Hoists; Manual Hoist
Accessories; Shop Tools; Warehouse & Dock products; Hand Tools; Air Tools

NOTE: JET is a division of JPW Industries, Inc. References in this document to JET also apply to JPW Industries, Inc., or any of its successors in interest to the JET brand.

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427 New Sanford Road LaVergne, Tennessee 37086 Phone: 800-274-6848 www.jettools.com