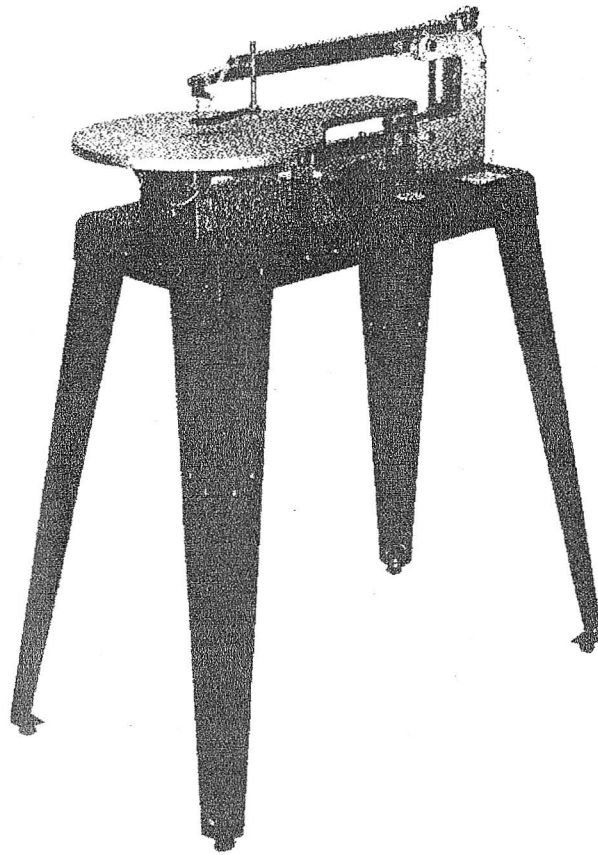


Bushton Manufacturing
Maker Of
Hawk Woodworking Tools

FOR MODELS 216VS, 220VS & 226VS HAWK SCROLL SAWS



**READ THOROUGHLY BEFORE
OPERATING**

CODE #: 0693



MANUAL #: 703-1729

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SETTING UP YOUR NEW HAWK

Your new Hawk has been completely assembled and factory tested before being prepared for shipment. All adjustments have been made except for a few minor adjustments. After a few simple assembly procedures you'll be on your way to scrolling in no time!

The Hawk is shipped in two separate cartons.

Carton #1 contains the saw, manual, and extra blades (if applicable).

Carton #2 contains the leg set, assembly hardware, and glides (rubber feet).

*We often ship additional items in each carton if ordered. Be sure to compare the items received with the packing list attached to each shipment. There will be one packing list for an entire shipment. If your shipment contains more than one carton, the packing list will be attached to the largest carton. On the packing list you will notice a customer number has been assigned to you. Please record this number for future contact with RBI.

While removing all items from their cartons be sure to inspect each one closely for shipping damage. If you feel your shipment may have been damaged, contact the local office of the transportation carrier. You will find their local number in the yellow pages under Shipping Carriers.

Tools you'll need to put your Hawk together:

- 7/16" wrench or ratchet
- 9/16" open end wrench
- A pair of standard pliers

Step #1

Remove the assembly hardware from the plastic pouch and install the 3/8" hex nuts on the glides (the rubber feet). Screw them all the way down until they are next to the rubber.

Step #2

Insert the glides through the hole in the bottom of each leg. Install another 3/8" hex nut on the glide to hold it in place. Tighten the nut down securely. By tightening down securely, machine vibration will be considerably reduced (see fig. A-1).

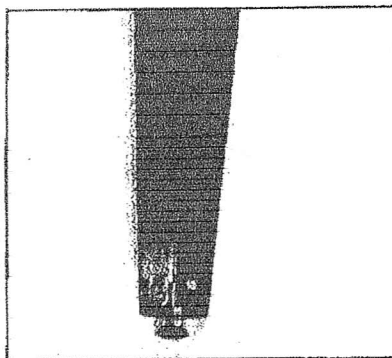


Fig. A-1

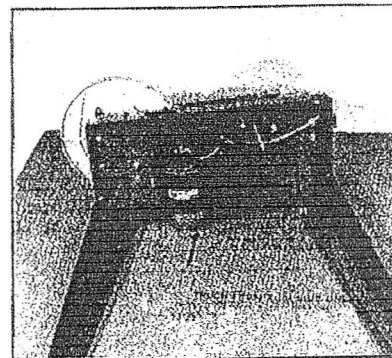


Fig. A-2

Step #3

After removing everything from the box close it back up again and use it as a bench when installing the legs on your saw. Save your box in case a warranty situation arises. Turn the saw on its side and carefully lay it on the box. Install one leg on each corner of the base, using the 1/4" whiz nuts. Do not tighten completely. The carriage bolts should be able to freely move in the slots—we will tighten these with a wrench when making final adjustments. Be sure the top of the leg is inside the base and the carriage bolt head is on the outside with the whiz nut to the inside of the base (see fig. A-2).

Step #4

With the legs installed, stand your new Hawk upright and tighten the carriage bolts on the legs securely with a 7/16" wrench or ratchet. For best operation of your saw be sure to get it on a solid level floor.

Step #5

Model 216VS: Remove the rubber band from the cam handle on the rear of the upper arm and flip the cam. This will put tension on the blade.

Model 220VS, 226VS: Remove the rubber band from the cam handle on the rear of the upper arm and flip the cam. This will put tension on the blade. On the left hand side of the front section of the upper arm there is a small black tension adjustment handle. Push the handle backwards and you should feel tension begin to tighten.

Step #6

The final adjustment that you will want to make is to direct the dust blower hose. The dust blower hose is connected to the hold down arm with a rectangular red painted metal bar. Using your pliers, clamp the metal bar and slowly twist the bar until the end of the blower hose is pointed directly at the hole in the center of the sawtable. When adjusting your dust blower, it should keep an area the size of a half dollar directly around the blade clear of dust.

MAINTENANCE

There's a few more things you'll want to do before we begin to saw. Don't forget about these handy tips. Later they should be done about every 20 hours of use.

Tip #1 — Using light machine oil (3-in-1 brand oil is good), put a few drops under the pivot wedge at the rear tension bar. You will also need to put a drop of oil to each side of the pivot point bearings. (This is where the bolts that hold the arm on are located, see fig. A-3.)

Tip #2 — Use a cake of beeswax or paraffin and rub it on the round underside of the cam to keep friction from building up under the cam.

Tip #3 — Although we hand polish each Hawk table here at the factory, after about 200 hours of usage you may want to go ahead and apply a coat of wax to the table for protection. Apply Minwax Clear Wood Wax or Johnson Paste Wax with light pressure in a circular motion. Polish with a clean dry cloth. Be sure to remove all wax from the table top or it will coat your wood as you cut, and make finishing difficult.

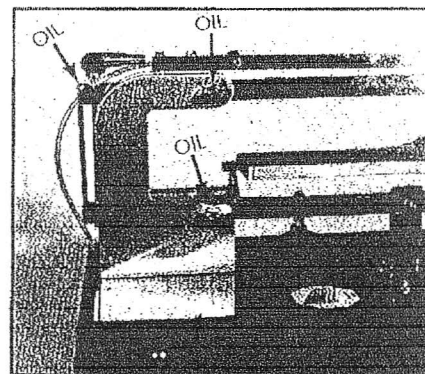


Fig. A-3

LET'S GO OVER A FEW SAFETY TIPS

Tip #1 – Never allow anyone without proper training to use your Hawk. Children should always be carefully supervised while sawing.

Tip #2 – A clean workshop is a safe workshop. Keep your work area clean and uncluttered and especially keep others clear of running machinery. Be sure to remove all tools and wood scraps before starting the machine.

Tip #3 – Keep your hands away from all moving parts. Never try to make any adjustments to your Hawk while it's running. The electrical power should be disconnected before making adjustments on the machine.

Tip #4 – Dress for the occasion. Loose clothing and jewelry can be a hazard around working tools. Avoid loose fitting clothes, long sleeves, gloves, neckties, jewelry, rings, watches, etc. If you have long hair, be sure to pull it back. Always wear safety goggles, ear protection, and a mask in dusty operations.

Tip #5 – To avoid electrical shock, do not operate your Hawk in a wet or damp area. Always keep safety guards in place, and never leave your saw running unattended.

Tip #6 – Be sure to use good materials for a top notch job. When cutting wood, be sure it has no loose knots or splintered surfaces.

LET'S TRY IT OUT!

After we have tested each Hawk we leave the "test run" blade installed. This blade is a #7 size fret saw blade. (There are several different sizes and types of blades available but we will talk about them later.) This blade will work very well for our beginning exercises. The most important thing to remember is to relax. Don't be afraid of the saw – it's a very safe tool – but it must be respected.

For this project you will need:

1-1"x9"x11" piece of clear soft wood (pine)

Before we begin you will need to get the pattern of the jumping dolphin puzzle located in the RBI Pattern Pak enclosed with your saw. There are several ways to transfer patterns to your project material. Here are a couple of our favorites:

- 1. Carbon method** – Using a sheet of carbon paper (available at the local stationery shop), place it directly on the surface you plan to cut. Lay the original pattern or a photocopy directly on top of the carbon paper and carefully trace the pattern using a sharp pencil or a ballpoint pen. Lift the pattern and carbon paper from the surface and you're ready to cut. **Warning: Depending on the material you plan to cut, the carbon from the paper is very difficult to remove from the surface. Be sure to carefully sand away all carbon or it will tend to bleed when finishing later.**
- 2. Stick it** – This is our favorite. Make a photocopy of the original pattern and put the original away for safe keeping. Using the photocopy pattern, carefully spray aerosol adhesive directly to the back side of the pattern. Place the pattern face-side-up on the surface to be cut and rub gently to make sure all edges will be secure while cutting. **Note: When choosing a spray glue, repositionable glue (like the type intended for photographs) is best. Our favorite is the Duro brand spray adhesive available in the paint section of the local home improvement store.** After cutting is complete, remove the pattern from the surface and lightly sand to remove glue residue before finishing. (Some folks tell us that they use the same technique with rubber cement or a craft glue stick instead of the spray adhesive.)

For your first project it's better to choose a soft wood to cut. We recommend sugar pine or ponderosa pine if it's available. Take the pattern of the jumping dolphin puzzle and prepare your project to be cut by attaching the pattern by the method you think will work best.

Now it's time to adjust the "hold down" foot of your Hawk to fit the thickness of the lumber you will be cutting. The "hold down" foot is the black nylon (plastic) piece that surrounds the blade of your saw. Using the knob on the right hand side of the saw located next to the upper arm, loosen the knob and raise the "hold down" foot. Now place the project you plan to cut on the table and bring the "hold down" foot back down until it gently rests on the surface of your project. Tighten the knob.

You are now ready to get started on your first project.

SAWING TECHNIQUES THE PROFESSIONALS USE

It is best to always start your cut at a point or corner of the project. Even for a pro it's almost impossible to blend starting and ending cuts on a straight part. If your pattern doesn't have a corner, then start sawing into the pattern line cutting across the grain. By cutting across the grain you will have a better chance of the blade not wandering with the grain.

(When you have to start a cut on a long curve, try to cut just a little outside the line – you can sand off the resulting bump.)

HERE'S A PRACTICE EXERCISE FOR TECHNIQUE

Over the years we've learned of several ways to help folks enjoy working with their new Hawks right away. Here's a technique-building tip that has helped many get started.

Step #1 – Take a piece of paper (or draw directly on the wood with a felt tip or ball point pen) and draw a series of straight and zig zag lines like the ones in the diagram. (See fig. A-4.)

Step #2 – After your wood is covered with lines, start cutting using the techniques above. After you've completed this project and you're comfortable with making sharp turns and straight lines you'll be ready to go.

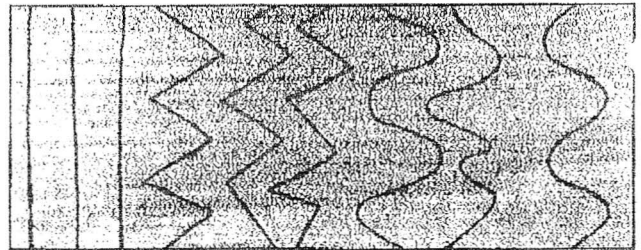


Fig. A-4

Cutting corners and sharp turns – This is the most exciting part of having a Hawk – the flexibility to make a cut as intricate or as simple as you want. Your new Hawk can make a complete 360° cut in a project with less than 1/64" turning radius. When cutting a project that requires sharp turns and points, here's a few pointers:

1. Start by making your cut all the way to the point where you want to make a sharp turn.
2. Now without feeding your project into the blade, slowly spin the wood around the blade in its own kerf. If you're used to using a bandsaw or jigsaw, you may be tempted to "set" the blade. **DONT**. If you find that while cutting you tend to break blades often, or there is smoke while you are trying to make a turn, you're not alone. Many people have that problem—here's an easy way to remedy your case: don't lean side to side on the blade.
3. If your project clatters on the table or it tries to pull from your hands while making turns, you may want to go to a smaller size blade. The smaller the blade size, the smaller the turning radius will be. For very intricate projects, the smallest size blade you are comfortable with is best. (See our recommendation chart on page 7.)

LET'S MAKE A PROJECT

Now it's time to put all that know how to work for you! Remember, begin at a corner in your pattern and cut across the grain when you first start out. Follow the line around; if you're right-handed you will probably be most comfortable feeding your project counterclockwise (vice versa for a left-handed scroller). It doesn't really matter which direction you cut, just go in the direction that you feel most comfortable with. Start at the outside of the pattern and work your way inward.

Some folks say scrolling is a lot like driving a car — we'd have to agree. When cutting along the line you can go as fast or slow as you'd like by adjusting the variable speed knob. If you're cutting along and you start to wander from the line of the pattern, don't try to jerk back onto the line — you'll just end up with a bumpy project. The best technique is the "near hit" method. In most cases you will have to do more than wander 1/8" from your pattern line to make an elephant look like a mushroom.

Always remember that the blade of your new Hawk is stationary and you drive your project. You must spin the wood — the blade will not turn. This is how most folks break blades when getting started. Always remember to feed directly into the blade — never lean to the side. Let the blade do the cutting.

After you've completed your test project, step back and take a look at your first success . . . CONGRATULATIONS! Look at the sides of the project and inspect for burn marks. If there are burn marks on your projects, you've got room for improvement on feeding straight into the blade. If your line seems a little bumpy, you'll want to concentrate on the "near hit" technique. Now you're ready to finish your project and get going again.

Be sure to read over the Sawing Techniques section for all the tips and techniques on all types of cuts.

BLADES FOR EVERY OCCASION

There are literally hundreds of types and styles of blades available for cutting most any material you choose. Below is a chart that will help you better understand the most popular types and sizes of blades for your saw.

FRET SAW BLADES — Blade length 5"

REF. #	TEETH PER IN.	CUTTING THICKNESS	APPLICATIONS
2/0	29	.016"	For extremely intricate sawing of 1/16" to 3/8" materials; wood veneer, plastics, hard rubber, etc.
2	24	.022"	For tight radius work in thin materials 3/32" to 5/8"; wood, bone, fiber, plastic, etc.
5	20	.028"	For close radius cutting in materials 1/8" or thicker, hard or soft wood, plastics, etc. Popular sizes for cutting hard and soft woods 3/16" up to 2".
7	18	.030"	
9	14	.030"	
12	11	.031"	

DIAMOND BLADES

REF. #	DIAMETER	LENGTH	APPLICATIONS
1	3/4 MM	5"	Recommended for cutting precious gems, glass, and tile.

Fret Saw Blades

Originally designed for a hand fret saw, these blades are ideal for the power scroll saw. This is the best blade for general cutting. It is recommended for wood, plastics, fabric, paper and most other non-metal materials.

Diamond Blades

The diamond encrusted blade is the newest and most unique blade yet. This blade is manufactured by impregnating a round rod with diamonds. For folks that enjoy making stained glass projects or do large amounts of ceramic and marble cutting, the diamond blade is the answer. The diamond blade must be used with the dripper system to keep it from loading up with glass particles.

METAL (JEWELER'S) SAW BLADES — Blade length 5"

REF. #	TEETH PER IN.	CUTTING THICKNESS	APPLICATIONS
6/0	72	.007"	Cutting of gold, silver, bronze, precious metals, etc. For thin veneers and metals up to 1/16" thick. For metal 1/32" to 1/8" thick.
4/0	64	.009"	
2/0	56	.011"	
1	51	.013"	Cutting of harder and thicker metals, iron, steel, etc. For metal 1/8" to 1/4" thick. For metal 1/8" to 3/8" thick.
3	43	.016"	
5	36	.022"	
8	28	.028"	
12	20	.028"	

Jeweler's Saw Blades

These blades are designed for use in the hand held jewelers saw frame still used frequently among jewelry designers. Its hardened steel composition and teeth configuration make it ideal for cutting both ferrous and non-ferrous metals such as gold, silver, brass, and aluminum.

HOW TO CHANGE A BLADE FOR MODELS 220VS & 226VS

Front Cam Benefits

With the front cam, the blade can be changed without getting off of the stool or stretching to reach the back of the saw. This feature is great when making inside cuts or for someone that isn't able to get around easily.

Here's an easy step-by-step method for changing the blade on your Hawk (models 220VS and 226VS).

Step #1 — The front cam has two positions: the release position (for changing blades), (See fig. A-5) and the tensioned position (for sawing) (see fig. A-6). The blade tension is still adjustable with the cam-over at the back of the saw. Begin by releasing the front cam (black tension adjuster on the front left side of the upper saw arm). By flipping the bar in the complete forward position your tension will be released. Loosen the knob on the upper bladeholder to release the old sawblade.

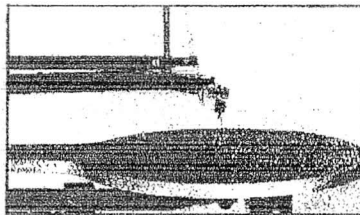


Fig. A-5

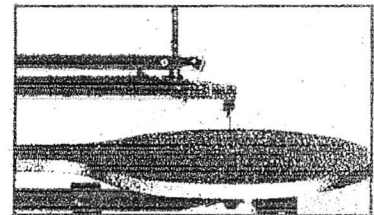
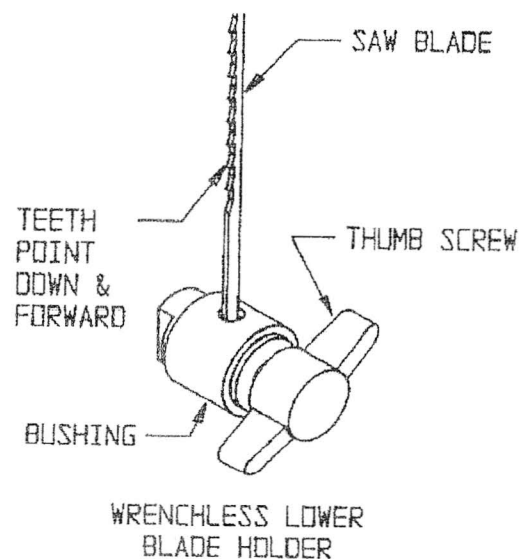


Fig. A-6

Step #2 — Choose the size and type of blade you will be using. (Make your selection from the blade chart located on page 7.) Located in the "V" notch of the lower arm there will be a chuck that looks like a barrel. Holding the blade holder at both ends (with your index finger and thumb), remove the chuck by sliding the blade holder forward.

Step #3 — Now let's mount the blade in the bottom blade chuck. (The bottom blade chuck looks like a metal barrel with a thumb screw in the end. Place the blade chuck on its side in the slot of your saw base.) The slot is near the front of the base of your saw on the left hand side. Turn the thumb screw counter-clockwise to loosen the blade in the chuck.

Step #4 — Remove the remaining portion of the blade in the chuck. Make sure that all broken blade pieces are cleared away. Now lay the blade flat with the teeth pointing down towards the chuck and insert the blade through the hole in the bushing of the lower blade holder so the bottom of the blade is touching the bottom of the hole in the chuck. The blade must come straight out of the chuck. (See diagram.)



Step #5 — Using the thumb screw, tighten the new blade in the chuck. Be careful not to overtighten the chuck—more is not better. When the blade is overtightened you will crimp the blade and weaken it at the point where the blade and chuck meet. This will make the blade prone to breaking next to the blade holder.

Step #6 — Remove the blade from the base slot and feed it through the hole in the table, sliding the chuck under the lower arm in the edge-type slot designed for it to rest. Be sure the teeth on the blade are facing towards you. (See fig. A-7.)

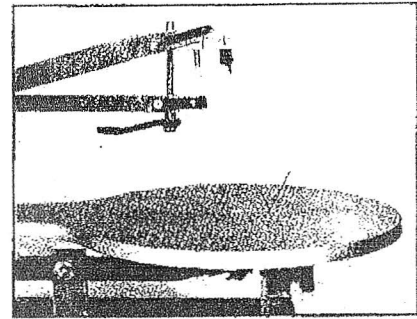


Fig. A-7

Step #7 — Using your index finger, bring the upper arm down while pinching the blade between your thumb and second finger (See fig. A-8). Push the blade back into the slot in the front of the upper blade holder. Make sure the blade is completely to the back of the blade holder and the top of the blade is touching the stop pin. Tighten the blade holder knob with your right hand.

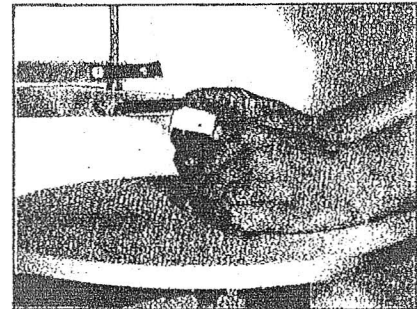


Fig. A-8

Step #8 — Now it's time to begin re-tensioning the blade. Most every different blade size requires a little alteration in the tension put on the blade. A good rule of thumb to remember is this: when moving to a smaller blade, lighten the tension—when moving to a larger blade, increase the tension slightly.

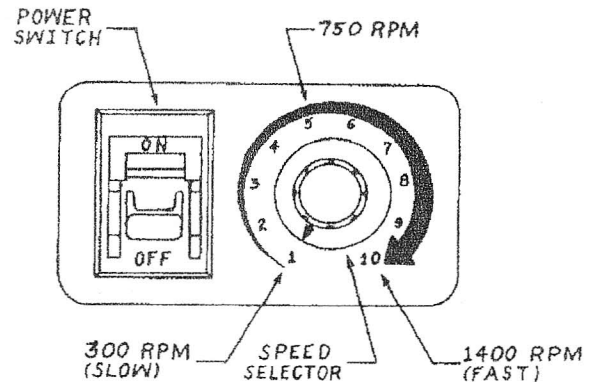
Step #9 — Begin the tensioning process by flipping the front cam back to the tensioned position. Now begin tensioning the blade with the rear cam by slowly moving the rear camover handle back to the original position. Adjusting the tension is done with rear cam. Stop tensioning when the blade makes a clear *ping* when plucked like a guitar string.

Step #10 — **You're finished changing the blade!** Yeal Put your tools away and you're ready to get started sawing. Each time you change the blade it will get easier. Soon you'll be changing a blade in seconds.

Note: If you break a blade, simply place the front cam handle in the released position (to release the blade tension) and change the blade. Return the front cam handle to the tensioned position. The tension should be correct and should not need adjusting.

SPEED CORRELATION CHART

No.	SPEED	NO.	SPEED
1	300 RPM	6	900 RPM
2	350 RPM	7	1000 RPM
3	400 RPM	8	1150 RPM
4	600 RPM	9	1300 RPM
5	750 RPM	10	1400 RPM



BLADE CHANGING FOR MODEL 216VS

Step #1 — Begin by releasing the flip cam located on the rear of the upper arm. The cam will be in the released position when the long arm is laying flat on the upper arm.

Step #2 — Insert the "F" wrench into the top of the upper bladeholder to lock it in place. Using the T-handle allen wrench, loosen the upper bladeholder to release the blade.

Step #3 – Choose the style and size of blade you will be using. Make your selection from the blade chart located on pages 7 and 8.

Step #4 – Located in the “v” notch of the lower arm there will be a round barrel-style chuck. Holding the blade holder at both ends (with your index finger and thumb), remove the chuck by sliding the blade holder forward. Now mount the blade in the bottom blade chuck. The bottom blade chuck looks like a split barrel. Place the bladed chuck on its side in the slot of the saw base. The slot is near the front of the base of your saw on the left hand side.

Step #5 – Using the slotted portion of the “F” wrench, lay the open slot over the squared area of the blade chuck. Turning the wrench counterclockwise, the chuck will unscrew and release the blade. You may also use a 5/16” wrench instead of the “F” wrench if you prefer. Many people are tempted to use an allen wrench to unscrew the allen screw in the end of the chuck. The allen screw is used as a back stop, and unscrewing it will not help you change the blade.

Step #6 – After unscrewing the blade chuck, make sure that all broken pieces of the blade are removed from the chuck. Slide the blade, with teeth facing downward, through the hole in the brass bushing and insert the blade until it rests against the set screw.

Step #7 – Using the “F” wrench, tighten the blade in the chuck. Be careful not to overtighten the new blade in the chuck – more is not better. When the blade is overtightened you will crimp the blade and weaken it at the point where the blade and chuck meet. This will make the blade prone to breaking next to the blade holder.

Step #8 – Remove the chuck from the base slot and feed it through the hole in the table, sliding the chuck under the lower arm in the wedge-shaped slot designed for it to rest in. Be sure the teeth on the blade are facing out.

Step #9 – Place the “F” wrench over the upper arm with the two legs laying over the upper blade chuck. This will help to keep the blade stationary while you are installing the blade in the chuck. (See fig. A-9.)

Step #10 – Using your left index finger, bring the upper arm down while pinching the blade between your thumb and second finger. Push the blade back into the slot in the front of the upper blade holder. Make sure the blade is resting in front of the set screw and touching the roll pin in the upper chuck. Tighten the blade with your “T” handle allen wrench supplied with your saw.

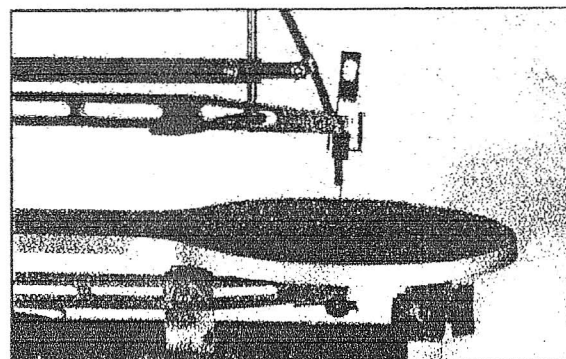


Fig. A-9

Step #11 – Now it's time to begin to re-tensioning the blade. Most every different size blade requires a little alteration in the tension of the blade. A good rule of thumb to remember is: when you are changing to a smaller blade, lighten the tension—when moving to a larger blade, increase the tension slightly.

Step #12 – You're finished changing the blade! Congratulations again! Put your tools away and you are ready to begin sawing. Each time you change the blade it will become easier and take less time.

BLADE TENSIONING

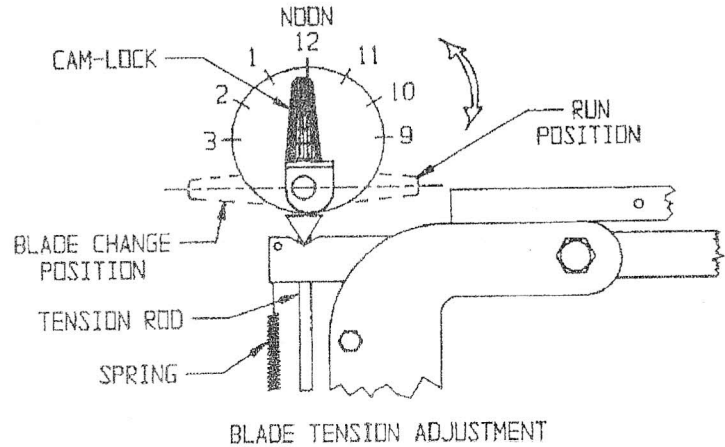
To adjust the blade tension release the cam-lock at the rear of the saw by flipping the cam toward the back or away from the front of the saw. This will release blade tension.

Clock Method: If you look at the saw from the left side (rear cam-lock at your left hand) imagine the cam lock as the hand of a clock. If you look at the chart on the right you will see the cam-lock in the straight up or 12 o'clock position. The object here is to set the point at which tension starts as you lift the cam lock toward the front of the saw with the suggested clock position in the chart. To change the point at

which tension starts you grasp the tension rod and either spin it clockwise or counter-clockwise. Spinning it clockwise will reduce the tension (make the cam stop at a higher clock position), and spinning it counter-clockwise will increase the tension (make the cam stop at a lower clock position). Once you have tension starting at the correct clock position, pull the cam lever all the way over toward the front of the saw and tension will be set at the correct pressure for each blade. (If you have questions, view the Hawk Scroll Saw Video for a visual demonstration). The positions in the diagram below are to be used as a reference point. You may use a little more or a little less tension.

BLADE TENSION CHART

BLADE	CLOCK POSITION	
	216 & 220	226
#9 - #12	9:30	9:00
#7	10:00	9:30
#5	10:00	9:30
#2	11:00	10:30
#2/0	11:00	10:30



ADVANCED SCROLLING TECHNIQUES

Bevel Sawing

Bevel sawing is a fun way to add another dimension to a project. To make a bevel cut you simply tilt the table of your Hawk and begin cutting. Many folks use the bevel sawing technique to create inlays, dovetail joints, and the 3-D pictures like the one we'll make for this project.

Make a copy of the desert pattern from your Pattern Pak and attach it to a piece of 1/2" wood—just about any kind of wood will work. Now beginning with the most inside line (in this case it's the desert floor and cactus), tilt the saw table at 3 degrees to the right and make the first cut in a clockwise direction.

Now tilt the table 3 degrees to the left and follow the next pattern line (the ground and mountains). For the final cut, you will need to tilt the table to the right at 4 degrees and follow the last line. Now push each piece into position to make a fun 3-D project.

The bevel cutting techniques may also be used for making all types of inlays. There is a detailed project pattern in your RBI Pattern Pak for complete instruction for making inlays.

Stack Cutting

This is a technique most pros use when they are making several projects with the same pattern. Remember your Hawk has the ability to cut up to a full 2" thick material, so you can stack most projects at least 2" high. There are many ways to keep the projects from slipping while cutting. Here's a few of our favorites:

- **Hot Melt Glue** — Many times when pros are cutting they use a hot glue gun to glue pieces all together. They put the pieces together in a stack (remember, not more than 2") and run a bead of glue in a zig zag down two sides of the project material. By making a zig zag, the material will hold together when cutting in any direction.

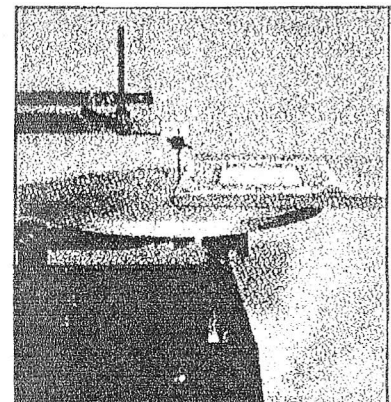


Fig. A-10

- **Double Sided Tape** — Some Hawk owners tell us that they think the glue gun is a mess and they prefer to use carpet layer's double stick tape. To hold your project together with tape you just sandwich a couple of strips between each layer and you're ready to go.
- **Nails** — We've even talked to some real purists that prefer to stick with traditional woodworking items and just stack'em up and nail'em. If you use this method, be sure your nails are not sticking out of the projects or they will scratch and mar the table surface. **This is the best way to hold your stack together.** Make sure your nails are in waste area of your project.

To practice the technique of stack cutting we will make a pair of identical shelf support brackets. For this project you will need two pieces of 1" x 8" lumber. Any kind will do—hard or soft wood. Make sure both pieces are the same size. Stack them up and hook them together the way you like the best. Now put your project to the side—we've got another technique to learn before we can start cutting your project.

Note: Always make sure your table top is completely square before making a stack cut project or you will find that the projects will be smaller on the bottom than they are at the top.

Inside Cuts

Making an inside cut is simply cutting an opening in your project without making an entry cut. Making inside cuts is impossible with the bandsaw, but the Hawk can make them in a snap! First, begin by drilling a hole the scrap area that is to be removed. Make sure the hole is big enough for the blade to fit through.

Now you will need to release the tension on your blade. Remember the front cam tensioner? (It's the little black bar on the left front side of the upper arm.) Flip the front cam tensioner all the way to the front. This should release the tension on your blade. Now remove the blade from the upper blade holder by unscrewing the knob on the right side of the upper blade chuck (See Figure A-11).

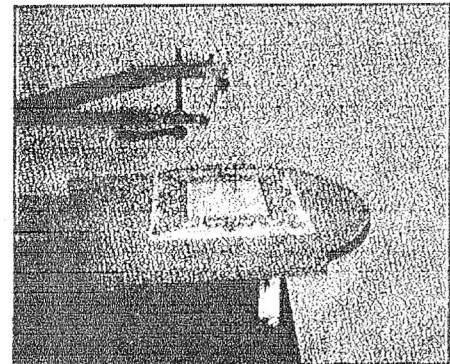


Fig. A-11

Tilt the blade forward to the front of the slot in the table and thread the blade through the hole you drilled. You're now ready to replace the blade in the upper blade chuck and put your front tension cam back in its tensioned position (See Figure A-12).

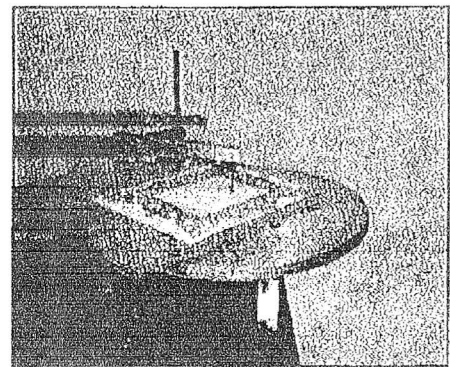


Fig. A-12

After you have made your cut, release the blade tension again, remove the top end of the blade from the top blade holder, and remove the workpiece. You did it!

Here's where your project comes in—there's a few inside cuts. You need to drill a hold in the shaded area of the pattern and follow the instructions above for technique. Be sure to cut out all shaded sections in the pattern. Now you've made the brackets into a beautiful ginger bread-style shelf! These are great to use as shelf brackets, or you might even want to finish them and put them in a window or doorway just to add a warm touch.

Compound Sawing

This is probably the toughest technique to learn for most folks, but making a compound cut can certainly be rewarding when you finally master it. By cutting all four sides of a project you add a completely new dimension to a simple project. We've enclosed a pattern for one of our favorite Christmas tree ornaments for you to try.

To begin your compound cut project you will need a 2" x 2" x 4" piece of softwood. Our favorite is basswood. Begin by taking the face pattern (the one that looks like you're looking at a reindeer head on), and attach the pattern (the one that looks like the profile of a reindeer) and glue it on the adjoining side. Now using the cutting techniques you've already learned, cut out the face pattern. Be sure to keep all the pieces if they separate.

After you have made the entire face cut, carefully put all of the pieces together and tape them securely back in their original place with masking tape. Now take the profile pattern and cut it out in the same way you did the face pattern. After you take all the pieces apart you will find a perfectly dimensioned reindeer inside. (This is a fun way to make brain teaser puzzles.) Some wood carvers tell us they like to cut out their blanks first by compound cutting, then they finish them with carving tools.

TROUBLESHOOTING

If you're getting a little frustrated, here's some troubleshooting tips that might help.

• Excessive Blade Breakage

If you think you're breaking a lot of blades, here's a few tips:

- A. Be sure you are using the right size and type of blade for the material you are trying to cut. You can make sure by checking the blade recommendation chart on page 11.
- B. If the blade tends to break right above the bottom blade chuck, your blade is not installed in the lower blade chuck correctly. Helpful hint: be sure the blade is coming straight out of the blade chuck as pictured on page 8. Remember—when tightening the blade, don't overtighten. If you tighten the chuck too tightly you'll crimp the blade and weaken it just above the blade chuck. This will cause the blade to break.
- C. If the blade is breaking just below the upper blade chuck, chances are that you are not getting it in the upper blade chuck correctly. Remember—the blade must be all the way to the back of the slot and the top of the blade must be touching the roll pin.
- D. If the blade is breaking in the middle, your blade is probably installed just fine. After you've been sawing for a while you'll find your blade life will get longer and longer. Some folks call us and say that they've cut for so many hours they wore the teeth right off the front of the blade. If you're like most sawyers starting out, you should expect about 15 to 30 minutes cutting time for a blade. After the first few weeks you'll find that time increasing. To get the longest possible life from the blade, here are a few tips:
 1. Always remember to drive the wood, not the blade. If you have trouble getting your saw to turn and it smokes while cutting, often that signifies that you need to practice your technique. Feed straight into the blade.
 2. If you have poor control of your blade and it seems to wander and respond very slowly, you might not have quite enough tension on the blade.

Here's a test: Install a #5 blade in your saw. Take a 1" thick piece of lumber and slide it across the table of your saw. When the blade touches the wood, draw a line across the saw table 1" on both sides of the blade. Now applying about 15 lbs. of pressure, push evenly into the blade with the wood. Draw another line parallel to the first one. There should be 3/16" between the two parallel lines. If there is more or less than that distance, adjust the tension with the rear cam by releasing it and turning it like a knob.

• Blade is Burning the Wood

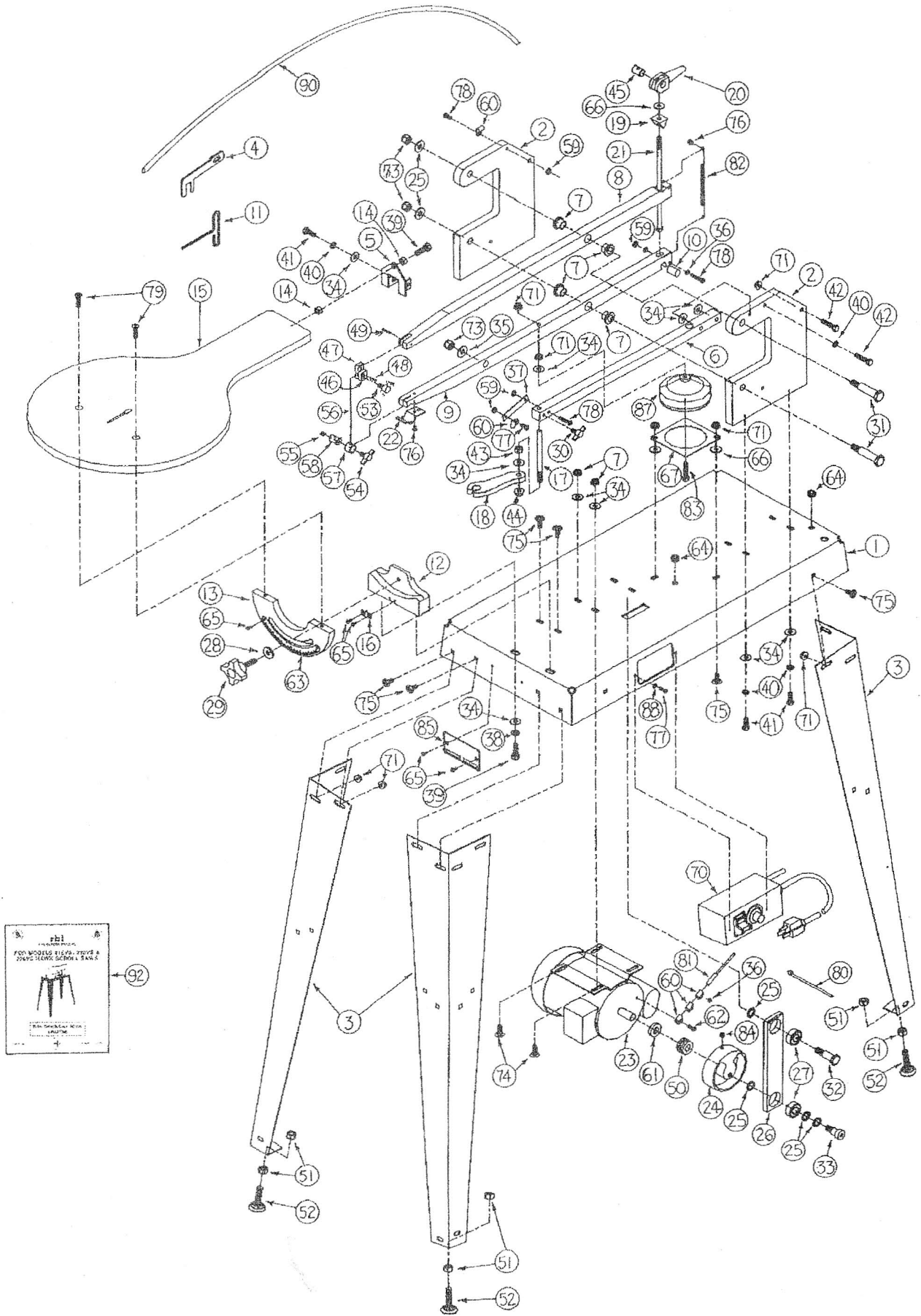
1. Make sure you're using the right size and type of blade for the project. See blade selection chart on page 11.
2. It make take a little practice, but you're leaning on the blade side to side when cutting. Remember that it's the project that moves—not the blade. Your cutting surface is on the front side only.
3. Some woods just seem to be more prone to burning than others. Of course, hard wood like oak and walnut will burn if cut at too high of a speed. Take advantage of your variable speed saw and slow it down. Cherry and mahogany are difficult woods to cut without burning because of their resin content.

PARTS LIST MODEL 216VS

To speed delivery and reduce errors when ordering parts always give the name, model number, and serial number of your machine. Use the part number and description as shown in the parts list. Do not use key numbers (the numbers in the circles on the parts breakdown drawing), always use the part number and description given in the parts list.

Key #	Part #	Description	Qty.	Key #	Part #	Description	Qty.	Key #	Part #	Description	Qty.
01	615-3111	SAW BASE, 216VS	1	39	770-0181	5/16-18 X 1 HEX HEAD BOLT	3	79	715-0244	1/4-20 X 3/4 FL HD SKT CP SCRW	2
02	615-0115	ARM SUPPORT, 216VS	2	40	750-0207	1/4 SPLIT LOCK WASHER	7	80	715-0107	WIRE TIE, 6-3/4 TO 7-3/4 LONG	3
03	600-1007	SAW LEGS	4	41	750-0206	1/4-20 X 3/4 HEX HEAD BOLT	8	81	715-0202	SENSOR, FOR CONTROLLER	1
04	715-0137	"F" WRENCH	1	42	735-0080	1/4-20 X 1-1/4 HEX HEAD BOLT	2	82	710-2036	SPRING, HAWK PRO SCROLL SAW	1
05	615-0113	REAR TABLE SUPPORT BRKT, 216VS	1	43	770-0081	5/16-18 HEX NUT	1	83	750-0213	1/4-20 X 2 CARRIAGE BOLT	1
06	615-1106	HOLD DOWN ARM, 216VS	1	44	710-0047	5/16-18 FLANGED LOCK/WHIZ NUT	1	84	770-0095	1/4-20 X 1/4 SOC ST SCR,KNL PT	1
07	740-0369	1/2ID FLANGED BRONZE BUSHING	4	45	715-0077	CAM-OVER HANDLE ROUND PIVOT	1	85	715-1122	SERIAL TAG 216VS	1
08	615-4001	TOP ARM, 216VS PRO	1	46	710-0041	UPPER BLADE HLDER, SMALL SIDE	1	87	715-0024	BLOWER BELLOWS (RUBBER)	1
09	615-5006	BOTTOM ARM, 216VS PRO	1	47	710-0040	UPPER BLADE HLDER, BIG SIDE	1	88	715-0191	3/16 INTERNAL LOCK WASHER	6
10	715-0216	LOWER PIVOT, ROUND	1	48	710-0043	1/8 X 1/2 ROLL PIN	1	90	715-0037	1/4OD TUBING (BY THE INCH)	51
11	705-0086	9/64 X 3 T HANDLE ALLEN WRENCH	1	49	710-0042	1/8 X 3/4 ROLL PIN	1	92	703-1729	MANUAL, HAWK SAWS, PRO SERIES	1
12	615-2021	SHORT BASE TILT, 216VS PRO	1	50	715-0230	1/2" ID RUBBER GROMMET	1	715-0094	DECAL, KEEP ALL GUARDS IN PLACE	1	
13	615-2020	TABLE TILT	1	51	770-0058	3/8-16 HEX NUT	8	702-0011	DECAL, FINGERS FROM UNDER ARM	1	
14	745-0517	5/16IDX1/2ODX1/4 NYLON SPACER	2	52	705-0057	GLIDES	4	745-0205	DECAL, MADE IN USA, OCTAGON	1	
15	615-3004	SMALL SAW TABLE	1	53	705-0090	8-32 X 1/2 SKRT HEAD CAP SCREW	1	715-0092	DECAL, RBI HAWK	1	
16	715-0101	SCROLL SAW POINTER	1	54	615-0183	1/4-20X1/2 WITH "T" KNOB	1	702-0002	DECAL, RBI MADE IN USA, ROUND	1	
17	685-1012	HOLD DOWN FOOT ROD	1	55	791-0053	1/4-20 X 1/4 SOC ST SCR,FLT PT	1	702-0025	DECAL, SAW PATENT NUMBERS	1	
18	715-0104	SCROLL SAW HOLD DOWN FOOT	1	57	715-0112	LOWER BLADE HOLDER BUSHING	1	715-0091	DECAL, SCROLLER'S HOTLINE	1	
19	715-0075	ALUMINUM WEDGE PIVOT	1	58	715-1186	LOWER BLADE HOLDER	1	965-3188	MOTOR DRIVE ASSEMBLY, 216VS		
20	615-1074	REAR CAM-OVER HANDLE	1	59	745-0107	10-32 HEX NUT	2	615-0187	LOWER BLADE HOLDER ASSEMBLY		
21	715-0240	TENSION ROD, 8", 216/226 PRO	1	60	705-1081	1/4" NYLON HOSE CLAMP, BLACK	5	610-0045	UPPER BLADE HOLDER ASSY OLD STY		
22	715-2138	LOWER BLADE HLDER "C" CLIP	1	61	615-8710	16 POLE ROTOR MAGNET	1	615-0246	TABLE TILT ASSEMBLY		
23	604-0012	MOTOR, 1/6HP, FASCO, 7188-0200G	1	62	770-0088	8-32 X 1/2 RD HD MACH SCREW	3	615-0234	COUNTER-WEIGHT ASSEMBLY		
24	615-2156	COUNTERWEIGHT, 216VS	1	63	715-0236	TABLE TILT SCALE	1	645-6000	BOLT BAG FOR SAW LEGS		
25	715-0014	1/2ID X 3/4OD X 18GA WASHER	3	64	715-0016	1/4" ID RUBBER GROMMET	3				
26	615-0174	PITMAN ARM, 6-5/8, 216VS	1	65	710-0012	#7 X 5/16 ROUND HD DRIVE SCREW	5				
27	735-0007	1/2" ID BALL BEARING	2	66	715-0103	1/4IDX3/4ODX1/16" NYLON SPACER	3				
28	715-2120	5/16ID X 5/8OD X 1/8 NYL SPACR	1	67	615-1025	BLOWER BELLOWS BRACKET	1				
29	705-1042	5/16-18 X 1-1/4 SQUARE KNOB	1	70	715-9017	VARIABLE SPEED CONTROLLER	1				
30	735-0017	1/4-20 X 3/4 SKT HD CAP SCREW	1	70	715-0223	HEYCO STRAIN RELIEF, #1200	1				
31	715-0071	1/2 X 1-3/4 SHOULDER BOLT	2	70	715-0224	HEYCO STRAIN RELIEF, #1217	1				
32	715-0109	1/2 X 1 SHOULDER BOLT	1	70	720-0033	TERMINAL,FEMALE,BLUE,14-16AWG	3				
33	725-0033	1/2 X 1/2 SOC.HD SHOULDER BOLT	1	71	745-0223	1/4-20 FLANGED LOCK/WHIZ NUT	19				
34	745-0177	1/4 FLAT WASHER	17	73	770-0051	3/8-16 NYLON LOCK HEX NUT	3				
35	745-0150	5/16 FLAT WASHER	3	75	745-0099	1/4-20 X 5/8 CARRIAGE BOLT	18				
36	745-0112	3/16 RIVIT BURR	3	76	710-0035	10-32 X 1/4 RD HD MACH. SCREW	3				
37	605-2082	HOSE CLIP BRACKET	1	77	745-0106	10-32 X 1/2 RH MACHINE SCREW	4				
38	770-0	5/16 SPLIT LOCK WASHER	3	78	780-0019	10-32 X 1 HD MACH SCREW	2				

PARTS BREAKDOWN
MODEL 216VS

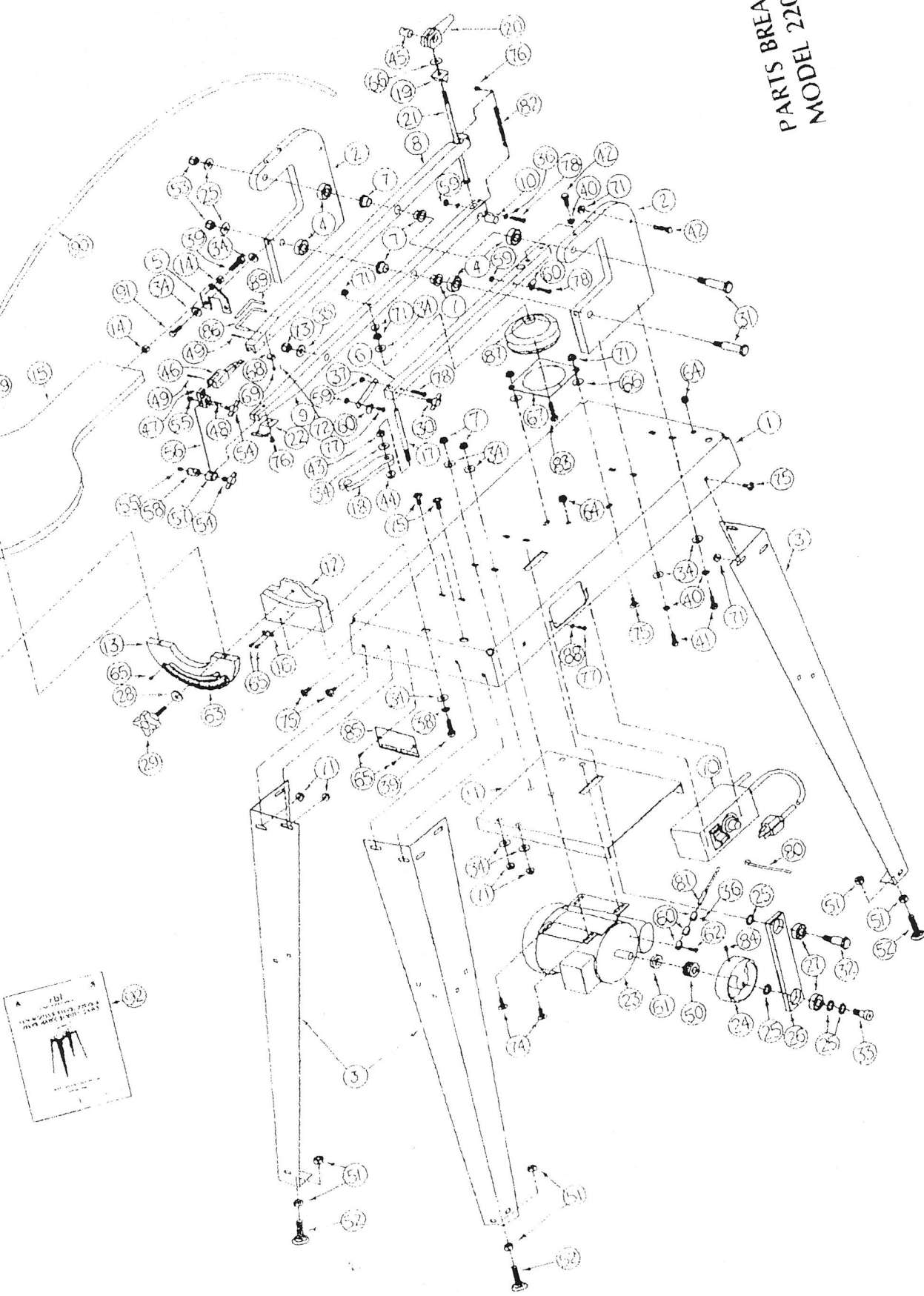


PARTS LIST MODEL 220VS

To speed delivery and reduce errors when ordering parts always give the name, model number, and serial number of your machine. Use the part number and description as shown in the parts list. Do not use key numbers (the numbers in the circles on the parts breakdown drawing), always use the part number and description given in the parts list.

Key #	Part #	Description	Qty	Key #	Part #	Description	Qty	Key #	Part #	Description	Qty
01	615-1217	SAW BASE, 220VS PRO	1	41	750-0206	1/4-20 X 3/4 HEX HEAD BOLT	6	77	745-0106	10-32 X 1/2 RH MACHINE SCREW	3
02	615-1214	ARM SUPPORT, 220VS PRO	2	42	735-0080	1/4-20 X 1-1/4 HEX HEAD BOLT	3	78	780-0019	10-32 X 1 RD HD MACH SCREW	3
03	600-1007	SAW LEGS	4	43	770-0081	5/16-18 HEX NUT	1	79	715-0244	1/4-20 X 3/4 FL HD SKT CP SCRW	2
04	715-0208	THRUST BEARINGS W/RACES	4	44	710-0047	5/16-18 FLANGED LOCK/WHIZ NUT	1	80	715-0107	WIRE TIE, 6-3/4 TO 7-3/4 LONG	3
05	615-1211	REAR TABLE SUPPORT BRKT, 220VS	1	45	715-0077	CAM-OVER HANDLE ROUND PIVOT	1	81	715-0202	SENSOR, FOR CONTROLLER	1
06	615-0215	HOLDDOWN ARM, 220VS PRO	1	46	615-4153	TOP BLADE HOLDER BRACKET	1	82	710-2036	SPRING, HAWK PRO SCROLL SAW	1
07	740-0369	1/2ID FLANGED BRONZE BUSHING	4	47	715-3181	UPPER BLADE HOLDER	1	83	750-0213	1/4-20 X 2 CARRIAGE BOLT	1
08	615-0212	TOP ARM, 220VS PRO	1	48	715-0205	3/16 X 1/2 ROLL PIN	1	84	770-0095	1/4-20 X 1/4 SOC ST SCR,KNL PT	1
09	615-0213	BOTTOM ARM, 220VS PRO	1	49	710-0042	1/8 X 3/4 ROLL PIN	2	85	715-2070	SERIAL TAG, #220 VS SCROLL SAW	1
10	715-0216	LOWER PIVOT, ROUND	1	50	715-0230	1/2" ID RUBBER GROMMET	1	86	615-1168	FRONT CAM HANDLE	1
11	615-0222	220 10GA MTR. BRACE	1	51	770-0058	3/8-16 HEX NUT	8	87	715-0024	BLOWER BELLOWS (RUBBER)	1
12	615-2027	TALL BASE TILT	1	52	705-0057	GLIDES	4	88	715-0191	3/16 INTERNAL LOCK WASHER	2
13	615-2020	TABLE TILT	1	53	715-0210	11-13 NEOPRENE LOCK NUT	2	89	715-0164	CAP, BLACK RUBBER, 3" LONG	1
14	745-0517	5/16IDX1/2ODX1/4 NYLON SPACER	2	54	615-0183	1/4-20X1/2 WITH "T" KNOB	2	90	715-0037	1/4OD TUBING (BY THE INCH)	55
15	605-4005	LARGE SAW TABLE	1	55	791-0053	1/4-20 X 1/4 SOC ST SCR,FLT PT	2	91	725-0043	1/4-20 X 1/2 HEX HEAD BOLT	2
16	715-0101	SCROLL SAW POINTER	1	57	715-0112	LOWER BLADE HOLDER BUSHING	1	92	703-1729	MANUAL, HAWK SAWS, PRO SERIES	1
17	685-1012	HOLD DOWN FOOT ROD	1	58	715-1186	LOWER BLADE HOLDER	1		715-0094	DECAL, ALL GUARDS IN PLACE	1
18	715-0104	SCROLL SAW HOLD DOWN FOOT	1	59	745-0107	10-32 HEX NUT	4		702-0011	DECAL, FINGERS FROM UNDER ARM	1
19	715-0075	ALUMINUM WEDGE PIVOT	1	60	705-1081	1/4" NYLON HOSE CLAMP, BLACK	5		745-0205	DECAL, MADE IN USA, OCTAGON	1
20	615-1074	REAR CAM-OVER HANDLE	1	61	615-8710	16 POLE ROTOR MAGNET	1		715-0092	DECAL, RBI HAWK	1
21	615-0239	TENSION ROD, 8-1/4", 220VS PRO	1	62	770-0088	8-32 X 1/2 ROUND HD MACH SCREW	3		702-0002	DECAL, RBI MADE IN USA, ROUND	1
22	715-2138	LOWER BLADE HOLDER "C" CLIP	1	63	715-0236	TABLE TILT SCALE	1		702-0025	DECAL, SAW PATENT NUMBERS	1
23	604-0012	MOTOR, 1/6HP, FASCO 7188-0200G	1	64	715-0016	1/4" ID RUBBER GROMMET	2		715-0091	DECAL, SCROLLER'S HOTLINE	1
24	615-1155	COUNTER-WEIGHT	1	65	710-0012	#7 X 5/16 ROUND HD DRIVE SCREW	7		965-3184	MOTOR DRIVE ASSEMBLY 220VS	
25	715-0014	1/2ID X 3/4OD X 18GA WASHER	5	66	715-0103	1/4IDX3/4ODX1/16" NYLON SPACER	3		615-0187	LOWER BLADE HOLDER ASSEMBLY	
26	615-3193	PITMAN ARM, 7-5/8, 220VS	1	67	615-1025	BLOWER BELLOWS BRACKET	1		615-0182	UPPER BLADE HOLDER ASSEMBLY	
27	735-0007	1/2" ID BALL BEARING	2	68	715-2154	FRONT CAM	1		615-0245	TABLE TILT ASSEMBLY	
28	715-2120	5/16ID X 5/8OD X 1/8 NYL SPACR	1	69	790-0031	10-32 X 3/16 SOCKET SET SCREW	1		615-1176	UPPER ARM ASSEMBLY	
29	705-1042	5/16-18 X 1 1/4 SQUARE KNOB	1	70	715-9017	VARIABLE SPEED CONTROLLER	1		615-0232	COUNTER-WEIGHT ASSEMBLY	
30	615-1183	1/4-20 X 3/4 WITH "T" KNOB	1	70	715-0223	HEYCO STRAIN RELIEF, #1200	1		645-6000	BOLT BAG FOR SAW LEGS	
31	715-0229	1/2-13 X 3-3/4 HEX HEAD BOLT	2	70	715-0224	HEYCO STRAIN RELIEF, #1217	1				
32	715-0109	1/2 X 1 SHOULDER BOLT	1	70	720-0033	TERMINAL, FEMALE, BLUE, 14-16AWG	3				
33	725-0033	1/2 X 1/2 SOC HD SHOULDER BOLT	1	71	745-0223	1/4-20 FLANGED LOCK/WHIZ NUT	27				
34	745-0177	1/4 FLAT WASHER	19	72	715-0201	5/64 X 3/8 ROLL PIN	1				
35	745-0150	5/16 FLAT WASHER	1	73	770-0051	3/8-16 NYLON LOCK HEX NUT	1				
36	745-0112	3/16 RIVIT BURR	2	74	735-0029	1/4-20 X 3/4 CARRIAGE BOLT	4				
37	605-2082	HOSE CLIP BRACKET	1	75	745-0099	1/4-20 X 5/8 CARRIAGE BOLT	19				
38	770-0178	5/16 SPLIT LOCK WASHER	2	76	710-0035	10-32 X 1 D HD MACH SCREW	3				
39	770-0181	5/16-18 X 1 HEX HEAD BOLT	3								
40	750-	1/4 SPLIT LOCK WASHER	7								

PARTS BREAKDOWN
MODEL 220



PARTS LIST MODEL 226VS SCROLL SAW

To speed delivery and reduce errors when ordering parts always give the name, model number, and serial number of your machine. Use the part number and description as shown in the parts list. Do not use key numbers (the numbers in the circles on the parts breakdown drawing), always use the part number and description given in the parts list.

Key #	Part #	Description	Qty.	Key #	Part #	Description	Qty.	Key #	Part #	Description	Qty.
01	615-1225	SAW BASE, 226VS PRO	1	39	770-0181	5/16-18 X 1 HEX HEAD BOLT	3	73	770-0051	3/8-16 NYLON LOCKHEX NUT	1
02	615-0241	ARM SUPPORT, 226VS PRO	2	40	750-0207	1/4 SPLIT LOCK WASHER	11	74	735-0029	1/4-20 X 3/4 CARRIAGE BOLT	4
03	600-1077	SAW LEGS	4	41	750-0206	1/4-20 X 3/4 HEX HEAD BOLT	10	75	745-0099	1/4-20 X 5/8 CARRIAGE BOLT	16
04	715-0208	THRUST BEARINGS W/RACES	4	42	735-0080	1/4-20 X 1-1/4 HEX HEAD BOLT	3	76	710-0035	10-32 X 1/4 RD HD MACH. SCREW	2
05	615-0226	REAR TABLE SUPPORT BRKT, 226VS	1	43	770-0081	5/16-18 HEX NUT	1	77	745-0106	10-32 X 1/2 RH MACHINE SCREW	1
06	615-4066	HOLD DOWN ARM, 226VS PRO	1	44	710-0047	5/16-18 FLANGED LOCK/WHIZ NUT	1	78	780-0019	10-32 X 1 RD HD MACH SCREW	3
07	740-0369	1/2ID FLANGED BRONZE BUSHING	4	45	715-0077	CAM-OVER HANDLE ROUND PIVOT	1	79	715-0244	1/4-20 X 3/4 FL HD SKT CP SCRW	2
08	615-0237	TOP ARM, 226VS PRO	1	46	615-4153	TOP BLADE HOLDER BRACKET	1	80	715-0107	WIRE TIE, 6-3/4 TO 7-3/4 LONG	3
09	615-1238	BOTTOM ARM, 226VS PRO	1	47	715-3181	UPPER BLADE HOLDER	1	81	715-0202	SENSOR, FOR CONTROLLER	1
10	715-0216	LOWER PIVOT, ROUND	1	48	715-0205	3/16 X 1/2 ROLL PIN	1	82	710-2036	SPRING, HAWK PRO SCROLL SAW	1
11	615-0227	1/4 PLATE BRACE, 226VS	1	49	710-0042	1/8 X 3/4 ROLL PIN	2	83	715-0213	1/4-20 X 2 CARRIAGE BOLT	1
12	615-2027	TALL BASE TILT	1	50	715-0230	1/2"ID RUBBER GROMMET	1	84	770-0095	1/4-20 X 1/4 SOC ST SCR, KNL PT	1
13	615-2020	TABLE TILT	1	51	770-0058	3/8-16 HEX NUT	8	85	700-1034	SERIAL TAG #226 VS	1
14	745-0517	5/16IDX1/20DX1/4 NYLON SPACER	2	52	705-0057	GLIDES	4	86	615-1168	FRONT CAM HANDLE	1
15	605-4005	LARGE SAW TABLE	1	53	715-0210	1/2-13 NEOPRENE LOCK NUT	2	87	715-0024	BLOWER BELLOWS (RUBBER)	1
16	715-0101	SCROLL SAW POINTER	1	54	715-0221	1/4-20X1/2 WITH "T" KNOB	2	88	715-0191	3/16 INTERNAL LOCK WASHER	6
17	685-1012	HOLD DOWN FOOT ROD- SCROLL SAWS	1	55	791-0053	1/4-20 X 1/4 SOC ST SCR, FLT PT	2	89	715-0164	CAP, BLACK RUBBER, 3" LONG	1
18	715-0104	SCROLL SAW HOLD DOWN FOOT	1	57	715-0112	LOWER BLADE HOLDER BUSHING	1	90	715-0037	1/4OD TUBING (BY THE INCH)	61
19	715-0075	ALUMINUM WEDGE PIVOT	1	58	715-1186	LOWER BLADE HOLDER	1	92	703-1729	MANUAL, HAWK SAWS, PRO SERIES	1
20	615-1074	REAR CAM-OVER HANDLE	1	59	745-0107	10-32 HEX NUT	6	93	615-0228	BASE BRACE, 226VS	1
21	715-0240	TENSION ROD, 8", 216/226 PRO	1	60	705-1081	1/4" NYLON HOSE CLAMP, BLACK	5	94	615-0124	TABLE SUPPORT SPACER, 226VS	2
22	715-2138	LOWER BLADE HOLDER "C" CLIP	1	61	615-8710	16 POLE ROTOR MAGNET	1	95	600-0037	TOP ARM REINFORCEMENT	1
23	604-0012	MOTOR, 1/6HP, FASCO, 7188-0200C	1	62	770-0088	8-32 X 1/2 ROUND HD MACH SCREW	3	96	715-0166	1/4-20 X 1 CARRIAGE BOLT	4
24	615-1155	COUNTER-WEIGHT	1	63	715-0236	TABLE TILT SCALE	1	97	735-0017	1/4-20 X 3/4 SKT HD CP SCREW	2
25	715-0014	1/2ID X 3/4OD X 18GA WASHER	5	64	715-0016	1/4"ID RUBBER GROMMET	2		715-0094	DECAL, ALL GUARDS IN PLACE	1
26	615-1194	PITMAN ARM, 7-13/16	1	65	710-0012	#7 X 5/16 ROUND HD DRIVE SCREW	5		702-0011	DECAL, FINGERS FROM UNDER ARM	1
27	735-0007	1/2" ID BALL BEARING	2	66	715-0103	1/4IDX3/4ODX1/16" NYLON SPACER	3		745-0205	DECAL, MADE IN USA, OCTAGON	1
28	715-2120	5/16ID X 5/8OD X 1/8 NYL SPACER	1	67	615-1025	BLOWER BELLOWS BRACKET	1		715-0092	DECAL, RBI HAWK	1
29	705-1042	5/16-18 X 1-1/4 SQUARE KNOB	1	68	715-2154	FRONT CAM	1		702-0002	DECAL, RBI MADE IN USA, ROUND	1
30	735-0017	1/4-20 X 3/4 SKT HD CAP SCREW	1	69	790-0031	10-32 X 3/16 SOCKET SET SCREW	1		702-0025	DECAL, SAW PATENT NUMBERS	1
31	715-0229	1/2-13 X 3-3/4 HEX HEAD BOLT	2	70	715-9017	VARIABLE SPEED CONTROLLER	1		715-0091	DECAL, SCROLLER'S HOTLINE	1
32	715-0109	1/2 X 1 SHOULDER BOLT	1	70	715-0223	HEYCO STRAIN RELIEF, #1200	1		965-3195	MOTOR DRIVE ASSEMBLY 226VS	
33	725-0033	1/2 X 1/2 SOC. HD SHOULDER BOLT	1	70	715-0224	HEYCO STRAIN RELIEF, #1217	1		615-0182	UPPER BLADE HOLDER ASSEMBLY	
34	745-0177	1/4 FLAT WASHER	17	70	720-0033	TERMINAL, FEMALE, BLUE, 14-16AWG	3		615-0187	LOWER BLADE HOLDER ASSEMBLY	
35	745-0150	5/16 FLAT WASHER	1	71	745-0223	1/4-20 FLANGED LOCK/WHIZ NUT	22		615-0245	TABLE TILE ASSEMBLY	
36	745-0112	3/16 RIVIT BURR	3	72	715-0201	5/64 X 3/8 ROLL PIN	1		615-1177	UPPER ARM ASSEMBLY	
37	605-2082	HOSE CLIP BRACKET	1						615-0233	COUNTER-WEIGHT ASSEMBLY	
38	770-0	5/16 SPLIT LOCK WASHER	2						645-6000	SAW LEG BOLT BAG	

PARTS BREAKDOWN
MODEL 226VS

