# **SETUP & OPERATION MANUAL SEYCO 24" Tilting Blade Scroll Saw**

#### **FEATURES:**

Positive Swing Tilt Head Design. Blade Angle indicator (standard) Digital Blade Angle readout -(Optional) 16"X28" Table with 8" blade approach. TOP FEEDING top arm design. Adjustable stand height 2-1/4" thickness capacity.\*

Upper and lower blade guards. Dust blower · Lockable switch. Finger operated blade clamping.

Bench top setup - your choice.

\*2-1/4" thickness capacity acheived with

OnLine brand Challenger series blades.

#### SPECIFICATIONS:

LENGTH: 36"

Full Stand Bench Top

WIDTH: 25-1/2" 17-1/2"

HEIGHT: 47-1/2" 18-1/2"

FOOTPRINT: 31" X 29" 20" X 18"

BLADE TILT: 30 degrees right & left

THROAT DEPTH: 21"

THICKNESS CAPACITY: Up to 2-1/4"

SPEED (VARIABLE): 400 - 1600 SPM

TABLE SIZE: 16 X 28

BLADE APPROACH: 8+" \*

(TABLE EXTENDING IN FRONT OF BLADE.)

MOTOR: 120 Volt 1.3 Amp.

WEIGHT: 90 lbs.

CARTON: 32" X 20" X 12"

\* May vary 1/2" depenfing on your table alignment preference.





**BENCHTOP SETUP OPTION** 



THANK YOU for choosing the Seyco Positive Swing Tilting Head scroll saw. Your scroll saw has been carefully tested and inspected in an effort to supply you, our customer, with a saw that if used properly and maintained will provide you with years of reliable service. For your safety and to experience optimal trouble free performance from your scroll saw while getting the most from your investment, please take time to read this manual before assembling, installing and operating your scroll saw.

This manual is offered to familiarize you with the safe operation, basic function, and features unique to this scroll saw as well as the set-up, maintenance and identification of the parts and components. This manual is not intended to provide a substitute for a formal education in the craft of woodworking. If you are not sure about the safety of performing certain operations or procedures, do not proceed until you can confirm, from knowledgeable and qualified sources, that it is safe to do so.

Once you have read through the manual, keep it handy for future reference.

Disclaimer: The information and specifications in this manual pertain to the unit as it was supplied from the factory at the time of printing. Because Seyco is committed to making improvements, we reserve the right to make changes to components, parts or features of this unit as deemed necessary, without prior notice and or obligation to install any such changes on previously delivered units. Reasonable care is taken at the factory to ensure this manual corresponds with the unit with which it is supplied. However, special orders and "after factory" modifications may render the information in this manual inapplicable to your machine. If you own an earlier or later version of this unit, this manual may not depict your unit exactly. If you have any doubts or questions contact your supplier or Seyco for clarification.



242 National Dr - Rockwall, TX 75032 Mailing: Box 1900 - Rockwall, TX 75087 800-462-3353 seyco@seyco.com

# Seyco, The Scroll Saw Specialists, INC. WARRANTY

All component parts of each Seyco Scroll Saw are carefully inspected during all stages of production and each unit is thoroughly inspected and tested upon completion.

#### **2 YEAR LIMITED WARRANTY:**

Because of our committment to quality and customer satisfaction, SEYCO, "The Scroll Saw Specialists", INC agree to repair or replace any part or component which upon examination proves to be defective in either workmanship or material to the original purchaser for a period not to exceed 2 years subject to "Conditions and Exceptions" listed below.

#### TO FILE A CLAIM:

To file a WARRANTY claim, all defective parts, components or machinery must be returned freight or postage prepaid to Seyco The Scroll Saw Specialists, INC., or a designated representative, approved by Seyco The Scroll Saw Specialists, INC. For further details contact **Seyco The Scroll Saw Specialists, INC. at 800-462-3353 or email:** seyco@seyco.com for assistance with filing your claim.

TO RETURN PARTS, COMPONENTS OR MACHINES REQUIRES AN AUTHORIZATION NUMBER WHICH CAN BE OBTAINED THROUGH THE CONTACT INFORMATION ABOVE.

### **CONDITIONS AND EXCEPTIONS:**

This coverage is extended to the original purchaser only. Prior warranty registration is not required but documented proof of purchase, ie. a legible copy of the original sales invoice or receipt showing the date and location of the purchase as well as the purchase price paid, must be provided at the time of claim.

This warranty does not include failures, breakage or defects deemed after inspection by Seyco or our appointed representative to have been directly or indirectly caused by or resulting from; improper use, lack of or improper maintenance, misuse or abuse, negligence, accidents, damage in handling or transport, or normal wear and tear of any generally considered consumable parts or components.

Repairs made without the written consent of Seyco, The Scroll Saw Specialists, INC. will void all warranty.

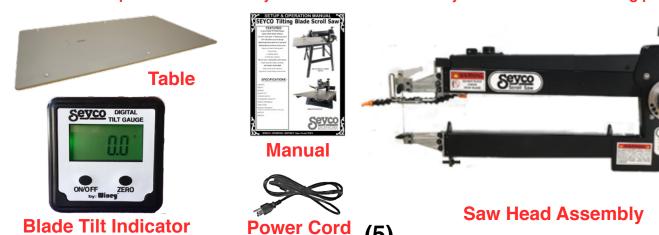
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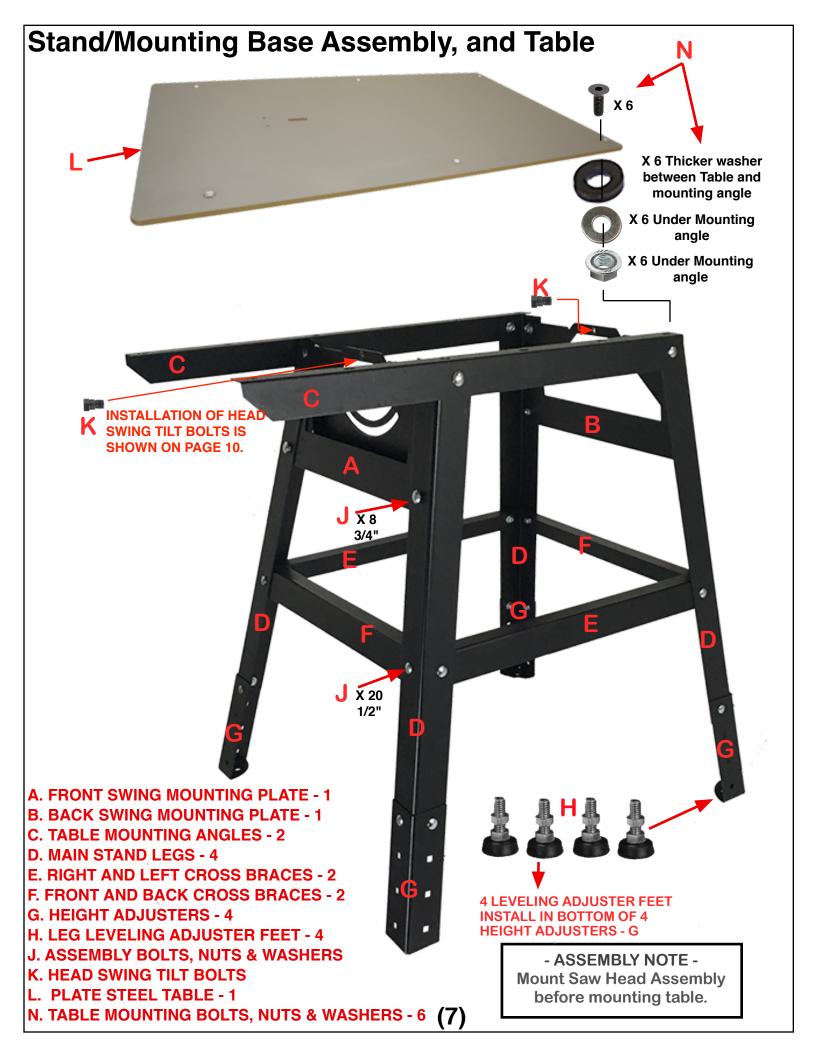
## What you will find In the box ....



The stand parts are identified by the letters in the assembly instructions on following pages.







## **Benchtop Base Assembly**



#### - NOTE -

To mount to workbench (or bolt to floor) do not install part H leveling feet and use holes in bottom of part G for your mounting bolts.

- ASSEMBLY NOTE -Mount Saw Head Assembly before mounting table and table cover.

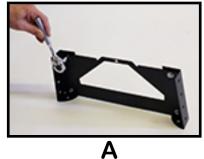
## **Assembling the Benchtop Base (Optional)**

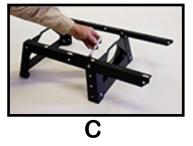
Attach one Height Adjuster G to each side of front Swing Mounting Plate A and B to complete assembly of the mounting base front and back. (SEE ILLUSTRATIONS BELOW)

Attach C table mounting angle to each side of the front and back assembly. LEAVE ALL BOLTS FINGER TIGHT UNTIL THE HEAD IS MOUNTED AND PIVOT SHOULDER BOLTS TIGHTENED.

Mount the swing tilting head with the special (K) pivot bolts and tighten them.

Attach 4 leveling adjuster feet to bottom of the base assembly if necessary or desired for your application (SEE ILLUSTRATION "D" BELOW)



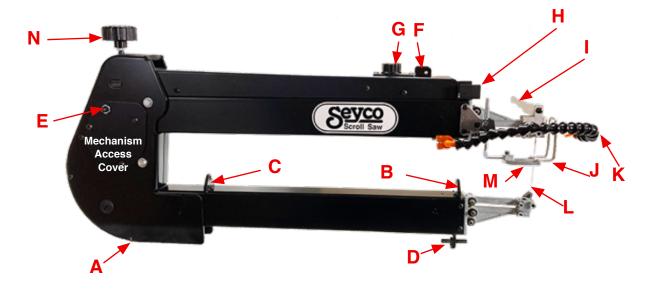




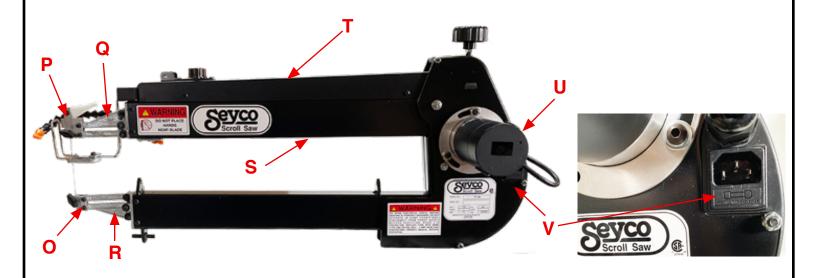
D

See page 10 for mounting saw head and page11 for mounting & aligning table & table cover.

### **Swing Mounted Saw Head Assembly - Left side view**



### Swing Mounted Saw Head Assembly - Right side view



- A. BACK HOUSING LOWER ARM ASSEMBLY
- **B. FRONT SWINGING HEAD PIVOT MOUNT**
- C. BACK SWINGING HEAD PIVOT MOUNT
- D. TILT LOCKING BRACKET
- E. TOP ARM HOLDING ASSIST
- F. ON/OFF SWITCH
- G. VARIABLE SPEED CONTROL KNOB
- H. BLADE TILT INDICATOR HOLDER
- I. BLADE TENSION APPLY/RELEASE
- J. BLADE GUARD
- K. ADJUSTABLE AIR BLOWER TUBE
- L. BLADE

- M. WORKPIECE HOLD DOWN
- N. UPPER ARM/TENSION ADJUSTER
- O. LOWER BLADE CLAMP
- P. UPPER BLADE CLAMP/TENSIONER
- Q. UPPER FRONT ROCKER ARM ASSEMBLY
- R. LOWER FRONT ROCKER ARM ASSEMBLY
- S. UPPER SUPPORT ARM ASSEMBLY
- T. TOP ARM COVER
- **U. MOTOR**
- **V. POWER PLUG AND FUSE HOLDER**

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# **Handling The Swing Tilt Head Assembly**



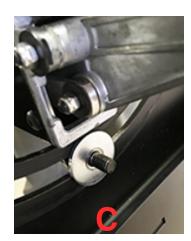
Pick up the Tilt Head assembly with one hand under the lower main body and the other hand on back of the main body *near* the top arm lift and tension knob.

DO NOT LIFT THE TILT HEAD ASSEMBLY BY THE TOP ARM.

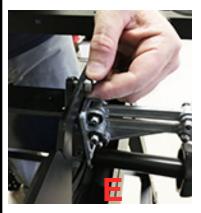
# **Mounting The Swing Tilt Head Assembly**



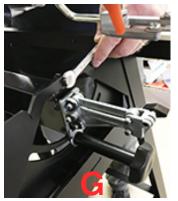














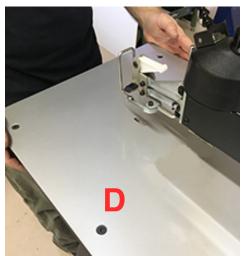
- A Place cloth or other protective wrap around lower opening brace as shown.
- B Remove blade, insert front of lower arm through opening and rest on protective wrap.
- C Reaching inside stand, grasp lower arm and insert tilt locking bolt in slot.
- D Install washer and tilt locking knob and tighten.
- E Install front head pivot shoulder bolt. (move the machine around to align).
- F Raise back to align holes and install back head pivot shoulder bolt.
- **G & H** Tighten front and back pivot shoulder bolts, tilt the stand assembly so the table mounting angle appears level and wrench tighten all stand assembly bolts.

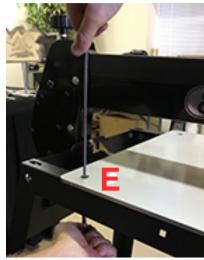
# Mounting and Aligning the Table and Table Cover

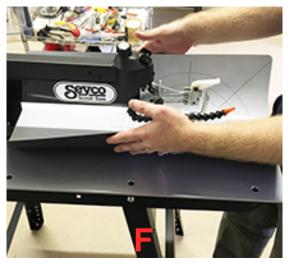


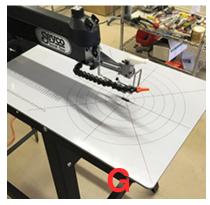










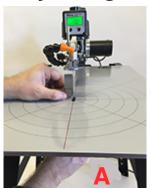


Slide table in place as shown in illustration A. Adjust table position as needed to align the table holes with the long slotted holes in the mounting angles. Install bolts, washers and nuts through the table and corresponding holes in the table mounting angles as shown in illustration B. (Leave these bolts loose for now) Install the blade in the saw head blade clamps as shown in illustration C. Adjust table position so the blade is centered in the blade slot (side-to-side) as shown in illustration D. Tighten the table mounting bolts and nuts as shown in illustration E.

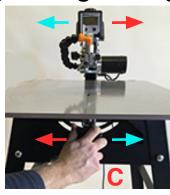
#### **INSTALLING THE OPTIONAL MAGNETIC TABLE COVER:**

If you elect to use the magnetic table cover, it can be easier to install as shown in illustration F and G. Table top should be clean and free of any debris before installing the magnetic table cover. Hold the magnetic table cover as shown in illustration F while aligning the hole in the magnetic cover with the blade hole in the table. When you have it aligned, gently lower the cover to the table and check to be sure it is place. You may need to raise it and make slight position changes several times to get it aligned as you want it. The red "top feeding" lines are only a reference to assist you in finding the blade hole and do not require perfect alignment with the blade. BE SURE TO INSTALL TOP AND BOTTOM BLADE GUARDS WITH PROVIDED SCREWS. THE EXTRA WASHERS CAN BE PLACED BETWEEN THE TABLE AND MOUNTING ANGLE TO RAISE THE TABLE WHEN NECESSARY.

## **Adjusting The Optional Digital Angle Gauge**







A. Use Engineers square to set blade at 90 degrees to table. B. Press the ZERO switch. C. Use tilt locking knob to move saw head.

· NOTE TO USERS · The digital angle gauge has 1 AAA battery. To conserve it's power turn the unit OFF after you set the desired blade angle. You may find it necessary to reset to ZERO when you want to set a new blade angle.

## **Rules for Safe Operation**

To help ensure safe operation, please take a moment to learn the machine's applications and limitations, as well as potential hazards. SEYCO disclaims any real or implied warranty and hold itself harmless for any injury that may result from the improper use of its equipment.

- 1. Read, understand and follow all safety warnings and instructions in the supplied Operator's manual. If you do not clearly understand safe use of this machine, do not use it until you obtain clarification.
- 2. Do not operate the saw when tired, distracted, or when using any drugs, alcohol or medications that impairs your reflexes or alertness.
- 3. keep your work area well lit, clean and free of debris.
- 4. Keep children and shop visitors at a safe distance. Determine their ability to use this machine before allowing others to use it.
- 5. Childproof and tamperproof your shop and machinery locks, padlocks, and master electrical disconnects to prevent unauthorized or unsupervised use.
- 6. Fine particulate dust can be hazardous to your health. Be sure your work area is well ventilated and use a dust collector.
- 7. Wear approved safety wear and dust masks. Do not wear loose fitting clothing, gloves, bracelets, necklaces or jewelry while operating the saw. Keep long hair contained with a protective hair covering.
- 8. Clear the saw table of all tools or other clutter before operating the saw.
- 9. Keep hands at a distance from the blade to allow your reflexes to function. Use a brush or light air pressure for dust and chip removal.
- 10. Always use a blade that is in good cutting condition and properly installed for cutting.
- 11. Do not push or force stock to the blade. The saw will cut better and more safely when the blade cutting ability is not challenged.

- 12. Do not work from an awkward or off balance position. Do not overreach while cutting. Keep both feet on the floor. Avoid leaning over and reach behind the blade to control the cut.
- 13. Do not stand or lean on the saw.
- 14. Use of parts or accessories that are not recommended by Seyco may result in equipment malfunction or risk of injury.
- 15. Do not leave machine running while unattended. Use of a foot switch is recommended to assist in prevention of this practice. Let the saw completely stop before moving away from
- 16. Always turn off and disconnect from power source before changing blades or other accessories.
- 17. Make sure the switch is in the "OFF" position before plugging in the power cord. Have electrical parts/components replaced by an authorized service center.
- 18. Make sure the saw is properly grounded. If equipped with a 3 prong plug it should be used with a three-pole receptacle. Do not remove the third or grounding prong but obtain an approved adapter that will provide adequate grounding of the saw.
- 19. Repairs to the saw should only be carried out by a qualified technician using original replacement parts. Broken or defective guards and other parts should be replaced by or under the direction of a qualified technician.
- 20. Inspect power cords periodically. If damaged, have them repaired or replaced by a authorized service center. Keep wires and power cords away from heat, oil, and sharp objects that can damage the wire.
- 21. Although this saw is best suited for indoor use, it can be used outdoors, but the user should take all necessary safety precautions to avoid exposing it to rain or in any other wet or (12) damp location.

### **Additional Instructions and precautions -**

- 1. The material hold down should be properly set and remainin position during use.
- 2. Do Not reach under the table while the saw is running.
- 3. If you use this saw (in table top set-up) it is best to bolt or clamp it to your work bench.
- 4. When necessary, use clamps to secure your work piece.
- 5. DO NOT LIFT OR CARRY THE SAW BY THE TOP ARM.
- 6. Make sure the blade is properly tensioned. If blade is too loose excesive deflection takes place and can produce bad results in your workpiece. Seek assistance if necessary.
- 7. Avoid awkward hand positions. A sudden slip could cause a hand to hit the blade causing injury.
- 8. Make sure switch is "off" and saw is completely stopped before removing small cut pieces and dust.
- 9. Be sure your workpiece is the only item on the table before turning the saw on.
- 10. Select proper blade size and type.
- 11. If the stock for your workpiece is not flat use a suitable support or technique to keep blade from binding.
- 12. Use appropriate speed for applications. Turn motor "off" if necessary to back out of an incompleted cut.
- 13. CAUTION: Some wood contains chemicals that may be toxic. When cutting this type wood, extra care should be taken to avoid inhalation and minimize skin contact.

- 14. Always use a dust mask and safety glasses while sawing. Regular eyeglasses are usually not safety glasses. Select additional safety glasses that cover your regular eyeglasses.
- 15. Keep guards in place and in good working order.
- 16. Make sure your fingers do not contact the terminals of the power cord plug when plugging or unplugging the saw.
- 17. Do not overfeed or force workpiece into the blade.
- 18. Check for alignment and binding of all moving parts, broken parts, mounting and any other condition that may affect the saw's operation.
- 19. Keep all knobs and handles dry and free of grease.
- 20. MAINTAIN TOOLS WITH CARE. Keep tools sharp clean for best and safest performance. Follow instructions for lubricating and changing accessories.
- 21. Be sure to install the blade with the major cutting teeth pointing down.
- 22. REMOVE ADJUSTING KEYS AND WRENCHES. Form habit of checking to see that keys and adjusing wrenches are removed from tool beforeturning it on.
- 23. DON'T USE IN DANGEROUS ENVIRONMENT. Don't use power tools in damp or wet locations, or expose them to rain. Keep work area well lighted.
- 24. USE RIGHT TOOL. Don't force tool or attachment to do a job for which is is not designed.
- 25. DIRECTION OF FEED. Feed work into a blade or cutter against the direction of rotation of the blade or cutter only.

Each shop situation is unique, making safety guidelines to cover every situation difficult. The most important safety feature in any shop is the knowledge and good judgement of the user. Use common sense and always keep safety considerations, as they apply to your individual shop situation first and foremost in mind. If you have any doubts about the safety of an operation you are about to perform: STOP! Do not perform the operation until you have validated from qualified individuals if the operation is safe to perform and what is the safest method to perform it.

TO AVOID ELECTRICAL SHOCK, BE SURE MACHINE IS GROUNDED. DISCONNECT FROM POWER SUPPLY BEFORE SERVICING. REPLACE FUSE WITH THE SAME TYPE AND RATING ONLY - 3 AMP. BE SURE TO READ AND UNDERSTAND THE OWNER'S MANUAL BEFORE OPERATING.

# **ELECTRICAL REQUIREMENTS**

BEFORE CONNECTING THE MACHINE TO THE POWER SOURCE, VERIFY THAT THE VOLTAGE OF POWER SUPPLY CORRESPONDS WITH THE VOLTAGE SPECIFIED ON THE MOTOR I.D. NAMEPLATE. A POWER SOURCE WITH GREATER VOLTAGE THAN NEEDED CAN RESULT IN SERIOUS INJURY TO THE USER AS WELL AS DAMAGE TO THE MACHINE. IF IN DOUBT, CONTACT A QUALIFIED ELECTRICIAN BEFORE CONNECTING TO THE POWER SOURCE.

THIS SAW IS RECOMMENDED FOR INDOOR USE. DO NOT USE IN WET OR DAMP LOCATIONS.

#### **GROUNDING**

The diagram at right (top left) shows the cord type that comes with your saw. The cord is a 3 conductor type cord with a grounding wire. The recommended type of wall receptacle (A) is desired for proper grounding. Some local codes allow use of an adapter as shown in illustration (C) that plugs into a 2 prong plug as shown in illustration (B). IF THE ADAPTER IS ALLOWED AND IS USED, USER MUST CONFIRM PROPER GROUNDING IS ACCOMPLISHED TO PROTECT YOURSELF AND YOUR SCROLL SAWS WARRANTY.



DO NOT MODIFY THE PLUG PROVIDED. If it will not fit your receptacle, have the proper receptacle installed by a qualified electrician.

Use without extension cords is recommended if at all possible but if you find it necessary to use an extension cord with your scroll saw, make sure the extension cords rating is suitable for the amperage listed on the motor I.D. plate. An undersized extension cord will cause a drop in line voltage resulting in loss of power and overheating.

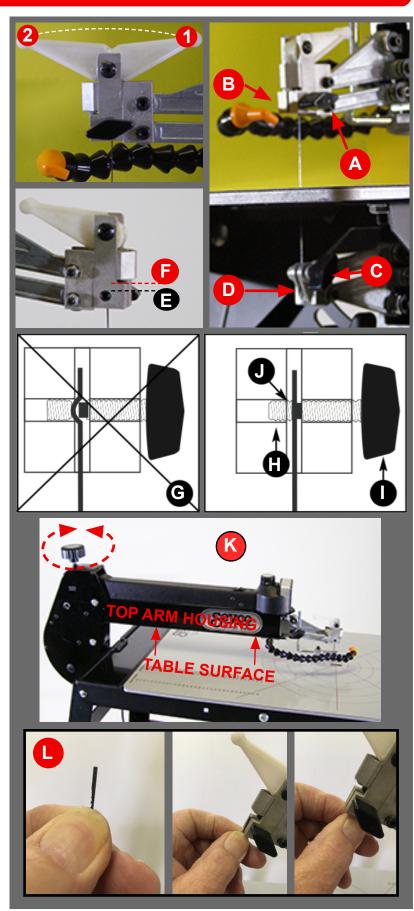
### **CHOOSING A BLADE**

WHICH IS THE CORRECT BLADE TO USE? When it comes to blade selection, the best and most effective method is EXPERIENCE! OUR BEST SUGGESTION is to have a variety of blades at your disposal and EXPERIMENT. Try them on your projects in your materials with your saw and determine which size or type that you are most comfortable with and you will have your answers with a minimum investment, in both blades and time. Seyco has included a few blades of different types and sizes to help you get the feel of different blades and to find which blades fit different scrolling projects. Olson Scroll Saw Blades, suppliers of high quality scroll saw blades for over 99 years, have provided their blade selection chart on pages 16 & 17 to assist you in establishing a starting place for your experimentation. The numbering on the sample blades that are included with your saw correspond with the universal blade numbering system used by most blade manufacturers.

### **INSTALLING BLADES**

CHANGING BLADES SHOULD BE DONE IN A SAFE MANNER. UNPLUG MACHINE IF NECESSARY TO BE CERTAIN YOU ARE CHANGING THEM SAFELY.

- 1. If there is a blade installed in the saw, flip tension lever forward to position 2 to release tension and loosen thumbscrew (A) to release top of blade and loosen thumbscrew (C) to release bottom and remove blade.
- 2. Adjust upper arm to parallel (measure from table surface to bottom of top arm as indicated in illustration **K**) Adjust with arm raising/lowering knob. Clockwise raises and counterclockwise lowers arm.
- 3. Blade teeth face forward and point downward. Insert bottom end of blade through blade slot in table (it may be necessary to reach under table and guide blade clear from bottom clamp at this time) Insert top end of blade (not higher than **F** and not lower than **E**) flat against back of the blade slot in top clamp **B** and tighten thumbscrew **A**. Place bottom end of blade in bottom blade clamp **D** flat against the back of slot and tighten thumbscrew **C**.
- 4. The clamping screw on left side should be adjusted into the blade slot area so it grips the blade and not the aluminum block. Adjusted as in illustration **G** will not hold blade.
- 5. Push blade tension lever back to position 1 and your blade should be adequately tensioned, but if slight adjustment is desired tighten by turning arm lifting knob (illustration K) clockwise or decrease tension by turning counter clockwise. NOTE: WHEN ARM LIFT IS UTILIZED TO TWEAK BLADE TENSION, RE CHECK ARM PARALLEL TO TABLE PERIODICALLY.
- TIP: Use method shown in illustration L to gauge blade height referred to above in items F and E. Grasp blade end with thumb and finger (approximately 1/2" from end) and use finger and thumb to slide along bottom of the top blade clamp body to guide top end of blade into proper position.



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# **Scroll Saw Blade**

Material

Non Pooling

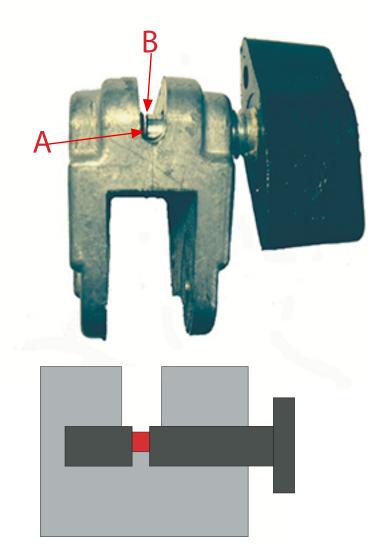
Non Pool Soft Wood to 12". 34" Hard Wood 12" 34" OLSON Recommended **Selection Chart** Can Use Olson UPC TPI/ Tooth Pilot Style Hole Univ. Not Recommended Width Thickness Rev. Application Skip Tooth PGT PGT° blades have razor sharp reverse teeth with Precision Ground Tooth (The Best!) widely spaced gullets for cutting straighter, faster, smoother, more accurately. PG45502 5RG .044" .018" 12/9 Skip 1/16" PGT's minimize burning & provide the ultimate sand-PG45702 7RG .046" .018" 10/7 Skip 1/16" 3/8" 3/8 Ultra smooth finish, free, splinterless finish with a clean edge. Double tooth PG45902 9RG .048" .018" 1/16" 1/2" 3/4 8/6 Skip straight or close radius style is especially good for PG49502 5RG .045" 018" Double 1/16" 1/8" 1/8" cutting hard woods. 12/8 cutting, splinter-free, Hint! Reverse Tooth blades PG49702 7RG 047" 018" 105/8 Double 1/16" 3/8" 3/8' work best with 1-2 reverse clean edges teeth showing above the PG49902 9RG .049" .018" 9/6 Double 1/16" 1/2" 3/4' table on the upstroke! Adjust blade in holder or **Crown Tooth™** trim when necessary. Veining, line art, extreme radius cutting Unique Crown Tooth 1/8" 1/8" CT62000 2/0 .024" .011" 20 Crown 1/32" blades cut on both up and Extreme radius, delicate 1/8" 1/8 down strokes. Two way CT62200 2 .026" .013" 20 Crown 3/64" cutting action provides a 1/8" 3/16 CT62300 3 .032" .014" Crown 3/64' Tight radius fretwork smooth, splinterless finish, and clean edges. When Close radius fretwork, general purpose 1/8" 1/4" CT62500 5 .038" .016" Crown 1/16" 16 worn, the blade can be turned over for cutting Close radius, general purpose 1/8" 3/4' CT62700 7 .045" .017" 11 Crown 1/16" with a fresh set of teeth! 1/8" 3/4' CT62900 9 .053" .018 6 Crown 1/16' General purpose, multi-layers Hint! Tension blade properly! With reasonable 1/2" 3/4' Heavy duty for faster cuts CT63200 12 .065" 6 .024 Crown 5/64" force the center of the blade should not move **Reverse Tooth** more than 1/8" front to back. Too little tension Veining, line art, extreme radius cutting Skip FR44002 2/0 .022" .010" 28/21 1/32" weakens performance. Reverse Tooth blades Extreme radius, delicate FR44302 2R .029" .012" 20/14 Skip 3/64' fretwork have skip style teeth Close radius fretwork, general purpose and reverse teeth that FR44602 5R .038" .016 12.5/9 Skip 3/64" eliminate underside tearout and provide a smooth, FR44802 7R .047" 1/16' Close radius, general purpose .017 11.5/8 Skip splinter-free finish. General purpose, multi-layers 9R .054" Skip 1/16 FR45002 .019 11.5/8 Hint! More teeth per inch provide a finer cut (good Heavy duty for faster cuts FR45302 12R .062" .024" 9.5/6 Skip 5/64" for soft wood). Less TPI For cutting thick wood and provide a coarser cut (good FR42002 .100" .022" 9/5 1/8" Skip multi-lavers for hard wood). Use the highest number blade for **Flat End Spiral** your application (larger blades are more durable) Medium speed and medium SP46800 .035" 41 5/64" Flat End Spiral blades are finish of hard and soft wood the same as regular spiral SP46900 4 .041" 36 7/64" plaster, and wallboard blades, but with flat ends for easier blade installation **Spiral** and retention. Offered in the two most popular sizes. SP46100 0 .032" 46 3/64" Bevel cut letters, etc. Spiral blades saw in all medium finish fretwork and directions with 360° cutting SP46300 2 .035" 41 5/64" capability. Excellent for 0° workpieces too large to turn radius scroll/fret work - no SP46500 .041" 36 7/64" need to turn the workpiece. Bevel cut letters Mach SpeedTM and numbers Precision milled Mach FR64302 3R Accurate tight radius cuts 1/8" 1/8 .032" .014" 13/7 Skip 3/64" blades have widely spaced gullets that minimize Steady close radius cuts 1/8" FR64502 5R .038 .016" 5/64" 13/7 Skip burning and provide rapid chip removal. Fast close radius cuts 3/8" 3/8 FR64702 7R .046 .017" 8/6 Skip 7/64" Reverse teeth cut on the Fast close radius cuts in upstroke and eliminate 1/2" 3/4 FR64902 9R .055" .018" 8/6 Skip 3/64 underside tearout. **Scroll Saw Files** Olson Saw Co. For wood, plaster, greenware, Bethel, CT 06801 USA SC42101 -.156 .056" (Pin End) 3/16 soapstone and non-ferrous www.olsonsaw.net metals. Turns your scroll SC42100 -.156 .056 (Plain End) 3/16 © Copyright 2017 Olson Saw Co. saw into a power sander!

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Olson UPC U	niv.		TPI/ No.	Tooth	Pilot	OLSON www.olsonsaw.ne	Hard Wood 175 ®	Soft Wood to 1/2	VeneerThin W.	/ 	cle Boar	Mon F 22. 3/1/2	Aluminum Metal	/ <sub>#2</sub> /	Medi. Free	Can Use Not Recommended	
	o. Width	Thickness		Style	Hole	Application	Hard			NON E		Non	Alum	Smooth		Not Recommended	
Thick	Wood															Hint! (All Blades) For best	
FR40800 –	.080″	.018″	7	Hook	3/32″	Thick wood – up to 2" without burning!										performance, use lower numbers for thinner stock	
Skip 1	ooth															and higher numbers for thicker stock.	
FR40000 3/0	.022″	.008″	33	Skip	1/32″	Ultra intricate sawing, veining, line art, close knit jig saw puzzles					П			Т	Г	Chin Ann al III	
FR44000 2/0	.022″	.010″	28	Skip	1/32″	Extremely intricate sawing, veining, line art					П					Skip tooth blades are excellent for fast cuts that	
FR44300 2	.029″	.012″	20	Skip	3/64"	Tight radius work, fretwork										provide smooth finishes and good chip clearance.	
FR44500 4	.035″	.015″	15	Skip	1/16″	Tight radius work, fretwork										Univ No. 3/0 – 5 blade size can be used to cut cold	
FR44600 5	.038″	.016″	12.5	Skip	1/16″	Close radius cutting										rolled steel, copper, brass,	
FR44800 7	.045″	.017″	11.5	Skip	1/16″	General Purpose										aluminum sheet and bronze. Soft metal up to	
FR45000 9	.053″	.018″	11.5	Skip	1/16″	General Purpose										1/8" thick can be cut easily, whether single sheets or	
FR45300 12	.062″	.024″	9.5	Skip	5/64″	Heavy duty for fast cuts					Π	$\prod$		Γ		several thin sheets in a stack cut.	
Pin Er	nd					0								•		Stack Cut.	
FR42401 –	.070″	.010″	18.5	Skip	3/16″	Skip style teeth/ Very thin cuts			П			П		Т	Г	S. F. I. II	
SC40501 -	.100″	.018″	20	Reg.	3/16"	Regular style teeth/ thin cuts						+		+		Pin End scroll saw blades are for machines	
FR41001 -	.100″	.018"	7		3/16"	Thick wood, up to 2"						+		+		that require 5" pin end blades. They are perfect	
SC41101 -	.100″	.018″	15	Reg.	3/16"	without burning!  General purpose, regular style teeth			+		Н	H		╁		for Sears Craftsman, Penn State, Delta, Ryobi and all	
SC41101 -	.100″	.018″	10	Reg.	3/16"	Regular style teeth, fast cutting					Н	++		+		15" and 16" imported	
FR42003 -	.100″	.018"	9/5	Skip	3/16"	Heavy duty widely-spaced set					$\vdash$	+				scroll saws that require pin end blades.	
FR42701 –	.070″	.010″	25	Reg.	3/16"	Regular style teeth/ fine cuts			Н			+		۰	H		
	e Tooth			neg.	3/10							-					
DT43200 3/		.008″	33	Double	1/22"	Ultra intricate sawing, veining,									П	Hint! Slow feed rate down! Relax! Let the	
DT43200 3/		.008	37	Double		Veining, line art & marquetry			Н		₩	╫		+	+	blade do the cutting to minimize burning. Also,	
DT43300 2/	.026″	.013″	30	Double		Delicate fretwork					₩	╫		+	$\vdash$	use a lube stick on the blade or clear shipping	
DT43500 3	.020	.014"	23	Double		Extremely intricate sawing					Н	+		+	+	tape on the workpiece to	
DT43600 5	.032	.014	16	Double		Tight radius work			Н		₩	+		+	$\vdash$	inhibit scorching.	
DT43000 7	.044"	.018″	13	Double		Close radius cutting					Н	+		+		Davida 4 - 4b blada	
DT43700 7	.053″	.018"	11	Double		General purpose			Н		╫	+		+	+	Double tooth blades have two teeth together	
DT43900 12		.022″	10	Double		Heavy duty, fast cuts		$\vdash$	Н		H	╫		+	$\vdash$	followed by a flat space for efficient chip removal.	
	ar Tootl		10	Double	3/04	meany early race early										They cut fast, leaving clean edges in wood	
			25	D 1	4 14 6 17											and plastic.	
SC402DZ -	.049	.022	25	Regular		Tight radius cuts in wood  Wood from 3/32" – 1/4" thick.		H		$\vdash$	$\vdash \vdash$	╫		+			
SC403DZ – SC405DZ –	.070	.023	20	Regular Regular		Hard and soft wood.		$\vdash$		$\vdash$	$\vdash \vdash$	+	+	+		Hint! (All Blades)	
SC405DZ -	.250	.022	20	Regular		Mica & non-ferrous metal.				$\vdash$	$\vdash \vdash$		+	+		For best performance, use lower numbers for tighter	
SC400DZ -	.100	.023	15	Regular		Wallboard, felt, paper, bone, lead.	+	$\vdash$	+		$\vdash$			+		radii and higher numbers for more general	
SC412DZ -	.100	.022	10	Regular		Medium smooth finish.						Н		${\dagger}$		purpose cuts.	
SC413DZ –	.187	.025	10	Regular		Wood from 1/4" – 3/4" thick.		$\vdash$						T			
SC414DZ –	.250	.025	7	Regular	1/4″	Wood & plastic 1/4" – 3/4" thick.							$\top$	T		ScrollSanders can be used on most 5" scroll	
Scrolls	ScrollSanders				0-0										saws. Modifications may be needed. Check Olson's		
SC91262BL -1/4" wide SC91564BL -1/2" wide (Pin End) see widths				80, 120, 180 & 220 grit packs available. Assortment packs listed								Ī		recommendations for various models and			
						at left. Mount sanding belts like		-					_	-	_	complete listings.	

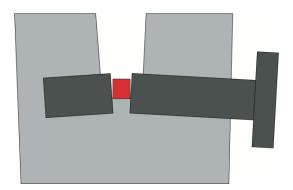
### **Negative Results from Overtightening Blade Clamps**



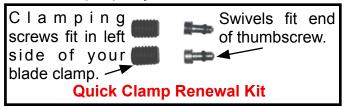
The above illustration shows the function of a new blade clamp is gripping the blade evenly on both sides top to bottom providing maximum gripping of the blade. (The red block represents a blade)

## Follow these simple rules:

At left is a blade clamp that was sent in to Seyco because it started to allow the blades to slip. Note that at point "A" the pressure pad is in contact with the clamping screw but at point "B" it does not even touch. This is because the thumbscrew was overtightened in an effort to hold the blade when all that is needed is proper basic maintenance of replacing the parts that actually touch the blade (THE WEAR POINTS) at a very reasonable cost. Close inspection of the thumbscrew shows the marks from pliers! The below illustrations show what happens when trying to clamp the blade with a defective clamp.



This illustration shows a defective clamp (Jaws sprung from overtightening) that is impossible for it to properly function.

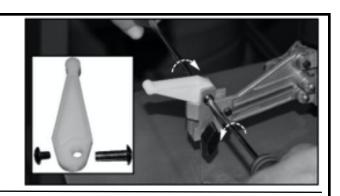


- 1. Avoid over tightening thumbscrews that grip the blade. This causes premature failure.
- 2. When they wear and the blade slips, replace BOTH SIDES AT SAME TIME. NOTE: Be sure the gripping area is free from oil or any other substance that promotes slippage.
- 3. Note the clamp block is made of aluminum (for lighter weight) and thumbscrew is steel threads and that will allow threads to strip out OF THE ALUMINUM if the thumbscrew is OVER-TIGHTENED. The lighter weight aluminum design choice is to lessen vibration potential in your scroll saw.

### **Replacing the Tension lever**

The Tension lever may wear normally with use and need to be replaced.

- 1. Flip the lever forward and remove the blade.
- 2. Remove the binding screw with 2 phillips head screw drivers as shown and remove the worn lever.
- 3. Install new lever and install binding screw. (Some tensioners may have an allen bolt and lock nut assembly)

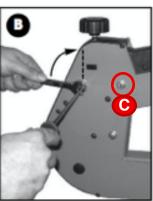


### **Upper Arm hold up adjustment**

The main upper arm (1.5" X 2.5" tubular steel) will raise and lower as part of the "Top Feeding" method of doing inside cuts. Additionally some scrollers may prefer that the top arm stay up when lifted to it's maximum. Seyco accomodates this with the adjustment described below. The user has a choice of either the arm catches and stays up or quickly raises and lowers. This is accomplished with the adjustment described below.

- 1. Loosen the locking nut indicated in illustration "A & B".
- 2. While slowly raising and lowering the main top arm, slowly turn the adjuster screw in until it holds the arm up when lifted to its highest position. (Top arm pivot bolt "C" may be loosened very slightly to make the arm easier to raise if necessary JUST NOT TOO LOOSE!)
- 3. Re-tighten the lock nut GENTLY while holding the adjuster screw. BE CAREFUL NOT TO OVERTIGHTEN.





# **Optional Accessories from SEYCO**







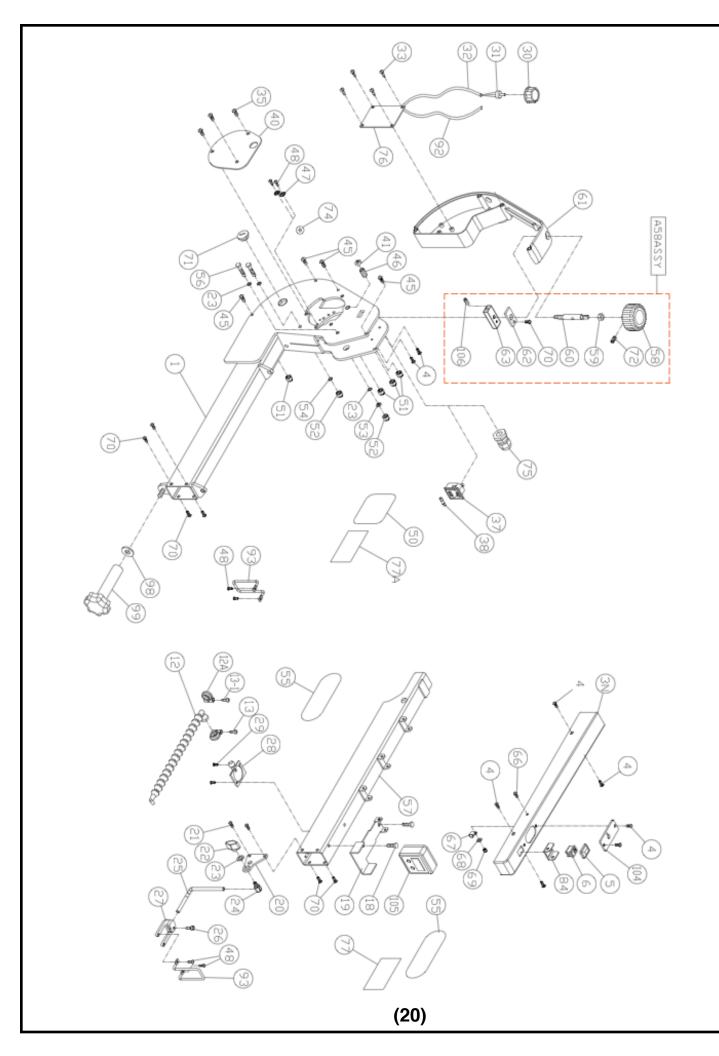
**SEYCO Scrollers Drill** 

SDM-10 Magnifier Worklight

**DV-10A Cyclone action dust collector** 

## Contact Seyco for these and other unique items for Scrollers

1-800-462-3353 · http://www.seyco.com seyco@seyco.com 242 National Dr Rockwall, Texas 75032



Parts Listing pg A-1

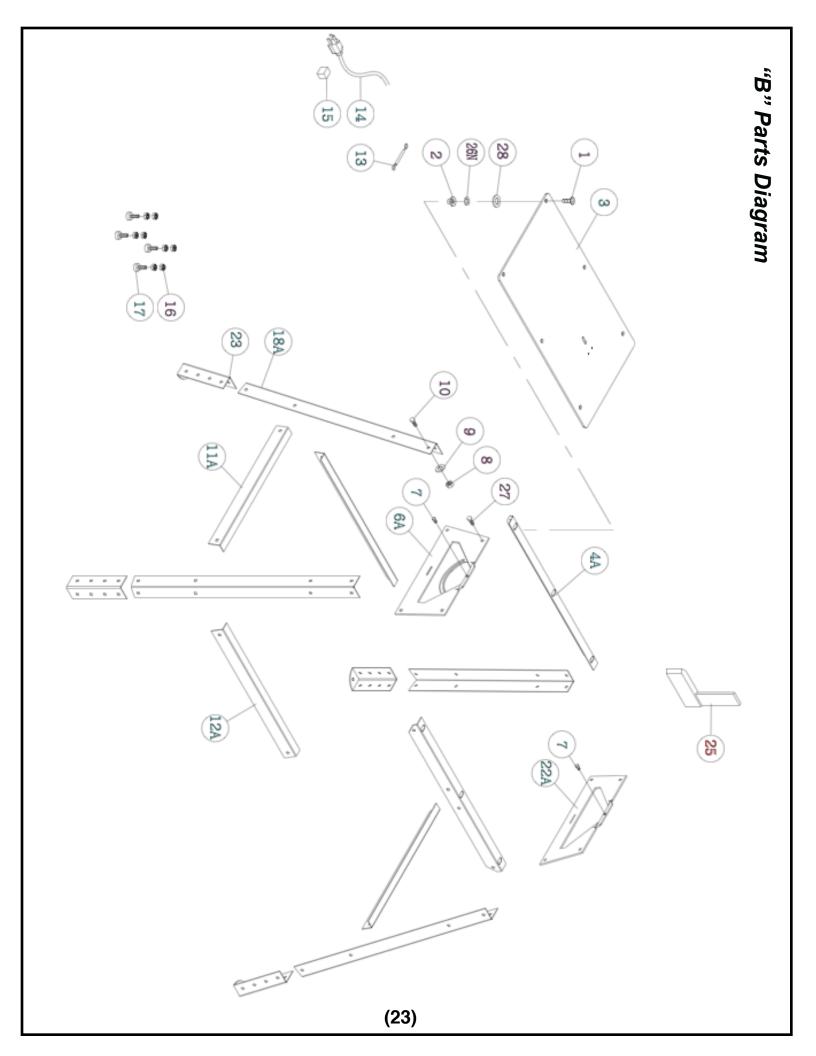
REF.	PART NO.	DESCRIPTION	SPECIFICATION	Q'ty
01A	ST24-A01A	Main Body		1
03N	ST24-A03N	Top Cover		1
04	ST21-A04	Allen Screw	#10-32x1/4"	6
05	ST21-A05	Switch Cover		1
06	ST21-A06	Switch		1
12	ST21-A12	Air Nozzle	L Type Nozzle	1
12A	ST21-A12A	Clamp for Air Nozzle		1
18	ST21-A18	BOLT	1/4"-20x1/2"	2
19	ST21-A19	Upper & Lower Tension Plate		1
20	ST21-A20	Hold Down Mount Plate		1
21	ST21-A21	Allen Screw	#10-32x3/8"	2
22	ST21-A22	Hold Down Clamp Knob		1
23	ST21-A23	Washer	1/4x16x1.8	4
24	ST21-A24	Hold Down Clamp Screw		1
25	ST21-A25	Hold Down Bar		1
26	ST21-A26	Cap Screw	#10-32x1/2"	1
27	ST21-A27	Hold Down Forks		1
28	ST21-A28	Dust Blower		1
29	ST21-A29	Tap Screw	#8-32UNFx3/8"	2
30	ST21-A30	VR Knob		1
31	ST24-A31CE	VR		1
32	ST24-A32CE	Control Cable		1
33	ST21-A33	Screw	M3.5x8	4
35	ST21-A35	Allen Screw	1/4"-20x1/2"	3
37	ST21-A37	Line Cord Socket		1
38	ST21-A38	Fuse		1
40	ST21-A40	Gear Cover		1
41	ST21-A41	Nut	3/8xT5.5	1
45	ST21-A45	Allen Screw	#10-32x2-1/4"	4
46	ST21-A46	Screw	3/8x5/8"	1
47	ST21-A47	Tooth Washer	#8	2
48	ST21-A48	Screw	#8-32x1/4"	6
50	ST24-50	ID Label		1
51	ST21-A51	Nylon Nut	#10-32	4
52	ST21-A52	Nylon Nut	1/4-20UNC	2
53	ST21-A53	Lock Washer	1/4"	1
54	ST21-A54	Flat Washer	1/4"(O.D.13)	1

# Parts Listing pg A-2 (continued)

55	ST21-A55	Label		2
56	ST21-A56	Screw	1/4"x2-1/2"	2
57	ST24-A57	Upper Arm		1
58	ST21-A58	Knob		1
	ST21-A58ASSY	Upper arm rising knob assembly		
59	ST21-A59	Nut	M8	1
60	ST21-A60	Adjusting lever		1
61	ST21-A61	Control Box		1
62	ST21-A62	Cross Block Retainer		1
63	ST21-A63	Housing Cross Block		1
66	ST21-A66	Allen Screw	#10-32x1/2"	1
67	ST21-A67	R Fastener	ACC2	1
68	ST21-A68	Washer	#10	1
68A	ST21-A68A	Washer	#10xD9	1
69	ST21-A69	Nylon Nut	#10-32	1
70	ST21-A70	Allen Screw	#10-32x5/16"	7
71	ST21-A71	Button		1
72	ST21-A72	Set Screw	M4x5	1
74	ST21-A74	Ground Label		1
75	ST21-A75	Strain Relief	PG11	1
76	ST21-A76	Motor Control Set		1
84	ST21-A84	Switch Box		1
92	ST24-A92	Power Cord		1
93	ST21-A93	Protection bracket-Up		2
98	ST21-A98	washer	M8	1
99	ST21-A99	Tilting lock knob		1
104	ST21-A104	Switch Plate		1
105	ST21-A105	Blade Tilt Indicator		1

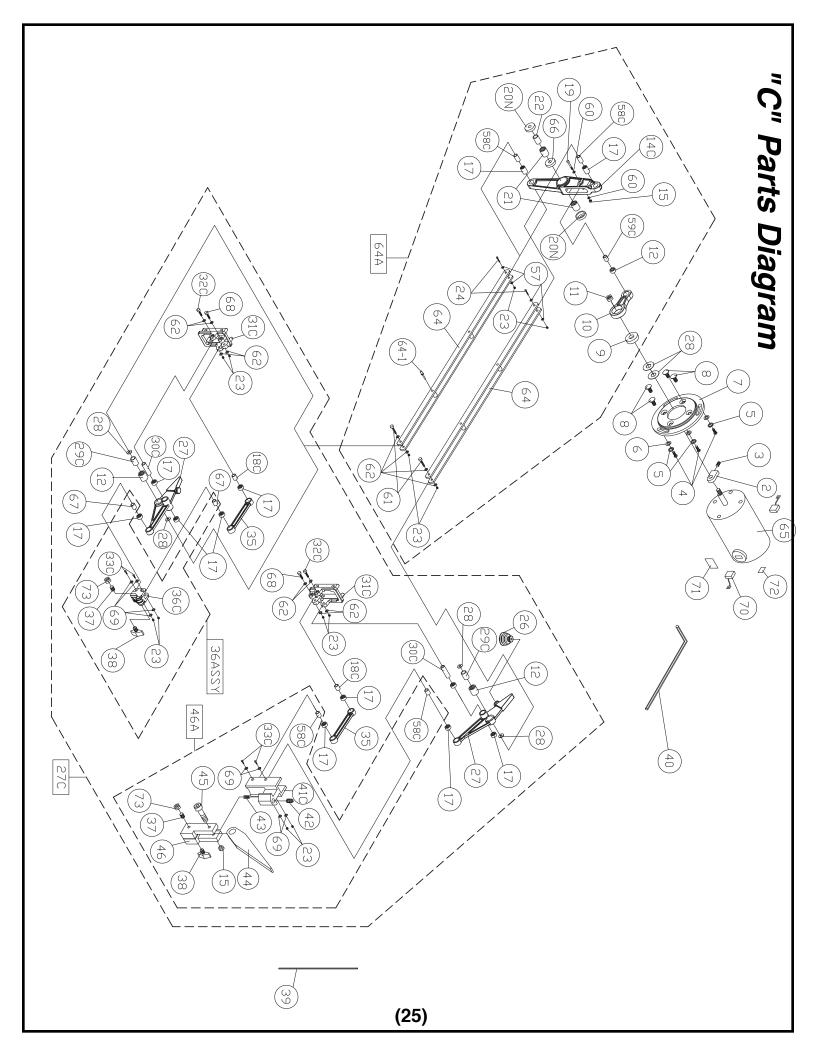
# Parts Listing pg A-2 (continued)

55	ST21-A55	Label		2
56	ST21-A56	Screw	1/4"x2-1/2"	2
57	ST24-A57	Upper Arm		1
58	ST21-A58	Knob		1
	ST21-A58ASSY	Upper arm rising knob assembly		
59	ST21-A59	Nut	M8	1
60	ST21-A60	Adjusting lever		1
61	ST21-A61	Control Box		1
62	ST21-A62	Cross Block Retainer		1
63	ST21-A63	Housing Cross Block		1
66	ST21-A66	Allen Screw	#10-32x1/2"	1
67	ST21-A67	R Fastener	ACC2	1
68	ST21-A68	Washer	#10	1
68A	ST21-A68A	Washer	#10xD9	1
69	ST21-A69	Nylon Nut	#10-32	1
70	ST21-A70	Allen Screw	#10-32x5/16"	7
71	ST21-A71	Button		1
72	ST21-A72	Set Screw	M4x5	1
74	ST21-A74	Ground Label		1
75	ST21-A75	Strain Relief	PG11	1
76	ST21-A76	Motor Control Set		1
84	ST21-A84	Switch Box		1
92	ST24-A92	Power Cord		1
93	ST21-A93	Protection bracket-Up		2
98	ST21-A98	washer	M8	1
99	ST21-A99	Tilting lock knob		1
104	ST21-A104	Switch Plate		1
105	ST21-A105	Blade Tilt Indicator		1



# Parts Listing pg B

REF.	PART NO.	DESCRIPTION	SPECIFICATION	Q'ty
01	ST21-B01	flat head screw	1/4"-1"	6
02	ST21-B02	nut	1/4"	6
03A	ST21-B03	table		1
04A	ST21-B04A	table mount angle		2
06	ST21-B06A	front plate		1
07	ST21-B07	bolt		2
08	ST21-B08	nut	5/16"	28
09	ST21-B09	washer	5/16"	28
10	ST21-B10	CARRIAGE BOLT	5/16"x1/2"	20
11	ST21-B11A	Lower angle brace-front/back		2
12	ST21-B12A	Lower angle brace-left/right		2
13	ST21-B13	wire		1
14	ST21-B14	power cord		1
15	ST21-B15	block		1
16	ST21-B16	nut	3/8"	8
17	ST21-B17	foot pad	3/8"	4
18	ST21-B18A	leg		4
21	ST21-B21	Magnetic table cover - (Optional Item)		1
22	ST21-B22A	angle plate		1
23	ST21-B23	rise plate		4
26	ST21-B26	washer	1/4"	6
27	ST21-B27	CARRIAGE BOLT	5/16"x3/4"	8



# **Parts Listing pg C-1**

REF.	PART NO.	DESCRIPTION	SPECIFICATION	Q'ty
02	ST21-C02	Balance Block		1
03	ST21-C03	Set Screw	M6*6	1
04	ST21-C04	Allen Screw	1/4"-20x1/2"	3
05	ST21-C05	Lock Washer	1/4"	3
06	ST21-C06	Flat Washer	1/4"x16x1.8	3
07	ST21-C07	Motor Cover Plate		1
08	ST21-C08	Flat Head Screw	M6x16	4
09	ST21-C09	Bearing	608ZZ	1
10	ST21-C10	Motor Cam		1
11	ST21-C11	Nut	M8XP1.25 LH	1
12	ST21-C12	Bearing	810	3
14C	ST21-C14C	Rocker Cam		1
15	ST21-C15	Lock Nut	M5	1
17	ST21-C17	Bearing	0609	12
18C	ST21-C18C	Inner Bearing Sleeve (Short)	6.03x21	2
19	ST21-C19	Cap Screw	M5*28	1
20N	ST21-C20N	Bearing Cover		2
21	ST21-C21	Bearing	1412	2
22	ST21-C22	Main Rocker Pivot	14.04x35.5	1
23	ST21-C23	Nut	M4	12
24	ST21-C24	Cap Screw	M4*25	2
26	ST21-C26	Air Pump Bellows		1
27	ST21-C27	Front Rocker		2
27C	ST21-C27C	Upper and Lower rocker assembly(C27C)		
28	ST21-C28	Washer	M8*15*0.6	6
29C	ST21-C29C	Inner Bearing Sleeve-Front Rocker	8.03x18.40mm	2
30C	ST21-C30C	Bearing Inner Sleeve (Long)	6.03x37mm	2
31C	ST21-C31C	Rocker Mount		2
32C	ST21-C32C	Cap Screw	M4*45	2
33C	ST21-C33C	Cap Screw	M4*24	4
35	ST21-C35	Strut		2
36C	ST21-C36C	Blade Chuck		1
36ASSY	ST21-C36ASSY	Blade Chuck bottom assembly		
37	ST21-C37	Set Screw	M6x14	2
38	ST21-C38	Blade Clamp Thumb screw		2
39	ST21-C39	Blade		1
40	ST21-C40	Allen Key	3MM	1
41C	ST21-C41C	Clamp Bracket		1

# Parts Listing pg C-2

42	ST21-C42	POM Set Screw	1/4"-20UNC	1
43	ST21-C43	Spring		1
44	ST21-C44	Tension Lever	5mm	1
45	ST21-C45	Cap Screw	M5x22	1
46	ST21-C46	Sliding Bracket		1
46A	ST21-C46A	Upper blade tension assembly(C46A)		
57	ST21-C57	Washer	M4x10x1	4
58C	ST21-C58C	Inner Bearing Sleeve (Long)	6.02 x 16.5mm	4
59C	ST21-C59C	Bearing Inner Sleeve	8.03 x 21.5mm	1
60	ST21-C60	Washer	M5	2
61	ST21-C61	Cap Screw	M4*27	2
62	ST21-C62	Washer	M4	12
64	ST21-C64	Drive link Assy		2
64-1	ST21-C64C-1	Rivet		4
64A	ST21-C64A	Complete drive link Ass'y		
65	ST21-C65	Motor		1
66	ST21-C66	Spacer		1
67	ST21-C67	Cylinder (Short)	6.03x16mm	2
68	ST21-C68	Cap Screw	M4x30	2
69	ST21-C69	Washers	M4*8*1	8
70	ST21-C70	Motor Brushes		2
71	ST21-C71	Motor Label		1
72	ST21-C72	Black Label		1
73	ST21-C73	Nut	M6	2

# **SEYCO MODEL #ST-24**



