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Fast CutTM Component Saw

Guide to Operation and Maintenance



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CHAPTER 1: Introduction

Overview

Eagle Metal's FAST CUT™ is a new and revolutionary concept in component saws. Designed by pool of some of the truss industries most experienced minds, the FAST CUT™ offers truss manufacturers the option of the versatile component saw at an economical price.

The FAST CUT™

- Eliminates the dangerous chain drives common to traditional component saws.
- Uses less electricity and operates on single phase – common to smaller truss plants.
- Provides fast setup without complicated computer systems.
- Takes less room than the traditional, much larger saws.
- Can be operated with one or two operators.
- Uses two pairs of radial arm saws, two pneumatic lumber clamps, and an automated lumber stop for fast setup and operation
- Cuts complicated angles, such as compound (hip) angles, angles in the same quadrant, and angles less than ten degrees.
- Cuts lumber ranging from 2x2s to 2x12s.

SKIL SAW WARRANTY

S-B Power Tool Company ("Seller") warrants to the original consumer purchaser only, that all SKIL portable power tools will be free from defects in material or workmanship for a period of one year from date of purchase. SELLER'S SOLE OBLIGATION AND YOUR EXCLUSIVE REMEDY under this Limited Warranty and, to the extent permitted by law, any warranty or condition implied by law, shall be the repair or replacement of parts, without charge, which are defective in material or workmanship and which have not been misused, carelessly handled, or misrepaired by persons other than Seller or Authorized Service Station. To make a claim under this Limited Warranty, you must return the complete portable power tool product, transportation prepaid, to any SKIL Factory Service Center or Authorized Service Station. A listing of U.S. and Canadian Factory Service Centers is packed with each SKIL HD Power Tool. For Authorized SKIL HD Power Tool Service Stations, please refer to your phone directory.

THIS LIMITED WARRANTY DOES NOT APPLY TO ACCESSORY ITEMS SUCH AS CIRCULAR SAW BLADES, DRILL BITS, ROUTER BITS, JIGSAW BLADES, SANDING BELTS, GRINDING WHEELS AND OTHER RELATED ITEMS.

ANY IMPLIED WARRANTIES SHALL BE LIMITED IN DURATION TO ONE YEAR FROM DATE OF PURCHASE. SOME STATES IN THE U.S., SOME CANADIAN PROVINCES AND AUSTRALIA DO NOT ALLOW LIMITATIONS ON HOW LONG AN IMPLIED WARRANTY LASTS, SO THE ABOVE LIMITATION MAY NOT APPLY TO YOU. IN NO EVENT SHALL SELLER BE LIABLE FOR ANY INCIDENTAL OR CONSEQUENTIAL DAMAGES (INCLUDING BUT NOT LIMITED TO LIABILITY FOR LOSS OF PROFITS) ARISING FROM THE SALE OR USE OF THIS PRODUCT. SOME STATES IN THE U.S. AND SOME CANADIAN PROVINCES DO NOT ALLOW THE EXCLUSION OR LIMITATION OF INCIDENTAL OR CONSEQUENTIAL DAMAGES, SO THE ABOVE LIMITATION OR EXCLUSION MAY NOT APPLY TO YOU.

THIS LIMITED WARRANTY GIVES YOU SPECIFIC LEGAL RIGHTS, AND YOU MAY ALSO HAVE OTHER RIGHTS, WHICH VARY FROM STATE TO STATE IN THE U.S., PROVINCE TO PROVINCE IN CANADA, AUSTRALIA OR NEW ZEALAND.

CHAPTER 2: General Safety



ALL PERSONNEL WORKING WITH, OR NEAR THE SAW MUST
ADHERE TO THE FOLLOWING GUIDELINES
RELATING TO THE FAST CUT™.

FAILURE TO FOLLOW THESE GUIDELINES COULD RESULT IN DAMAGE
TO SAW, INJURY TO A PERSON OR PROPERTY, AND/OR DEATH.

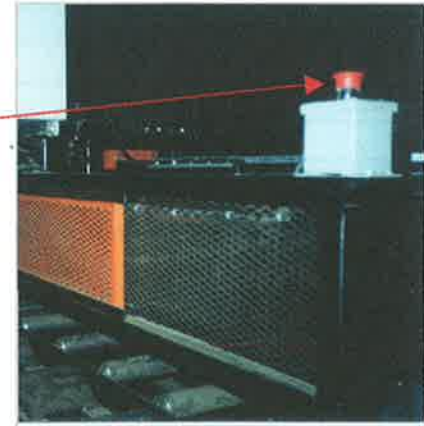
General Safety Guidelines

- This Operator's Guide must be read completely by the Operator and the Catcher before using the saw.
- Before setup, the saw must be de-energized.

Press down the red **EMERGENCY STOP** button at either of the following locations:



(1) (2)



- 1) The Operator's Control Panel
 - 2) The end of the saw near the Catcher
- Before performing any maintenance, the breaker **must** be "**LOCKED OUT**".
 - OSHA approved eye and ear protection must be worn by both the Operator and Catcher at **ALL** times during the operation of the saw.
 - All guards provided with the saw must be in place before operation.
 - One may only operate the Control Panel, designated operator. All other personnel, including the Catcher, must be clear of the saw when in operation. No person may "help" the designated operator press buttons, etc.
 - The work area must be kept clean and free of debris (i.e. sawdust) and water.
 - Absolutely no modifications (i.e. changing or adding to the saw) may be made to the saw (without manufacturer's written approval).
 - Dull or damaged blades must never be with the saw.

General Safety Notes

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CHAPTER 3: Setup



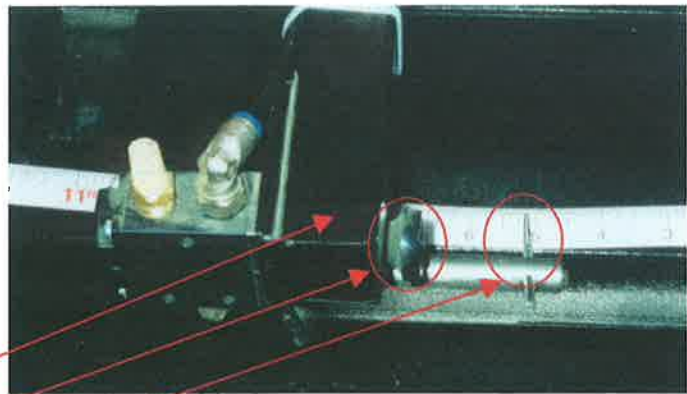
DE ENERGIZE THE SAW BEFORE SETUP!

PRESS DOWN ON THE EMERGENCY STOP BUTTONS
LOCATED AT EITHER OF THE FOLLOWING LOCATIONS:

- 1 – THE OPERATOR'S CONTROL PANEL
- 2 – THE END OF THE SAW NEAR THE CATCHER

1. Adjust the Mobile End of the saw for length:

- 1.1. PRESS the **Indicator Arm Button** located on the **Indicator Arm**, which extends from the mobile end of the saw.
- 1.2. Using the **Indicator Arm**, PUSH the mobile end of the saw to the required position.
 - 1.2.1. Use the **Arrow Indicator** for reference.



Indicator Arm
Indicator Arm Button
Arrow Indicator

2. Adjust the Lumber Clamps for the desired setback:

- 2.1. Loosen the hex-head bolts on the **Lumber Clamps**
- 2.2. Move the **Lumber Clamps** to the appropriate position: Use the scales located on the side of the **Lumber Clamps** to gage the settings.
 - 2.2.1. **Top cords and Webs**
Set the **Lumber Clamps** on half the width of the lumber using the centerline measurement.
(Example: For 2x4 lumber use 1 3/4").
 - 2.2.2. **Normal (non-scissor) bottom cords**
Set the **Lumber Clamps** on the thickness of the "butt-cut",
(Example: Use a 1/4" back-set for a 1/4" butt-cut).
 - 2.2.3. **Scissor-truss bottom cords**
Move the **Lumber Clamps** to the position that is required for the "seat-cut".



NOTE: The setting on both Lumber Clamps must ALWAYS be the same.

- 2.2.4. Once the **Lumber Clamps** are in place, tighten the hex-head bolts with moderate pressure.

NOTE: Excessive tightening is not required nor recommended.

Setup Notes

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3. Adjust the Lumber Stop:

3.1. Locate the **Lumber Stop** on the Mobile End of the saw.

3.2. Loosen the adjusting bolts.

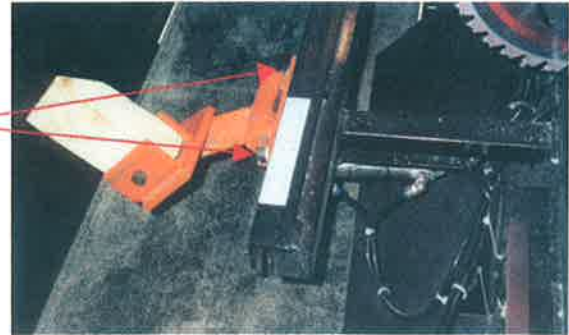
Adjusting Bolts

3.3. Move the **Lumber Stop** to the appropriate setting.

3.3.1. **Top cords and Webs** 1/8" or more.

3.3.2. **Normal (non-scissor) bottom cords** 0"

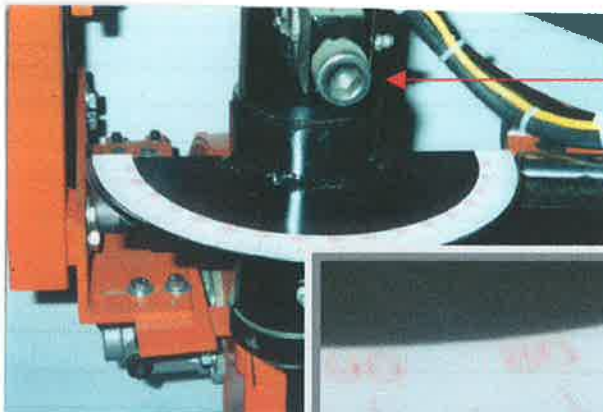
3.3.3. **Scissor-truss bottom cords** 3/4" (to the right) Varies according to pitch.
(This utilizes the factory call for the "butt-cut" and eliminates need for a fifth saw.)



4. Set the Angles of Cuts:

4.1. Loosen the allen-head **Adjuster Bolt** on the appropriate saw (see section 4.1.5) using the **T-Wrench** provided.

NOTE: Do not remove the T-Wrench from the Adjuster Bolt at this time.



Adjuster Bolt

The Pointer's position on this Arc represents the degree setting for the saw.



4.2. With the **T-Wrench** remaining in the **Adjuster Bolt**, move the saw to the desired angle by pushing on the **T-Wrench**.

4.3. Using the **T-Wrench**, tighten the **Adjuster Bolt**. Use firm pressure to hand-tighten the **Adjuster Bolt**.

CAUTION: The adjuster bolt should only be hand-tightened. Using a hammer or other tools to "help" in turning the T-Wrench is not necessary. Damage to saw could result.

Setup Notes

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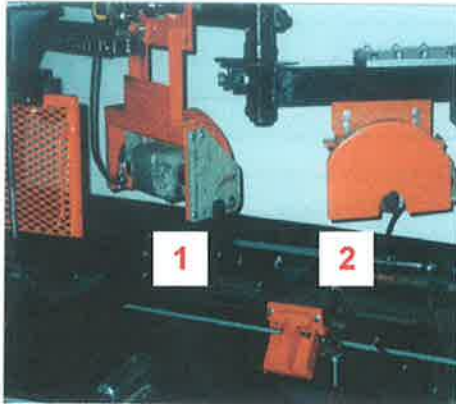
4.3.1. Remove and store the **T-Wrench** (on bracket provided).

4.3.2. Repeat steps 1 through 3 for the remaining saws.

Use these saws for specific cuts:

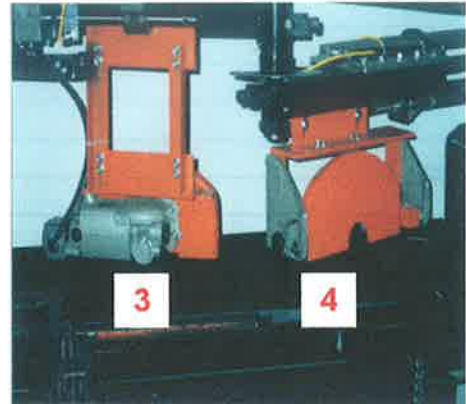
Saws are numbered 1 through 4 from left to right.

Saw 1 & 2



**Mobile End
(Left Side)**

Saw 3 & 4



**Stationary End
(Right Side)**

4.3.3. **Top cords** Saws 2 and 4

4.3.4. **Webs** (Operator's discretion)

4.3.5. **Normal (non-scissor) bottom cords** Saws 1 and 3

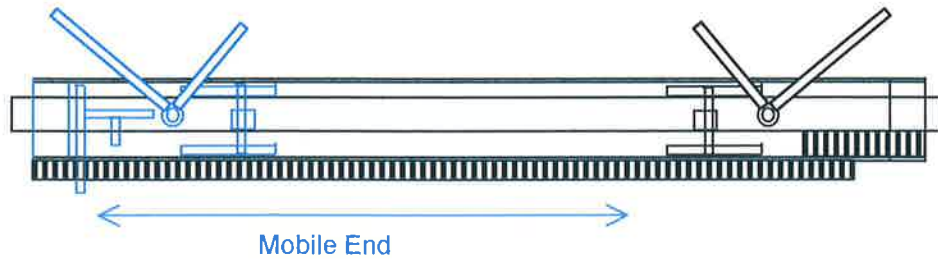
NOTE: If the bottom cord has a heel cut on each end, use saws "1" and "4".

4.3.6. **Scissor-truss bottom cords** Saws 2 for the seat cut; saw 1 for the scarf cut; and saw 3 for the top cut.

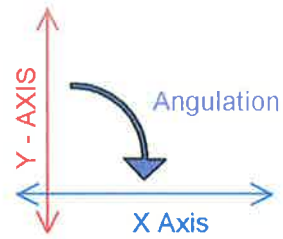
Setup Notes

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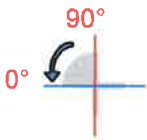
Fast Cut™ Saw Layout



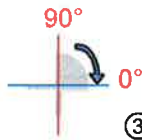
- ① Lumber Stop
- ② Lumber Clamps
- ③ Blade Angulation
- ④ Scarf Angulation



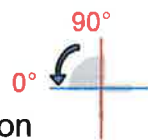
Blade 1



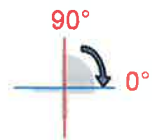
Blade 2



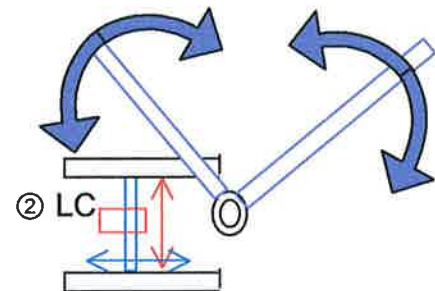
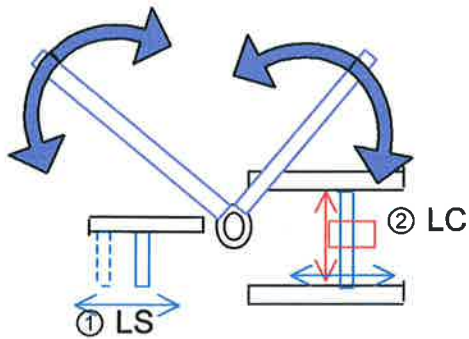
Blade 3



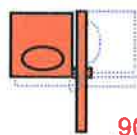
Blade 4



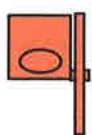
③ Blade Angulation



Blade 1



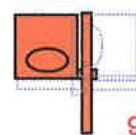
Blade 2



Blade 3



Blade 4



④ Scarf Angulation

Setup Notes

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CHAPTER 4: Operation



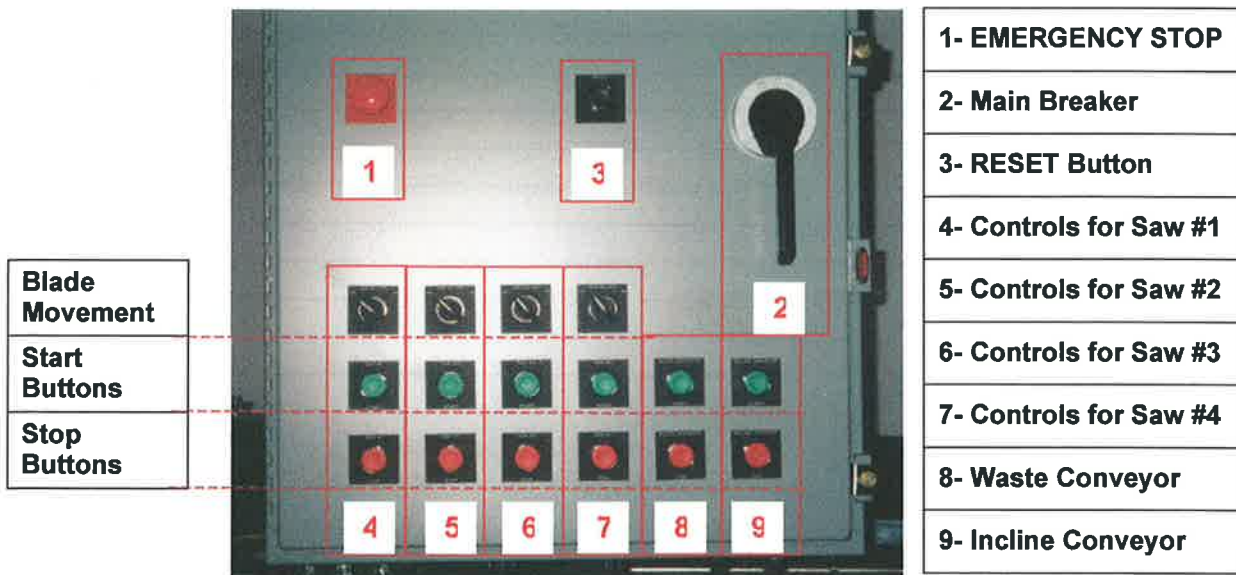
**MAKE SURE ALL PERSONS
ARE CLEAR OF THE SAW AREA
DURING OPERATION!**

THE FOLLOWING STEPS ASSUME THAT THERE ARE TWO PERSONS WORKING THE SAW: AN "OPERATOR" AND A "CATCHER". (THE CATCHER STANDS AT THE IN FEED END OF THE SAW (I.E. THE RIGHT SIDE)).

1. Position the Lumber:

- 1.1. Lumber to be cut is positioned approximately 6' at the end of the **in feed (roller) Conveyor**. The lumber should be positioned on the cart with the crown (camber) facing the saw operator.
- 1.2. An empty cart (on which to stack the cut lumber) is placed near the catcher (on which cut lumber is stacked).

2. Turn on the Saws:



- 2.1. Operator: Check to see that Main Breaker (at Panel Box) is ON.
- 2.2. Operator: PRESS the black **Reset** Button located on the Panel Box. (If the **Emergency Stop** Button has been pressed, the **Reset** Button must be pressed before the saw will operate.)
- 2.3. Operator: PRESS the Button to the ON position for the saws to be used.

Operation Notes

[illegible]

- 2.4. Operator: PRESS the Button to the ON position for the waste conveyors to be used.



**BOTH CONVEYORS SHOULD BE RUNNING ANY
TIME THE SAW IS IN OPERATION TO AVOID
OVERLOADING THE CONVEYORS.**

3. Feed the Lumber:

- 3.1. Catcher: FEED the board(s) onto the **infeed** (roller) conveyors.
- 3.2. Operator: GRASP the board(s) with both hands (except for very short boards) and PUSH the boards forward into the **Lumber Clamps** – at the same time PUSH the left end of the lumber against the **Lumber Stop**.

4. Cut the Lumber:

- 4.1. Operator: PUSH and HOLD the **Clamp Button** (far left on **Control Panel**) with left hand.
- 4.2. Operator: While still holding the **Clamp Button**, PUSH and HOLD the button for saws “1” and “3”. This initiates the first cutting “cycle”.
- 4.3. Operator: After the cutting is complete, RELEASE the button for saws “1” and “3” – while still holding the **Clamp Button**.
- 4.4. Operator: While still holding the **Clamp Button**, PUSH and HOLD the button for saws “2” and “4”.
- 4.5. Operator: After the cutting is complete, RELEASE the button for saws “2” and “4” – while still holding the **Clamp Button**.
- 4.6. Operator: RELEASE the **Clamp Button**. (The Clamp Button has been pressed continuously throughout the cycle).

5. Remove the Finished Chord or Web:

- 5.1. Operator: Once all saws have returned to their “starting” position (farthest away from the operator), GRASP the board(s) with both hands and send to Catcher using the **Out feed (roller) Conveyor**.

Operation Notes

[illegible]

5.2. Catcher: GRASP the board(s) and stack the finished board(s) on the empty cart.

6. Shut Down:

6.1. Operator: PRESS all power buttons to the OFF position.

6.2. Operator: PRESS the Emergency Stop Button and DISENGAGE the main breaker.

[illegible]

CHAPTER 5: Calibration

Purpose:

In order for the saw to perform properly; it is necessary to keep the saw in calibration. The purpose of calibration is to ensure the blades are passing through critical points along the board's axis in each quadrant.

The Calibration Procedure:

1. Align the lumber clamp to the center of the pivot arms:

- 1.1. This is tested by using a plumb bob attached to a string, which is threaded through the center of the bolt and screwed into the end of the pivot pin.
 - 1.1.1. Once a plumb bob is placed in each end of the pivot pins, a straight edge is needed to stretch from point to point.
 - 1.1.2. Check to make sure the back of the clamps are aligned to the straight edge.
 - 1.1.3. If corrections are needed to be made, proceed by obtaining a 9/16 open end wrench and moving the necessary clamp to the straight edge and altering the scale mount

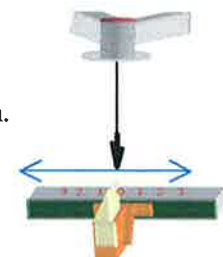
2. The next step is to make sure that the blade is passing through the center of the Pivot pin.

- 2.1. Place a board in the lumber clamp and activate the clamping cylinders.
- 2.2. Once the board is clamped, place the plumb bob into the thread hole as described in the first of the calibration procedure.
- 2.3. Set the plumb bob just above the board, making a pen mark where the tip of the marker rests.

NOTE: Keep in mind that the board is clamped the entire time.
Assistance may be needed to achieve this task.
- 2.4. Next, remove the stringed marker and proceed starting the #1 saw blade, position near 45 degrees and stroking it forward observing where the cut is made in relation to where the mark is made on the lumber. If the blade passes through the mark, calibration is close to accurate but a few more parameters must be checked. The blade needs to be rotated to about 90 degrees and it is necessary to stroke the blade forward again to ensure that the blade is still passing through the same mark made on the board. It is also necessary to observe that proper draft is set in the blade. By this we mean the front of the blade is positioned to cut with the rear of the blade. If fine tuning is needed, center line and draft can be changed at once by using the adjustment bolts on the motor mounts.

3. Calibrate the Lumber stop with a Plumb bob.

- 3.1. Insert the screw for the plumb bob and allow it to hang down from the pivot pin.
- 3.2. Next align lumber stop to the point on the plumb bob.
- 3.3. This point represents zero on the lumber stop scale. Adjust the Lumber Stop set screws as necessary.
- 3.4. See Illustration.



Move Lumber Stop to Zero.

[illegible]


4. Calibrate the Length adjustment by cutting a board.

- 4.1. Cut a board with Blades #2 & #3 set to 90 degrees and Record the Length.
- 4.2. Cut a board with Blades #1 & #4 set to 90 degrees and Record the Length.
- 4.3. Each board should have the same measurement.
- 4.4. Adjust pointers as necessary.

Calibration Notes

[illegible]

CHAPTER 6: Maintenance



ALL PERSONNEL PERFORMING MAINTENANCE TO THE FAST CUT™ MUST FOLLOW **LOCK OUT / TAG OUT** GUIDELINES. AS THEY APPLY TO THE FOLLOWING PROCEDURES. FAILURE TO DO SO MAY RESULT IN INJURY AND/OR DEATH.

WARNING: Before maintenance, disengage saw by pressing the **Emergency Stop** Button and locking-out the main breaker. Failure to do so may result in serious injury or death.

1. Daily Maintenance:

- 1.1. At the end of each workday, remove sawdust and any other debris from the saw.
- 1.2. Apply a light film of diesel or WD-40 to all moving parts, including:
 - 1.2.1. Slide Arms (arms to which the saws are mounted).
 - 1.2.2. Lumber Stop
 - 1.2.3. Lumber Clamps
 - 1.2.4. Saw Blades (apply more generously here).

CAUTION: Avoid getting lubricant on the saw motors and electrical boxes.

- 1.3. Avoid water in the airlines by draining your air lines/compressor daily.

2. Other Maintenance:

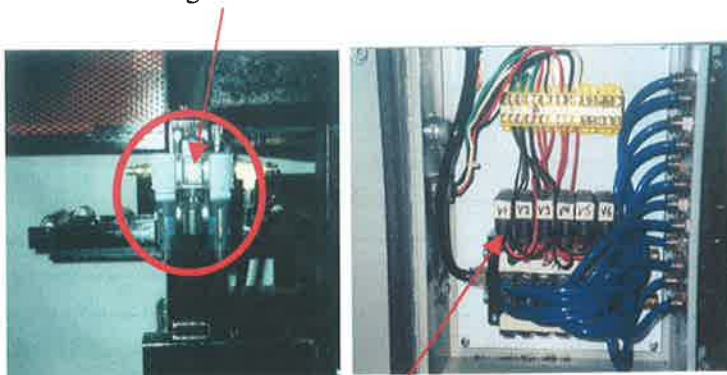
- 2.1. Replace or sharpen saw blades as required.
- 2.2. Check the saw motor “brushes” for wear monthly and replace as required
- 2.3. Check the gear oil in the indirect-drive saws monthly.
- 2.4. Check for wear on all electrical wires, etc.
- 2.5. Adjust weekly and fill as required the oil dispenser in the airline and “bleed” the air filter.

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Appendix A: Replacement Parts

Pneumatic Parts

- Air Distribution Panel – MDIEA-CB-1414PHK
- Filter Regulator- MDIEA-FF-C08-02-FKGO



- Manifold & Valve Assy.
 - Manifold Base- MDIEA-FF-PS2917SB
 - Valves - MDIEA-FF-C310BC553B
- Straight Fitting - MDIEA-FF-87000-04-02
- 90 degree Fitting - MDIEA-FF-87110-04-02
- Bulkhead Fitting - MDIEA-FF-88050-04

• Misc. Pneumatic Parts List

DE-STA-CO 202-UB	MDIEA-FF-202-UB
HOFMAN MPA2 1/4" PLUG	MDIEA-FF-MPA2
SCHRADER PS2915SB END PLATE	MDIEA-FF-PS2915SB
ALPHA 87000-04-02 1/4" X 1/8" STR. FIT.	MDIEA-FF-87000-04-02
ALPHA 87110-04-02 1/4" X 1/8" 90 FIT	MDIEA-FF-87110-04-02
ALPHA 88953-04-02 1/4" X 1/8" FLOW CON	MDIEA-FF-88953-04-02
ALPHA 88953-04-04 1/4" X 1/4" FLOW CON	MDIEA-FF-88953-04-04
AUTOMATIC 7144-001 CON. FOR VALVES	MDIEA-FF-7144-001
CLIPPARD N06-24 3/8-24 ROD JAM NUT	MDIEA-FF-N06-24
CLIPPARD N12-16 3/4-16 MTG. NUT	MDIEA-FF-N12-16
88050-04 1/4 BULKHEAD W/ PUSHIN FIT	MDIEA-FF-88050-04

- **Lumber stop**

- Air cylinder – MDIEA-FF-CL SDR-17-2
- Rod Clevis – MDIEA-FF-RC-1781
- Stop board holder – MDIEA-MD-.25-2-3
- Hinge pin – MDIEA-MD-.75-CR-4.375
- Scale – MDIEA-EA-3-0-3
- Air cylinder mount – MDIEA-MD-.25-2.5-5.25
- Stop board holder mount – MDIEA-MD-.5-3-5

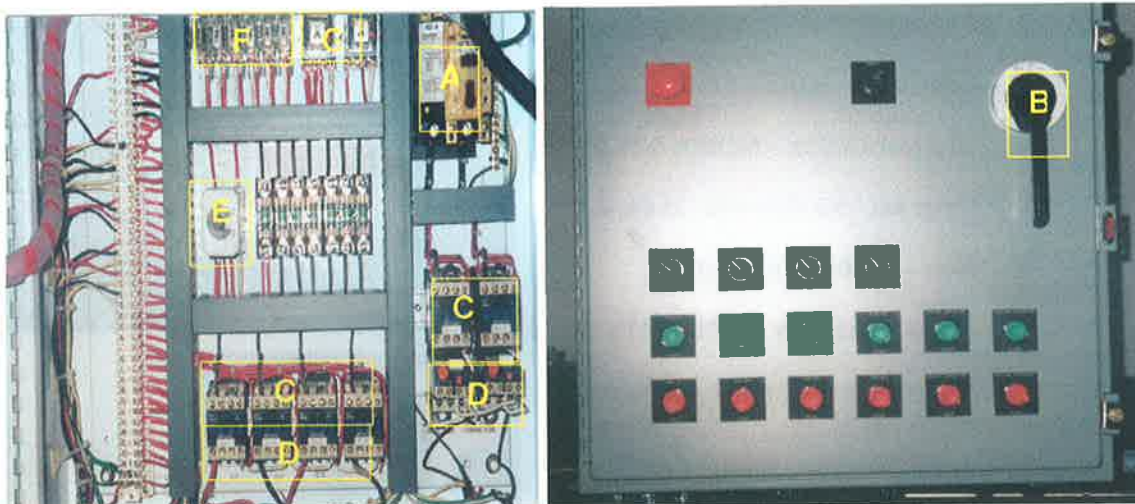


- **Lumber Clamp**

- Air cylinder – MDIEA-FF-SDR-20-3
- Inner tube assembly – MDIEA-MD-1.5-.25DOM-4.875
- Outer tube assembly – MDIEA-MD-1.5-.25DOM-4.875
- Replacement board – MDIEA-MD-2-6-9
- Slotted tube – MDIEA-MD-.25-1.5-26
- Slide pins – MDIEA-MD-.375-CR-13.25
- Spring – MDIEA-LS-.375-4.5
- Spring Pin – MDIEA-RH-.125-1
- Pin latch front – MDIEA-MD-.5-2-3FRONT
- Pin latch back – MDIEA-.5-2-3REAR
- Handles – MDIEA-MD-.5-CR-3.25



Electrical Parts



- Control Panel & Electrical Cabinet**

Electrical Control Panel & Cabinet Assy. - MDIEA-WP-MONETEAGMET

(A) Square D Breaker- MDIEA-WP-FAL26040

(B) Square D Breaker Handle- MDIEA-WP-9421LN1

(C) Tele Contactor - MDIEA-WP-LC1D181OG6

(D) Tele Overload - MDIEA-WP-LR2D1514

(E) Square D Timer- MDIEA-WP-9050JCK12V20

(F) Square D Relay- MDIEA-WP-8501RS4IV20

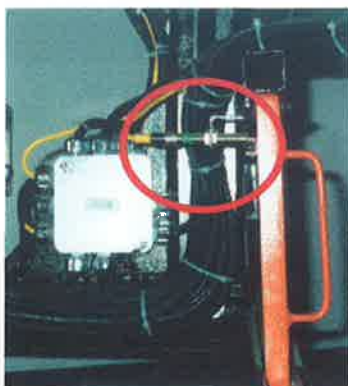
(G) Square D Relay- MDIEA-WP-8501KP12V20

Misc. Electrical Parts List

Electrical Control Panel & Cabinet Assy.	MDIEA-WP-MONET EAGMET
SCHAEFER ENCLOSURE	MDIEA-WP-SPN1224248
SUBPANEL	MDIEA-WP-SPP2424
SQ D BREAKER HANDLE	MDIEA-WP-9421LN1
SQ D RELAY Socket	MDIEA-WP-8501NR51B
SQ D SOCKET	MDIEA-WP-8501NR41
FUSE BLOCK, Bussmann	MDIEA-WP-BM6033PQ
BLACK TELE BUTTON	MDIEA-WP-XB4BA21
TELE MOM BUTTON	MDIEA-WP-XB4BA31
TELE BUTTON	MDIEA-WP-XB4BA42
E-STOP RED NON-ILL	MDIEA-WP-XB4BT42
SELECTOR SWITCH	MDIEA-WP-XB4BD21
BUSS FUSEBLOCK	MDIEA-WP-BM6031PQ
FUSE	MDIEA-WP-FNM 5
GROUND BAR	MDIEA-WP-PK12GT

SCHAEFER ENCLOSURE	MDIEA-WP-SPPBGX1
SCHAEFER ENCLOSURE	MDIEA-WP-SPJTH2224
TELE OVERLOAD	MDIEA-WP-LR2D1521
TELE CONTACT N/C	MDIEA-WP-ZBE102
FUSE	MDIEA-WP-FNM 15

- **Proximity Switches**



- Proximity Switch - MDIEA-CB-BI 4-G12-ADZ32X-B3131
- Proximity Cable - MDIEA-CB-KB 3T-4

- **Emergency Shut-Off**

- Emergency shut-off Switch – MDIEA-WP-XB4BT42
- Emergency shut-off Box – MDIEA-WP-SPPBGX1



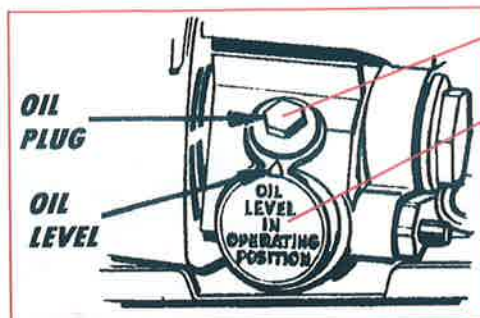
- **Electric Motors**

- Baldor 1 HP Single Phase for Belt scrap conveyer – MDIEA-BM-VM3546
- Baldor 1 HP Single Phase for Incline Conveyer – MDIEA-BM-VM3546



Saw Motors

- *SKIL* Saw – MDIEA-EA-HD77
- Blades for *SKIL* Saw – MDIEA-EA-BF-10.25-36



• *SKIL* Saw Maintenance

○ Service

- **WARNING!!!** Preventive maintenance performed by unauthorized personnel may result in misplacing of internal wires and components, which could cause serious hazard. We recommend that all tool service be performed by a *SKIL* Factory Service Center, or Authorized *SKIL* Service Station.

○ Tool Lubrication

- Your *SKIL* tool has been properly lubricated and is ready to use. However it is recommended that the gears be regressed only with *SKIL* lubricants: No. 801 1 1 (8 oz. tube), No. 801 1 2 (pint) or No. 801 1 3 (1/2 gal. can). Always check the oil level, before using the saw. To check and add oil: Remove plug from power source and place the saw's foot on a horizontal surface. Remove oil plug using the same wrench used to remove the saw blade. The oil level should never be below bottom threads in the housing. When adding oil, fill until oil starts to run out of oil hole at arrow on housing and replace oil plug.
- NOTE: If oil is extra dirty or thick, replace the plug and run the saw for one minute to warm up the oil. Then remove oil plug and turn saw upside-down, to remove all oil. Fill housing with kerosene. Replace plug and run for one minute to flush out the gear housing. Drain out the kerosene and add fresh *SKIL* lubricant. **With a new saw, change the oil after the first ten hours of use.**

○ Carbon Brushes

- The brushes and commutator in your tool have been engineered for many hours of dependable service. To maintain peak efficiency of the motor, we recommend every two to six months the brushes be examined. The brushes should be free from dust and dirt. Brushes should be replaced when they have worn down to 3/16" in length. The brushes should slide freely in and out of the holders without sticking. To check brushes: Disconnect plug from power source. Unscrew the brush caps on the motor housing and lift out the brushes; note which way they face, so that the brushes can be returned to their original position. Clean the brush holder openings with compressed air or a clean cloth and replace the brushes and caps.

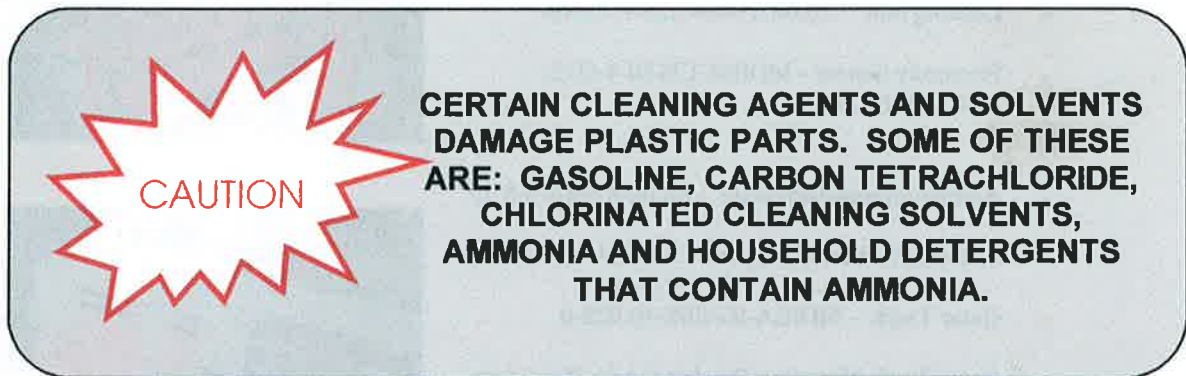
- Only genuine *SKIL* replacement brushes specially designed for your tool should be used.

- **Bearings**

- After about 300-400 hours of operation, or at every second brush change, the bearings should be replaced at *SKIL* Factory Service Center, or Authorized *SKIL* Service Station. Bearings that become noisy (due to heavy load or very abrasive material cutting) should be replaced at once to avoid overheating or motor failure.

- **Cleaning**

- **WARNING!!!** To avoid accidents always disconnect the tool from the power supply, before cleaning or performing any maintenance. The tool may be cleaned most effectively with compressed dry air. Always wear safety goggles when cleaning tools with compressed air.
- Ventilation openings and switch levers must be kept clean and free of foreign matter. Do not attempt to clean by inserting pointed objects through openings.



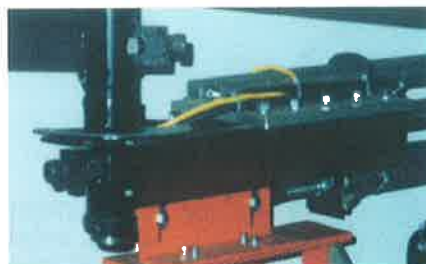
- **Care of Blades**

- Blades become dull even from cutting regular lumber. If you find yourself forcing the saw forward to cut instead of just guiding it through the cut, chances are the blade is dull or coated with wood pitch.
- When cleaning gum and wood pitch from blade, unplug the saw and remove the blade. Remember, blades are designed to cut, so handle carefully. Wipe the blade with kerosene, or similar solvent to remove the gum and pitch.

IF YOU ARE INEXPERIENCED IN SHARPENING BLADES,
WE RECOMMEND YOU DO NOT TRY.

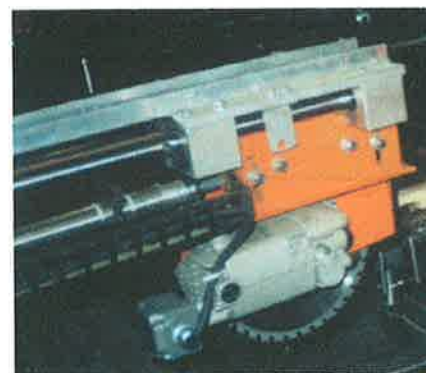
Quadrant Parts (Saws #1 through #4)

- Air cylinder For Saws #1 & #4 – MDIEA-FF-UDR-20-36
- Air cylinder For Saws #2 & #3 – MDIEA-FF-UDR-20-24
- Guide rail For Saws #1 & #4 – MDIEA-MI-20000-1-51
- Guide rail For Saws #2 & #3 – MDIEA-MI-20000-1-38
- Guide rail bearings – MDIEA-MI-KBZ-160PPP



• Pivot Arm Assembly

- Pivot arm mount – MDIEA-MD-.25-3SQ-30
- Pivot arm bushing – MDIEA-MD-.25-3DOM-2.5
- Locking bolt mount – MDIEA-.875-1.5-1.75
- Locking bolt shim – MDIEA-.875-.625-.625
- Locking bolt – MDIEA-MD-.625-1.75-SH
- Proximity Sensor - MDIEA-CB-BI 4-G12-ADZ32X-B3131
- Aluminum transistor plate – MDIEA-MD-.5-8-12
- Aluminum channel support – MDIEA-MD-1-3-39
- Gator Track – MDIEA-IG-E08-40-028-0
- Gator Track Mounting Bracket Set for Pivot Arm Assy. – MDIEA-IG-080-40-12
- Guider rail bearing mount – MDIEA-MD-.25-2DOM-2.25
- Saw #2 Guider rail vertical support – MDIEA-MD-.5-4-10
- Saw #1, #3, & #4 Guider rail vertical support – MDIEA-MD-.5-3-10
- Saw #1 & #4 Only Vertical support arms – MDIEA-MD-.187-1.5-9.75
- Motor mount – MDIEA-MD-.25-2.75-10
- Blade guard – MDIEA-MD-.063-7.25-12.5



- Pivot pin (Blade #1 and #4) – MDIEA-MD-.5-CR-1
- Saw blade front pivot mount (Blade #1 and #4 only) – MDIEA-MD-.5-6-7FRONT
- Saw blade rear pivot mount (Blade #1 and #4 only) – MDIEA-MD-.5-6-7REAR
- Protractor scale 0-90 degrees (Blades #1 and #4) – MDIEA-EA-0-90
- Pointer (Blades #1 and #4) – MDIEA-MD-.063-1-4.25
- Protractor scale angulations – MDIEA-EA-0-90-0
- Pointer angulations – MDIEA-MD-.063-2-3



Moveable Carriage

- Slider box – MDIEA-WP-SPJTH2224
- Gator Track – MDIEA-IG-E14-2-028-0
- Gator Track Mounting Bracket Set for Slider Box – MDIEA-IG-144-2-12PZ



• Guards

- MDIEA-MD-9.625-53.625



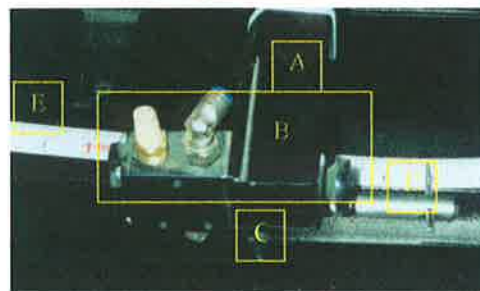
• Carriage Clamp

- Air Cylinder – MDIEA-FF-SDR-24-1
- Air Cylinder Mount – MDIEA-MD-.25-1.5-3.5



• Board length pointer assembly

- Pointer arm mount – MDIEA-MD-.25-1.5-13 (A)
- Pointer clamp release assembly (B)
- Pointer Arm bushing – MDIEA-MD-.25-DOM-2.875 (C)
- Pointer mount – MDIEA-MD-.5-CR-6 (D)
- Length scale – MDIEA-EA-12-242.5 (E)
- Lumber skid plate – MDIEA-MD-.25-6-11
- Hinge – MDIEA-WL-4x4-052388



- **Camber Clamp**

- Camber Clamp – MDIEA-FF-202-UB
- Air cylinder For Camber Clamp – MDIEA-FF-B24OX12
- Rod Clevis For Camber Clamp – MDIEA-FF-B240RODCLEVIS



- **Rollers]**

- 6” Rollers – MDIEA-MI-Z450005.5IN
- 9” Rollers – MDIEA-MI- Z450009.5IN



Conveyors

- **Belts - 2 sizes**

- Belt for Scrap Conveyor – MDIEA-ALM-B0035700001
- Belt for Incline Conveyor – MDIEA-ALM-B0035700004



- **Rollers for Belt Conveyors**

- Roller for Scrap Conveyor 3” x 16” - MDIEA-ALM-N0035701001
- Roller for Incline Conveyor 3” x 12” – MDIEA-ALM- N0035701003

- **Gear reducers**

- Gear Reducer for Belt Scrap Conveyor 40:1 – MDIEA-PT-0221-92768-186-90DEG40:1
- Gear Reducer for Incline Conveyor 40:1 – MDIEA-PT-0221-92768-186-90DEG40:1



Cut #1

2

Use Center-line length measurement

	X - Axis	Y - Axis	Angle
Saw #1			20
Saw #2			90
Saw #3			90
Saw #4			20
Lumber Stop	0.25		
Left Limb Clamp	6	0	
Right Limb Clamp	6	0	

Cut #2

2

Use Center-line length measurement

	X - Axis	Y - Axis	Angle
Saw #1			20
Saw #2			0-90
Saw #3			90
Saw #4			20
Lumber Stop	0.25		
Left Limb Clamp	6	0	
Right Limb Clamp	6	0	

Cut #3

2

Use Center-line length measurement

	X - Axis	Y - Axis	Angle
Saw #1			20
Saw #2			0-90
Saw #3			20
Saw #4			0-90
Lumber Stop	0.25		
Left Limb Clamp	6	0	
Right Limb Clamp	6	0	

Cut #7



Use Center-line length measurement

Saw #1	X - Axis	Y - Axis	Angle
Saw #2			0-90
Saw #3			0-90
Saw #4			20
Lumber Stop	0		0-90
Left Limb Clamp	6	1/2 Board Height	
Right Limb Clamp	6	1/2 Board Height	

Cut #8



Use Center-line length measurement

Saw #1	X - Axis	Y - Axis	Angle
Saw #2			0-90
Saw #3			0-90
Saw #4			0-90
Lumber Stop	0.25		
Left Limb Clamp	6	1/2 Board Height	
Right Limb Clamp	6	1/2 Board Height	

Cut #9



Use Center-line length measurement

Saw #1	X - Axis	Y - Axis	Angle
Saw #2			0-90
Saw #3			0-90
Saw #4			0-90
Lumber Stop	0		
Left Limb Clamp	6	1/2 Board Height	
Right Limb Clamp	6	1/2 Board Height	

Cut #10



Use Center-line length measurement

Saw #1	X - Axis	Y - Axis	Angle
Saw #2			0-90
Saw #3			0-90
Saw #4			0-90
Lumber Stop	0		
Left Limb Clamp	6	1/2 Board Height	
Right Limb Clamp	6	1/2 Board Height	

Cut #11

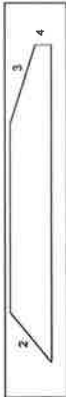


Use Center-line length measurement

Should be cut upside-down

Saw #1	X - Axis	Y - Axis	Angle
Saw #2			20
Saw #3			90
Saw #4			0-90
Lumber Stop	0.25	Board Ht. - Heel Ht.	90
Left Limb Clamp	6	Heel Ht.	
Right Limb Clamp	6	Heel Ht.	

Cut #12

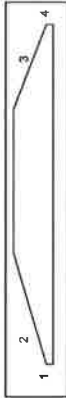


Use Center-line length measurement

Should be cut upside-down

Saw #1	X - Axis	Y - Axis	Angle
Saw #2			20
Saw #3			0-90
Saw #4			0-90
Lumber Stop	2		90
Left Limb Clamp	6	Heel Ht.	
Right Limb Clamp	6	Heel Ht.	

Cut #13



Use Centerline length measurement
Should be cut upside-down

Saw #1	X - Axis	Y - Axis	Angle
Saw #2			90
Saw #3			0-90
Saw #4		Board Ht. - Heel Ht.	0-90
Lumber Stop	0.25		
Left Lmbr Clamp	6	Heel Ht.	
Right Lmbr Clamp	6	Heel Ht.	

Cut #14



Use Centerline length measurement
May require scarf slot

Saw #1	X - Axis	Y - Axis	Angle
Saw #2			0-90
Saw #3			0-90
Saw #4			90
Lumber Stop	IN .25		20
Left Lmbr Clamp	2.5	Seat Ht.	
Right Lmbr Clamp	6	Seat Ht.	

Cut #15



Use Centerline length measurement
May require scarf slot

Saw #1	X - Axis	Y - Axis	Angle
Saw #2			0-90
Saw #3			0-90
Saw #4			20
Lumber Stop	IN .25		0-90
Left Lmbr Clamp	2.5	Seat Ht.	
Right Lmbr Clamp	6	Seat Ht.	



US005934164A

United States Patent [19]

Whatley, Jr.

[11] Patent Number: **5,934,164**
 [45] Date of Patent: ***Aug. 10, 1999**

[54] CUTTING SYSTEM FOR SHAPING TRUSSES

[75] Inventor: **Otis Barto Whatley, Jr.**, Culleoka, Tenn.[73] Assignee: **V.P.T. Equipment Co.**, Mabank, Tex.

[*] Notice: This patent issued on a continued prosecution application filed under 37 CFR 1.53(d), and is subject to the twenty year patent term provisions of 35 U.S.C. 154(a)(2).

[21] Appl. No.: **08/855,389**[22] Filed: **May 13, 1997**[51] Int. Cl.⁶ **B23D 19/04**[52] U.S. Cl. **83/471.1; 83/156; 83/72; 83/391; 83/471.3**

[58] Field of Search **83/155, 156, 468.2, 83/468.6, 468.7, 72, 391, 452, 486, 488, 471.3, 471.1, 109**

[56] **References Cited****U.S. PATENT DOCUMENTS**

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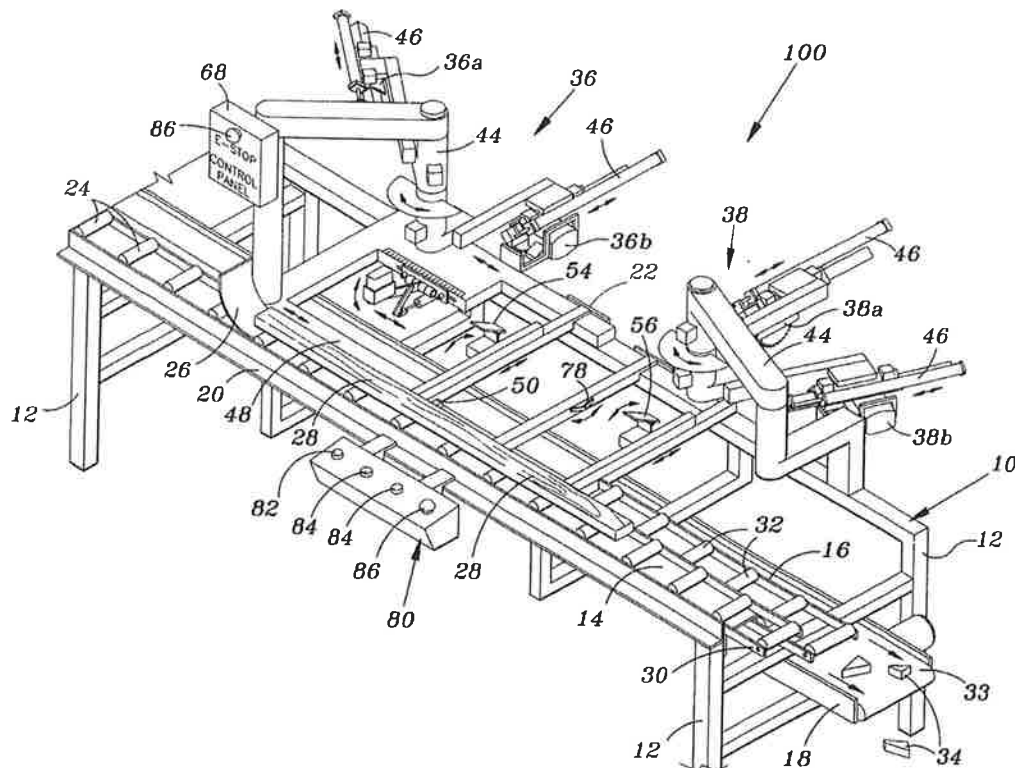
Primary Examiner—M. Rachuba

Assistant Examiner—Sean Pryor

Attorney, Agent, or Firm—Locke Liddell & Sapp LLP

[57] **ABSTRACT**

A cutting system for removing at least one section from a workpiece. The cutting system includes a frame that supports a first saw assembly for cutting at one end of the workpiece and a second assembly for cutting at the other end of the workpiece. The first saw assembly supports a stop having an up position (non-cutting position) or a down position (cutting position). For measurement purposes, the one end of the uncut workpiece is placed next to the stop in the non-cutting position and during the cutting operation the stop moves below the workpiece. The cutting system also includes a first clamp connected to the first saw assembly and a second clamp connected to the second saw assembly or the frame. The first and second clamps have either an opened position or closed position. The workpiece is secured when the first and second clamps are in the closed position. The closed position also enables the operation of the first and second saw assemblies. Whereas an opened position releases the cut workpiece or permits the positioning of an uncut workpiece into the cutting system.

4 Claims, 2 Drawing Sheets

Who is your supplier/OEM? Mine was no help at all. They were more interested in CYA than in standing behind their product & their customer. I told my boss to buy an Auto-Omni next time!

----- RE:
Component Saws v. OSHA Posted on 12-20-00 9:25 PM

Let me wish you goodluck on your hearing. We have an Alpine Auto-Web, Alpine Auto-Mill, TimberMill, and a very old Idaco floor truss web cutting saw. We are in the process of trying to guard the Idaco. The Auto-Web seems to me to be very well designed as far as guarding and operation. It is approximately 3 years old. The Auto-Mill which is a step up from the Web, on the other hand, doesn't seem as well thought out. Specifically, the guarding on the off-loading side, and the E-stop could have been designed better. The Mill is new this year. The TimberMill is probably about 12 years old and very well designed(in my opinion). I share in your observation that the manufacturers are more about CYA than helping their customers. Maybe a possible solution would be when you are looking at a new piece of equipment, companies should have an Industrial Hygenist/ Safety Consultant look at it through the literature on it, a video, and possibly an onsite visit to a facility with a functioning model. Then you would atleast be able to address these issue with the manufacturer before it is purchased.

----- RE:
Component Saws v. OSHA Posted on 12-20-00 10:11 PM

The small & specialized nature of our industry is a big part of the problem. We have been evaluating equipment for safety features, as well as speed & reliability, before we purchase it, for a number of years now, but it hasn't done us much good.

Unfortunately, the limited number of manufacturers & the attitudes of many of our peers have produced a bunch of clones with very similar safety features -- usually the minimum they think they can get away with. I watched a video a sales rep from BCMC sent me on the Spida Saw just this afternoon, & it didn't mention safety ONE TIME.

Actually, I thought the Easy-Set had excellent safety features, & I was pretty shocked that OSHA would pick on that saw! I'm sure glad that CO didn't see the old Clary we used to have!!!

The really stupid part was that he seemed to make no distinction between the 1998 Easy-Sets & the 1981 Idaco. They were equally wanting as far as he was concerned. I, of course, know that there's a WORLD of difference in safety performance between the two. And so do you.

I think you rely too much on so-called "experts." Why would we need an IH or a high-priced consultant to look at equipment for us? Or an OSHA lawyer, for that matter (unless the case will be heard in a court that won't let you represent yourself)? Any person with more than 5 years in the truss business knows how to judge machine safety & suitability for their company's needs. Add a brain & internet access, & anything we don't know . . . we can find out.

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email: mkorn@lockeliddell.com

October 11, 2002

Thomas F. Whatley II
Eagle Metal Products
P. O. Box 1267, Highway 198N
Mabank, TX 75147


Re: CUTTING SYSTEM FOR SHAPING TRUSSES
U.S. Patent No. 5,934, 164
Our File: 28229 64975

Dear Tom:

Enclosed for your file is a copy of the Maintenance Fee Statement evidencing payment of the first maintenance fee on the above-referenced patent. The next maintenance fee is due February 10, 2007.

If you have any questions, please give me a call.

Very truly yours,



Martin Korn

MK:jeb
Enc.

Scheduled FastCut Maintenance

WARNING: Before maintenance, disengage saw by pressing the emergency stop button and locking-out the main electrical breaker. Failure to do so could result in serious injury.

Daily Maintenance

- 1) Remove sawdust and other debris from the saw
- 2) Apply light film of WD-40 to all moving parts including:

Saw Blades

Apply WD-40 more generously here to remove resin

Slide rails

Lumber stop

Lumber clamps

CAUTION: Avoid getting diesel or WD-40 inside the saw motors and electrical boxes

- 3) Drain air lines and compressor
- 4) Check saw blades for sharpness, broken teeth, or warpage
Replace or sharpen as needed

Weekly Maintenance

- 1) Check air oilers
If oil is needed use "air oil" or non-detergent oil
- 2) Clean rollers on saw arms and adjust if needed to allow proper travel
Saw should move freely without excessive play
- 3) Check all air connections
- 4) Check for wear on all electrical wires

Scheduled FastCut Maintenance

Other Maintenance

1) Replace saw blades every six weeks or as needed due to wear.

It is important to have sharp blades for smooth operation and to lengthen saw motor life.

2) Check and adjust (as required) the flow control valves located at each end of the air cylinders for each saw assembly. The saw travel speed would be such that they do not “labor” or “jerk” while cutting.

