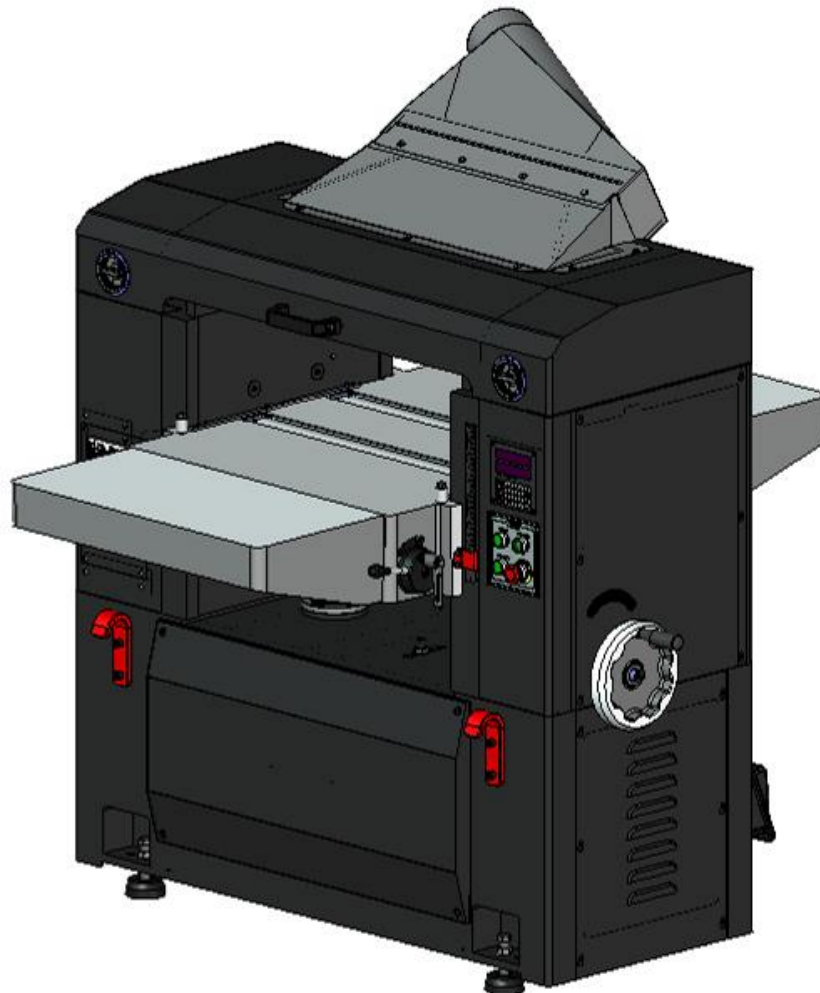


LAGUNA

Operating Manual

Model MPLAN25-15-3-0130 with CSA
MPLAN25-10-1-0130



WARNING

This tool should be connected to a grounded metal permanent wiring system; or to a system having an equipment-grounding conductor

LAGUNA

2072 Alton Parkway, Irvine, CA 92606
Ph: 800.234.1976 | www.lagunatools.com

WARNING

Read this manual completely and observe all warning labels on the machine. Every attempt to provide a safe, reliable, easy-to-use piece of machinery. Safety, however, is ultimately the responsibility of the individual machine operator. As with any piece of machinery, the operator must exercise caution, patience, and common sense to safely run the machine. Before operating this product, become familiar with the safety rules in the following sections.

Safety Rule

1. KEEP GUARDS IN PLACE and in working order.
2. REMOVE ADJUSTING KEYS AND WRENCHES. Form habit of checking to see that keys and adjusting wrenches are removed from tool before turning it on.
3. KEEP WORK AREA CLEAN. Cluttered areas and benches invite accidents.
4. 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.
5. KEEP CHILDREN AWAY. All visitors should be kept safe distance from work area.
6. MAKE WORKSHOP KID PROOF with padlocks, master switches, or by removing starter keys.
7. DON'T FORCE TOOL. It will do the job better and safer at the rate for which it was designed.
8. USE RIGHT TOOL. Don't force tool or attachment to do a job for which it was not designed.
9. WEAR PROPER APPAREL Do not wear loose clothing, gloves, neckties, rings, bracelets, or other jewelry which may get caught in moving parts. Nonslip footwear is recommended. Wear protective hair covering to contain long hair.
10. ALWAYS USE SAFETY GLASSES. Also use face or dust mask if cutting operation is dusty. Everyday eyeglasses only have impact resistant lenses, they are NOT safety glasses.
11. SECURE WORK. Use clamps or a vise to hold work when practical. It's safer than using your hand and it frees both hands to operate tool.
12. DON'T OVERREACH. Keep proper footing and balance at all times.
13. MAINTAIN TOOLS WITH CARE. Keep tools sharp and clean for best and safest performance. Follow instructions for lubricating and changing accessories.

14. DISCONNECT TOOLS before servicing; when changing accessories, such as blades, bits, cutters, and the like.
15. REDUCE THE RISK OF UNINTENTIONAL STATING. Make sure switch is in off position before plugging in.
16. USE RECOMMENDED ACCESSORIES. Consult the owner's manual for recommended accessories. The use of improper accessories may cause risk of injury to persons.
17. NEVER STAND ON TOOL Serious injury could occur if the tool is tipped or if the cutting tool is unintentionally contacted.
18. CHECK DAMAGED PARTS. Before further use of the too., a guard or other part that is damaged should be carefully checked to determine that it will operate properly and perform its intended function - check for alignment of moving parts, binding of moving parts, breakage of parts, mounting, and any other conditions that may affect its operation. A guard or other part that is damaged should be properly repaired or replaced.
19. DIRECTION OF FEED. Feed work into a blade or cutter against the direction of rotation of the blade or cutter only.
20. NEVER LEAVE TOOL RUNNING UNATTENDED. TURN POWER OFF. Don't leave tool until it comes to a complete stop.
21. Installation work and electrical wiring must be done by qualified electrician in accordance with all applicable codes and standards.

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

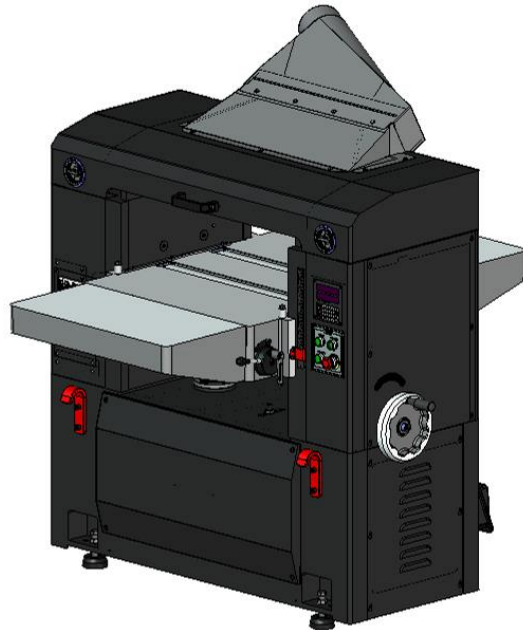
CAUTION: (This means that if precautions are not heeded, it may result in minor or moderate injury and/or possible machine damage)

WARNING: (This means that if precautions are not heeded, it could result in serious injury or possibly even death).

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Uncrating the Machine

Retain all packaging materials in case it becomes necessary to ship the machine to another site.



Machine Preparation and Setup

WARNING!

The equipment used to lift this machine must have a rated capacity at, or above the weight of the planer. Failure to comply may cause serious injury!

The planer can be lifted from over head using slings and the four lifting hooks A.

The planer must be positioned on a smooth, level surface. Install the leveling pads B under the four corners of the planer.

Clean all rust protected surfaces with a commercial solvent. Do not use acetone, gasoline, lacquer thinner or any type of flammable solvent, or a cleaner that may damage paint. Cover cleaned surfaces with WD-40 or a 20W machine oil.

Place a level on the table of planer and adjust leveling bolts C until the machine is resting level. Tighten the hex nuts D against the base of the planer to keep the leveling bolts from turning (Fig. 1)

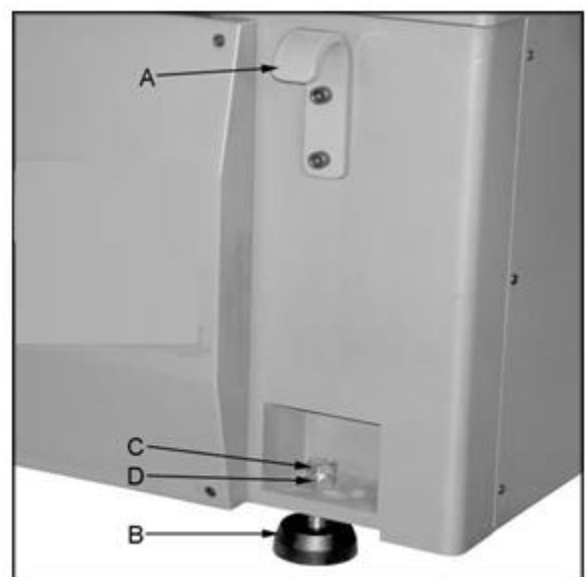
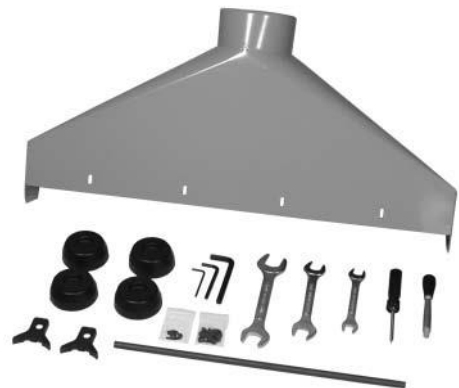


Figure 1

Dust Chute Assembly

Mount the dust chute to the planer hood with eight M6x10 hex head screws B. Make sure the dust collection system has sufficient capacity and suction for your planer. Always turn on the dust collection system before starting the planer. (Fig. 2)

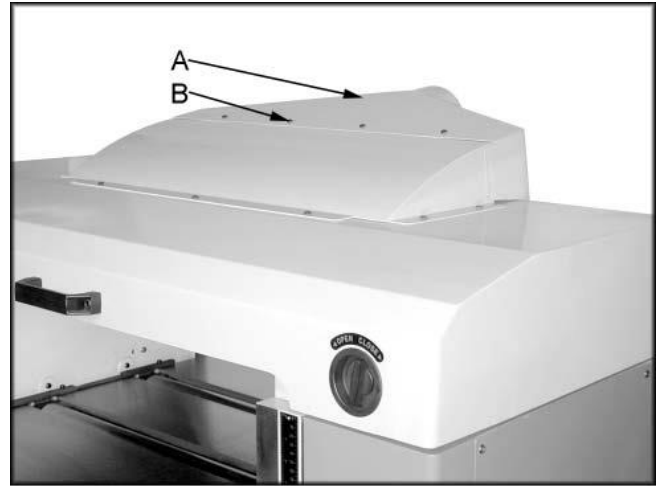


Figure 2

Table Roller Handle Assembly

Thread the handle C (Fig. 3) into the hub.

Control Panel

In Fig. 3

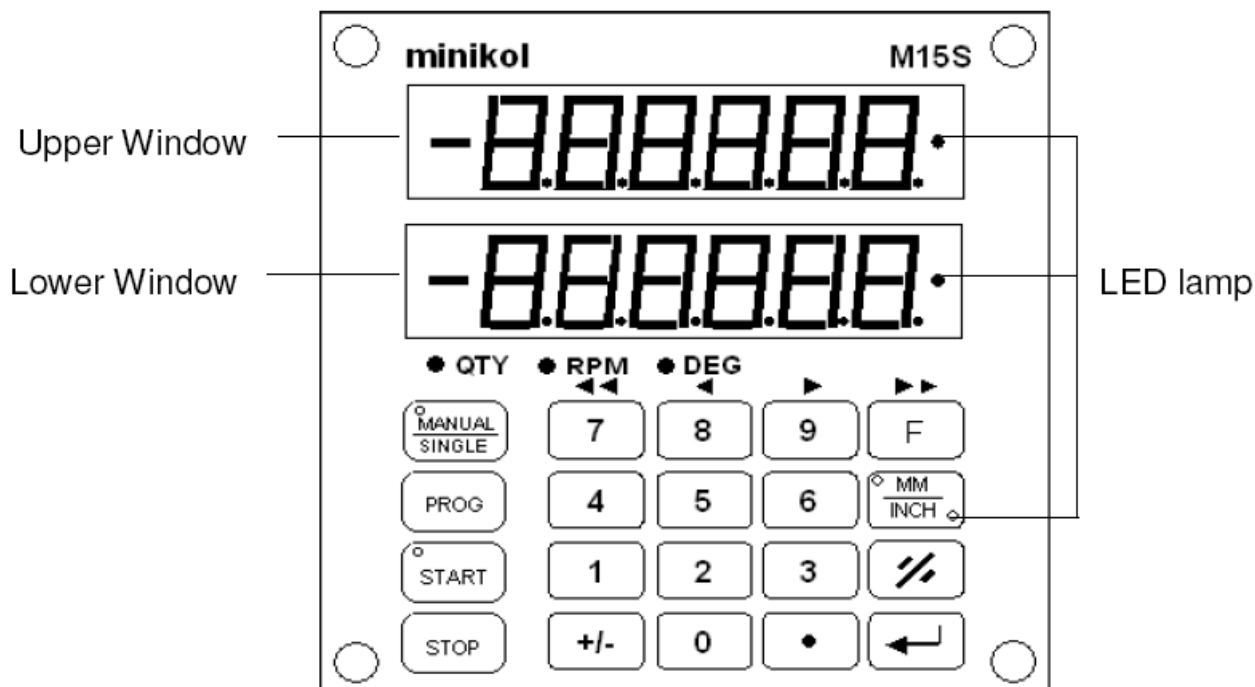
- D: Emergency Stop Button: Stops all functions of machine, but the planer still has power. To reset rotate switch clockwise until the button pops out.
- E: Main Motor: Starts rotation of Cutterhead. Will not work if the "Emergency Stop" switch is engaged, or hood is open.
- F: Digital Thickness Controls: Displays and controls table position, units, etc..
- G: Table Up: Raises the table.
Note: Table will contact the upper limit switch at about 5/8". You can continue to raise manually by using the handwheel.
- H: Table Down: Lowers the table.
Note: Table will contact the lower limit switch at about 8-5/8". You can continue to lower manually by using the handwheel.



Figure 3

Note: Do not feed material through the planer while the table is raising or lowering.

Operation Panel



LED / KEY	Description	KEY	Description	KEY	Description
Upper Window	Target value		Manual / Single mode		Parameter
Upper LED	Target value LED		Program		mm / inch
Lower Window	Current value		Active		Clear / Return
Lower LED	Current value LED		Stop / Cancel		Confirm / Enter
0 ~ 9	Number keys		+ / -		Decimal

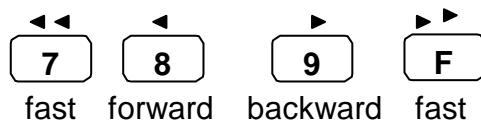
Note: Display : LED on / blinks

Function:

1. One or two speed positioning
2. Manual / Single mode
3. 10 sets single program
4. 10 sets tool offsets
5. Quick program / Fine Adjustment
6. Inch / mm conversion
7. Resolution: 0.1mm/ 0.05mm/ 0.01mm
8. Correct zero point
9. Display: RPM speed
10. Protection for tool / motor fault
11. Battery life 2.5 year
12. Self-diagnose

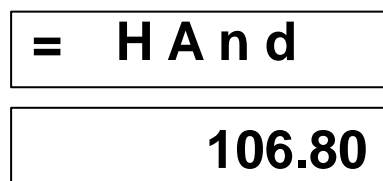
Manual Mode

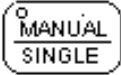
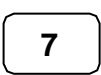
Description: To move the machine table by pressing M15 keyboard.

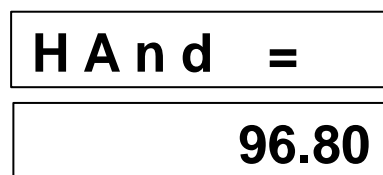



Example: M15 displays 100.00mm, to move the machine table:



※ Note: Be sure in “manual” mode. (LED lamp of “manual / Single” key is blinking) The upper window shows “HAnd” mode.



Press  to move machine table  forward (fast).



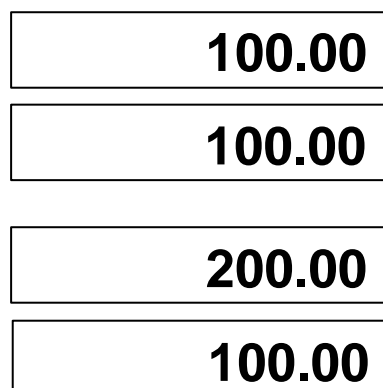
Press  to move machine table backward (fast).


Note: Press  or  for forward/ backward/ lower speed (depends on machine and wiring).



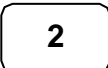
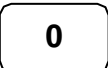
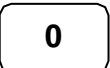
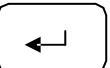

Single Mode



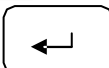
Description: M15 can execute auto positioning.

Example: M15 current value is 100.00mm, to reach 200mm (setting target value).



Step1. Select single mode  LED lamp is off.

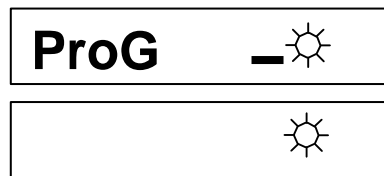
Step2. Press ,  blinking, enter new target value      LED lamp is off, complete.

※ Note: During positioning, press  to stop; to re-start, press  and .

Pre-Set Program (10 sets)

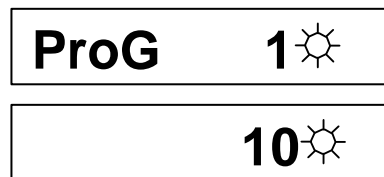
Description: Pre-set program 10 sets, enter program # 0~9 to execute.

Example: Program 1=10mm, Program 2=20.00mm.

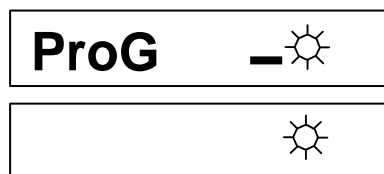


Step1. Press **F** **5** **5** select enter a key (0-9, total of 10sets).

※Note: Be sure in manual mode.



Step2. (Enter program 1=10mm), press **1** more press **1** **0** .



Step3. Target value display: ProG_ at present, enter program 2=20.00mm, press to exit.

Program Open and Lock (10 sets)

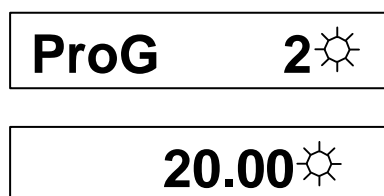
Description: Don't needs pre-set program, to start or close.

Example: Program 1=10.00mm for **0**, program 2= 20.00mm for **1**, **2** ~ **9** other a key, don't setting pre-set program, to stop follow steps as below:

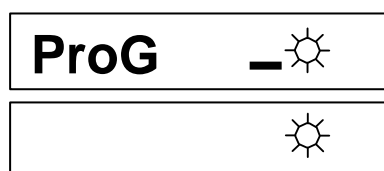


Step1. Press **F** **5** **5** target value display: ProG_ .

※ Note: Be sure in single mode.



Step2. Press **2** current value display: _____, **2** closed, frame display, **2** started.



Step3. Press **STOP** to close **2**

※ Note: To close other keys, follow the step 2, 3.

Fast Program

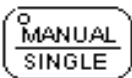
Description: To facilitate frequently used positions, the keys 0 to 9 have associated preset target values. And the positioning can be started immediately.
Example: Program 1=10.00mm, program 2=20.00mm. Execute program 2 as below:

100.00

100.00

20.00

100.00

Step1. Select single mode  LED lamp off.

Step2. Press  target value display: 20.00mm




LED blinking, to waiting start.

※Note: Execute program1 press#1.

Fine Adjustment

Description: Increase and decrease to reach fine adjustment.

Example: M15 target value display100.78mm, increase/ decrease target value0.25mm, setting steps as below:

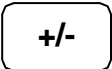
0.00 

100.00


Step1. Increase target value: press




display 0.00  LED blinking,

decrease: press  twice,

display-0.00  LED blinking.

0.25 

100.00 

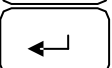
Step2. Press









press  to completed.

※ Note: Target value display: 101.03mm, current value display:100.78mm for target value increase 0.25mm.

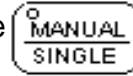
Load datum values

A. Description: To load current value according to working piece.

Example: M15 current value display 100.00mm, actual size: 100.50mm, follow the steps as below:

100.00

Step1. Select single mode



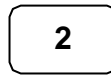
LED lamp off.

100.00

OriGin

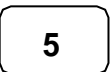
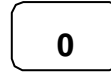
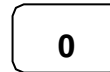
100.00

Step 2. Press



, enter new

value, press



press



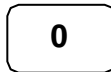
, to exit.



B. How to show the new set value:

F 0

Step1. Press



twice,

display new value.

100.00

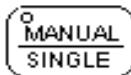
Select Counting Direction(+/-)

Description : To select the counting direction.

Example : M-15 current value display: 100.00mm, sensor forward for decrease value 99.68mm, but hope value become big, value increase follow the steps as below:

100.00

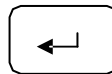
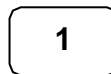
Step1. Press



back single mode, LED lamp off.

99.68

Step 2. Press



F 1

target value display origin parameter value "-dir"

99.68

(select counting direction parameter).

-dir

Step 3. Press



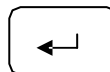
to select the direction, -dir / dir

(or"-dir" for left or "dir- " for right.)



100.00

Step 4. Press



to complete, and exit.

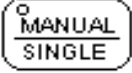
99.68

Resolution


Description: Select resolution: 0.1mm/0.01mm/0.05mm.





Example: M15 current value display 100.0mm, to select display: 100.00mm follow the steps as below:


100.0


Step 1. Select single mode  LED lamp off.

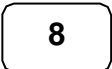
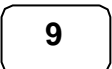
100.0


F 90 


Step 2. Press     to select resolution.

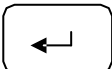
100.0 


rES 

Step 3. Press  /  (0.1 / 0.01 / 0.05)

0.01 

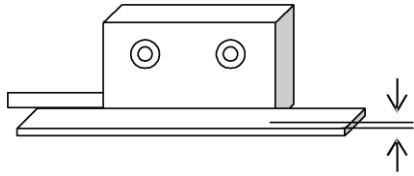
100.00 

Step 4. Press  to complete and exit.

100.00 

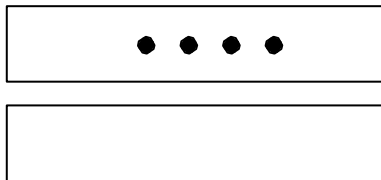
Sensor Calibration

A. **Description:** For better accuracy, please execute calibration immediately after installed sensor each time.



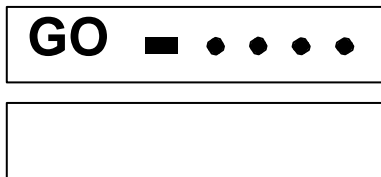
Gap sensor-tape

Step 1. Fix sensor, keep 1mm gap from tape
(**RECOMMENDED**).



Step 2. Press **F** **9** **9** **↵**

Target value display GO ●●●● (Enter parameter)



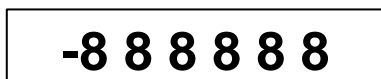
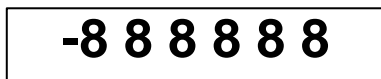
Step 3 、 Press and hold **8** or **9** to start.

※ Note : Moving the slider at low speed, Required distance around 120mm (Moving GO ●●●●)

Display: **GO** ■●■●●● (Detecting)

Display: **GO** ■●■●■●● (Almost complete)

When completed calibration, LED display will flash and show.




※Note: Please reload origin datum values refer to page8.

B. Troubleshooting of calibration:

GAP	Lo

a. Display: GAP LO


Possible cause: The gap is too narrow.


Excluding: Please enlarge the gap. Press  and follow step 2 again.




GAP	Hi

b. Display: GAP Hi

Possible cause: The gap is too big.

Excluding: Please narrows the gap and press  calibration again.


GO	 ● ● ● ●

c. Display: GO ● ● ● ● or GO  ● ● ● ● or GO  ●  ● ● ● ●

Possible cause: The gap too big or machine surface is not flat/smooth.

Excluding: Adjust gap or improve the machine surface. d.

	100
	2.75



d. During calibration press  to exit.

Set Parameter

100.00


Step 1. Select single mode  LED lamp off.

100.00

Step 2. Press  select enter parameter #, example parameter 2, press 

F	2 
----------	--


100.00

Step 3. Press  target value display OriGin(Lond parameter)

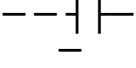
OniGin

※Note: Refer to set parameter or page12.

100.00

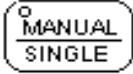
※Note: Press  to exit.

Parameter

Parameter	Display	Description	Default	Remarks
0	CHAnGE	Load datum value	0	
1	dir	Select counting direction (+ / -)	-dir	
2	OriGin	Load origin	0.00mm	
3	OffS-	Set tool diameter	0.00mm	
4	POSdir	Positioning mode		
5	SPEEd	One or two speed positioning	1sp	
9	LoAd 0	Load tool diameter	0.00	
10	Lo-End	- Software limit	-50.00mm	
11	Hi-End	+ Software limit	1000.00m m	
15	InPOS	Positioning output time	0.15ms	
17	toLL	Tolerance	0.30mm	
19	FAuLt	Low speed limit	55	
20	LinCOr	Linear correction	1.00000	
30	PASS	Parameter lock	----	
33	SOurCE	Software version		
55	PrOG-	Fast program		
90	rES	Resolution	0.01mm	
99	GO....	Sensor calibration		


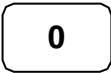
Parameter Lock And Open

Description: Needless function can open or close, to prevent client operation unsuitable to cause the fault.


Step 1. Select single mode  LED lamp off

100.00


100.00



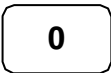

Step 2. Press    

target value display "PASS"  blinking,


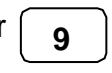
current value display: _ _ _ _  blinking

PASS 


_ _ _ _ 


Step 3. Press    


into the on/off set parameter.

※Note: Press  or 

(dir/ OriGin/ FAULT/ inPos)

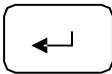
dir 

on 

Step 4. Press  setting on/off

Example: Frame display "dir off" indicate \pm direction parameter open.

Frame display: "dir on" indicate \pm direction Parameter close.

Press  to setting and exit.

Troubleshooting

SEnSor

Error

1. Possible Cause: No sensor

Excluding: a. Power off

b. 9 Pin connector is loosen or wire broken c.

The gap is too big between sensor and tape.

CHAnGE

rst

2. Possible Cause: A motion in the wrong direction.

Excluding: a. Power off b. Change R. S. T.

EnGinE

FAuLt

3. Possible Cause: a. Motor fault or overload.

b. Motor fault investigate setting

wrong (F19)

c. External limit action

Excluding: a. Press



b. Check parameter F19

c. Power off

d. Check external limit

e. Check motor and control line

100.00 ☀

100.00

4. Possible Cause: a. Over soft limit

b. Target value setting wrong

c. Parameter value setting wrong

Excluding: Press






Lo Err

5. Possible Cause: Current value over soft low and high
(F10、F11)

※Note: Frame show Lo/Hi

Excluding: a. Check machine table whether over the travel.

b. Press  LED blinking
press  or  to exit.

c. Please reload origin datum values refer to page8.

C H A n G E
bAtt


6. Possible Cause: Indicates battery discharged

Excluding: a. Power off

b. Change the battery(1.5V * 1 tape)

c. Turn the power on again


d. Please reload origin datum values refer to page8.(If current value lose)

100.00 
100.00

7. Possible Cause: Waiting for enter target value


Excluding: a. Enter new target value

b. Press  to exit

F 
100.00

8. Possible Cause: In the parameter setting value

※Note: Frame show F/origin

Excluding: Press 

Raising and Lowering Table

Turn the handwheel A (Fig. 7) clockwise to raise the table. One revolution equals 1/32" or 0.03".

Note: The handwheel is spring loaded.

Push in on the handwheel and rotate until the pins engage the detents.

Adjusting Thickness Scale

1. Run a board through the planer and measure the thickness of the planed board with a pair of calipers.
2. Adjust the pointer B (Fig. 7) by loosening the screw that holds it in place.

Note: This measurement should be the same as digital readout.

Table Roller Adjustment

Loosen the handle C and move the table rollers up, or down by raising, or lowering the handle D. When you reach the desired position tighten the handle (Fin. 7).

The rollers are usually set higher when planing rough stock. When planing smooth stock the table rollers should be set slightly above, or flush with the table.

Changing Feed Rate

The planer has three selectable feed speeds that feed stock at 20, 25 and 30 feet per minute.

To adjust speed, turn lever E (Fig. 8) until it clicks into place. **Change feed speed only while the feed system is RUNNING!**

Table Stop

The socket head cap screws F (Fig. 8) act as a stop and prevent you from running the table into the cutting and feeding assembly.

Opening Hood

Turn the locks G to open the hood. The hood will open automatically. Use the handle H to shut the hood (Fig. 8).

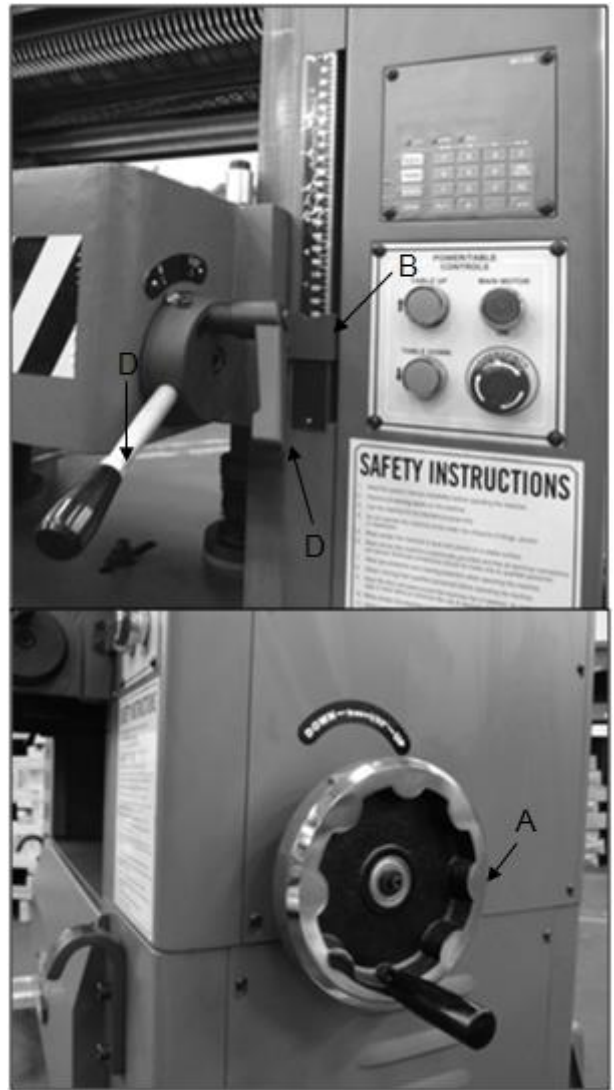


Figure 7

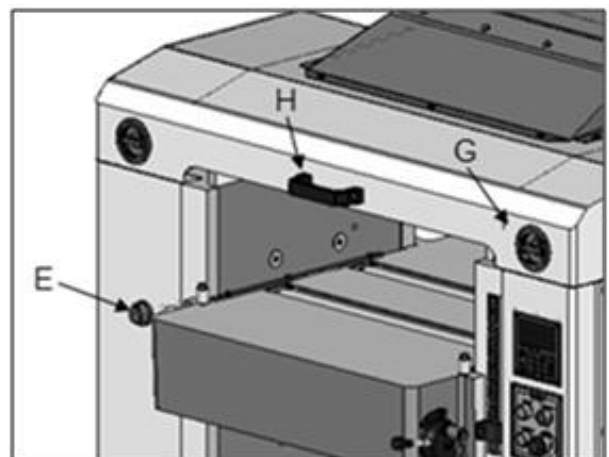


Figure 8

ShearTec II CUTTERHEAD

Knife inserts are dangerously sharp. Use extreme caution when inspecting, removing, or replacing knife inserts.

The knife inserts on the 25" Planer are four-sided. When dull, simply remove each insert, rotate it 90° for a fresh edge, and re-install it. No further adjustment is necessary. Use the two provided torx wrench to remove the knife insert screw. Use one of the torx wrenches to help hold the cutterhead in Position, and the other to remove the screw. See Fig. 9. It is advisable to rotate all inserts at the same time to maintain consistent cutting. However, if one or more knife inserts develops a nick, rotate only those inserts that are affected. Each knife insert has an etched reference mark so you can keep track of the rotations.

IMPORTANT: When removing or rotating inserts, clean saw dust from the screw, the insert, and the cutterhead platform. Dust accumulation between these elements can prevent the insert from seating properly, and may affect the quality of the cut.

Before installing each screw, lightly coat the screw threads with machine oil and wipe off any excess. Securely tighten each screw which holds the knife inserts before operating the jointer!

Make sure all knife insert screws are tightened securely. Loose inserts can be propelled at high speed from a rotating cutterhead, causing injury.

Warning: Disconnect machine from power source.



Setup of Feed Rollers, Chip Breaker and Pressure Bar

WARNING!

Disconnect machine from the power source before performing any adjustments or maintenance. Failure to comply may cause serious injury!

The planer comes set up from the factory and shouldn't need any adjustment.

If you find adjustment is necessary, follow the below listed sections for setting the infeed roller, chip breaker, pressure bar and outfeed rollers.

Make a hardwood block to the specifications in drawing Fig.13. You can use this wood gauge along with 0.02" feeler gauge to set the planer up as shown in Fig. 12.

Setup for planing applications. Depending on the stock and cutterhead you may find that a different setup may work better for your particular planing operation.

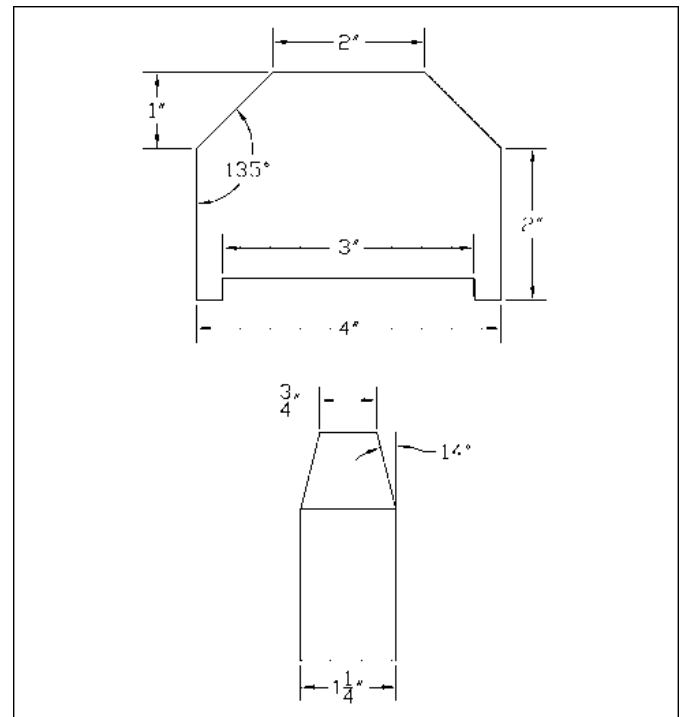


Figure 13

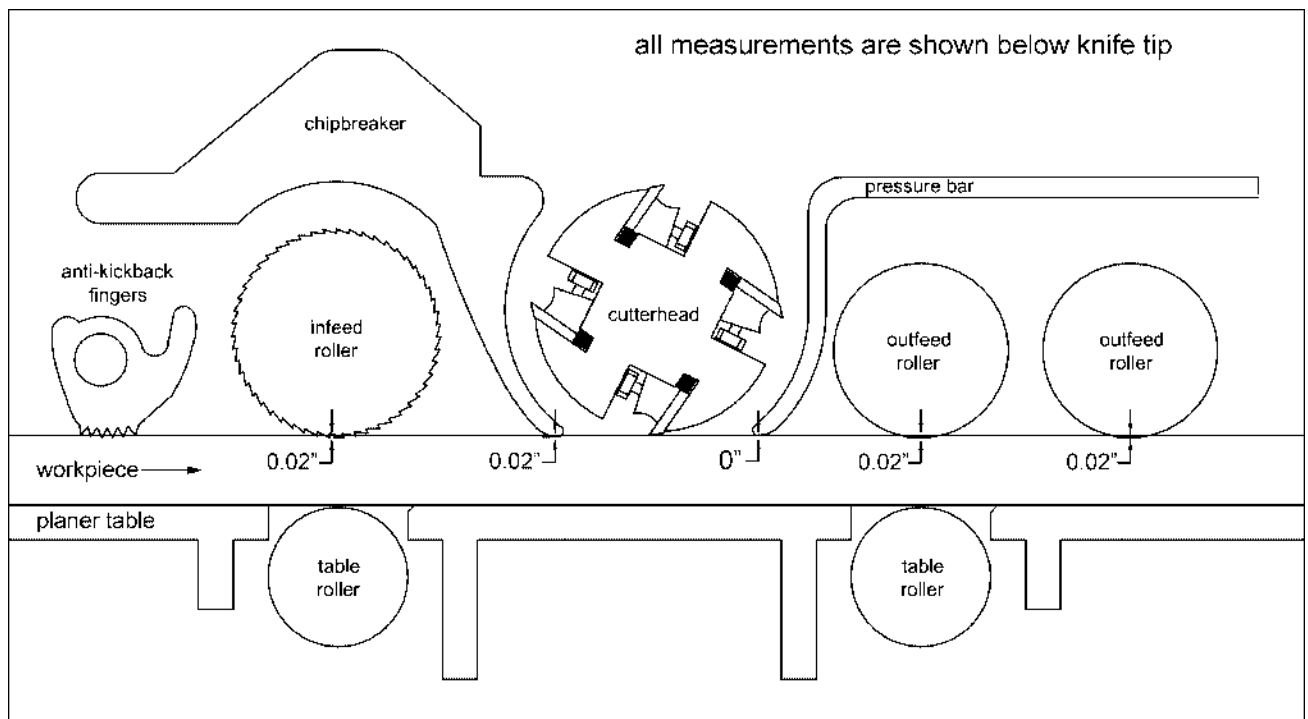


Figure 12

Anti-Kickback Fingers

Anti-kickback fingers help prevent stock from being kicked out of the machine towards the user. Keep the fingers clean and free from sawdust, pitch gum, etc. so they operate smoothly.

Adjustment of In-Feed Roller

The in-feed roller should be set 0.02" below the lowest point of knife. Make sure the knives are set properly see the "Setting / Changing Knives" section on page 20 prior to making any adjustments

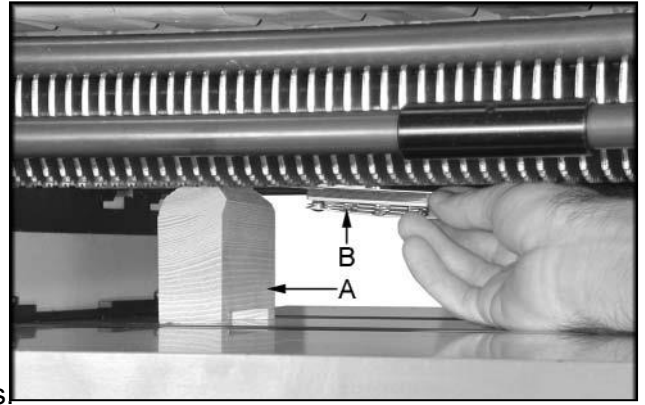


Figure 14

1. Disconnect machine from power source.
2. Place a hard wood gauge (A, Figure 14) under a knife in cutterhead. Place a 0.02" feeler gauge (B, Figure 14) on top of wood block and raise table until feeler gauge contacts the knife in its lowest position.
3. Remove feeler gauge and place wood block under the left side of in-feed roller. The top of wood gauge should just contact the in-feed roller. If it doesn't, loosen jam nut (C, Figure 15) and turn the adjusting screw (D, Figure 15) to raise, or lower the in-feed roller until it contacts wood gauge. Repeat for opposite side of the in-feed roller.

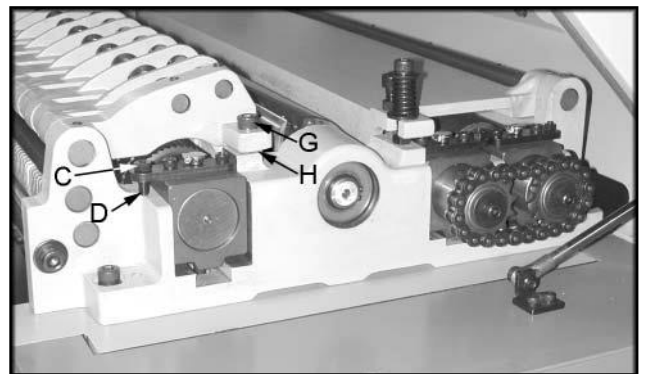


Figure 15

Adjustment of Chipbreaker

Chipbreaker should be set 0.02" below the lowest point of knife. Make sure the knives are set properly see the "Setting / Changing Knives" section on page 20 prior to making any adjustments.

1. Disconnect machine from power source.
2. Place a hard wood gauge (A, Figure 14) under a knife in the cutterhead. Place a 0.02" feeler gauge (B, Figure 14) on top of wood block and raise table until the gauge contacts the knife in its lowest position.
3. Remove feeler gauge and place wood gauge (E, Figure 16) under the left side of chipbreaker (F, Figure 16). The top of the wood gauge should just contact the chipbreaker. If it doesn't, remove the socket head cap screw (G, Figure 15) and remove washer (H, Figure 15), or replace with shim of proper thickness to raise, or lower the chipbreaker until it contacts the wood gauge.

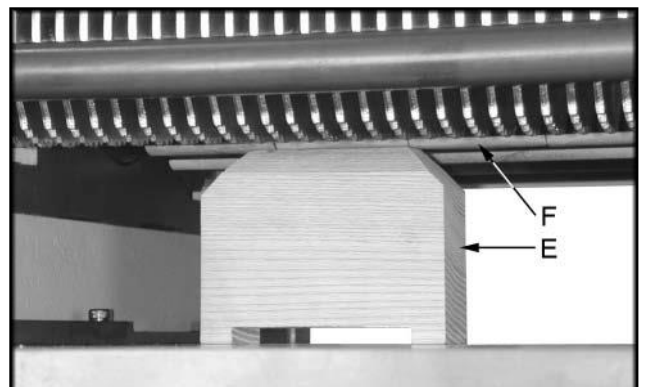


Figure 16

Repeat for opposite side of the chipbreaker.

Adjustment of Pressure Bar

The pressure bar should be set even with the lowest point of knife.

1. Disconnect machine from power source.
2. Place a hard wood gauge under a knife in cutterhead. Raise table until wood gauge contacts the knife in its lowest position.
3. Place wood block A, Figure 17) under the left side of pressure bar (B, Figure 17). The top of wood gauge should just contact the pressure bar. If it doesn't, loosen jam nut (C, Figure 18) and turn the adjusting screw (D, Figure 18) to raise, or lower the pressure bar until it contacts wood gauge. Repeat for opposite side of the pressure bar.

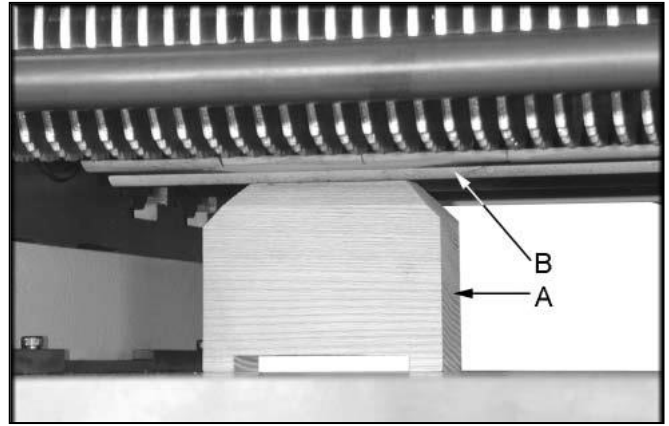


Figure 17

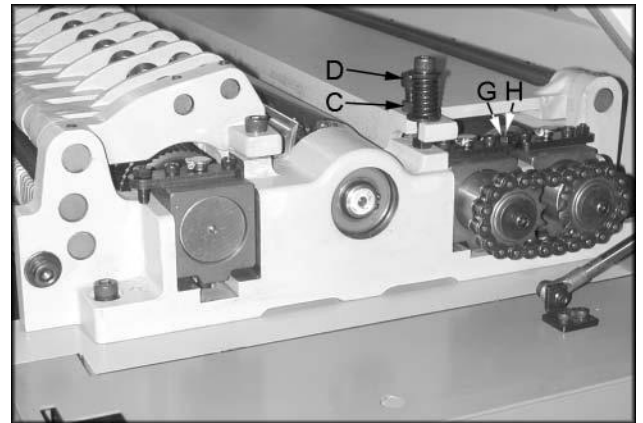


Figure 18

Adjustment of Out-feed Rollers

The out-feed rollers should be set 0.02" below the lowest point of knife. Make sure the knives are set properly see the "Setting / Changing Knives" section on page 11 prior to making any adjustments.

1. Disconnect machine from power source.
2. Place a hard wood gauge (A, Figure 14) under a knife in the cutterhead. Place a 0.02" feeler gauge (B, Figure 14) on top of wood block and raise table until the gauge contacts the knife in its lowest position.
3. Remove feeler gauge and place wood block (E, Figure 19) under the left side of out-feed roller (F, Figure 19). The top of wood gauge should just contact the out-feed roller. If it doesn't, loosen jam nut (G, Figure 18) and turn the adjusting screw (H, Figure 18) to raise, or lower the out-feed roller until it contacts wood gauge. Repeat for opposite side of the out-feed roller.
4. Repeat for second out-feed roller

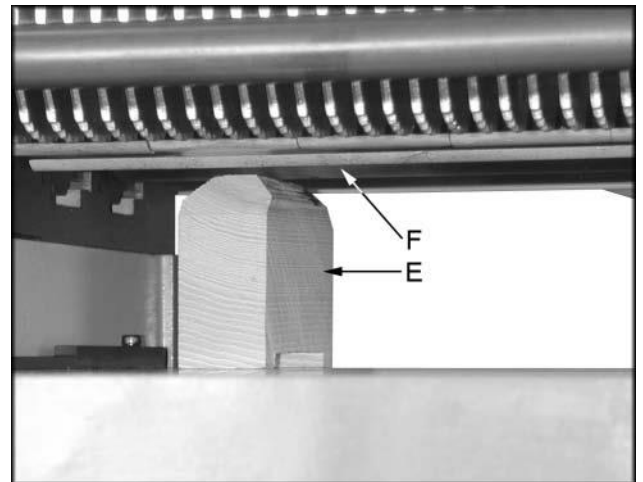


Figure 19

Adjusting Table Gibs

Adjust gibs (D, Figure 22) by loosening the hex nuts (E, Figure 22), and turning gib screws (F, Figure 22) so that the ways (G, Figure 22) are lightly contacted. You should be able to get a 0.005" feeler gauge in between the gib and way.

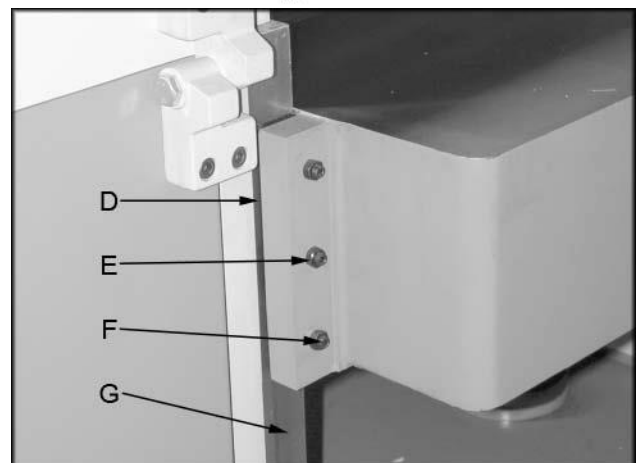


Figure 22

V-Belt Adjustment

Three V-belts A, Figure 21) drive the cutterhead. The single V-belt (B, Figure 21) drives the in-feed and out-feed rollers. Belt tension has been set at the factory. If the belts have stretched and need adjustment.

1. **Disconnect machine from power source.**
2. Open lower rear, and lower left-hand side panels. Loosen and tighten four adjustment nuts (C, Figure 21) to move motor plate up, or down to increase, or decrease belt tension. Tighten nuts against motor plate after adjustment is made.
3. Belts are tensioned properly when moderate finger pressure can deflect the v-belts about a 1/4"-1/2" midway between the pulleys.

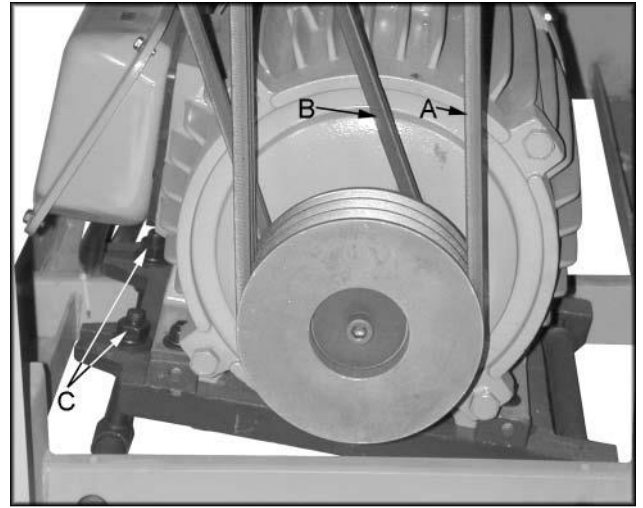


Figure 21

Adjusting Table Rollers

The table rollers come pre-set from the factory and shouldn't need any adjustment. If you find adjustment is necessary, follow the below listed steps.

1. Lay a straight edge (A, Figure 23) on the table across the roller (B, Figure 23).
2. Raise the rollers until it contacts the straight edge and lock the handle. The pointer should be set at "0". If not adjust the pointer to read zero. Note: Spin the roller by hand to know when roller makes contact with the straight edge.
3. Move straight edge to the opposite side of bed roller and check to see that the roller just contacts straight edge. If not loosen the hex nut (C, Figure 24) and turn the hex cap bolt (D, Figure 24) to raise or lower the bed roller until it just contacts the straight edge.

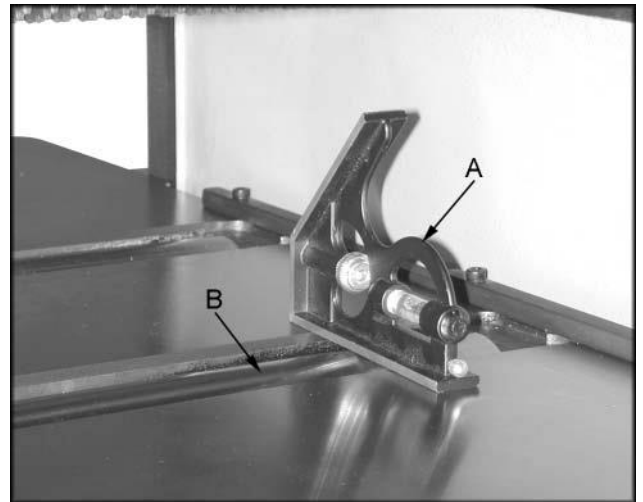


Figure 23



Figure 24

Maintenance

WARNING!

Disconnect the machine from power source before proceeding with any maintenance, lubrication or assembly! Failure to comply may cause serious injury!

Periodic, or regular inspections are required to ensure that the machine is in proper adjustment, and that all hardware is tight.

Clean out-feed rollers and table with a non- flammable solvent to remove pitch, gum and other unwanted build-up.

Periodically clean the inside of the machine for dust control.

Keep pulleys and belts free from dirt, dust, oil and grease. Replace worn V-belts as needed.

There are three limit switches on the planer, one that triggers if the hood is open, and a raising and a lowering limit switch to prevent the table from automatically traveling too far. Keep these clean and blown out with an air hose.

Lubrication

Add a few drops of medium weight oil to the six oil cups (A, Figure 25) weekly.

Lubricate the two table elevation screws (B, Figure 26) as needed. Raise the table and remove the two screws holding the top of the accordion cover (C, Figure 26) in place. Pull the cover down and lightly grease the elevating screws, see Figure 26.

Use an oiled cloth to wipe the ways (D, Figure 26) weekly.

Lubricate the chain system with an oiled cloth as needed.

The gear box oil should be changed once a year. Remove the drain plug (E, Figure 27) to drain the oil. Refill the gear box with 60-90 weight gear oil through the fill hole (F, Figure 27) until the sight glass (G, Figure 27) reads full. The sight glass (G, Figure 27) should be checked periodically and oil added as necessary.

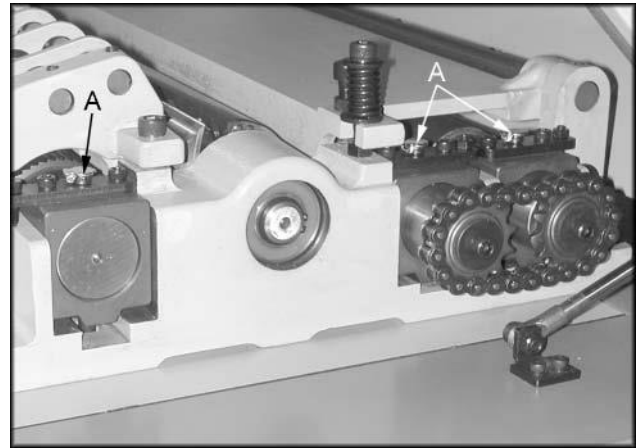


Figure 25

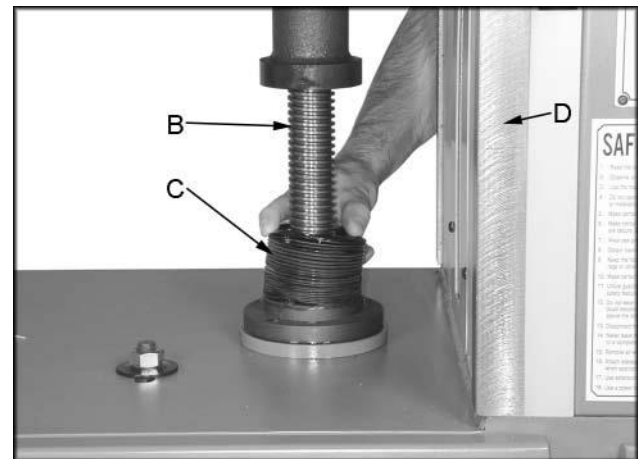


Figure 26

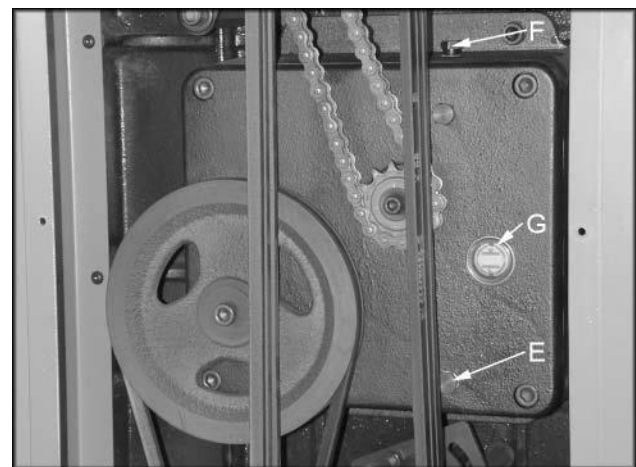


Figure 27

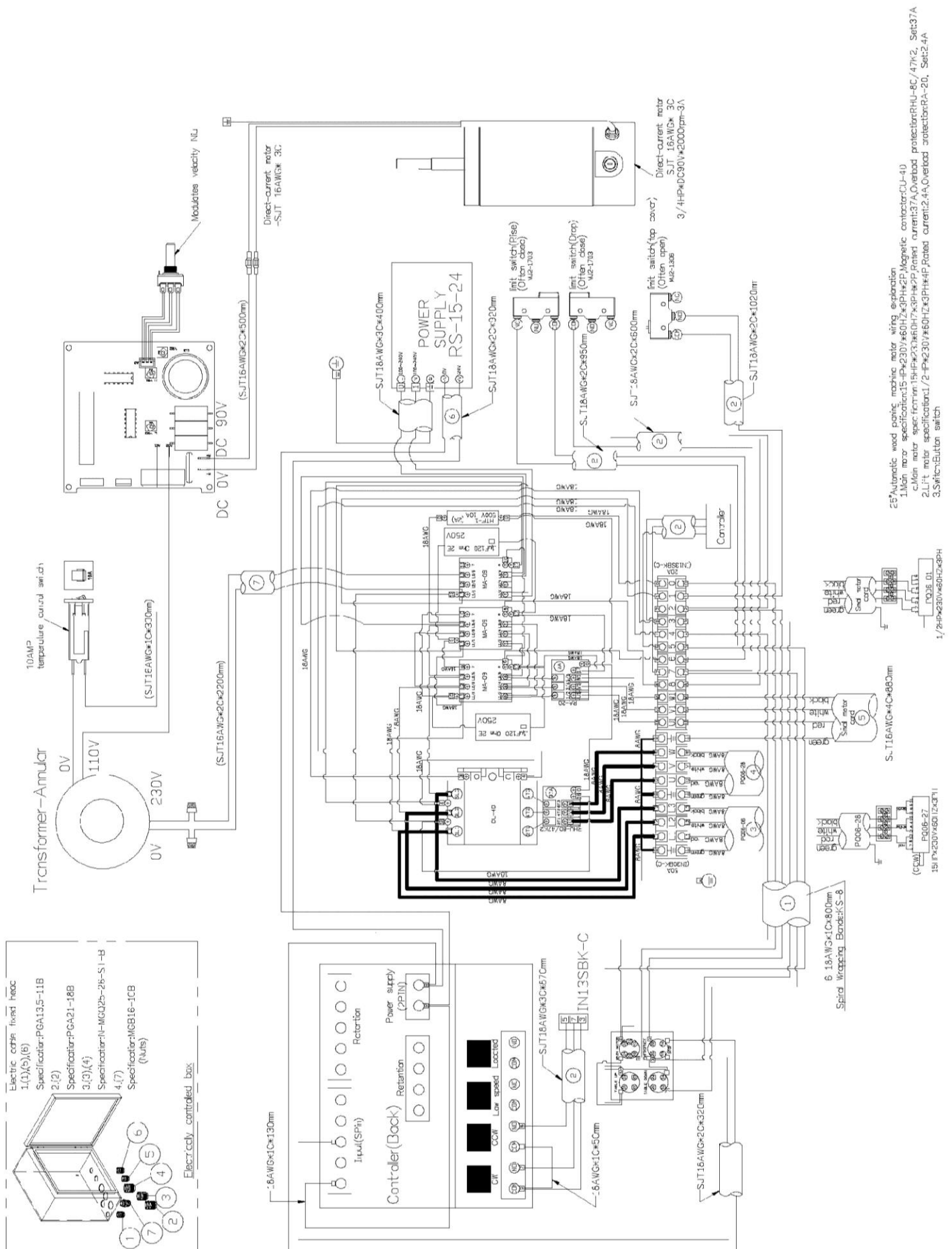
Halted Feeding

If the in-feed roll takes stock away from you while feeding, then feeding stops before contacting the knives, the chipbreaker is probably too low. Or the in-feed roller is not set low enough, or does not have enough pressure. In a similar situation, the in-feed roll takes the stock, the chipbreakers lift, and stops as you hear the knives contact the material. In this case the pressure bar is too low. Follow the steps on pages 12-14 for setting the in-feed roller, chipbreaker, pressure bar and outfeed rollers in relation to the cutterhead.

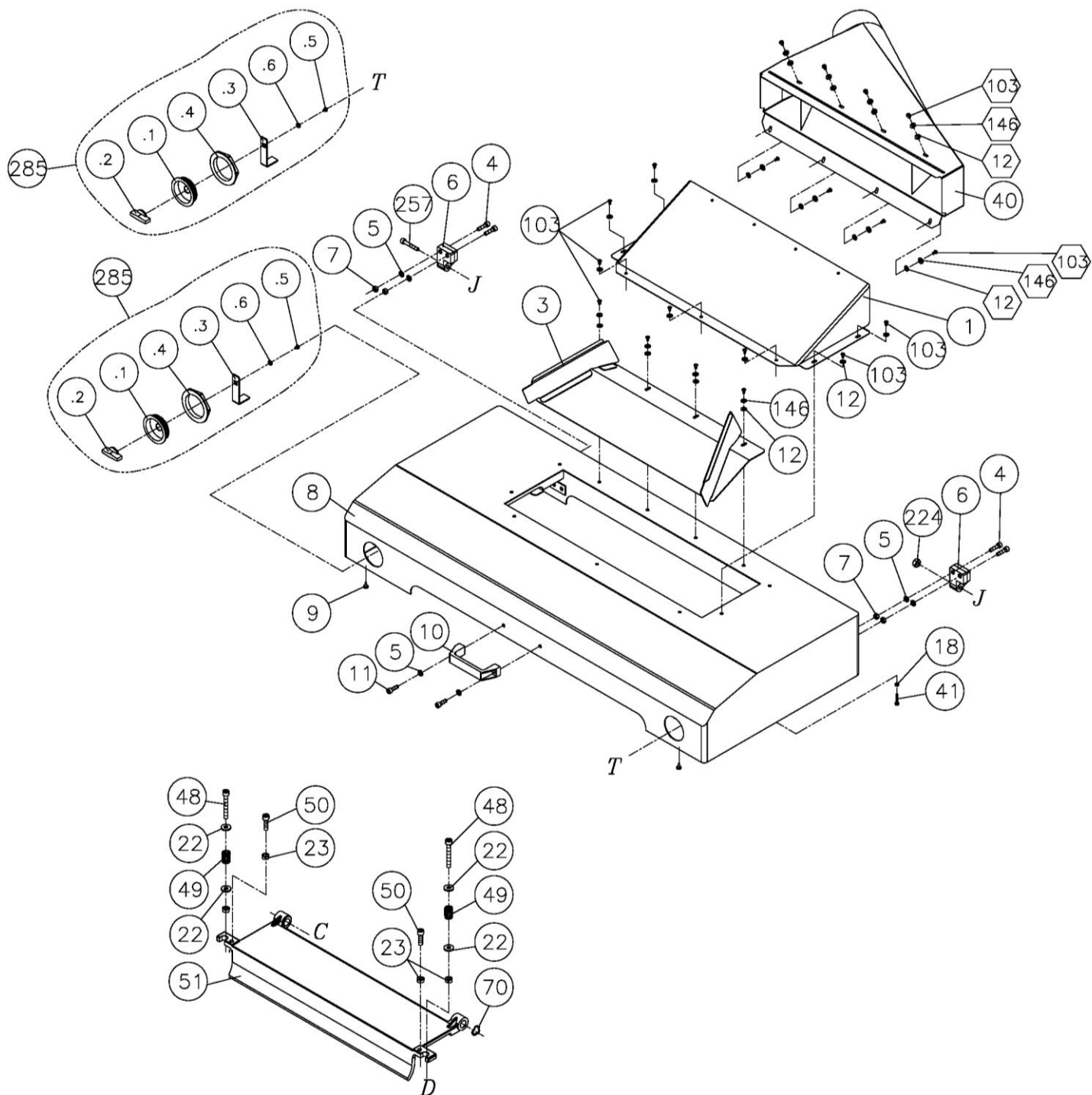
Troubleshooting

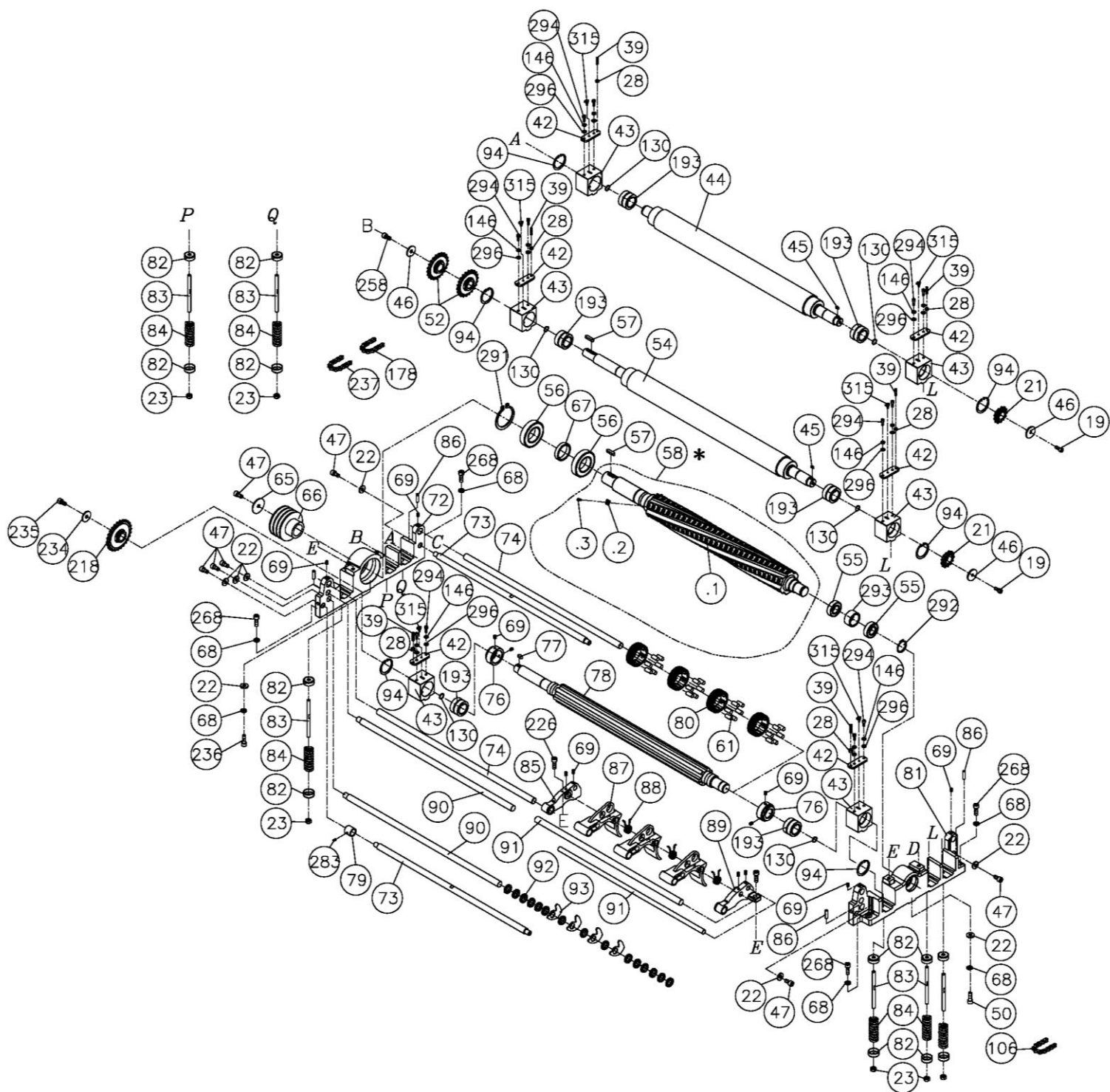
Description of Symptoms	Possible Cause	Corrective Action
Machine will not start	<ol style="list-style-type: none">1. Fuse blown or circuit breaker tripped2. Cord Damaged3. Not connected to power source4. Connected to wrong voltage	<ol style="list-style-type: none">1. Replace fuse or reset circuit breaker2. Have cord replaced3. Check connection4. Check voltage5. Close top cover
Cutterhead does not come up to speed	<ol style="list-style-type: none">1. Low current2. Motor not wired for correct voltage	<ol style="list-style-type: none">1. Contact local electric company2. Refer to motor nameplate for
Workpiece stops when feeding	<ol style="list-style-type: none">1. Too much material being removed in one pass2. Chipbreaker or pressure bar set too low3. Insufficient pressure on in-feed or out-feed rollers	<ol style="list-style-type: none">1. Reduce the amount of material being removed2. Raise the Chipbreaker or pressure bar per Figure 12, page 123. Increase pressure on in-feed
Snipe	<ol style="list-style-type: none">1. Incorrect setting for in-feed, out-feed rollers, pressure bar or chipbreaker2. Inadequate support of long	<ol style="list-style-type: none">1. Adjust feed system per Figure 12, page 122. Support long boards with extension rollers
Fuzzy Grain	<ol style="list-style-type: none">1. Planing wood with a high moisture content2. Dull knives	<ol style="list-style-type: none">1. Allow wood to dry properly2. Sharpen knives
Poor feeding of lumber	<ol style="list-style-type: none">1. Inadequate feed roll pressure2. Planer bed dirty3. V-belts slipping4. Dirty feed rollers5. Incorrect setting for in-feed, out-feed rollers, pressure bar or chipbreaker	<ol style="list-style-type: none">1. Adjust feed roll tension or lower feed rollers2. Clean pitch and residue off table with a non-flammable solvent3. Increase v-belt tension4. Clean feed rollers with a non-flammable solvent5. Adjust feed system per Figure 12, page 12

Wiring Diagrams



PARTS DIAGRAMS







PARTS LIST

Key	Part No.	Descriptions		Q'ty
1	171398-000	DUST HOOD		1
2	000801-101	ROUND HEAD HEX SCREW	M6*1.0P*10	57
3	171393-000	CHIP BRACKER		1
4	000104-110	SOC HD CAP SCREW	M8*1.25P*30	4
5	006305-100	SPRING WASHER	8.2*15.4	23
6	050320-000	BRACKET		4
7	008006-100	HEX NUT	M8*1.25P	15
8	171559-000	TOP COVER		1
9	340007-615	BLOCK		2
10	250123-615	HANDLE		1
11	000104-108	SOC HD CAP SCREW	M8*1.25P*25	8
12	006001-022	FLAT WASHER	6.3*13*1.0t	23
13	000102-104	SOC HD CAP SCREW	M5*0.8P*12	4
14	006302-100	SPRING WASHER	5.1*9.3	8
15	170893-901	PACKING		2
16	170501-904	IDEL BRACKET		1
17	000105-104	SOC HD CAP SCREW	M10*1.5P*35	5
18	008004-100	HEX NUT	M5*0.8P	1
19	000104-106	SOC HD CAP SCREW	M8*1.25P*20	8
20	290040-901	IDLE FIXING SHAFT		1
21	380259-000	SPROCKET		6
22	006001-071	FLAT WASHER	10*25*3.0t	15
23	008007-100	HEX NUT	M10*1.5P	20
24	050580-000	LEFT SUPPORT PLATE		1
27	000103-106	SOC HD CAP SCREW	M6*1.0P*16	6
28	008005-100	HEX NUT	M6*1.0P	7
29	250054-615	KNOB		1
30	360414-910	HANDEL SHAFT		1
36	170895-000	LEFT SIDE COVER		1
37	173211-000	SIDE COVER - LEFT		1
39	000203-109	SET SCREW	M6*1.0P*30	6
40	170510-000	DUST CHUTE		1
41	000001-103	HEX. SCREW	M5*0.8P*25	1
42	173879-902	ADJUST BOLCK		6
43	051267-902	BUSHING		6
44	360196-000	OUTFEED ROLLER		1
45	012003-003	KEY	5*5*12	5
46	170002-901	WASHER		3
47	000105-101	SOC HD CAP SCREW	M10*1.5P*20	11

Key	Part No.	Descriptions		Q'ty
48	000105-109	SOC HD CAP SCREW	M10*1.5P*75	2
49	280056-901	COMPRESSED SPRING		2
50	000105-105	SOC HD CAP SCREW	M10*1.5P*40	3
51	050455-000	PRESSURE PLATE - REAR		1
52	070019-902	SPROCKET		2
54	360189-000	OUTFEED ROLLER		1
55	030202-002	BALL BEARING	6007-2NSE	2
56	030219-002	BALL BEARING	6210-2NSE	2
57	012005-003	KEY	8*7*35	2
58	922577-000	SHEARTEC 2 CUTTERHEAD ASSY		1
58.1	923578-000	SHEARTEC 2 CUTTERHEAD ASSY		1
58.2	921955-000	KNIFE	15*15*2.5t	10
58.3	038201-101	TORX SCREW	#10-32NF*1/2"	10
	040702-000	TORX SCREW DRIVER	CR-V T-25	2
59	006701-100	WAVE WASHER	WW-6	1
60	002603-101	CAP LOCKING SCREW	M5*0.8P*10	2
61	250352-615	RUBBER PIN		144
62	290055-901	SHOULDER SCREW		1
64	000104-111	CAP SCREW	M8*1.25P*35	4
65	006001-084	FLAT WASHER	11*53*3.0t	1
66	050464-902	CUTTERHEAD PULLEY		1
67	190151-902	BUSHING		1
68	006307-100	SPRING WASHER	10.2*18.5	20
69	000204-102	SET SCREW	M8*1.25P*10	14
70	006712-100	WAVE WASHER	BWW-6001	1
71	006001-056	FLAT WASHER	8.5*23*2.0t	6
72	050881-000	CUTTERHEAD BASE - LEFT		1
73	360624-902	FIXING SHAFT		2
74	360629-902	PRESSURE PLATE SHAFT		2
75	010011-000	RETAINING RING	STW-25	3
76	380470-902	COLLER		2
77	012005-006	KEY	8*7*16	1
78	360506-000	FIXING SHAFT		1
79	190051-902	LIMITED SHAFT		1
80	130052-903	INFEED ROLLER		24
81	050880-000	CUTTERHEAD BASE - RIGHT		1
82	170512-901	PACKING		12
83	360408-902	FIXING SHAFT		6
84	280055-901	SPRING		6
85	050462-000	PRESSURE PLATE BASE - LEFT		1
86	011106-102	PIN	8*30	4

Key	Part No.	Descriptions		Q'ty
87	050305-000	PRESSURE PLATE - FRONT		11
88	280053-000	SPRING		11
89	050463-000	PRESSURE PLATE BASE - RIGHT		1
90	360627-902	FIXING SHAFT		2
91	360632-902	FIXING SHAFT		2
92	250160-615	SPACER		79
93	172281-905	ANTI-KICK BACK		70
94	010107-000	RETAINING RING	RTW-47	6
95	380388-902	HEX SCREW		1
96	000102-103	SOC HD CAP SCREW	M5*0.8P*10	2
97	000302-210	ROUND HD SCREW	M4*0.7P*30	6
98	000301-204	ROUND HD SCREW	M5*0.8P*15	2
100	021002-000	CABLE TIE	250M	2
101	050575-000	RIGHT SUPPORT PLATE		1
102	000302-103	ROUND HD SCREW	M4*0.7P*10	8
103	002501-102	ROUND HEAD TAPPING SCREW	M6*1.0P*12L	8
103	002501-102	ROUND HEAD TAPPING SCREW	M6*1.0P*12L	11
104	171561-000	SIDE COVER - RIGHT		1
105	171401-000	RIGHT SIDE COVER		1
106	016001-000	CHAIN	#40*24P	1
107	923250-000	GEAR BOX ASSY		1
107.1	000105-101	SOC HD CAP SCREW	M10*1.5P*20	5
107.2	006001-071	FLAT WASHER	10*25*3.0t	1
107.3	923207-000	BELT PULLEY ASSY		1
107.4	000104-106	SOC HD CAP SCREW	M8*1.25P*20	1
107.5	006001-056	FLAT WASHER	8.5*23*2.0t	1
107.6	320310-902	SPROCKET		1
107.7	011106-101	PIN	8*18	2
107.8	050467-008	GEAR BOX COVER		1
107.9	340050-000	GEARBOX GASKET		1
107.10	012003-005	KEY	5*5*16	1
107.11	012003-002	KEY	5*5*10	3
107.12	043605-000	OIL SEAL	TC24*40*7	1
107.13	030208-002	BALL BEARING	6204-2NSE	2
107.14	320208-000	GEAR		2
107.15	010007-000	RETAINING RING	STW-16	3
107.16	030205-002	BALL BEARING	6201-2NSE	6
107.17	043603-000	OIL SEAL	TC20*40*7	1
107.18	010011-000	RETAINING RING	STW-25	1
107.19	381082-000	PLUG		1
107.20	361005-000	SHAFT		1

Key	Part No.	Descriptions		Q'ty
107.21	320316-000	GEAR		1
107.22	360646-000	SHAFT		1
107.23	320209-000	GEAR	60T	2
107.24	012003-007	KEY	5*5*20	2
107.25	360647-000	GEAR SHAFT		1
107.26	043001-000	OIL LENS	29	1
107.27	381073-000	BUSHING		1
107.28	360648-000	GEAR SHAFT		1
107.29	050466-008	GEARBOX		1
107.30	320211-000	GEAR	24T	1
107.31	043401-000	PLUG	PT1/4"-19	2
107.32	012003-001	KEY	5*5*8	1
108	050774-000	TABLE		1
109	006001-075	FLAT WASHER	10.3*22*2.0t	14
110	290024-901	SHOULDER SCREW		4
111	001903-104	SET LOCK SCREW	M8*1.25P*10	1
112	000102-105	SOC HD CAP SCREW	M5*0.8P*16	6
113	171818-902	LEAD PLATE		2
114	170498-901	PLATE		2
115	000204-109	SET SCREW	M8*1.25P*40	6
116	000004-103	HEX. SCREW	M10*1.5P*30	4
117	130049-903	ROLLER FIXING BASE		4
118	030207-002	BALL BEARING	6203-2NSE	6
119	920669-000	ROLLER W/BEARING		2
120	006001-049	FLAT WASHER	8.5*16*2.0t	8
121	360419-901	CAM LOCK SHAFT		4
122	130050-000	CAM LOCK		4
123	023301-000	FIXING PLATE	AAM-20	2
124	360636-902	KNIFE SETTING GAGE SHAFT		2
125	000202-102	SET SCREW	M5*0.8P*8	6
126	130048-903	CONNECT PLATE		3
127	290016-901	SHOULDER SCREW		2
128	170900-902	ROD		1
129	012003-002	KEY	5*5*10	8
130	010501-000	RETAINING RING	ISTW-30	6
131	040003-000	HEX. WRENCH	3mm	1
132	171396-156	POINTER BRACKET		1
133	170899-902	ROD		1
134	360420-902	FIXING SHAFT		1
135	010211-000	RETAINING RING	ETW-24	1
138	050313-902	BRACKET		1

Key	Part No.	Descriptions		Q'ty
139	000203-102	SET SCREW	M6*1.0P*8	1
140	230122-000	UNIVERSAL HANDLE		1
141	050318-902	FIXING SHAFT		2
142	000104-112	SOC HD CAP SCREW	M8*1.25P*40	8
143	900487-000	MOTOR ASSY	1/2HP*230V/460V*60HZ*3PH	1
143	900485-000	MOTOR ASSY	1/2HP*230V*60HZ*1PH	1
144	000003-105	HEX. SCREW	M8*1.25P*25	4
145	000103-107	SOC HD CAP SCREW	M6*1.0P*20	1
146	006303-100	SPRING WASHER	6.1*12.3	29
147	290015-901	SHOULDER SCREW		1
148	030116-002	BALL BEARING	6205ZZ	2
149	360642-000	WROM SHAFT		1
150	012003-008	KEY	5*5*22	1
151	320248-000	WORM GEAR		1
152	190085-901	BUSHING		1
153	030109-002	BALL BEARING	6204ZZ	1
154	050461-008	WORM GEARBOX		1
155	043607-000	OIL SEAL	TC25*40*8	1
156	360641-000	WORM ROD		1
157	320247-000	GEAR	24T	1
158	030108-002	BALL BEARING	6203ZZ	2
159	040004-000	HEX. WRENCH	4mm	1
160	050574-008	IDEL BRACKET		1
161	030106-002	BALL BEARING	6201ZZ	1
162	010007-000	RETAINING RING	STW-16	3
163	320209-000	GEAR	60T	2
164	360640-000	SHAFT		1
165	043501-000	OIL SEAL	SC17*30*8	1
166	010008-000	RETAINING RING	STW-17	2
167	340049-000	GEARBOX GASKET		1
168	050459-008	GEAR BOX COVER		1
169	000103-108	SOC HD CAP SCREW	M6*1.0P*25	6
170	011104-105	PIN	6.0*25	2
171	320245-000	SPROCKET	26T	1
172	043401-000	PLUG	PT1/4"-19	2
173	030107-002	BALL BEARING	6202ZZ	2
174	360643-000	GEAR SHAFT		1
175	012003-007	KEY	5*5*20	1
176	320208-000	GEAR		1
177	006001-101	FLAT WASHER	16*25*1.5t	1
178	016009-000	CHAIN	#40*58P	2

Key	Part No.	Descriptions		Q'ty
179	320310-902	SPROCKET		1
180	920372-000	HANDWHEEL ASSY		1
181	050458-902	HANDWHEEL BASE		1
182	923453-000	MOTOR CORD	3PH	1
182	921337-000	MOTOR CORD	1PH	1
183	012003-004	KEY	5*5*15	1
184	360631-000	HANDWHEEL SHAFT		1
185	280091-000	SPRING		1
186	000104-103	SOC HD CAP SCREW	M8*1.25P*12	2
187	000203-106	SET SCREW	M6*1.0P*16	5
188	380226-902	BUSHING		1
189	011106-101	PIN	8*18	4
190	000103-102	SOC HD CAP SCREW	M6*1.0P*10	8
191	006001-021	FLAT WASHER	6.2*22*3t	1
192	900328-001	MOTOR ASSY	15HP*230V/460V*60HZ*3PH	1
192	900327-000	MOTOR ASSY	10HP*230V*60HZ*1PH	1
193	032101-002	NEEDLE BEARING	NA-6906	6
194	360155-902	IDLE FIXING SHAFT		1
195	010108-000	RETAINING RING	RTW-52	1
196	000004-306	HEX. SCREW	M10*1.5P*50	4
197	008009-100	HEX NUT	M12*1.75P	4
198	006308-100	SPRING WASHER	12.2*21.6	12
199	006001-091	FLAT WASHER	13*28*3.0t	16
200	380249-901	MOTOR MOUNT TENSION SHAFT ASSEMBLY		2
201	050368-008	MOTOR PLATE		1
202	360270-902	MOTOR MOUNTING SHAFT		2
204	360634-000	SHAFT		1
205	170481-901	FIXING BUSH		4
206	001601-101	POUND HEAD SCREW W/FLAT WASHER	M4*0.7P*8/4*10*0.8t	8
207	250173-615	EXPANSION BEND		2
208	360423-000	SHAFT		1
209	010110-000	RETAINING RING	RTW-68	2
210	030203-002	BALL BEARING	6008-2NSE	2
211	031003-002	BEARING	51105	4
212	050662-902	BUSHING		2
213	006802-100	WASHER	25	2
214	008201-100	NUT	M25*1.5P	2
215	190084-902	PACKING		1
216	014110-000	V-BELT	A86	3
217	015201-000	BELT	3GT-750-15	1
218	070017-902	SPROCKET	26T	1

Key	Part No.	Descriptions		Q'ty
219	280067-901	SPRING		1
220	170897-000	COVER - REAR		1
221	021802-000	RELIEF BUSHING	NB-2430	2
222	021805-000	RELIEF BUSHING	NB-1216	2
223	170894-008	WIRING BOARD		1
224	008308-100	HEX LOCK NUT	M10*1.5P	4
225	170638-156	HOOK		4
226	000105-103	SOC HD CAP SCREW	M10*1.5P*30	14
227	000006-206	HEX. SCREW	M16*2.0P*55L	4
228	008011-200	HEX NUT	M16*2.0P	5
229	050314-008	FOOT		4
230	173210-000	BASE		1
231	360693-902	IDEL SHAFT		1
232	172728-000	COVER - FRONT		1
233	170892-000	COVER - SIDE		2
234	006001-083	FLAT WASHER	11*37*3.0t	2
235	001302-101	CAP SCREW	M10*1.5P*20	1
236	000105-112	SOC HD CAP SCREW	M10*1.5P*45	2
237	016010-000	CHAIN	#40*74P	1
238	008306-100	HEX LOCK NUT	M8*1.25P	4
239	230276-000	BUFFER	25kg	2
240	016002-000	CHAIN	#40*54P	1
241	016012-000	CHAIN	#40*84P	1
242	006003-079	FLAT WASHER	10.5*19*2.0t	2
243	006001-003	FLAT WASHER	4.3*12*1.0t	6
245	000203-107	SET SCREW	M6*1.0P*20	1
246	937819-000	CONTROL BOX ASSEMBLY	15HP*3PH	
246	937711-000	CONTROL BOX ASSEMBLY	10HP*1PH	
247	000103-103	SOC HD CAP SCREW	M6*1.0P*12	4
249	000106-102	SOC HD CAP SCREW	M12*1.75P*40	12
250	280098-000	SPRING		1
251	490126-008	CONNECTION BOX		1
252	490127-000	TERMINAL		1
253	000303-103	ROUND HD SCREW	M5*0.8P*10	4
254	550001-288	MANUAL FOR CONTRAL PANEL		1
256	006001-034	FLAT WASHER	6.7*16*2.0t	4
257	000004-107	HEX. SCREW	M10*1.5P*70	2
258	001301-101	CAP SCREW	M8*1.25P*20	1
259	290009-902	SHOULDER SCREW		2
260	190002-905	FIXING POINT		2
261	921336-000	POWER CORD	3PH	1

Key	Part No.	Descriptions		Q'ty
261	921335-000	POWER CORD	1PH	1
263	190074-901	SPACER		2
264	010205-000	RETAINING RING	ETW-8	2
265	171399-902	BRACKET		1
266	921133-000	INDUCTION PLATE		1
267	150001-000	IDLE		2
268	000105-107	SOC HD CAP SCREW	M10*1.5P*50	4
275	040005-000	HEX. WRENCH	5mm	1
276	040007-000	HEX. WRENCH	8mm	1
277	040204-000	WRENCH BOX	12*14	1
278	040206-000	WRENCH BOX	17*19	1
279	040207-000	WRENCH BOX	22*24	1
280	040401-000	SCREW DRIVER		1
283	000201-101	SET SCREW	M4*0.7P*6	1
285	920664-000	ADJUST KNOB		2
287	171151-902	FIX PLATE		2
288	200032-615	SPONGE-LONG	40*10*2t	1
289	200033-615	SPONGE-SHORT	33*10*2t	1
290	002201-201	WOOD SCREW	M6*2.6P*24	24
291	010118-000	RETAINING RING	RTW-90	1
292	010109-000	RETAINING RING	RTW-62	1
293	380787-902	SPACER		1
294	002602-102	CAP LOCKING SCREW	M6*1.0P*20	12
296	006001-023	FLAT WASHER	6.3*13*2.0t	12
297	000003-110	HEX. SCREW	M8*1.25P*50	1
298	006001-046	FLAT WASHER	8.5*16*1.5t	1
299	000202-101	SET SCREW	M5*0.8P*5	1
300	300052-000	PULLEY		1
301	050775-000	EXTENSION ROLLER ASSEMBLY		2
302	000005-102	HEX. SCREW	M12*1.75P*50	6
303	000205-103	SET SCREW	M10*1.5P*20	6
304	021335-000	RELIEF BUSHING	MG20A-14B	1
305	490508-000	SWITCH	10AMP	1
306	922316-000	HANDWHEEL ASSY		1
307	001904-102	SET LOCK SCREW	M4*0.7P*4	1
308	173213-000	BRACKET		1
309	000003-218	HEX. SCREW	M8*1.25P*90	1
310	000302-102	ROUND HD SCREW	M4*0.7P*8	1
312	173377-000	COVER PLATE		1
315	044302-301	OILCUP	3/16"	6
317	006503-100	TOOTH WASHER	6.4*11(BW-6)	14

Key	Part No.	Descriptions		Q'ty
318	006504-100	TOOTH WASHER	8.4*15(BW-8)	2
319	021003-000	CORD CLIP	ALT-150M	2