

# **BAKER**

## **Products**



## ***Baker AN-926 Planer User Manual***

**Ellington Industrial Supply, Inc.**

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## Warranty

Ellington Industrial Supply, Inc. machinery is warranted against defects in material or workmanship starting from the date of shipment from the manufacturing plant.

This warranty is given solely to the “original purchaser” of the equipment and is in no way to be expressed or implied that it is transferable to any other parties without the written consent and approval from the CEO or Sales Manager of Baker Products.

Our one (1) year warranty period covers all items built at our manufacturing facilities including structural frame, cowlings, doors, shafting, dust chutes and guards. (Does not include wear items such as, but not limited to the following: Belts , Blades , Carbide inserts , Knives, Rubber Coated wheels , etc)

We honor six (6) months of warranty coverage for miscellaneous vendor-purchased-supplied items including bearings, chain, sprockets, hydraulic components, etc. (Does not include wear items such as, but not limited to the following: Belts , Blades , Carbide inserts , Knives, Rubber Coated wheels , etc)

Ninety (90) days of warranty coverage is provided on all electrical parts. All electrical components and wiring has been installed in accordance with the National Electrical Code (NEC) of the United States of America.

Ellington Industrial Supply, Inc. does not warranty this machine to meet any other requirements or jurisdiction of any electrical or safety codes of any other state, municipality, other country or jurisdiction The purchaser assumes all risk and liability whatsoever resulting from the use thereof whether used singularly or in conjunction with other machinery or apparatus, including, but not limited to, all matters resulting from sawdust generation.

**Note:** *No warranty is provided on any electrical components or parts if equipment is powered or connected to a roto-phase electrical converter in order to create a three phase power supply for operational current from a single phase source.*

Any change in materials, design, or performance intended to improve any product of Ellington Industrial Supply, Inc. shall not obligate Ellington Industrial Supply, Inc. to modify any previously manufactured equipment.

This manual may contain details that if not properly followed can affect the performance of your equipment. You are responsible for proper use and maintenance of your equipment and we reserve the right to deny warranty work if deemed to be caused by a lack of proper maintenance or negligence by the owner or any of their employees.

## Defective Parts

Parts claimed defective must be returned freight prepaid, to our plant in Ellington, Missouri. Any part determined defective due to faulty workmanship or materials will be replaced or repaired (at our option) free of charge, F.O.B. our plant. This warranty does not cover expendable items (i.e. drive belts, band wheels, conveyor belting, blades, cutters, guides, etc.). Except as expressly provided herein, this warranty is in lieu of all other warranties, expressed or implied, including a warranty of merchantability or fitness for a particular purpose. This warranty is “void” if any part of the unit has been tampered with, modified, altered, or operated with parts other than supplied or recommended by Ellington Industrial Supply, Inc. In no event shall Ellington Industrial Supply, Inc. be liable for special, indirect, incidental or consequential damages, however arising, including but not limited to, the loss of earnings or the cost of downtime.

## Service Policy

In the event that you have any problems, call us at (573) 663-7711 any time between 8:00 AM and 5:00 PM (CST), Monday through Friday. A member of our trained staff will answer any questions you may have. We charge nothing for this service.

The only charge is for replacement parts not covered by warranty or after our inspection we deem that the problem is due to operator error or lack of proper maintenance or neglect. If it is necessary for a member of our service department to visit your plant at your request, there will be a charge for this service. Call our service department for current prices.





Retain this Information for your Records

Model Number: ..... Serial Number: .....

Date of Purchase: .....Power Source:.....Dust Removal: .....

## Rules for Safe Operation

The purpose of safety symbols and signage is to draw your attention to real or possible hazardous conditions that may exist when operating this equipment. Please remember that safety symbols and signage alone do not eliminate danger and are not substitute for proper training and education regarding operational hazards.

	This symbol and warning indicates a potentially hazardous situation, which, if not avoided, <u>will</u> result in death or serious injury.
	This symbol and warning indicates a potentially hazardous situation, which, if not avoided, <u>could</u> result in death or serious injury.
	This symbol and warning indicates a potentially hazardous situation, which, if not avoided, <u>may</u> result in minor or moderate injury.
	This warning provides notice and instruction regarding a potentially hazardous situation, which, if not avoided <u>will</u> result in serious injury or death.

## SAFETY EXPECTATIONS FOR OPERATING POWER EQUIPMENT

### ALWAYS...

- ENSURE THAT TRAINED PERSONNEL OPERATE, MAINTAIN AND REPAIR THIS EQUIPMENT
- **TURN POWER OFF AND LOCKOUT / TAGOUT PRIOR TO PERFORMING MAINTENANCE**
- KEEP WORK AREA CLEAN AND WELL LIGHTED TO MINIMIZE OR ELIMINATE HAZARDS
- KEEP CHILDREN AND VISITORS AWAY FROM OPERATING EQUIPMENT
- OPERATE THE EQUIPMENT AT THE RATE IT WAS DESIGNED FOR
- KEEP GUARDS IN PLACE WHEN OPERATING EQUIPMENT
- REMOVE TOOLS BEFORE RESUMING OPERATION
- USE PROPER EXTENSION CORD
- WEAR PROPER APPAREL AND AVOID LOOSE CLOTHING AND ACCESSORIES THAT COULD GET CAUGHT IN MOVING PARTS
- ALWAYS WEAR SAFETY GLASSES AND HEARING PROTECTION
- AVOID "KICK-BACK" BY KNOWING WHAT CONDITIONS CAN CREATE IT
- CHECK DAMAGED PARTS AND REPAIR OR REPLACE THEM IMMEDIATELY

### NEVER...

- LEAVE MACHINERY RUNNING OR UNATTENDED, ALWAYS TURN POWER OFF
- OPERATE EQUIPMENT WHEN TIRED, FATIGUED OR UNDER THE INFLUENCE OF DRUGS OR ALCOHOL
- ALLOW UNTRAINED PERSONNEL TO OPERATE, MAINTAIN OR REPAIR THIS EQUIPMENT

**No list of safety expectations can ever be complete as every work environment is as different as are the people operating the equipment.**

**Always keep safety as your highest priority and always use this machine with caution and respect.**

## Control of Hazardous Energy – (Lockout / Tagout)

Lockout / Tagout (LOTO) refers to specific practices and procedures to safeguard employees from the unexpected energy, startup of machinery/equipment, or the release of hazardous energy during service or maintenance activities.

This requires that a designated individual turn off and disconnect the machinery/equipment from its energy source(s) before performing service or maintenance and that the authorized employee(s) lock and tag the energy-isolating device(s) to prevent the release of hazardous energy and take steps to verify that the energy has been isolated effectively.

### List of Related Terms

<b>Affected Employee</b>	An employee whose job requires them to operate a machine or piece of equipment on which service or maintenance is being performed.
<b>Authorized Employee</b>	A person who locks or implements a tagout system procedure on machines or equipment to perform service or maintenance on that machine or equipment. An authorized employee and an affected employee may be the same person when the affected employee's duties also include performing service or maintenance.
<b>Energy Source</b>	Any source of electrical, mechanical, hydraulic, pneumatic, chemical, thermal, or other energy.
<b>Lockout</b>	The placement of a lockout device (such as a lock) on an energy-isolating device, in accordance with an established procedure that ensures the device and the equipment cannot be operated until the lockout device is removed.
<b>Servicing and / or Maintenance</b>	Workplace activities such as constructing, installing, setting up, adjusting, inspecting, modifying, maintaining or servicing machines or equipment. These activities include lubrication, cleaning or un-jamming of machines or equipment, and making adjustments or tool changes where the employee may be exposed to the unexpected energy, start-up of equipment or release of hazardous energy.
<b>Tagout</b>	The placement of a tagout device (such as a tag) on an energy-isolating device, in accordance with an established procedure that ensures the device and the equipment may not be operated until the tagout device is removed.

### Example of lockout tags, lockout hasp and keyed lock



### The Fatal Five Main Causes of Lockout/Tagout Injuries

1. *Failure to stop equipment*
2. *Failure to disconnect from a power source*
3. *Failure to dissipate (bleed, neutralize) residual energy*
4. *Accidental re-starting of equipment*
5. *Failure to clear work areas before re-starting*

## Warnings

1. Know your machine. For your own safety, read the operation manual carefully. Learn the machine applications and limitations, as well as specific potential hazards pertinent to this machine.
2. Keep guards in place and in working order. If a guard must be removed for maintenance or cleaning, make sure it is properly reattached before using the machine again.
3. Keep children away. All visitors should be kept a safe distance from the work area.
4. Make workshop childproof. Use padlocks or master switches, or remove starter keys.
5. Do not force the tool. It will do the job better and be safer working at the rate for which it was designed.
6. Use the right tool. Do not force the machine or attachment to do a job for which it was not designed.
7. Maintain tools with care. Keep tools sharp and clean for best and safest performance. Follow instructions for lubricating and changing accessories.
8. Disconnect tools before servicing or when changing accessories such as blades and cutters.
9. Reduce the risk of unintentional starting. Make sure switch is in OFF position before connecting to power source. If power is interrupted during operation, turn off switches before restoring power.
10. Never stand on machine. Serious injury could occur if it tips over or if the blade is unintentionally contacted.
11. Wear proper eye protection. Also use a face or dust mask if operation is exceptionally dusty.
12. Wear proper apparel. Avoid loose clothing, gloves, neckties, rings, bracelets or jewelry, which could get caught in moving parts. Wear protective hair covering to contain long hair.
13. Always use push sticks to feed work piece whenever possible.
14. Do not over reach. Keep proper footing and balance at all times. Never reach around or over cutting blade.
15. Operate the machine in a dry, indoor place. Do not expose it to rain. Keep work area clean and well lit.
16. Check damaged parts. Before using the machine check to see that all parts are in working order, including the range and traverse of moving parts. Damaged parts should be repaired or replaced before using the machine.
17. Do not operate this machine while tired or under the influence of drugs, alcohol or any medication.
18. Never leave the machine running unattended. Do not leave the machine until it has come to a complete stop.
19. Make sure cutter head rotates in a counterclockwise direction when viewed from the main drive motor side. If the cutter head rotates clockwise, then check the wiring of the machine.
20. When operating the planer, stand to the left side out of line with the table, and make sure no other persons are standing in line with the table
21. Do not plane boards with loose knots, nails or any foreign material on the work piece surface. Knife impact on these objects can cause the knives to be pulled out of the cutter head and shatter against the chip breaker or pressure bar. Twisted, warped, or winding stock should first be jointed on one surface before attempting to plane.



22. Stacked boards: Do not feed stacked boards through the planer; Kickback can occur causing severe or fatal injury.
23. Short stock: do not attempt to plane boards shorter than 10”(250mm) in length without butting a board of equal thickness behind it when feeding through the planer. Be sure the last board of a butted sequence is 250mm long or longer.
24. Wear ear protectors(plug or muffs)during extended periods of operation. If the board being planed stops feeding, disengage or turn the feed off and turn the power off. Wait until the cutter head comes to a complete stop before lowering the table to remove the board. Never lower the table with the power on and the stock still in the machine. A kickback can occur which could cause severe or fatal injury.
25. If the operator leaves the machine area for any reason, the planer should be turned “OFF” and the cutter head should come to a complete stop before leaving the machine. In addition, if the operation is complete, the operator should clean the planer and the work area.
26. Turn off the machine before cleaning, Use a brush or compressed air to remove chips or debris—do not use your hands.
27. Do not stand on the machine. Serious injury could occur if the machine tips over.
28. Maintain a balanced stance at all times so that you do not fall or lean against the knives or other moving parts. Do not overreach or use excessive force to perform any machine operation.
29. Use recommended accessories, improper accessories may be hazardous.
30. Use the right tool at the correct speed and feed rate. Do not force a tool or attachment to do a job for which it was not designed. The right tool will do the job better and safer.
31. Do not use this planer for other than its intended use.
32. This planer is designed and intended for use by properly trained and experienced only. If you are not familiar with the proper and safe operation of a planer, do not use until proper training and knowledge have been obtained.
33. Replace the warning labels if they become obscured or removed.
34. Provide for adequate space surrounding work area and non-glare, overhead lighting.
35. Do not operate this machine while tired or under the influence of drugs, alcohol or any medication.

## **Specifications**

Model	An-926
Main motor	10-hp (7.5kw)
Table elevation motor	¼-hp (0.187kw)
Feed motor	1-hp (0.75kw)
Variable feed speed	20 – 60 ft/min (6 – 18 m/min)
Cutter head speed (RPM)	4500
Cutter head diameter	5" (125mm)
Knife size (straight Knife)	24" x 1.18" x .11" (610*30*3mm)
Knife size (Helical cutter head)	½" x ½" x .078" (14*14*2.0mm)
Stock thickness (Min-Max)	¼" x 12" (6-300mm)
Table dimensions	26" x 33" (660*840mm)
Dust port	5" (127mm)
Belts	four V-belts
Machine size	42" x 33" x 49" (1080*840*1250)
Net weight	Approx. 1,800lbs (800kgs)
Shipping weight	Approx. 2,000lbs (880kgs)
Noise level (dB)	70

From the above measured results, this auto planer machine present no severs hearing or noise hazard to operator, however, the operator is recommended to wear ear caps whenever possible during operation and conform to the local safety regulations of labors.

The above specifications were current at the time this manual was published , but because of our focus on continuous improvement, we reserve the right to change specifications at ant time and without prior notice, or without incurring obligations.



## **Unpacking**

Open shipping crate and check for shipping damage. Report any damage immediately to you distributor and shipping agent. Read this instruction manual thoroughly for assembly, maintenance and safety instructions

## **Contents of the Shipping Container**

1. Planer
2. Open-end wrenches (11-13,17-19,mm)
3. Owner's manual
4. Air drive.....1set
5. Bits(T20) for TCT ....5pce
6. TCT(`14\*14\*2.).....5pce
7. T20 Screw Drive.....3pce  
(4-7 items for helical cutter head)



## **⚠ WARNING**

**Read and understand the entire contents of this manual before attempting set-up or operation! Failure to comply may cause serious injury.**

**...save these instructions.....**

## **Installation**

Tools required for installation  
wrench set (provided)  
level forklift or crane with straps.

Remove the crate from around the planer and any fasteners securing the planer to the skid. Remove the side covers and place the lifting hooks. Place straps under them and lift the machine off the skid. The planer should be located on a sturdy floor, preferably concrete, in a dry area with sufficient lighting. Leave enough space around the machine for loading and offloading stock and routine maintenance work.

When the planer is situated, use the leveling screws to level the machine.

This should be removed with a soft cloth and kerosene. Do not use an abrasive pad. Do not let solvent contact the plastic parts of the machine, as it may damage them.

## **Electrical Connections**

### **⚠ WARNING**

**Electrical connections must be made by a qualified electrician in compliance with all relevant codes. The machine must be properly grounded to help prevent electrical shock and possible fatal injury.**

1. The planer may be fitted with a correct volt, be "hard-wired" directly to your electrical panel. If hard-wired to a panel, make sure disconnect is available for the operator.
2. Make sure the machine's wire is disconnected from the power source. If it is hard-wired. Make sure the fuses have been removed or the breakers have been tripped in the circuit to which the saw will

be connected. Place a warning placard on the fuse holder or circuit breaker to prevent it being turned on while the machine is being wired. Always follow proper Lock Out/Tag Out procedures when performing any wiring on this machine



3.

**Figure 1**

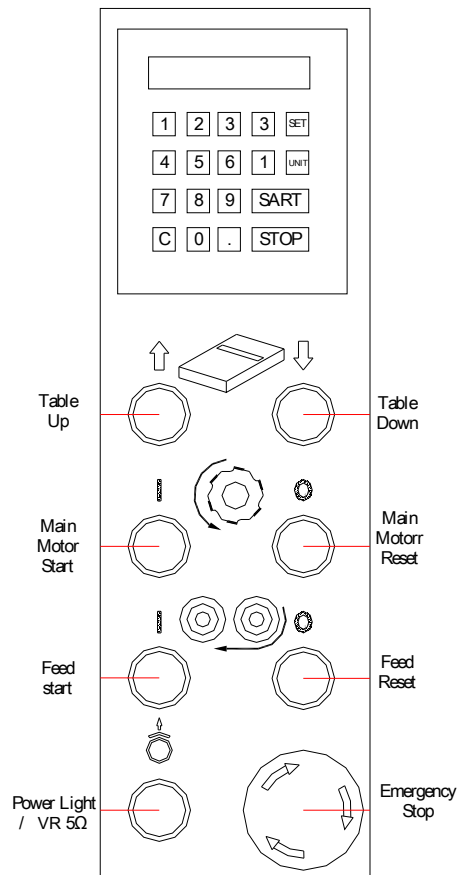


**Figure 2**

4. Make sure the voltage of the power source corresponds to the power source corresponds to the voltage of the planer as recorded on the motor plate.
5. Open the electrical enclosure (Main switch) on the rear side of the machine (figure 1) by loosening the screws.
6. Connect the three phases to terminals marked L1, L2, L3
7. Connect the green neutral wire to terminal "PE".
8. Connect the machine to power (or install

the fuses or reset the breakers at the power source).

9. Test the rotation of the cutter head. Turn on the main power switch (see Figure 2) and then the main motor switch (figure 4). The pulley on the main motor (on the side near the motor) should rotate clockwise. If it rotates counterclockwise, stop the machine with the red stop button (Figure 4).
10. Disconnect machine from power source, and exchange leaks L1 and L3
11. Reconnect power, and close the electrical cover



**Figure 3**

## **Adjustments and Controls**

Figure 3 shows the control panel for the planer.

Starting procedure

Turn Main Switch to position “O

”. NOTE: The main switch has a lock-out hole, through which a padlock or similar device can be inserted, when the switch is in :”O” position

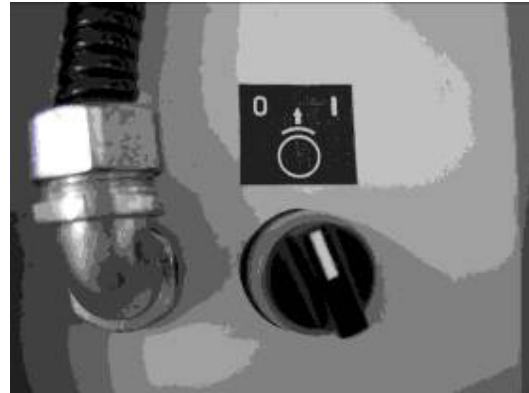
Push the Main Motor Star button; the motor will start in Star-Delta. After a few seconds you will hear the motor switch over to full speed operation.

**NOTE:** The planer will not start if the hood is raised, or if the brake release is turn-on (see below). Fore’s or back’s E-stop is pressed or main switch is turn on.

The emergency button is on the planer. An automatic brake stops the motor within 8 seconds. A similar stop button can be found at the back of the machine. To restart the machine, simply twist the stop button and allow it to pop back up. To begin the feed motor. And rotate

the handle to set the feed speed. Speed ranges from 6 to 18 m/min.

The Brake Release switch (Hood inside) frees the cutter head so that it can be moved by hand (e.g. when changing knives) while the hood is raised,. When the brake release is on, the switch stays turn on. As a safety feature, the planer’s motor will not start if the brake release switch is turn on. And if the switch turns on during operations, the motor will automatically stop. To restart the planer,



**Figure 4**

## Raise the table

To raise the table press the up-arrow buttons or “-“ on control.

To lower the table press the down-arrow buttons or “+“ on control.



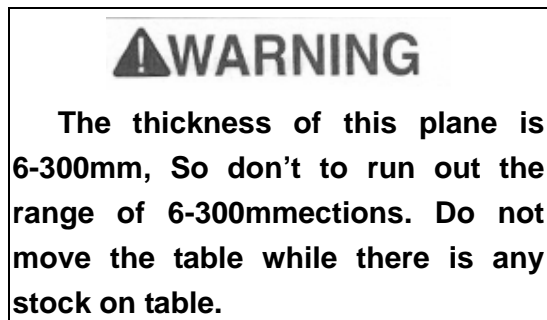
**Figure 6**

## Automatic start of control unit

Before operating the planer, the digital display should be checked for accuracy and calibrated if necessary. Use a scrap board.

If the figure shown on this control unit is 100.0 and we need to increase it to 200.5

1. Press “SET” then the display will show 0. The “input” instruction light will come on after pressing “SET”.
2. Press button “2”, “0”, “0”, “.”, “5”, the display will show 200.5
3. Then press “START”, the “RUN” instruction light will come on and the “INPUT” instruction light go out. And the table will start to move.
4. Press Button “START” again. This control unit starts to run and the figure on display changes back to 200.5 and start to increase.



## Correcting of control unit

Before operating the planer, the control unit should be check for accuracy and calibrated if necessary.

1. Flip the board over and feed it through the planer, then carefully measure its thickness with calipers. Compare this with the digital display.
2. If the display needs correcting, press “SET” The display will return to zero,
3. Key in “number of measure”
4. Then press “SET”, for 2-3 second, the figure “number of measure” is shown on display. Now, the correcting existing date is completed.

## Table parallelism:

For accurate planing, the table must be parallel with the cutter head. Lack of parallelism results in a taper over the width of the work piece. Use the knife gauge to ensure knives have the same protrusion along the length of the cutter head. Maximum deviation allowed for good planing is 0.02mm. If deviation exceeds 0.02mm, see section on installing cutter head knives or section on jointing and riding knives before leveling the table.

If knives are set correctly and the machine is still cutting at a taper, perform the following steps to check the parallelism of the table to the cutter head

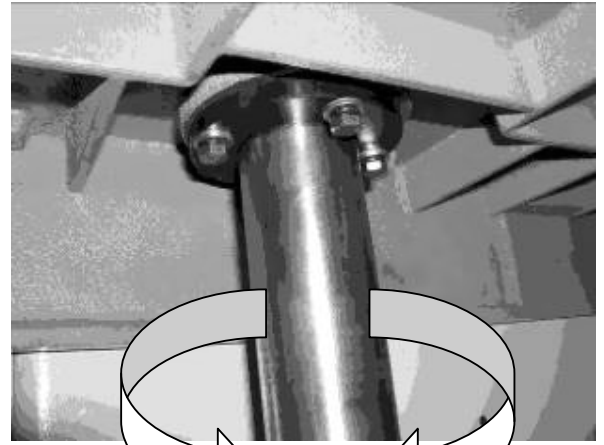
Disconnect the machine from the power source. Place a gauge block directly under the upper cutter head. Raise the table with the hand wheel until the knife on the upper cutter head just touches the gauge block.

Move the gauge block to the opposite end of the table and repeat the process. The distance from the table to the edge of the cutter head should be the same.

## Adjusting the table:

To raise or lower one side of the table, loosen the lock screw that locks the threaded flange nut from rotation in the table on the side to be raised or lowered. Rotate the nut using a rod in the flange holes and adjust height of the side. Relock the flange nut lock screw in the table. Another method that can be used if the table is free, is to loosen two sets 4-lock screw on the high side of the table **Figure 7** and then rotate two column clockwise, the opposite side until it is level. Relock the flange nut lock screw

in the table.



**Figure 7**

## Changing Knives

### Straight knife installation:

Knife installation on a planer can be a difficult and exacting process. If the knives are not to be jointed and ground, end-to-end and knife-to-knife relationship must be held within 0.03mm for accurate and smooth planing. To help avoid cutter head distortion in changing out a set of knives, remove and replace the knife in one slot before change the next knife. The measure is 3.00mm between point of knife and cutter head edge

Knife gauge

Setting Height Screws

Knife

Gib

Gib lock Screws



Clean all dust, chip, pitch and accumulated foreign matter from a cutter head slot and off of its gib. Working with one slot, with the knife and gib against each other and the beveled surface of the knife on

the knife spring and the concave shaped surface of the gib up, insert into the slot. The back edge of the knife bevel should be slightly below the outside diameter of the cutter head

Press the knife with knife gage Lightly tighten two outside and center gib screws.

Repeat the preceding method on successive knives making sure that the height from knife to knife is the same within 0.03mm. Loosen gib screw to establish the high point of the knife. To touch the knife gage. After all knife have been installed, recheck all gib screw to be sure they are tight, loose gib screws can result in knife being thrown out of the cutter head causing severe damage to the machine and possible serious or fatal injury to the operator or bystanders.

Note: If all knives have been removed, a new set must be installed without locking the gibs until all knives and gibs are in and the gib screws lightly snugged down. The locking process should precede working from the center out on each knife and locking all gib screw once, repeat the same sequence until all screws are equally tight. Locking one knife in without the others in position can cause cutter head distortion.

#### **Removal of knives:**

1. Loosen all gib screws in one slot.
2. Remove both knife, gib.
3. Repeat step 1 & 2 for the remaining knives

#### **Helical cutter head insert installation:**

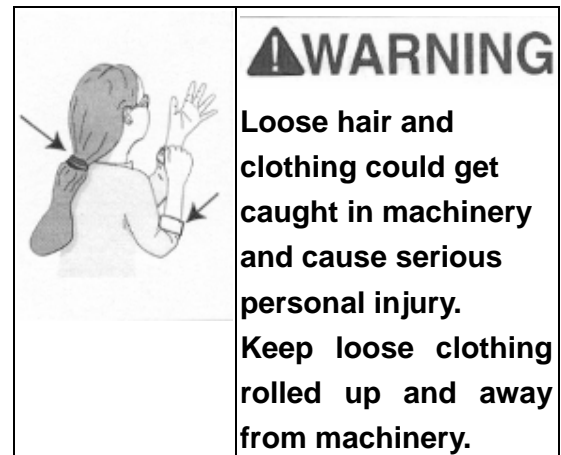
The planer has a helical cutter head

Knife changing is simple, and the four-sided knives Are self seating once the cutter head begins rotating. TCT knives are available from your dealer or most woodworking supply stores.

1. Turn on the brake release button, and press the

E-stop.

2. Pull out on the lever at the fore side of the machine, and raise the hood
3. Check cutter head insert size 14 x 14 x 2.0mm and angle 30°
4. Clean cutter head & insert, set the insert in position, lubricate the M6 x 1.0 screw
5. Use an air driver to adjust air pressure to 2kg/cm<sup>2</sup> to pre-set the insert.
6. After the pre-setting of insert, adjust air driver pressure to 6kg/cm<sup>2</sup> to tighten screws. The torque is 0.55-0.58 kgf-m.
7. Lower the hood and reconnect power to the machine. Turnoff the brake release button. And release the E-stop.
8. After adjusting or changing knives. The control unit should be check and recalibrated if necessary.





## **Dust Collection**

It is strongly recommended this planer be connected to a dust extraction system, via the 5" (125mm) dust port at the rear of the planer. Your dust collector should have at least 1500 CFM capacity. And the required airflow speed at the end of flexible hose is 30-34m/sec.

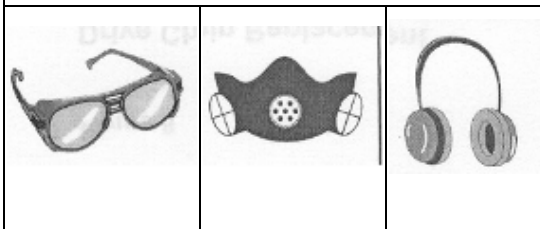
The dust extraction system shall be earthed.

### **⚠ WARNING**

**After prolonged use of the planer, the cast iron frame and areas around the cutter head may be hot.**

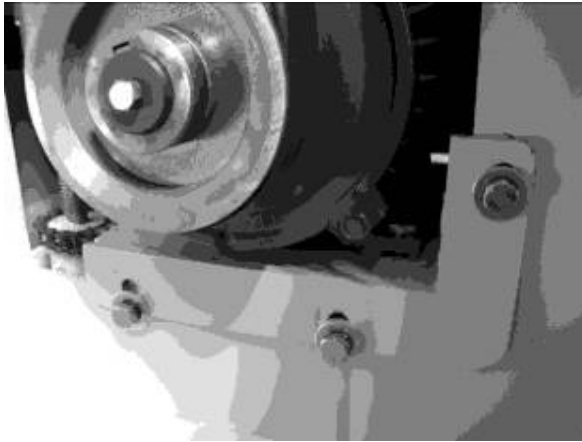
### **⚠ WARNING**

**Damage to your eyes, lungs and ears could result from failure to wear safety glasses, a respirator, and hearing protection while using this machine**



## Belt Tension & Replacement

1. Note Belts should be replaced as a matched set of four
2. Pull out on the lever at the fore side of the machine, and raise the hood
3. Loosen the three bolts (, Figure 8) that hold the motor support bracket to the frame.
4. Turn the hex nuts on the tension rod as needed.
5. When finished, tighten the three bolts closed the hood and turn off the brake release button



**Figure 8**

## Drive Chain Replacement

The drive chains do not require tension adjustment, since tension is always assured by an idle chain tension.

To replace the main drive chain, pull the tensioner backward and remove the chain from around the sprockets. When the new chain has been mounted, always make sure the tensioner is well placed on the chain

To replace the chain for the table raising mechanism, pull the lever to the back and remove the chain. When the new chain has been mounted, push the lever ) back into position.

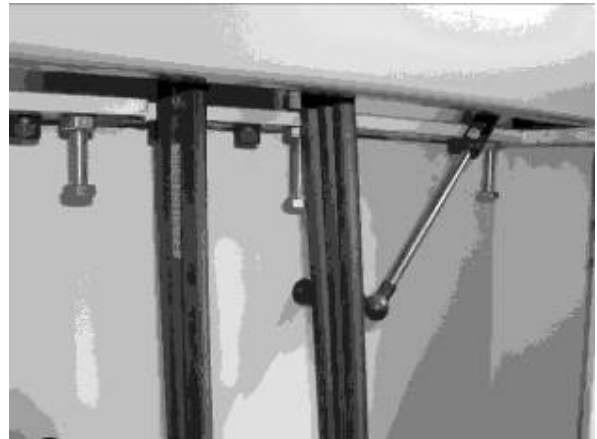
## **⚠WARNING**

**Do not turn the sprockets on the table raising screws with the chain removed. Doing so will misalign the table**

## Feed Rollers

The infeed and out feed rollers and chip breaker have been factory set. However, if spring tension adjustment should ever be necessary, use the appropriate adjustment assembly located beneath the lip of the frame – one is shown in figure 9.

1. Loosen the nut and turn the screw in or out
2. When finished, tighten nut.
3. Perform the same adjustment at the opposite end of the roller.



**Figure 9**

## Changing Fuses

Disconnect planer from power source, and open the electrical enclosure. Pull open the cover on a fuse holder. As shown in figure10 and slide out the old fuse. Replace it with a new one of the proper amperage. Close the cover.

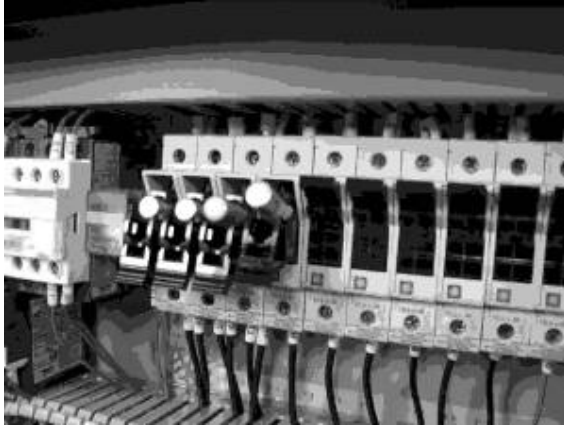


Figure 10

**⚠ WARNING**

**Do not use a fuse with amperage rating different than what is listed on the cover of the fuse holder**

**⚠ WARNING**

**Before and intervention on the machine, disconnect it from the electrical supply by pulling out the plug or switching off the main switch! Follow lockout procedures. Failure to comply may cause serious injury.**

## Maintenance

**⚠ WARNING**

**Before and intervention on the machine, disconnect it from the electrical supply by pulling out the plug or switching off the main switch! Follow lockout/tagout procedures. Failure to comply may cause serious injury.**

1. The anti-kickback fingers must hang down freely and operate independently by gravity. They should be inspected frequently and cleaned and concerning state of the tip and any destruction whenever necessary. If they have any destruction, shall be order our agent for new anti-kickback fingers.
2. The table should be kept clean and free of rust or deposits.
3. The lead screws and posts beneath the table and the drive chains, the columns should be kept clean and oiled
4. Periodically blow out sawdust from the motor's cooling fan.
5. Periodically check the brake of motor, Change new brake block then thickness of brake block is less 3mm.
6. The infeed roller and out feed roller are mounted on sealed ball bearing and require no lubrication. The following lubrication chart indicates the lubrication points, frequency, and recommended lubrication.

Lubrication Point	Frequency	type
Cutter head Housing	Weekly	High Speed grease
Table	Daily	SAE10
The lead screws	Weekly	SAE10
The lead screws housing	Monthly	High Speed grease
The columns housing	Monthly	High Speed grease

## Troubleshooting: Operating Problems

Trouble	Probable cause	Remedy
Snipe(NOTE: Snipe can be minimized but not eliminated)	Table rollers not set properly.	Adjust rollers to proper height.
	Inadequate support of long boards.	Support long boards with extension rollers.
	Uneven feed roller pressure front to back.	Adjust feed roller tension.
	Dull knives.	Reverse or replace knives.
	Lumber not butted properly.	Butt end to end each piece of stock as they pass through
Fuzzy Grain	Planing wood with high moisture content	Remove moisture content from wood by drying, or choose other stock
	Dull knives.	Reverse or replace knives
Torn Grain	Too heavy a cut	Adjust proper depth of cut.
	Knives cutting against grain	Cut along the grain.
	Dull knives	Reverse or replace knives.
Rounded, Raised surface	Dull knives.	Reverse or replace knives.
	Too heavy a cut	Adjust proper depth of cut.
	Moisture content too high.	Remove moisture content from wood by drying, or choose other stock.
Rounded, glossy surface	Dull knives.	Reverse or replace knives.
	Feed speed too slow	Increase speed.
	Cutting depth too shallow	Increase depth.
Poor feeding of lumber	Inadequate feed roller pressure	Adjust feed roller tension. If proper tension cannot be achieved replace
	Planer bed rough or dirty.	Clean pitch and residue, and wax planer table.
	Transmission v-belt slipping.	Tighten transmission v-belt.
	Surface of feed rollers too smooth.	Lightly roughen the feed roller surface with sandpaper
	Bed rollers too low.	Raise bed rollers to proper depth for stock.

## Troubleshooting: Mechanical & Electrical Problems

Trouble	Probable Cause	Remedy
Board thickness does not match digital display	Digital display not calibrated properly.	Follow calibration procedures
Chain jumping	Inadequate chain tension.	Adjust chain tension.
	Sprockets misaligned.	Align sprockets.
	Sprockets worn.	Replace sprockets.
	No incoming power.	Verify unit is connected to power, and main switch is set to "   ".
Machine will not start/restart or repeatedly trips circuit breaker or blows fuses	Overload automatic reset has not reset.	When planer overloads on the circuit breaker built into the motor starter, it takes time for the machine to cool down before restart. Allow unit to adequately cool before attempting restart. If problem persists. Check amp setting on the motor starter inside the electrical enclosure.
		One cause of overloading trips, which are not electrical in nature, is too heavy a cut. The solution is to take a lighter cut. If too deep a cut is not the problem, then check the amp setting on the overload relay. Match the full load amps on the motor as noted on the motor plate. If amp setting is electrical lead. Check amp setting on motor starter.
	Building circuit breaker trips or fuse blows.	Verify that planer is on circuit of correct size. If circuit size is correct, there is probably a loose electrical lead. Check amp setting on motor starter
	Loose electrical connections.	Go through all the electrical connections on the planer including motor connections, verifying the tightness of each. Look for any signs of electrical arcing, which is a sure indicator of loose connections or circuit overload.
	Motor starter failure	Examine motor starter for burned or failed components. If damage is found, replace motor starter. If motor starter looks okay but is still suspect, you have two options: Have a qualified electrician test the motor starter for function, or purchase a new starter and establish if that was the problem on change out (continued)

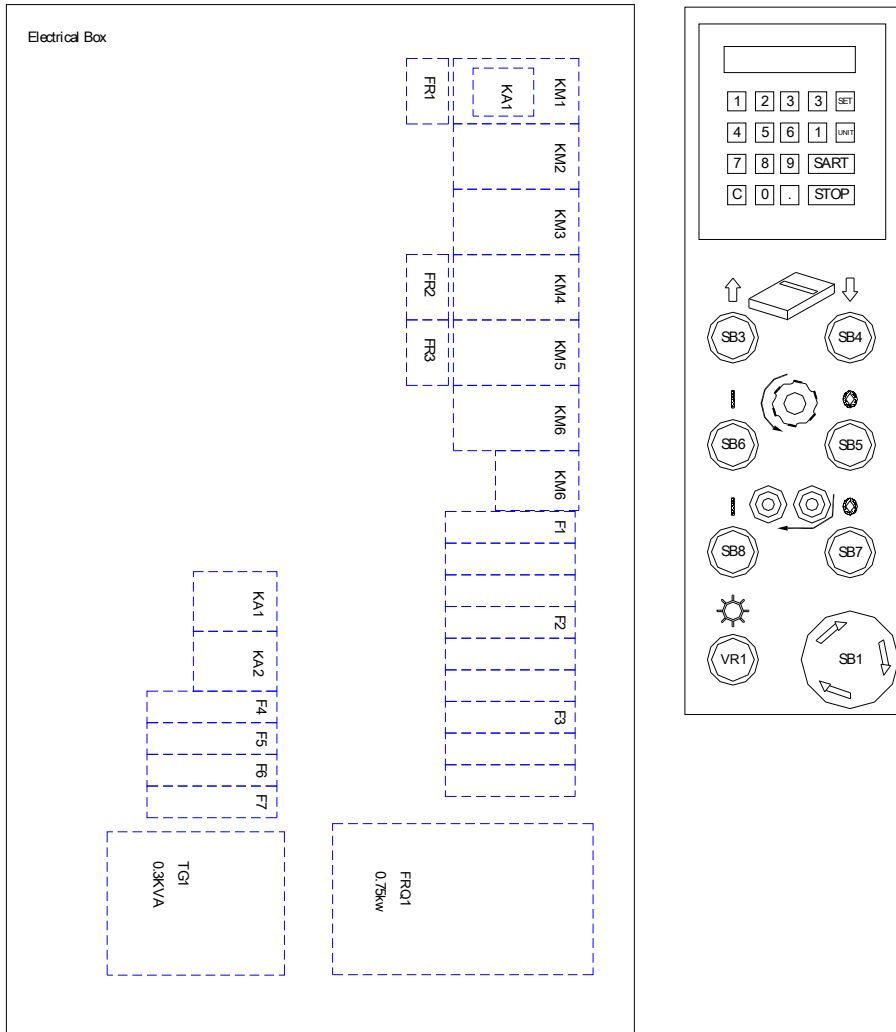
## Electric Specification

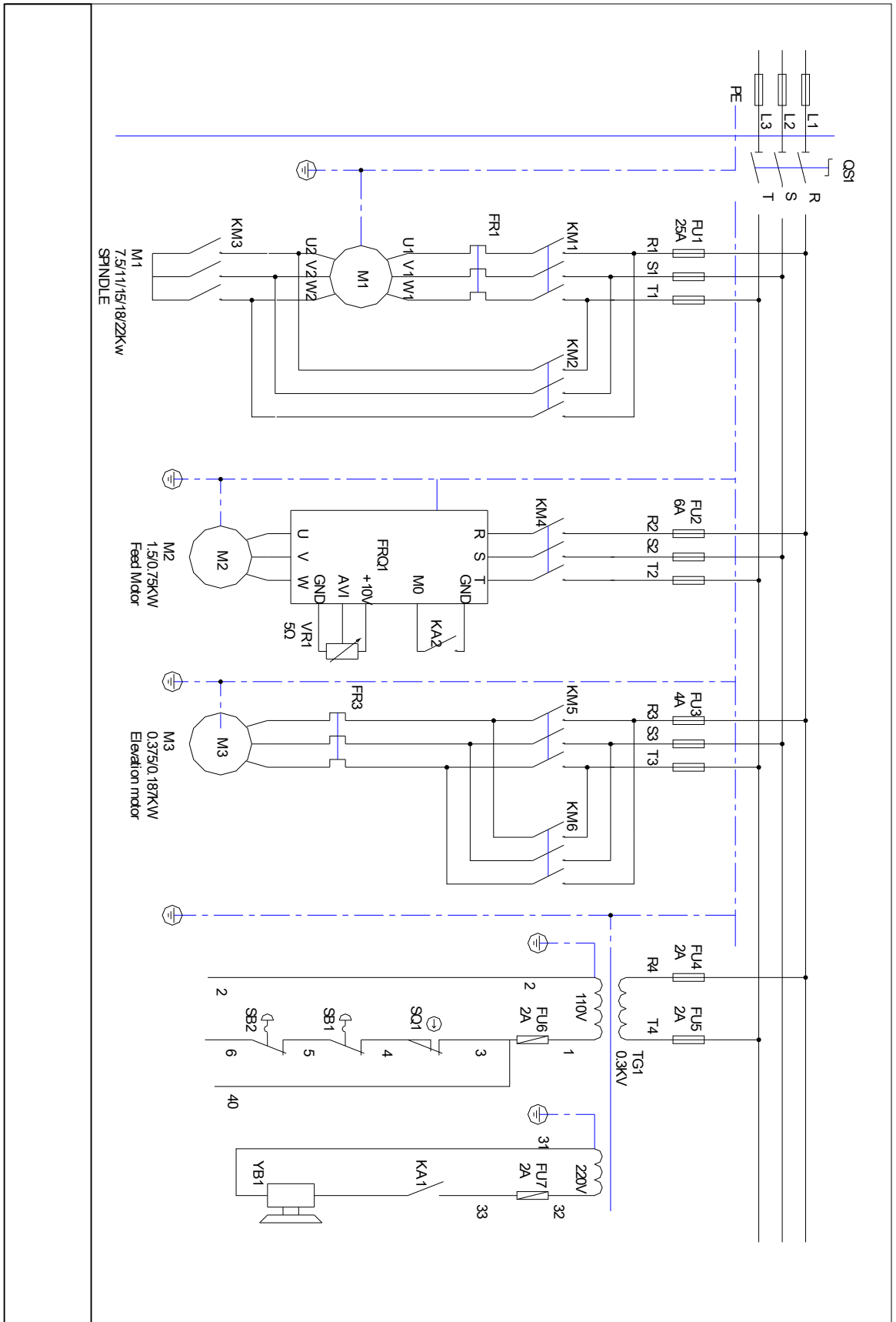
Mold			AN-926	
Spindle Motor	Power		7.5kw	11kw
	TR1	Range	16-24A	24-32A
		Setting	16A	25A
	Electric cable cross-section		2.0mm	3.5mm
Main electric cable cross-section			3.5mm	5.5mm
Feed Motor	Power		0.75Kw	
	TR2	Range	4-6.3A	
		Setting	4A	
	Electric cable cross-section		2.0mm	
Elevation motor	Power		0.18Kw	
	TR3	Range	1.6-2.5A	
		Setting	1.6A	
	Electric cable cross-section		2.0mm	
Inverter of Feed Motor	Model Inverter		VFD-007M	
	VRQ-1		0.75kw	
	Electric cable cross-section		2.0mm	

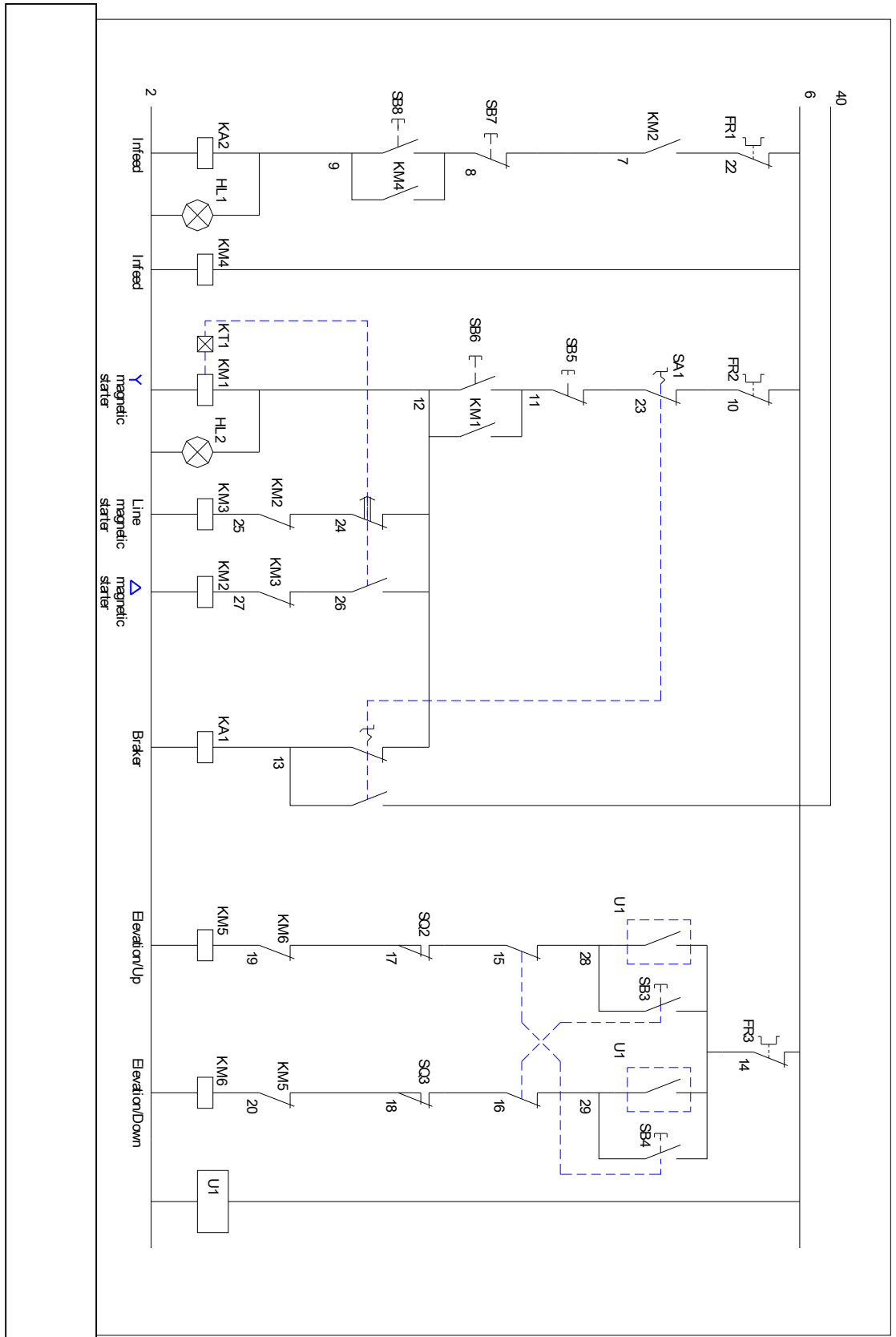
## Electric part list

TYPE: An-926			
Item Designation	Designation and Function	Technical data	Remarks
QS1	Disconnection switch	I <sub>th</sub> = 16A U <sub>e</sub> =U <sub>i</sub> =690V	EN60947-3
FU1	Fuse	25A/600V	EN60269-1
FU2	Fuse	6A/600V	EN60269-1
FU3	Fuse	4A/600V	EN60269-1
FU4	Fuse	2A/600V	EN60269-1
FU5	Fuse	2A/600V	EN60269-1
FU6	Fuse	2A/600V	EN60269-1
FU7	Fuse	2A/600V	EN60269-1
SQ1	Safety interlock witch	2A/400V	EN60947-5-1
SQ2 /Q3	Limit Switch	5A /240V	EN60947-5-1
TC1	Transformer	0.3KVA	EN60742
M1	Motor	7.5KW/400Vac	EN60034-1
M2	Motor	0.75kW/400Vac	EN60034-1
M3	Motor	0.18kW/400Vac	EN60034-1
SB1-SB7	Push button switch	3A 600V	EN60947-1
SA1	Selection switch	3A 600V	EN60947-1
KM1-2	Contactator	7.5kW/440V	EN60947-3
KM3-6	Contactator	4kW/440V	EN60947-3
KA1 KA2	Relay	250V 10A 2a2b	IEC60255-1 IEC60255-23
KT1	Timer	0~30 sec.	IEC947-4-1
FR1	Overload Relay	16-24A/18A	IEC947-4-1
FR2	Overload Relay	4-6A/4A	IEC947-4-1
FR3	Overload Relay	1.6-2.5A/1.6A	IEC947-4-1
YB1	Brake	13W/220V	
U1	CONTROL UNIT		
VR1	Variable Resistor	5Ω	
FRQ1	Inverter	0.75kw	IEC/EN 61800-5-1 IEC/EN 60204-1 IEC/EN61800-3









**Part List**

No.	Description	Qty
1.	Base	1
2.	Side cove	2
3.	Middle cover	1
4.	Hood Raising Lift	1
5.	Dust Hood Assembly	1
6.		
7.	Anti-Kickback Finger	
8.	Anti-Kickback Finger Spacer	
9.	Anti-Kickback Finger Axle	1
10.	Hex Cap Screw M8*20	2
11.	Pointer	1
12.	Handle	1
13.	Hex Cap Screw M6*12	20
14.	Fore cover	1
15.	Panel Scale	1
16.	Hex Cap Screw M6*12	8
17.	Side strip	2
18.	Table	1
19.	Table column	4
20.	Table column ring	4
21.	Hex Cap Screw M8*30	16
22.		
23.	Hex Cap Screw M10*30	16
24.	Table column Supper	4
25.	Table Raising Screw	4
26.	Table Raising Nut	4
27.	Hex Cap Screw M8*25	16
28.	Table Raising Sprocket	4
29.	Bearing 6204	4
30.	Hex Cap Screw M8*25	16
31.	Bearing house	4
32.	Nut M16	8
33.	Key 6*6*20	4
34.	Raising chain	
35.	Raising Reducer	1
36.	Raising Motor	1

37.	Raising Reducer Sprocket	1
38.	Hex Cap Screw M6*12 & Nut	8
41.	Thirst Bearing 2904	8
51.	Feed Handle	1
52.	Feed Handle Axle	1
53.	Reducer Belt 1224V300	1
54.	Reducer wheel	1
55.	Reducer Plank	1
56.	Feed Motor	1
57.	Feed Reducer	1
58.	Feed Reducer Wheel	1
59.	Feed Reducer Sprocket	1
61.	Hex Cap Screw M8*30	3
62.	Flat Washer	2
63.	Out feed sprocket	1
64.	Sprocket ring	2
65.	Retaining ring R52	4
66.	Bearing 6205	4
67.	Out feed house LH	2
68.	Out feed Frame LH	1
69.	Out feed Spring	4
70.	Spring Screw	6
71.	Spring Nut	6
72.	Press Bar	1
73.	Out feed house RH	2
74.	Retaining ring S20	4
75.	Out feed Axle	1
76.	Nut M10	2
77.	Press bar spring	2
78.	Washer	2
79.	Hex Cap Screw M10*80	2
80.	Out feed Roller	2
81.	Out feed Frame RH	1
82.	Retaining ring	2
83.	Cutter head Pulley	1
84.	House Cover RH	1
85.	Bearing 6205	2
86.	Bearing house RH	1

87.	Knife	4
88.	Knife Jib	4
89.	Knife Set Screw	24
90.	cutter head	1
91.	Bearing house LH	1
92.	Bearing Cover	1
93.	Bearing Nut	1
94.	Retaining ring S30	2
95.	Retaining ring R62	2
96.	Bearing 6206	2
97.	Bearing House	1
98.	Infeed Frame RH	1
99.	Hex Cap Screw M10*35	12
100.	Hex Cap Screw M8*35 and nut	13
101.	Chip breaker Frame	1
102.	Ring	2
103.	Chip breaker	13
104.	Plank	1
105.	Chip breaker Axle	1
106.	Out feed sprocket	1
107.	Infeed Frame LH	1
108.	Bearing House	1
109.	Ring	1
110.	Infeed sprocket	1
111.	Washer	1
112.	Hex Cap Screw M10*70 & Nut	6
113.	Plank	1
114.	Ring	1
115.	Hex Cap Screw M10*35	1
116.	Infeed Spring	1
117.	Sprocket Axle	1
118.	Sprocket	1
119.	Bearing 6203	1
120.	Nut M8	1
121.	Spring	1
122.	Hex Cap Screw M8*25 and Nut	1
123.	Hex Cap Screw M8*45and Nut	1

124.	Hex Cap Screw M10*30	1
125.	Washer	1
126.	Ring	1
127.	Motor Pulley	1
128.	Motor	1
129.	Motor shelf	1

## APPENDIX-- INVERTER (with inverter machines only)

A frequency inverter is built in inverter machines to provide variable speed control for feed roller. The preferable range of frequency and Feed speed are showed as the following table.

Planning material	Frequency(Hz)	Feed speed(m/min)
Hard wood	20-60	6-10
Soft wood	60-80	10-18

### DATA SETTING

Change the data of “DATA PROTECTION P76” to “0” before starting any other change.

- 1 Press the **MODE** key, Then **▼** or **▲** to seek the **P76** Parameter.
2. Press the **ENTER** key, the monitor will show the data of **01**.
- 3 Press “**▼**” or “**▲**” the digital monitor will show “**00**”
4. then Press **ENTER** Key.
5. Set the data of P76 to “01” after all other setting has

accomplished.

### FUNCTION TABLE

Parameter		Date	Remark
No.	Name	preset	
P76	Parameter lock and configuration	01	Change inhibited
P00	Source Frequency command	01	
P01	Source of operation command	01	
P02	Stop method	00	Ramp stop
P03	Max. frequency	80Hz	
P04	Base frequency	50Hz	According to the local frequency
P05	Max. output voltage	380V	
P10	Acceleration time	2 sec	
P11	Deceleration time	2 sec	
P36	Frequency limit (high)	80HZ	
P37	Frequency limit (low)	0HZ	
P48	Adjust bias of external input Frequency	69.5Hz	
P50	Potentiometer frequency gain	59	