

THICKNESSER

TH410A

Instruction Manual

IMPORTANT

For your safety, read instructions carefully before assembling or using this product. Save this manual for future reference.



Version: V.1-201810

HEALTH AND SAFETY GUIDELINES

Always follow the instructions provided with the manual. Always wear safety glasses when using woodworking equipment. Always disconnect the power before adjusting any equipment. Failure to observe proper safety procedures and guidelines can result in serious injury.

WARNING: Do not allow familiarity (gained from frequent use of your machine and accessories) to become commonplace. Always remember that a careless fraction of a second is sufficient to inflict severe injury.



Always wear safety glasses when using woodworking equipment.



Always read the instructions provided before using woodworking equipment.

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1. GENERAL INFORMATION

1.1 FOREWORD

The present manual is designed for those who will operate the machine. You will find in it the necessary data for commissioning, maintenance and safety operation of the machine. The experience of the company manufacturer and its experts is considered in the preparation of this manual.

We recommend you to consider with responsibility our recommendations concerning the safety of work. The operations requiring disassembly of machine and electrical components should be performed by authorized and qualified personnel only. Repairs and settings not described in the present manual should not be performed. This manual is prepared by the manufacturer and is an integral part of the machine's delivery. The information contained herein is intended for specialists and is compulsory.

The manual defines the machine's field of application and contains all the information necessary for its proper and safety operation. The permanent and exact observation of the instructions contained in this manual ensure safety of personnel and machine, profitable work as well as long life of the machine itself. For better clarity this manual is divided in separate parts in which are contained the more important subjects.

The contents will allow you to find fast the specific subjects. The important text is printed in bold and is marked by the following symbols:



WARNING

Indicates imminent risks which may cause serious injury to the operator or other persons. Be careful and scrupulously follow the instructions.



CAUTION

A statement advising of the need to take care lest serious consequences result in harm to material items such as the asset or the product.

1.2 MACHINE IDENTIFICATION

There is a identification plate fixed to the machine, containing the manufacturer's data, year of construction, serial number and technical specifications.

1.3 CUSTOMER SERVICE RECOMMENDATIONS

Apply the machine to skilled and authorized technical staff to carry out any operation dealing with parts disassembly. Keep to the instructions contained in this manual for the correct use of the machine.



CAUTION

Only skilled and authorized staff shall use and service the machine after reading this manual. Respect the accident prevention regulations and the general safety and industrial medicine rules.

2. SAFETY PRECAUTIONS

2.1 SAFETY REGULATIONS



WARNING

- Woodworking machine is high speed and high-risk equipment, so operator who is been suitably trained can use the machine for safety production.
- The manufacturer disclaims all responsibilities for damages to persons or things, which might be caused by any failure to comply with the safety regulations.
- The manufacturer disclaims all responsibilities for damages to persons or things, which might be caused by any failure of electrical installation or nonstandard assembly.
- The manufacturer is not responsible for any damage deriving from arbitrary modifications made to the machine.
- It is prohibited to use the machine when under the influence of alcohol, drugs or medication.
- All the operators must be suitably trained for use, adjustment and operation of the machine.
- The operators must carefully read the manual paying particular attention to the warning and safety notes. Furthermore, they must be informed on the dangers associated with use of the machine and the precautions to be taken, and must be instructed to periodically inspect the guards and safety devices.
- Before changing the blade, debugging the trouble, carrying out adjustment, or cleaning work, disconnect the machine from the electric power by setting the main switch to stop to make sure the machine will not being operated wrongly.
- After an initial bedding-in period or many hours of operation, the driving belts may slacken; this causes an increase in the tool stopping time. Immediately tighten them.
- The working area around the machine must be kept always clean and clear, in order to have an immediate and easy access to the switchboard.
- Never insert materials which are different from those which are prescribed for the machine utilization. The material to be machined must not contain any metal parts.
- Never machine pieces which may be too small or too wide ithrespect to the machine capacity.
- Do not work wood which has evident defects (cracks, knots, metal parts, etc.)
- Never place hands among the moving parts and/or materials.
- Keep the tools tidy and far away from those not authorized persons.
- Never employ cracked nor uckled, neither not correctly reground tools. Nonstandard or blunt tools are forbidden, either. Blade with broken edge or out of shape should not be used.
- Never use the tools beyond the speed limit recommended by the producers.
- Carefully clean the rest surfaces of tools and make sure that they find perfectly horizontally positioned, and with no dents at all.
- Always wear gauntlets when handling the tools.
- Mount the tools in the right machining direction.
- Never start the machine before having correctly installed all the protections. The protection device should be installed before starting the machine. The protection device should not be removed.

- Connect the dust suction hoods to an adequate suction system; suction must always be activated when the machine is switched on.
- Never open doors or protections when the machine or the system is operating.
- Please check if the blade lock well and the cutter shaft has the right direction. The rotating should get up to the stable condition before working.
- Many unpleasant experiences have shown that anybody may wear objects which could cause serious accidents. Therefore, before starting working, take any bracelet, watch or ring off.
- Button the working garment sleeve well around the wrists.
- Take any garment off which, by hanging out, may get tangled in the MOVING UNITS.
- Always wear strong working footwear, as prescribed by the accident-prevention regulations of all countries. Use protection glasses. Use appropriate hearing protection systems (headsets, earplugs, etc.) and dust protection masks.
- Never let unauthorized people repair, service or operate the machine.
- The manufacturer is not responsible for any damage deriving from arbitrary modifications made to the machine.
- Any transport, assembly and dismantling is to be made only by trained staff, who shall have specific skill for the specified operation.
- The operator must never leave the machine unattended during operation.
- During any working cycle break, switch the machine off.
- In case of long working cycle breaks, disconnect the general power supply.
- The operating method to be followed in the event of accident or breakdown, the machine should be turned off immediately and unplug from main power and ask for assistance for the authorized people. If a blockage is likely to occur, the workpiece should be move back a little and enable the equipment to be safely unblocked.
- Please remove unnecessary sweeping, chips, in case of accidents.
- Woodworking machine will produce sparks when using with serious fire risks, so please keep the machine surrounding area clean without inflammables and explosives.

2.2 RESIDUAL RISKS

Despite observance of all the safety regulations, and use according to the rules described in this manual, residual risks may still be present, among which the most recurring are:

- contact with tool
- contact with moving parts (belts, pulleys, etc..)
- recoil of the piece or part of it
- accidents due to wood splinters or fragments
- tool insert ejection
- electrocution from contact with live parts
- danger due to incorrect tool installation
- inverse tool rotation due to incorrect electrical connection
- danger due to dust inhalation in case of working without vacuum cleaner.

2.3 SAFETY AND INFORMATION SIGNALS

This signals may be applied on the machine; in some cases they indicate possible danger conditions, in others they serve as indication.

Always take the utmost care.

SAFETY SIGNALS:



Risk of eye injury. Wear eye protection.



Wear hearing protection systems.



Danger of electric shock. Do not access the area when the machine is powered.



Carefully read and understand the manual before using the machine.

INFORMATION SIGNALS:

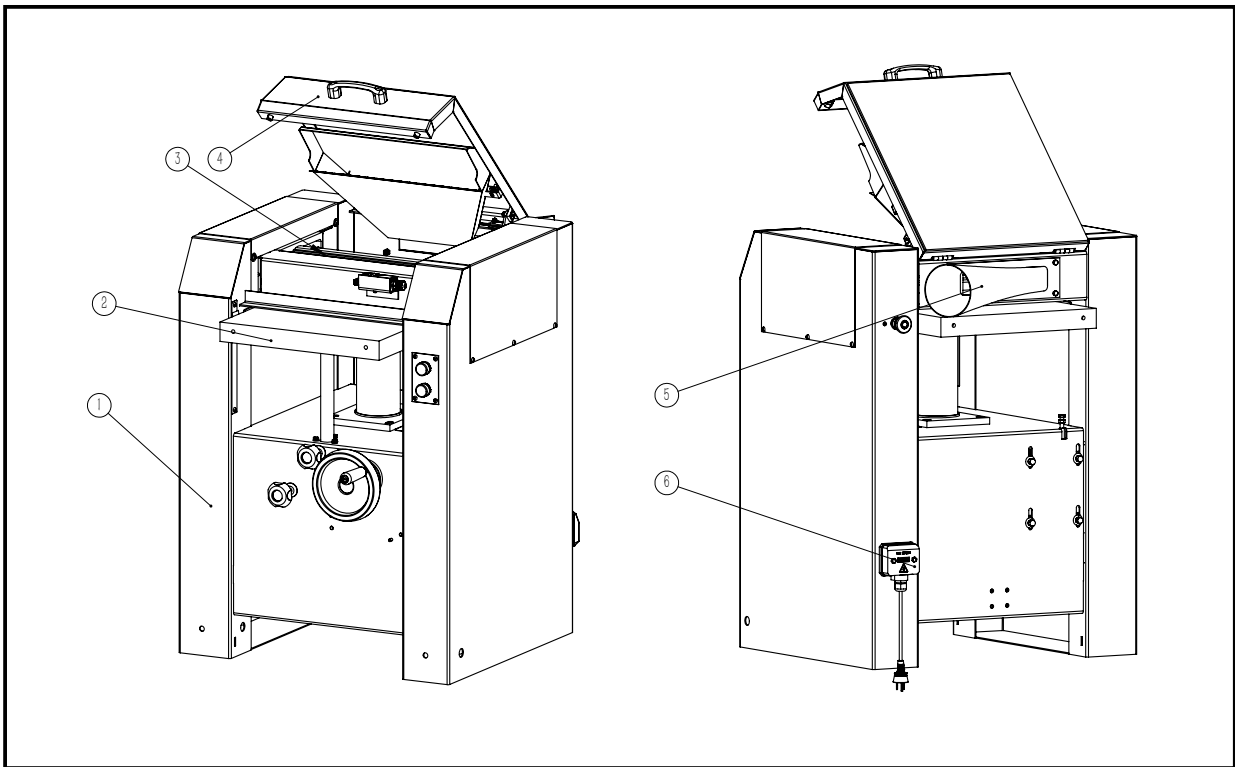
Indicate the technical characteristics, direction of rotation and inclination, block and release, etc.

Carefully following the directions to simplify the use and adjustment of the machine.

The signals are graphically described and do not require further explanation.

3. SPECIFICATIONS

3.1 MAIN COMPONENTS



- 1- Frame
- 2- Thickness table
- 3- Cutterhead assembly

- 4- Cover
- 5- Dust hood
- 6- Switch

3.2 TECHNICAL SPECIFICATION

Feed speed	6.5m/min
Cutterblock speed	4200rpm
Cutterblock diameter	97mm
Number of cutting tips	72pcs
Max Thickness Height	220mm
Max Thickness Width	410mm
Min length of workpiece	156mm
Max depth of cut	4mm/1PH
Motor power	3kw S6/1PH

3.3 NOISE LEVEL

	No load	Load
Sound Pressure Level	< 80dB(A)	< 90dB(A)
Sound Power Level	< 90dB(A)	< 100dB(A)

The noise levels measured are emission levels and not necessarily the safe working level. Although there is a correlation between the emission levels and the exposure levels, this cannot be used reliably to determine whether or not further precautions are required. The factors which affect the actual level of operator exposure include the duration of exposure, the ambient characteristics and other sources of emission, for example, the number of machines and other adjacent machining. The permitted exposure values may also vary from country to country. Nevertheless, this information allows the user of the machine to better evaluate the dangers and risks.

Other factors which reduce exposure to noise are:

- correct tool choice
- tool and machine maintenance
- use of hearing protection systems (e.g. headsets, earplugs,...)



WARNING Please always use the hearing protection systems.

3.4 DUST EXTRACTION

The chip and dust aspiration device must ensure a minimal rate of air delivery of 1800 m³/h at a speed of 25-30 m/sec.

The machine is equipped with a shavings collector, which has an end sleeve for connection to the aspirator for the saw-dust and the shavings.

Connect the shavings collector with a tubing of Ø 120 mm to the aspirator for saw-dust and shavings.



WARNING The dust and chips collection device must be switched on simultaneously with the motor of the machine.

4. INSTALLATION



CAUTION Assembly need to be done by an experienced and trained person.

4.1 CONTENTS OF PACKAGE

- The machine is supplied partly assembled. Prior to use, further assembly is required.
- When unpacking the machine, please check if the following components are included for the initial assembly.
- If any parts are missing, do not attempt to assemble the machine; plug in the power cord, or turn the switch on until the missing parts are obtained and properly installed.

Total one carton:

- A-Frame Assembly
- B-Dust hood
- C-Knife Adjust-tool

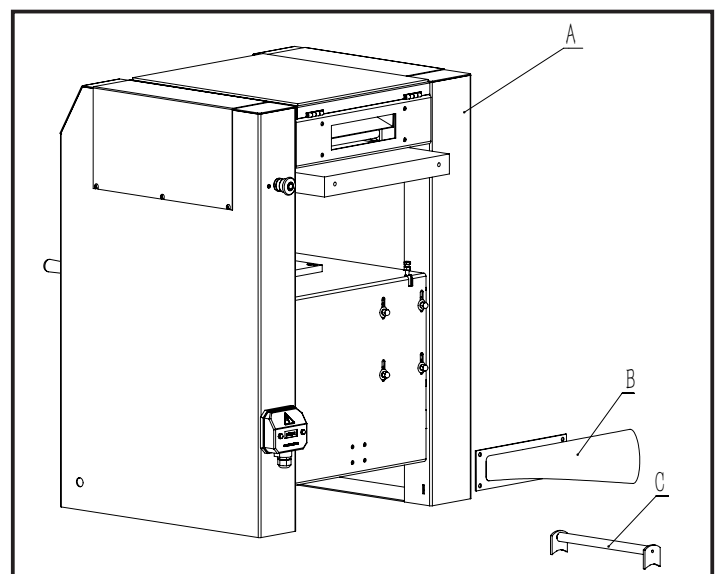


FIG.4.1

4.2 LIFTING AND UNLOADING



WARNING

Lifting and handing should only be carried out by skilled personnel specially trained to execute this kind of operations. During loading and unloading, avoid knocks to prevent damages to persons and things. Make sure no one is standing under the overhung load and/or within the bridge crane working range during machine lifting and handing.

Lifting may be carried out by bridge crane or self-propelled lift truck. Before starting the maneuvers, free the machine of all the parts used for transport or Packaging that have remained on the machine. Check that the capacity of the lifting equipment is adequate for the gross weight of the machine indicated Fig.4.2.

If hoisting is carried out with a lift truck, proceed as follows: Fig.4.2.2

- adjust the width of the forks to 440 mm
- Socket wrench 6mm
- Fork wrench 17mm
- Put the wheel D assembly fixed to the both sides of the frame.
- Fix plate I with H into the hole of frame, make the wheels G assembly with A.
- Move the machine with A.

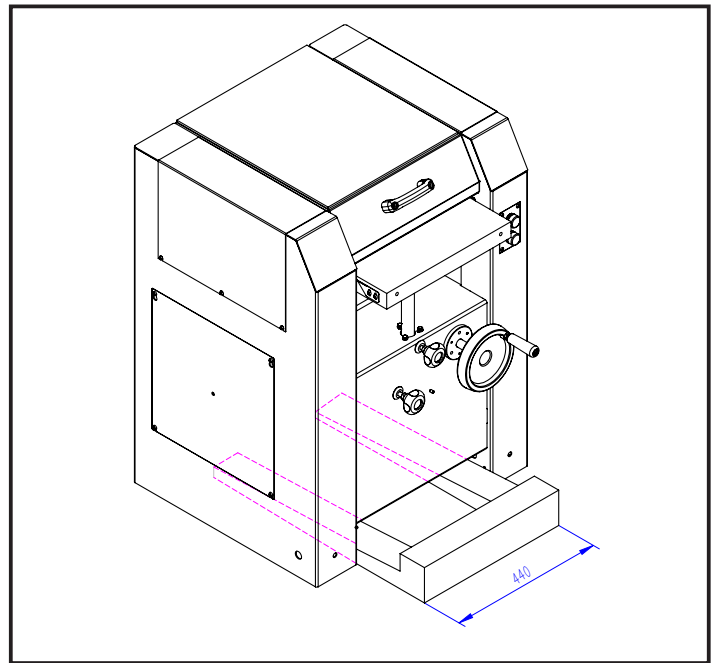


FIG.4.2

4.3 INSTALLATION ENVIRONMENT REQUIREMENTS



WARNING

It is prohibited to install the machine in explosive environments.

Choose a suitable place for the machine taking in mind the possibility to mount extension boards for the smoothing thickener. The place chosen for positioning of the machine should provide for convenient connection to the electric mains and the device for aspiration of the dust and ships.

Provide for suitable lighting (500 lux) that would not blind and avoid the stroboscopic effect.

Check the load capacity of the floor and bear in mind that the machine must be leveled simultaneously on its four supporting points.

Provide for a distance of at least 0.8 m around the machine.

4.4 INSTALL SPARE PARTS

Tools Required for Assembly:(see fig.4.4)

- Fork wrench 10mm
- Install dust collector B to Frame assembly A with bolt C.

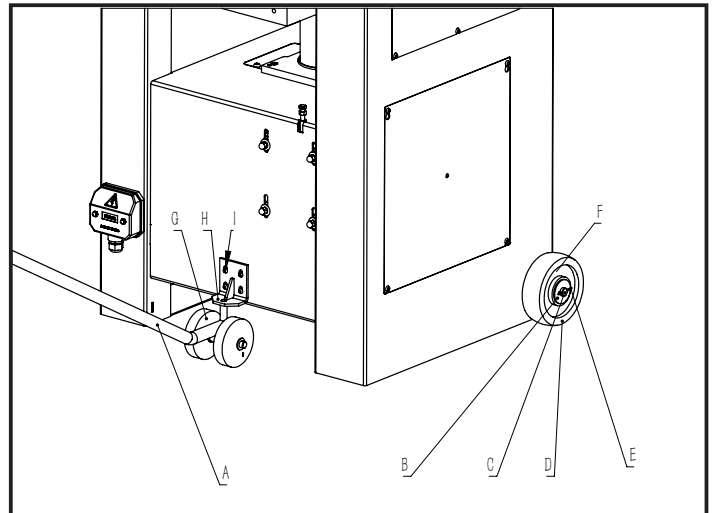


FIG.4.2.2

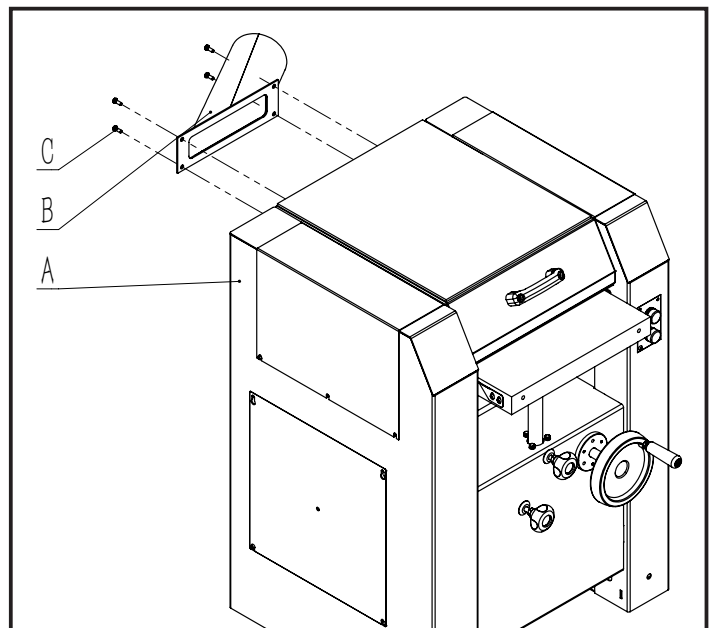


FIG.4.4

5. FITTING AND OPERATING OF MACHINE

5.1 FITTING OF MACHINE

5.1.1 Dimensions of the workpieces

- The maximum size of the work pieces which can be processed by the thickness machine is 410x220 mm.
- The minimum size of the work pieces which can be processed by the thickness machine is 5 mm.
- The shortest size of the work pieces is 156 mm.
- When processing longer workpiece use roller supports to keep the workpiece steady and normally fed into the machine.

5.1.2 Disassembly and adjustment of knives



WARNING

Before starting assembly, disassembly or adjusting of the knives make sure that the machine can not be operated.

- Switch off the machine from the electric mains.
- Put the main switch in position "0" ;

When disassembling and assembling the knives always use, whenever possible, protection gloves.

Disassembly

- For disassembly the standard cutter knives
Open the large shield
Loose the bolt on lock bar.
Take out the cutter knives

Assembly

- While assemble standand cutter knives, use the knife-block C to press knives into cutterblock, and then lock the bolts on lock bar.
- While assemble cutter tips of helical cutterhead , insert the new cutter tip into the slot on the cutterhead, and then lock the screws by using the screwdriver offered in loose parts bag.

5.1.3 Control plate

- A. Emergency stop
- B. Start button
- C. Stop button

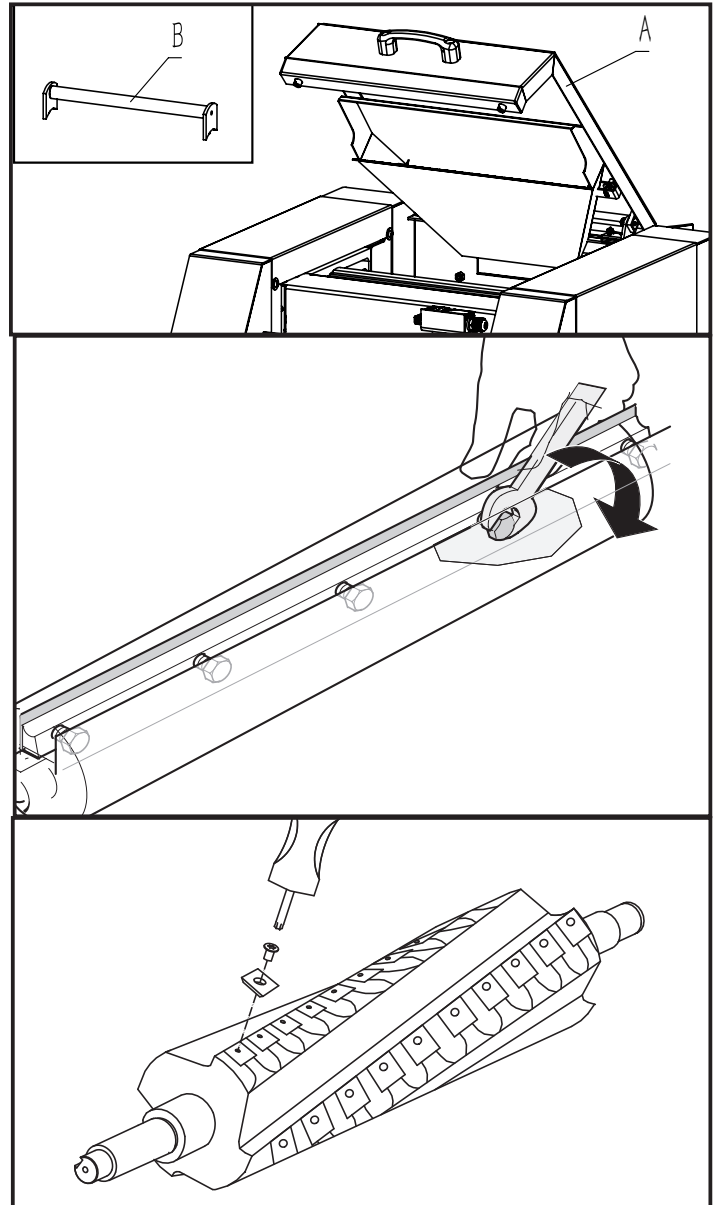


FIG.5.1.2

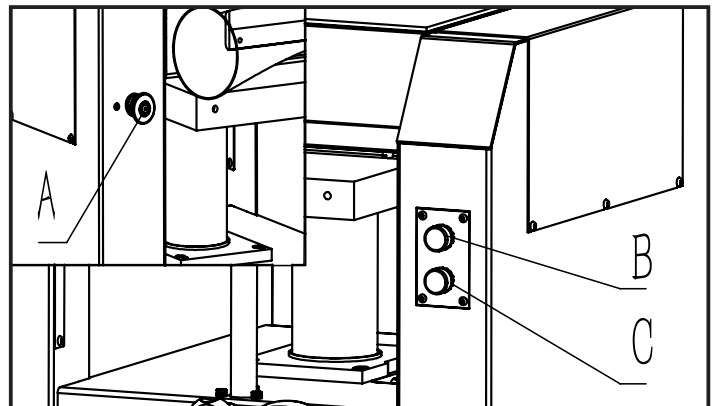


FIG.5.1.3

5.1.4 Table lifting adjustment

When planning lumber, you need adjust height of table to satisfy different thickness of lumber, scaleplate value and height of work piece after planning .

- Adjust table height through turn hand wheel
- Table move 2mm once hand wheel run one round
- Handwheel rotates clockwise=rise table
- Handwheel rotates counterclockwise=lower table
- After complete table adjustment, rotate lock handwheel clockwise to fix table



CAUTION

Single phase motor could planning max 4mm material each time; Three phase motor could palnning max 5mm material each time Must keep lumber planning Depth D(mm)and width W(mm) in effective range, fig.5.1.4

Planning Depth D(mm)	5																				
	4.5																				
	4																				
	3.5																				
	3																				
	2.5																				
	2																				
	1.5																				
	1																				
	0.5																				
	0	50	100	150	200	250	300	350	400												
											Thicknessing Width W(mm)										

FIG.5.1.4

5.1.5 FEED OPERATION

- To feed the workpiece into the machine, assume proper operating position, Stand offset to one side of the feed opening to avoid any kick-back,damage to human body. Do not push the lumber once the infeed roller has been engaged. Let the infeed roller move the workpiece into the planer at its own rate.
- To outfeed the workpiece from the machine, position yourself offset to one side of the outfeed opening. Do not pull the lumber as it exits the machine. Let the out-feed roller move the workpiece out of the planer at its own rate,but support the lumber as it moving past the extension rollers, if needed.



CAUTION

- If workpiece have different thickness at the two ends, please let the thicker end pass the infeed and outfeed rollers firstly, to avoid jamming.
- If cut depth is 5mm or above, the workpiece cannot pass the feed rollers.
- The thickener table should be cleaned regularly.
- The remaining resin on the machine should be cleaned timely.
- Do not smear oil on the table, otherwise the oil will immerse into the wood workpiece.
- Do not cut workpiece with hard knot, nail. Do not cut the cracked wookpiece.
- Do not process any workpiece with a length less than 156mm, because it cannot be feed by the rollers.

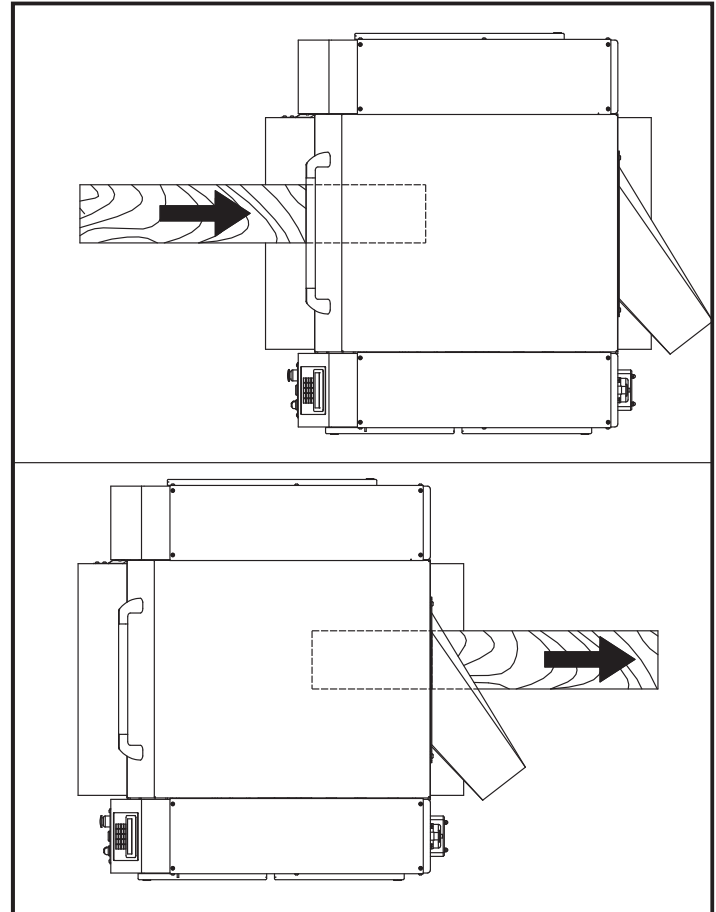


FIG.5.1.5.1

5.2 STARTING



WARNING

Before starting the machine, check all protective devices in normal conditions. Follow the below sequence to start the machine.(FIG.5.2)

1. Single phase motor machine,press start button A, Keep pressing for 1-2 seconds loose the button,motor start
2. Three phase motor machine, press start button A, motor start

5.3 STOPPING

Nomal stop

Press main motor switch C red button to stop directly

Urgent stop

Press urgent stop button A near to dust port to stop

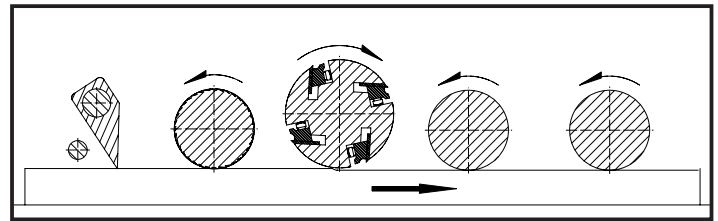


FIG.5.1.5.2

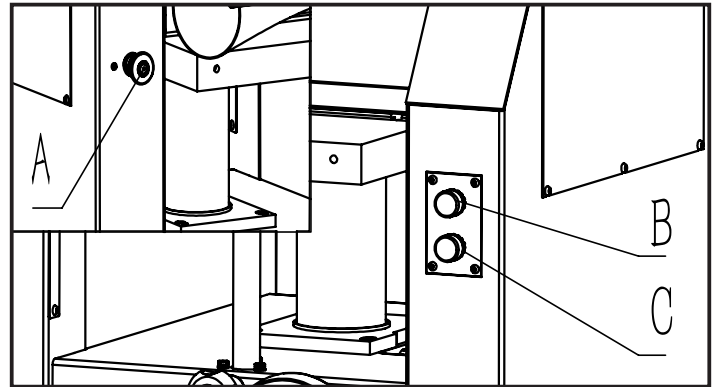


FIG.5.2

6. MAINTENANCE

6.1 CLEANING OF MACHINE

The complete cleaning will guarantee long life of the machine and helps to eliminate potential safety hazard.



WARNING

Before starting any cleaning, adjusting and maintenance, dismantling any other devices which connected to this machine, put a warning sign besides the machine.

-After daily processing operation finished, remove the dust and clean the components thoroughly.

-At least once every 6 months or every 500 operating hours remove the side covers in order to get full access for cleaning of the internal dust.

6.2 LUBRICATION OF MACHINE

- In order to remove the dust and chips, per every 500 hours, clean all belts by soft brush.

- Clean thoroughly the machine by strong jet of compressed air, after the cleaning, smear grease on the feeding sprocket 6.2.A and drive chain 6.2.B, inject lubricating grease into the grease cup 6.2.C of four lift columns 6.2.D.

- Pay attention not smear grease on belts or pulleys.

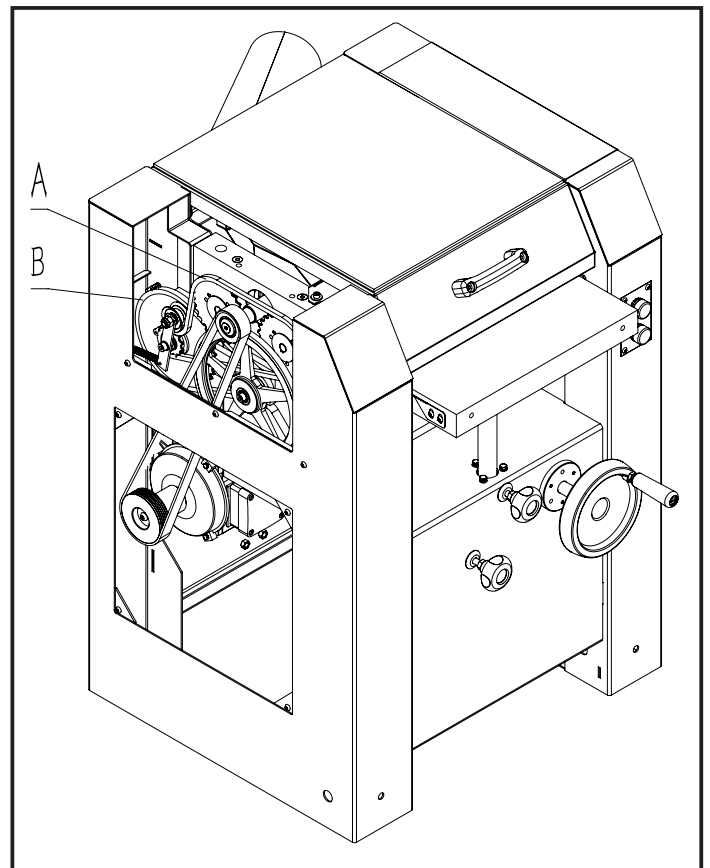


FIG.6.2

6.3 CHECKING THE CONDITION OF SOME UNITS AFTER OPERATION

- Power off before any maintenance.
- Never over tighten the belts, to avoid damage to bearings or over heating.
- Every month check the belts tension at least one time, do proper adjustment if needed.
- Over tightening the belts will shorten the belts life.
- The belts need avoid to contact any grease or paint.
- Cleaning the belts and pulley grooves by dry and soft brush only.
- Never use water or organic solvent for any cleaning.

6.4 CHANGING BELT



WARNING

Before changing belts or doing any adjustment to this machine, please make sure the machine is completely powered off.

- 4mm socket head wrench
- 13mm fork wrench
- open belt guard A and door B
- loosen lock nut C and belt tension bolt D, loosen fix nut E on motor base; then lever motor to suitable height with crowbar, belt F will be loosen, you could take down the belt



CAUTION

During adjustment to the motor, please avoid to damage the motor cover and wiring box.

Change new belt, tension bolt C to adjust motor in right position

- press belt to check tightening force ,central position of belt should be moved less than 10mm
- Lock nut D and E

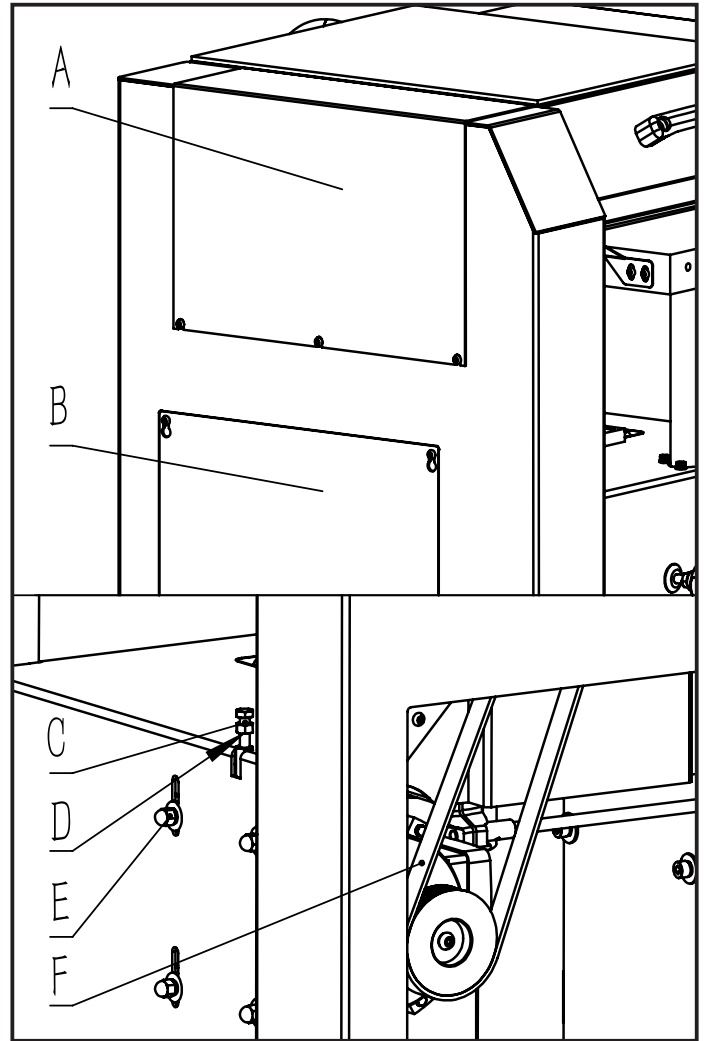


FIG.6.4

6.5 ELECTRICAL WIRING DIAGRAM

-The installation of electric components must be operated by trained professional worker.

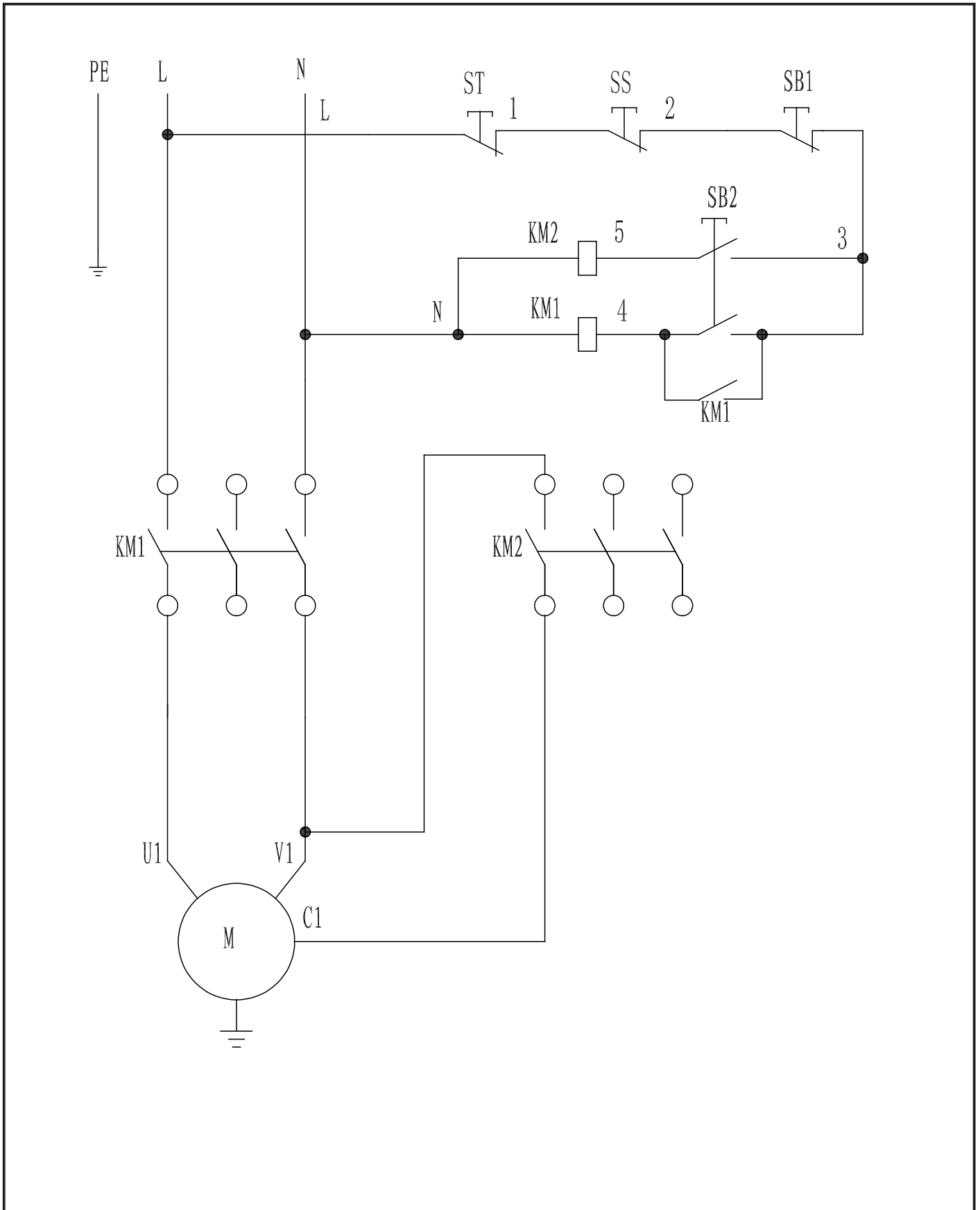
-Use wiring box for the main power connections.

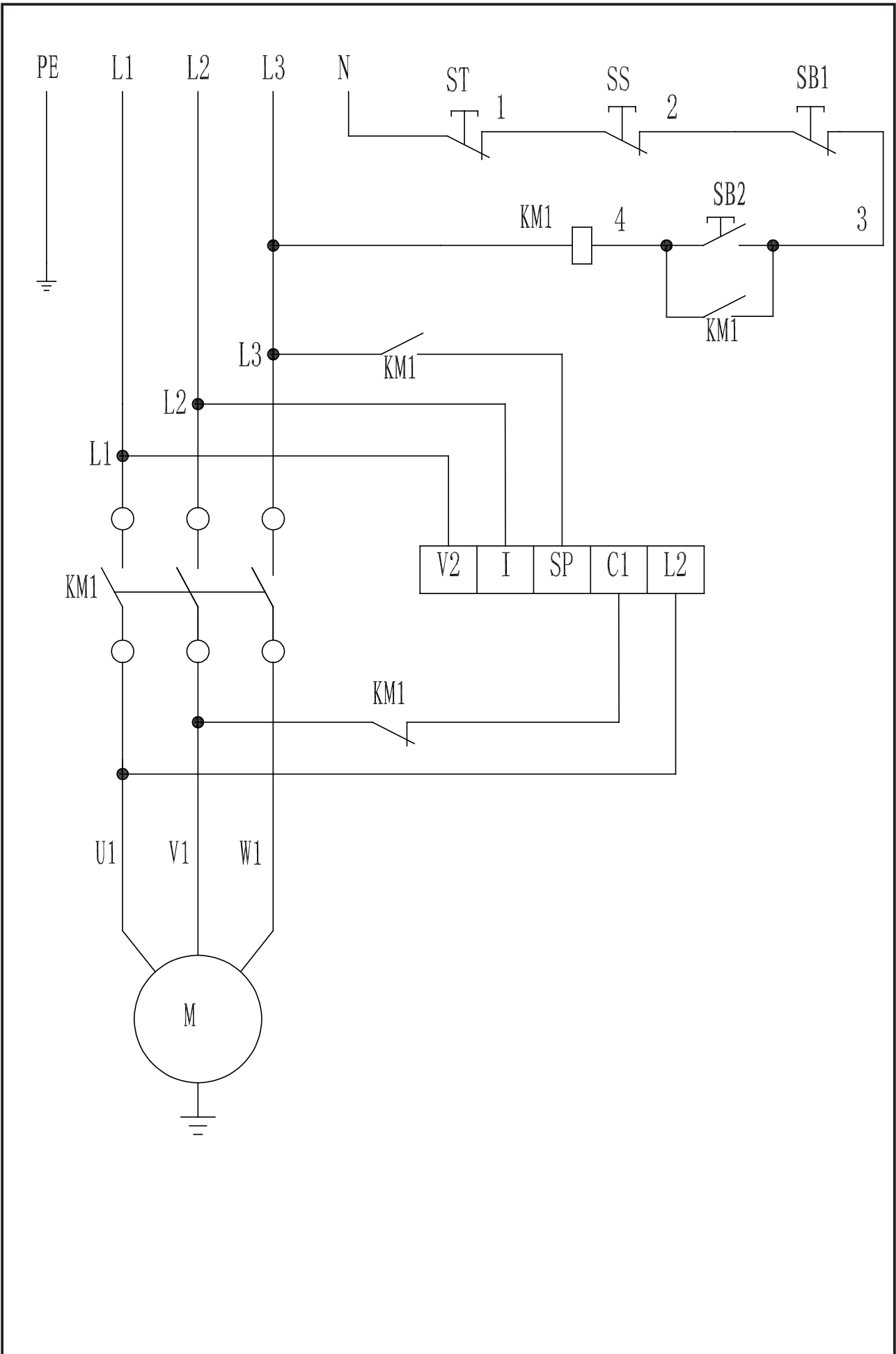
-Changing power supply cords must be operated by trained professional worker.



WARNING

To avoid electric shock or fire, any repairing and maintenance to the electric system must be operated by trained professional worker, and only use authorized original accessories.





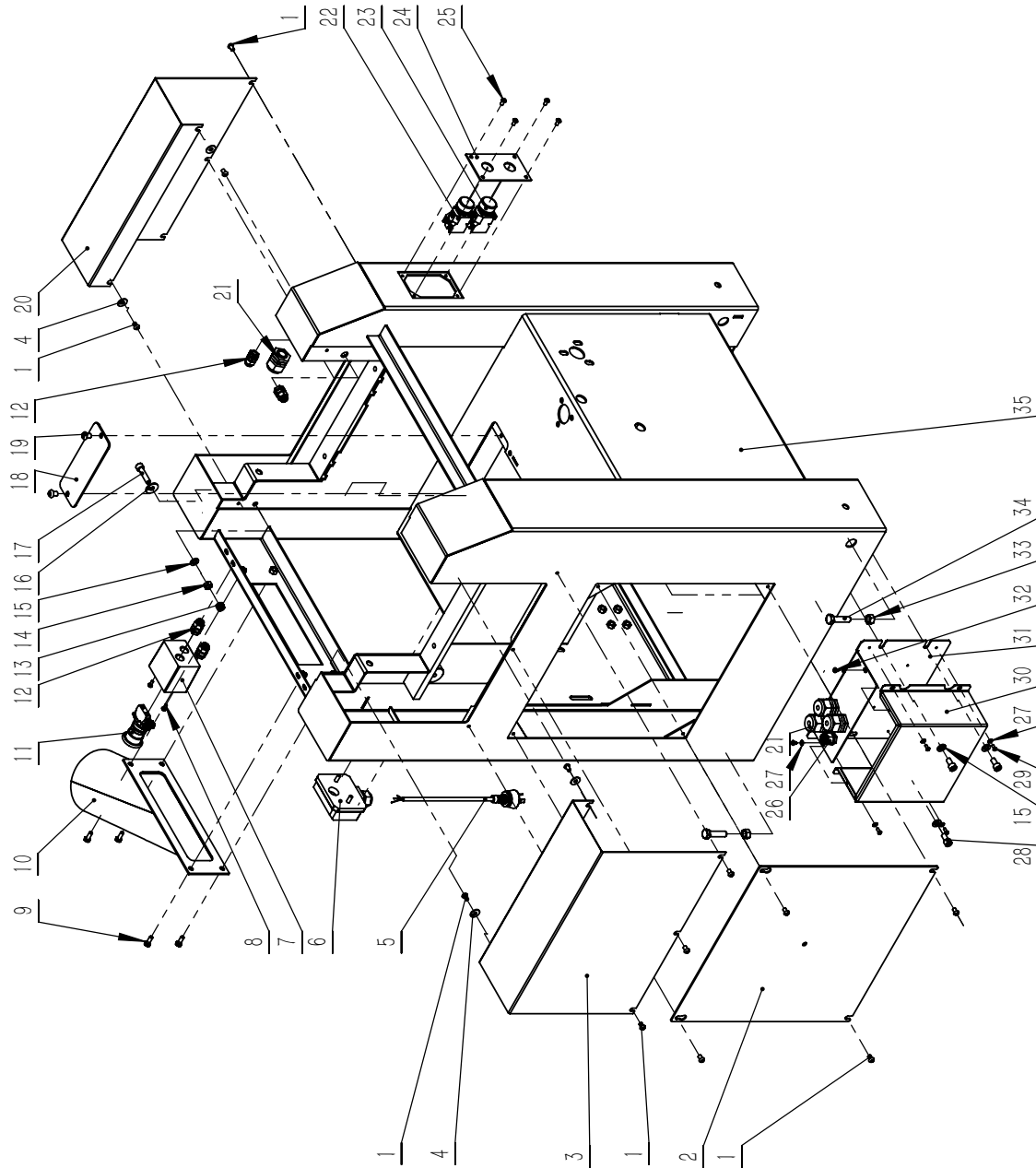
3X400V

7 TROUBLE SHOOTING

Common problem	Cause	Solution
Machine stop running or not start	Motor is overload and in protection mode	Wait the motor cool down and restart
	Fail to plug in	Plug in
	The fuse is burnt or circuit breaker failure	Replace fuse or reset circuit breaker
	Cable damaged	Replace cable
	Phase sequence protection	Exchange any two phase sequence
Cutting result is not ideal	Dull blade	Replace blade
	Blade installed on opposite direction	Reinstall blade
	The blade is not clean	Remove the blade and clean
	Improper blade	Replace to proper blade
	Table is not clean	Clean the table
	Wrong infeed and outfeed rollers height	Readjust infeed and outfeed rollers height
Workpiece jammed between table and cutterhead	Table height not fit the cutting depth of workpiece	Readjust the table height, cut below the maximum cutting depth
	Wood workpiece bending too much	Change to new wood workpiece
Cutterhead rotation speed is too low	Extension power cable is too long or too light	Replace to correct power cable
	Low voltage	Contact local power supply company
Too much vibration	Uneven ground	Adjust position, put on even ground
	Belts worn out too much	Replace to new original belts
	Motor installation is too loose	Tighten the bolts of motor installation
	Fasteners is too loose	Tighten the fasteners
	Blade damage	Replace blade

8 PARTS DIAGRAMS AND PARTS LISTS

FIG.1 FRAME ASSEMBLY



No.	Drawing Number	Description
1	M6X10GB70D2Z	Screw
2	JXTH1602010004	Lateral plate
3	JXTH1602010002	Left guard
4	WSH6GB96D1Z	Big washer
5	SB3152600-531	Cable plug
6	JXPS1201090009A	Connecting box
7	JL93040002	Switch box
8	M4X10GB818Z	Screw
9	M6X16GB5783Z	Bolt
10	JXTH1602053100	Dust port
11	XB5AS542C	Emergency stop switch
12	JL91046200	Connector
13	M8GB889D1Z	Lock nut
14	M8GB6170Z	Nut
15	WSH8GB97D1Z	Flat washer
16	WSH8GB96D1Z	Big washer
17	M8X35GB70D1Z	Screw
18	JXPT1201010001	Cover plate
19	M8X12GB70D2Z	Screw
20	JXTH1602010003	Right guard
21	JL91046100B	Connector
22	LA39-B2-10-g	Start button
23	LA39-B2-01-r	Stop button
24	JXTH1602010005	Switch panel
25	M5X10GB70D2Z	Screw
26	JL91046300	Connector
27	WSH4GB97D1Z	Flat washer
28	M8X16GB70D1Z	Screw
29	M4X10GB70D2B	Screw
30	JXTH1602091100	Electrical appliance
31	JXTH1602091001	Electrical plate
32	ST4D2X9GB845Z	Screw
33	M10GB6170Z	Nut
34	M10X40GB5783Z	Bolt
35	JXTH1602011000	Frame

FIG2: Cutterhead assembly

No.	Drawing Number	Description
1	JXPT1601050008	Support rod
2	JXPT1601050004	Outfeed shaft
3	JXTH1602051100/A	Cutterhead assembly
4	CLP62GB893D1B	Spring washer
5	WSH10GB97D1Z	Flat washer
6	WSH10GB93Z	Spring washer
7	M10X30GB70D1Z	Screw
8	JXTH1602051005	Right knife rest
9	M8X50GB70D1Z	Screw
10	JXTH1602051007	Screw
11	JXTH1602051008A	Compressed spring
12	JXTH1602051200	Shaft sleeve assembly
13	JXPT1601050006	Non-return rod
14	JXTH1602051002	Non-return claw
15	JXTH1602051001	Spacer
16	JXTH1601050001	Lock cover
17	M6X10GB77B	Screw
18	M6X35GB70D1Z	Screw
19	WSH6GB97D1Z	Flat washer
20	M6X12GB70D1Z	Screw
21	WSH6GB96D1Z	Big washer
22	M4X30GB818Z	Screw
23	JXTH1602051004	Left knife rest
24	FLINDAX 10GB1030J 1	Flat key
25	JXTH1602051008	Compressed spring
26	PLN8X7X20GB1096	Flat key
27	M8GB6172D1Z	Nut
28	M8X25GB5783Z	Bolt
29	JXTH1602051006	Infeed shaft
30	JXPT1601050005	Limited rod
31	JXTH1602051010	Back fence
32	JXTH1602051003	Limited plate
33	QKS8	Microswitch
34	WSH4GB97D1Z	Flat washer
35	M4GB6170Z	Nut

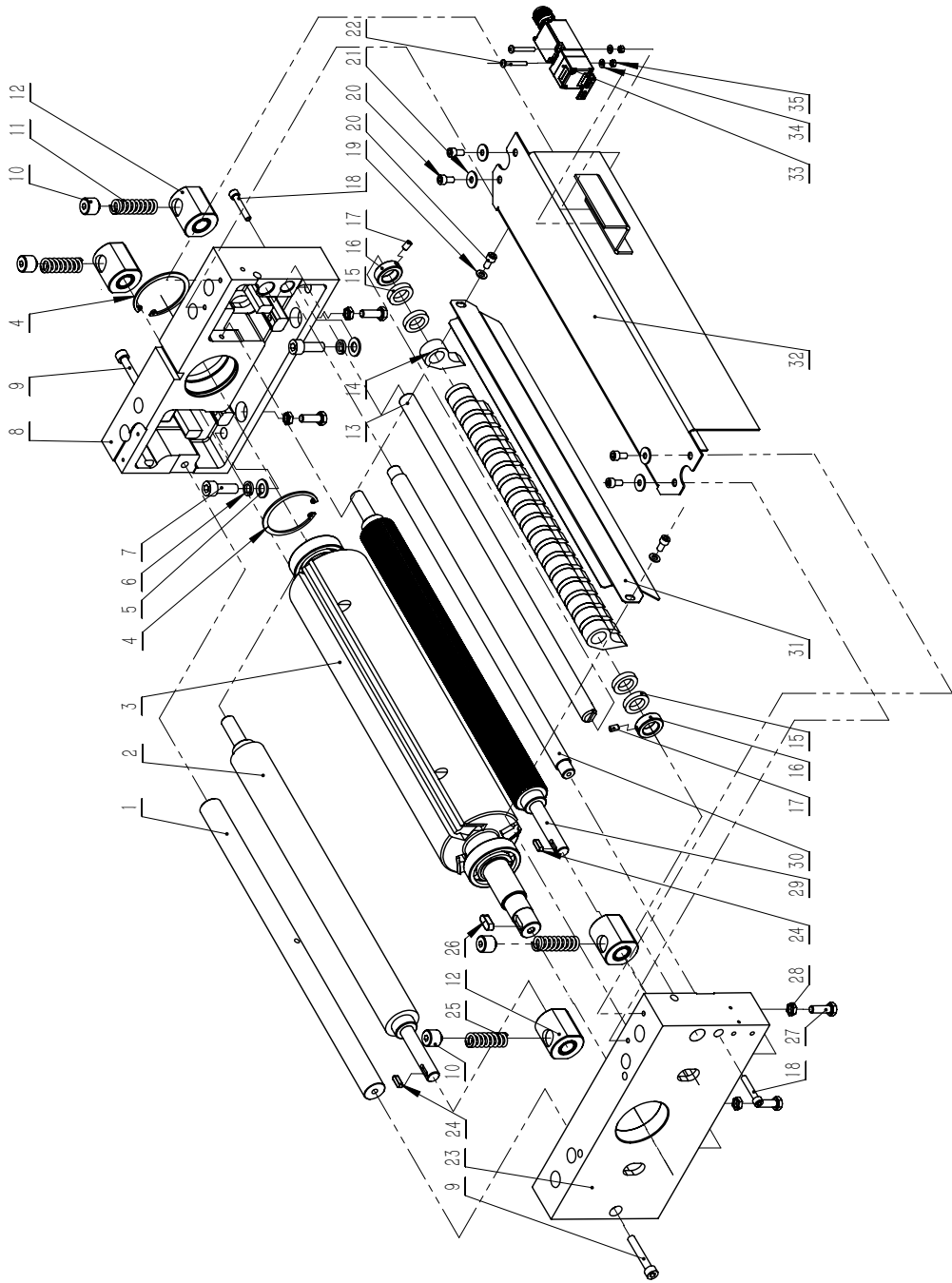
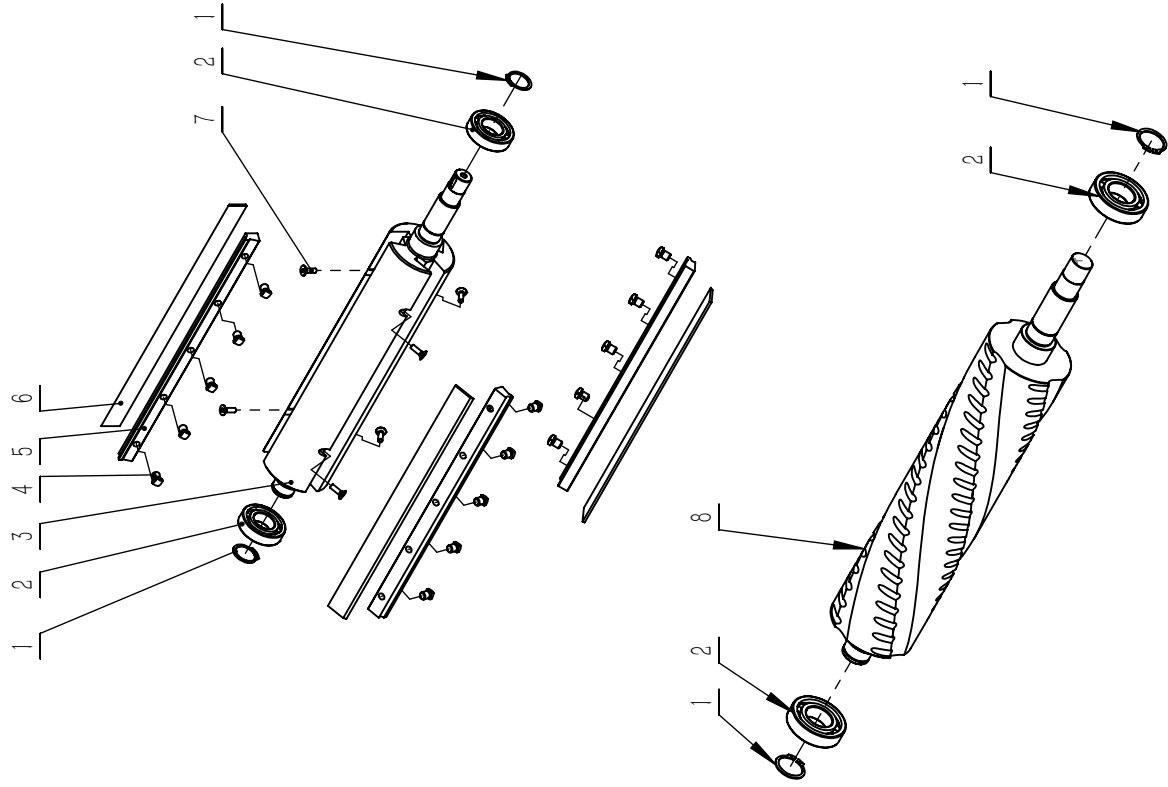


FIG3: Cutterblock assembly



No.	Drawing number	Description
1	CLP30GB894D1B	Spring washer
2	BRG6206-2RSLGB276SKF	Bearing
3	JXTH1602051101	Cutterhead
4	JXPT1201051004	Bolt
5	JXPT1601051003	Knife press strip
6	0000605081C	Knife
7	M6X20GB70D3B	Screw
8	JXTH1602051101A	Helical cutterhead

FIG4: Thickness table assembly

No.	Drawing number	Description
1	JXPT1201040019	Center cover
2	JL84032003	Handle bolt
3	JL84032002	Handle
4	M10GB6172D1Z	Nut
5	SLSL-D165-d12	Lift handwheel
6	JL45040028	Flange plate
7	M6X10GB77B	Hexagon lock screw
8	WSH8GB96D1Z	Washer
9	WSH8GB93Z	Washer
10	M8X12GB70D1Z	Hexagon socket cap screws
11	JXTH1602040004	Wheel shaft
12	JXPT1201060013	Handle
13	M10GB6170Z	Hex nut
14	M10X50GB77B	Hexagon lock screw
15	JXPT1201010003	Sheath
16	CLP20GB894D1B	Washer
17	JXTH1602040002	Lock sleeve
18	CLP18GB894D1B	Washer
19	WSH6GB97D1Z	Washer
20	WSH6GB93Z	Washer
21	M6X20GB5783Z	Hexagon bolt
22	JXPT1201040004	Guide column
23	JXTH1602040007	Pointer
24	M6X10GB70D2Z	Hexagon button screw
25	JXTH1602040006	Scale
26	M5X12 GB5783	Screw
27	JXTH1602040011	Guide plate
28	JXTH1602040001	Table
29	M6X60GB5782Z	Hexagon bolt
30	JXPS1602026007A	Gear seat
31	WSH10GB97D1Z	Washer
32	M10GB889D1Z	Lock nut
33	JXTH1602042000	Lock lever
34	M8X16GB80B	Hexagon lock screw
35	JXPT1201040006	Ring
36	M8X10GB77B	Hexagon lock screw
37	WSH16GB97D1Z	Washer
38	JXPT1201040010	Sleeve
39	BRG1528AXKASGB4605	Bearing
40	JXPT1201040009	Bevel wheel
41	JXPS1602026009	Axle sleeve
42	JXTH1602040009	Lift rod
43	M6X40GB5783Z	Hexagon bolt
44	M8X30GB5783Z	Hexagon bolt
45	M6GB6170Z	Hex nut
46	JXPT1201040003	Plate
47	M8X1JB7940D1	Oiler bowl
48	JXPT1201040005	Locating sleeve
49	M8X25GB70D1Z	Hexagon socket cap screws
50	JXPT1201040020	Dustband
51	JXPT1201042000	Lift sleeve
52	M10X20GB70D2Z	Hexagon button screw
53	WSH10GB93Z	Washer

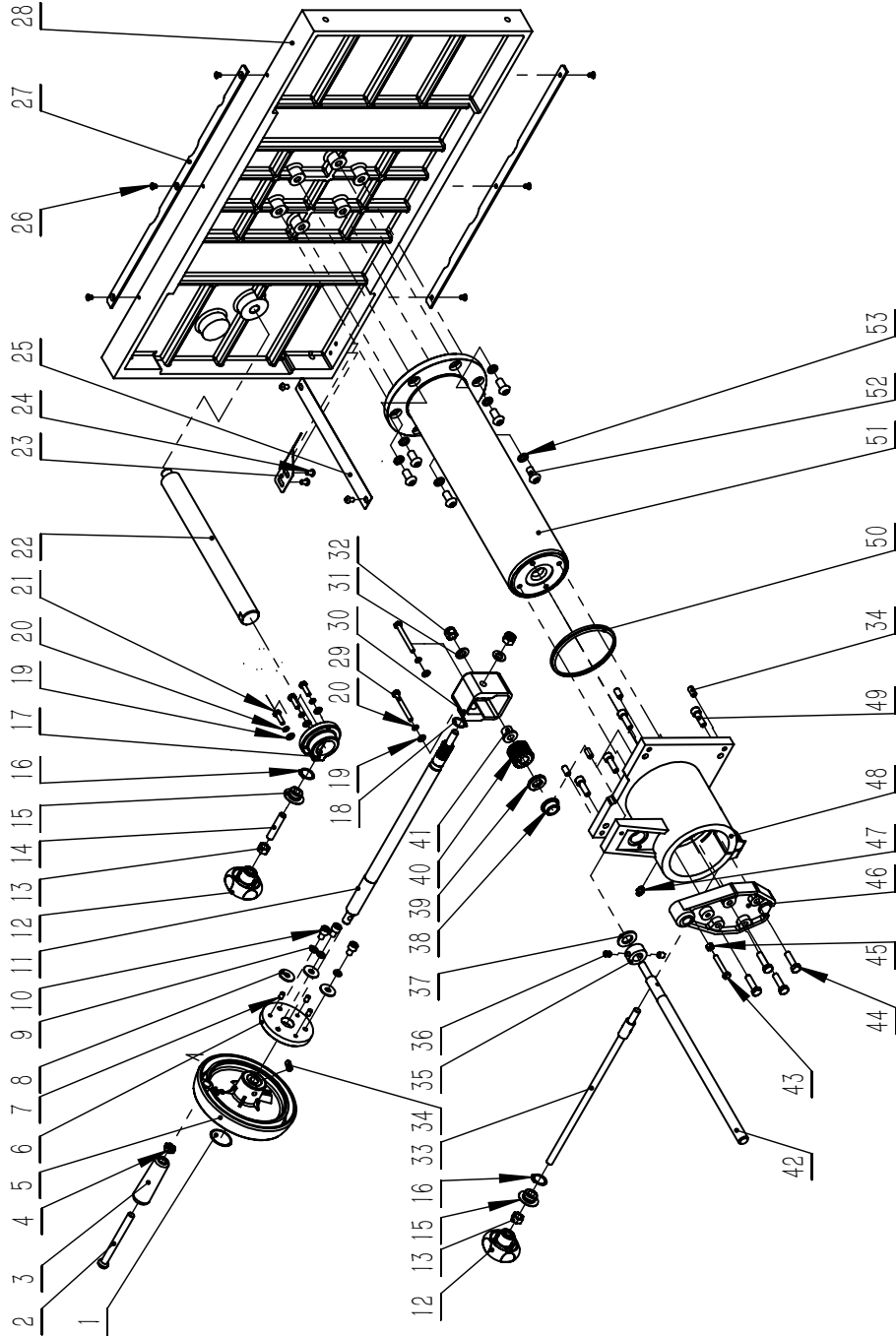
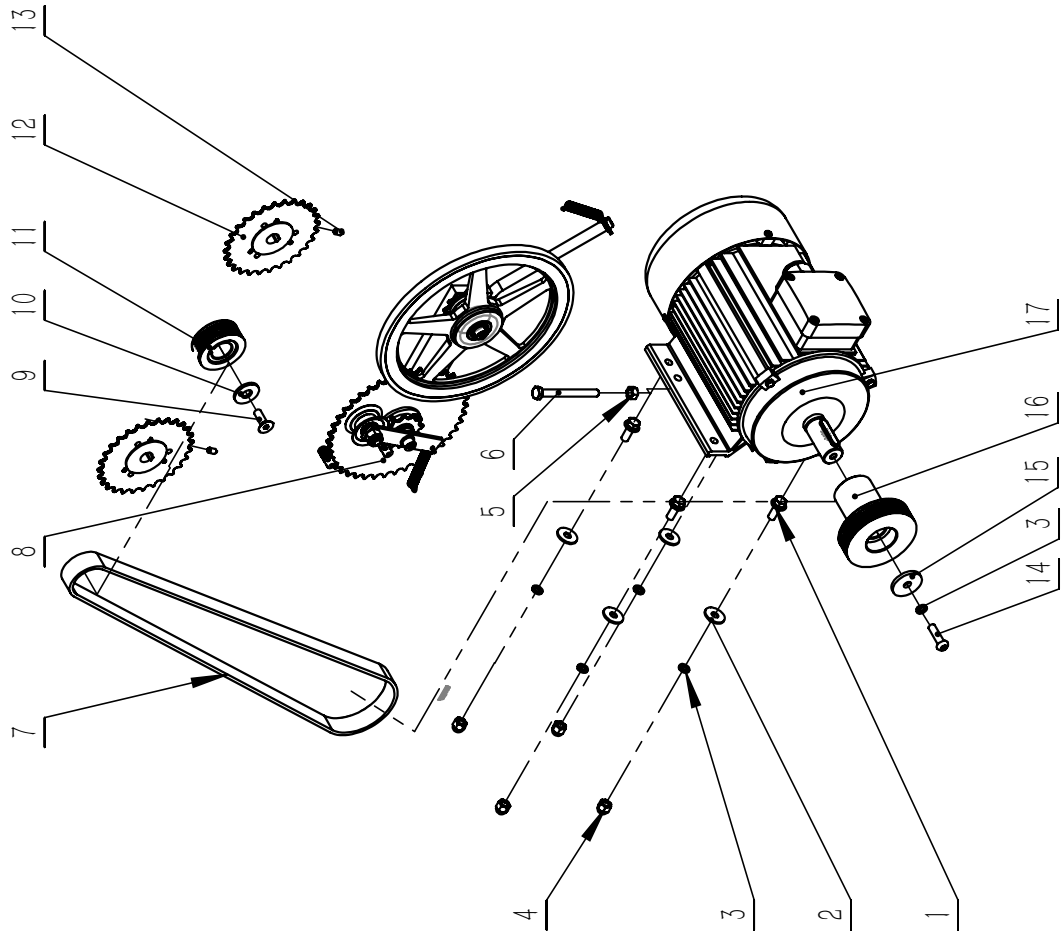
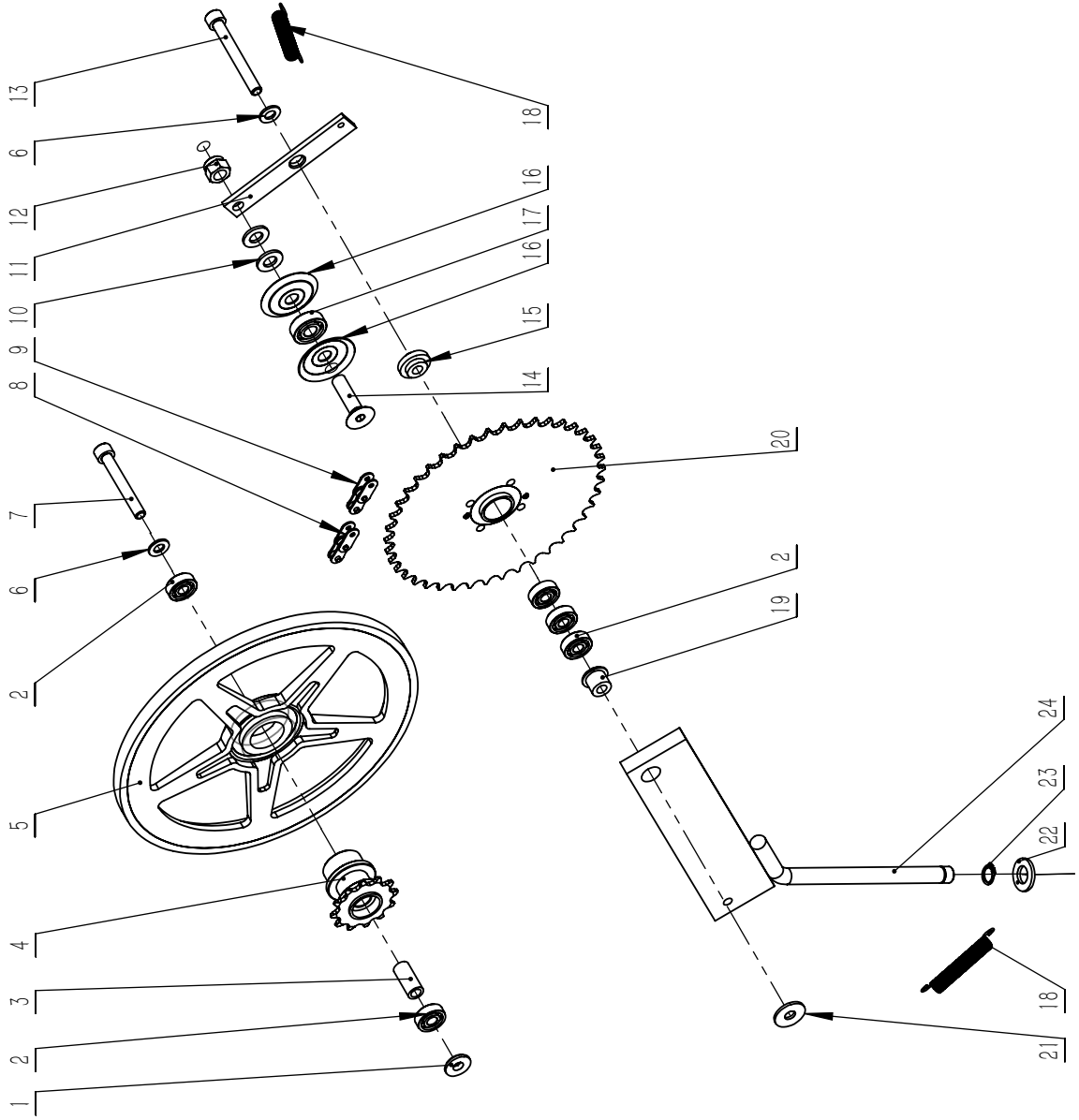


FIG5: Motor assembly



No.	Drawing Number	Description
1	M8X20GB5789Z	Hexagon bolt
2	WSH8GB96D1Z	Wahser
3	WSH8GB93Z	Wahser
4	M8GB802Z	Nut
5	M8GB6170Z	Hex nut
6	M8X80GB5781Z	Hexagon bolt
7	6PK1225GB16588	Poly V belt
8	JXTH1602021000	Chain wheel
9	M8X16GB70D2B	Hexagon button screw
10	FDPT1202020020	Spacer
11	JXTH1602020002	Cutterblock pulley
12	JXPT1201023000	Feed sprocket
13	M6X10GB77B	Hexagon lock screw
14	M8X30GB70D2B	Hexagon button screw
15	FDPT1202020022	Washer
16	JXTH1602020001	Motor pulley
17	YYA900302	Motor

FIG6: Chain wheel assembly



No.	Drawing Number	Description
1	JXPT1201020005	Bearing Sleeve
2	BRG608-ZRSGB276	Bearing
3	JXPT1201020004	Sleeve
4	JXTH1602021002	Sleeve
5	JXTH1602021100	Friction pulley
6	WSH8GB97D1Z	Wahser
7	M8X60GB70D1B	Hexagon socket cap screws
8	081-1-62GB1243	Chain
9	081-1-66GB1243	Chain
10	WSH10GB97D1Z	Wahser
11	JXPT1201022002	Connecting plate
12	M10GB889D1Z	Locking nut
13	M8X70GB70D1B	Hexagon socket cap screws
14	M10X40GB70D3Z	Hexagon socket screw
15	JXPT1201020006	Fix sleeve
16	JXPT1201022001	Ring
17	BRG6000GB276	Bearing
18	JXPT1201020001	Tension spring
19	JXPT1201020003	Space bush
20	JXTH1602021300	Chain wheel
21	WSH8GB96D1Z	Wahser
22	JXPT1201020002	Wahser
23	CLP12GB894D1B	Washer
24	JXTH1602021200	Support assembly

FIG7: Cover assembly

No.	Drawing Number	Description
1	M5X12GB70D3Z	Hexagon socket screw
2	JXTH2501052107	Fold
3	WSH5GB96D1Z	Washer
4	WSH5GB93Z	Washer
5	M5GB6170	Hex nut
6	M8GB889D1Z	Locking nut
7	M8X25GB70D3Z	Hexagon socket screw
8	JXTH1602052001	Support plate
9	M8GB6170B	Hex nut
10	M8X30GB5783Z	Hexagon bolt
11	M6GB889D1Z	Locking nut
12	WSH6GB97D1Z	Washer
13	WSH6GB96D1Z	Washer
14	M6X16GB5783Z	Hexagon bolt
15	JXTH1602052200	Dust hood
16	M6X16GB70D2Z	Hexagon button screw
17	M4GB6170Z	Hex nut
18	JL27010017	Thread plate
19	WSH4GB97D1Z	Washer
20	M4X12GB70D1Z	Hexagon socket cap screws
21	JXTH1602052002	Protective felt
22	JXTH1602052100	Guard
23	M12GB6172D1Z	Hexagon thin nut
24	0323885600A	Screw
25	M8GB6170Z	Hex nut
26	JL45030030	Handle
27	M8X25GB70D1B	Hexagon socket cap screws

