



# THICKNESSER

ILMENITE 530H  
(Variable speed)

# Instruction Manual

## IMPORTANT

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



Version: V.3-201809

### SAFETY WARNINGS

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 INFLECT 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 the commissioning, maintenance, and safety operation of the machine. The experience of the company manufacturer and its experts are considered in the preparation of this manual.

We recommend you to consider with responsibility our recommendations concerning the safety of workers. The operations requiring disassembly of the 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 safe operation. The permanent and exact observation of the instructions contained in this manual ensures the safety of personnel and machine, profitable work as well as long life of the machine itself. For better clarity, this manual is divided into separate parts 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 an 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 machines are high-speed and high-risk equipment, so operators who is been suitably trained can use themachine 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 the 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 of the dangers associated with the 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 be 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, to have immediate and easy access to the switchboard.
- Never insert materials that 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 that may be too small or too wide with respect to the machine capacity.
- Do not work wood that 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 buckled, neither not correctly reground tools. Nonstandard or blunt tools are forbidden,either. Blade with a 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 the 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 locks well and the cutter shaft has the right direction. The rotating should get up to a 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 a 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 an accident or breakdown, the machine should be turned off immediately and unplugged from the main power and ask for assistance from the authorized people. If a blockage is likely to occur, the workpiece should be moved back a little and enable the equipment to be safely unblocked.
- Please remove unnecessary sweeping, chips, in case of accidents.
- Woodworking machines will produce sparks when used with serious fire risks, so please keep the machine's surrounding area clean without inflammable 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:

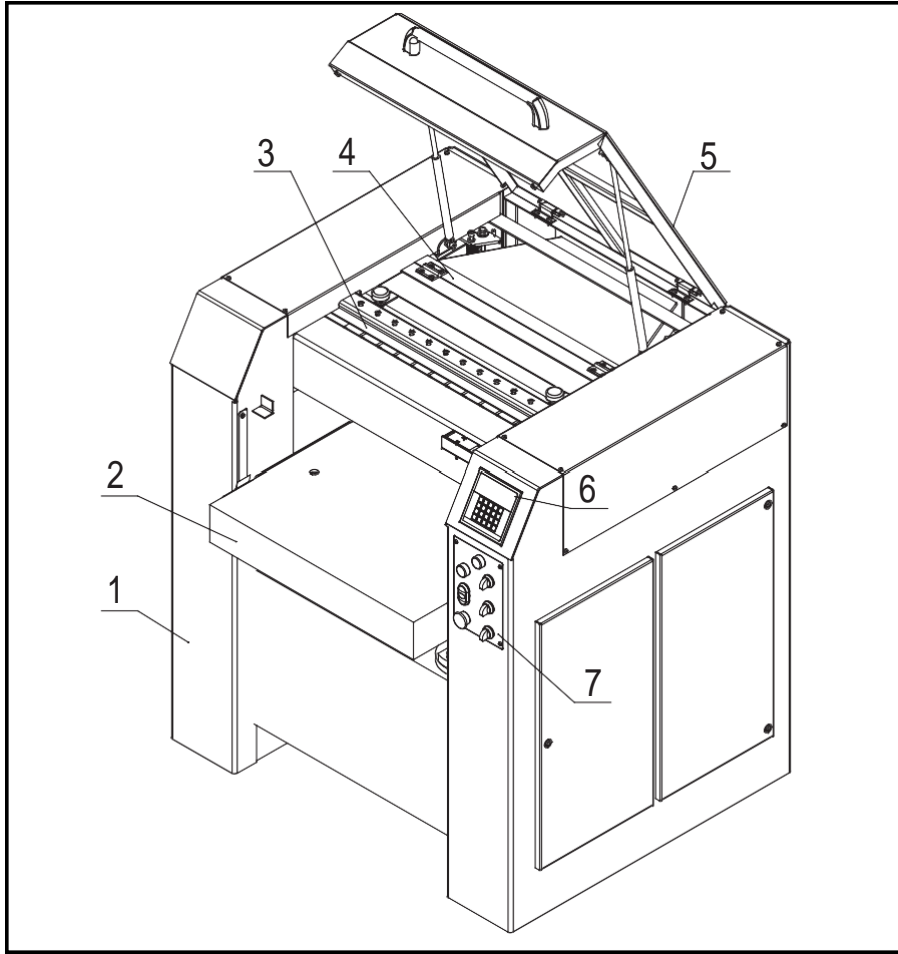
Indicate the technical characteristics, direction of rotation and inclination, block and release, etc.

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 - Thickening table
- 3 - Cutterhead assembly
- 4 - Dust cover

- 5 - Large shield
- 6 - Lift control panel
- 7 - Main control panel

## 3.2 TECHNICAL SPECIFICATION

Items	Parameters
Cutting motor output	5kW S1
Feeding motor output	0.55kW
Lifting motor output	0.25kW
Cutter block diameter	115mm
Cutter block speed	5000rpm
Variable feed speed	4-16m/min
Max width of cut	530mm
Mini length of cut	280mm
Max highth of cut	300mm
Minimum highth of cut	5mm
Max depth of cut	8mm
Qty of cutter knives	4pcs

### 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 m<sup>3</sup>/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 160 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-Main machine

B-Dust collector

C-Blades presetter

-Screwdriver (For Helical cutterhead model)

-Screws (For Helical cutterhead model)

-Cutter tips (For Helical cutterhead model)

D-List of loose parts

-8X10 double ended spanners

-3mm allen wrench

-4mm allen wrench

-5mm allen wrench

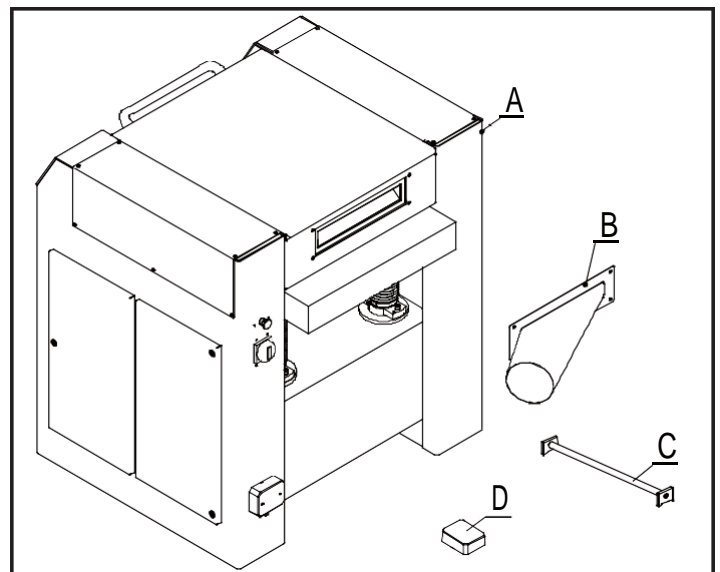


FIG.4.1



## 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:

- adjust the width of the forks to 530 mm
- As Fig.4.2. Indicated: Insert forks into the bottom of the frame assembly ensuring that these are wedged against the back of the rear feet.

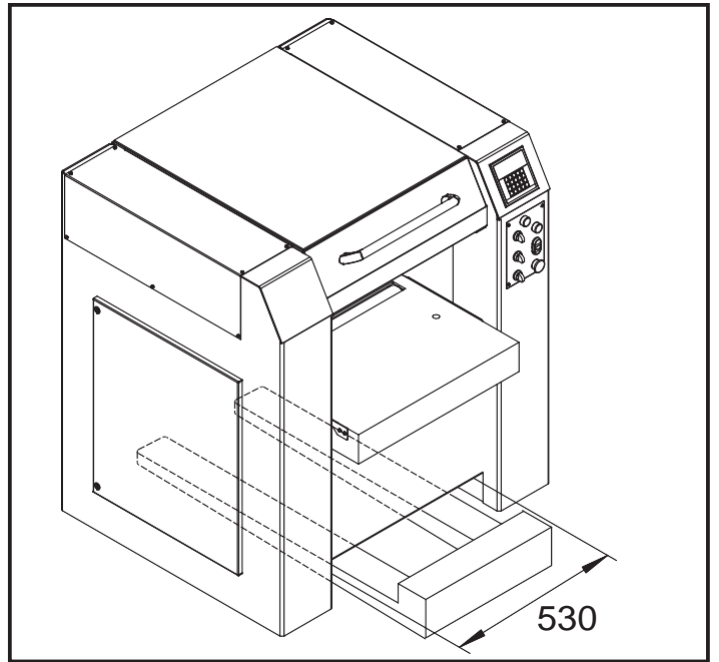


FIG.4.2

## 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.

### Fixing to the floor

The machine must be fixed to the floor.

- Use bolt/nut A to level the feet to ensure machine is well located.
- Put expansion bores D into ground, use washer/lock washer C and hex nut B to fasten the bolts.

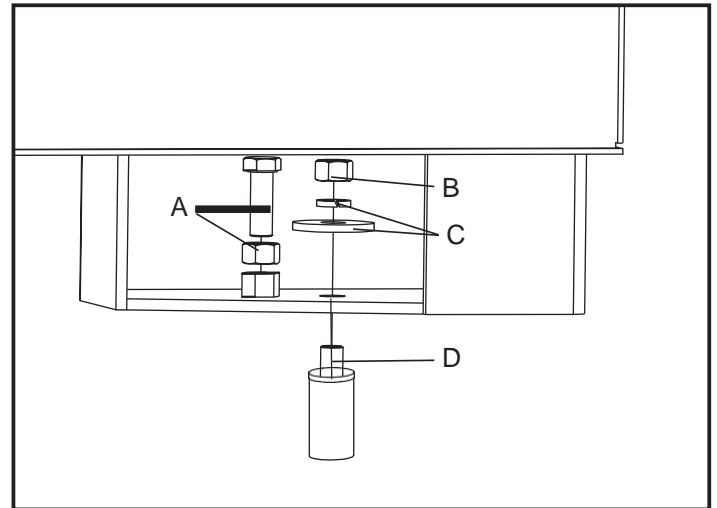


FIG.4.3

## 4.4 INSTALL SPARE PARTS

Tools Required for Assembly:(see fig.4.4)

- L Wrench 6mm
- Install dust collector B to Frame assembly A with bolt C.

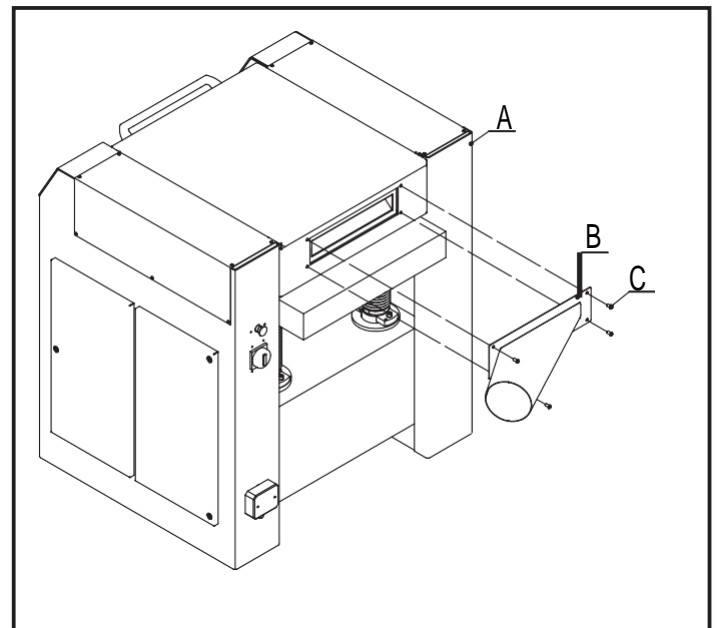


FIG.4.4

# 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 530x 300 mm.
- The minimum size of the work pieces which can be processed by the thickness machine is 530x 5 mm.
- The shortest size of the work pieces is 280mm.
- When processing longer workpiece use roller supports to keep the workpiece steady and normally fed into the

### 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  
Open the dust cover B  
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.

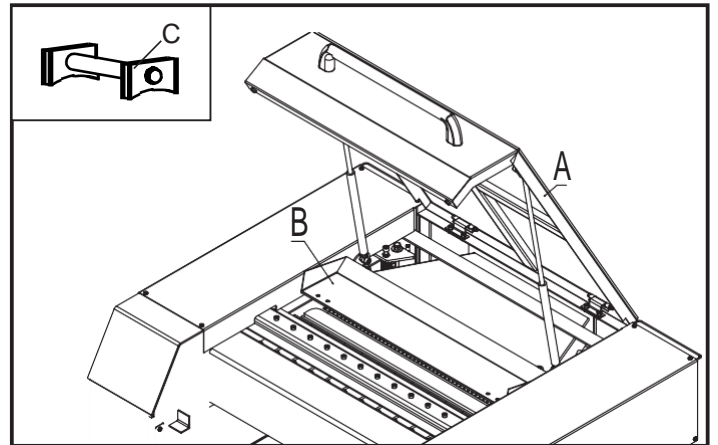


FIG. 5.1.2.1

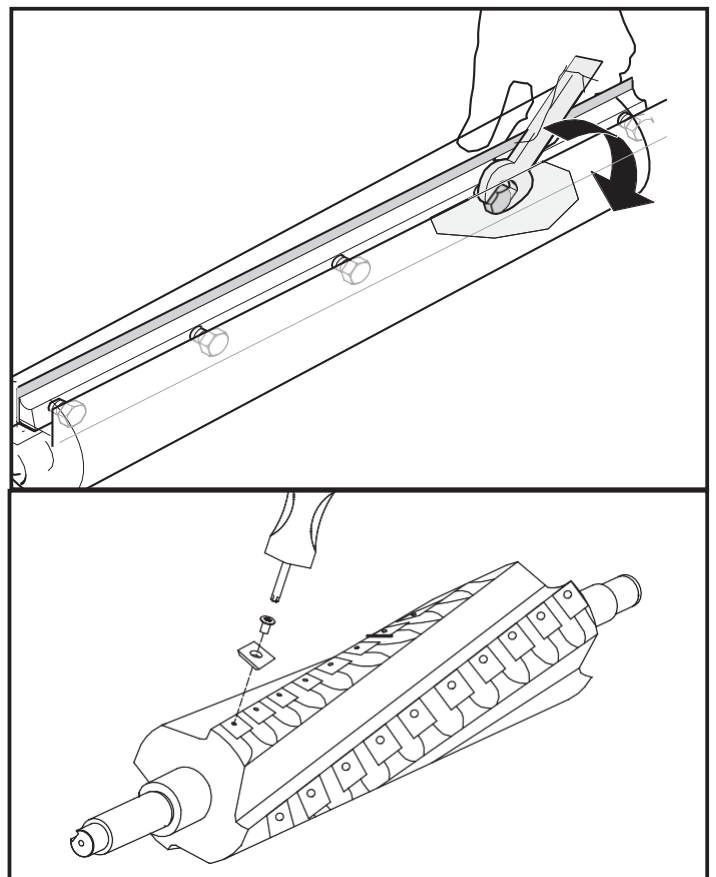


FIG.5.1.2.2

### 5.1.3 Control panel

The thicknesser control panel consist of the below buttons:

- A - Emergency stop switch
- B - Main motor switch
- C - Phase sequence indicator light
- D - Main power supply control switch
- E - Emergency stop switch
- F - Lift control panel
- G - Main power indicator
- H - Lift control knob
- I - Feed motor switch
- J - Feed speed adjustment knob

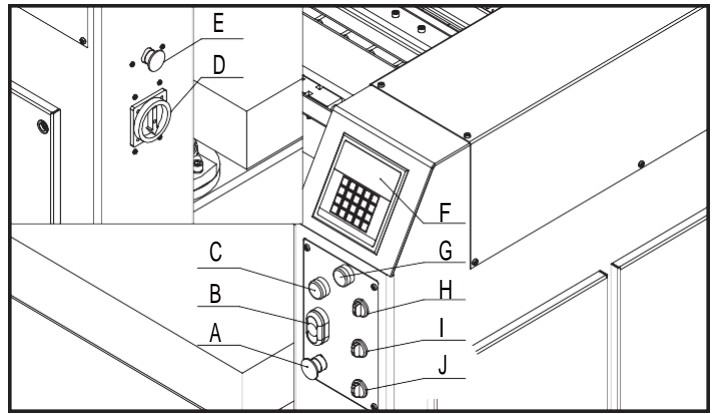


FIG.5.1.3

### 5.1.4 Cutting Height Operating Instruction

- Working table quick lifting : Long press the button + or - will descend or rise the working table automatically at the high speed.
- Working table jog lifting : press + or - button one time to achieve descend or rise the working table with 0.1mm.
- Automatic Height operating : Press button and input the figure you want to use, then press button , the working table will run to set point; during lifting, if the button "STOP" is pressed the working table will stop running immediately.
- Operating instruction for correcting dimension : if the thickness of workpiece after cutting is different with the digital readout, please long press button until the display start to flash, then input correct figures and long press button again for save the setting until the figures stop flashing.
- Dimension unit selecting : press button to change the dimension unit.

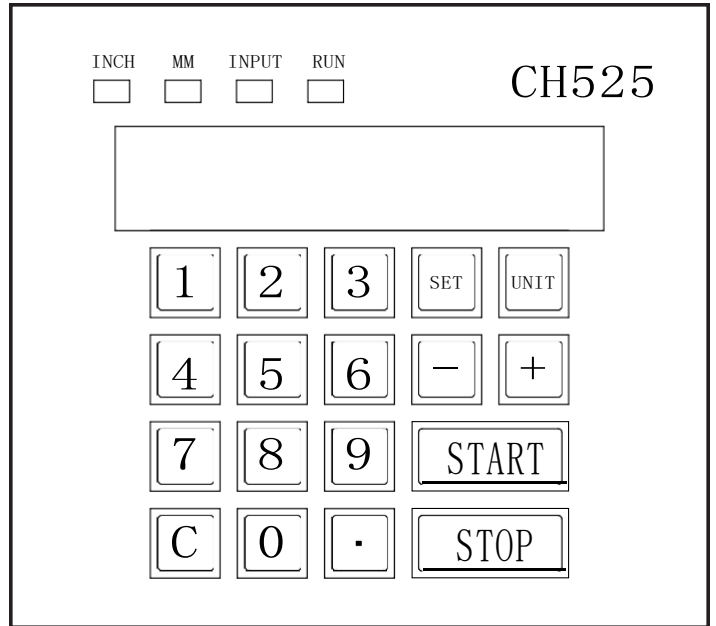


FIG.5.1.4

### WARNING

- During above operations, it is prohibited to put the wood workpiece on the table.

### 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 8mm or above, the workpiece cannot pass the feed rollers.
- The thicknesser 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 workpiece.
- Do not process any workpiece with a length less than 280mm, because it cannot be feed by the rollers.

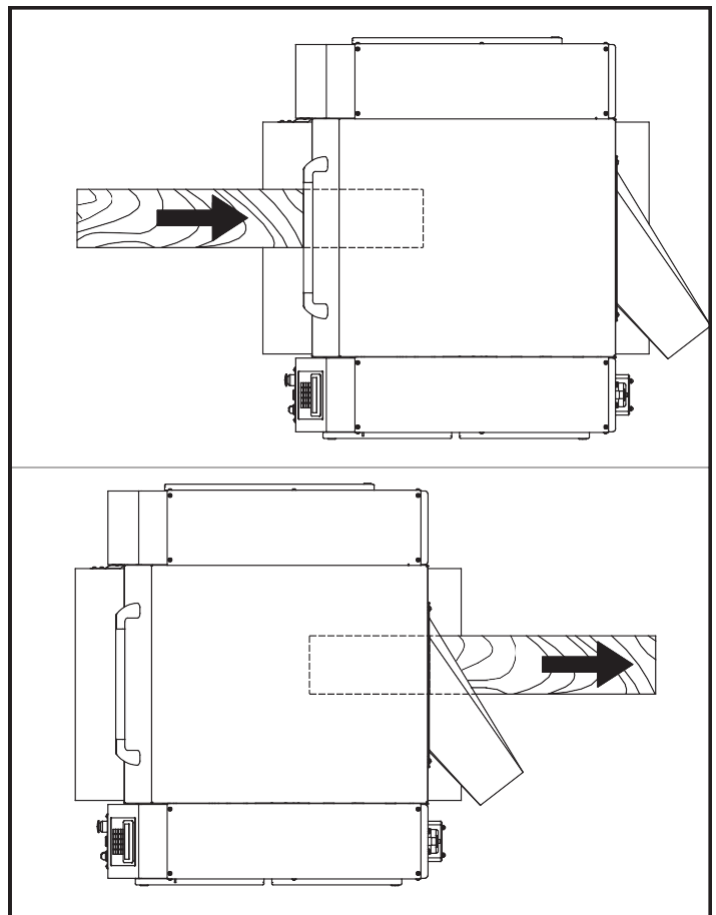


FIG.5.1.5.1

## 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. Turn the main power supply control switch D to "ON" position, then the main power light G will light, the lift control panel F is activated.
2. Use the lift control panel F or the lift control knob H to lift or drop the table to proper position.
3. Push the green button of the main motor switch B, to start the main motor.
4. Turn the feed motor switch I to ON position, to start the infeed motor.
5. Adjust the feed speed adjustment knob J to "+" or "-", to adjust the infeed speed.

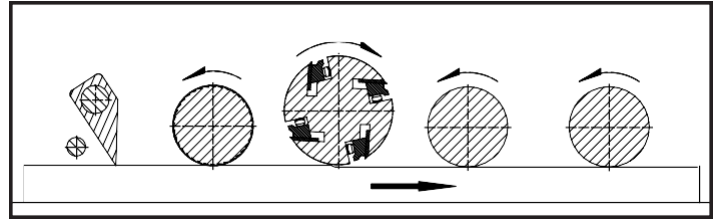


FIG.5.1.5.2



### WARNING

If the phase sequence lamp (Red) is lighted after power on and turn on the main power switch, the machine will fail to start because of the phase sequence protection. Now please exchange any two phase sequence and then restart the machine. If the main power indicator (White) is lighted and the phase sequence lamp (Red) is off, now the machine is under the normal condition for operation.

## 5.3 STOPPING



### WARNING

Stopping machine must be after the main motor finished Y-Δ.

Normal stop

Directly press the red button of main motor switch B, to stop the machine.

Emergency stop

Press the emergency stop switch A, or press the emergency stop switch E which near the dust collector port on the machine back side, then emergency stop the machine.

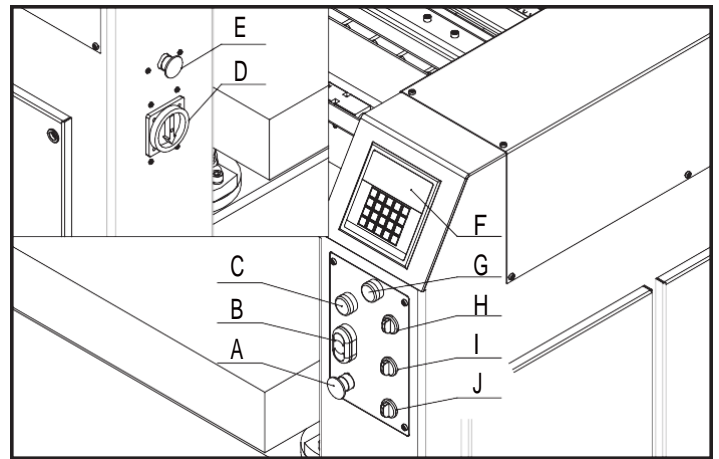


FIG.5.2

# 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.

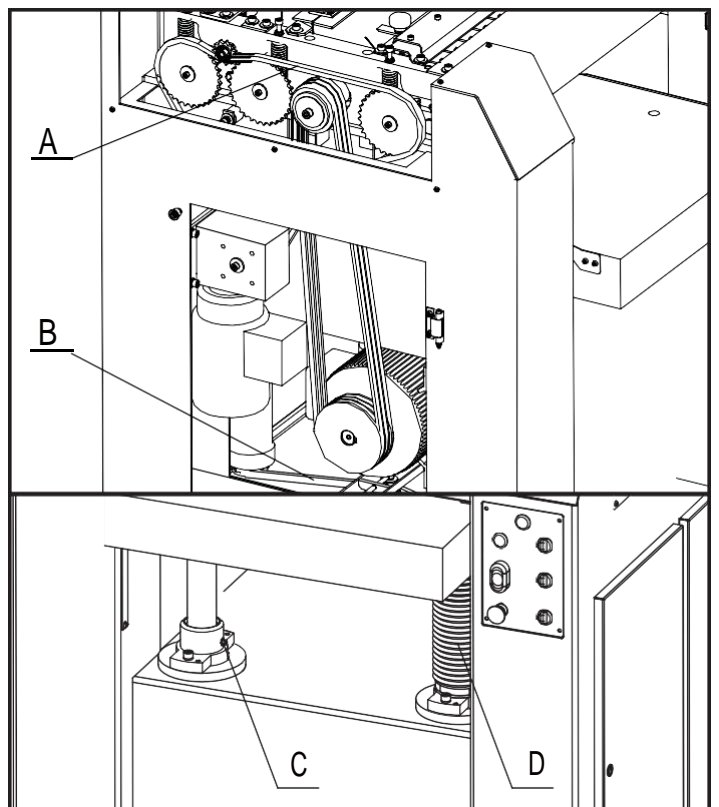


FIG.6.2

### 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.

Tools required:

- 3mm allen wrench
- 5mm allen wrench
- 8mm allen wrench
- 18mm double ended spanner

- Open the belt cover A and door B.
- Loose the two nuts C of main motor mount bracket,pull the main motor to proper height, or adjust nut E to adjust the motor height.
- After belt D is loose, take off three belts one by one.



#### CAUTION

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

- Clean the pulley grooves thoroughly by soft brush.
- Replace to three new belts, tighten the main motor to proper position by adjusting nut C. Pay attention to put all belts into relative pulley grooves.
- Press the belts by thumb to check belts tention, the center of belts should not move away more than 10mm.
- Tighten the nut C and nut E by spanner.

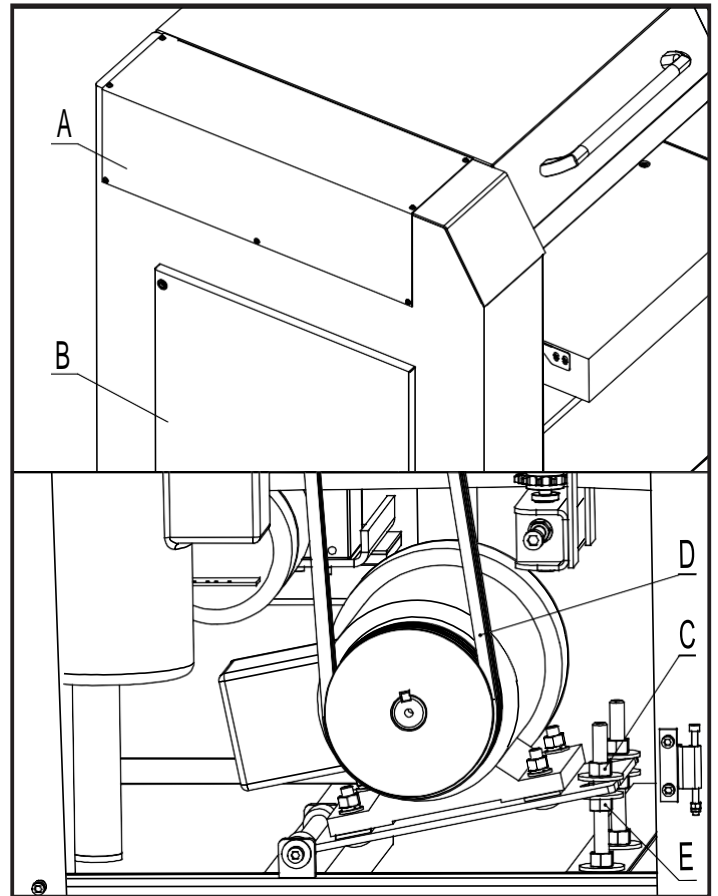


FIG.6.4

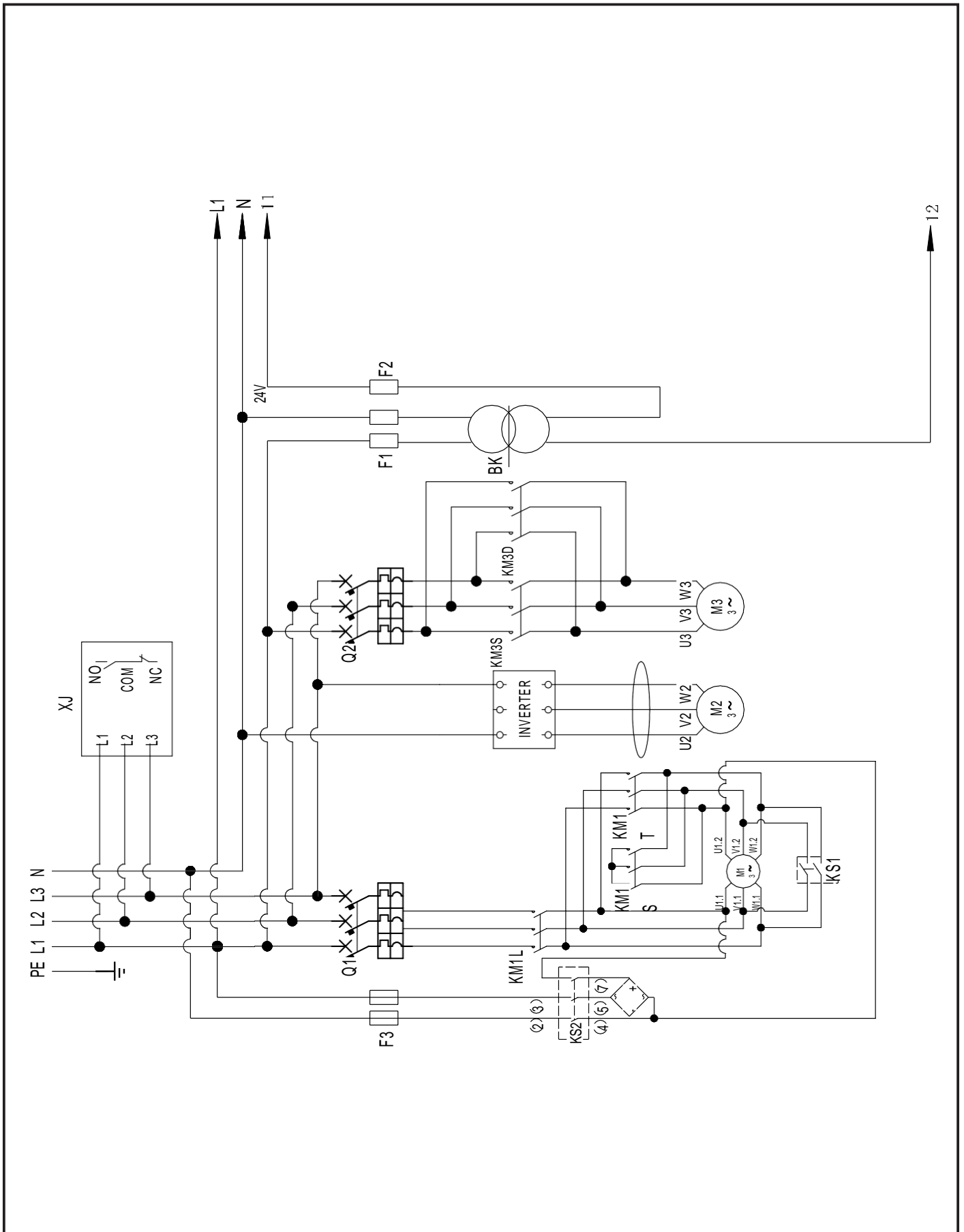
## 6.5 ELECTRICAL WIRING DIAGRAM

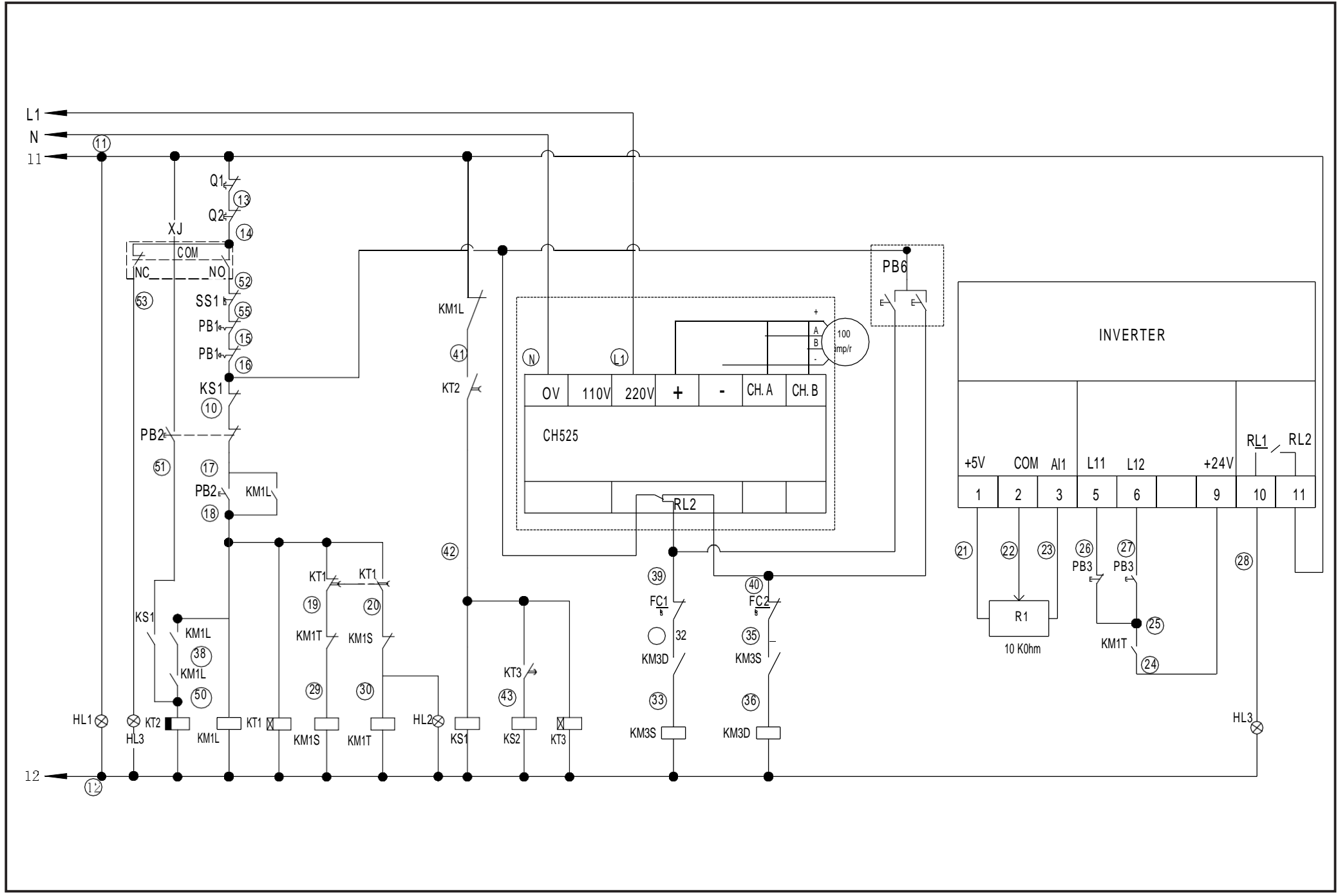
- The installation of electric components must be operated by trained professional worker.
- Use wiring box for the main power connections.
- Changing power supply cords must be operated by trained professional worker.



### 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.





# 7 TROUBLESHOOTING

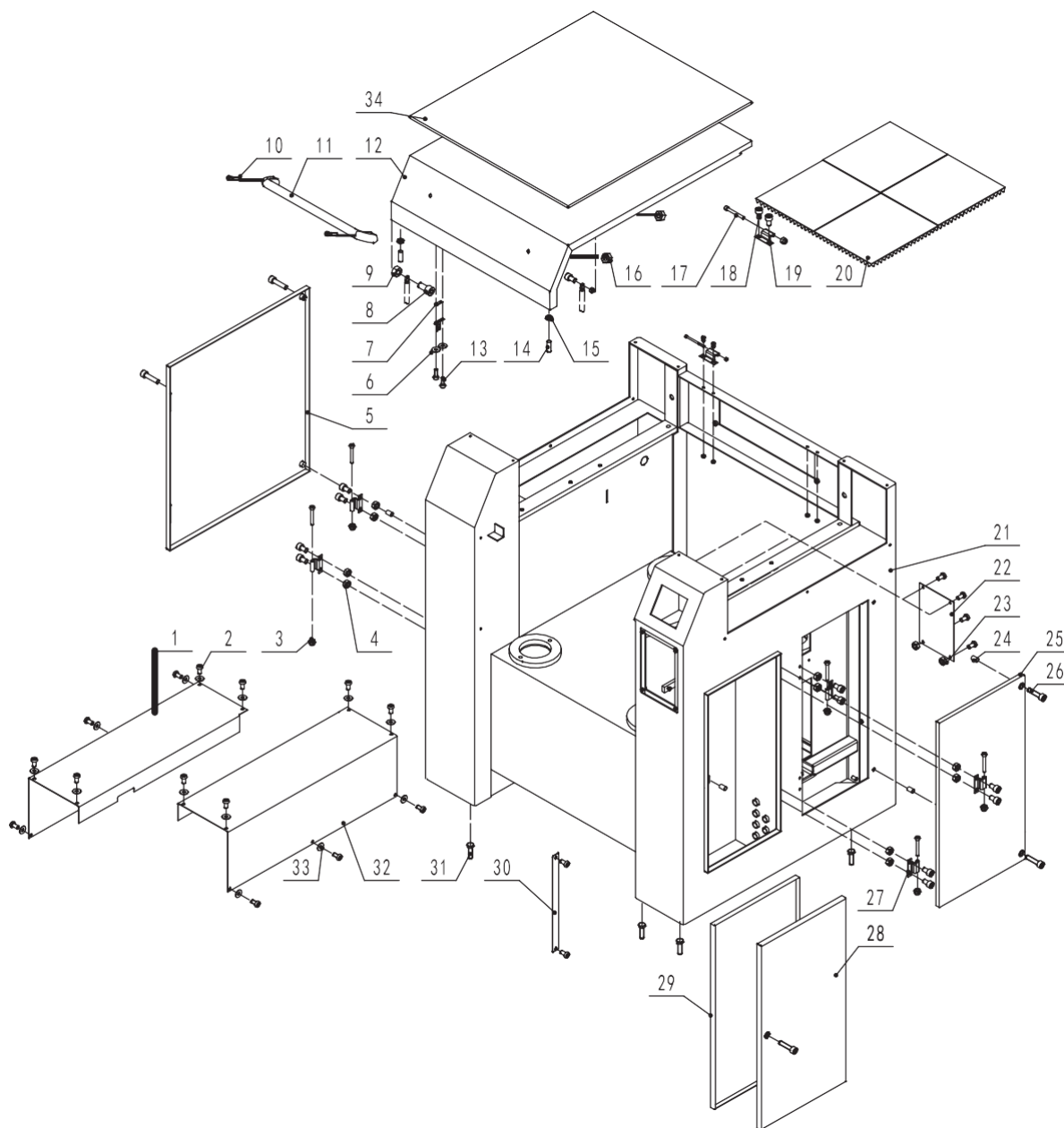
Common problem	Cause	Solution
Machine stop running or not start	The motor is overloaded and in protection mode	Wait for the motor to cool down and restart
	Fail to plugin	Plugin
	The fuse is burnt or the circuit breaker failure	Replace fuse or reset circuit breaker
	Cable damaged	Replace cable
	Phase sequence protection	Exchange any two-phase sequence
Digital display is not accurate	Wrong program in Programmable Logic Controller	Readjust program
Cutting results are 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 the proper blade
	The table is not clean	Clean the table
	Wrong infeed and outfeed rollers height	Readjust infeed and outfeed rollers height
Workpiece jammed between table and cutter head	Table height does not fit the cutting depth of the workpiece	Readjust the table height, cut below the maximum cutting depth
	Wood workpiece bending too much	Change to the new wood workpiece
Cutterhead rotation speed is too low	The 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 are too loose	Tighten the fasteners
	Blade damage	Replace blade





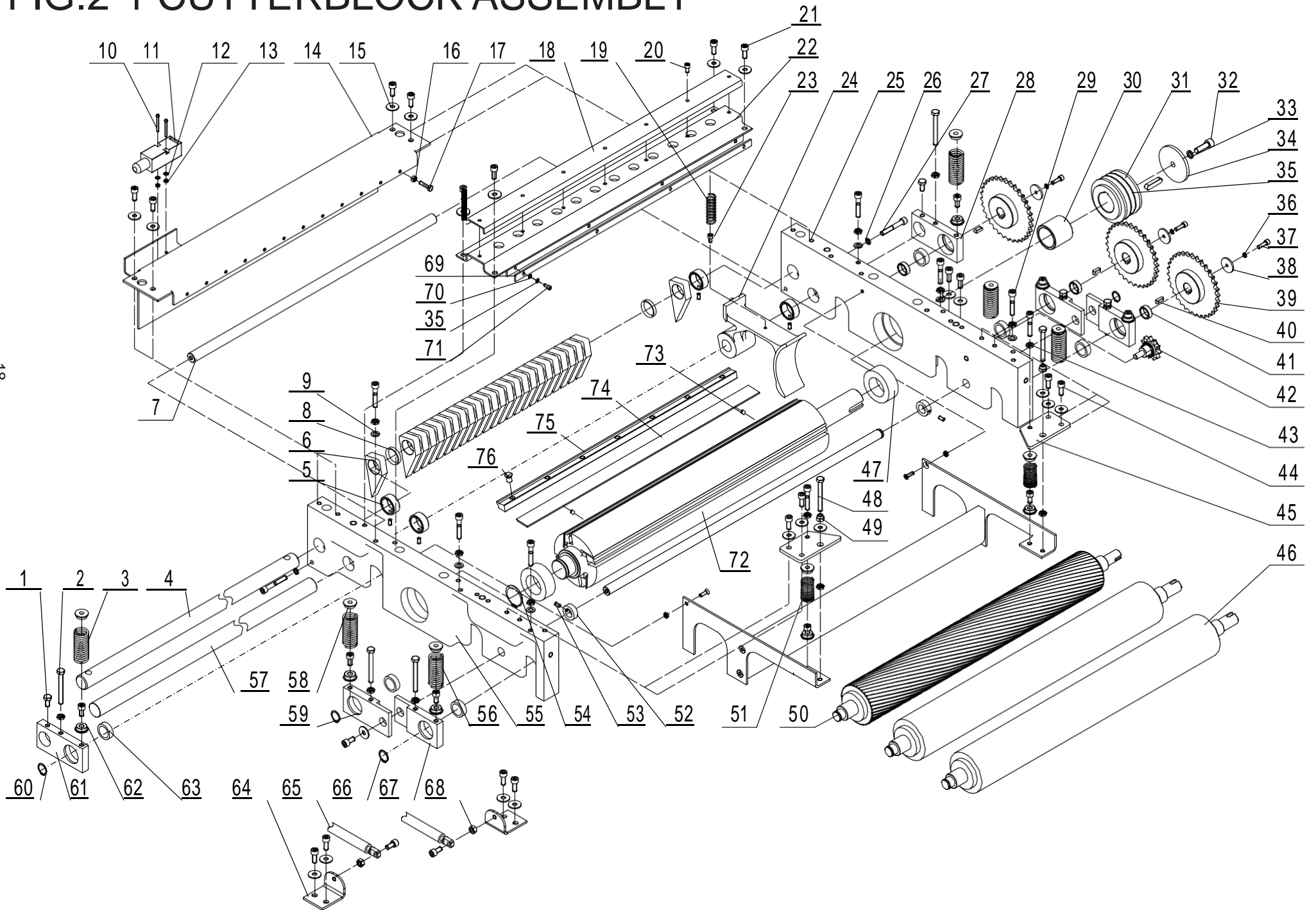
# 8 PARTS DIAGRAMS AND PARTS LISTS

## FIG.1 FRAME ASSEMBLY

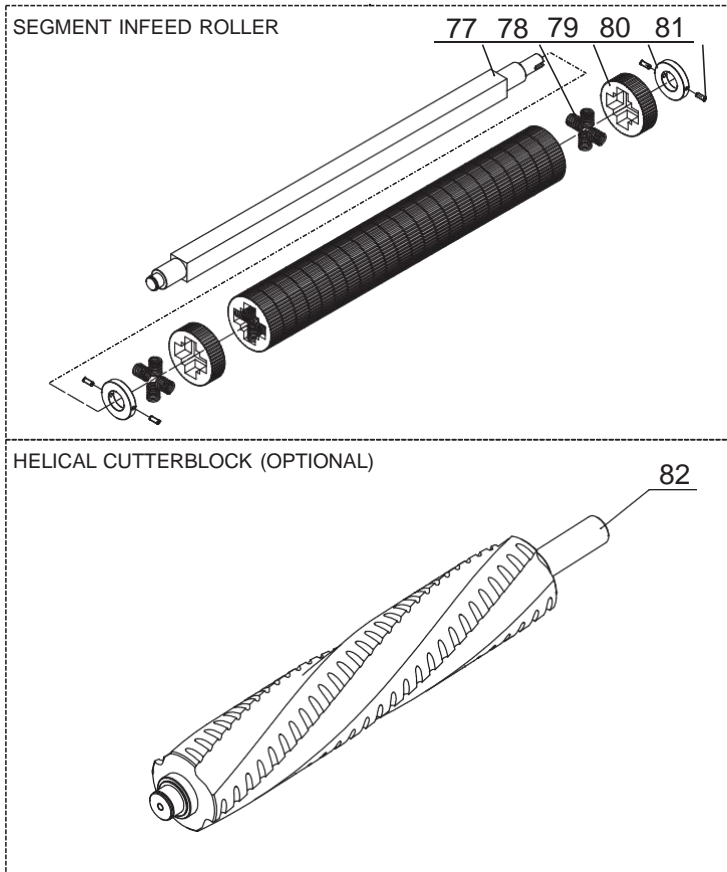


No.	Description	Part No.	QTY
1	Left cover	JXTH2501010004	1
2	Screw	M5X10GB70D2Z	20
3	Locking screw	M5GB889Z	8
4	Nut	M6GB6170Z	8
5	Left door	JXTH2501012300	1
6	Big washer	WSH4GB96Z	2
7	Thread plate	JL27010017	1
8	Hex. Screw	M8X16GB70Z	2
9	Bolt	M8GB6170Z	2
10	Hex. Screw	M8X40GB70Z	2
11	Handle	JE8047-25X400	1
12	Large shield	JXTH2102013100	1
13	Screw	M4X12GB70Z	2
14	Nylon screw	0323885600A	2
15	Bolt	M12GB6172Z	2
16	Blot	M8GB6170Z	2
17	Hex. Screw	M5X70GB70B	8
18	Hex. Screw	M6X10GB70Z	16
19	Hinge 3	JXTH2501013101A	2
20	Silencing cotton	JXTH2102013001	4
21	Frame	JXTH2102011000	1
22	Protection plate	JXTH2102010017	1
23	Screw	M5GB6170Z	2
24	Riveted nut	M6X16D5GB17880D3Z	5
25	Right door	JXTH2501012200	1
26	Hex. Screw	M6X20GB70Z	5
27	Hinge 2	JXTH2501013101	6
28	Cabinet door	JXTH2501012100	1
29	Seal	JXTH2501010006	1
30	Lifting scale	JXTH2501010015	1
31	Hex. Screw	M12X40GB5783Z	4
32	Right cover	JXTH2501010003	1
33	Washer	WSH5GB97Z	14
34	Protect felt	JXTH2102013002	1

# FIG.2-1 CUTTERBLOCK ASSEMBLY



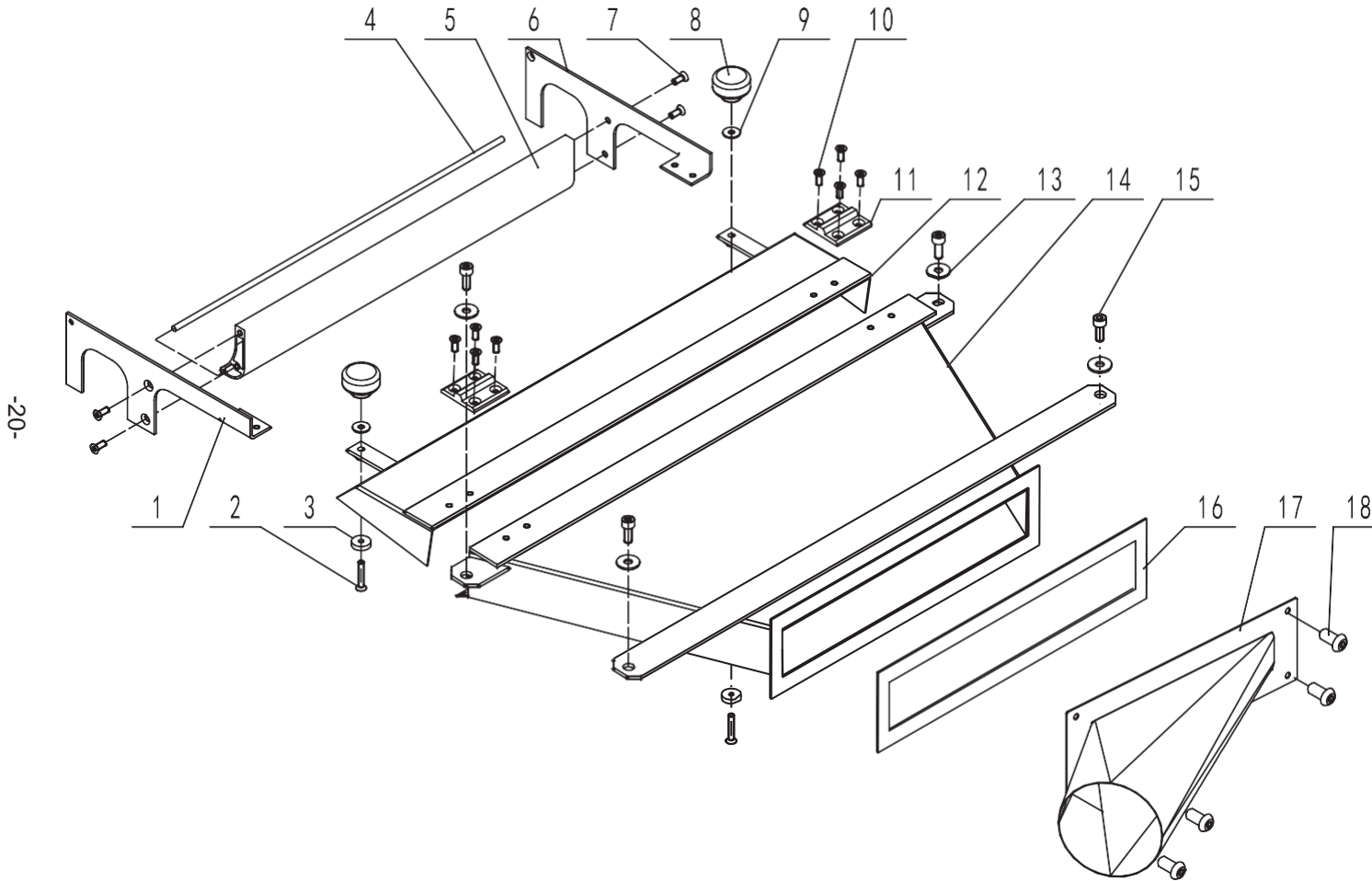
# FIG.2-2 CUTTERBLOCK



-19-

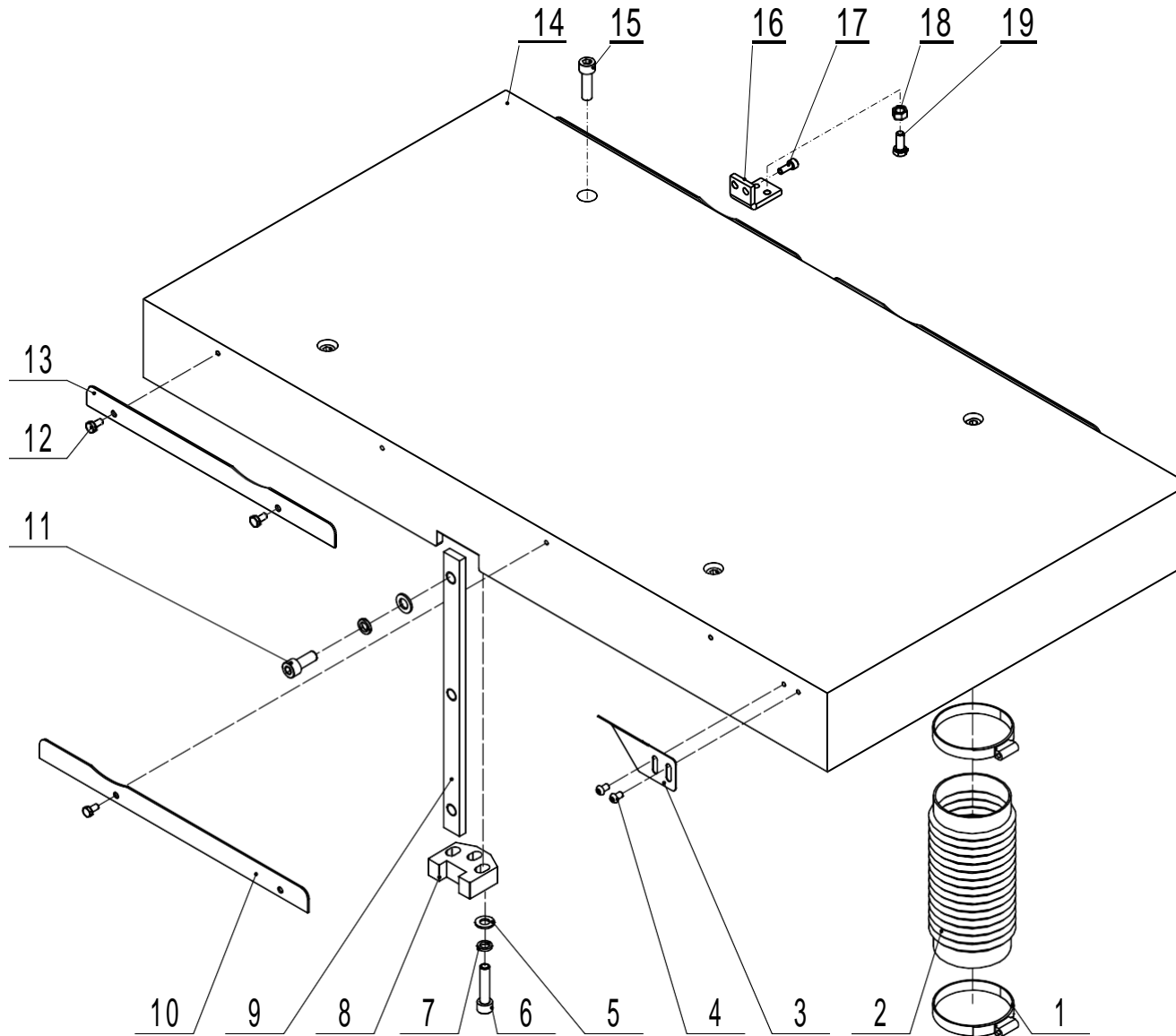
No.	Description	Part No.	QTY	No.	Description	Part No.	QTY
1	Hex.screw	M8X16GB5781Z	2	43	Bolt	M8GB6172Z	10
2	Hex.screw	M8X70GB5781Z	8	44	Hex.screw	M8X20GB70Z	12
3	Pressure spring	JXTH2501050020	6	45	Plate	JXTH2102050006	2
4	Anti kickback shaft	JXTH2102050002	1	46	Outfeed roller	JXTH2102051100	2
5	Positioning tube	JXTH2501052102	4	47	Beaing	BRG6208DDU	2
6	Anti kickback segment	JXTH2501050044	21	48	Hex.screw	M8X70GB5781Z	2
7	Shaft	JXTH2102050001	1	49	Lock nut	M8GB889Z	2
8	Ring	JXTH2501050040	29	50	Segment infeed roller	JXTH2102052100A	1
9	Flat washer	WSH8GB97D1Z	4	51	Spring	JXTH2501050023	2
10	Pan screw	M4X35GB818Z	2	52	Tightening tube	JXTH1601050001	2
11	Safty switch	QKS8	1	53	Hex.screw	M8X12GB80B	6
12	Washer	WSH4GB97D1Z	2	54	Retaining ring	CLP40GB894D1B	1
13	Nut	M4GB6170Z	2	55	Right tool rest	JXTH2501050001	1
14	Plate	JXTH2102051400	1	56	Pressure spring	JXTH2501050020	6
15	Big washer	WSH8GB96D1Z	16	57	Anti kickback shaft	JXTH2102050003	1
16	Nut	M6GB6170Z	14	58	Position block 2	JXTH2501050022	8
17	Hex.bolt	M6X25GB5781Z	12	59	Outfeed bracket	JXTH2501050003	2
18	Cover plate	JXTH2102050009	1	60	Retaining ring	CLP20GB894D1B	1
19	Pressure spring	JXTH2501050026	12	61	Infeed block	JXTH2501050002	1
20	Hex.screw	M6X12GB70D1Z	7	62	Position block	JXTH2501050021	8
21	Hex.screw	M8X16GB70Z	11	63	Bearing	BRG6004-2RSGB276	6
22	Plate	JXTH2102051500	1	64	Fix seat	JXTH2501010009	2
23	Hex.screw	M6X8GB70D1B	12	65	Spring	JXTH2501010010	2
24	Block	JXTH2501020011	12	66	Retaining ring	CLP20GB894D1B	3
25	Left tool rest	JXTH2501050004	1	67	Outfeed block	JXTH2501050014	2
26	Spring washer	WSH8GB93Z	2	68	Nut	M8GB6170Z	2
27	Hex.screw	M8X55GB70Z	2	69	Plate	JXTH2102050008	1
28	Infeed block 2	JXTH2501050009	1	70	Washer	WSH6GB97Z	4
29	Screw	M8X45GB70Z	8	71	Bolt	M6X16GB70D1Z	4
30	Tube	JXTH2501050025	1	72	Cutterblock	JXTH2102051001A	1
31	Pulley	JXTH2501020008	1	73	Hex.screw	M6X20GB70D3B	8
32	Hex.screw	M10X30GB70Z	1	74	Blade	JXTH2102051002	4
33	Spring washer	WSH10GB93Z	1	75	Lock bar	JXTH2102051003	4
34	Cover	JXTH2501050042	1	76	Square-head bolt	JXPT1201051004	24
35	Flat key	PLN10X8X40GB1096	1	77	Shaft	JXTH2102050012	1
36	Spring washer	WSH6GB93Z	7	78	Pressure spring	JXTH2501052101	84
37	Hex.screw	M6X20GB70D1Z	3	79	Segmented infeed roller	JXTH2501050043	21
38	Washer	JL50000006	3	80	Position tube	JXTH2501050028	2
39	Infeed sprocket	JXTH2501050015	3	81	Hex.screw	M6X16GB80B	4
40	Flat key	PLN6X6X18GB1096	3	82	Spiral cutterblock (4slots)	JXTH2102051001B	1
41	Tube	JMBS2201040006	3		Spiral cutterblock (6slots)	JXTH2102051001C	1
42	Tension wheel assembly	XTH2102112	1				

# FIG.3 DUST COLLECTOR ASSEMBLY



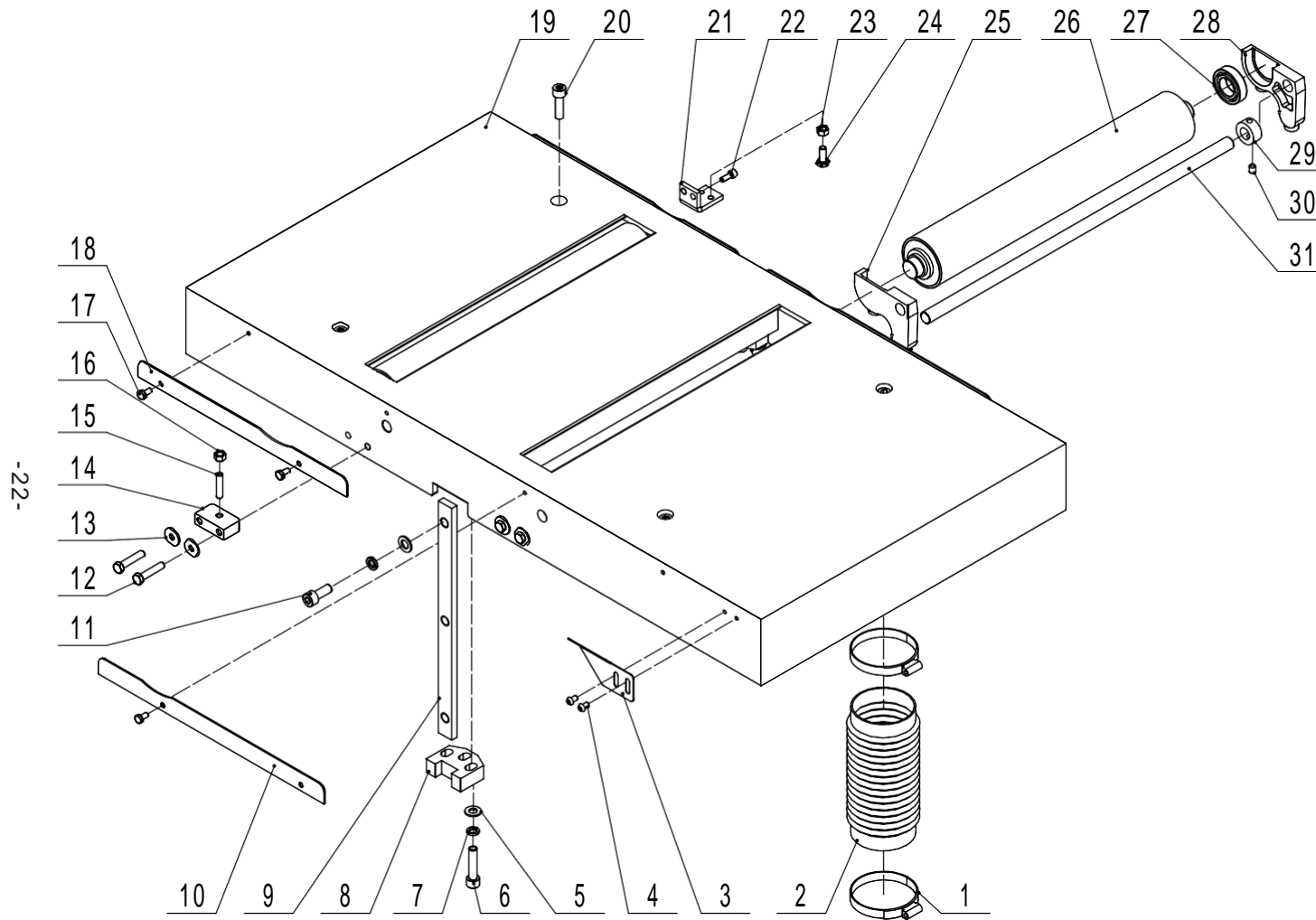
No.	Description	Part No.	QTY
1	Plate 1	JXTH2501050017	1
2	Hex. Screw	M6X30GB70D3Z	2
3	Magnet	JXPS1602020013	2
4	Shaft	JXTH2102050013	1
5	Plate	JXTH2102050007	1
6	Plate 2	JXTH2501050018	1
7	Hex.screw	M8X16GB70D3Z	4
8	Fence knob	JL20061100	2
9	Big washer	WSH6GB96Z	4
10	Hex.screw	M6X12GB70D3Z	8
11	Hinge	JXTH2501052107	2
12	Cover plate	JXTH2102051300	1
13	Big washer	WSH8GB96D1Z	4
14	Dust hood	JXTH2102051200	1
15	Hex.screw	M8X16GB70Z	4
16	Sealed plate	JXTH2501050027	1
17	Dust collector	JXTH2501052300	1
18	Screw	M8X16GB70D2Z	4

# FIG.4 TABLE ASSEMBLY



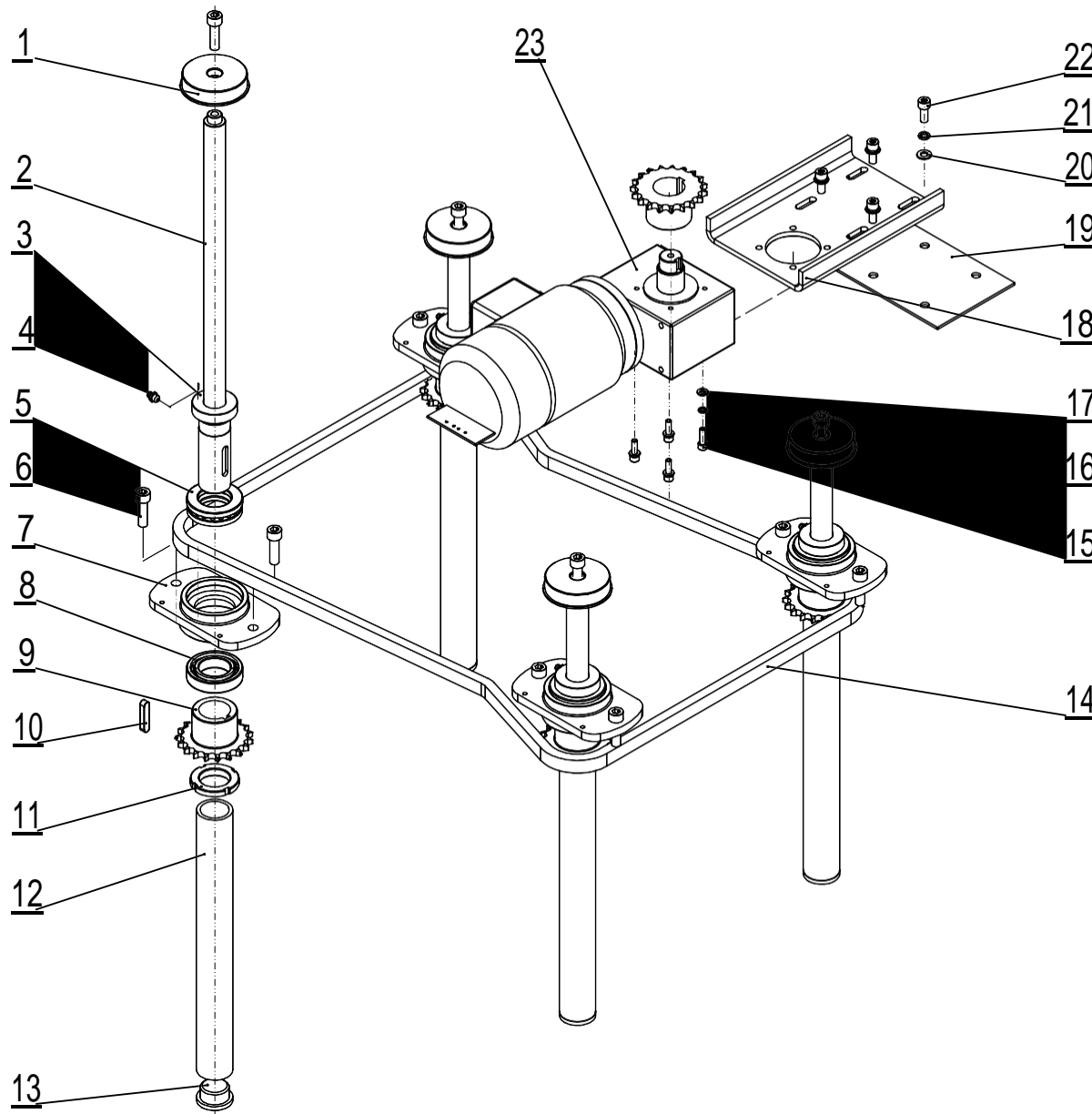
No.	Description	Part No.	QTY
1	Clip	JL82040018	8
2	Protect tube	JXTH2501040011	4
3	Indicator	JXTH2501040009	1
4	Hex.screw	M6×10GB70D2Z	2
5	Washer	WSH10GB97Z	12
6	Hex.screw	M10×45GB70Z	6
7	Spring washer	WSH10GB93Z	6
8	Block	JXTH2102040004	2
9	Guiding plate	JXTH2102010019	2
10	Plate 2	JXTH2102040003	2
11	Hex.screw	M10×25GB70Z	6
12	Hex bolt	M6×10GB5782Z	8
13	Plate 1	JXTH2102040002	2
14	Table	JXTH2102040001	1
15	Hex.screw	M10×35GB70Z	4
16	Position plate	JXTH2501040006	1
17	Hex.screw	M6×16GB70DZ	2
18	Hex nut	M8GB6170Z	2
19	Hex.screw	M8X20GB5781Z	2

# FIG.4-1 TABLE ASSEMBLY (OPTIONAL)



No.	Description	Part No.	QTY
1	Clip	JL82040018	8
2	Protect tube	JXTH2501040011	4
3	Indicator	JXTH2501040009	1
4	Hex.screw	M6×10GB70D2Z	2
5	Washer	WSH10GB97Z	12
6	Hex.screw	M10×45GB70Z	6
7	Spring washer	WSH10GB93Z	6
8	Fix block	JXTH2102040004	2
9	Guiding plate	JXTH2102010019	2
10	Plate 2	JXTH2102040003	2
11	Hex.screw	M10×25GB70Z	6
12	Hex bolt	M8X40GB5781Z	8
13	Big washer	WSH8GB96Z	8
14	Block	JXTH2501040016	4
15	Hex.screw	M8X35GB77B	4
16	Bolt	M8GB6170Z	4
17	Hex bolt	M6×10GB5782Z	8
18	Plate 1	JXTH2102040002	2
19	Table	JXTH2102040001B	1
20	Hex.screw	M10×35GB70Z	4
21	Position plate	JXTH2501040006	1
22	Hex.screw	M6×16GB70DZ	2
23	Bolt	M8GB6170Z	2
24	Hex.screw	M8X20GB5781Z	2
25	Left bracket	JXTH2501040023	2
26	Table roller	JXTH2102040011	2
27	Bearing	BRG6005-2ZGB276	4
28	Right bracket	JXTH2501040024	2
29	Retaining ring	JXPT1201040006	4
30	Hex.screw	M8X10GB80B	4
31	Shaft 1	JXTH2102040021	2

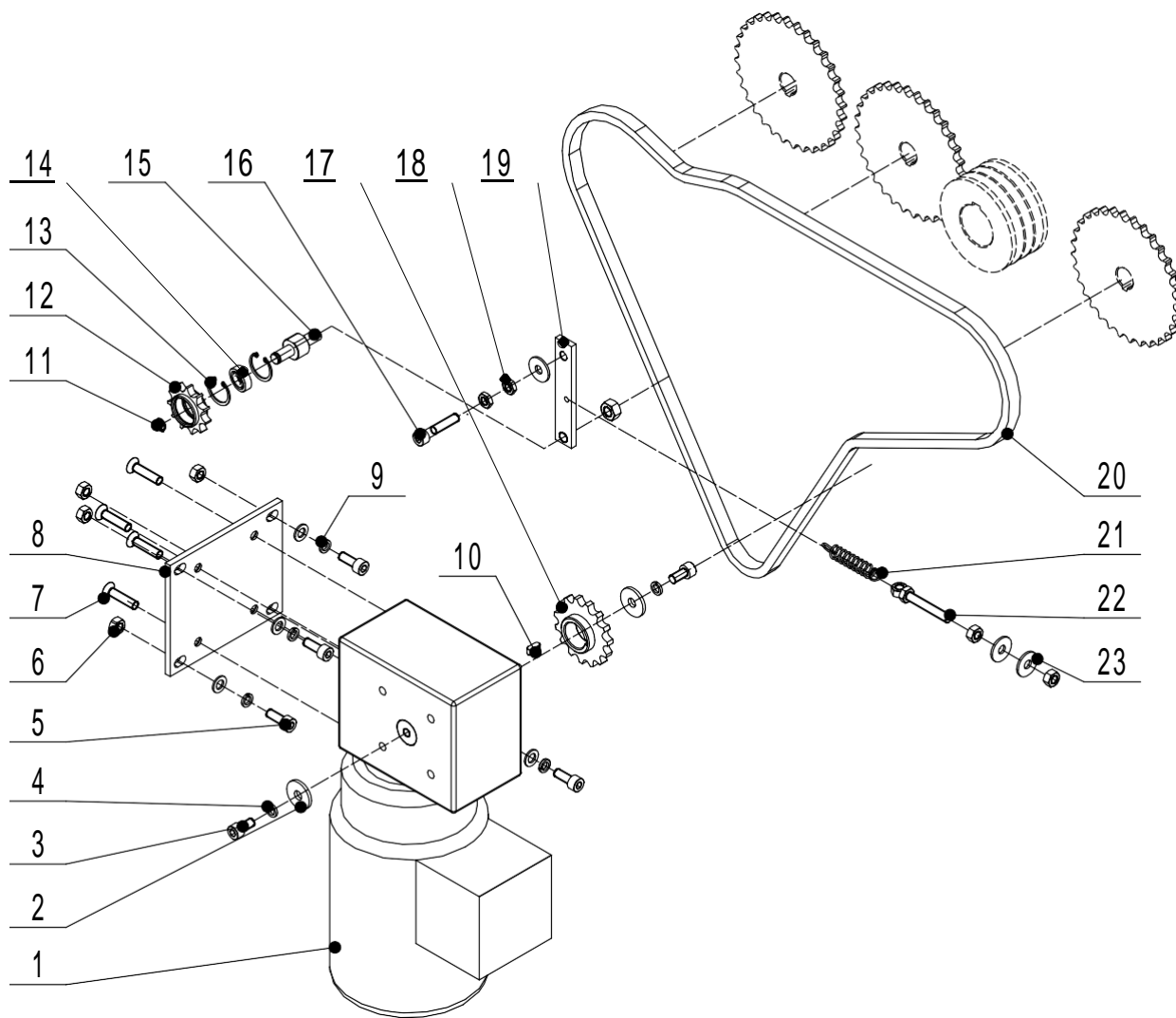
# FIG.5 DRIVE SYSTEM



No.	Description	Part No.	QTY
1	Thicknesser table flange	JXTH2102041105	4
2	Threaded shaft	JXTH2102041104	4
3	Nut	JXTH2102041102	4
4	Oil cup	M8X1JB7940D1	4
5	Bearing	BRG51207-2RSGB301	4
6	Hex screw	M10x35GB71Z	12
7	Flange	JXTH2102041101	4
8	Bearing	BRG6007-2RSGB276	4
9	Lift sprocket	JXTH2102041103	4
10	Flat key	PLN8X40GB1096	4
11	Round nut	M35GB812Z	4
12	Protection bush	JXTH2102041107	4
13	End cap	JXTH2102041106	4
14	Chain	JXTH2102020002	1
15	Hex screw	M6x20GB70Z	4
16	Spring washer	WSH6GB93Z	4
17	Washer	WSH6GB97Z	4
18	Bracket	JXTH2102021201	1
19	Cushion	JXTH2102021202	1
20	Spring washer	WSH8GB93Z	4
21	Flat washer	WSH8GB97Z	4
22	Hex screw	M8x20GB70Z	4
23	Motor	YS6334RV40-03	1

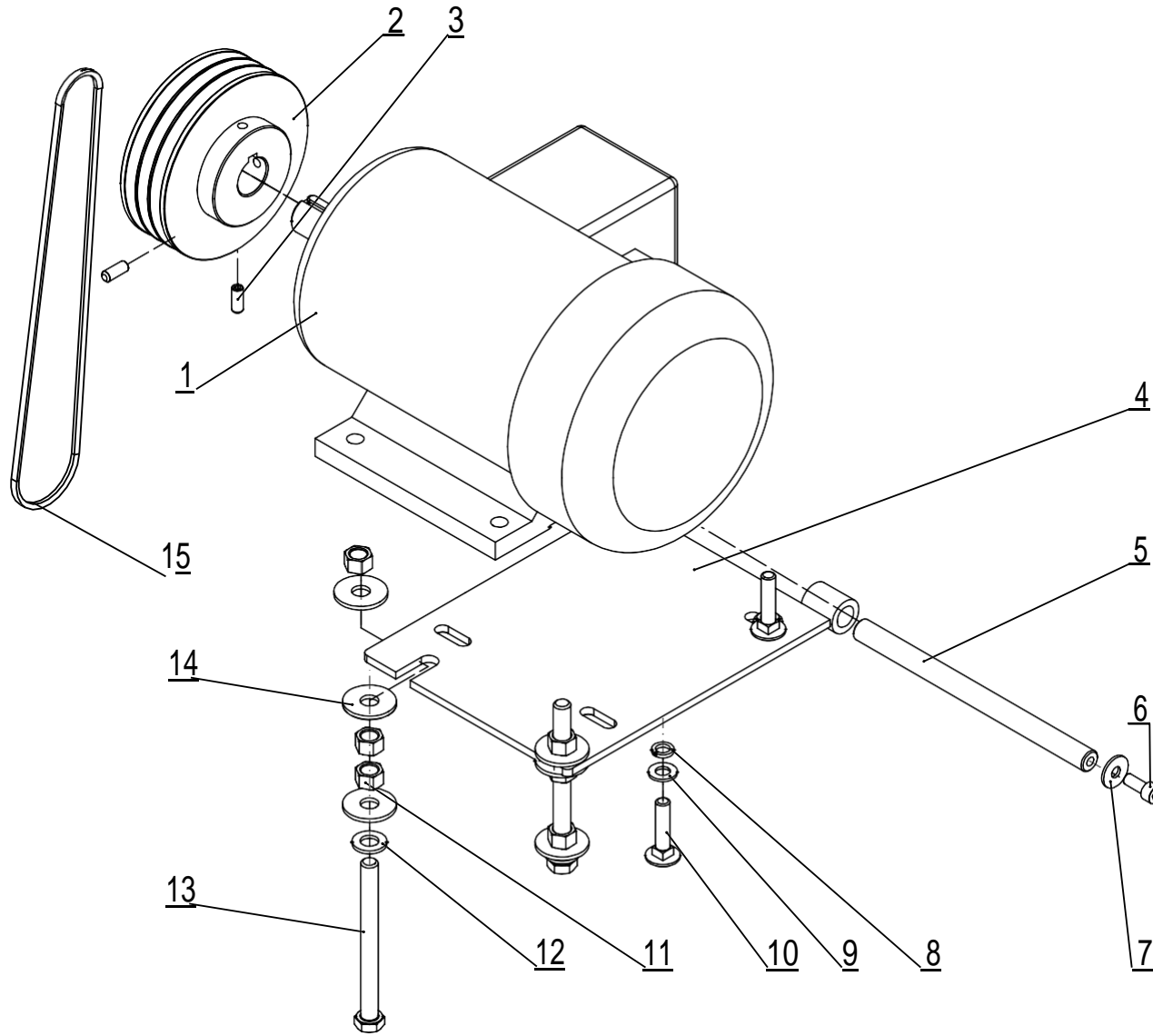


# FIG.6 FEED DRIVE SYSTEM



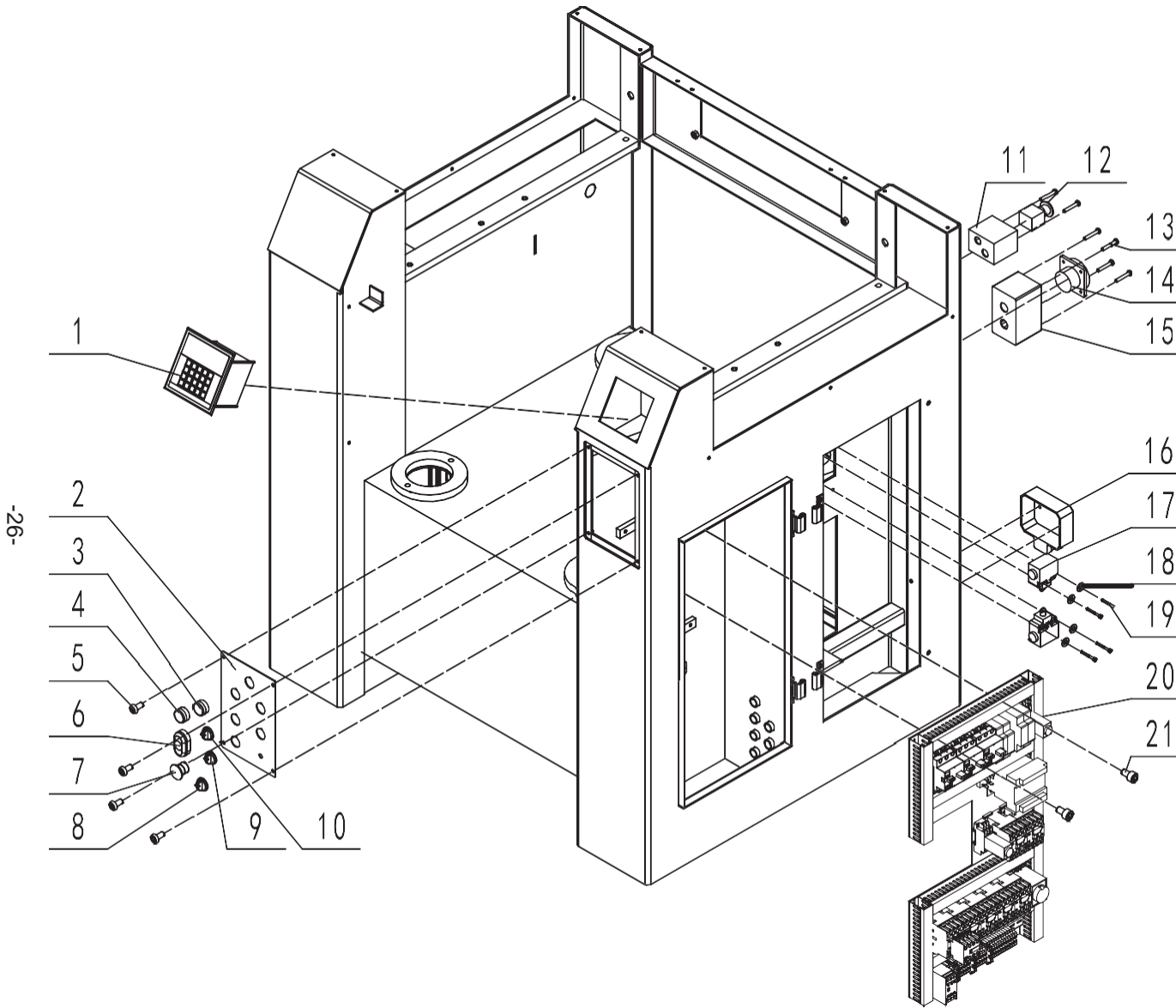
No.	Description	Part No.	QTY
1	Motor	YS7134RV50-01	1
2	Big washer	WSH8GB5287Z	2
3	Hex.screw	M8X16GB70Z	2
4	Spring washer	WSH8GB93Z	2
5	Hex.screw	M8X20GB70Z	4
6	Nut	M8GB6170Z	6
7	Hex.screw	M8X30GB70D3Z	4
8	Bracket	JXTH2102011302A	1
9	Spring washer	WSH8GB93Z	6
10	Pin	PLN6X6X14GB1096	1
11	Retaining ring	CLP10GB894D1B	1
12	Tension wheel	JXTH2501050041	1
13	Clip	CLP26GB893D1B	2
14	Bearing	BRG6000-2ZGB276	1
15	Tension shaft	JXTH2501040005	1
16	Hex.screw	M8X40GB70Z	1
17	Lifting sprocket	JXTH2501020007	1
18	Nut	M8GB6172Z	2
19	Tension plate	JXTH2501021001	1
20	Infeed chain	JXTH2501020009	1
21	Spring	JXTH2501020012	1
22	Tension bolt	JXTH2501020010	1
23	Big washer	WSH8GB96Z	2

# FIG.7 MAIN MOTOR ASSEMBLY



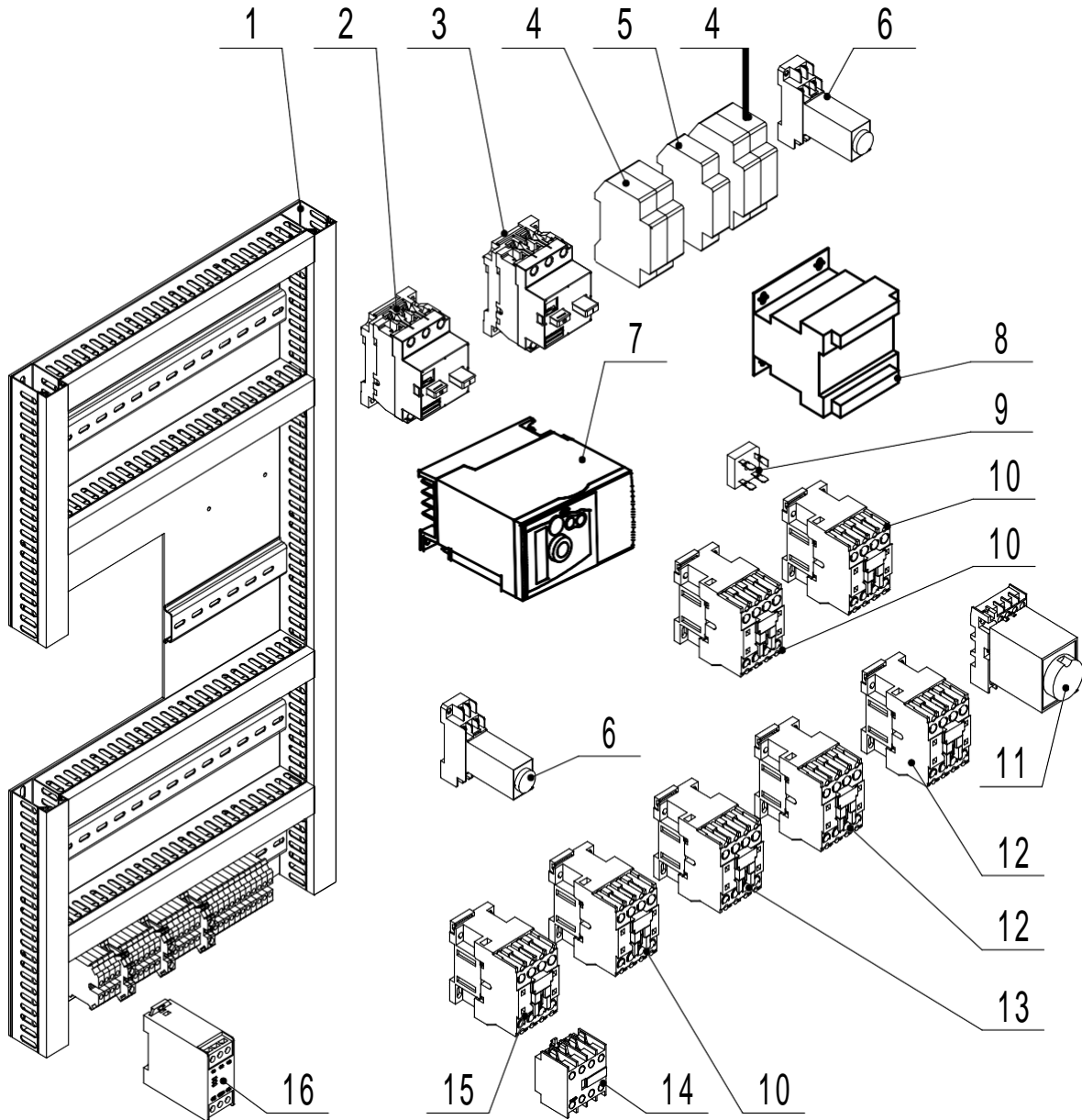
No.	Description	Part No.	QTY
1	Main motor	YSA105502A	1
2	Main motor pulley	JXTH2501020001	1
3	Set screw	M8x20GB80B	2
4	Motor mount	JXTH2102011700	1
5	Shaft	JXTH2102010001	1
6	Hex screw	M8x20GB70Z	2
7	Big washer	WSH8GB96D1Z	2
8	Spring washer	WSH10GB93Z	4
9	Flat washer	WSH10GB97Z	4
10	Bolt	M10x45GB14Z	4
11	Hex nut	M12GB6170Z	6
12	Flat washer	WSH12GB97Z	2
13	Hex bolt	M12x130GB5781Z	2
14	Big washer	WSH12GB96D1	6
15	V belt	JXTH2102020005	3

# FIG.8-1 ELECTRIC ASSEMBLY



No.	Description	Part No.	QTY
1	Positioner	CH525	1
2	Control panel	JXTH2501090001B	1
3	Main power light	AD16	1
4	Phase sequence light	AD16-R	1
5	Screw	M5X10GB70D2Z	4
6	Main motor switch	M22-DDL-GR/K11/LED	1
7	Emergency stop	XB5AS542C	1
8	Feed speed adjustment knob	WX112	1
9	Feed motor switch	M22-WLK3-W/K11/LED	1
10	Lift control knob	M22-WK3/K20	1
11	Switch box	JL93040002	1
12	Emergency stop button	XB5AS542C	1
13	Tapping screw	ST3D9X25GB845Z	6
14	Power switch	MW26-32	1
15	Switch box	B10501A	1
16	Wiring box	JXPS1201090009	1
17	Safty switch	QKS15	2
18	Washer	WSH4GB97D1Z	4
19	Hex. Screw	M4X32GB70D1Z	4
20	Electric system	JXTH2102090000D	1
21	Hex. Screw	M6X10GB70Z	4

# FIG.8-2 ELECTRIC SYSTEM



No.	Description	Part No.	QTY
1	Mounting plate	JXTH2102090002	1
2	Protector(14-20A)	DZ108-20-20A-3P	1
3	Protector(1.6-2.5A)	DZ108-20-2D5A-3P	1
4	Fuse	RT18-32-6A-2P	2
5	Fuse	RT18-32/6A/1P	1
6	Time relay	HY3-24V	2
7	Transducer	ATV12H075M2	1
8	Voltage regulator	BK-50-230V-24V	1
9	Rectifier bridge	KBPC3510W	1
10	AC contactor	CJX2-1801-24V	3
11	Time-delay relay	ST3PF	1
12	AC contactor	CJX2-0901-24V	2
13	AC contactor	CJX2-1201-24V	1
14	Auxiliary contact	FN-22	1
15	AC contactor	CJX2-1810-24V	1
16	Phase sequence protector	TG30-380V	1

