

PANEL SAW

Diamond 300

Instruction Manual

IMPORTANT

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



Original Instruction
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

This machine is designed to make straight and angle cut for wood material, especially for wood board cutting.

Some information and illustrations in this manual may differ from the machine in your possession, since all the configurations inherent in the machine complete with all the optionals are described and illustrated. Therefore, refer only to that information strictly connected with the machine configuration you have purchased.

With this manual we would like to provide the necessary information for maintenance and proper use of the machine. The distribution network is at your service for any technical problem, spare parts or any new requirement you may have for the development of your activity.

This manual must be read and understood before operating the machine. This will provide a better working knowledge of the machine, for increased safety and to obtain the best results.

To facilitate its reading, the manual has been divided into sections pointing out the most important operations. For a quick research of the topics, it is recommended to consult the index. To better stress the importance of some basic passages, they have been marked by some preceding 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

Read carefully the operation and maintenance manual before starting, using, servicing and carrying out any other operation on the machine.

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 machine operator shall have all necessary prerequisites in order to operate a complex machinery.
- 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 carrying out adjustment, repair or cleaning work, disconnect the machine from the electric power and lock the disconnect switch in its "OFF" position by setting the main switch to stop.
- 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 (the stopping time must be less than 10 seconds). 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 with respect 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 hands clear from the tool; feed the piece with the aid of a pusher.
- Keep the tools tidy and far away from those not authorized persons.
- Never employ cracked nor unbalanced, neither not correctly ground tools.
- 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.
- 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.
- 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 moved back a little and enable the equipment to be safely unblocked.

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.

Bear in mind that the use of any machine tool carries risks.

Use the appropriate care and concentration for any type of machining (also the most simple).

The highest safety is in your hands.

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:

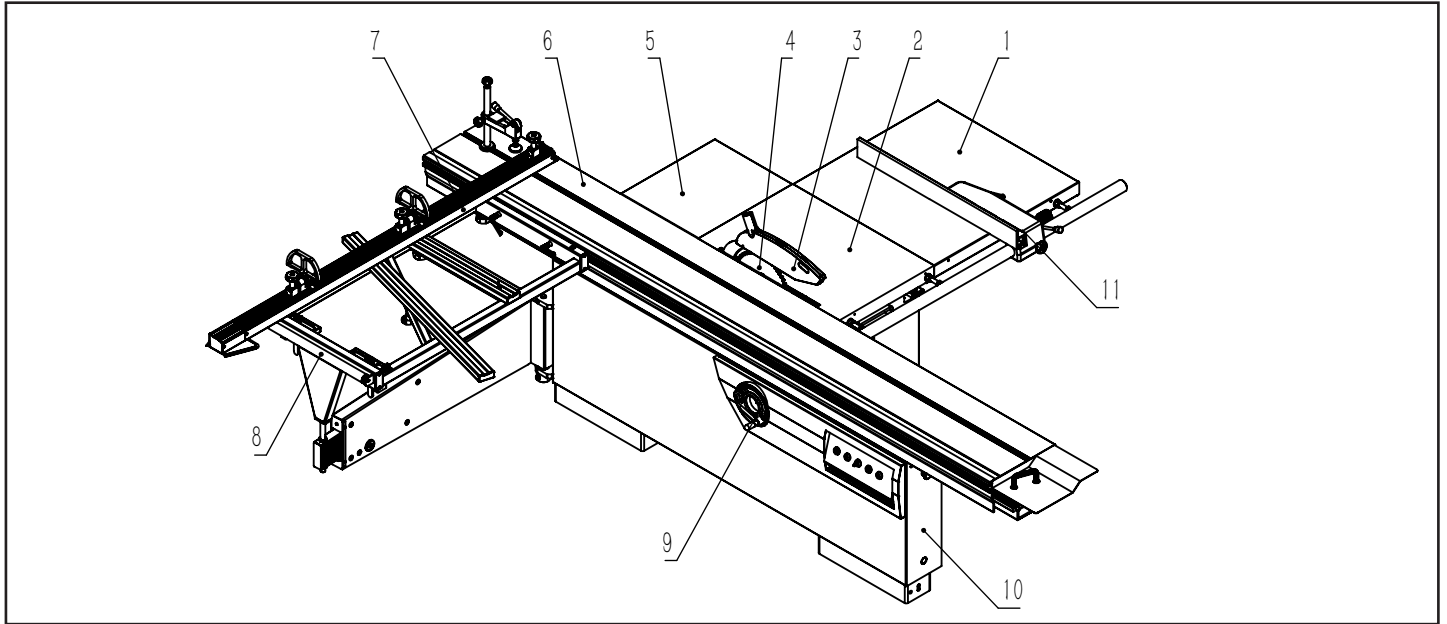
Indicate the technical characteristics, direction of rotation and inclination, block and release, etc.

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 - Right extension table
2 - Main table
3 - Blade guard assembly
4 - Blade

5 - Rear extension table
6 - Sliding table
7 - Telescopic fence
8 - Square sliding table

9 - Tilting handwheel
10 - Lifting handwheel
11 - Rip fence assembly

3.2 TECHNICAL SPECIFICATION

SPECIFICATION		
Motor Voltage	240V/50Hz/3HP	415V/50Hz/5.5HP
Main motor power		
Scoring motor power	1HP	
Main blade diameter	315mm	
Main blade speed	4500rpm	
Scoring blade diameter	120mm	
Scoring blade speed	8000rpm	
Blade tilt	0~45°	
Main table size	800x530mm	
Max.rip capacity	1500mm	
Max.depth of cut	95mm@90°, 67mm@45°	
Sliding table size	2600mm	

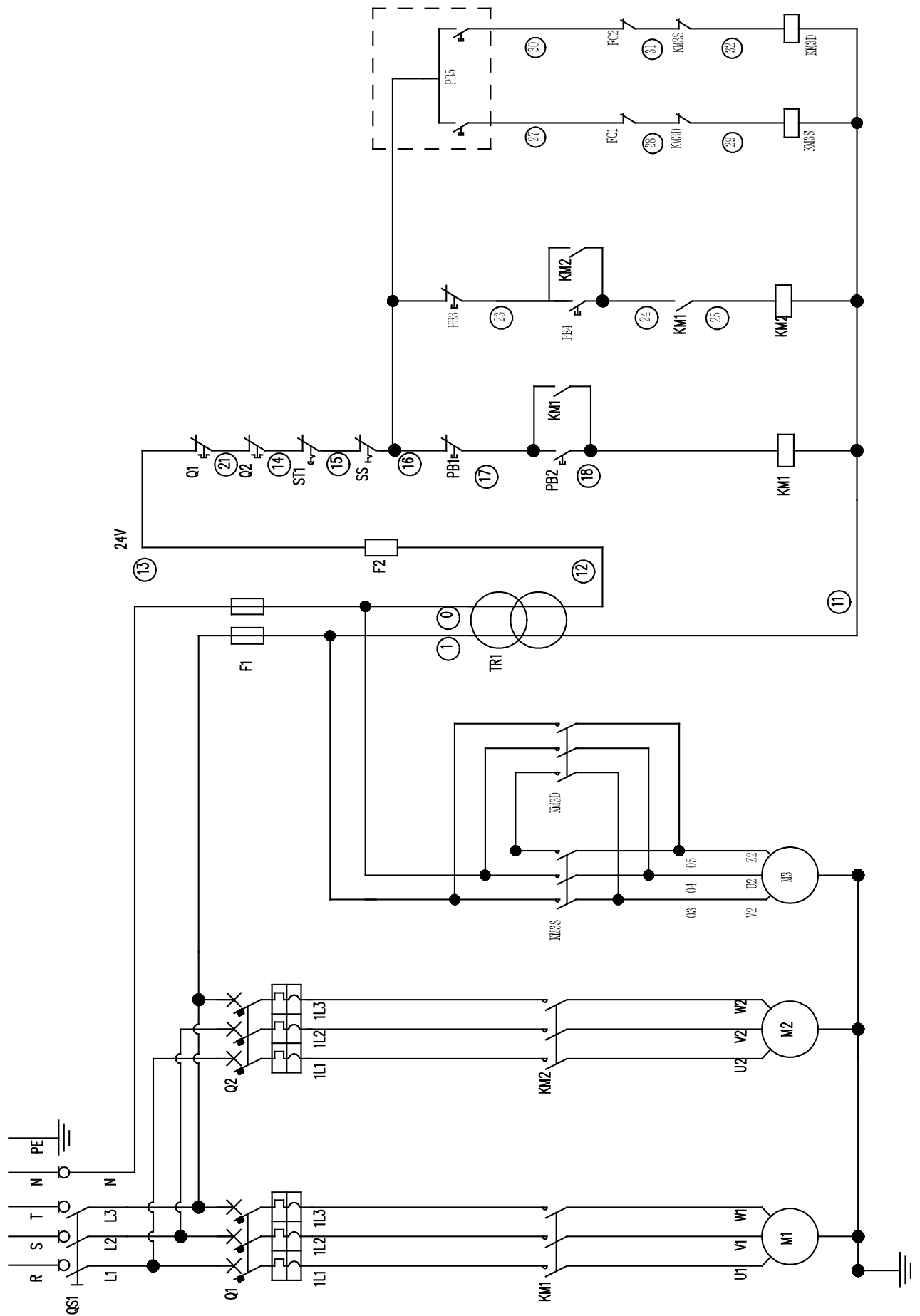
3.3 ELECTRICAL CONNECTION

- Electrical installation should be carried out by competent, qualified personnel.
- The mains connection should be made using the terminal box.
- Replacement of the power supply cable should only be done by a qualified electrician.
- Connect the main leads to a standard 400V±10% for PS315-B/PS315X-B and 230V±10% for PS315/PS315X (50Hz±1%Hz) electrical supply which has protection devices of under-voltage, over-voltage, over-current as well as a residual current device (RCD) which maximum residual current rated at 0.03A, the main connection must have maximum 16A time-lag fuse for PS315/PS315X and 6A for PS315-B/PS315X-B. The test specified in 18.2 of EN 60204-1:2006 should be performed by end user after final installation.



WARNING

To avoid electrocution or fire, any maintenance or repair to electrical system should be done only by qualified electricians using genuine replacement parts.



3.4 NOISE LEVEL

	No load	Load
Sound Pressure Level	< 80.4dB(A)	< 85.7dB(A)
Sound Power Level	< 98.1dB(A)	< 100.7dB(A)

Associated uncertainty K=4dB

Measurement made in accordance with EN ISO 3746:1995 and EN ISO 11202:1995

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.

3.5 DUST EXTRACTION

Proper suction eliminates the risks of dust inhalation and aids better functioning of the machine. The tables list the minimum air flow and speed values referenced to each single suction operation. The related pressure drop at the dust port is 530Pa.

Saw	
Upper hood	Lower hood
Air flow 140 cu.m/h	690 cu.m/h
Minimum air speed 20 m/s	

Ensure that the suction system guarantees these values at the hood-mouth connection point. (Fig.3.5)

Suction mouth diameter:

A - Blade guard $\varnothing 40$ mm

B - Body dust suction $\varnothing 120$ mm

Connect the mouths to the suction system with flexible tubes of adequate diameter. Tighten with clamps. The tube must be positioned in such a way so as not to obstruct the operator during machining.



WARNING

Always work with the suction system on. Always start the suction system and the machine at the same time.

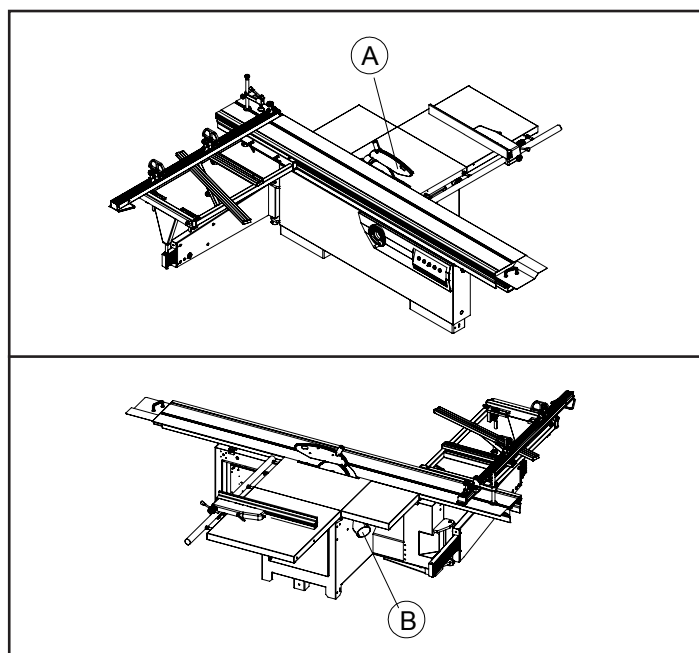


Fig.3.5

3.6 SAFETY DEVICES

The machine is equipped with the following safety devices: (Fig.3.6)

A - Safety Switch.

Stops the machine if the guard D is opened to perform operations on the blade.

B - Saw blade guard

Emergency Switch

When the button is pressed, the power will be cut immediately. It is a mechanical-operated push-button. Reset this button by turning it clockwise.

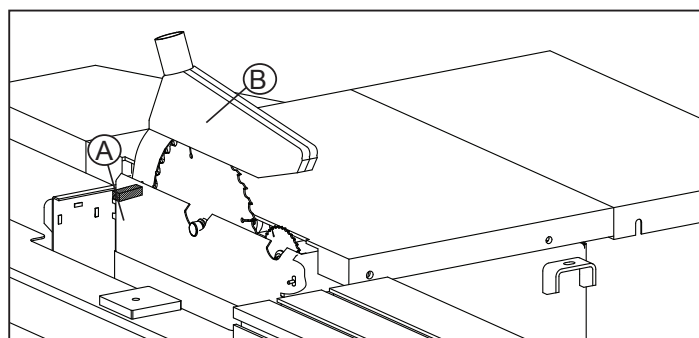


Fig.3.6

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 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 two carton:

- 1 - Blade guard assembly
- 2 - Rear extension table
- 3 - Square sliding table
- 4 - Telescopic fence assembly
- 5 - Frame assembly
- 6 - Guide rail
- 7 - Scale bracket
- 8 - Rip fence assembly
- 9 - Right extension table
- 10 - Hose support rod
- 11-Slide table

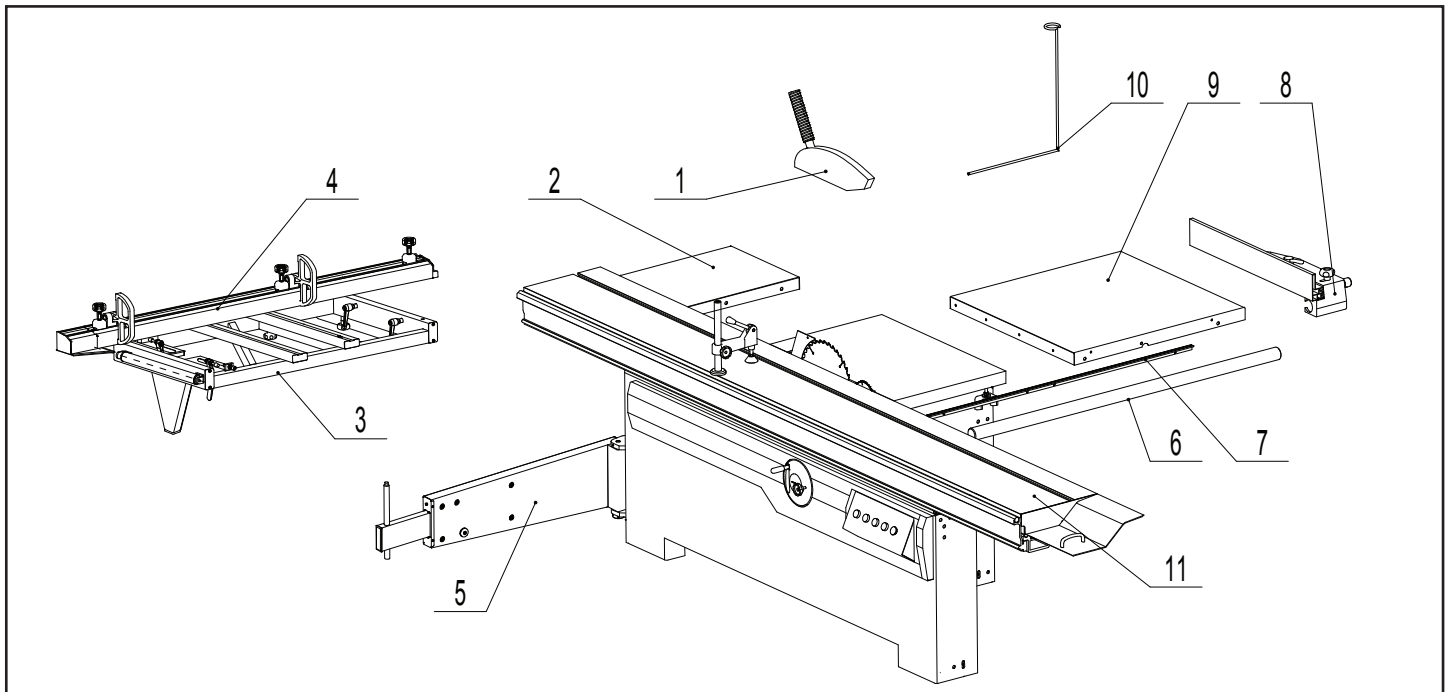


Fig.4.1

4.2 LIFTING AND UNLOADING



WARNING

Lifting and handing should only be carried out by skilled personel 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 manoeuvres, 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 A to 550 mm
- Insert forks A as in the figure in correspondence to name plates E ensuring that these are wedged against the back of the rear feet D.

If a bridge crane or a crane is available, proceed as follows:

- provide two slings B of suitable length and capacity (Belts minimum length 4000mm)
- lift the slings and position them as is shown in the Fig.4.2
- fasten the slings to the bridge crane C having adequate lifting power
- move the bridge crane by small steps to allow the slings B to settle, until optimum stability conditions are reached
- lift carefully and slowly, without causing the load to swing, and place the machine in the selected setting
- remove the protective wax coat from all tables and unpainted surfaces, using kerosene or its derivative products. Do not use any solvent, petrol or gas oil, which might dull the paint or oxidate machine parts.

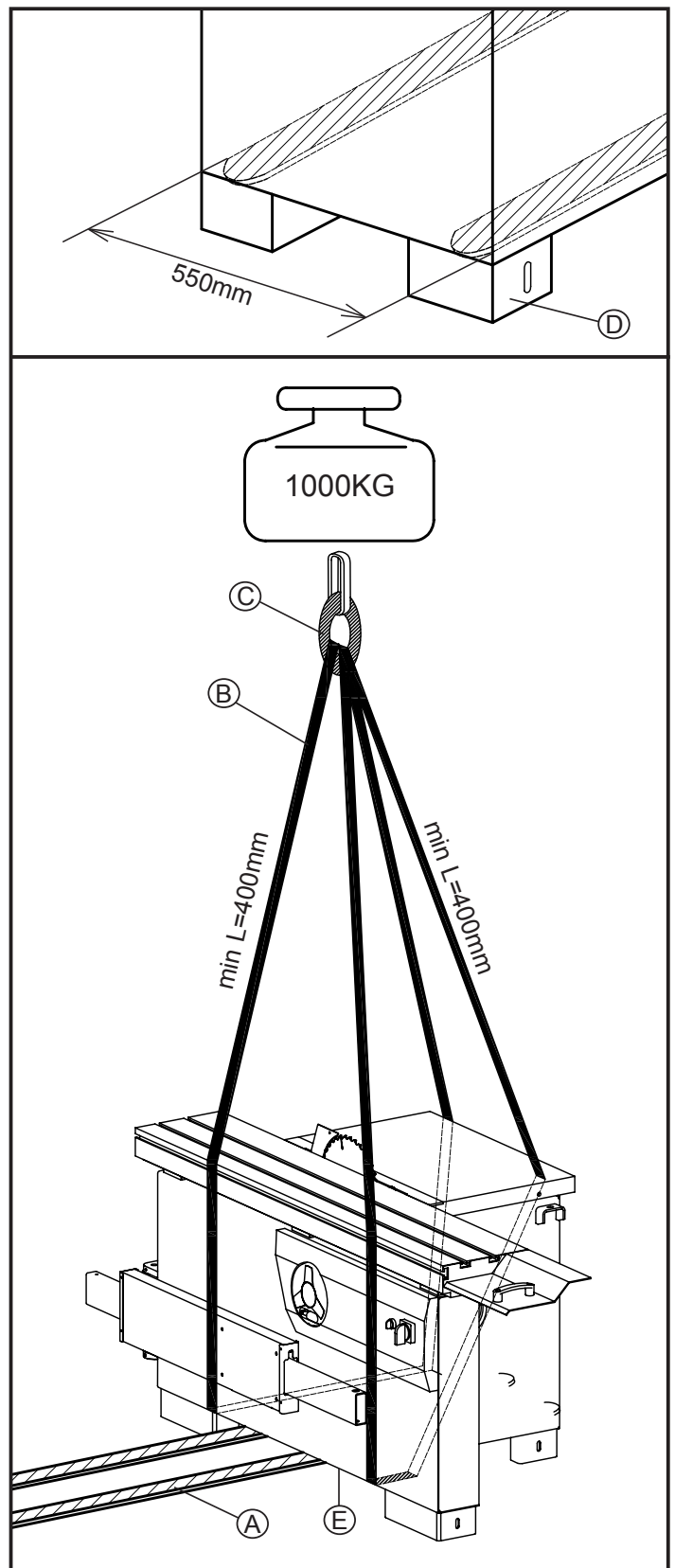


Fig.4.2

4.3 INSTALLATION ZONE CHARACTERISTICS



WARNING

It is prohibited to install the machine in explosive environments.

The installation zone must be selected evaluating the work space required depending on the dimension of the pieces to be machined, and taking into account that a free space of at least 800 mm must be left around the machine. It is also necessary to check the floor capacity and its surface, so that the machine base is evenly resting on its four supports. A power outlet and a chip-suction system connection shall be close to the selected machine setting and it must be conveniently lighted (luminous intensity: 500 LUX).

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 bolts D (not supplied) into ground, use washer / lock washer C and hex nut B to fasten the bolts.

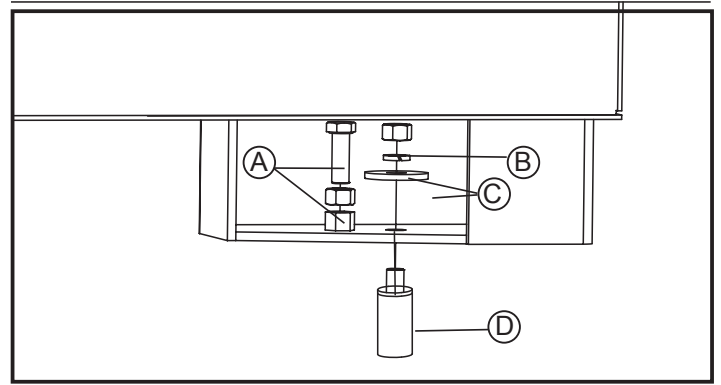


Fig.4.3

4.4 INSTALL OF LOOSE PARTS - INTRODUCTION

A few elements will be disassembled from the machine main structure due to packaging and shipping requirements. These loose parts should be installed as follows.



WARNING

Please tighten all bolts and nuts absolutely. Otherwise, may cause machine wobble or serious injury to the operator or other persons.

4.4.1 INSTALL EXTENSION TABLE

Tools Required for Assembly:

- Wrench 16mm
- L Wrench 6mm

- Install Extension tables A to main table C with bolt 1 and washer 2.
- Install set screw 3 for micro-adjustment.

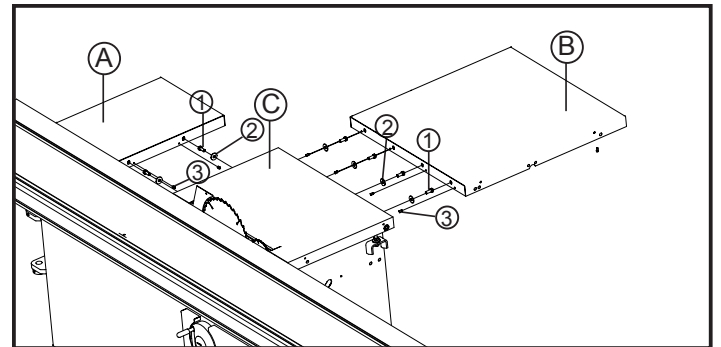


Fig.4.4.1

4.4.2 INSTALL BLADE GUARD AND HOSE SUPPORT ROD

Tools Required for Assembly:

- Wrench 13mm
- Philips screwdriver

- Install Blade guard A to Riving knife C with part 1 and 2.
- Install Hose support rod B to right extension table with part 3, 4, 5 and 6.

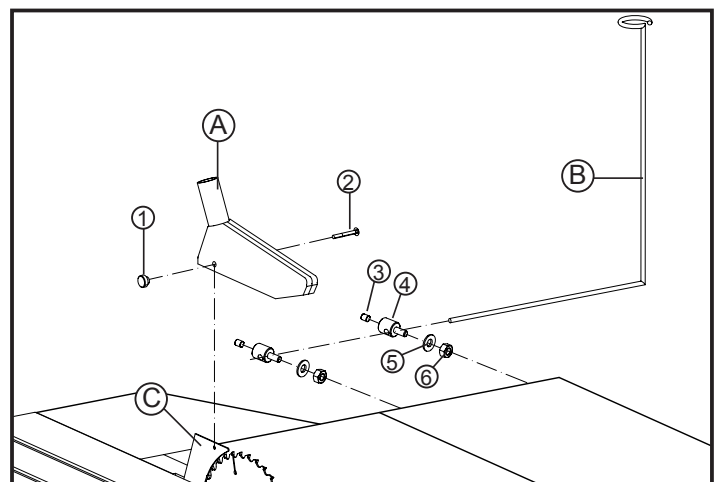


Fig.4.4.2

4.4.3 INSTALL SQUARE SLIDING TABLE

- Put the square sliding table C into the slot of sliding table A.
- Put the support rod D into the hole of square sliding table C and the hole on support arm E.
- Lock the handle B.

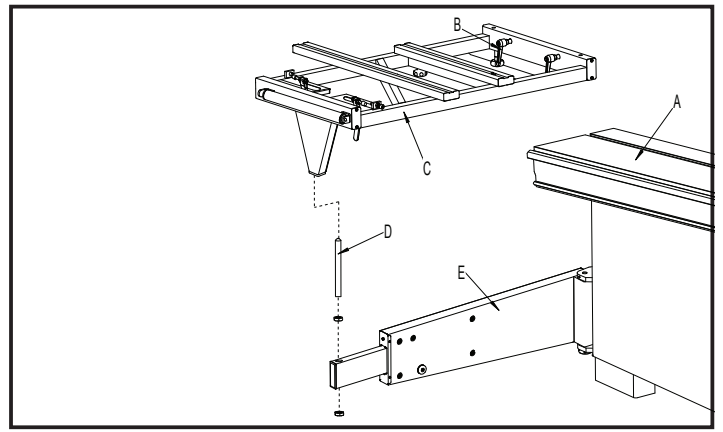


Fig.4.4.3

4.4.4 INSTALL TELESCOPIC FENCE

- Put the pin A of telescopic fence into the hole which is on the square sliding table, and mount the handle B to the pin.
- Lock the knob C for stable tightening.
- The Knob D is designed to micro-adjust perpendicularity between telescopic fence and blade.

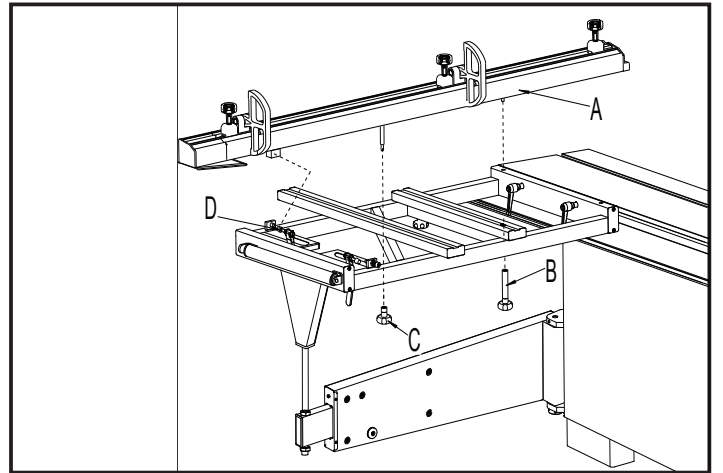


Fig.4.4.4

4.4.5 INSTALL FENCE RAIL

Tools Required for Assembly:

- Wrench 18mm
- L Wrench 16mm

- Install scale seat B to tables with screw 1.
- Put the scale A into the slot of scale seat B.
- Install shaft 6 onto the guide rail C, and then mount the guide rail to tables with part 2, 3, 4, 5, 6 and 7.

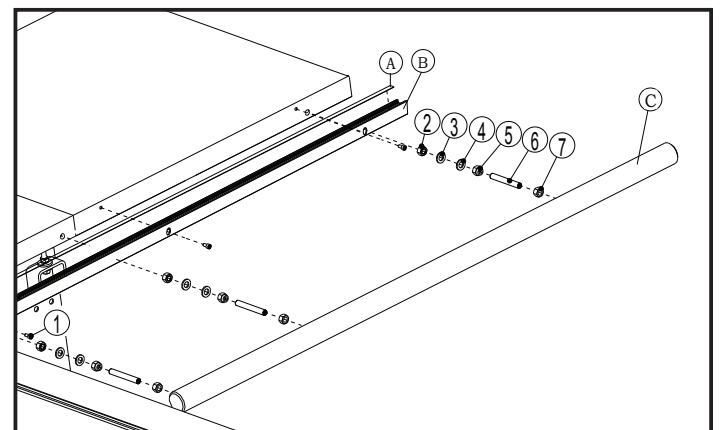


Fig.4.4.5

4.4.6 INSTALL RIP FENCE

- Install the rip fence seat A to guide rail B as the picture shown.
- Install the screw C onto the guide rail B.
- Install the rip fence D to the fence seat A along its slot.

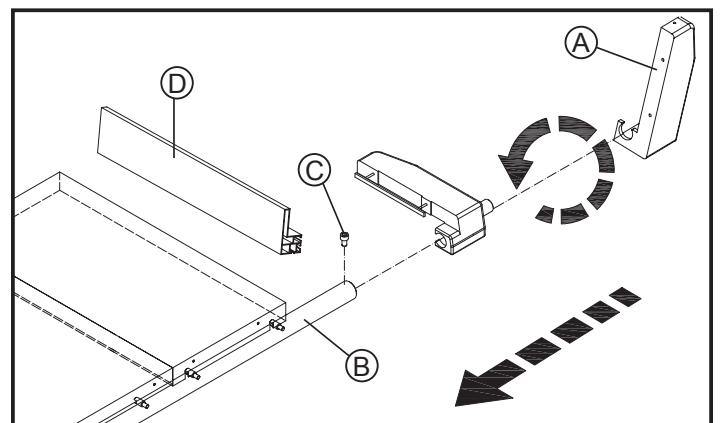


Fig.4.4.6

5. ADJUSTMENT



WARNING

Handle the tools with protective gloves.

5.1 SCORER ADJUSTMENT



CAUTION

For cutting panels coated with finishing material, you have to use the scorer F. Position the scoring saw blade in order to have an engraving equal to 2mm.

Proceed as follows if it is necessary to adjust scorer positioning with respect to the saw:

Tools Required for Assembly:

- L wrench 5mm

- Loosen the hand wheel A, then use the handle B to adjust the saw blade height, after that, tighten the hand wheel A.
- Use the 5mm allen wrench to loosen the bolt D about 3 circles, then use the 5mm allen wrench to rotate the shaft D to adjust the saw blade position, after that, tighten the bolt D.

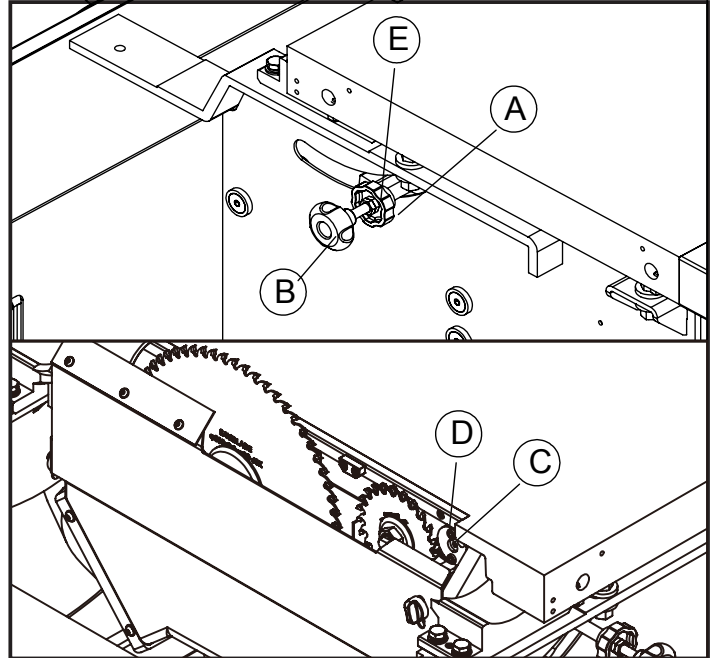
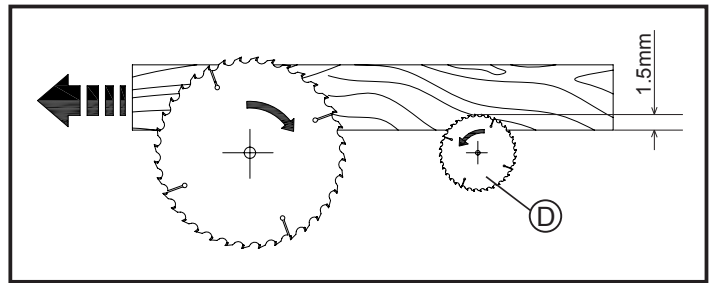


Fig.5.1

5.2 EXTENSION TABLE FLATNESS ADJUSTMENT

Tools Required for Assembly:

- Straight edge
- Feeler gauge
- L wrench 4mm
- Wrench 16mm

- Put the straight edge B on the main table and extension tables, use feeler gauge to check the flatness.
- Re-tighten the bolts A to micro-adjust the flatness.

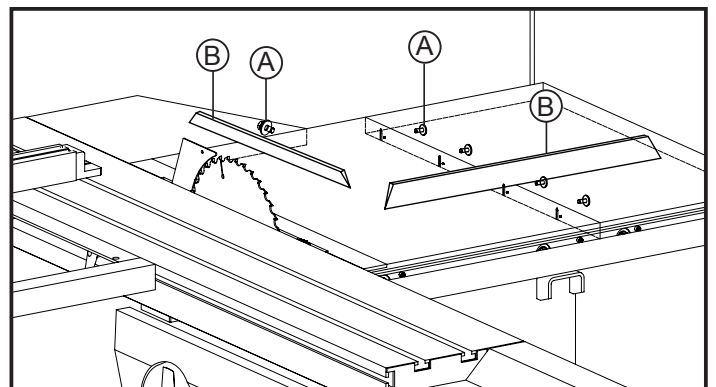


Fig.5.2

5.3 RIP FENCE PRECISION ADJUSTMENT

Tools Required for Assembly:

- Straight edge, Angle gauge, Depth gauge
- Feeler gauge
- Wrench 18mm

- Use Angle Gauge A and Feeler Gauge to check the verticality between table and rip fence. Loose 4pcs shaft B, and micro-adjust its position up and down to get better verticality.
- Use Straight Edge and Depth Gauge to check the parallel between blade and rip fence. Loose 4pcs shaft B, and micro-adjust its position forward and backward to get better parallel.

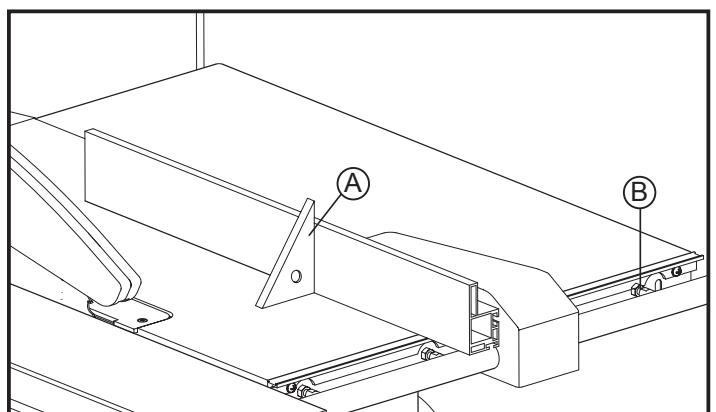


Fig.5.3

5.4 M30 ANGLE METER INSTRUCTION MANUAL

- 5 digital tube display, clear and easy to read
- Measuring scope: $\pm 180^\circ$
- Automatically read the angle for unexpected power outage
- Buttons can be locked, avoiding faulty operation.
- Angle data react quickly
- Initial angle setting(0°)
- Final angle setting(45°)

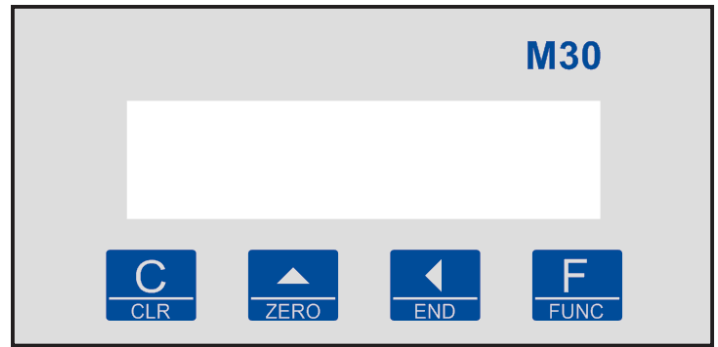


Fig.5.4

5.4.1 SPECIFICATIONS/PERFORMANCE

Electric performance		Mechanical performance	
Resolution ratio	0.1°, 0.5°	Out dimension	74*36*32mm
Measurement range	$\pm 180^\circ$	Cutout size	66*32mm
Current	Max.50mA	Fixed mode	Fixed by screw on back
Power	DC:9V~24V; AC:9V~24V	Sensor	Default wire length 2.5m
Operating temperature	0 °C ~ +50 °C	Waterproofing grade	Data display instrument IP40, sensor IP65
Storage temperature	-10 °C ~ +60 °C	Weight	Max.230g

5.4.2 BUTTON INSTRUCTION



short press: ESC long press: clear the result, long press again will turn back to earlier result



short press: Increase long press: show initial angle, initial angle can be set in menu P06, operate cautiously



short press: Move to next long press: Invalid



short press: Confirm long press: entering into menu

5.4.3 DISPLAY INSTRUCTION

Display content	Info. Statement
-179.9~180.0	Display the measured angle
E30	Display item no. when turning on
Err06	Sensor fault: 1) sensor damaged: 2) sensor wire damaged: 3) display function damage
Err	Beyond Angle linear correction, calibration failure

5.4.4 MENU INSTRUCTION

No.	Function Description	Parameter	Default parameter	Parameter Description	Remarks
P00	Resolution	0.1、 0.5	0.1	Angle display resolution	Default setting 0.1°
P01	Correction parameters	0.0001~2.0000	1.0000	Angle correction parameters	Angle liner proportion adjustment, return ERR if adjustment fail
P02	Shake to unlock	0、 0.2、 0.5、 1、 2	0.2	Shake exceed the default degree, unlock automatically.	Default setting 0.2°
P03	Lock time	0~9	5	Maintains a constant Angle for a period of time, lock the Angle	Default setting 5s
P04	Angle direction	0、 1	0	Positive and negative Angle switching	0: clockwise Angle is positive; 1: clockwise Angle is negative
P05	Press to lock	0、 1	0	Lock CLR、 ZERO、 END	0: unlock; 1: lock
P06	Initial angle	000.0~359.9	0	Initial Angle value, regardless of the sensor in which position, long press ZERO will display the Initial Angle value	When the initial Angle shows 0, can do any position reset function. Under the guidance of manufacturer operation is recommended.
P07	Final angle	000.0~359.9	45.0	Final Angle value, regardless of the sensor in which position, long press ZERO will display the final Angle value.	Default final angle is 45°, especially designed for woodworking machinery.
P08	Buzzer	0、 1	1	Buzz warning every 45°	0: Stop to use; 1: start to use, -135°、 -90°、 -45°、 0°、 45°、 90°、 135°buzz warning

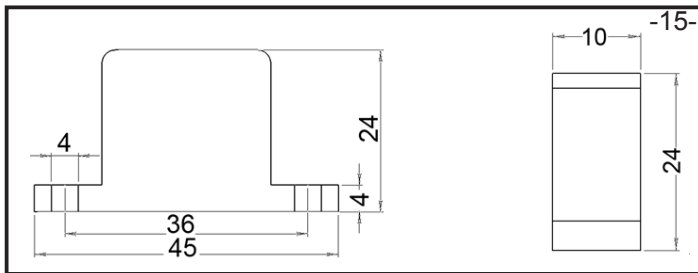
5.4.5 FAST ADJUSTMENT

Internal calibration has been done at factory, if customers have need to do further liner calibration, please following below steps (take woodworking equipment as an example):

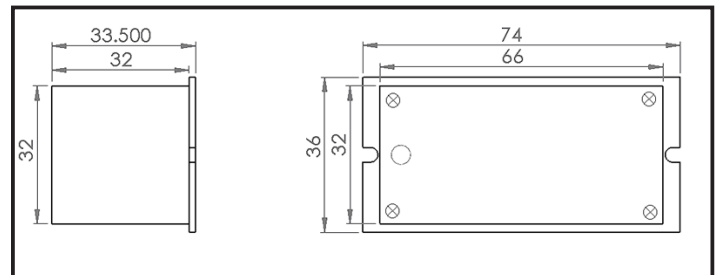
- 1、 Equipment operate to the initial position, long press the ZERO key, the current Angle will be set to 0 °
- 2、 Equipment operate to END position, long press the END key, the current point is set to 45 °
- 3、 Angle linear correction is complete. Adjust the P06, P07 data, can be set to other Angles

5.4.6 DIMENSIONS

Installation instructions: sensors use M3 screws, meter use back panel thimble.



Sensor Dimension



Meter Dimension

5.4.7 CAUTIONS

- When install this product, if the deviation is too big, will influence the use of precision, can't even use
- Please do not use this product in the environment of corrosion, acid or alkali, direct sunlight, etc., it may cause failure.
- Reading head wire bending radius must be greater than 25 mm
- The installation of this equipment should be at least 0.5 meters from the circuit breaker, relay, motor capacitor, brakes, clutch, inverter, etc.
- Cables direction must be separate with power lines in order to reduce noise.

6. OPERATING PROCEDURES



WARNING

Please be careful to operate the machine while saw blade is running and always DO NOT to use the machine unless all of the guards and other safety devices are in good working order.

6.1 MACHINE START AND STOP

The switch's position of the machine is as the picture shown.

- A is start button of main blade
- B is stop button of main blade
- C is lifting adjustment button of main blade
- D is start button of scoring blade
- E is stop button of scoring blade

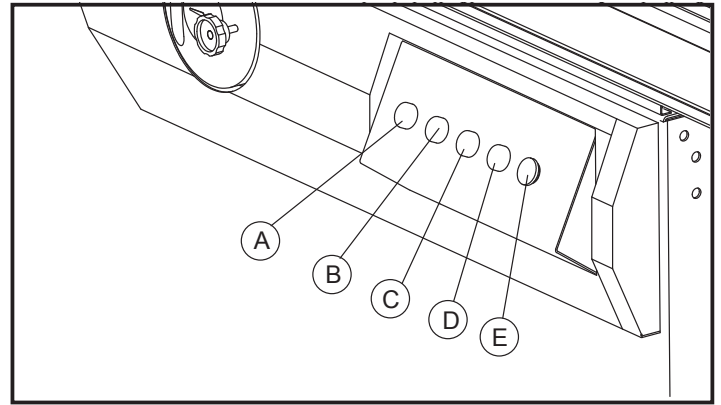


Fig.6.1

6.2 WORKING STATION



WARNING

The machine has been designed to be used by one operator only. Plastic pusher shall be used when cutting small workpieces and in circumstances where it is necessary to push the workpiece against the fence.

- A - Working with the sliding table (squaring)
- B - Parallel cut side

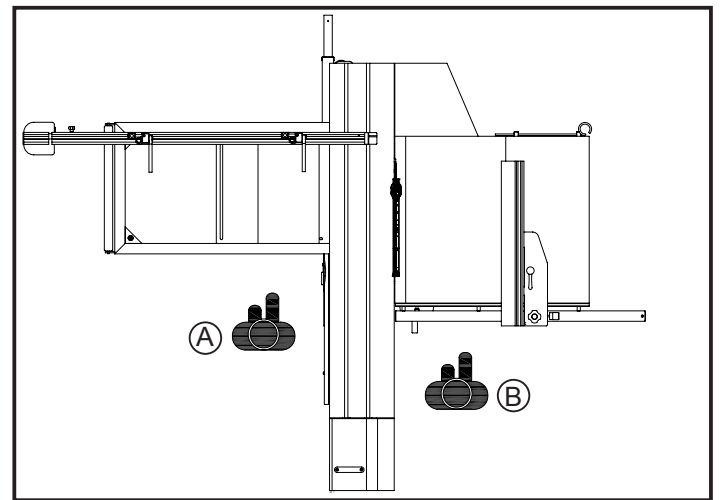


Fig.6.2

6.3 WORKING WITH THE MACHINE

The choice of the method to use to make a cut with the circular saw depends on the dimensions of the wood to be machined and the type of machining to be carried out. For cutting ennobled wood, use of the engraver is indispensable to prevent chipping. When the engraver is not needed, lower it completely underneath the table.

6.3.1 WORKING WITH THE SLIDING TABLE

- Put workpiece on the sliding table. Fix it with the aluminium stopper B and gripping arm C.
- Stand on position A, push the operating lever which is on sliding table forward to across blade.

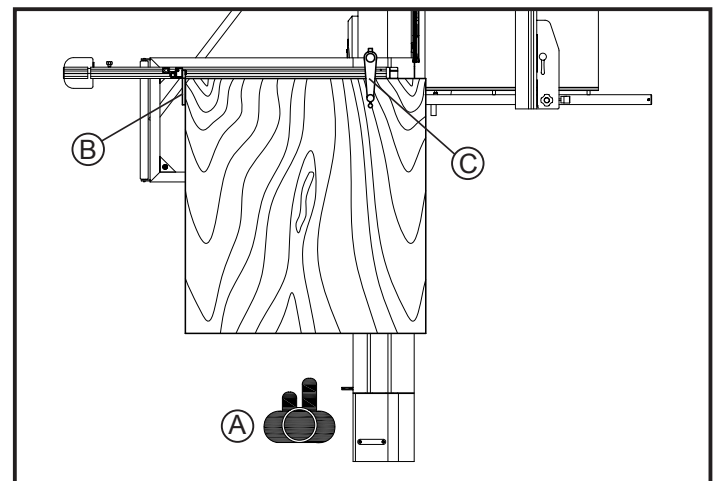


Fig.6.3.1

6.3.2 WORKING WITH RIP FENCE

- Lock the sliding table. Put the workpiece against the side surface of rip fence. Push the workpiece forward across blade.
- For your safety, please use the plastic push block.
- When cutting off a small workpiece, please use the push stick to prevent accident cutting of hands.

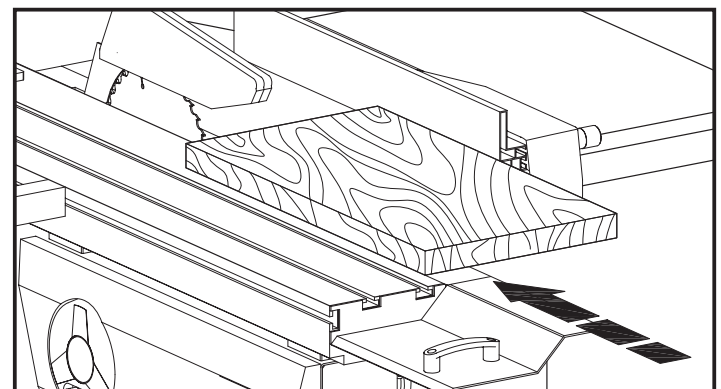


Fig.6.3.2

6.4 CORRECT USE FOR THIS MACHINE

- First make sure that the machine does not vibrate. Do not try to take off the material when the cut has already started; proceed with a continuous and uniform speed. Workpiece feeding towards the blade (especially where there are knots) should not be too fast (feeding speed should be in accordance with workpiece thickness). Do not let workpieces stop between the saw fence and the blade.
- Avoid contact of the tips against metallic objects. When necessary sharpen the saw blade. Often clean the steel body and the tips with proper liquid products. Let the saw blade in the bath, then clean it with brush: don't use metallic brushes. As regards the toothing at least 2-3 teeth shall cut at the same time A. If only one tooth cuts B, you don't get a good cutting. Whenever this is possible, it is also critical to lift the blade until the whole tooth cutting part protrudes from the wood thickness.



WARNING

Before touching the machine parts, ensure to turn OFF the main switch and disconnect the general power supply.

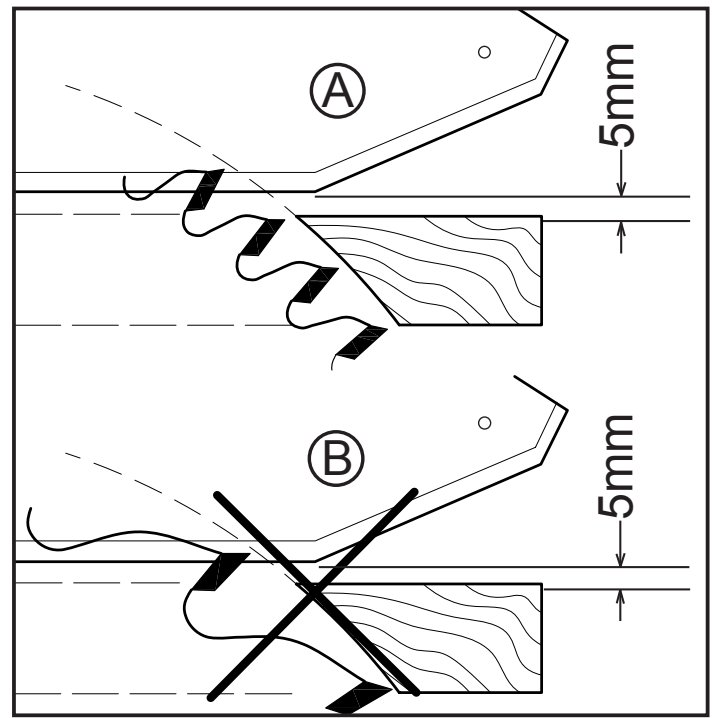


Fig.6.4

7. MAINTENANCE



WARNING Disconnect the general power supply before doing any maintenance.

7.1 REPLACE SAW BLADE



WARNING

Only correctly sharpened saw blades manufactured in accordance with the requirements of EN 847-1:2005 shall be used. Don't use the saw blade whose maximum marked speed is lower than the maximum rotational speed of the saw spindle. Please always keep the gap between the riving knife and the saw blade to be at least 3mm and not exceed 8mm.

- Rotate the blade lifting handwheel to move the blade to toppest position.
- Take out the blade guard A.
- Remove the table insert B.
- Push the sliding table to backmost position.
- Open the blade cover D.
- Unscrew the nut C to take out the blade for replacement.

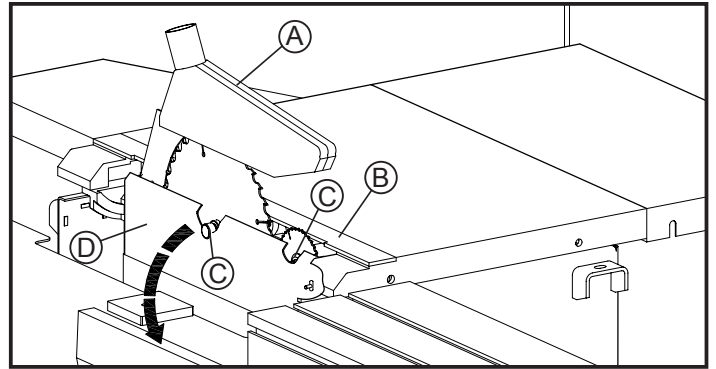


Fig.7.1

7.2 OVERALL CLEANING



WARNING

Please DO NOT try removing chips while the saw blade is running.

After each working cycle, thoroughly clean the machine and all of its parts, vacuum the shavings and dust and remove any resin residues.

Use compressed air only when strictly necessary, using protective glasses and a mask.

In particular, clean the following parts:

- the sliding table rail A;
- the sliding support extension B;

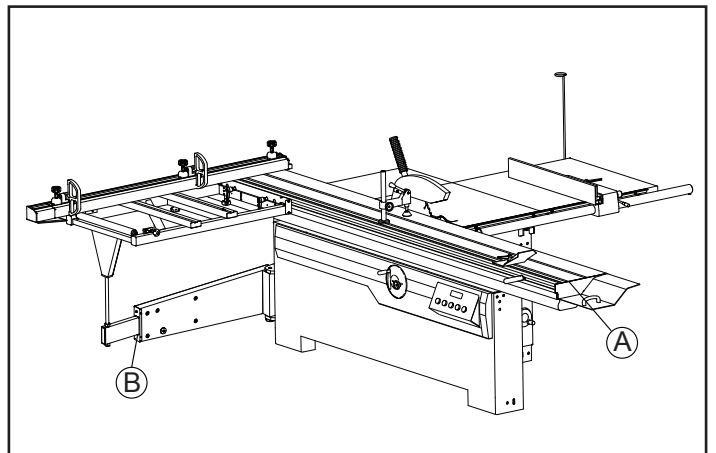


Fig.7.2

7.3 GENERAL LUBRICATION

- Weekly clean and lubricate all the mobile couplings of the machine A with a thin film of oil and grease.
- Protect all belts and pulleys to avoid contamination with oil.

7.4 REPLACEMENT AND DISPOSAL

Should replacement become necessary, the machine parts must be replaced with original components in order to guarantee their efficiency.

The replaced parts must be disposed of in compliance with the laws in force in the country of use.

Component replacement requires specific training and technical skills; for this reason, the above interventions must be carried out by qualified personnel to prevent damage to the machine and risks to the safety of persons.

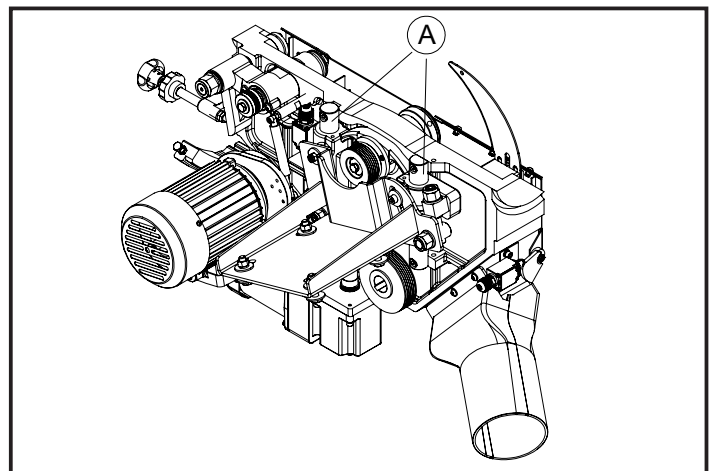


Fig.7.3



CAUTION

- In case of mechanical or functional faults in the machine, including guards or tools, please call the local authorized agent for technical assistance and maintenance.
- Any maintenance must be only done when the machine is isolated from all energy sources (plug out).

8. TROUBLE SHOOTING



WARNING

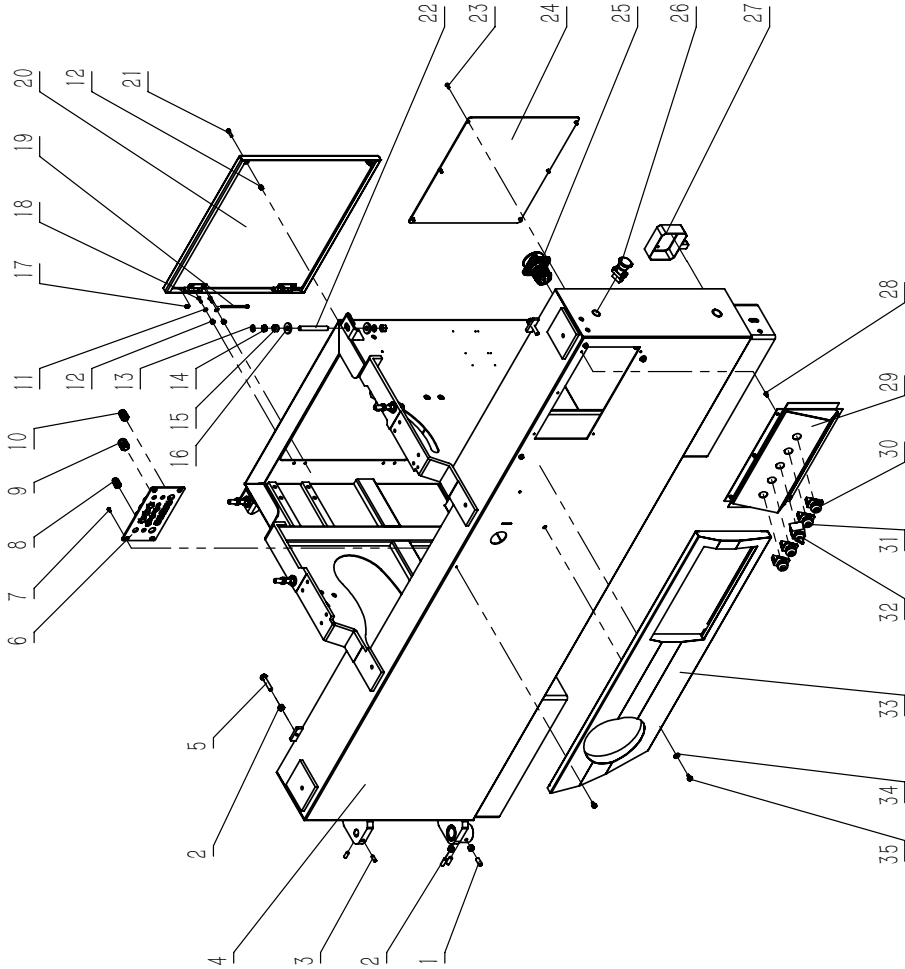
- For any information or problem contact your area dealer or our technical service center. The necessary interventions must be carried out by specialised technical personnel.

- Before carrying out any fault service or maintenance work, please always TRUN OFF THE SWITCH, UNPLUG POWER CABLE, WAIT FOR SAW BLADE TO COME TO STANDSTILL.

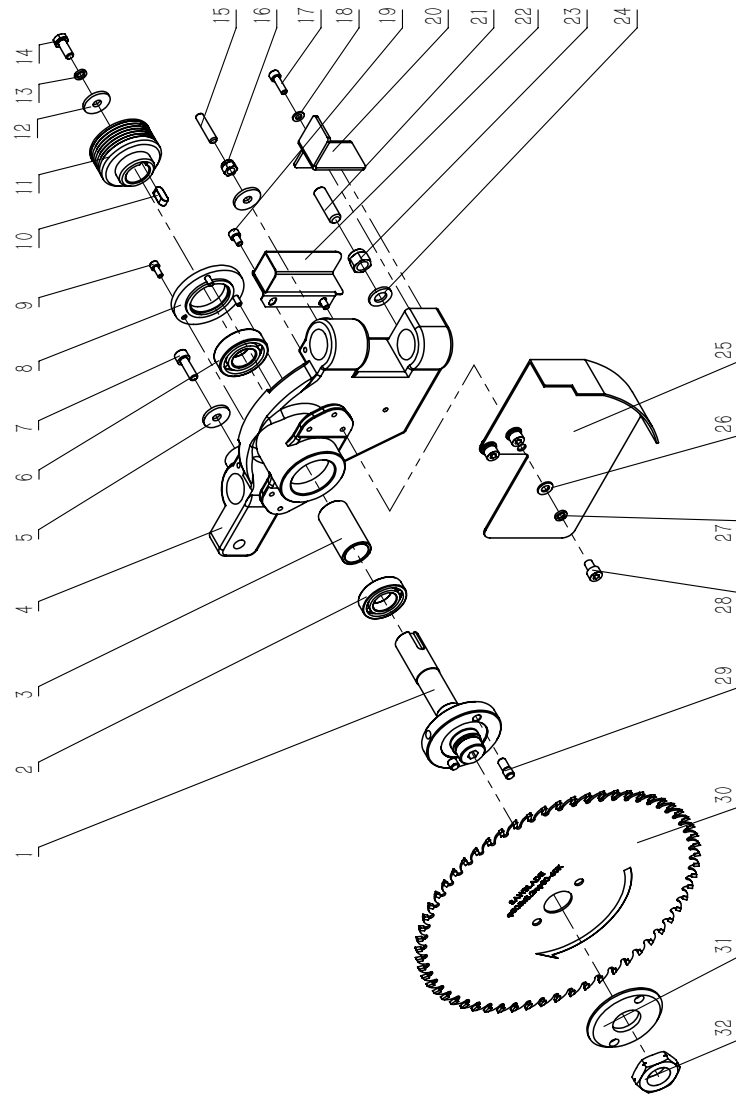
Trouble	Possible Cause	Solution
Saw stops or will not start	<ol style="list-style-type: none"> 1. Overload tripped on motor 2. Saw unplugged from wall or motor 3. Fuse blown or circuit breaker tripped 4. Cord damaged 	<ol style="list-style-type: none"> 1. Allow motor to cool and reset overload switch on motor 2. Check all plug connections 3. Replace fuse or reset circuit breaker 4. Replace cord
Does not make accurate 45° or 90° cuts	<ol style="list-style-type: none"> 1. Stops not adjusted correctly 2. Angle pointer not set accurately 	<ol style="list-style-type: none"> 1. Check blade with square and adjust stops 2. Check blade with square and adjust pointer
Material binds blade when ripping	<ol style="list-style-type: none"> 1. Fence not aligned with blade 2. Warped wood 3. Excessive feed rate 4. Splitter not aligned with blade 	<ol style="list-style-type: none"> 1. Check and adjust fence 2. Select another piece of wood 3. Reduce feed rate 4. Align splitter with blade
Saw makes unsatisfactory cuts	<ol style="list-style-type: none"> 1. Dull blade 2. Blade mounted backwards 3. Gum or pitch on blade 4. Incorrect blade for cut 5. Gum or pitch on table 	<ol style="list-style-type: none"> 1. Sharpen or replace blade 2. Turn blade around 3. Remove blade and clean 4. Change blade to correct type 5. Clean table
Blade does not come up to speed	<ol style="list-style-type: none"> 1. Extension cord too light or too long 2. Low shop voltage 3. Motor not wired for correct voltage 	<ol style="list-style-type: none"> 1. Replace with adequate size cord 2. Contact your local electrical company 3. Refer to motor junction box
Saw vibrates excessively	<ol style="list-style-type: none"> 1. Stand on uneven floor 2. Damaged saw blade 3. Bad V-belts 4. Bent pulley 5. Improper motor mounting 6. Excessive play in raising mechanism 7. Loose hardware 	<ol style="list-style-type: none"> 1. Reposition on flat, level surface 2. Replace saw blade 3. Replace V-belts 4. Replace pulley 5. Check and adjust motor 6. Adjust worm and arbor bracket 7. Tighten hardware
Rip fence binds on guide rails	<ol style="list-style-type: none"> 1. Guide rails or extension wing not installed correctly 2. Guide of rip fence not adjusted properly 	<ol style="list-style-type: none"> 1. Reassemble guide rails, refer to fence manual 2. Adjust guides, refer to fence manual
Material kicked back from blade	<ol style="list-style-type: none"> 1. Rip fence out of alignment 2. Splitter not aligned with blade 3. Feeding stock without rip fence 4. Splitter not in place 5. Dull blade 6. Letting go of material before it is past blade 7. Anti-kick back plates dull 	<ol style="list-style-type: none"> 1. Align rip fence with miter slot 2. Align splitter with blade 3. Install and use rip fence 4. Install and use splitter (with guard) 5. Replace blade 6. Push material all the way past blade before releasing work 7. Replace or sharpen anti-kick back plates
Blade does not raise or tilt freely	<ol style="list-style-type: none"> 1. Too much tension in raising mechanism 2. Sawdust and debris in raising and tilting mechanisms 	<ol style="list-style-type: none"> 1. Adjust raising worm and arbor bracket 2. Clean and regrease

9. DIAGRAMS & COMPONENTS Frame Assembly - SHEET A

No.	Description.	Part No.
1	Screw M10	M10X25GB7
2	Nut M10	M10GB6170Z
3	Screw M8	M8X20GBGB80B
4	Frame	JXPS1205011000A
5	Bolt M10	M10X50GB5781Z
6	Thread plate	JXPS1602010004B
7	Screw M5	M5X10Gb70D2Z
8	Fixed joint M12	JL91046200
9	Fixed joint M20	JXSM0401010003
10	Fixed joint M16	JXSM0401010004
11	Washer	WSH6GB97D1Z
12	Lock nut M6	M6GB6170889D1Z
13	Washer	WSH12GB93Z
14	Hexagon Nut	M12GB6172D1Z
15	Nut M12	M12GB6170Z
16	Washer	SCPS1601010004
17	Lock nut M5	M5GB889D1Z
18	Hexagon socket screw M6	M6X16GB70D2Z
19	Screw M5	M5X70GB70D1B
20	Rear plate	JXPS1201010002C
21	Screw M6	M6X20GB70D1Z
22	Screw M12	M12X100GB77B
23	Screw M6	M6X12GB70D2Z
24	Cover plate	JXPS1205010001
25	Change-over switch	ZH-HD-2-01
26	Emergency switch	LA42
27	Wiring box	JXPS1201090009
28	Screw M6	M6X10GB70D2Z
29	Switch plate	JXPS1201011400
30	Stop button	M22-D-S-X0-K01
31	Start button	M22-D-W-X1-K10
32	Selector switch	M22-WK3-K2
33	Front cover	JXPS1205012000
34	Washer	WSH6GB96D1Z
35	Flange bolt	M6X12GB5789Z



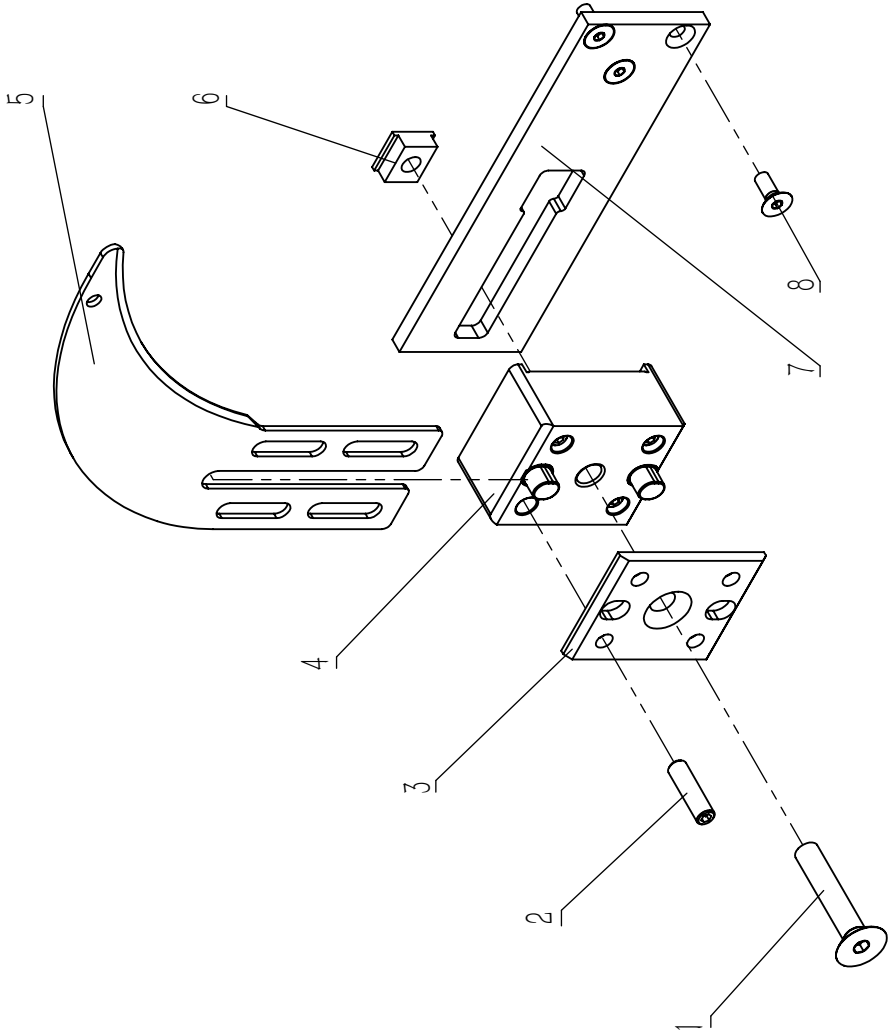
No.	Description.	Part No.
1	main shaft	JXPS1201021005B
2	bearing	BRG6005-2RSHGB276SKF
3	sleeve	JXPS1201021007
4	main shaft seat	JXPS1205021001
5	big washer 8	WSH8GB5287Z
6	screw M8X25	M8X25GB70D1Z
7	bearing	BRG6205-DDUC3GB276
8	bearing end cover	JXPS1201021010
9	screw M5	M5X12GB70D1Z
10	flat key	PLN8X7X20GB1096
11	main shaft pulley wheel	JXPS1205021009
12	big washer 8	WSH8GB5287Z
13	spring washer 8	WSH8GB93Z
14	screw M8	M8X20GB5783Z
15	screw M8X35	M8X35GB77B
16	locknut M8	M8GB889D1Z
17	screw M6X20	M6X20GB70D1Z
18	washer 6	WSH6GB97D1Z
19	screw M6X10	M6X10GB70D1Z
20	Limit plate	JXPS1205091007
21	screw M12	M12X50GB77B
22	Screw dust cover	JXPS1205020005
23	locknut M8	M12GB889D1Z
24	flat washer	WSH12GB97D1Z
25	air deflector	JXPS1205020017
26	flat washer 8	WSH8GB97D1Z
27	spring washer 8	WSH8Gb93Z
28	screw M8	M8X12GB70D1Z
29	location pin	JXPS1201021003
30	main saw blade	JXPS1201021004
31	saw blade clip	JXPS1201021002A
32	locknut	JXPS1201021001A



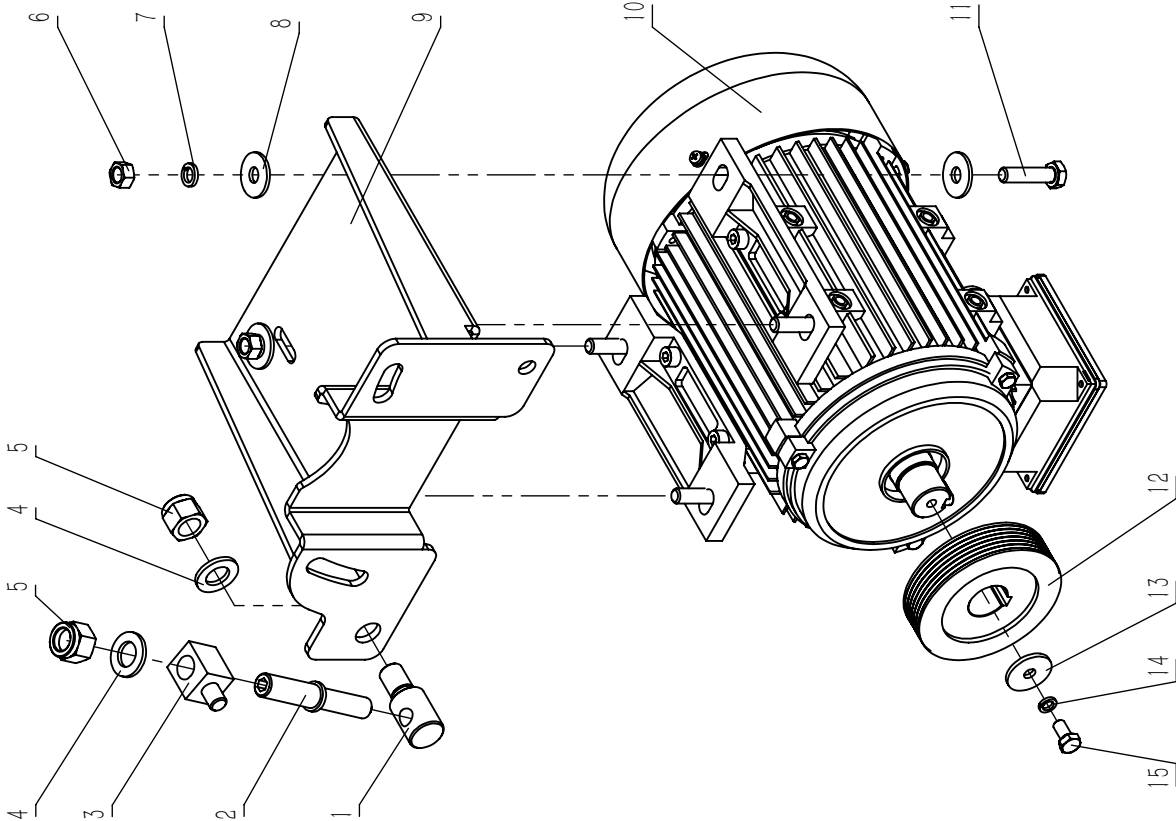
With knife plate Assembly - SHEET C

SHEET C

No.	Description.	Part No.	Qty.
1	screw M10	M10X55GB70D3Z	1
2	screw M8	M8x30GB77B	4
3	riding knife locking plate	JXPS1201028008A	1
4	riding knife adjusting plate	JXPS1205028007	1
5	riding knife	JXPS1201028001A	1
6	riding knife locking block	JXPS1201028005	1
7	riding knife seat	JXPS1205028002	1
8	screw M8	M8X16GB70D3Z	3



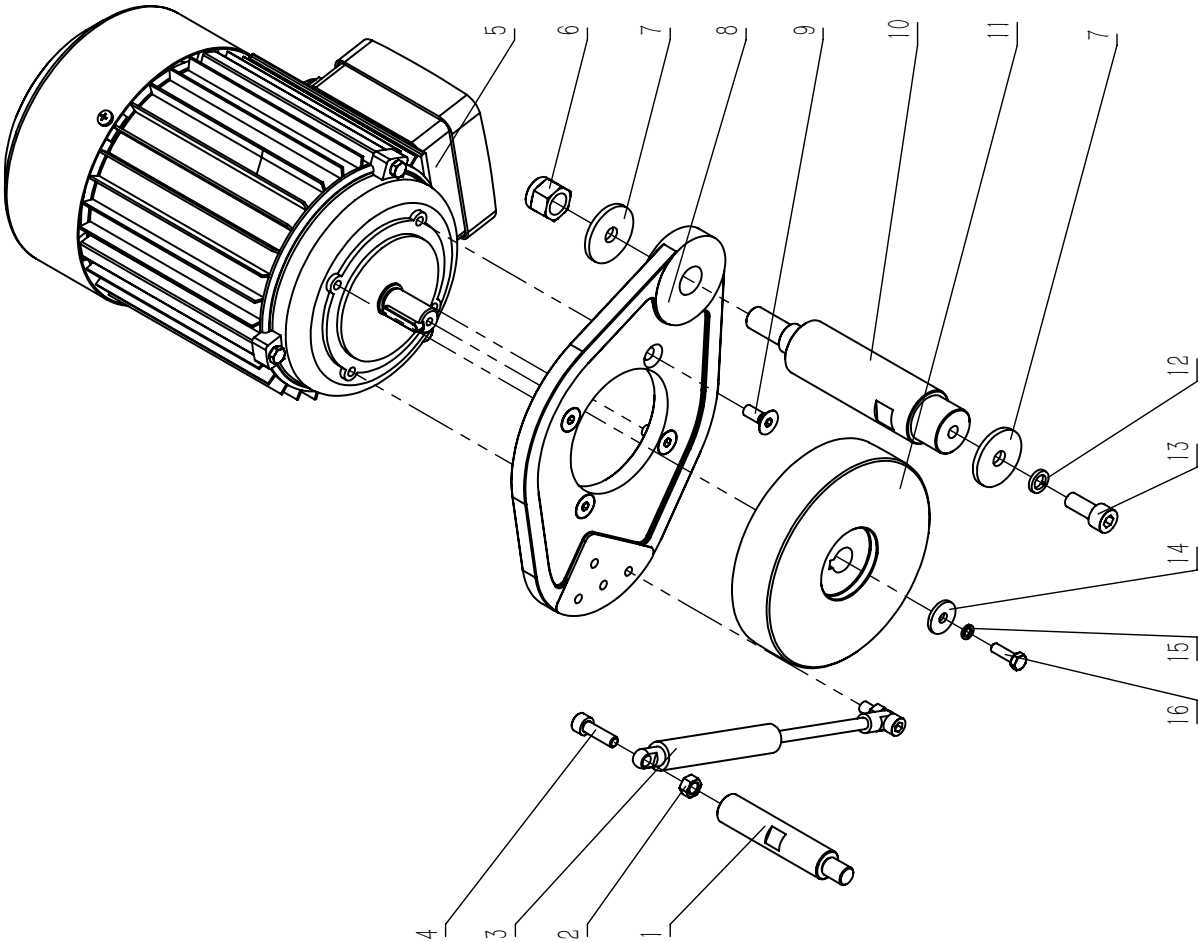
No.	Description.	Part No.	Qty.
1	adjusting nut	JXPS1205023005	1
2	screw	JXPS1201023006B	1
3	Tension block	JXPS1201023004B	1
4	flat washer 16	WSH16GB97D1Z	2
5	nut M16	M16GB889D1Z	2
6	nut M10	M10GB6170Z	4
7	spring washer 10	WSH10GB93Z	4
8	big washer 10	WSH10GB96D1Z	8
9	motor seat assy	JXPS1205023002A	1
10	motor	YSA105502	1
11	bolt M10	M10X40GB5783Z	4
12	motor wheel	JXPS1201023001N	1
13	washer	JXPS1202070005	1
14	spring washer 8	WSH8GB93Z	1
15	Left-handed screw	JL82080003	1



Pre-Cut motor Assembly - SHEETE

SHEET E

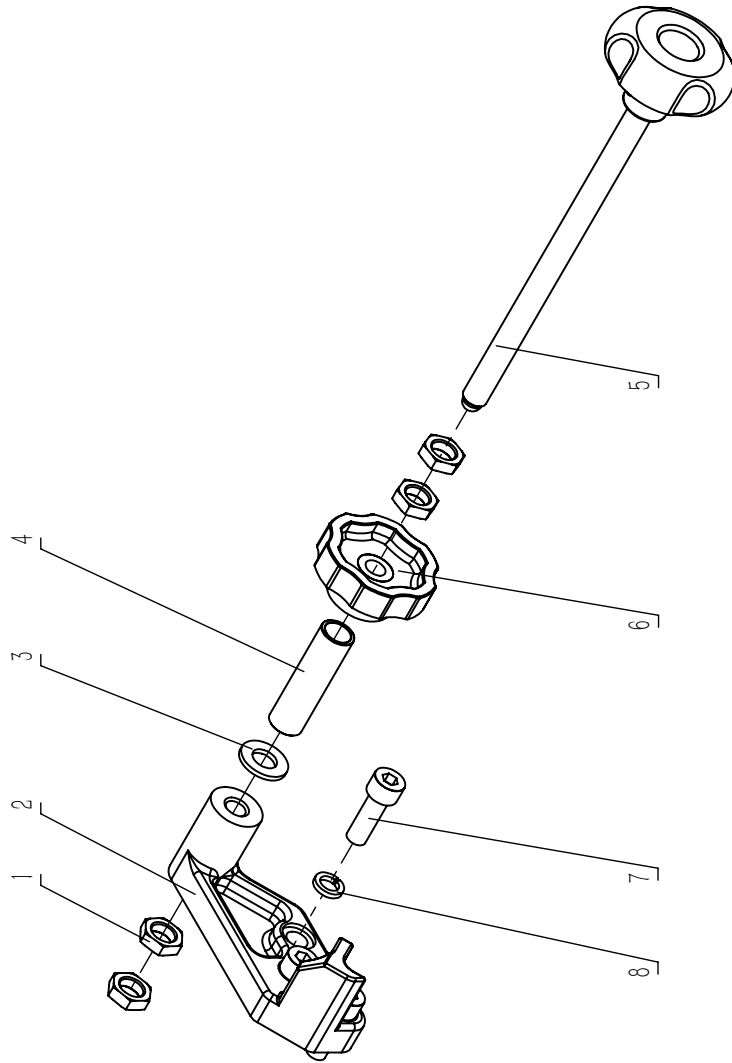
No.	Description.	Part No.
1	Gas spring support shaft	JXPS1205024008
2	nut M6	M6GB61706170Z
3	Gas spring	JXPS1201020013B
4	nut M6X20	M6X20GB70D1Z
5	motor	YSH715082
6	nut M12	M12GB889D1Z
7	washer	JXPS1202070005
8	scoring motor plate	JXPS1205024002
9	screw M6X16	M6X16GB70D3Z
10	supporting shaft	JXPS1205024005
11	scoring motor wheel	JXPS1201024001D
12	spring wahser	WSH8GB93Z
13	screw M8X20	M8X20GB70D1Z
14	big washer	WSH5GB5287
15	spring washer 5	WSH5GB93Z
16	bolt M5X16	M5X16GB5783Z



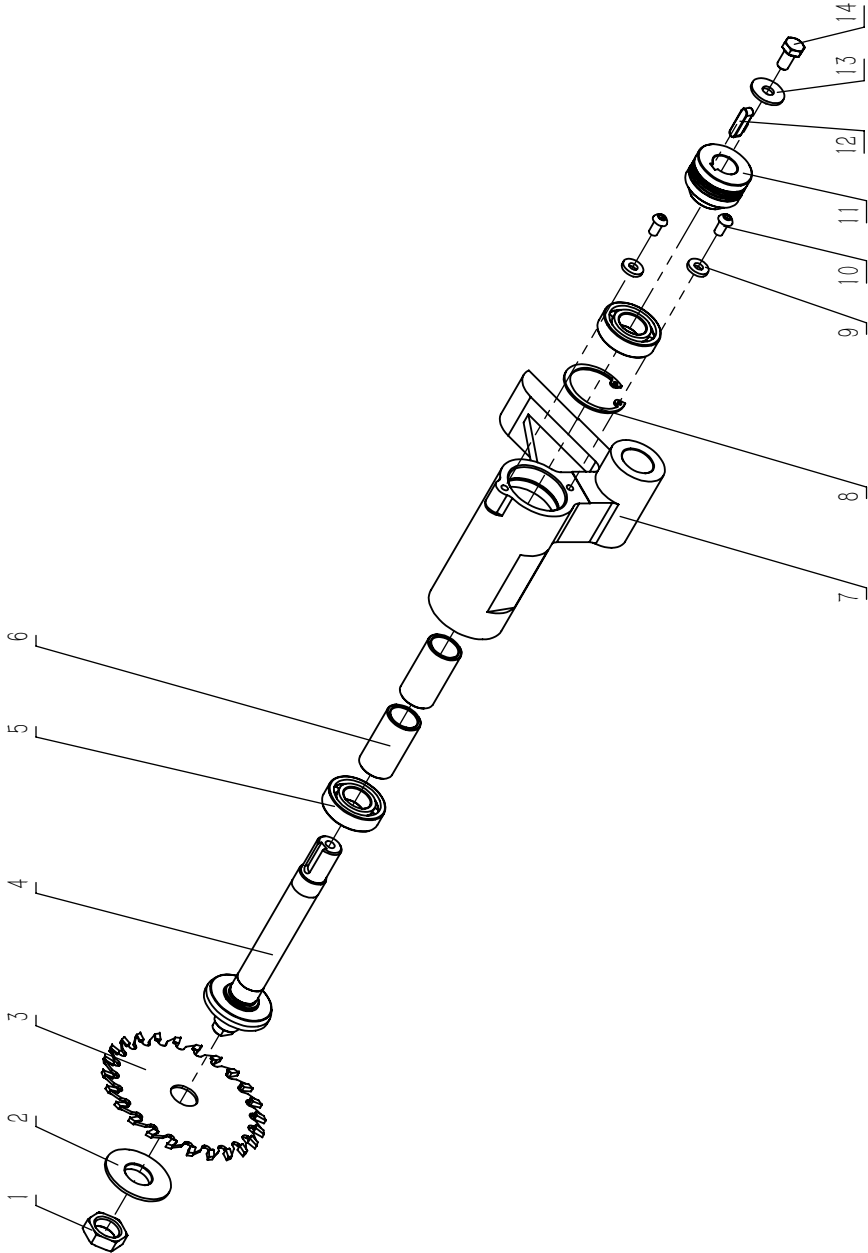
Pre-cutting adjustment Assembly - SHEETF

SHEET F

No.	Description.	Part No.
1	nut M10	M10GB6172D1Z
2	scoring adjusting seat	JXPS1205027002
3	flat washer 10	WSH10GB97D1Z
4	bushing	JXPS1201027001A
5	lock handle assy	JXPS1201027100
6	lock wheel	JXTS1201028004
7	screw M8X25	M8X25GB70D1Z
8	spring washer 8	WSH8GB93Z



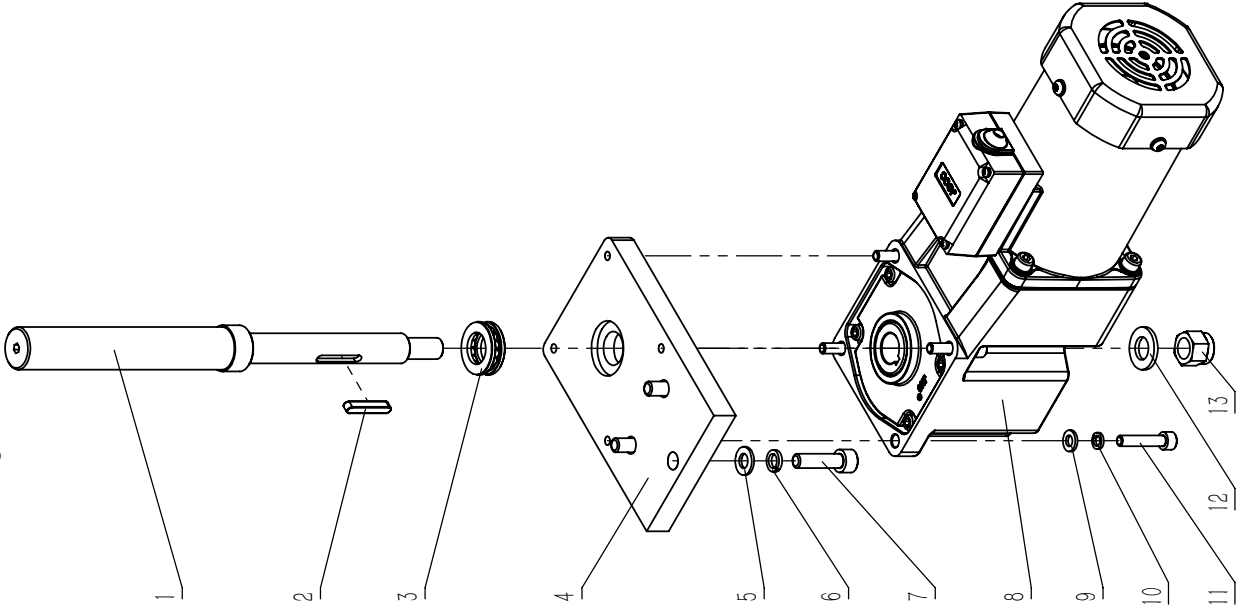
No.	Description.	Part No.
1	nut M16	M18GB6173Z
2	scoring saw blade clip	JXPS1201022002
3	slotted saw blade	JXPS1201022003
4	scoring main shaft	JXPS1201022004C
5	bearing	BRG6004-2NSE
6	sleeve	JXPS1201022008A
7	scoring shaft seat	JXPS1205022005
8	snap ring	CLP42GB893D1B
9	spacer	JXBS1603010003
10	screw M6X12	M6X12GB70D2Z
11	scoring main shaft wheel	JXPS1201022009C
12	flat key	PLN6X6X25GB1096
13	big wahser 8	WSH8GB96D1Z
14	Left-handed screw	JL82080003



Main saw lift Assembly - SHEETH

SHEET H

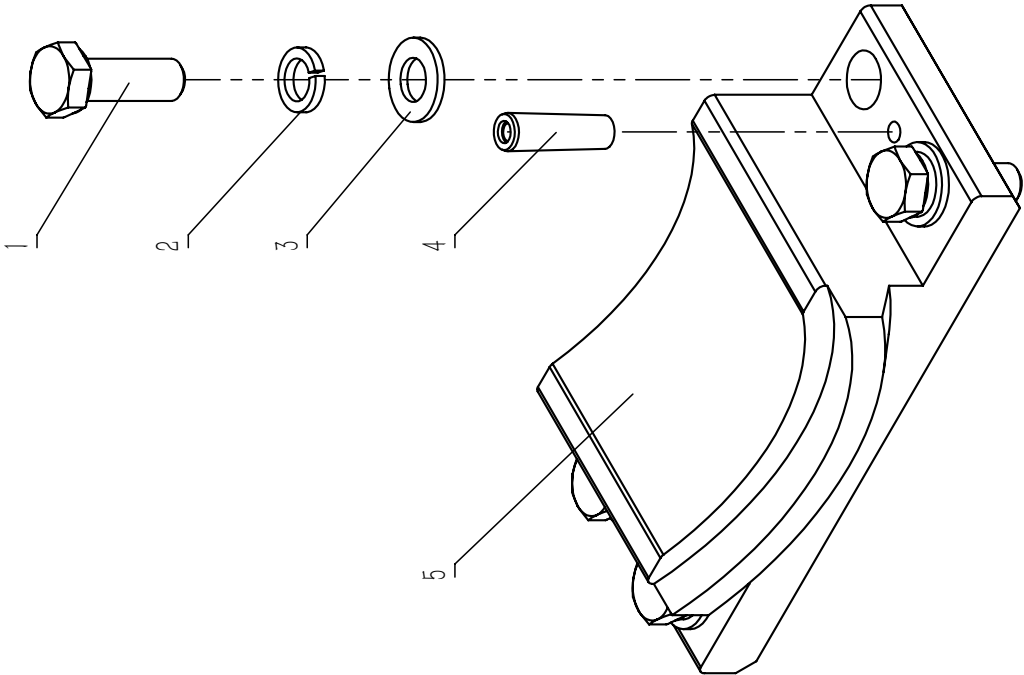
No.	Description.	Part No.
1	lifting screw rod	JXPS1205026401
2	flat key	PLN5X5X30GB1096
3	thrust ball bearing	BRG51103GB301
4	bracket for motor	JXPS1205026013
5	flat washer 8	WSH8GB97D1Z
6	spring washer 8	WSH8GB93Z
7	screw M8X30	M8X30GB70D1Z
8	gear motor	90YS120GV22-90GKF15RC
9	flat washer 6	WSH6GB97D1Z
10	spring washer 6	WSH6GB93Z
11	screw M6X30	M6X30GB70D1Z
12	flat washer 12	WSH12GB97D1Z
13	nut M12	M12GB889D1Z



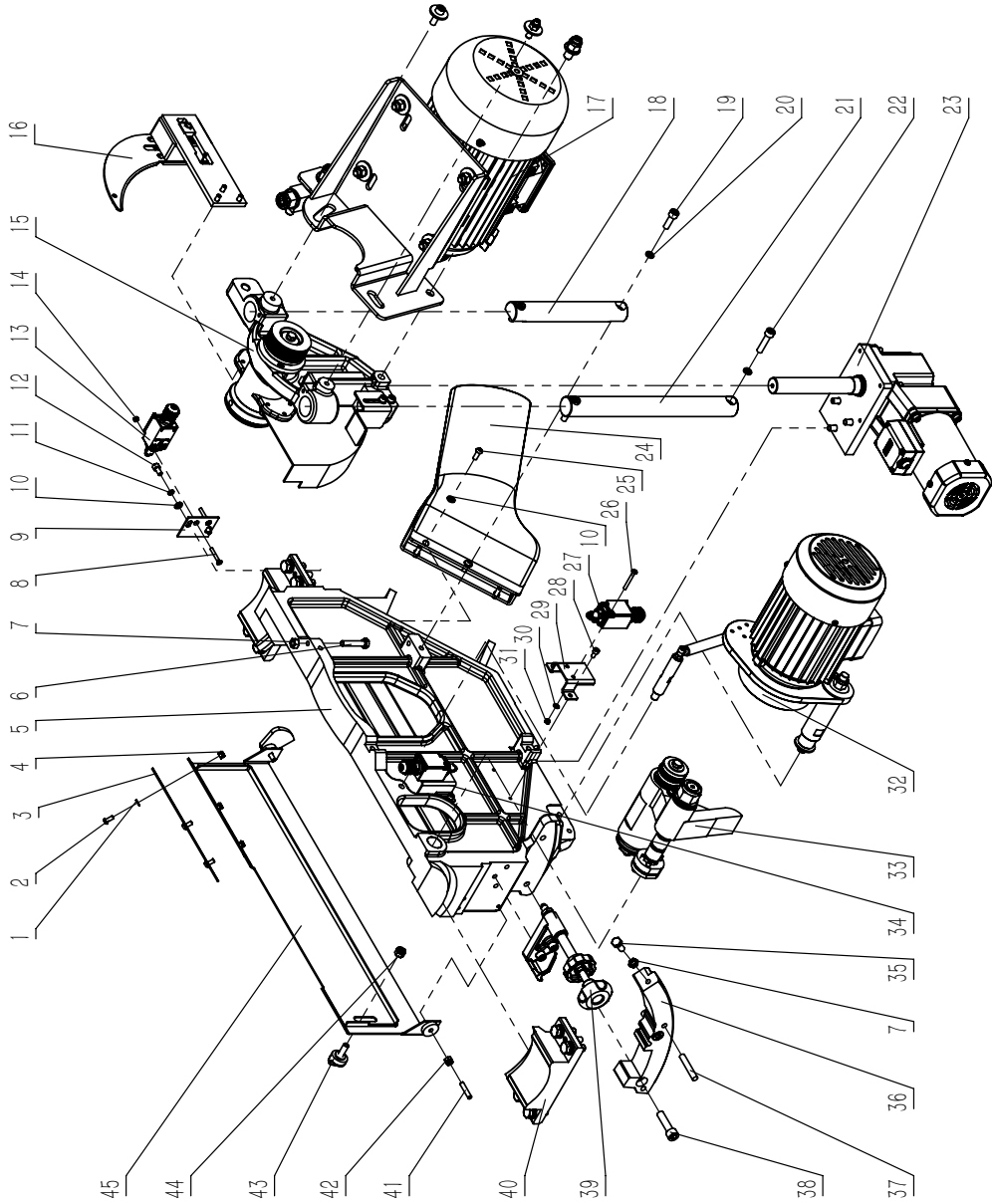
Rotational support seat Assembly - SHEET I

SHEET I

No.	Description.	Part No.
1	bolt M10X30	M10X30GB5783Z
2	spring washer 10	WSH10GB93Z
3	washer 10	WSH10GB97D1Z
4	taper pin 8X30	PIN8X30GB118Z
5	Rotary support seat	JXPS1201020002E



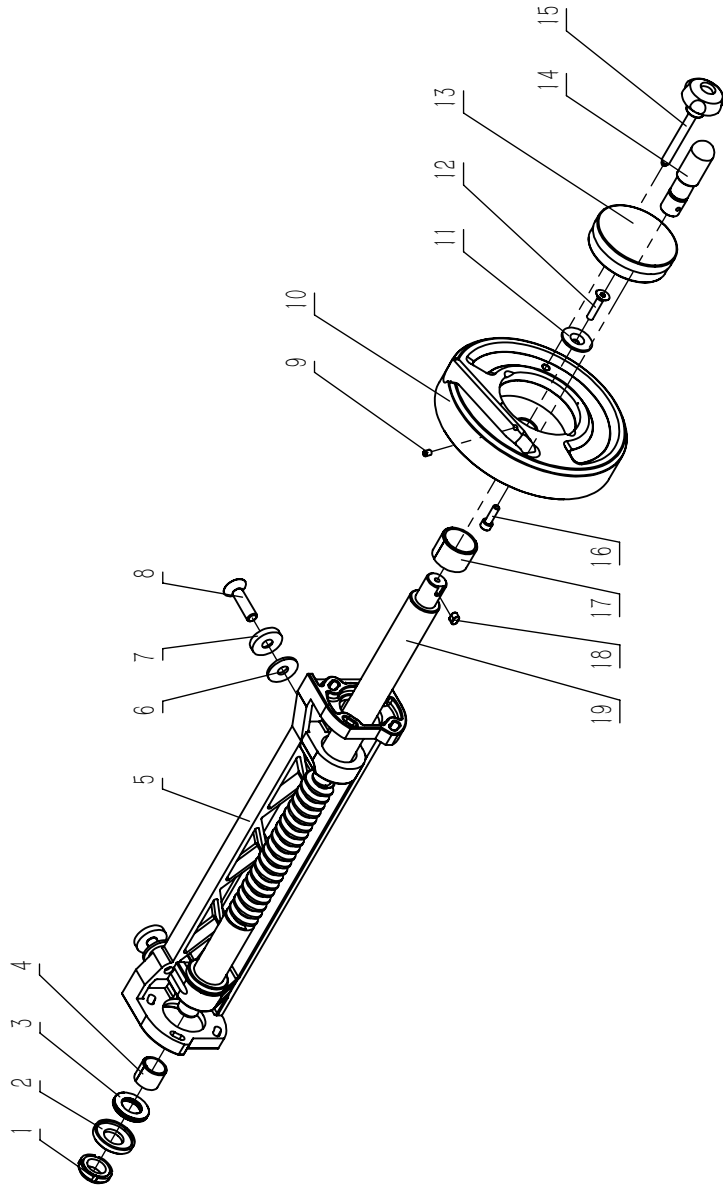
No.	Description.	Part No.
1	washer 5	WSH5GB97D1Z
2	screw M5X12	M5X12GB70D2Z
3	dust guard	JXPS1201020103
4	locknut M5	M5GB889D1Z
5	rack	JXPS1205020001
6	bolt M8X40	M8X40GB5783Z
7	nut M8	M8GB6170Z
8	screw M4X30	M4X30GB819D1Z
9	Travel switch board	JXPS1201020011
10	washer 6	WSH6GB97D1Z
11	spring washer 6	WSH6GB93Z
12	screw M6X12	M6X12GB70D1Z
13	safety switch	QKS7-01
14	nut M4	M4GB6170Z
15	Shaft seat assy	JXPS1205021000
16	riding knife assy	JXPS1205028000
17	motor assy	JXPS1205023000
18	guide rail 1	JXPS1205020003
19	nut M8X25	M8X25GB70D1Z
20	spring washer 8	WSH8GB93Z
21	guide rail 2	JXPS1205020004
22	nut M8X35	M8X35GB70D1Z
23	Main saw lifting assy	JXPS1205026000
24	dust hose	FDPS1201020009
25	screw M6X16	M6X16GB70D2Z
26	screw M4X35	M4X35GB818Z
27	safety switch	QKS7
28	screw M5X10	M5X10GB70D1Z
29	Micro switch seat 2	JXPS1205091005
30	flat washer 4	WSH4GB97D1Z
31	nut M4	M4GB6170Z
32	scoring motor assy	JXPS1205024000
33	scoring shaft seat assy	JXPS1205022000
34	Micro switch seat	JXPS1205091004
35	bolt M8X20	M8X20GB5781Z
36	worm wheel	JXPS1205026004
37	taper pin 8X50	PLN8X50GB117Z
38	screw M10X40	M10X40GB70D1Z
39	lock handle assy	JXPS1205027000
40	Rotary support seat assy	JXPS1201021200
41	screw M6X30	M6X30GB77B
42	locknut M6	M6GB889D1
43	lock handle assy	JMBS1403050003
44	locknut M8	M8GB889D1
45	blade guard	JXPS1205020100A

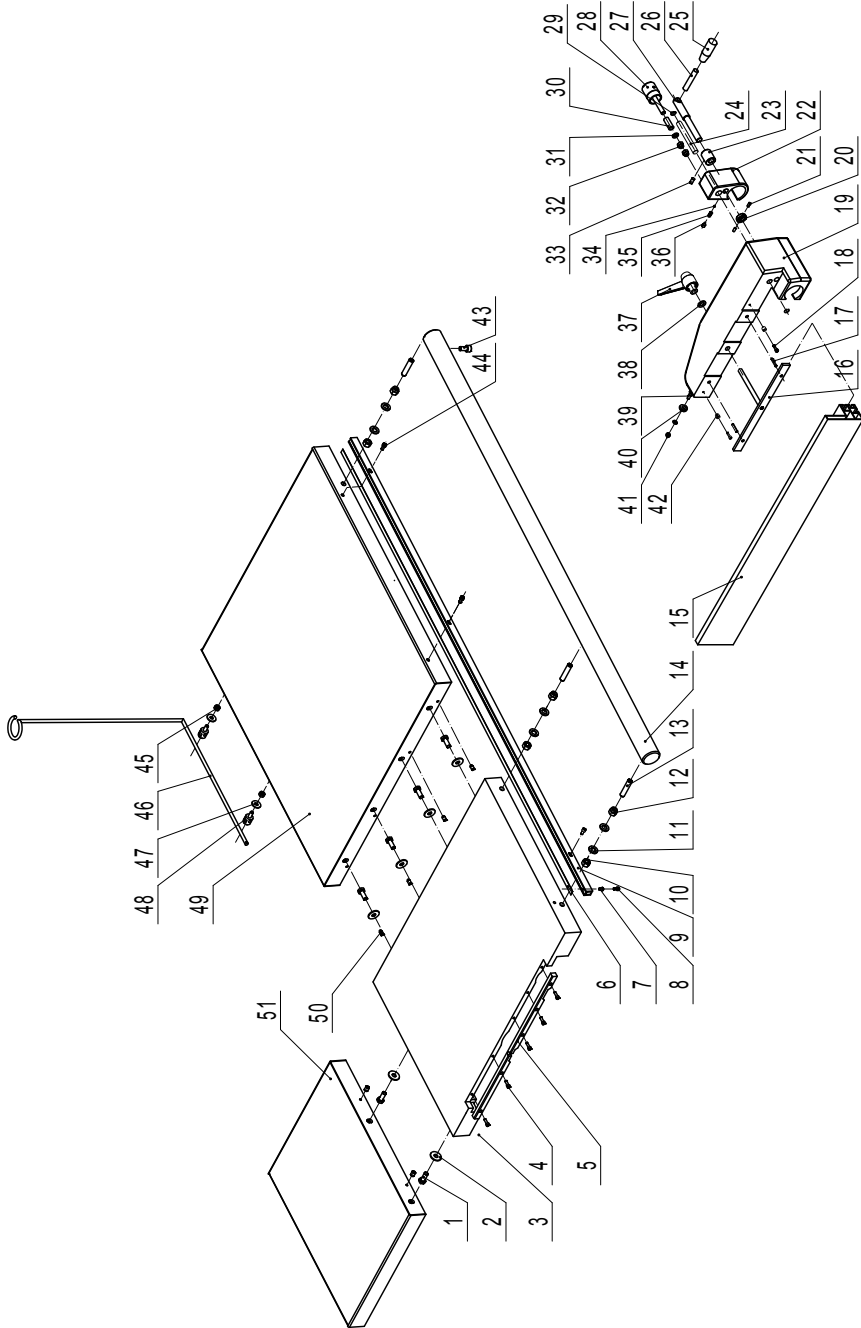


Deflection worm Assembly - SHEETK

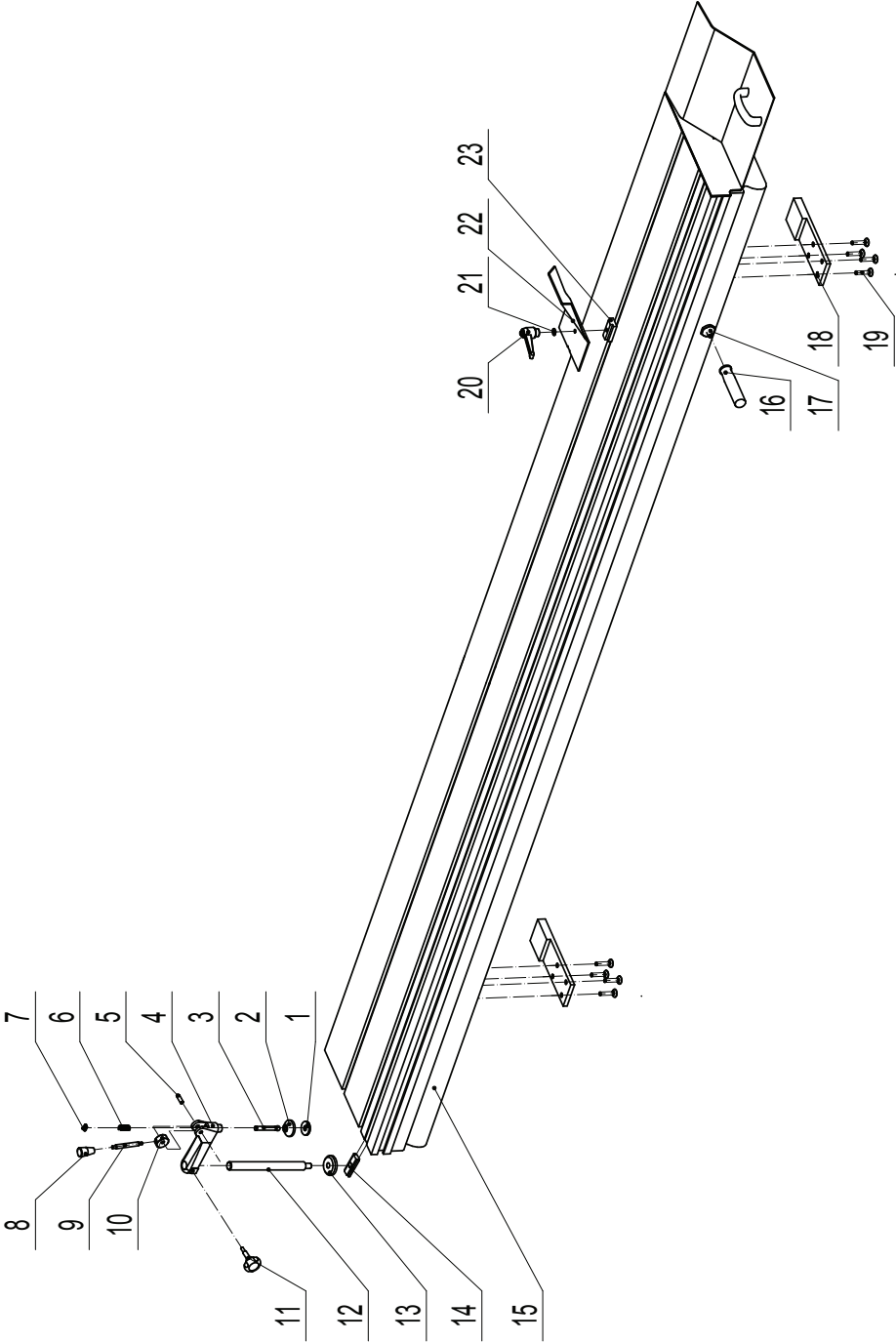
SHEET K

No.	Description.	Part No.
1	round nut	0000301849F
2	Aluminum cover 2	0346631500L
3	axial needle and cage assy	BRG2035AXKASGB4605
4	Wrapped bushes	P20X24X20GB12613
5	shaft seat	JXPS1602027004
6	big washer 10	WSH10GB96D1Z
7	Sink hole spacer	SCPS1601026009
8	screw M10	M10X40GB70D3Z
9	screw M5	M5X8GB80B
10	handwheel	JXPS1201026100A
11	Sink hole washer	JXPS1201026012
12	screw M6	M6X30GB70D3Z
13	weight table	JXPS1201026100-02B
14	haddle	L65
15	round handle	JXPS1201026010
16	screw M6	M6X20GB70D1Z
17	Wrapped bushes	P30X35X24GB12613
18	flat key	PLN6X6X10GB1096
19	worm	JXPS1205026201



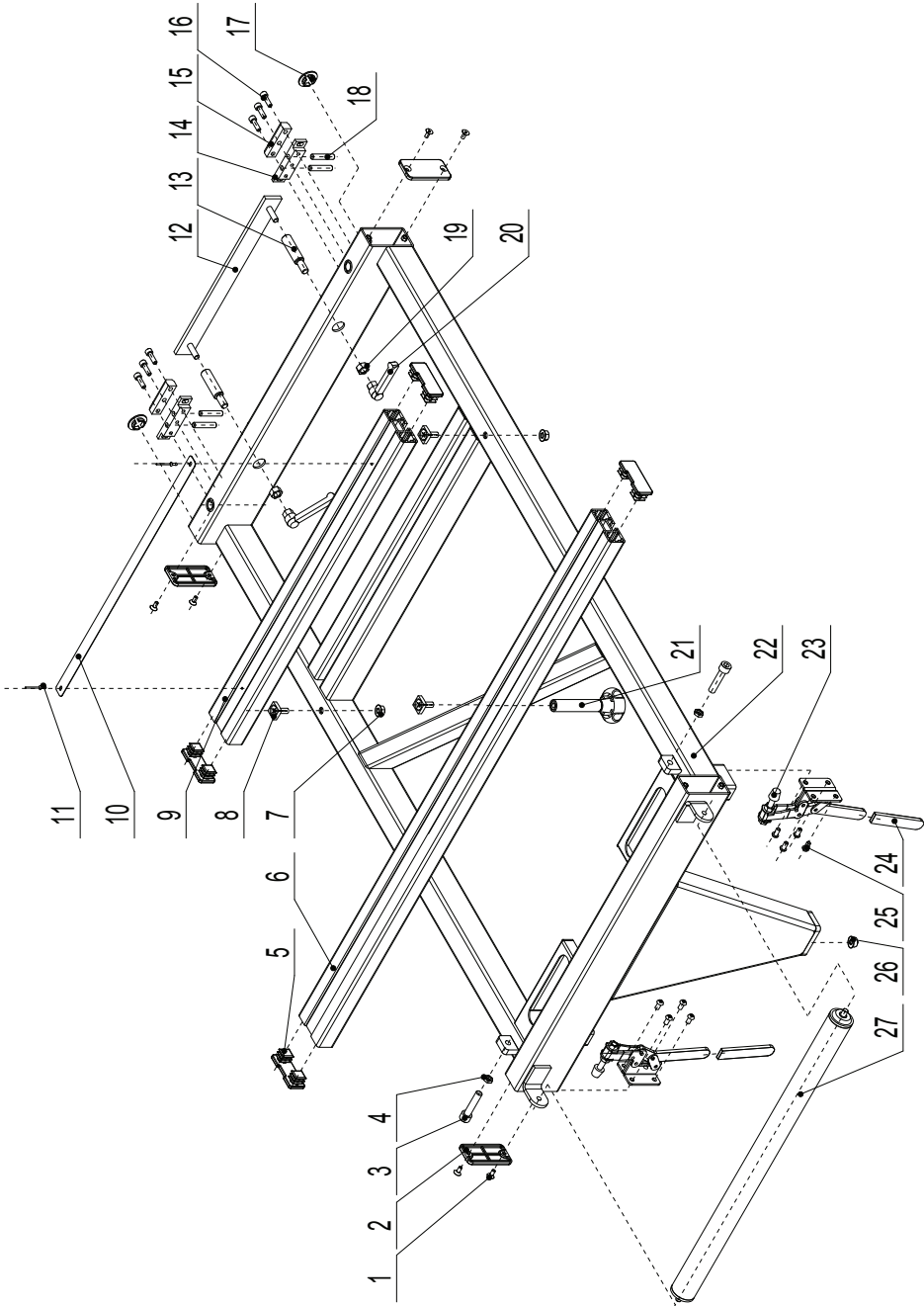


No.	Description	Part No.	QTY.
1	Bolt	M10x25GB5783Z	6
2	Flat washer	WSH10GB96Z	6
3	Main table	JXPS1201030001D	1
4	Screw	M5x16GB70Z	5
5	Table insert	JXPS1201030002	1
6	Scale	SCPS1601060003	1
7	Nut	M6X15GB/T17880D3Z	1
8	Screw	M6X20GB70D1Z	1
9	Bracket	JXPS1201060002D	1
10	Hex nut	M16GB6170Z	3
11	Flat washer	WSH16GB97D1Z	6
12	Nut	M16GB889D1Z	3
13	Screw	JXPS1201060006	3
14	Guide rail	JXPS1201060001B	1
15	L shaped rip fence	JXPS1201060004A	1
16	Lock plate	JXPS1201061006B	1
17	Roll pin	PIN6X26GB879B	2
18	Screw	M5X20GB70Z	2
19	Fence seat	JXPS1201061001A	1
20	Ring	JXPS1201061011	1
21	Lock screw	M4X6GB77B	2
22	Micro adjustment bracket	JXPS1201061002A	1
23	Eccentric bushing	JXPS1201061013	1
24	Shaft	JXPS1201061012	1
25	Handle gloove	JXPT1201020007-001S	1
26	lock rod	GRPS1401061001	1
27	lock handle rod	JXPS1201061014	1
28	Micro adjustment handle	JXPS1201061010-001S	1
29	Ring	CLP14GB893D1B	2
30	Tube	JXPS1201061015	1
31	Flat washer	WSH8GB97D1Z	2
32	Nut	M8GB6172Z	2
33	screw	M6X12GB78B	1
34	Steel ball	6D5G10GB/T308	1
35	Spring	JXPS1203023009	1
36	Screw	M8X16GB77B	1
37	Adjustable handle	KTSB-1-A-M10X80	1
38	Flat washer	WSH10GB97D1Z	1
39	Eccentric shaft	JXPS1201061004	1
40	Wheel	JXPS1201061005A	1
41	Nut	M8GB6170Z	1
42	Tube	JXPS1602061006	2
43	Set screw	M5X10GB70Z	1
44	Set screw	M6X12GB70D2Z	4
45	Hex nut	M8GB6170Z	2
46	Hose Bracket	JXTS1201050003	1
47	Big washer	WSH8GB96Z	2
48	Bracket block	JXPS1201050004	2
49	Right Table Extension	JXPS1201030003D	1
50	screw	M8X10GB77B	8
51	Rear Table Extension	JXPS1201030004C	1

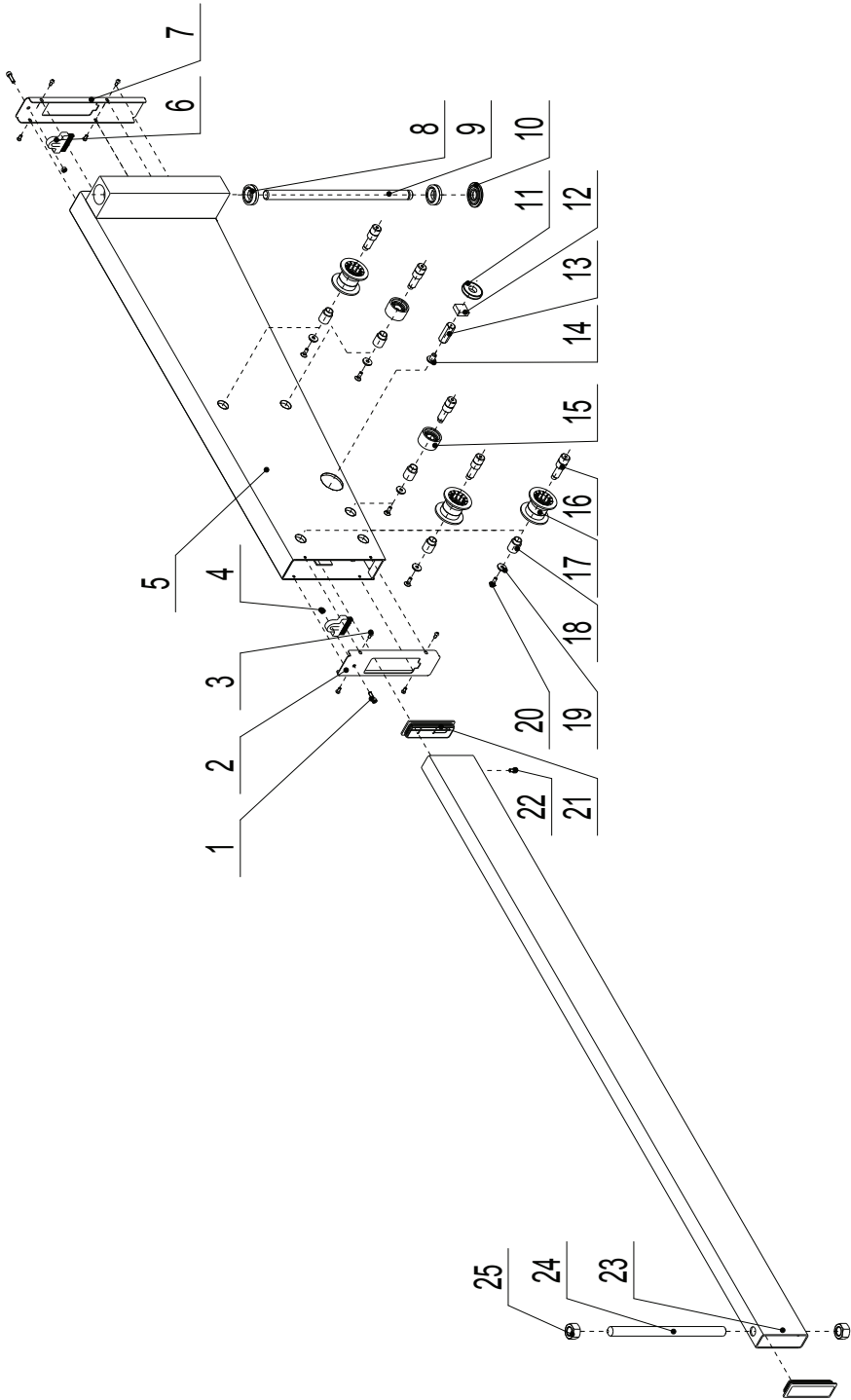


No.	Description	Part No.
1	Rubber feet	JXSM0401042108
2	Plate	JXSM0401042107-001S
3	Rod	JXSM0401042106
4	Rod	JXSM0401042101
5	Shaft	JXSM0401042103
6	Spring	JXSM0401042105
7	Retaining ring	CLP12GB894D1B
8	Handle groove	JXPT1201020007-001S
9	Handle rod	JXSM0401042104
10	Cam	JXSM0401042102
11	Round handle	JXSM0401083002-001S
12	Rod	JXSM0401042003
13	Plate	JXSM0401042001
14	Slide bracket	JXSM0401042002
15	Slide table	JXPS1201041000A
16	Handle	JXPS1201040002
17	Hex slider	JXPS1201040001
18	Slide table plate	JXPS1201040009
19	Set screw	M6X16GB70D3B
20	Lock handle	JXCM2501012100-001S
21	Flat washer	WSH8GB97D1Z
22	Plate	JXPS1201040003
23	Slider	JXPS1201040004

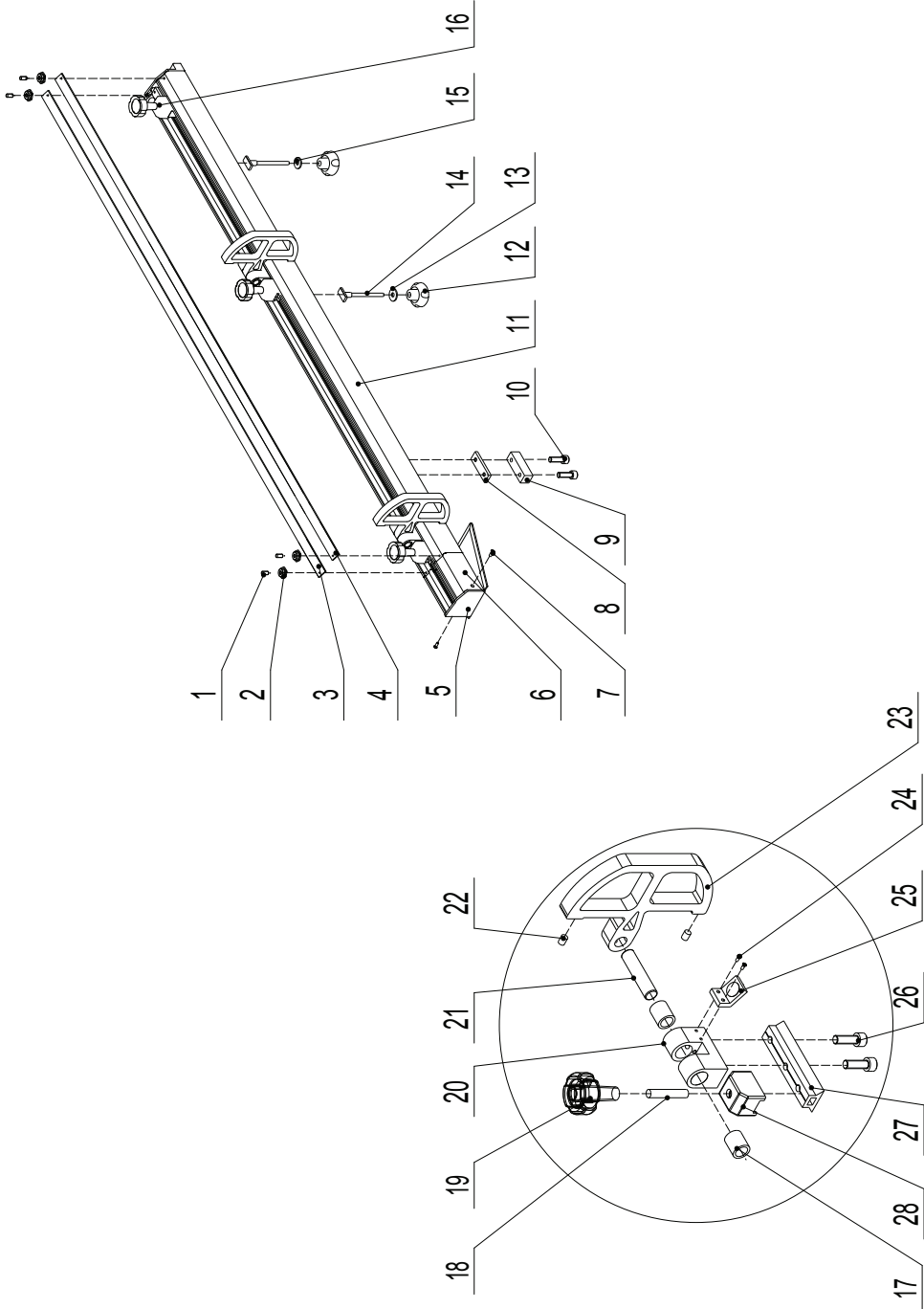
No.	Description	Part No.
1	Screw	M5X12GB70D3B
2	End cap	JXPS1201051014
3	Screw	M10X45GB70Z
4	Nut	M10GB6172Z
5	End cap	GRPS1401051003
6	Long plate	JXPS1201051011A
7	Nut	M8GB6177D1Z
8	lock block	JL84100003
9	Scale plate	JXPS1201051012
10	Angle gauge	JXPS1201051003B
11	rivet	RVT3X7GB12618A
12	Lock plate	JXPS1201051002
13	Lock shaft	JXPS1201051201
14	lock block	JXPS1201051016
15	Guide block	JXPS1201051015A
16	Screw	M6X20GB70Z
17	Mat	JXPS1201051010
18	Screw	M8X40GB77B
19	Nut	M10GB6170Z
20	Adjustable handle	KTSB-1-A-M10X80
21	lock handle	JL84102000
22	Slide bracket assy	JXPS1201051100F
23	Tool holder	JXPS1201051006
24	Tool holder tube	JXPS1201051007-001S
25	Screw	M6X16GB70D2Z
26	tube	P12X10X8-AGB12613
27	roller	SCPS1601051010



No.	Description	Part No.
1	Screw	M6X20GB70D2Z
2	Cover	JXPS1602052005
3	Screw	M5X10GB818Z
4	Hex nut	M6GB6170Z
5	Support bracket	JXPS1602052003B
6	Brush	JXTS1201052005
7	Cover	JXPS1602052006
8	Bearing	BRG6004-2RZ
9	Shaft	JXPS1201052005B
10	Washer	JXPS1201052006A
11	Magnet	SCPS1601052014
12	Sponge	SCPS1601052020
13	Hexagonal prism	SCPS1601052016
14	Screw	SCPS1601052015
15	Bearings rolling wheel	SCPS1601052007
16	Eccentric shaft	SCPS1601052004
17	Bearings rolling wheel	SCPS1601052019
18	Position tube	JXPS1602052205A
19	Washer	JXPS1602052206
20	Screw	M6X16GB70D3Z
21	Plastic end-cap	JXPS1602052008
22	Screw	M6X10GB70Z
23	Telescopic arm	JXPS1602052004
24	Telescopic arm	JXPS1602052004A
25	Hex nut	M20x1D5GB6173Z
25	Support rod	JXPS1201052001B



No.	Description	Part No.
1	Screw	M5X4GB80B
2	Lock slider	JXPS1201053009
3	Scale	JXPS1201053006C
4	Scale	JXPS1201053006D
5	End cap	JXPS1201053105A
6	Bracket	JXPS1201053101
7	Screw	ST4D2X13GB846Z
8	Slider	JXPS1201053005H
9	Position bracket	JXPS1201053007A
10	Screw	M8X25GB70Z
11	Bracket	JXPS1201053102
12	Handle	JXTS1201131001-001S
13	Washer	WSH8GB5287Z
14	Slider	JXPS1201053005D
15	Washer	WSH8GB96Z
16	Scale bracket	JXPS1201053120
17	Tube	JXPS1201053118
18	Double-end bolt	M10X70GB/T889B
19	Lock button	JXPS1201053111
20	Position block	JXPS1201053114
21	Shaft	JXPS1201053116
22	Plastic screw	M8X20GB73S
23	Bracket	JXPS1201053104
24	Screw	M4X6GB819Z
25	Lens	JXPS1201053115
26	Screw	M8X12GB70Z
27	Guide block	JXPS1201053117
28	Lock press block	JXPS1201053112



Small ruler assembly - SHEETQ

SHEET Q

