

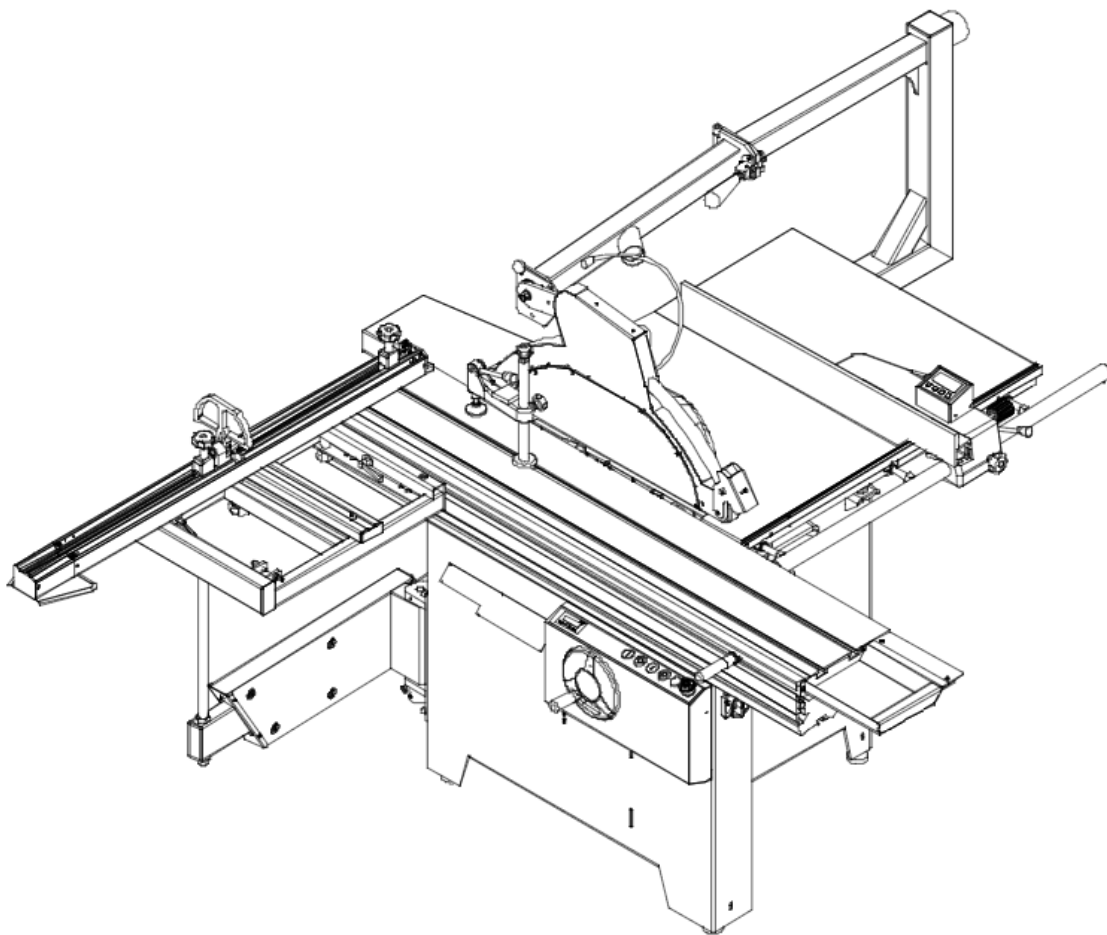


MAKSIWA®

BMS 1600.IR

Sliding Panel Saw 1600 mm

INSTRUCTION MANUAL



ATTENTION: FOR YOUR SAFETY, READ INSTRUCTIONS CAREFULLY BEFORE ASSEMBLING OR USING THIS PRODUCT. SAVE THIS MANUAL FOR FUTURE REFERENCE.

Greetings,

Congratulations, you just purchased the BMS.1600.IR Precision Saw, which was developed with the Maksiwa's highest standards of technology and quality. Your BMS.1600.IR Precision Saw allows you to have the highest productivity in woodworking. Besides a great finish, the BMS.1600.IR ensures that your cuts are always precise. It should be noted that to use this machine with maximum efficiency, you should read and understand the instructions in this manual.

Visit our website to know about other products and technical assistance:

www.maksiwa.com/usa

tech@maksiwa.com



Attention!: The machine must be inspected immediately upon arrival. If the machine has been damaged during transport, or if any parts are missing, a written record of the problems must be submitted to the forwarding agent and a damage report compiled. Also be sure to notify your supplier immediately.



For the safety of all personnel, it is necessary to study this manual thoroughly before assembly and operation. This manual must be kept in good condition and should be considered as part of the machine. Furthermore, the manual must be kept to hand and within the vicinity of the machine so that it is accessible to operators when using, maintaining or repairing the machine.



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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 Recommendation

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.**

1.4 Copyright

This manual should be handled confidentially. It is designated solely for those persons who work on or with the machine. All descriptions, texts, drawings, photos and other depictions are protected by copyright and other commercial laws. Illegal use of the materials is punishable by law.

This manual, in its entirety or parts thereof, may not be transferred to third parties or copied in any way or form, and its contents may not be used or otherwise communicated without the express written consent of the manufacturer.

Infringement of these rights may lead to a demand for compensation or other applicable claims. We reserve all rights in exercising commercial protection laws.

1.5 Spare parts



Attention: Non genuine, counterfeit or faulty spare parts may result in damage, cause malfunction or complete breakdown of the machine.

If unauthorized spare parts are fitted into the machine, all warranty, service, compensation and liability claims against the manufacturer and their contractors, dealers and representatives shall be rejected. Use only genuine spare parts supplied by the manufacturer. Unless, specified by manufacturer.

1.6 Disposal



Attention!: Used electrical materials, electronic components, lubricants and other auxiliary substances must be treated as hazardous waste and may only be disposed of by specialised, licensed firms.

If the machine is to be disposed of, separate the components into the various materials groups in order to allow them to be reused or selectively disposed of. The whole structure is made of steel and can therefore be dismantled without problem. This material is also easy to dispose of and does not pollute the environment or jeopardize public health. International environmental regulations and local disposal laws must always be complied with.

2 Safety Precautions

2.1 Safety Regulations

**WARNING**

Wood machinery is equipment which is of high-speed and high-safe risk. User can only operate this equipment only after professional training. If any personal injury or equipment breakdown is caused by disobeying following safe operation rules, the manufacturer will not be responsible for the results.

- 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 unhooked, neither not correctly reground 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 move back a little and enable the equipment to be safely unblocked.

**WARNING**

If any accident happened because of unqualified connected electric components or disordered assembly, the manufacturer will not be responsible for the results.

If any accident happened because of changing machinery function or spare parts without permission, the manufacturer will not be responsible for the results.

If any accident happened because of operation with spare parts missing or broken, the manufacturer will not be responsible for the results.

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).

2.3 Machine Safety

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:

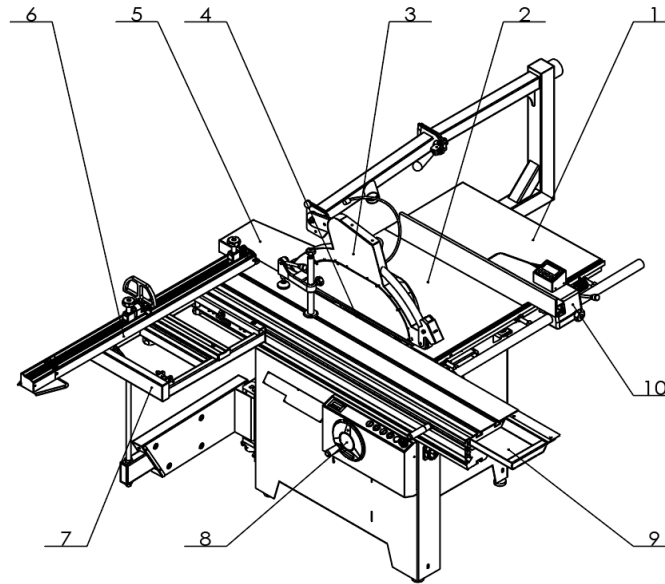
Indicate the technical characteristics, direction of rotation and inclination, block and release, etc.

Carefully following the directions to simply 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 | 5. Rear extension table | 9. Sliding table |
| 2. Main table | 6. Telescopic fence | 10. Rip fence assembly |
| 3. Blade guard assembly | 7. Square sliding table | |
| 4. Blade | 8. Tilting handwheel | |

3.2 Technical Specification

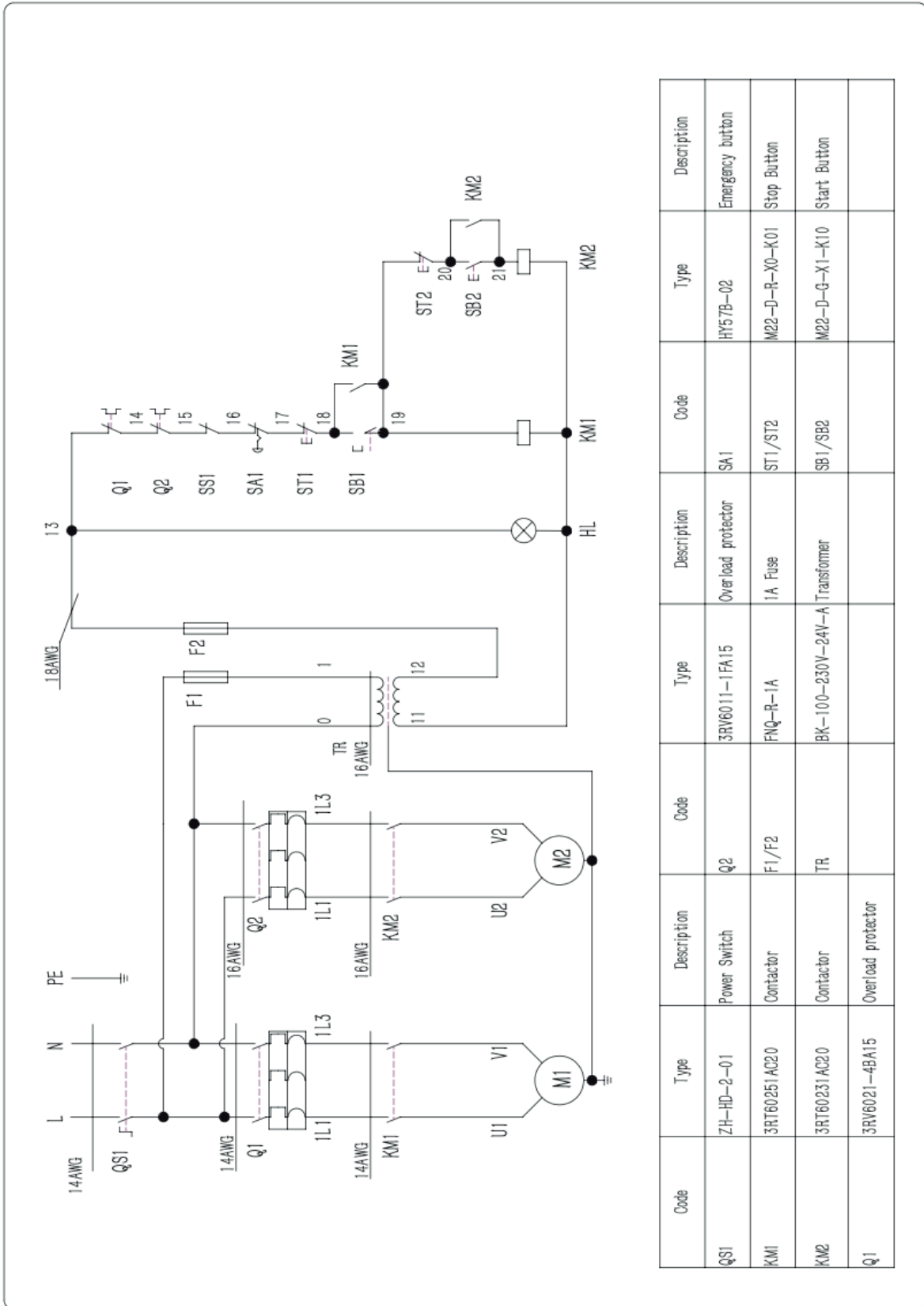
Motor Voltage	220V-60Hz
Main motor power	5HP
Scoring motor power	1HP
Main blade diameter	315-30mm
Main blade speed	4000rpm
Scoring blade diameter	120-20mm
Scoring blade speed	8000rpm
Blade tilt	0~45°
Main table size	800x530mm
Right extension table size	800x470mm
Max.rip capacity	900mm
Max.depth of cut	95mm@90° 67mm@45°
Sliding table size	1600x310mm
Square sliding table size	600x430mm

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 220V±10% (60Hz±1%Hz) electrical supply which has protection devices of under-voltage, over-voltage, over-current the main connection must have maximum 25A time-lag fuse.

**WARNING**

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



Code	Type	Description	Code	Type	Description	Code	Type	Description
QS1	ZH-HD-2-01	Power Switch	Q2	3RV6011-1FA15	Overload protector	SA1	HY57B-02	Emergency button
KM1	3RT60251AC20	Contact	F1/F2	FNQ-R-1A	1A Fuse	ST1/ST2	M22-D-R-X0-K01	Stop Button
KM2	3RT60231AC20	Contact	TR	BK-100-230V-24V-A	Transformer	SB1/SB2	M22-D-G-X1-K10	Start Button
Q1	3RV6021-4BA15	Overload protector						

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.

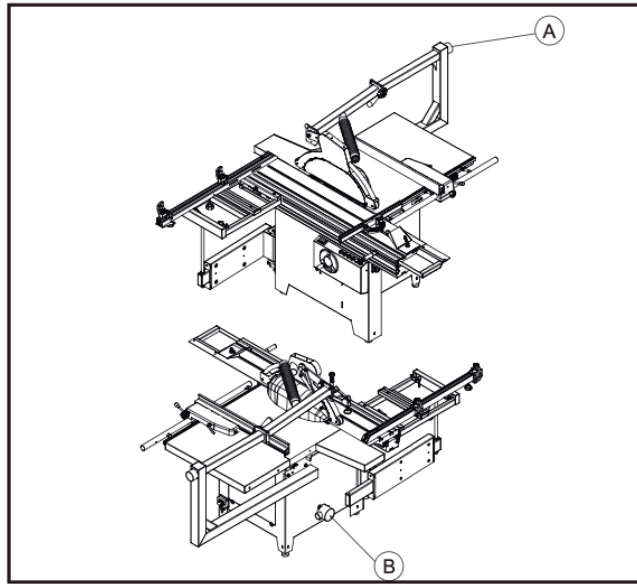
Saw	
Upper hood	Lower hood
Air flow 140 cu.m/h	690 cu.m/h
Minimum air speed 20 m/s	

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

Suction mouth diameter:

A - Blade guard \varnothing 100 mm (\varnothing 76mm)

B - Body dust suction \varnothing 100 mm (\varnothing 120mm)



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.

3.6 Safety Devices

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

A - Safety Switch.

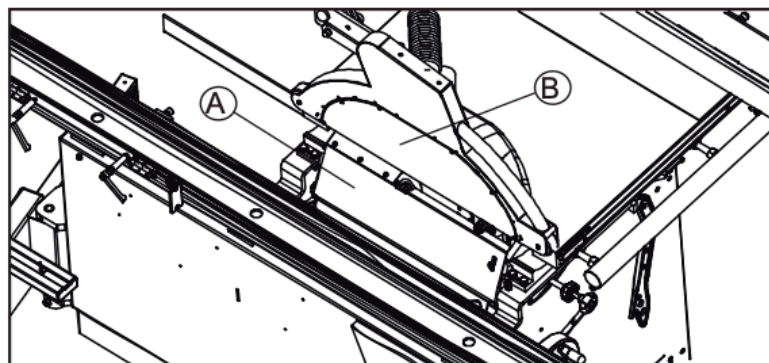
Stops the machine if the guard is opened to perform operations on the blade.

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.



4 Installation

**CAUTION**

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

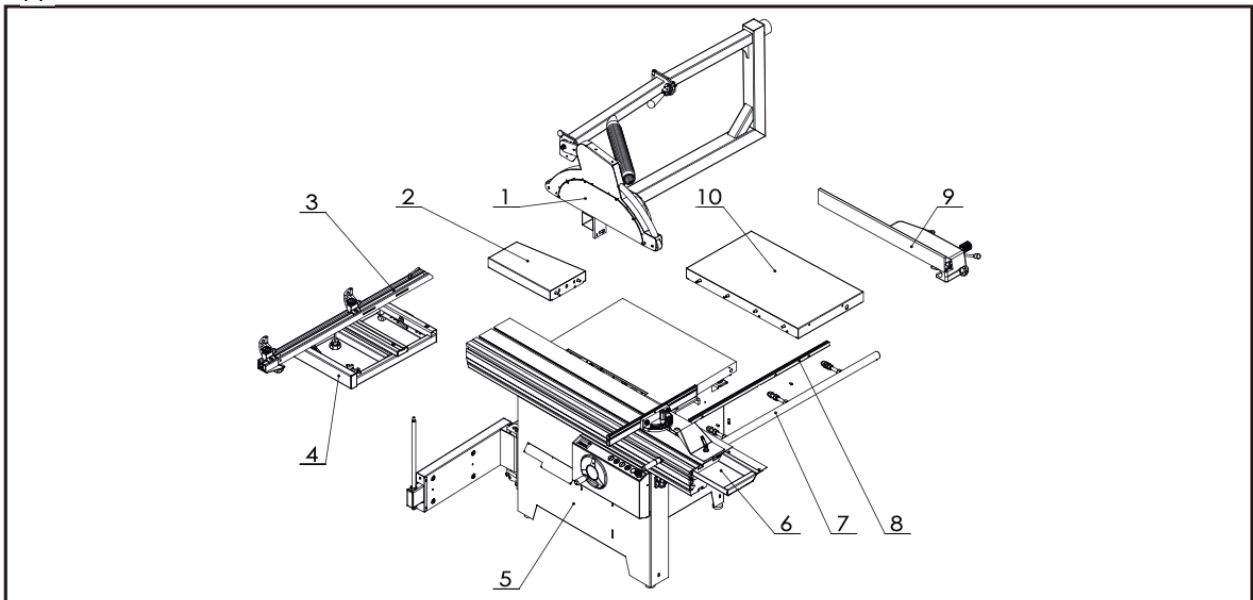
4.1 Contents of Package

- 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 three carton:

1. Fixed blade cover Assembly (packed separately)
2. Rear extension table
3. Telescopic fence assembly
4. Square sliding table
5. Frame assembly
6. Slide Table (packed separately)
7. Guide rail
8. Scale bracket
9. Rip fence assembly
10. Right extension table

11



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 correspondance 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.

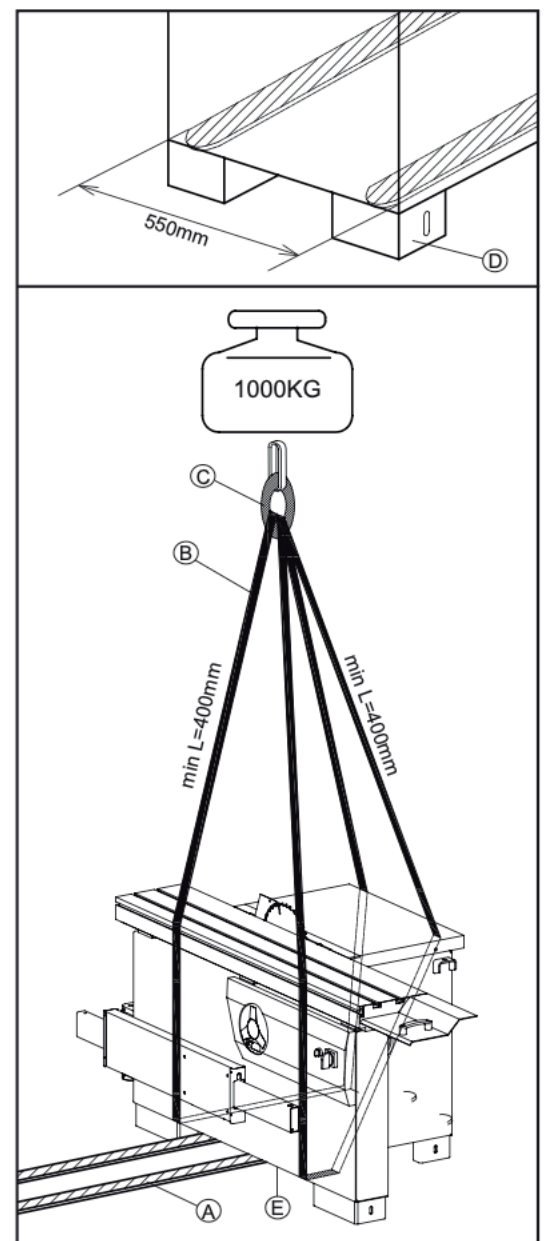


Fig.4.2

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

1. The machine must be fixed to the floor.
2. Use bolt / nut A to level the feet to ensure machine is well located.
3. Put expansion bolts D (not supplied) into ground, use washer / lock washer C and hex nut B to fasten the bolts.

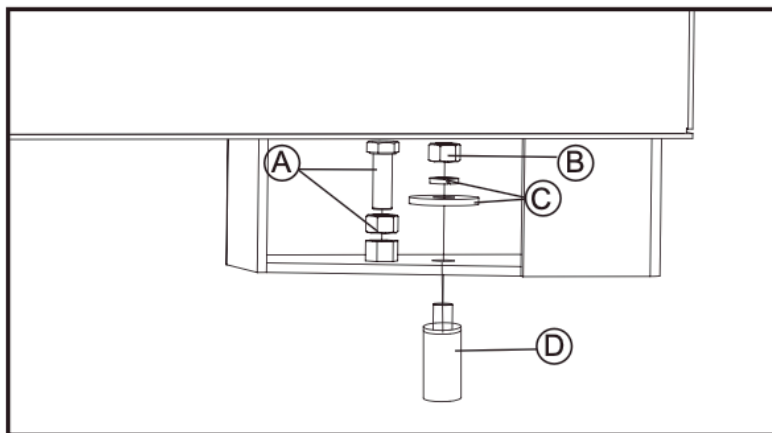


Fig.4.3

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.

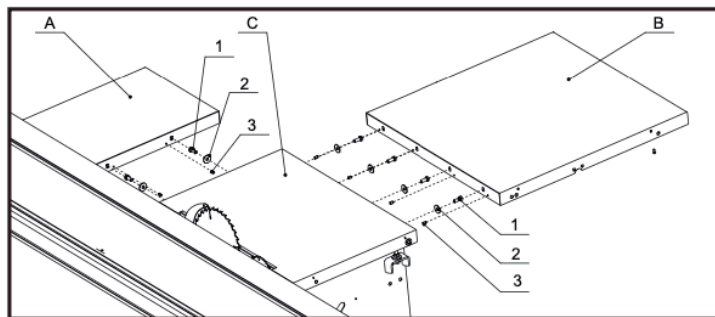


Fig. 4.4.1

4.4.2 INSTALL BLADE GUARD AND HOSE SUPPORT ROD

Tools Required for Assembly:

- Wrench 18mm
- Install blade guard A on body B with parts 1 and 2.

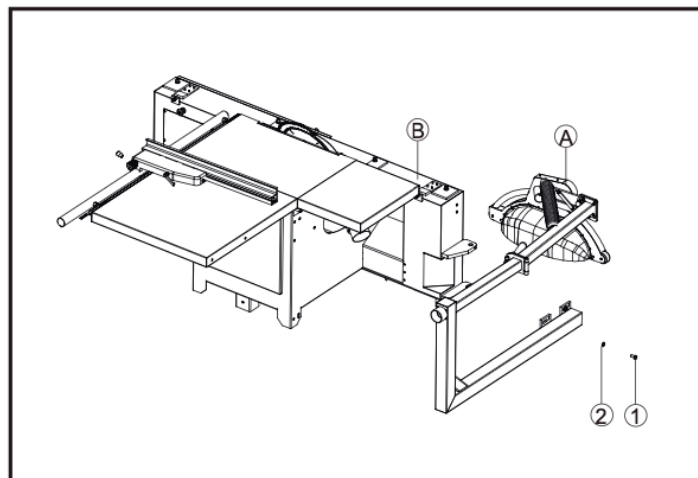


Fig. 4.4.2

4.4.3 INSTALL SQUARE SLIDING TABLE

- Put the square sliding table C into the slot of sliding table A. (Deputy C/F not recommended installation)
- Put the support rod D into the hole of square sliding table C and the hole on support arm E.
- Lock the handle B.

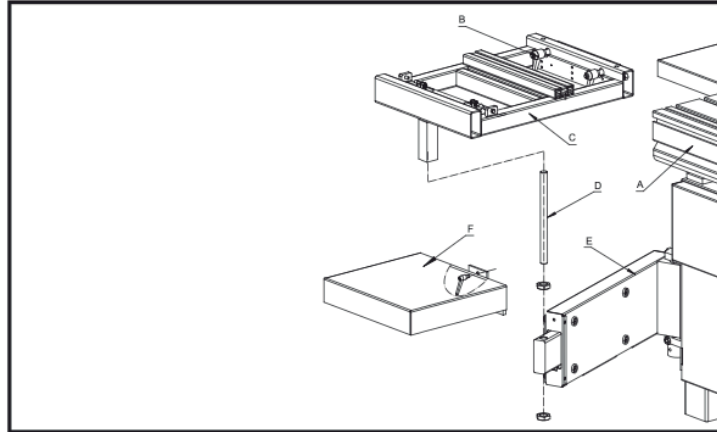


Fig. 4.4.3

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.

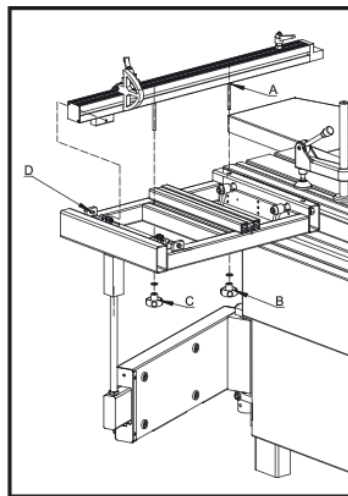


Fig.4.4.4(1)

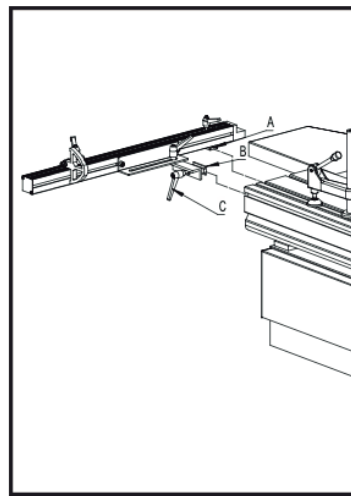


Fig.4.4.4(2)

4.4.5 INSTALL FENCE RAIL

Tools Required for Assembly:

- Wrench 24 mm
- L Wrench 5 mm

- 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.

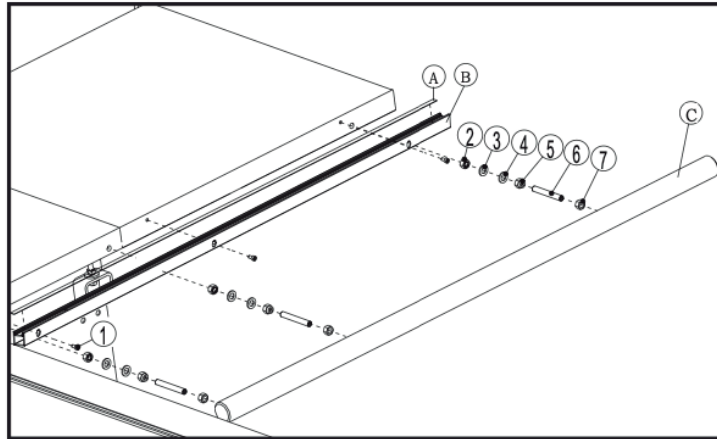


Fig.4.4.5

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.

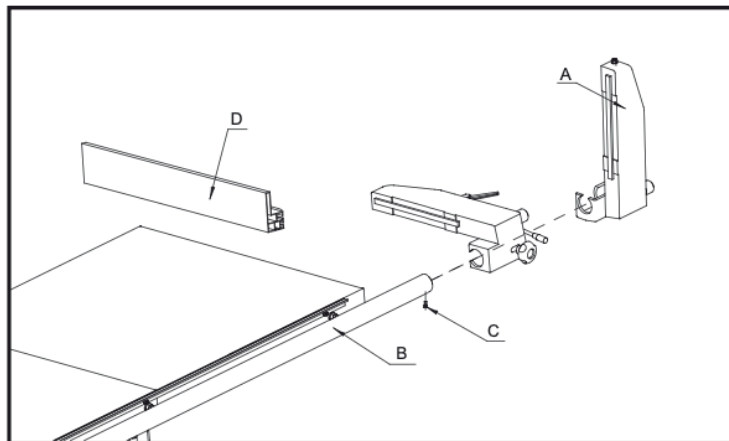


Fig.4.4.6

4.4.7 INSTALL SLIDING TABLE

- Tools Required for Assembly: - 16mm fork wrench
- Let B,C,D go through the frame, then fix on A (Don't fix too tight, there are 2 sets)
- Let the sliding table go through A, then align the sliding table to the frame according to E sticker
- Position the sliding table towards the saw unit and fix the position. Then tighten the screw.

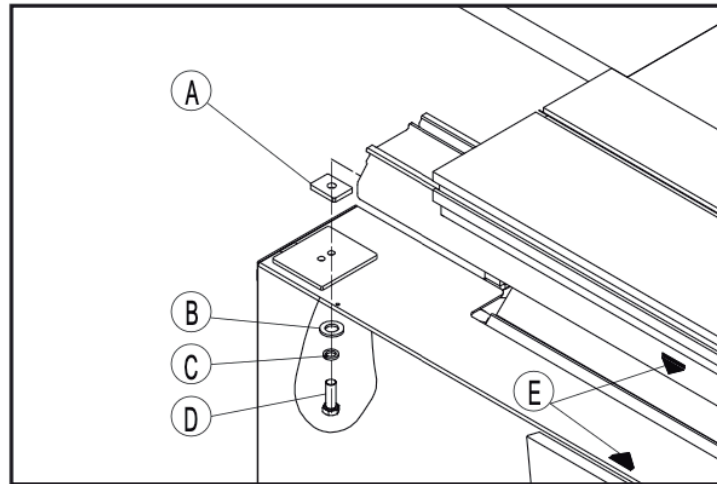
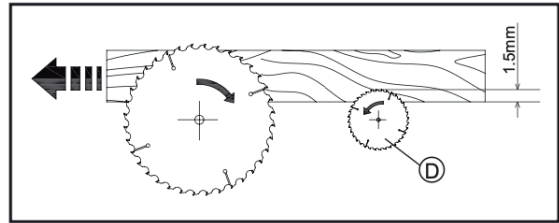


Fig.4.4.7

5 Adjustment

**WARNING**

Handle the tools with protective gloves.



5.1 SCORER ADJUSTMENT

**WARNING**

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.

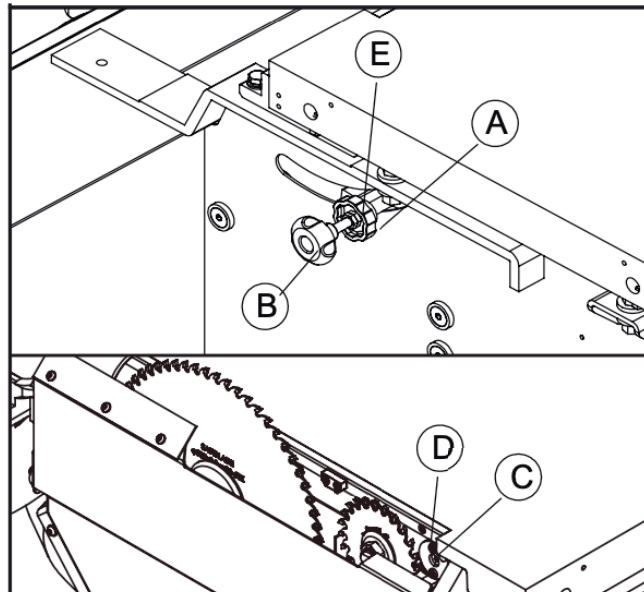


Fig.5.1

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.

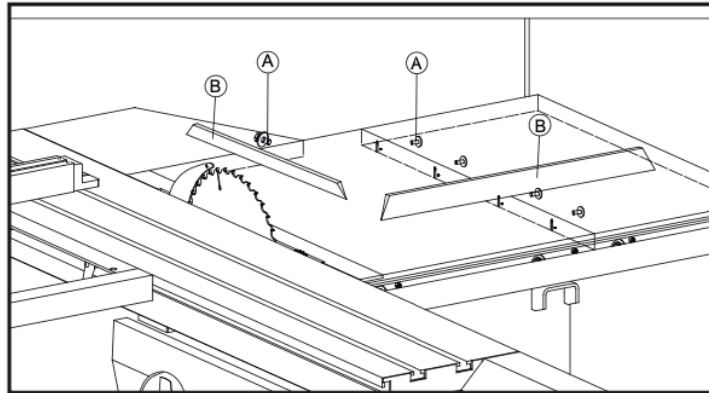


Fig.5.2

5.3 Rip Fence Precision Adjustment

Tools Required for Assembly:

- Straight edge, Angle gauge, Depth gauge
- Feeler gauge
- Wrench 18mm
- Check the perpendicularity between the rip fence and table with triangle compass and feeler gauge. Loosen 4pcs short shaft B, then adjust the guide rail up and down to get best perpendicularity.
- Check the parallelism between the blade and rip fence with straight edge and depth gauge. Loosen 4pcs short shaft B, then adjust the guide rail up and down to get best parallelism.

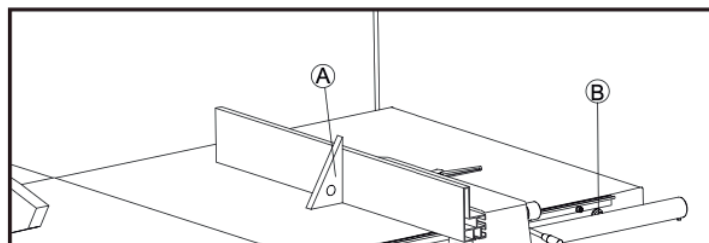


Fig.5.3.1

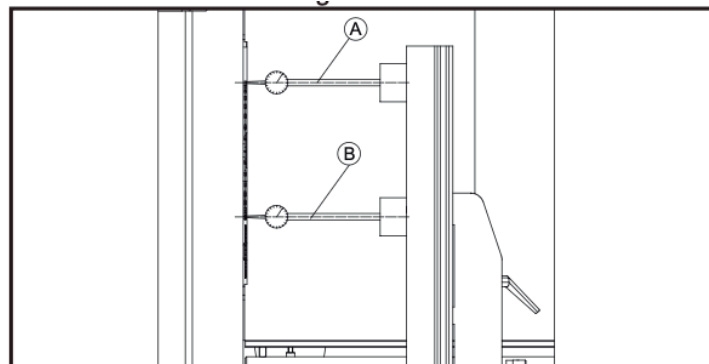


Fig.5.3.2

5.4 M30 Angle Meter Instruction Manual

- 5 digital tube display, clear and easy to read
- Measuring scope:±180°
- 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°)

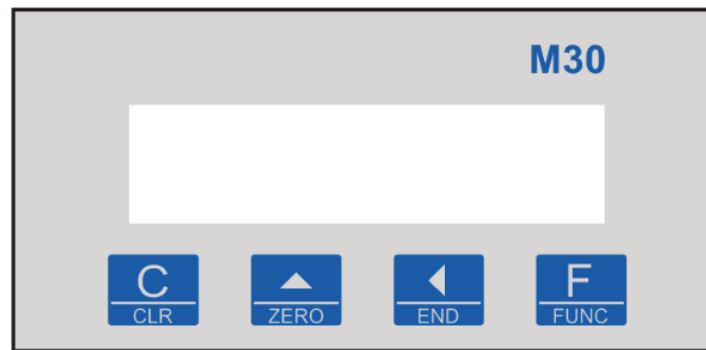


Fig.5.4

5.4.1 SPECIFICATIONS/PERFORMANCE

Electric performance		Mechanical performance	
Resolution ratio	0.1°,0.5°	Out dimension	74*36*32mm
Measurement range	±180°	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

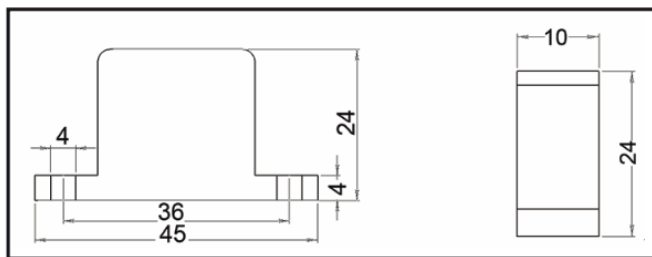
5.4.5 Fast Adjustment

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):

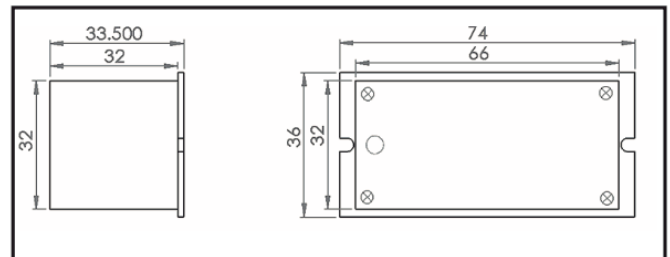
1. Equipment operate to the initial position, long press the ZERO key, the current Angle will be set to 0 °
2. Equipment operate to END position, long press the END key, the current point is set to 45 °
3. Angle linear correction is complete. Adjust the P06, P07 data, can be set to other Angles

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- Deflection display panel
- B- Main blade start button
- C- Main blade stop button
- D- Scoring blade start button
- E- Scoring blade stop button
- F- Emergency stop button
- G- Indicator light

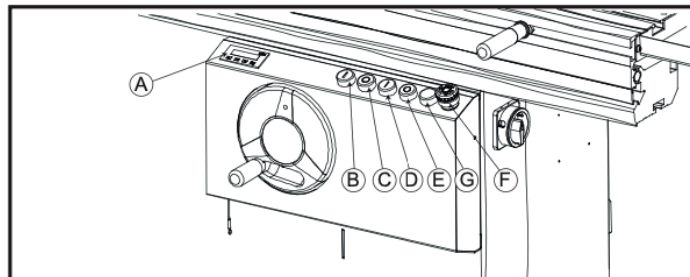


Fig.6.1

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

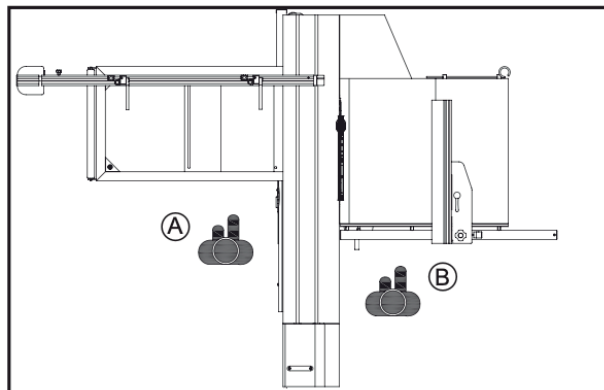


Fig.6.2

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.

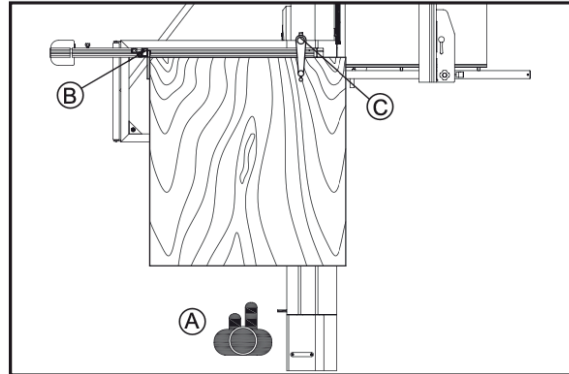


Fig.6.3.1

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.

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.

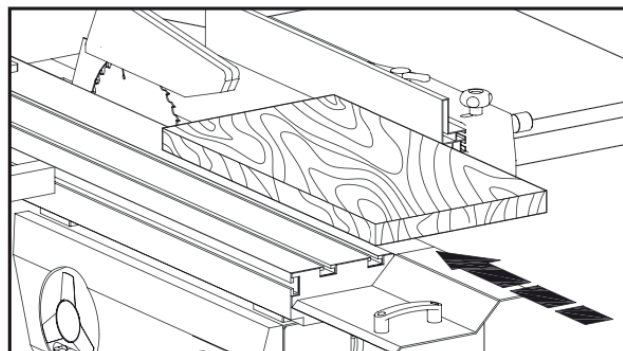


Fig.6.3.2

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 tothing 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.

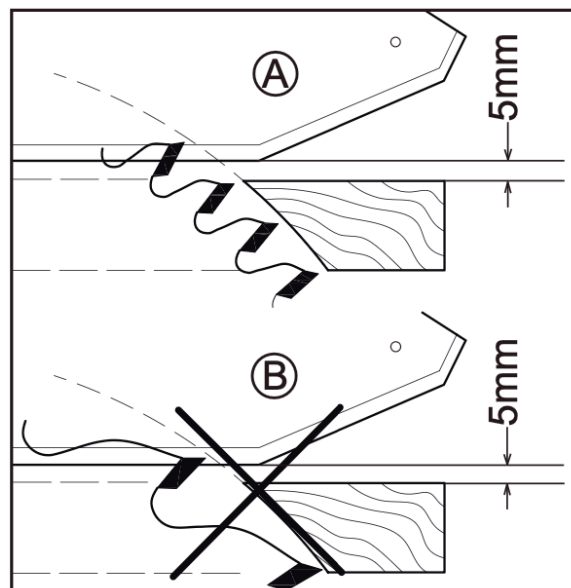


Fig.6.4



WARNING

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

6.5 Cutting check after the machine adjusting is finished

Before cutting workpiece, please make sure the sliding table and fence is adjusted correctly. Choose sharp and high-quality blade. Please choose a 1000mmX1000mm chipboard or destiny board. The board thickness should be more than 19mm. Put the workpiece with the cutting side close to the fence, then rotate the workpiece anticlockwise. Cut 10mm every time, and cut 5times. Then check the width of the fifth cutted woodpiece. The requested tolerance should be within 0.2mm.

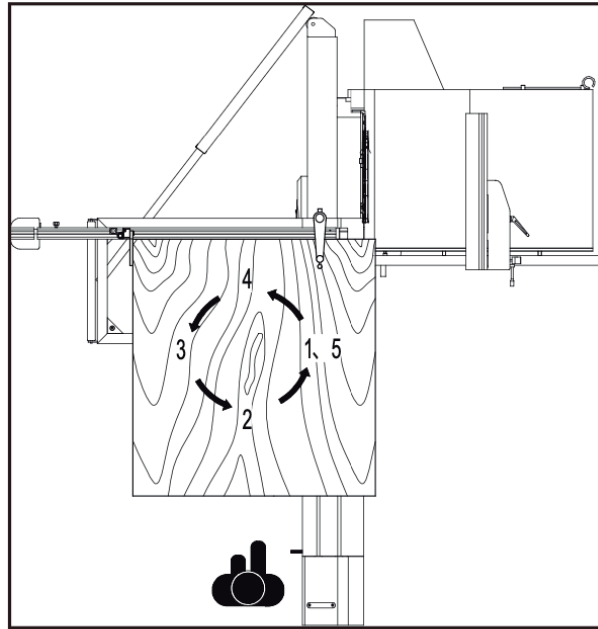


Fig.6.5

6.6 Material and Blade (just for reference)

Material	Cutting speed (m/s)	Diameter of scoring blade D=250mm	Diameter of scoring blade D=300mm	Diameter of scoring blade D=350mm	Diameter of scoring blade D=400mm
soft woodpiece rip cutting	60-80	24W	28W	32W	36W
soft woodpiece cross cutting	60-80	40W	48W	54W	60W
hard workpiece rip cutting	60-80	24W	28W	32W	36W
hard workpiece cross cutting	60-80	40W	48W	54W	60W
veneer board	70-80	60W	72W		
chipboard	50-70	40W	48W		
compound board	60-80	48W	60W	72W	
plywood board	50-80	40W	48W	54W	
particle board	60-80	48W	60W	72W	
particle board with coating	60-80	60TF	72TF	84TF	
destiny board	60-80	48W	60W	72W	
destiny board with coating	60-80	60W	72W	84W	
fibre board	60-80	60W	72W	84W	
thin board	50-70	60TF	72TF	84TF	
plaster board	40-60	48W	60W	72W	

Remarks: W: alternate teeth (left and right teetch)

TF: ladder flat teeth

The dimension of scoring blade: diameter=120mm, 24 teeth, ladder flat teeth, inner hole diameter=20mm

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.

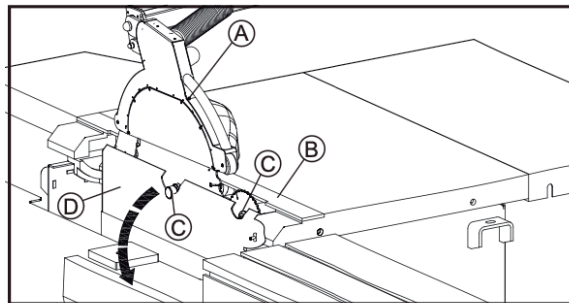


Fig.7.1

7.2 Replace Belt

Tools Required for Assembly:

- 4mm allen wrench
- 6mm allen wrench
- Open right side plate with 4mm allen wrench, then rotate
- the screw rod at A of figure 7.2 with 6mm allen wrench.
- When rotating the wrench clockwise, belt becomes loose;
- when rotating the wrench anticlockwise, belt becomes tight.

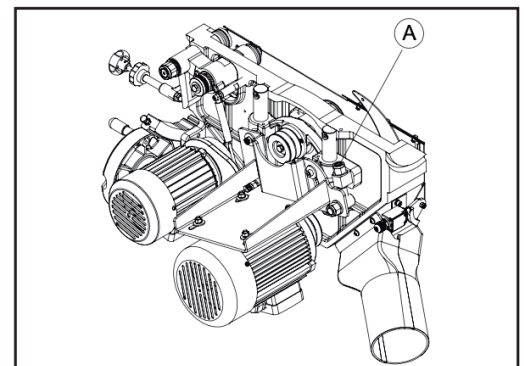


Fig.7.2

7.3 Overall Cleaning

**WARNING**

Please DO NOT to 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;

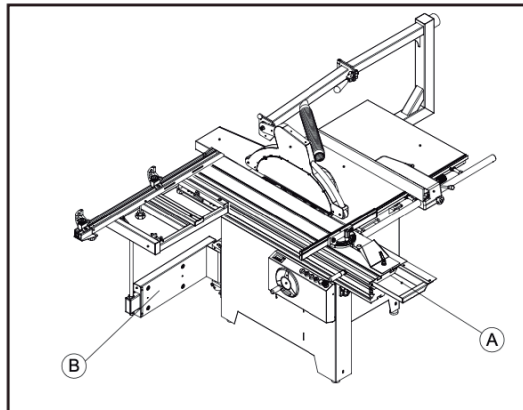


Fig.7.3

7.4 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.

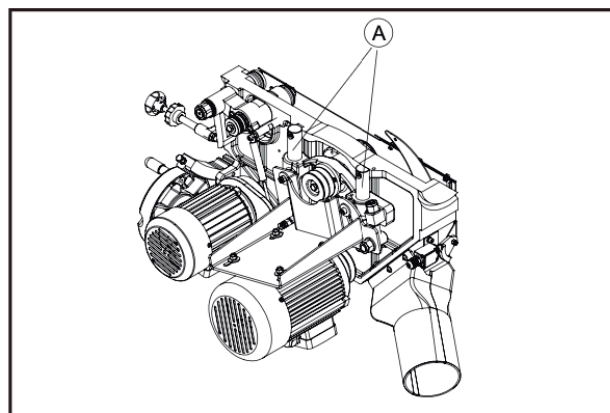


Fig.7.4

7.5 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.



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

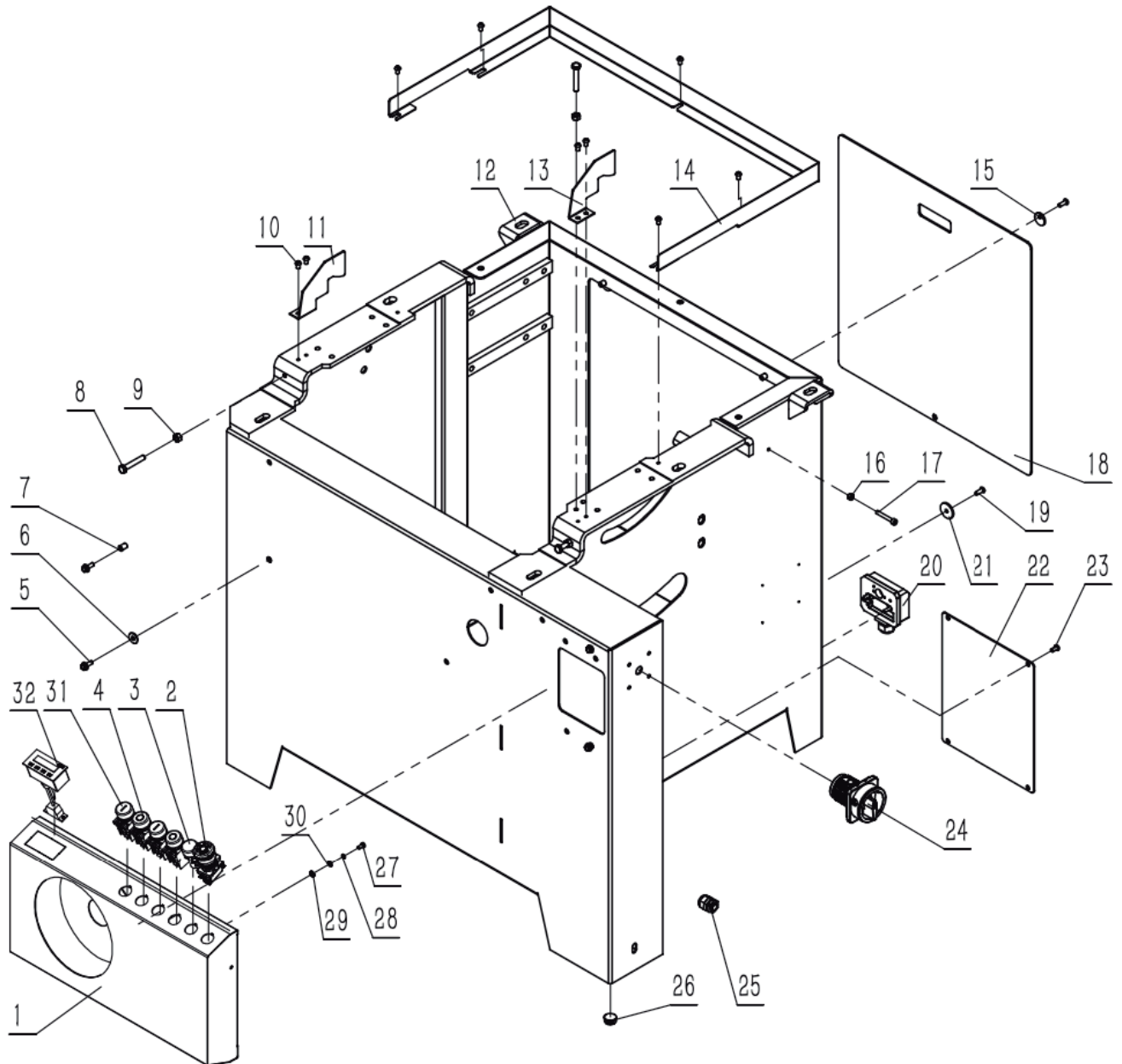
WARNING

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

Frame Assembly - SHEET A

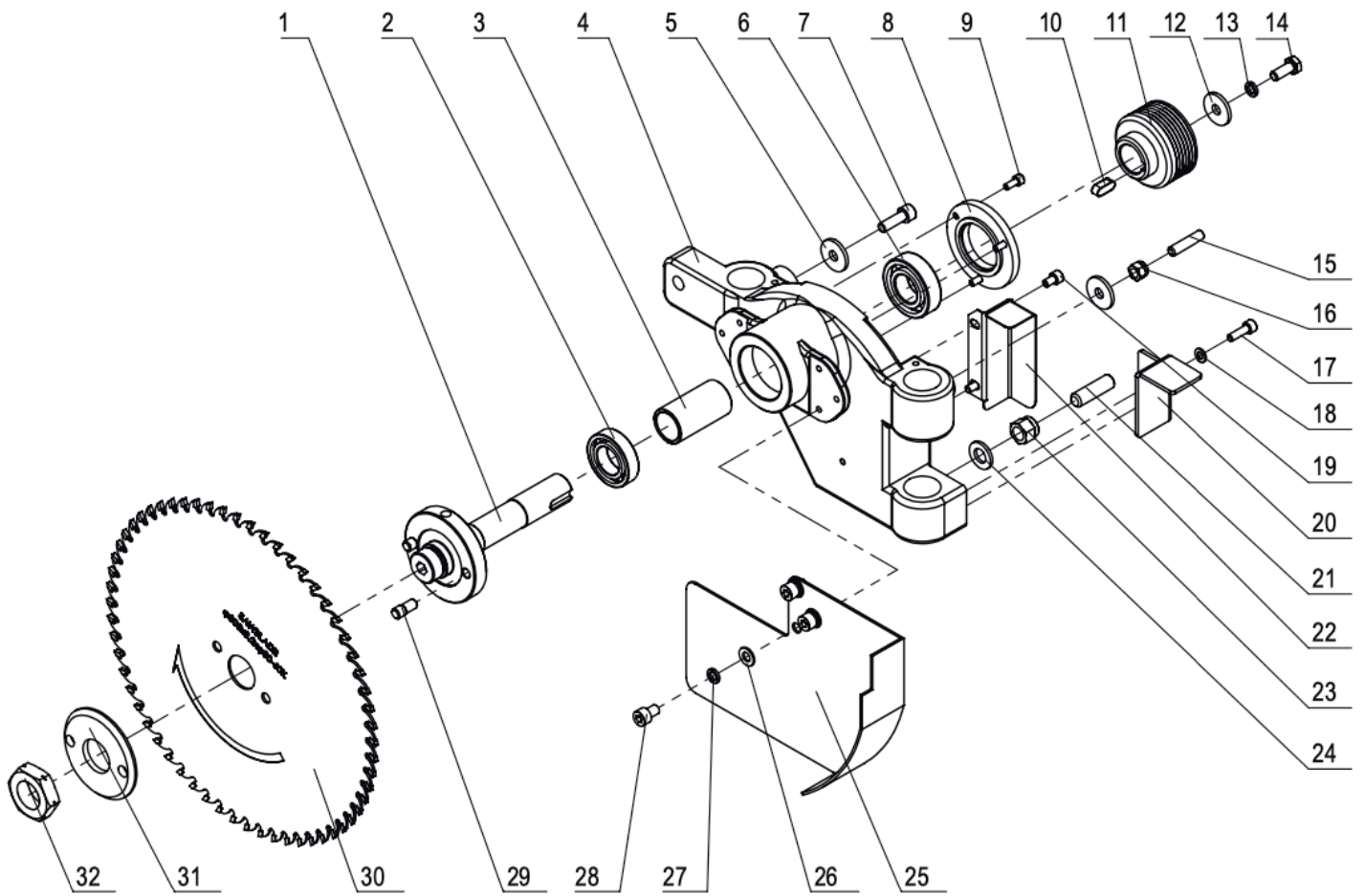


Frame Assembly - SHEET A

Item	Parts Name	Part No
1	SWITCH BOARD ASSEMBLY	JXTS1205013000A
2	EMERGENCY STOP BUTTON	HY57B-02
3	INDICATOR LIGHT	AD16
4	STOP BUTTON	M22-D-R-X0-K01
5	SCREW BOLT	M6X16GB5789Z
6	SPACER	JXPS1201012016
7	RIVET NUT	M6X13D5GB-17880D3Z
8	SCREW BOLT	M8X50GB5781Z
9	RIVET NUT	M8GB6170Z
10	SCREW BOLT	M6X10GB70D2Z
11	PROTECTIVE PLATE	JXTS1205030002A
12	ORGANISM	JXTS1205011000B
13	PROTECTIVE PLATE	JXTS1205030002
14	BODY PROTECTION PLATE	JXTS1205010001
15	ECCENTRIC WASHER	SCPS1601010007
16	RIVET NUT	M6GB6170Z
17	SCREW BOLT	M6X40GB70D1Z

Item	Parts Name	Part No
18	REAR DOOR PANEL	JXPS1201010002A
19	SCREW BOLT	M6X16GB70D2Z
20	JUNCTION BOX ASSEMBLY	JXPS1201090009
21	SPACER	SCPS1601025011
22	DOOR PANEL OF ELECTRICAL BOX	JXTS1203010003B
23	SCREW BOLT	M6X12GB70D2Z
24	TRANSFER SWITCH	ZH-HD-2-01
25	M20 DOES NOT PULL OFF	JXSM0401010003
26	PLUG	JL22011006
27	SCREW BOLT	M5X10GB818Z
28	ELASTIC WASHER	WSH5GB93Z
29	EXTERNAL SERRATED LOCK WASHER	WSH5GB862D2Z
30	SPACER	WSH5GB97D1Z M22-
31	START BUTTON	D-G-X1-K10 M30A
32	DEFLECTION DIGITAL DISPLAY	

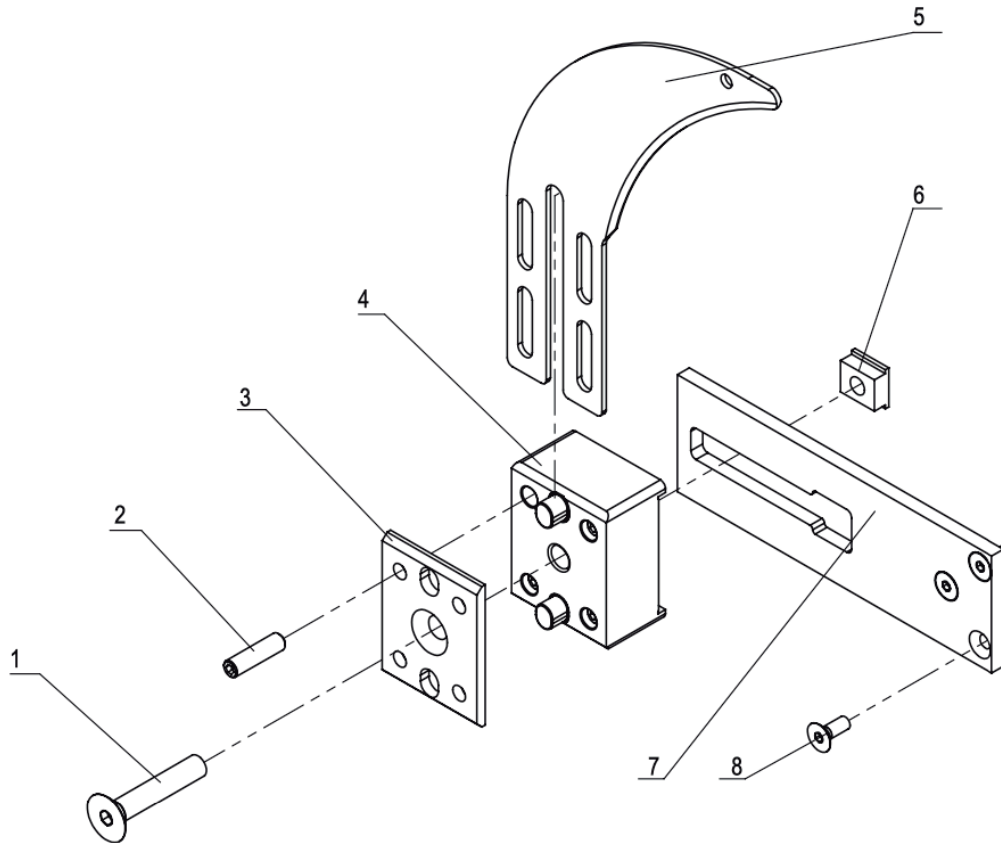
Spindle Assembly - SHEET B



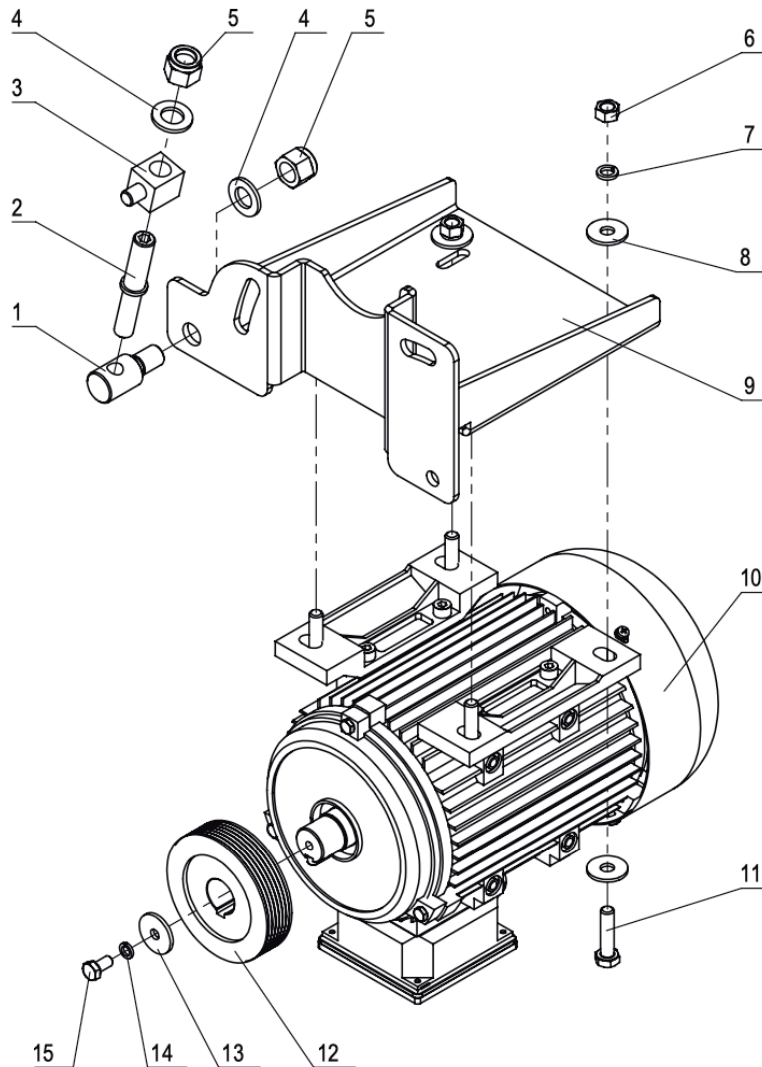
Spindle Assembly - SHEET B

Item	Parts Name	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	JXPS1201021009B
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

Item	Parts Name	Part No
18	WASHER 6	WSH6GB97D1Z
19	SCREW M6X20	M6X10GB70D1Z
20	LIMIT PLATE	JXPS1205091007
21	SCREW 12	M12X50GB77B
22	SCREW DUST COVER	JXPS1205020005
23	LOCKNUT M8	M12GB889D1Z
24	FLASH WASHER	WSH12GB97D1Z
25	AIR DEFLECTOR	WSH8GB97D1Z
26	FLAT WASHER 8	WSH8Gb93Z
27	SPRING WASHER 8	WSH8Gb93Z
28	SCREW M8	M8X12GB70D1Z
29	LOCATION PIN	JXPS1201021003
30	MAIN SAW BLADE	JXPS1201021004
31	SAW BLADE CLIP	JXPS1201021002A
32	LOCK NUT	JXPS1201021001A

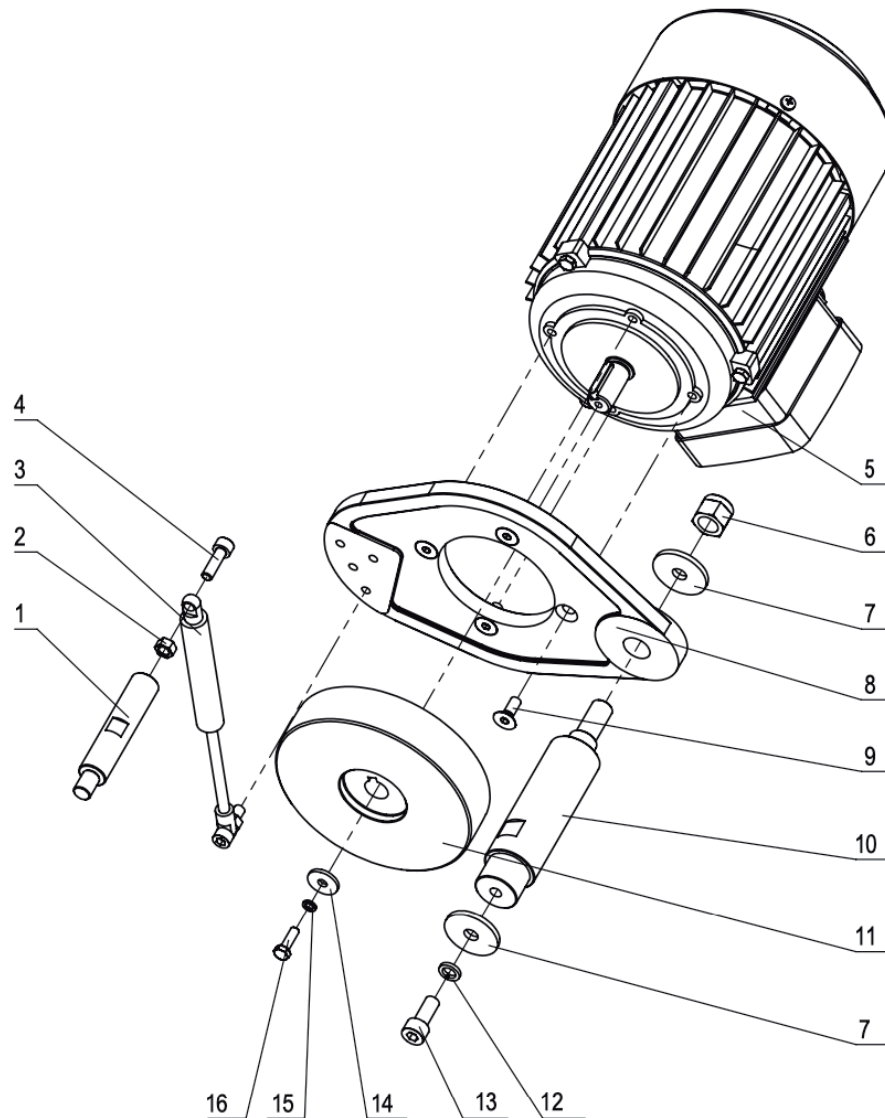
With knife plate Assembly - SHEET C


Item	Parts Name	Part No	Qty.
1	SCREW M10	M10X55GB70D3Z	1
2	SCREW M8	M8×30GB77B	4
3	RIVING KNIFE LOCKING PLATE	JXPS1201028008A	1
4	RIVING KNIFE ADJUSTING PLATE	JXPS1205028007	1
5	RIVING KNIFE	JXPS1201028001A	1
6	RIVING KNIFE LOCKING BLOCK	JXPS1201028005	1
7	RIVING KNIFE SEAT	JXPS1205028002	1
8	SCREW M8	M8X16GB70D3Z	3

Motor Assembly - SHEET D


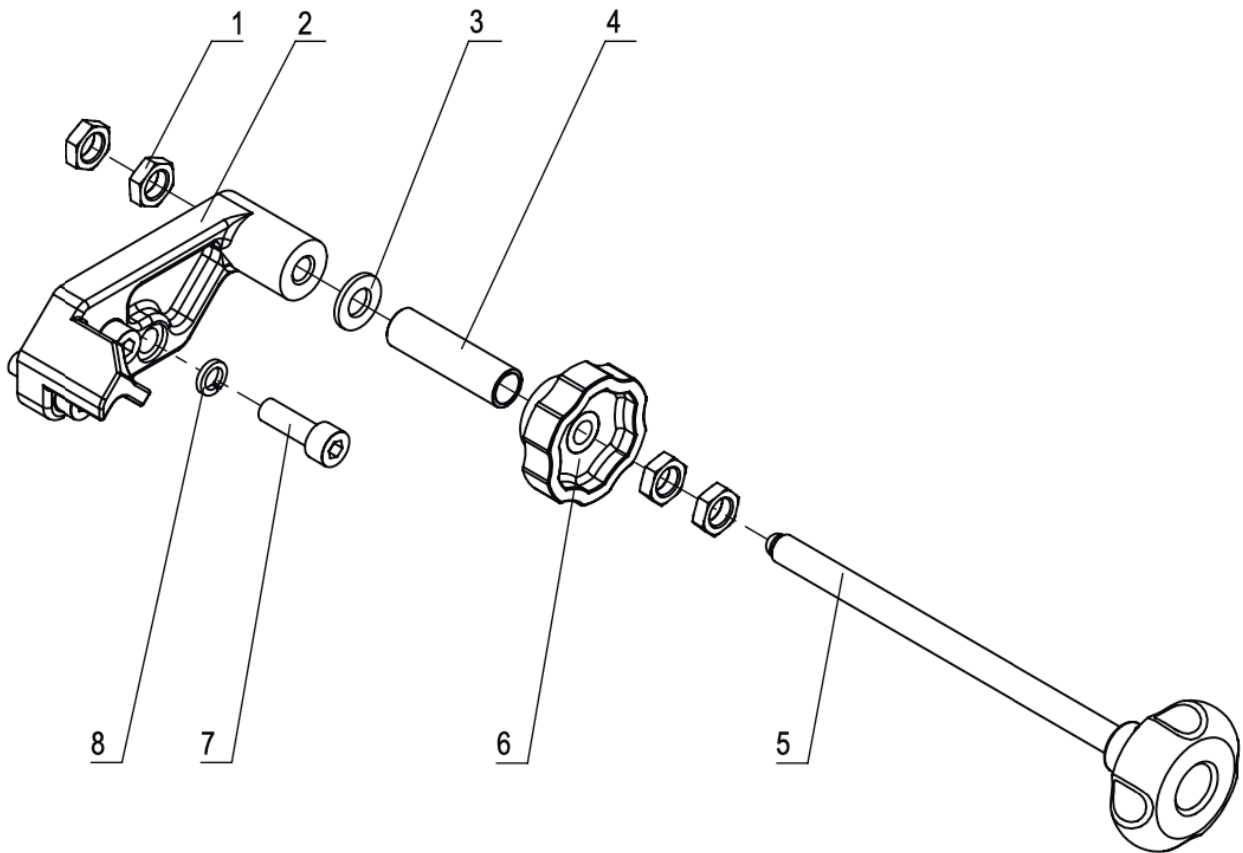
Item	Parts Name	Part No	Qty.
1	ADJUSTING NUT	JXPS1205023005	1
2	SCREW	JXPS1201023006B	1
3	TENSION BLOCK	JXPS1201023004B	1
4	FLAT WASHER 16	WSH16GB97D1Z	2
5	NUT M16	M16GB889D1Z	2
6	NUT M10	M10GB6170Z	4
7	SPRING WASHER 10	WSH10GB93Z	4
8	BIG WASHER 10	WSH10GB96D1Z	8

Item	Parts Name	Part No	Qty.
9	MOTOR SEAT ASSY	JXPS1205023002A	1
10	MOTOR	YLA903302A	1
11	Bolt M10	M10X40GB5783Z	4
12	MOTOR WHEEL	JXPS1201023001F	1
13	WASHER	JXPS1202070005	1
14	SPRING WASHER 8	WSH8GB93Z	1
15	LEFT-HANDED SCREW	JL82080003	1

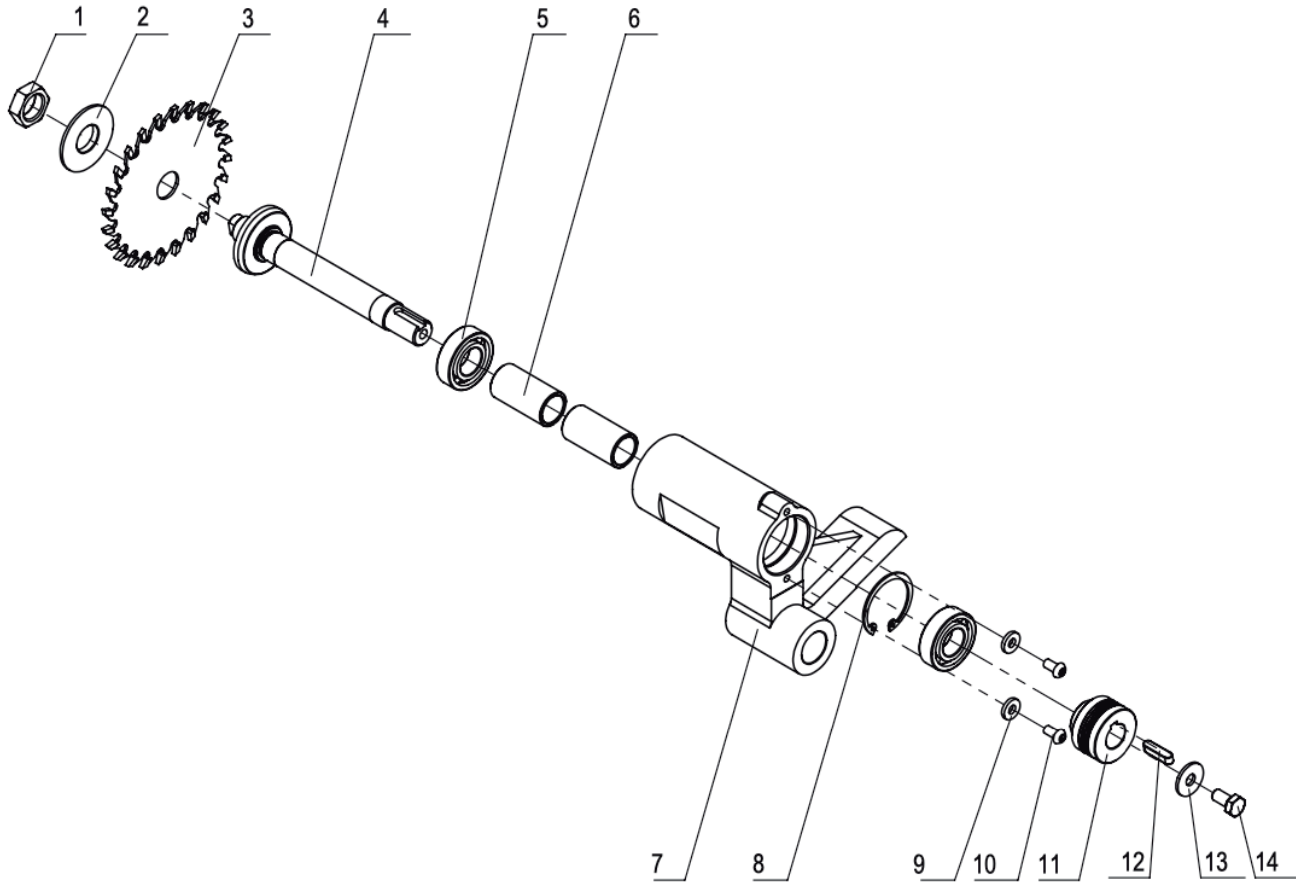
Pre-Cut motor Assembly - SHEET E


Item	Parts Name	Part No	Qty.
1	GAS SPRING SUPPORT SHAFT	JXPS1205024008	1
2	NUT M6	M6GB61706170Z	2
3	GAS SPRING	JXPS1201020013B	1
4	NUT M6X20	M6X20GB70D1Z	2
5	MOTOR	YYH713082	1
6	NUT M12	M12GB889D1Z	1
7	WASHER	JXPS1202070005	2
8	SCORING MOTOR PLATE	JXPS1205024002	1

Item	Parts Name	Part No	Qty.
9	SCREW M6X16	M6X16GB70D3Z	4
10	SUPPORTING SHAFT	JXPS1205024005	1
11	SCORING MOTOR WHEEL	JXPS1201024001E	1
12	SPRING WASHER	WSH8GB93Z	1
13	SCREW M8X20	WSH5GB5287	1
14	SPRING WASHE	WSH5GB5287	1
15	SPRING WASHER 5	WSH5GB93Z	1
16	BOLT M5X16	M5X16GB5783Z	1

Pre-cutting adjustment Assembly - SHEET F


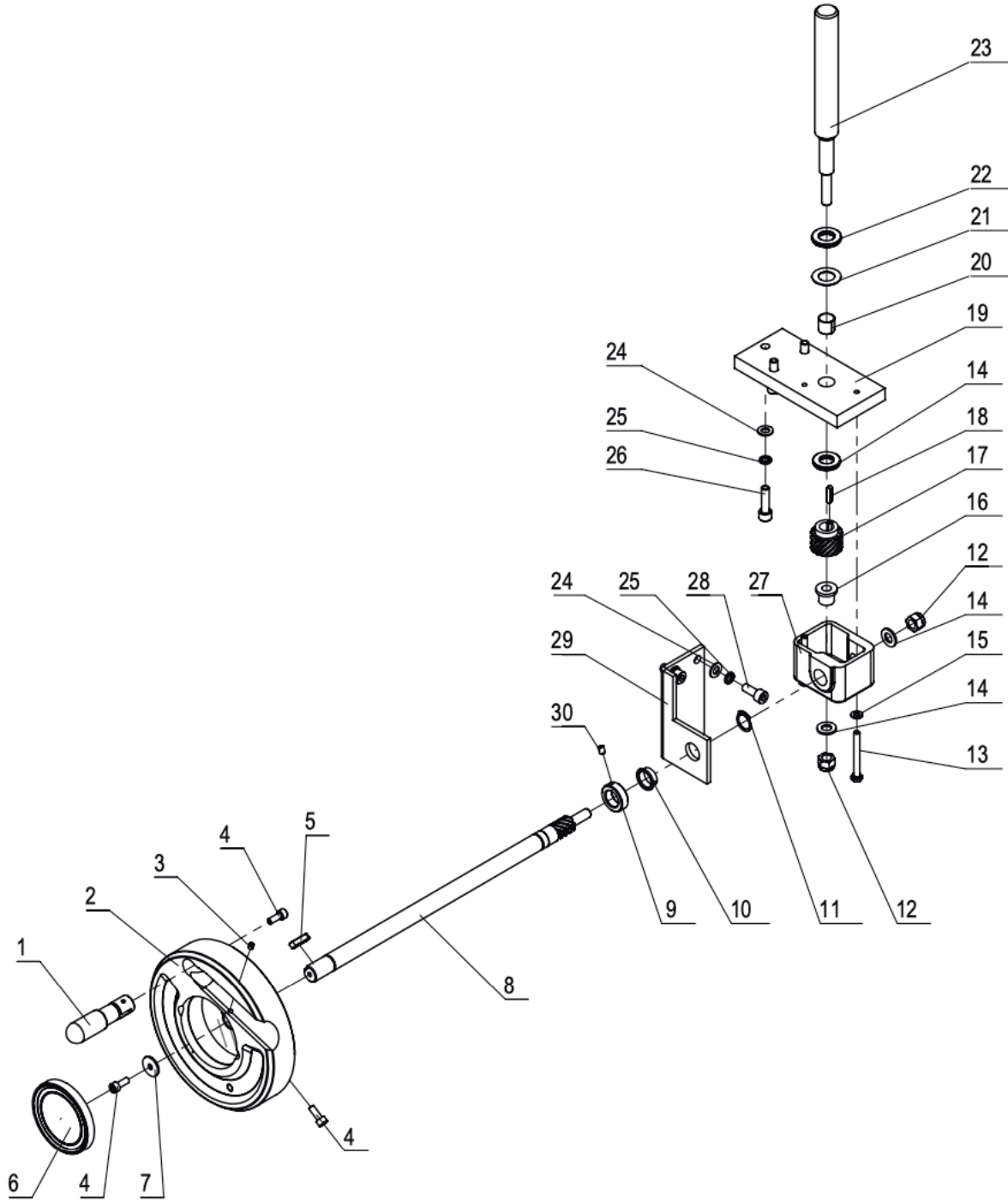
Item	Parts Name	Part No	Qty.
1	NUT M10	M10GB6172D1Z	4
2	SCORING ADJUSTING SEAT	JXPS1205027002	1
3	FLAT WASHER 10	WSH10GB97D1Z	1
4	BUSHING	JXPS1201027001A	1
5	LOCK HANDLE ASSY	JXPS1201027100	1
6	LOCK WHEEL	JXTS1201028004	1
7	SCREW M8X25	M8X25GB70D1Z	3
8	SPRING WASHER 8	WSH8GB93Z	3

Pre-Cut shaft seat Assembly - SHEET G


Item	Parts Name	Part No	Qty.
1	NUT M16	M18GB6173Z	1
2	SCORING SAW BLADE CLIP	JXPS1201022002	1
3	SLOTTED SAW BLADE	JXPS1201022003	1
4	SCORING MAIN SHAFT	JXPS1201022004C	1
5	BEARING	BRG6004-2NSE	2
6	SLEEVE	JXPS1201022008A	2
7	SCORING SHAFT SEAT	JXPS1205022005	1

Item	Parts Name	Part No	Qty.
8	SNAP RING	CLP42GB893D1B	1
9	SPACER	JXBS1603010003	2
10	SCREW M6X12	M6X12GB70D2Z	2
11	SCORING MAIN SHAFT WHEEL	JXPS1201022009D	1
12	FLAT KEY	PLN6X6X25GB1096	1
13	BIG WASHER 8	WSH8GB96D1Z	1
14	LEFT-HANDED SCREW	JL82080003	1

Main saw lift Assembly - SHEET H

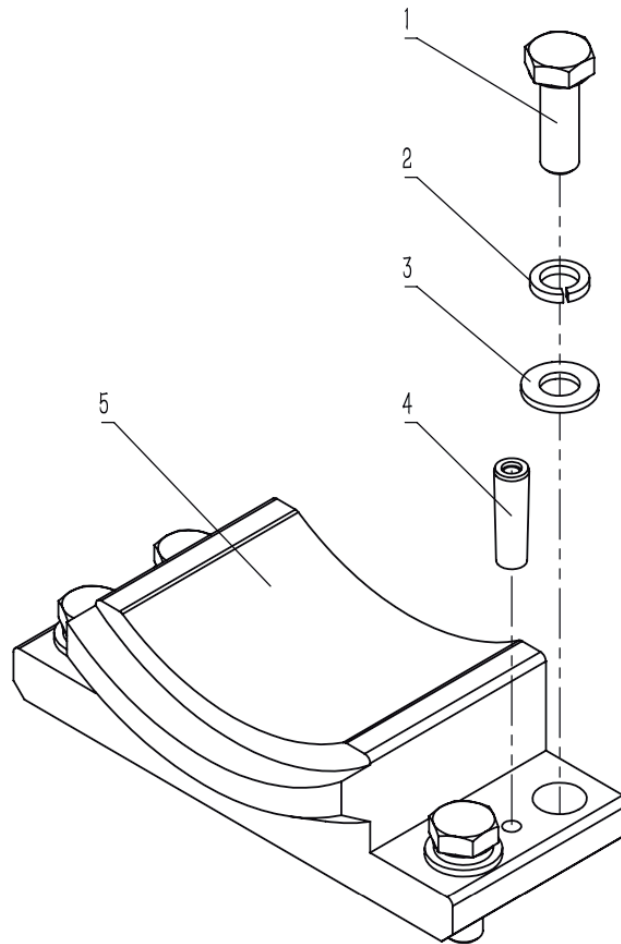


Main saw lift Assembly - SHEET H

Item	Parts Name	Part No	QTy
1	HANDLE	L65	1
2	HAND WHEEL	JXPS1205025100	1
3	SET SCREW	M5X6GB77B	1
4	SCREW	M6X16GB70D1Z	3
5	FLAT KEY A	PLN6X6X25GB1096	1
6	HAND WHEEL COVER	JXPS1205025101	1
7	BIG WASHER	WSH6GB5287Z	1
8	HELICAL GEAR SHAFT	JXPS1205025011	1
9	LOCK SLEEVE	JXPS1205025010	1
10	WRAPPED BUSHES	P20X18X9-AGB12613	1
11	SNAP RING	CLP18GB894D1B	1
12	LOCK NUT	M10GB889D1Z	2
13	BOLT	M6X60GB5782Z	2
14	FLAT WASHER A	WSH10GB97D1Z	2
15	FLAT WASHER A	WSH6GB97D1Z	2
16	SINTERING BUSH	JXPS1602026009	1
17	HELICAL GEAR	JXPS1602026402	1

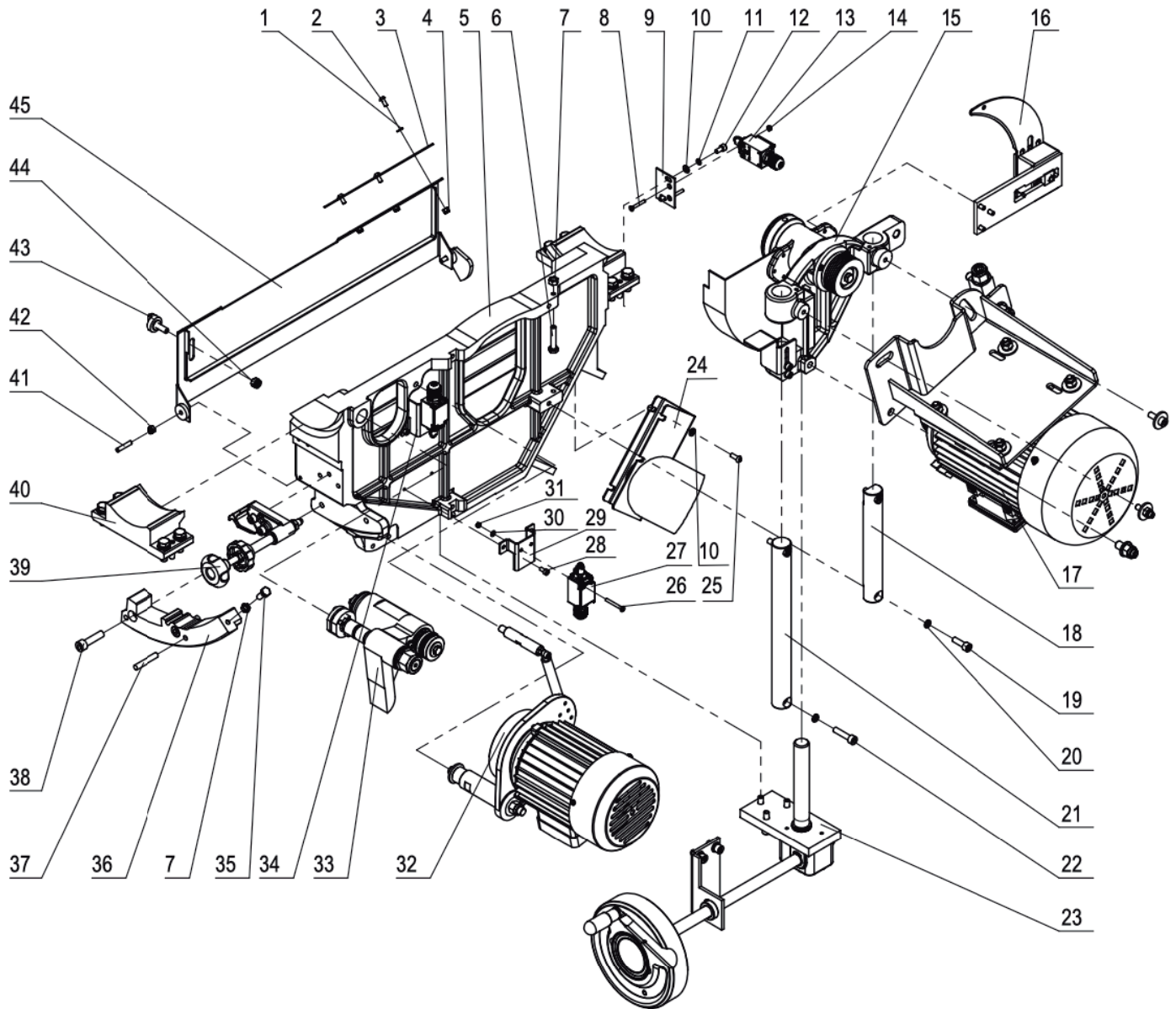
Item	Parts Name	Part No	QTy
18	FLAT KEY	PLN5X5X20GB1096	1
19	HELICAL GEAR FIXED PLATE	JXPS1205025001	1
20	WRAPPED BRUSHES	P17X15X15GB12613	1
21	BEARING WASHER	BRG1730AX-KASGB4605-1	1
22	BEARING	BRG1730AX-KASGB4605	1
23	LIFTING SCREW ROD	JXPS1205025002	1
24	FLAT WASHER A	WSH8GB97D1Z	5
25	SPRING WASHER	WSH8GB93Z	5
26	SCREW	M8X30GB70D1Z	3
27	GEAR SEAT	JXPS1602026007	1
28	SCREW	M8X20GB70D1Z	2
29	LIFTING SHART SUP-PORT TABLE	JXPS1205025012	1
30	SCREW	M6X8GB80B	1

Rotational support seat Assembly - SHEET I



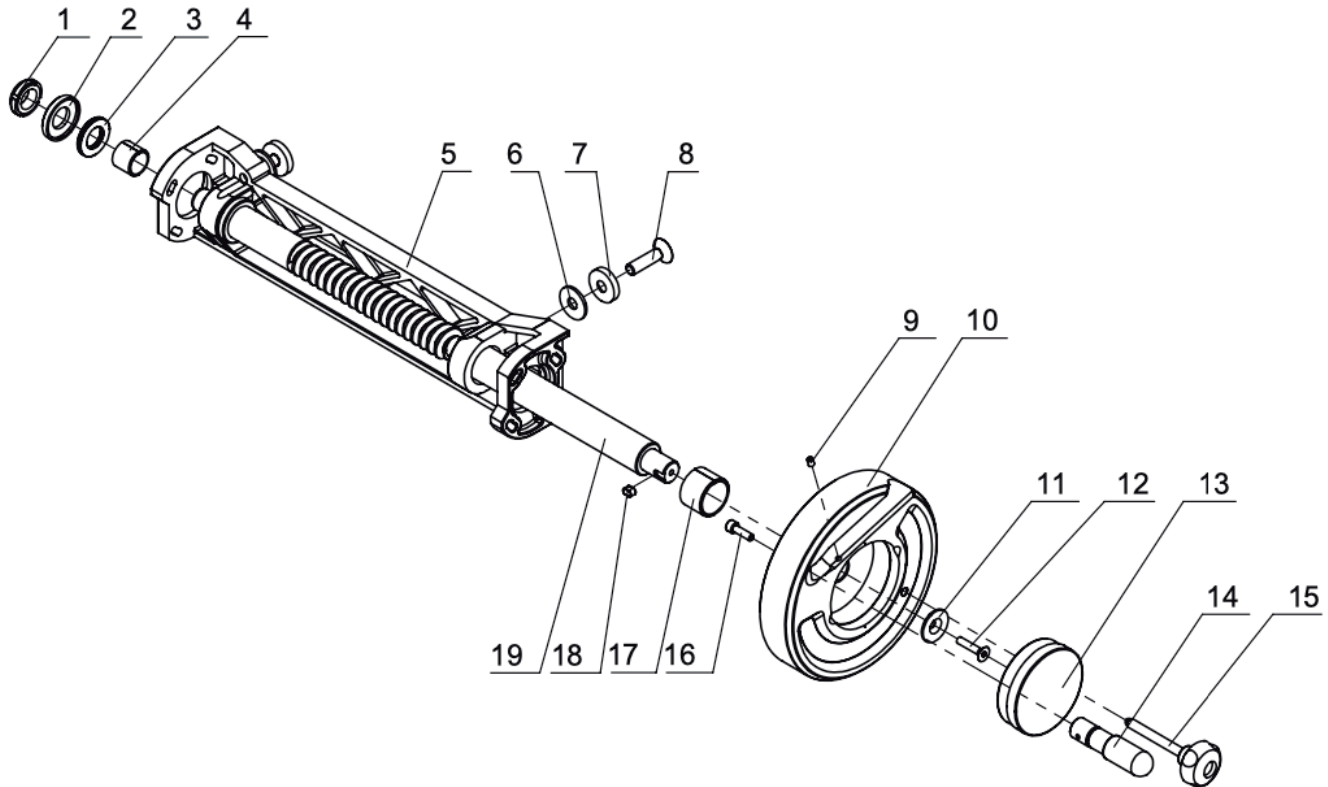
Item	Parts Name	Part No	Qty.
1	BOLT M10X30	M10X30GB5783Z	4
2	SPRING WASHER 10	WSH10GB93Z	4
3	WASHER 10	WSH10GB97D1Z	4
4	TAPER PIN 8X30	PIN8X30GB118Z	2
5	ROTARY SUPPORT SEAT	JXPS1201020002E	1

Core Assembly - SHEET J



Core Assembly - SHEET J

Item	Parts Name	Part No	QTY	Item	Parts Name	Part No	QTY
1	WASHER 5	WSH5GB97D1Z	3	24	DUST HOSE	JXTS1205020300	1
2	SCREW M5X12	M5X12GB70D2Z	3	25	SCREW	M6X16GB70D2Z	4
3	DUST GUARD	JXPS1201020103	1	26	SCREW	M4X35GB818Z	4
4	LOCKNUT M5	M5GB889D1Z	3	27	SAFETY SWITCH	QKS7	2
5	RACK	JXPS1205020001	1	28	SCREW	M5X10GB70D1Z	4
6	BOLT M8X40	M8X40GB5783Z	1	29	MICRO SWITCH SEAT	JXPS1205091005	1
7	NUT M8	M8GB6170Z	2	30	FLAT WASHER	WSH4GB97D1Z	4
8	SCREW M4X30	M4X30GB819D1Z	2	31	NUT	M4GB6170Z	4
9	TRAVEL SWITCH BOARD	JXPS1201020011	1	32	SCORING MOTOR ASSY	JXPS1205024000	1
10	WASHER 6	WSH6GB97D1Z	6	33	SCORING SHAFT SEAT ASSY	JXPS1205022000	1
11	SPRING WASHER 6	WSH6GB93Z	2	34	MICRO SWITCH SEAT	JXPS1205091004	1
12	SCREW M6X12	M6X12GB70D1Z	2	35	BOLT	M8X20GB5781Z	1
13	SAFETY SWITCH	QKS7-01	1	36	WORM WHEEL	JXPS1205026004	1
14	NUT M4	M4GB6170Z	2	37	TAPER PIN	PLN8X50GB117Z	2
15	SHAFT SEAT ASSY	JXPS1205021000	1	38	SCREW	M10X40GB70D1Z	2
16	RIVING KNIFE ASSY	JXPS1205028000	1	39	LOCK HANDLE ASSY	JXPS1205027000	1
17	MOTOR ASSY	JXPS1205023000	1	40	ROTARY SUPPORT SEAT ASSY	JXPS1201021200	1
18	GUIDE RAIL	JXPS1205020003	1	41	SCREW	M6X30GB77B	2
19	NUT M8X25	M8X25GB70D1Z	2	42	LOCKNUT	M6GB889D1	2
20	SPRING WASHER 8	WSH8GB93Z	4	43	LOCK HANDLE ASSY	JMBS1403050003	1
21	GUIDE RAIL	JXPS1205020004	1	44	LOCKNUT	M8GB889D1	2
22	NUT	M8X35GB70D1Z	2	45	BLADE GUARD	JXPS1205020100A	1
23	MAIN SAW LIFTING ASSY	JXPS1205025000	1				

Deflection worm Assembly - SHEET K


Item	Parts Name	Part No	Qty.
1	ROUND NUT	0000301849F	1
2	COVER	WSH20GB87D1Z	2
3	AXIAL NEEDLE AND CAGE ASSY	BRG2035AXKASGB4605	2
4	WRAPPED BUSHES	P20X24X20GB12613	1
5	SHAFT SEAT	JXPS1602027004	1
6	BIG WASHER 10	WSH10GB96D1Z	3
7	SINK HOLE SPACER	SCPS1601026009	3
8	SCREW M10	M10X40GB70D3Z	3
9	SCREW M5	M5X8GB80B	1
10	HANDWHEEL	JXPS1205026100	1

Item	Parts Name	Part No	Qty.
11	SINK HOLE WASHER	JXPS1201026012	1
12	SCREW M6	M6X30GB70D3Z	1
13	WEIGHT TABLE	JXPS1205026202	1
14	HANDLE	L65	1
15	ROUND HANDLE	JXPS1201026010	1
16	SCREW M6	M6X20GB70D1Z	1
17	WRAPPED BUSHES	P30X35X24GB12613	1
18	FLAT KEY	PLN6X6X10GB1096	1
19	WORM	JXPS1205026201	1

Table Assembly - SHEET L

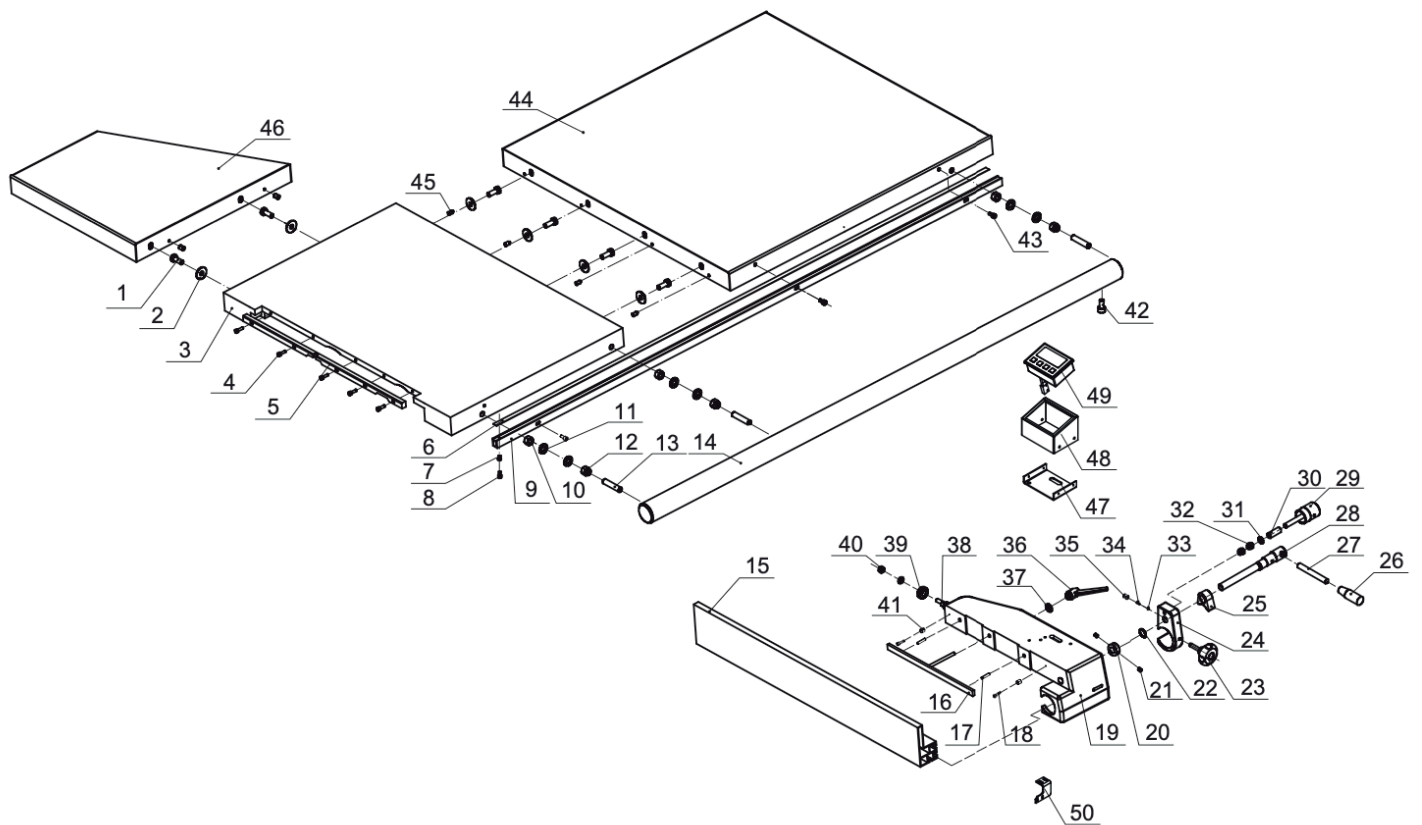
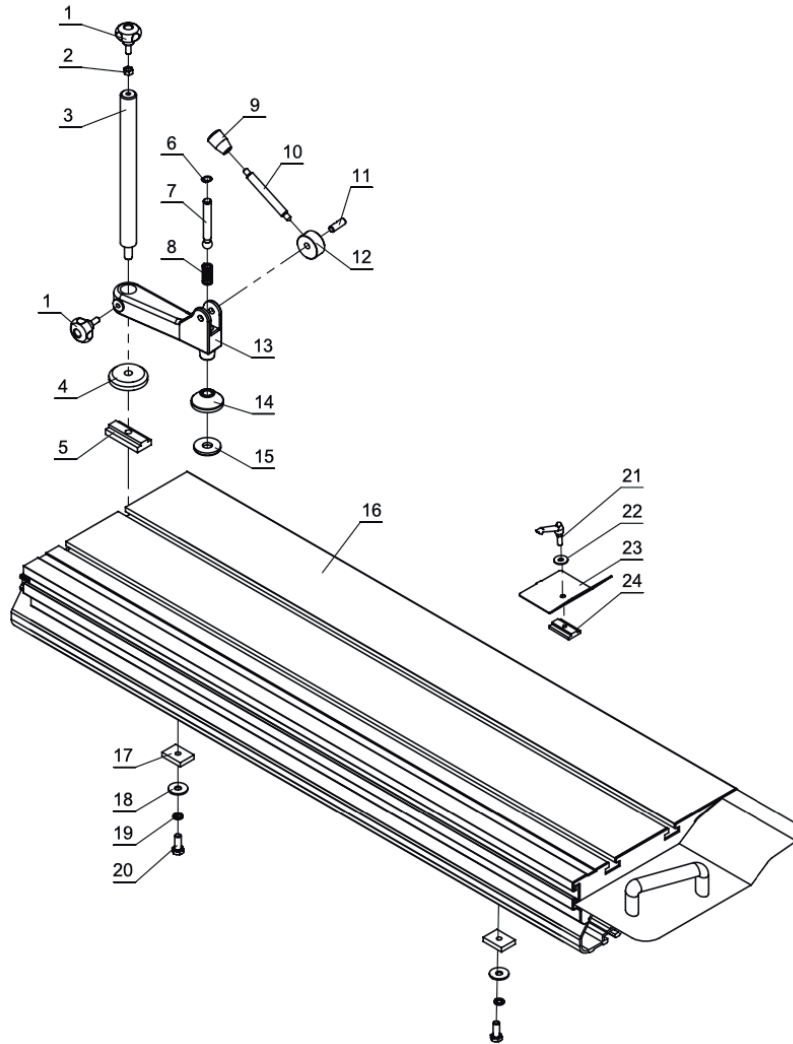


Table Assembly - SHEET L

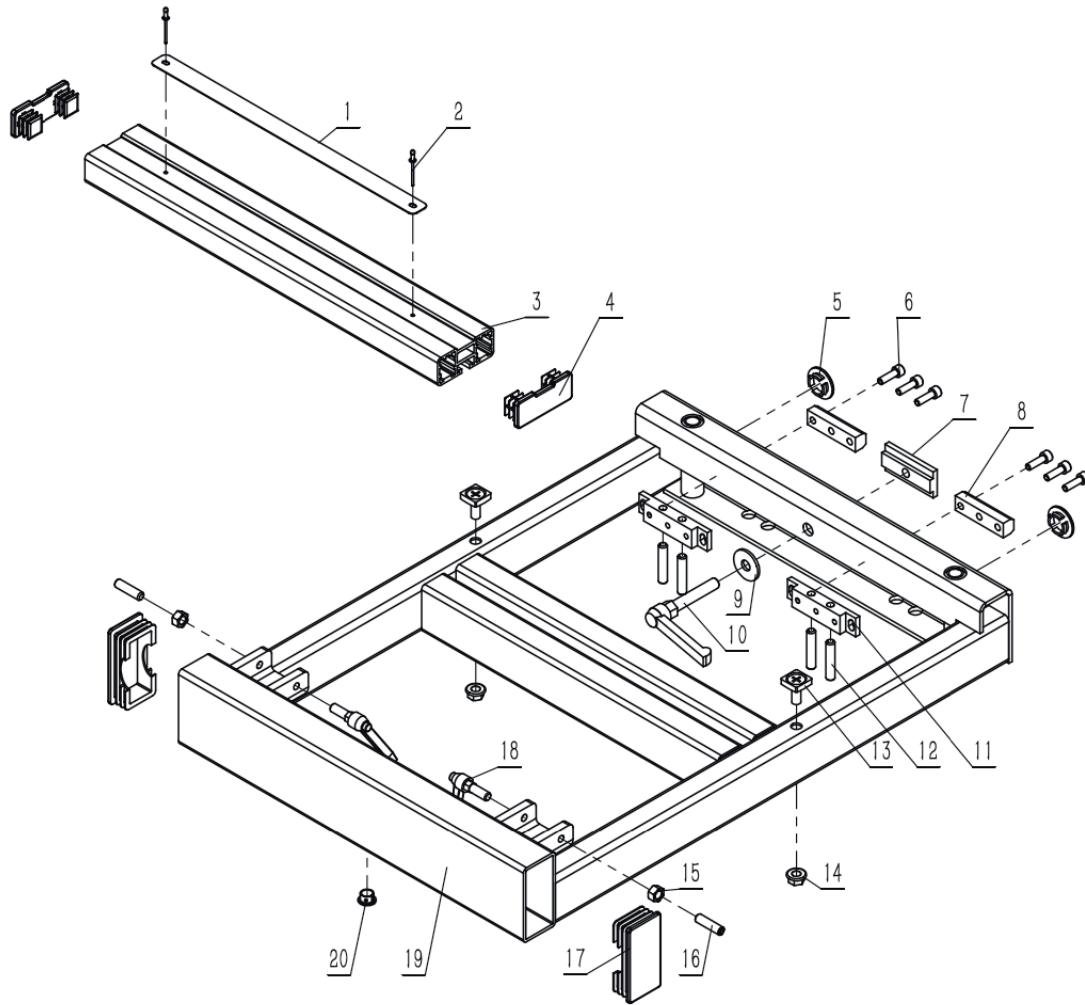
Item	Parts Name	Part No	QTY.
1	HEX BOLT	M10x25GB5783Z	6
2	FLAT WASHER	WSH10GB96Z	6
3	MAIN TABLE	JXPS1205030001	1
4	M5 HEXAGON SOCKET HEAD CAP SCREW	M5x16GB70Z	5
5	TABLE INSERT	JXPS1205030002	1
6	SCALE	SCPS1601060003	1
7	NUT	M6X15GB/ T17880D3Z	1
8	SCREW	M6X20GB70D1Z	1
9	SCALE BRACKET	JXTS1203060001	1
10	HEX NUT	M16GB6170Z	3
11	FLAT WASHER	WSH16GB97D1Z	6
12	SELF-LOCKING NUT	M16GB889D1Z	3
13	M16 SCREW	JXPS1201060006	3
14	GUIDE RAIL	JXTS1201031002A	1
15	RIP FENCE	JXPS1201060004A	1
16	LOCK PLATE	JXPS1201061006B	1
17	PIN	PIN6X26GB879B	2
18	M5 HEXAGON SOCKET HEAD CAP SCREW	M5X20GB70Z	2
19	RIP FENCE BRACKET	JXTS1205061001A	1
20	RING	JXPS1201061011A	1
21	M6 SOCKET HEXAGON SCREW	M4X6GB77B	2
22	RETAINING RING	CLP19GB894D1B	1
23	ROUND HANDLE	JXPS1201061017	1
24	BRACKET	JXTS1205061002	1
25	LOCK SLEEVE	JXTS1205061003	1
26	HAND SLEEVE	JXPT1201020007- 001S	1

Item	Parts Name	Part No	QTY.
27	LOCK ROD	SCPS1601061007	1
28	HANDLE BAR	JXPS1201061014C	1
29	HANDLE	JXPS1201061010- 001	1
30	TUBE	S JXPS1201061015	1
31	FLAT WASHER	WSH8GB97D1Z	2
32	NUT	M8GB6172Z	2
33	STEEL BALL	6D5G10GB/T308	1
34	PRESSURE SPRING	JXPS1203023009	1
35	M10 HEXAGON SOCKET HEAD CAP SCREW	M10X12GB78B	1
36	ADJUSTABLE HANDLE	KTSB-1-A-M10X80	1
37	FLAT WASHER	WSH10GB97D1Z	1
38	ECCENTRIC SHAFT	JXPS1602083010A	1
39	ROLLER WHEEL	JXPS1602083009A	1
40	NUT	M8GB6170Z	1
41	ECCENTRIC BUSHING	JXPS1602061006	2
42	M5 HEXAGON SOCKET HEAD CAP SCREW	M5X10GB70Z	1
43	M6 HEXAGON SOCKET HEAD CAP SCREW	M6X12GB70D2Z	4
44	RIGHT TABLE	JXPS1201030003F	1
45	SCREW	M8X10GB77B	8
46	REAR TABLE	JXTS1205030004	1
47	DIGITAL DISPLAY BASE PLATE	JXPS1201060008	1
48	DIGITAL DISPLAY COVER	J JXPS1602060007	1
49	DISPLACEMENT DIGITAL DISPLAY	MG10L-L180	1
50	MEASUREMENT FIXING PLATE	JXPS1201060009A	1

Sliding Table - SHEET M


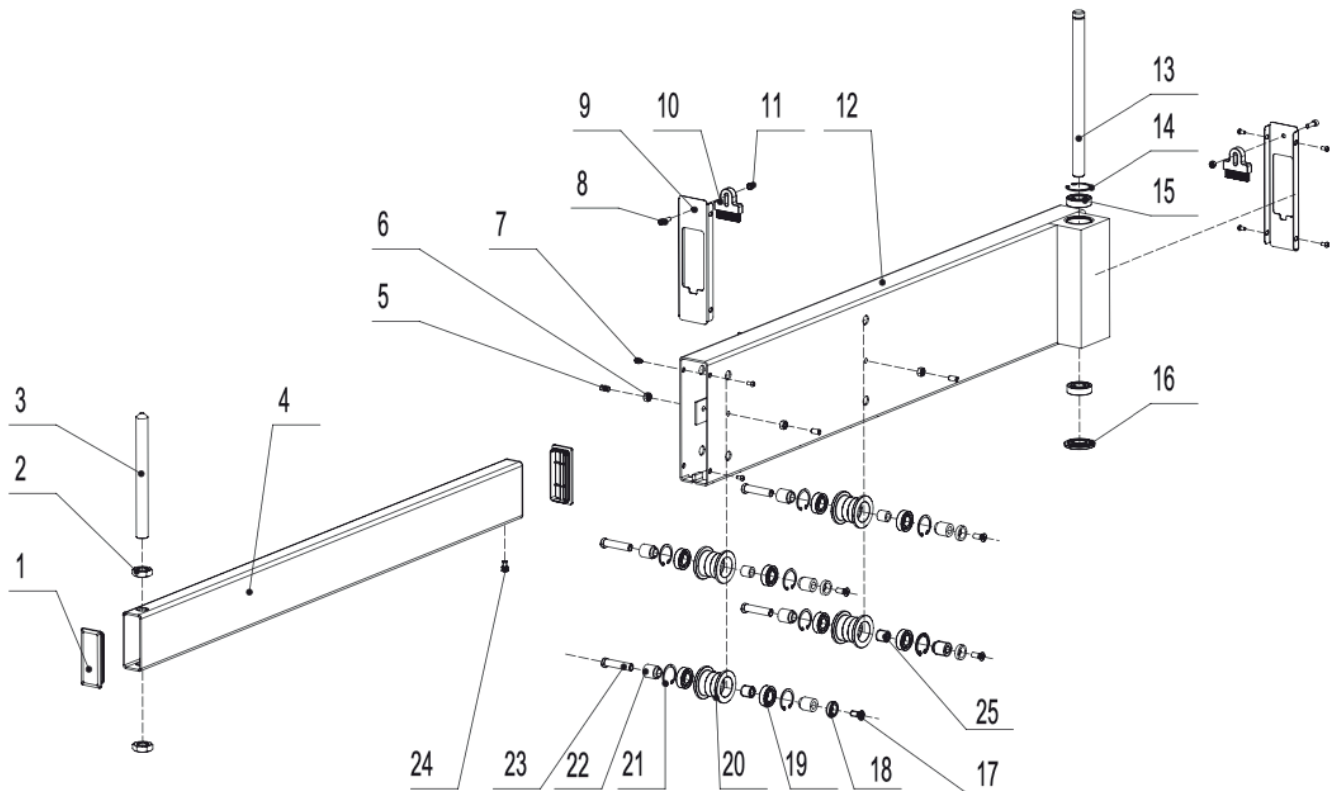
Item	Parts Name	Part No	Qty.
1	ROUND HANDLE	JXSM0401083002	1
2	SCREW NUT	M8GB6170Z	1
3	CONNECTING ROD	JXPS1201040005	1
4	PRESSURE PLATE	JXSM0401042001	1
5	SLIDER	JXPS1201040004A	1
6	EXTERNAL CIRCLIPS	CLP12GB894D1B	1
7	CLUB	JXSM0401042106	1
8	SPRING	JXSM0401042105	1
9	HANDLEBAR COVER	JXPT1201020007	1
10	HANDLE LEVER	JXSM0401042104	1
11	AXIS	JXSM0401042103	1
12	CAM	JXSM0401042102	1

Item	Parts Name	Part No	Qty.
13	CONNECTING ARM	JXSM0401042101	1
14	PRESSURE PLATE	JXSM0401042107	1
15	RUBBER PAD	JXSM0401042108	1
16	MAINSLIDINGTABLE	JXTS1205041000A	1
17	GUIDE PLATE	JXSM0401040001	1
18	LARGE WASHER	WSH10GB96D1Z	1
19	ELASTIC WASHER	WSH10GB93Z	1
20	SCREW BOLT	M10X25GB5783Z	1
21	ADJUSTABLE HANDLE	KTSB-1-B-M8X63X20	1
22	LARGE WASHER	JL26010017	1
23	PLATEN	JXPS1201040003	1
24	SLIDER	JXPS1201040004B	1

Side slide unit - SHEET N


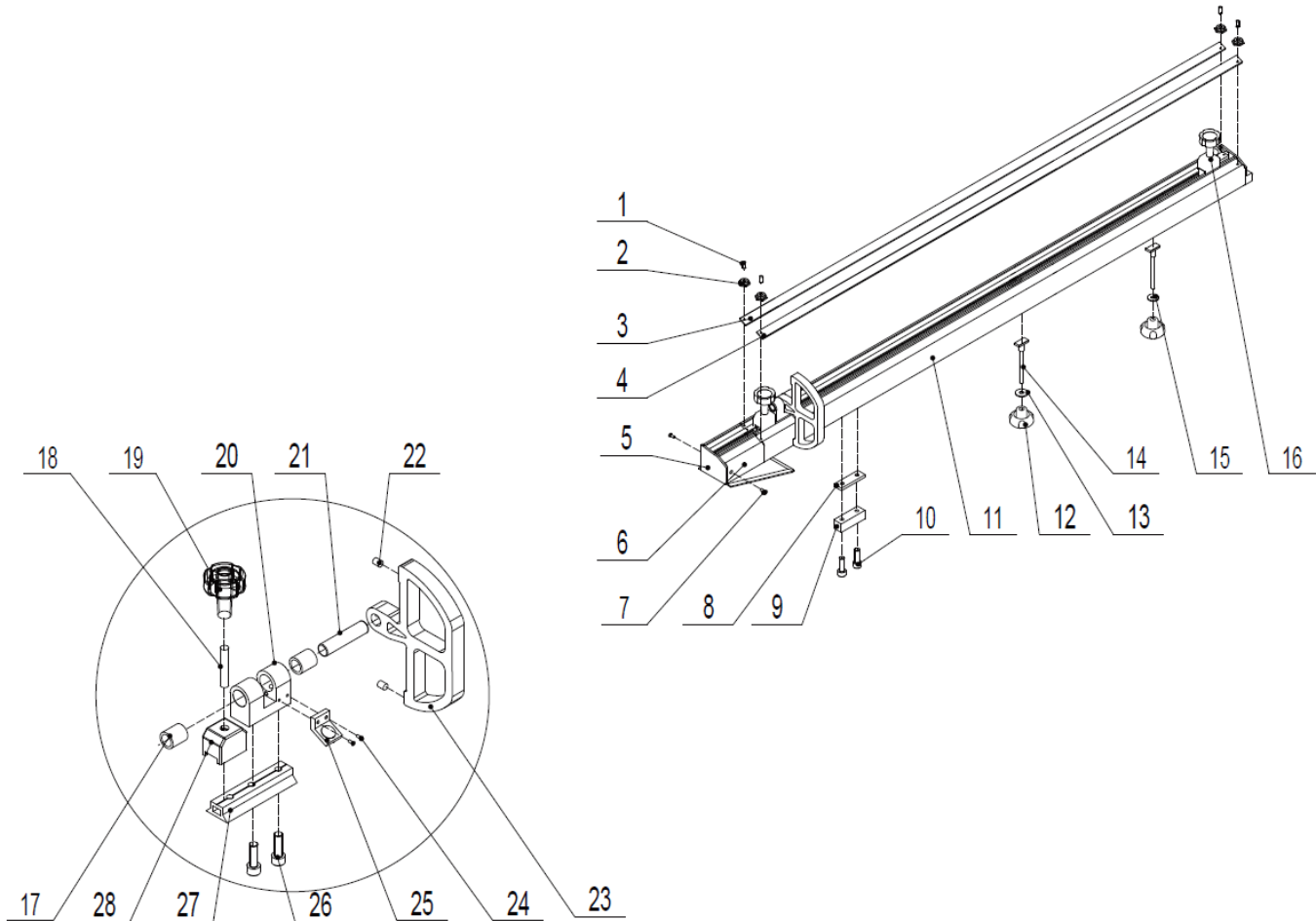
Item	Parts Name	Part No	Qty.
1	ANGLE SCALE	JXTS1203051003	1
2	POP RIVET	RVT3X7GB12618A	1
3	RULER BASE	JXTS1203051004	1
4	PLUG	GRPS1401051003-001S	1
5	ANTI-WEAR PAD	JXPS1201051010-001S	1
6	SCREW	M6X20GB70D1Z	1
7	SLIDER	JXTS1201070003	1
8	GUIDE BLOCK	JXPS1201051015A	1
9	LARGE WASHER	WSH10GB96D1Z	1
10	ADJUSTABLE HANDLE	KTSB-1-B-M10X80X55	1
11	FIXED BLOCK	JXPS1201051016	1

Item	Parts Name	Part No	Qty.
12	SCREW	M8X40GB77B	1
13	LOCKING BLOCK	JL84100003	1
14	FLANGE NUT	M8GB6177D1Z	1
15	NUT	M8GB6170Z	1
16	SCREW	M8X30GB77B	1
17	PLUG	SLDT74X34A-001S	1
18	ADJUSTABLE HANDLE	KTSB-1-B-M8X50X20	1
19	AUXILIARY SLIDING TABLE SUPPORT ASSEMBLY	JXTS1205051100A	1
20	ROLL SHAFT SLEEVE	P12X10X8-AGB12613	1

Support frame - SHEET 0


Item	Parts Name	Part No	Qty.
1	PLASTIC END CAP	JXPS1201052009	2
2	M20 HEXAGON THIN NUT	M20X1.5GB6173Z	2
3	SUPPORT ROD	JXTS1205052003A	1
4	TELESCOPIC ROD	JXTS1203052002B	1
5	M8 FLAT SETTING SCREW	M8x16GB73S	4
6	M8 HEXAGON NUT	M8GB6170Z	4
7	M5 PAN HEAD SCREW	M5X10GB818Z	8
8	M6 HEXAGON FLAT HEAD SCREW	M6X20GB70D2Z	2
9	COVER PLATE	JXPS1201052002A	2
10	BRUSH	JXTS1201052005	2
11	M6 HEXAGON NUT	M6GB6170Z	2
12	SUPPORT BRACKET	JXTS1203052001	1
13	CONNECT SHAFT	JXTS1203052005	1

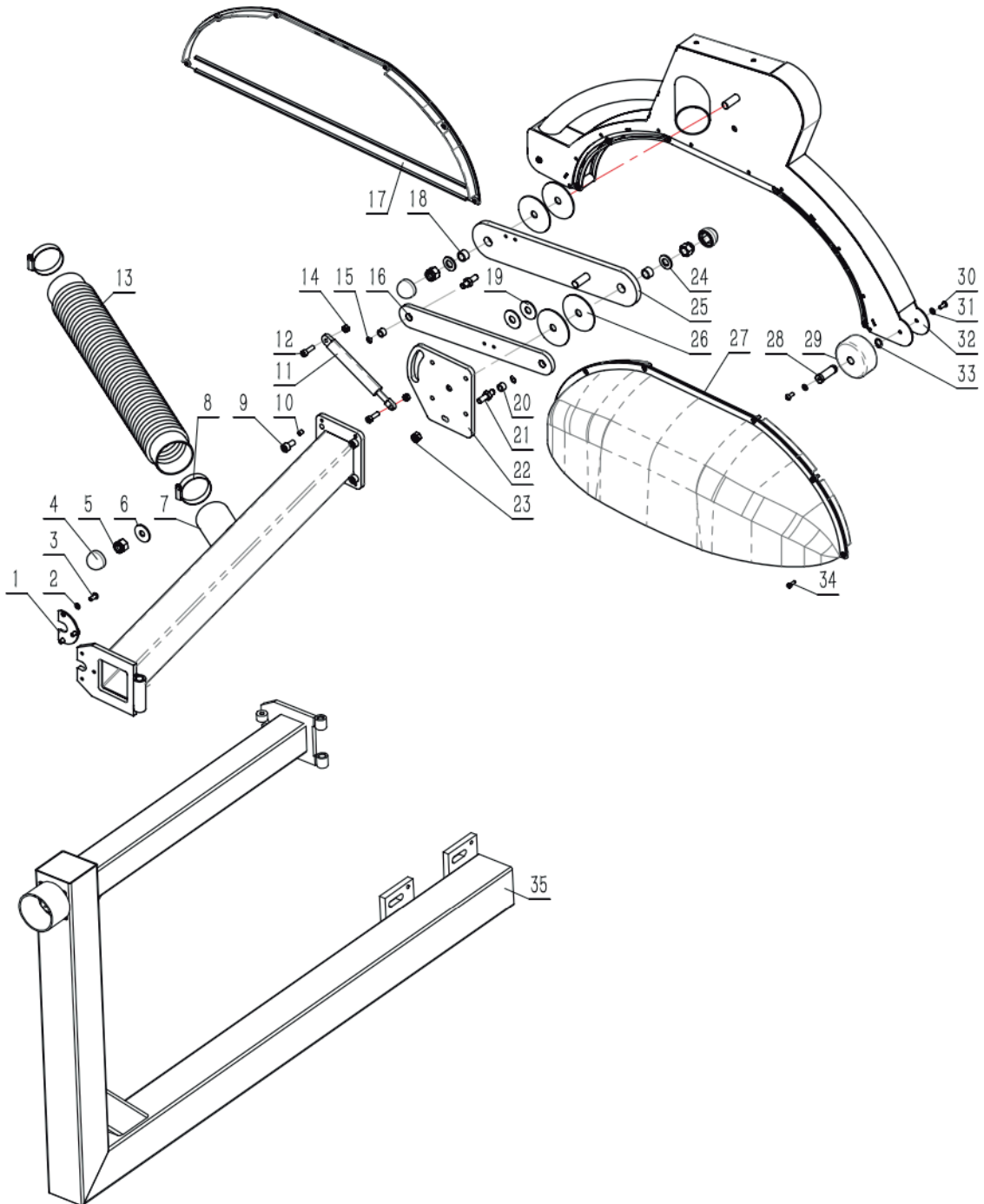
Item	Parts Name	Part No	Qty.
14	CIRCLIP SPRING RING	CLP42GB893D1B	1
15	6004-2RZBEARING	BRG6004-2RZGB276	2
16	WASHER	JXPS1201052006A	1
17	M8 HEXAGON SUNK SCREW	M8X16GB70D3Z	4
18	WASHER	JXPS1201052204	4
19	6003-2RZBEARING	BRG6003-2Z-P4GB273	8
20	ROLLER WHEEL	JXPS1201052200	4
21	Circlip spring ring	CLP35GB893D1B	8
22	Position sleeve	JXPS1201052202A	8
23	ECCENTRIC SHAFT	JXPS1201022201	4
24	M6 HEXAGON COLUMN SCREW	M6X10GB70Z	1
25	SPACER	JXPS1201052203A	4

Small ruler assembly - SHEET P


Item	Parts Name	Part No	Qty.
1	SCREW	M5X4GB80B	1
2	LOCK SLIDER	JXPS1201053009	1
3	SCALE	JXTS1205053008A	1
4	SCALE	JXTS1205053007A	1
5	END CAP	JXPS1201053105A	1
6	BRACKET	JXPS1201053101	1
7	SCREW	ST4D2X13GB846Z	1
8	SLIDER	JXPS1201053005H	1
9	POSITION BRACKET	JXTS1205053009	1
10	SCREW	M8X25GB70Z	1
11	BRACKET	JXTS1205053101	1
12	HANDLE	JXTS1201131001-001S	1
13	WASHER	WSH8GB5287Z	1
14	SLIDER	JXPS1201053005D	1
15	WASHER	WSH8GB96Z	1
16	SCALE BRACKET	JXPS1201053120	1
17	TUBE	JXPS1201053118	1
18	DOUBLE-END BOLT	M10X70GB/T889B	1
19	LOCK BUTTON	JXPS1201053111	1
20	POSITION BLOCK	JXPS1201053114	1
21	SHAFT	JXPS1201053116	1
22	PLASTIC SCREW	M8X20GB73S	1
23	BRACKET	JXPS1201053104	1
24	SCREW	M4X6GB819Z	1
25	LENS	JXPS1201053115	1
26	SCREW	M8X12GB70Z	1
27	GUIDE BLOCK	JXPS1201053117	1
28	LOCK PRESS BLOCK	JXPS1201053112	1

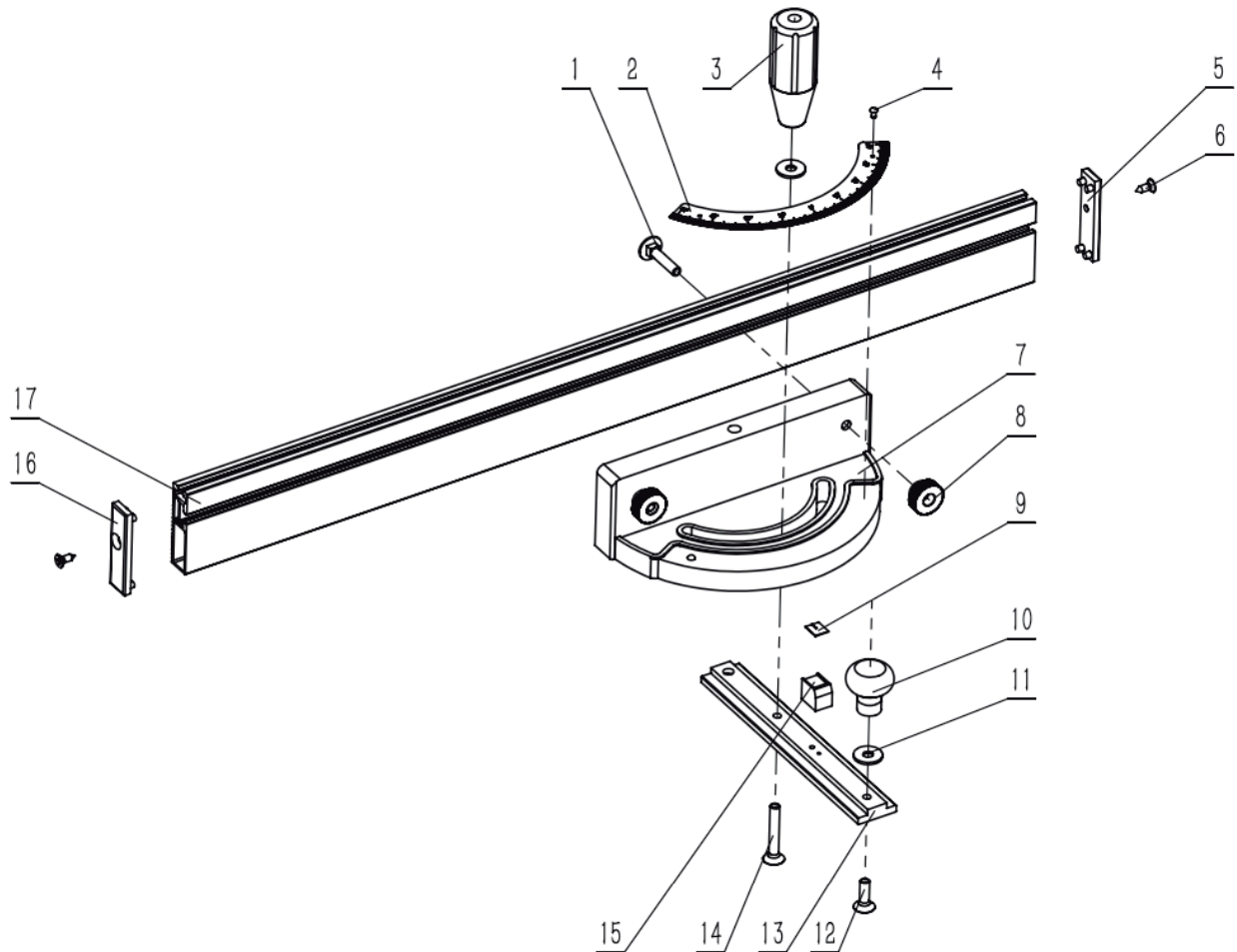
Item	Parts Name	Part No	Qty.
15	WASHER	WSH8GB96Z	1
16	SCALE BRACKET	JXPS1201053120	1
17	TUBE	JXPS1201053118	1
18	DOUBLE-END BOLT	M10X70GB/T889B	1
19	LOCK BUTTON	JXPS1201053111	1
20	POSITION BLOCK	JXPS1201053114	1
21	SHAFT	JXPS1201053116	1
22	PLASTIC SCREW	M8X20GB73S	1
23	BRACKET	JXPS1201053104	1
24	SCREW	M4X6GB819Z	1
25	LENS	JXPS1201053115	1
26	SCREW	M8X12GB70Z	1
27	GUIDE BLOCK	JXPS1201053117	1
28	LOCK PRESS BLOCK	JXPS1201053112	1

Fixed blade cover Assembly - SHEET Q



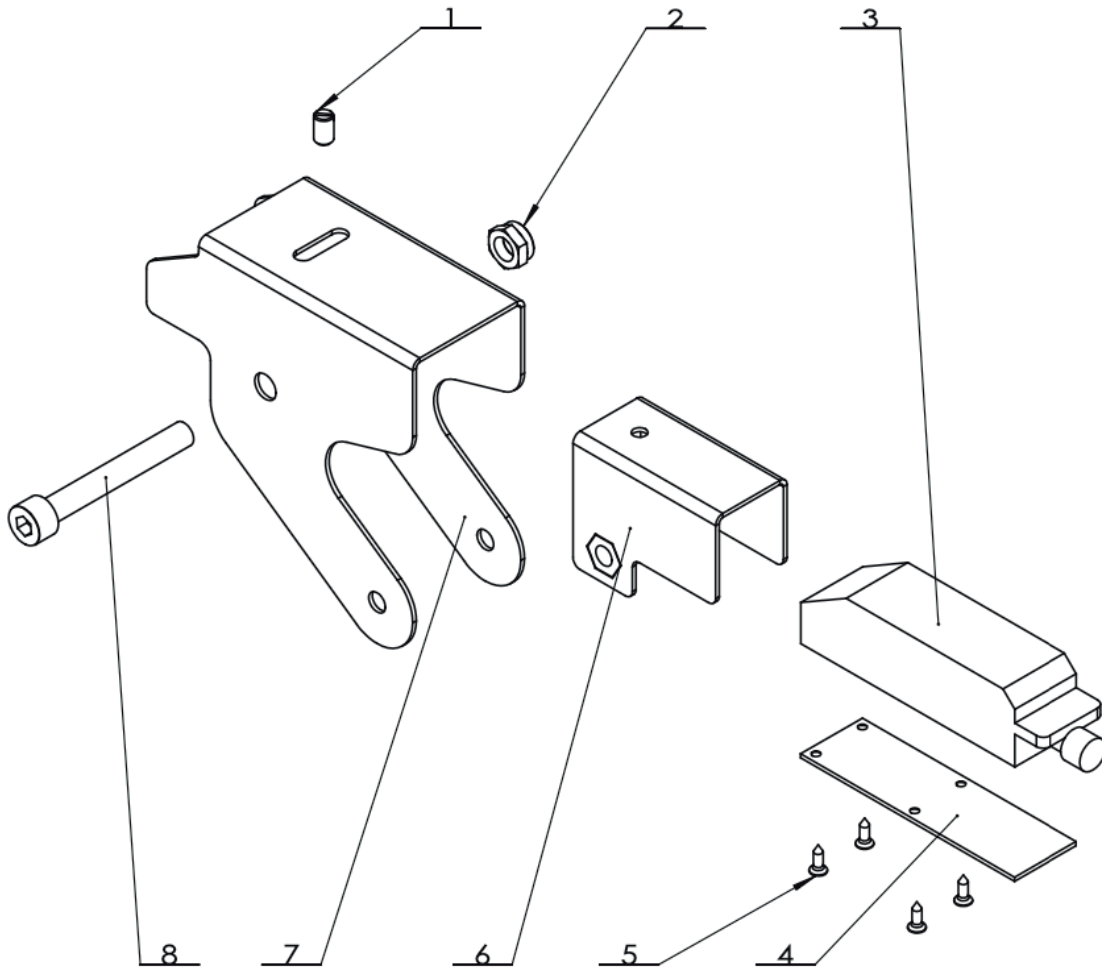
Fixed blade cover Assembly - SHEET Q

Item	Parts Name	Part No	QTY.	Item	Parts Name	Part No	QTY.
1	LOCK PLATE	JXPS1602080004	1	20	COPPER BUSH	JXPS1201083006	1
2	SPRING WASHER	WSH6GB93Z	1	21	SCREW	JXPS1201083001	1
3	SCREW M6	M6X12GB70D2Z	1	22	CONNECTING SOLDERING PLATE	JXPS1602081400	1
4	NUT CAP	JXPS1201083005	1	23	LOCK NUT	M8GB889D1Z	1
5	LOCK NUT	M12GB889D1Z	1	24	FLAT WASHER	WSH12GB97D1Z	1
6	BIG WASHER	WSH10GB96D1B	1	25	LONG CONNECTING PLATE	JXPS1602081500	1
7	WHIRLING ARM ASSY	JXPS1201081100	1	26	SPACER	JXPS1201083002	1
8	CONNECTING PIPE CLAMP	JL50000018	1	27	GUARD 45°	JXPS1201083401	1
9	SCREW M8	M8X16GB70D1Z	1	28	IDLER WHEEL SUPPORT SHAFT	JXPS1602083010A	1
10	SCREW M6	M6X8GB77B	1	29	IDLER WHEEL	JXPS1602083009A	1
11	GAS SPRING	JKPS1601080002	1	30	SCREW M5	M5X12GB70D2Z	1
12	SCREW M6	M6X20GB70D1Z	1	31	FLAT WASHER	WSH5GB97D1Z	1
13	SWEEP-UP PIPE	JXPS1201084002B	1	32	GUARD FRAME ASSY	JXPS1602083100B	1
14	NUT	M6GB6170Z	1	33	SPRING CIRCLIP	CLP12GB894D1B	1
15	SPRING CIRCLIP	CLP8GB894D1B	1	34	SCREW M4	M4X12GB70D1Z	1
16	CONNECTING ROD	JXPS1602081204	1	35	BRACKET AS-GUARD	JXPS1602081000D	1
17	GUARD 90°	JXPS1201083402	1				
18	COPPER BUSH	JXPS1201083004	1				
19	SPACER	JXPS1201083002A	1				

Adjustable Angle guide-SHEET R


Item	Parts Name	Part No	Qty.
1	SCREW	M6X30GB14Z	1
2	ANGLE DIAL	JXPS1205054004	1
3	LOCKING HANDLE	JL82060008	1
4	RIVET	RVT2D5X5GB827C	1
5	LEFT BAFFLE PLUG	JL20062008	1
6	SCREW	ST4D2X12GB846Z	1
7	ANGLER BODY	JXPS1205054001	1
8	COMPOUND NUT	JL20061003	1
9	ANGLER ZERO SCALE	JL20062007	1

Item	Parts Name	Part No	Qty.
10	HANDLE BALL	0804011-01	1
11	WASHER	WSH6GB96D1Z	1
12	SCREW	M6X20GB70D3Z	1
13	T-BAR	JXPS1205054002	1
14	SCREW	M6X40GB70D3Z	1
15	ANGLE INDICATOR BASE	JL20062004	1
16	RIGHT BAFFLE	JL20062008F	1
17	MATERIAL BAFFLE	JXPS1205054003	1

Laser Lamp Assembly - SHEET T


Item	Parts Name	Part No	Qty.
1	SLOTTED FLAT END SET SCREW	M6X10GB73S	1
2	LOCKING THIN NUT	M8GB6172D2Z	1
3	LASER LIGHT	JXTS1205082200	1
4	BASEBOARD	JXTS1205082001	1
5	SELF TAPPING SCREW	ST2D9X9D5GB846Z	4
6	MOBILE RACK COMPONENTS	JXTS1205082100	1
7	SHIELD	JXTS1205082002	1
8	NUT BOLT	M8X60GB70D1B	1

10 Terms of Warranty

MAKSIWA assures the owner that their equipment, identified by the Serial number issued on the Warranty Terms.

The equipment under warranty, for two (2) years, is as followed:

1. The warranty period begins on the date of the Warranty Terms below.
2. Within the warranty period, the manual labor and the components replaced by manufacturing defect will be provided for free if duly proved by Maksiwa Service.
3. Third-party manufacturing equipment that makes up the MAKSIWA equipment (such as motors, electrical equipment, belts etc.) are subject to the terms and conditions of warranty of their respective manufacturers.
4. In case an exchange of machine is needed, please return the defective part or machine to MAKSIWA.
5. All workplace adaptations for the equipment are under the responsibility of the machine owner.
6. If you notice any defect or malfunction when receiving the equipment, get in touch immediately with the manufacturer or Dealer. Do not turn it on.
7. Not included in this warranty is any technical visits aimed at cleaning or adjustments caused by wear, resulting from normal use of the equipment.
8. The warranty does not cover problems caused by mistreatment, carelessness, misuse or inappropriate use of the functions designed for this equipment in this manual, as well as poorly executed operations by untrained operators to operate it.
9. MAKSIWA is not responsible for lost productivity, direct or indirect damages caused to the owner of the equipment or to third parties, or any other expense, including lost profits.
10. This equipment requires the use of a dust collection system with a minimum of 2 hp.
11. Even under warranty, you may lose its validity as follows:
 - a) Application of non-original components;
 - b) Alteration of its original features;
 - c) Lack of proper maintenance;
 - d) Improper use of the equipment;
 - e) Change in equipment or electronic connections;
 - f) Damage caused by mechanical shock or exposure to unsuitable conditions (humidity, salt spray, corrosive agents, etc.);
 - g) Damage caused by bad weather (floods, flooding, lightning, power outages etc.);
 - h) Maksiwa is not responsible for damages to electrical components cause by power variation in your area.

For your safety, trust the repairs, maintenance and adjustments (including inspection and replacement) for technical assistance recommended by MAKSIWA, always use genuine spare parts and accessories, reassembling to its original machine the same way.

MODEL:

SERIAL NUMBER:

DATE:

LOT NUMBER:

Imported by:

Maksiwa International Inc.

4100 N Powerline Rd, Suite D3

Pompano Beach, Florida

ZIP Code: 33073

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E-mail: tech@maksiwa.com

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