Revision A 2014-11-25

# INSTRUCTION MANUAL

Original Instructions

## Sliding Table Saw

**MODEL: N-1600E**
**N-2500E**
**N-3200E**

CE

298000301

# Contents

# 1. Foreword

**This manual contains basic information for qualified operating staff and describes the surroundings and using ways of the machine for those it is intended. It contains also all necessary information for a correct and safe operating, the machine is equipped with various safety equipment protecting operator and machines well at usual technological using. These regulations, however, cannot sheet all other safety aspects. That is why operator must peruse and make sense of this manual before starting of machine use. Installation and operation mistakes will be foreclosed herewith.**

**Do not try to start the machine before having read all instructions manual delivered with the machine and understood every function and technique.**

# 2. Warranty Information

**Limited Warranty**
**One year**
**Proof of Purchase**
**Please keep your dated proof of purchase for warranty and servicing purposes.**
**Limited Tool Warranty**

**We makes every effort to ensure that this product meets high quality and durability standards. we warrants to the original retail consumer a 1-year limited warranty as of the date the product was purchased at retail and that each product is free from defects in materials. Warranty does not apply to defects due directly or indirectly to misuse, abuse, normal wear and tear, negligence or accidents, repairs done by an unauthorized service center, alterations and lack of maintenance. we shall in no event be liable for death, injuries to persons or property or for incidental, special or consequential damages arising from the use of our products.**

**To take advantage of this limited warranty, return the product at your expense together with your dated proof of purchase to us ,we will either repair or replace the product if any part or parts covered under this warranty which examination proves to be defective in workmanship or material during the warranty period.**

# 3. Machine Description

## 3.1 Feature Identification

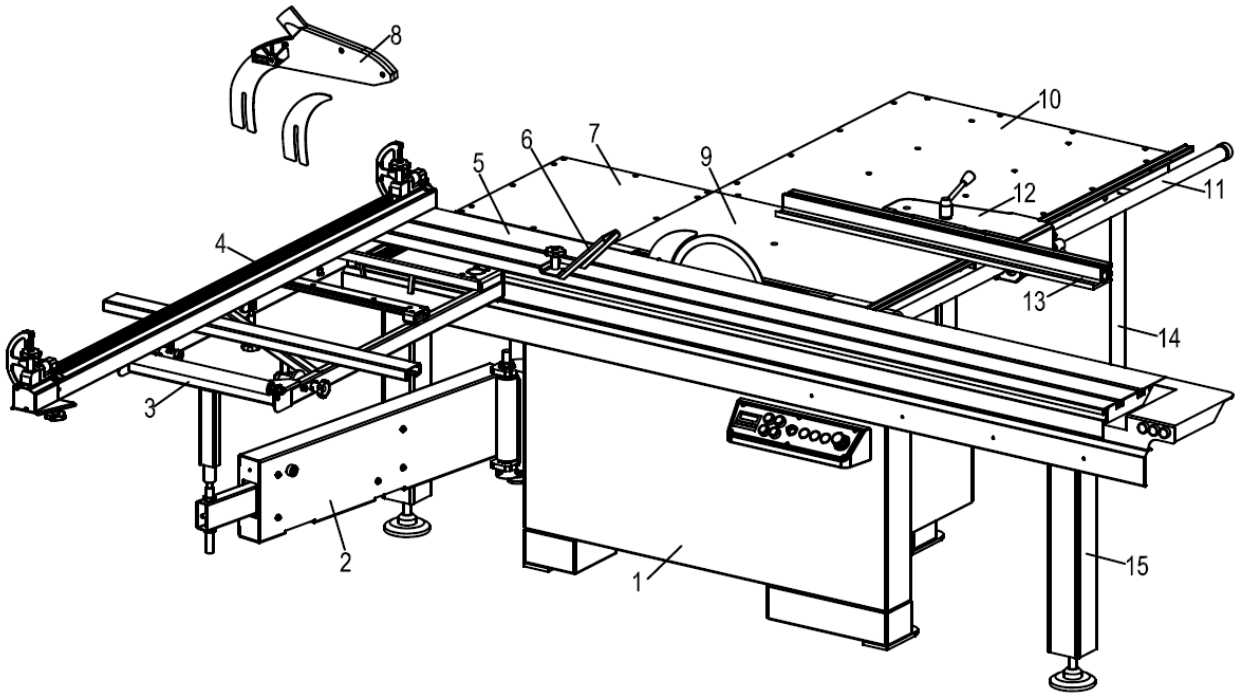



***Fig.1***

| No. | Description | N1600 | N2500 | Remark |
|---|---|---|---|---|
| 1 | Main Base Unit | ● | ● | |
| 2 | Swing Arm | ● | ● | |
| 3 | Crosscut Table | ● | ● | |
| 4 | Crosscut Fence | ● | ● | |
| 5 | Sliding Table | ●(1600mm) | ●(2500mm) | |
| 6 | Edge Shoe Plate | ● | ● | |
| 7 | Rear Extension Table | ● | ● | |
| 8 | Blade Guard With Riving Knife | ● | ● | |
| 9 | Main Table | ● | ● | |
| 10 | Side Extension Table | ● | ● | |
| 11 | Round Guide Bar) | ● | ● | |
| 12 | Rip Fence Body | ● | ● | |
| 13 | Rip Fence | ● | ● | |
| 14 | Support Leg for Extension Table | ●(3pcs) | ●(3pcs) | |
| 15 | Support Leg for Sliding Table | / | ●(2pcs) | |

## 3.2 Intended Use

**The sliding table saw and the workpiece guide equipment supplied with it are intended to be used exclusively for the following purposes:**

- Laminated and unlaminated board materials (e.g. chipboard, coreboard, MDF board, ...)
- Solid wood
- Gypsum plasterboard , Cardboard, Veneer with a suitable clamping device
- Dimensionally stable plastics (thermoset plastics, thermoplastics).Sawing these materials does not normally involve any risks in respect of dust, chips, and thermal degradation products.

### Tools:

- The chosen saw blade must be suitable both for the specific work cycle and for the specific material.
- Only circular blades which are solid chrome vanadium (CV) or tungsten carbide tipped (TCT) and have a diameter of 315mm , arbor size 30mm,as well as a maximum width of 20mm are allowed for the main saw
- Blades with a diameter of 120mm,arbor size 20mm are allowed for the scoring saw.
- Saw blades made of high-alloy high-speed steel (HSS) are not allowed to be used.
- Saw blades and their fixing devices shall conform to EN 847-1:2005。

### Site of installation/use:

- The machine is not suitable for use outdoors, or in rooms that are subject to moisture or the risk of explosions.
- The intended use of the machine involves connection to a suitably dimensioned extraction system .
- Intended use also involves compliance with our specified operating, maintenance and repair conditions and the safety information contained in the operating instructions.
- The sliding table saw may only be used, set up and maintained by persons who are familiar with the machine and aware of the dangers.
- The pertinent accident prevention regulations as well as any other generally recognised technical safety and industrial medicine rules must be observed.
- Repair work must be carried out by our own customer service or by an organization that we have authorized. Only original spare parts are allowed to be used for this. we will assume no warranty for any damage that is caused by using non-original spare parts.

### Machine operator positions*(Fig.2)*

The sliding table is intended to be operated from the following positions:

- On the left of the sliding table at the front of the machine, seen in the feed direction (main operator position).
- At the front cross-end of the machine on the right of the sliding table when working with the rip fence
- Any person removing the workpieces must stand at the rear cross-end of the machine behind the main table length extension (under no circumstances in the sliding table traverse area).

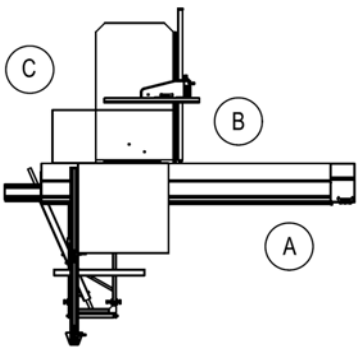



*Fig.2*

**WARNING**

***The machine is prohibited to be used in a potentially explosive atmosphere!***

## 3.3 Dimensions and weights

| Machine Type | Packing | Net/Gross weight (Kg) | Dimensions of box (DxWxH)mm |
|---|---|---|---|
| | machine box | 480/550 | 1650x1150x1090 |
| | sliding table box | 40/70 | 1860x360x220 |
| **N-1600** | Crosscuting fence box | 15/25 | 2000X320X170 |
| | machine box | 505/575 | 1650x1150x1090 |
| | sliding table box | 60/107 | 1860x360x220 |
| **N-2500** | Crosscuting fence box | 15/25 | 2000X320X170 |
| | machine box | | |
| | sliding table box | | |
| **N-3200** | Crosscuting fence box | | |

## 3.4 Requirements of electrical power

**List of the motor using & pre-wired voltage**

| Main Motor/scoring motor(KW) | Voltage(V) | Freq.(Hz) | Nominal current A with scoring blade | Prewired | Cords |
|---|---|---|---|---|---|
| 4(S-6)/0.55 | 380V-420V | 50(60)HZ | 6.57/1.4 | 400V 3PH | 5 |
| 4(S-6)/0.55 | 200V-240V | 50(60)HZ | 12.8/2.5 | 220V 1PH | 3 |

The input power supply of the machine is 3/N/PE, AC400V. The steady-state AC power supply is 0.9～1.1 times of the rated value.

- **Frequency**
  0.99～1.01 times of rated frequency ( 50 Hz , continuous working)
  0.98～1.02 times of rated frequency(50Hz, short period working)
- **Harmonics**
  The sum of 2nd-5th distorted harmonic must not exceed 10% of RMS of voltage. An additional 2% of RMS of line voltage is allowed to for the sum of 6th-30th harmonic.
- **Unbalanced voltage**
  Neither Negative nor zero sequence components is allowed to exceed 2% of the positive sequence component.
- **Electrical protection**
  End user should provide protection device against overvoltage due to lightning and short-circuited protection device at the power supply.
- **Ingress Protection at the inlet of incoming power cable**
  The incoming method of incoming cable should ensure IP54 protection class when finishing installation on the spot.

## 3.5 Noise

## 3.5.1 Reference standards

The measurements of noise emission were conducted according to the EN ISO 11202 for the determination of sound pressure level at the operation positions. When the measured sound pressure levels at the operation positions exceed 85dB(A), the measurements of sound power levels were conducted according to EN ISO 3746.

## 3.5.2 Operating conditions

The operating conditions for noise measurement comply with Annex A of ISO 7960:1995.

## 3.5.3 Testing results

| | | **NO LOAD** | **LOAD** |
|---|---|---|---|
| $L_{WA}$ | | 91.8 | 97 |
| $L_{PA}$ | Position A | 77.7 | 85.0 |
| | Position B | 80.3 | 86.5 |
| | Position C | 73.0 | 74.9 |
| Associated uncertainty | | *K* = 4 dB | |

Note: Background noise of measurement surrounding is 65.0dB (A).

The figures quoted are emission levels and are not necessarily safe working levels. Whilst there is a correlation between the emission and exposure levels, this cannot be used reliably to determine whether or not further precautions are required. Factors that influence the actual level of exposure of the workforce include the characteristics of the work room, the other sources of noise etc. i.e. the number of machines and other adjacent processes. Also the permissible exposure level can vary from country to country. This information, however, will enable the user of the machine to make a better evaluation of the hazard and risk.”

## 3.6 Technical parameters

| Models | | N-1600 | N-2500 | N-3200 |
|---|---|---|---|---|
| Overall Dimensions | Overall Size (DxWxH)mm | 3680X4680X1050 | 5480X4680X1050 | 6880X4680X1050 |
| | Table Height(mm) | 860 | | |
| | main Table Size(mm) | 495X860 | | |
| | Sliding Table Size(mm) | 310X1600 | 310X2500 | 310X3200 |
| | Machine Net Weight | Approx. 645KG | Approx.700KG | Approx.780KG |
| | Machine foot print | 870X1300 | | |
| Capacities | Main Blade Diameter (Maximum) | 315mm | | |
| | Main Blade Arbor Size | 30mm | | |
| | Main Blade Arbor Speed | 4500/min | | |
| | Scoring Blade Diameter | 120mm | | |
| | Scoring Blade Arbor Diameter | 20mm | | |
| | Scoring Blade Arbor Speed | 8000/min | | |
| | Maximum Depth of Cut at 90° | 105mm | | |
| | Maximum Depth of Cut at 45° | 76mm | | |
| | Dado Width (Maximum) | 15mm | | |
| | Blade Tilt | Right | | |
| | Maximum Ripping Capacity | 1270mm | | |
| | Maximum Length of Cross Cut Fence | 2850mm | | |
| | Maximum Cross Cutting Length | 1500mm | 2400mm | 3100mm |
| Construction | Sliding Table | T-6 Heavy Duty Extrusion | | |
| | Machine Frame | High Strength Steel Welding (Laser Cut) | | |
| | Cross Fence | Extruded T-6 Aluminum with fine anodization | | |
| | Rip Rails | 40mm Round bar guide | | |
| | control & read-out | Electric Control, Angle digital display | | |
| | Trunnion | High Grade Cast Iron, Precisely Machined | | |
| Motor | | 400V/50(60)Hz/3Ph/3Kw 2850（3450）/min TEFC | | |
| Power Transfer | | Belt Drive | | |
| Features | | Electronic angle adjustment with digital read-out | | |
| | | Electronic height adjustment | | |
| | | 100mm Main Dust Port | | |
| | | Adjustable Riving Knife | | |
| | | Ball Bearings: Sealed and Permanent Lubrication | | |

Every machine we produce is fitted with a name plate with its serial number. The number is also punched on the machine.
An exact description of the machine model and serial number will facilitate rapid and effective replies from our after-sales service.

Position of nameplate: on the side of the main base unit.

**⚠ WARNING**

**It is prohibited to alter the information given on the nameplate!**

# 4. Safety Regulations

## 4.1 General Safety Instructions

**1. KNOW YOUR MACHINE.**

Read and understand the owners manual and labels affixed to the machine. Learn its application and limitations as well as its specific potential hazards;

**2.GROUND THE MACHINE.**

In the event of the electrical short, grounding reduces the risk of electrical short;

**3. KEEP GUARDS IN PLACE.**

Keep in good working order, properly adjusted and aligned;

**4. REMOVE ADJUSTING KEYS AND WRENCHES.**

Form habit of checking to see that keys and adjusting wrenches are removed from machine before turning it on;

**5. KEEP WORK AREA CLEAN.**

Cluttered areas and benches invite accidents. Make sure the floor is clean and not slippery due to wax and sawdust build-up;

**6. AVOID DANGEROUS ENVIRONMENT.**

Don’t use machines in damp or wet locations or expose them to rain. Keep work area well lit and provide adequate surrounding work space;

**7. KEEPCHILDREN AWAY.**

All visitors should be kept a safe distance from work area;

**8. MAKE WORKSHOP CHILD-PROOF.**

With padlocks, master switches or by removing starter keys;

**9. USE PROPER SPEED.**

A machine will do a better and safer job when operated at the proper speed;

**10. USE RIGHT MACHINE.**

Don’t force the machine or the attachment to do a job for which it was not designed;

**11. WEAR PROPER APPAREL.**

Do not wear loose clothing, gloves, neckties or jewelry (rings, watch) because they could get caught in moving parts. Non-slip footwear is recommended. Wear protective hair covering to contain long hair. Roll up long sleeves above the elbows;

**12. DON’T OVER REACH.**

Keep proper footing and balance at all times;

**13. MAINTAIN MACHINE WITH CARE.**

Keep tools sharp and clean for best and safest performance. Follow instructions for lubricating and changing accessories;

**14. DISCONNECT MACHINES.**

Before servicing, when changing accessories or attachments;

**15. AVOID ACCIDENTAL STARTING.**

Make sure the switch is in the ‘’OFF’ ’position before plugging in;

**16. USE RECOMMENDED ACCESSORIES.**

Consult the manual for recommended accessories. Follow the instructions that accompany the accessories. The use of improper accessories may cause hazards;

**17. NEVER STAND ON MACHINE.**

Serious injury could occur if the machine tips over .Do not store materials such that it is necessary to stand on the machine to reach them;

**18. CHECK DAMAGED PARTS.**

Before further use of the machine, a guard or other parts that are damaged should be

carefully checked to ensure that they will operate properly and perform their intended function. Check for alignment of moving parts, breakage of parts, mounting, and any other conditions that may affect its operation. A guard or other parts that are damaged should be properly repaired or replaced;

**19. NEVER LEAVE MACHINE RUNNING UNATTENDED.**

Turn power ‘’OFF’’. Don’t leave any machine running until it comes to a complete stop;

**20. LIGHTING SHALL BE PROVIDED.**

A dequate general or localised lighting shall be provided;

## 4.2 Specific Safety Instructions for Sliding Table Saw

**1. ALWAYS USE A GUARD.**

Always use a guard, splitter and anti-kickback fingers on all “thru-sawing” operations. Thru-sawing operations are those when the blade cuts completely through the work piece as in ripping or crosscutting.;

**2. ALWAYS HOLD THE WORK.**

Always hold the work firmly against the miter gauge or fence;

**3. ALWAYS USE A PUSHSTICK OR PUSH BLOCKS.**

Push blocks or push sticks shall be used when cutting small workpieces and in circumstances where it is necessary to push the workpiece against the fence;

**4.NEVER.**

Never perform any operations “free-hand” which means using your hands to support or guide the work piece. Always use either the fence or the miter gauge to position and guide the work piece;

**5.NEVER.**

Never stand or have any part of your body in line with the path of the saw blade;

**6.NEVER REACH BEHIND.**

Never reach behind or over the cutting tool with either hand for any reason;

**7. MOVE THE RIP FENCE.**

Move the rip fence out of the way when crosscutting;

**8. DIRECTION OF FEED.**

Feed work into the blade against the direction of rotation;

**9. NEVER.**

Never use the fence as a cut-off gauge when you are cross-cutting;

**10. NEVER.**

Never attempt to free a stalled saw blade without first turning the saw OFF;

**11. PROVIDE ADEQUATE SUPPORT.**

To the rear and sides of the table saw for wide or long work pieces;

**12. AVOID KICKBACKS.**

Avoid kickbacks (work thrown back towards you) by keeping the blade sharp, by keeping the rip fence parallel to the saw blade, by keeping the splitter and anti-kickback fingers and guard in place and operating, by not releasing work before it is pushed all the way past the saw blade, and by not ripping work that is twisted or warped or does not have a straight edge to guide along the fence;

**13. AVOID AWKWARD OPERATIONS.**

Avoid awkward operations and hand positions where a sudden slip could cause your hand to move into the spinning blade;

**14. BLADE REQUIREMENTS.**

Only correctly sharpened saw blades manufactured in accordance with the requirements of EN 847-1:2005 shall be used;

**15. SPEED.**

No saw blade shall be used where the maximum marked speed is lower than the maximum rotational speed of the saw spindle;

**16. CHIP AND DUST.**

The machine shall be connected to an external chip and dust extraction system;

The dust extraction equipment is to be switched on before commencing machining;

**17. CHECK**

Period check the brake function to make sure the stop time of the saw blade is less than 10s;

## 4.3 Residual risks

**1.** Take precautions to reduce the hazard of inhalation of harmful dusts (e.g. wearing a dust mask);

**2.** Wear ear protection to prevent hearing loss;

**3.** Always wear safety glasses. also use a face or dust mask if cutting operation is dusty;

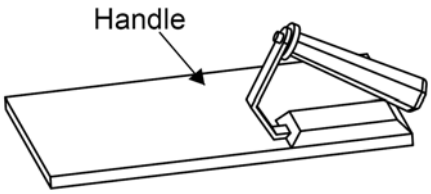
**4.** Against the hazard of cutting when handling saw blades into the machine or doing maintenance;

**5.** Not to try removing chips whilst the saw blade(s) is (are) running and the saw unit(s) is (are) not in the rest position;

**6.** Not to try using the machine unless all of the guards and other safety devices necessary for machining are in good working order;

## 4.4 Safety equipment

A push block ***(Fig.3)*** and A push stick ***(Fig.3)*** must be used



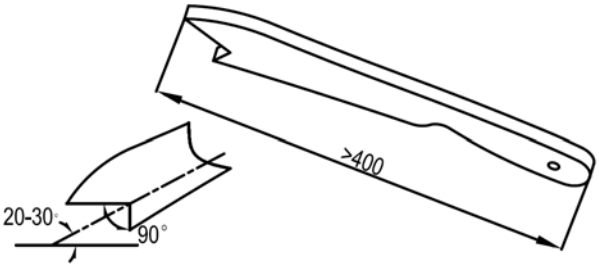




***Fig.3*** ***Fig.4***

**⚠ WARNING**

***If the workpieces is less then 120mm,you must use the push stick to prevent your hands from getting too close to the saw blade.***

***Push block must be used to cut narrow workpieces and, when necessary, to push the workpiece against the fence, a push block can be easily made by the operator as Fig.3。***

## 4.5 Safety labels on the machine

Here below you will find the warning labels that are attached to the machine and illustrated in the instruction, see ***Fig.5***

①**.** Warning for residual risks And always use a push stick or push blocks.
②**.** Specific Safety Instructions for Sliding Table Saw.
③**.** Caution! Live equipment.
All electrical operation and maintenance shall be done by qualified electricians!
All electrical operation must be carried out in according to electrical instruction.
④**.** Warning for fence using。
⑤**.** Warning for motor cover open.

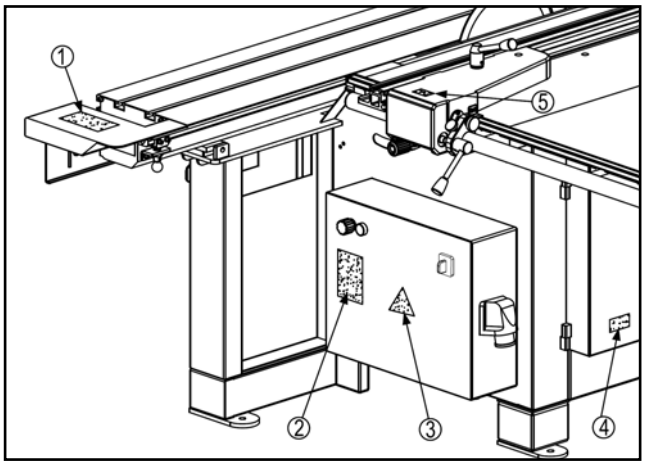



***Fig.5***

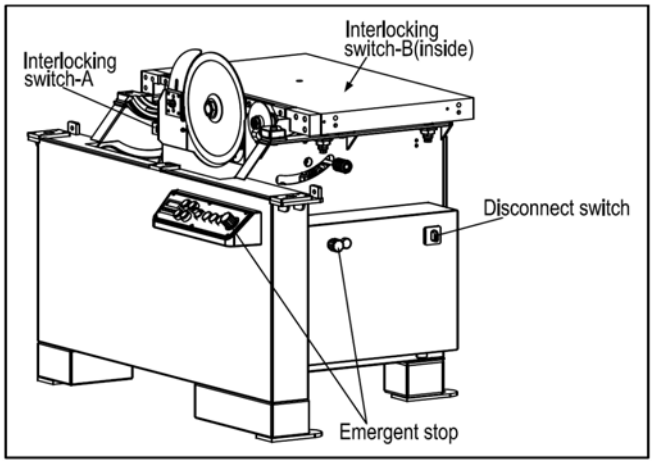



***Fig.6***

## 4.6 Safety Devices

**Disconnect switch**
**Interval: 8hours**
**Position**: As ***Fig.6***
**Operation**: With an handle;
**Emergent stop buttons**
**Interval: 8hours**
**Position**: 2 emergency stop buttons are separately setting, as ***Fig.6***
**Operation:** Press the emergent stop buttons when emergency.
**Release the tripped person in the work zone by the emergent stop button in work zone.**
**Interlocking switches**
**Interval: 8hours**
**Position**: As ***Fig.6***
**Interlocking switch-A:** when open the cover, the motor power will be off.
**Interlocking switch-B:** when the scoring is under the surface of the table, the motor power will be off.

Followed in the event of accident or breakdown, you must press the Emergent stop buttons, and handle the disconnect switch to cut the power.

When you setting up, operation, service the machine, you must pay increased attention to avoid the potential dangers.

Every time, before you operation the machine, you must check the **Disconnect switch, Emergent stop buttons, Interlocking switches** if in order.

**⚠ NOTICE**

***Emergency stop buttons are prohibited to act as normal stop function.***

# 5. Installation of the machine

## 5.1 Transportation of machines

### 5.1.1 Transportation and store

The measures of anti-rust and shockproof should be taken during packing. The machine endures transportation and store in -25~55°C ambient temperature.
Be care of not making machine exposed to rain or damaging the packing during transportation and store.

**⚠ WARNING**

- **While transporting or handling the machine, be careful and let the activity be done by qualified personnel especially trained for this kind of activity!**
- **While the machine is being loaded or unloaded, make sure that no person or subject gets pressed by the machine!**
- **Select proper transportation device according to the weight of the machine.**
- **Make sure the lifting capacity of transportation device is competent for the weight of the machine.**

### 5.1.2 Transportation before unpacking

As standard, the machine is packed in a robust wooden box. ***Fig.7*** shows the method can be used to transport the packing box.

***Fig.7***

### 5.1.3 Confirmation after unpacking

When open the packing box, please pay attention to the following stems. If you have any questions, please contact directly with us.

1) the machine is damaged in transportation or not
2) other accessories and documents is complete or not
3) the product is consistent with the contract or not
4) the specifications on machine label is consistent with the contract or not

### 5.1.4 Transportation after unpacking

When transport the machine with a stacker truck, firstly find the centre of gravity of the machine, insert the fork to the bottom of the machine and then rise or fall slightly.

## 5.2 Unpacking

your machine was carefully packaged for safe transportation. remove the packaging materials from around your machine and inspect it. if you discover the machine is damaged, please immediately call Customer Service for advice.

save the containers and all packing materials for possible inspection by the carrier or its agent. Otherwise, filing a freight claim can be difficult.

When you are completely satisfied with the condition of your shipment, inventory the contents.

# Inventory

The following is a description of the main components shipped each J-20/J-30 model. lay the components out to inventory them.

***Note: If you can't find an item on this list, check the mounting location on the machine or examine The packaging materials carefully. Occasionally we pre-install certain components for shipping purposes.***

**----Machine Box Contents:** ***（Fig.8）***

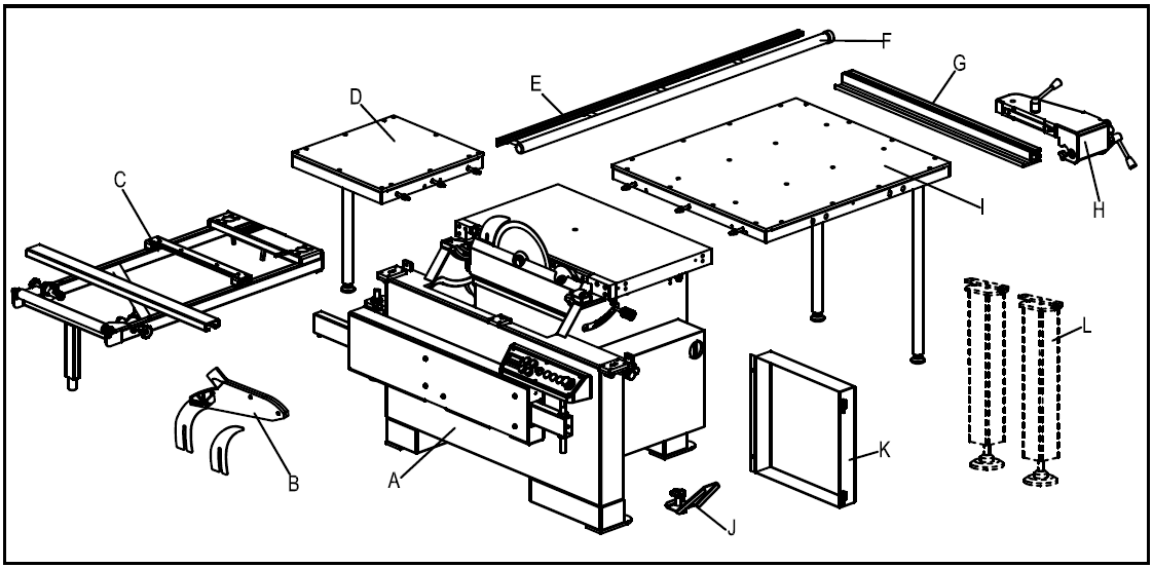



***Fig.8***

| Machine Box Content: | Qty |
|---|---|
| A. Main unit | 1 |
| B. Blade guard and Riving Knife | 1 |
| C. Crosscut table | 1 |
| D. Rear extension table | 1 |
| E. Scale | 1 |
| F. Round guide bar | 1 |

| Machine Box Content: | Qty |
|---|---|
| G. Rip fence | 1 |
| H. Rip fence body | 1 |
| I. Side extension table | 1 |
| J. Clamping shoe | 1 |
| K. Motor cover | 1 |
| L. Support leg（for N-2500） | 2 |

**----Sliding Table Box Contents:** ***（Fig.9）***

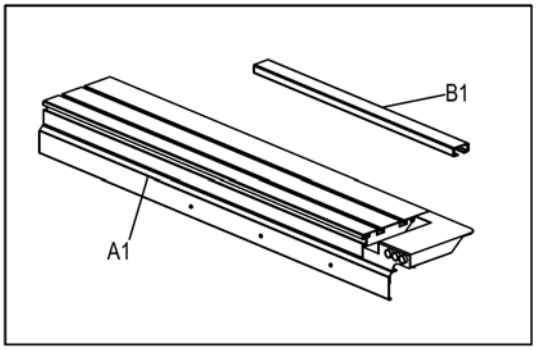



***Fig.9***

| Sliding Table Box Content: | Qty |
|---|---|
| A1.Sliding table Assembly | 1 |
| B1. Assistant support | 1 |

**----Cross-cutting fence Box Content:** ***（Fig.10）***

| Sliding Table Box Content: | Qty |
|---|---|
| A2. Cross-cutting fence | 1 |
| B2. Stop plate | 2 |

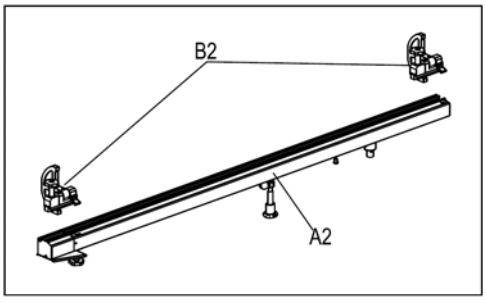



***Fig.10***

## 5.3 Safety measure before use/installation

**Foundation plan（*Fig.11*）**

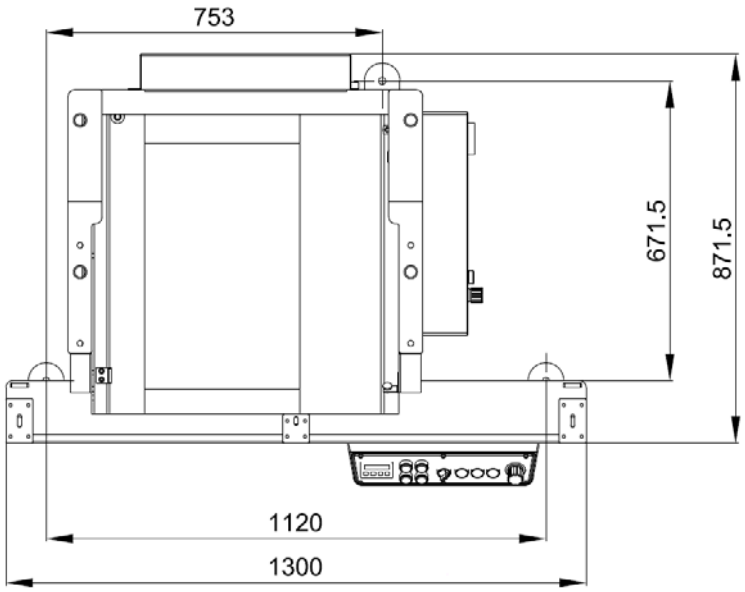



***Fig.11***

**Space Requirements（*Fig.12*）**

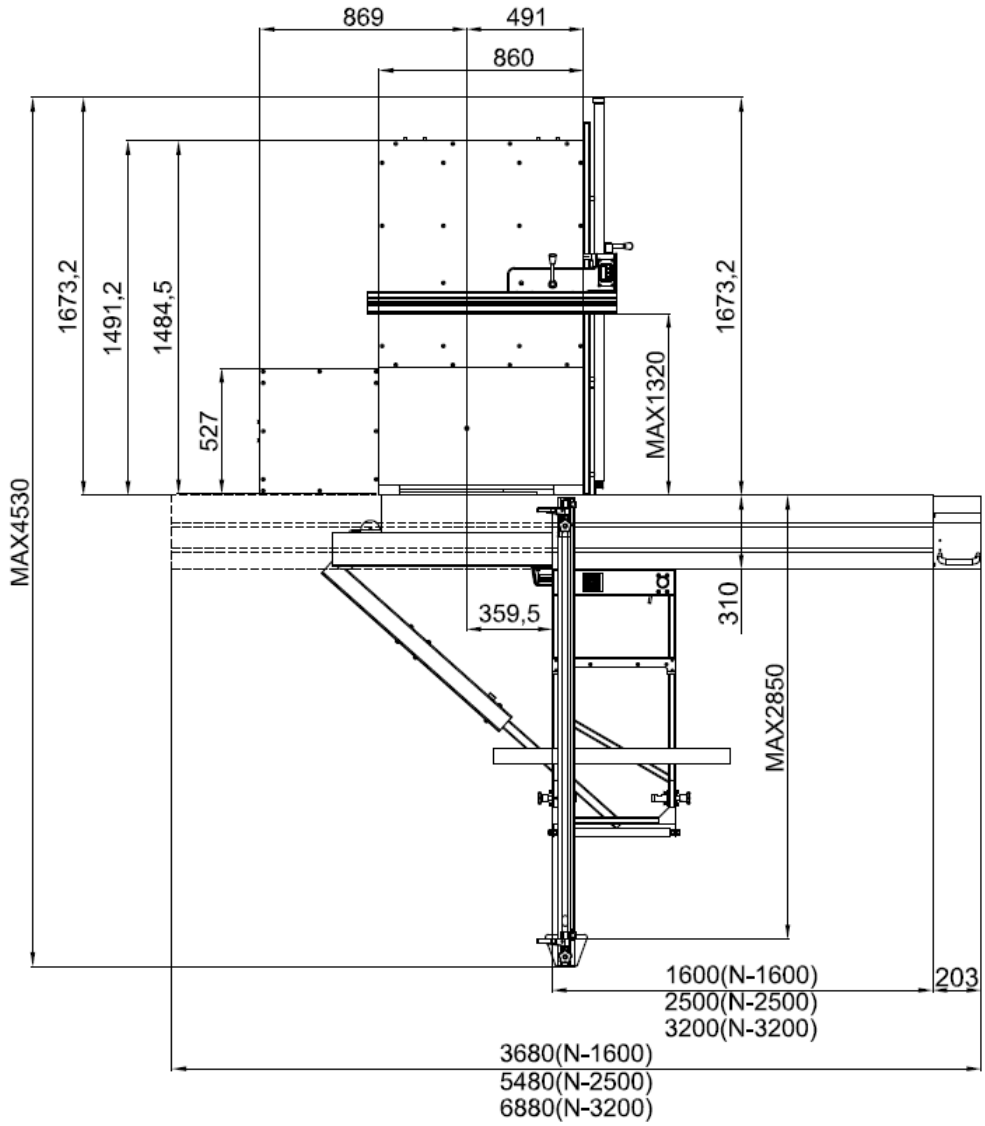
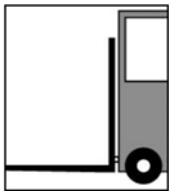



***Fig.12***

## 5.4 Installation

### 5.4.1 Moving & Placing Base Unit



**This model is a heavy machine, Serious personal injury will be happen if safe moving methods are no followed! To be safe, you will need assistance and power equipment when moving the shipping crate and removing the machine from the crate!**

**⚠ WARNING**

***Do not connect machine to electricity before installation is completed!***

**a,** Main base is mounted at wood stock with three bolts at point A，B，C ,as(***Fig.13***), take out the bolts, separate the main base from wood stock, at the same time, raise bolts D .

**b,** Moving the main base to suitable place.

**Space required：** Refer to ***Fig.12,*** insure the inter space between the machine and wall at least 800mm.

**ground required：** There is no special ground required, the floor must have a load bearing strength for the machine weight and should be flat and level.

**c,** When main base is placed, adjust bolts D to make the machine level off. Then tighten D.

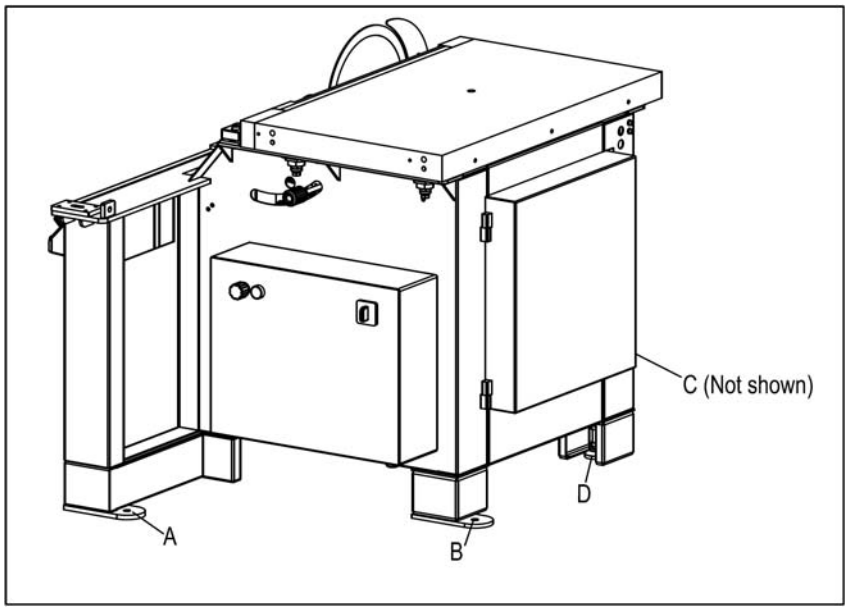



***Fig.13***

## 5.4.2 Installation of Sliding Table

Sliding table is packed separately from the main machine. So you need to install sliding table when cabinet is leveled.

**⚠ WARNING**

***Always find the matching sliding table for the main machine!***

***The matching number is the Serial Number that are marked on main machine and sliding table as well as their packing boxes. Make sure the serial numbers on main machine and sliding table are the SAME. Otherwise will cause difficulties in assembling!***

**a,** The sliding table is very heavy, you must moving it as ***Fig.14*****.**

**b,** Fit the sliding table to main base, Push the sliding table all the way, make the block A against bolt B. as ***Fig.16***, secure the sliding table with cabinet with M12 bolt C firmly, as ***Fig.15.***

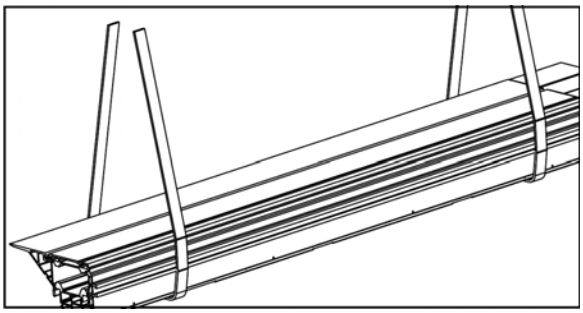


***Fig.14***

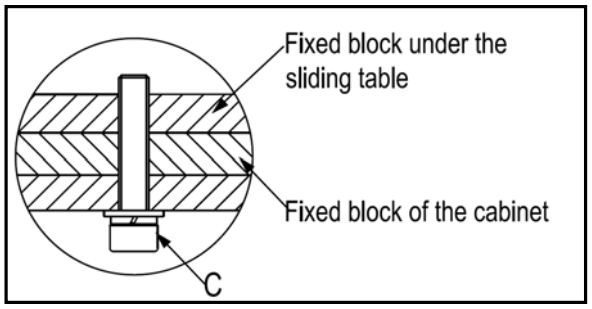



***Fig.15***

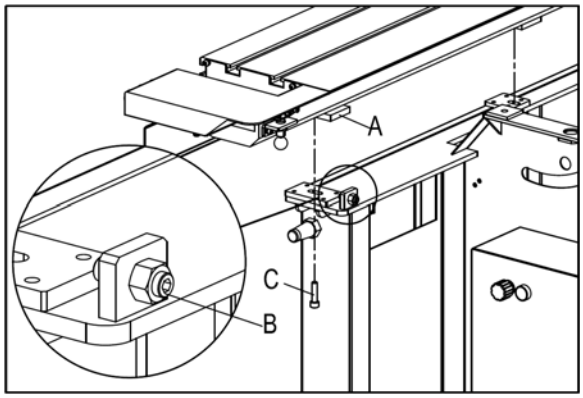



***Fig.16***

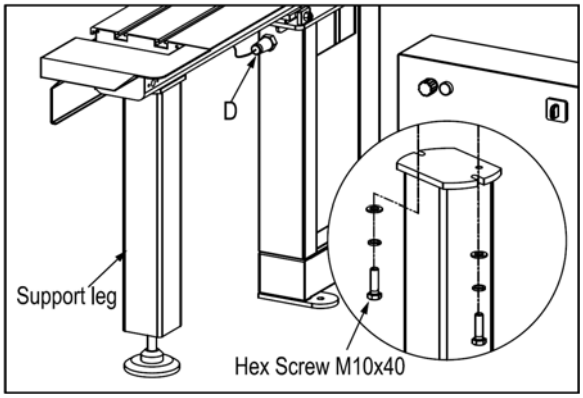



***Fig.17***

**c.** Insert the 4pin connector D to the socket of the main base, as ***Fig.17;***

**d,** If your Sliding Table length is 2500mm, we provide two support legs, install the legs as ***Fig.17***

**e** If you cut the irregular wood, you can use edge shoe plate, Slide the plate to the T slot of the sliding table.

## 5.4.3 Installation of crosscut table

**a.** Slide crosscut table into T slot of sliding table.

**b.** Align the screw shaft (B) of swing arm to the hole on the bottom of crosscut table ***(Fig. 18)***, and adjust the screw C &D, keep the surface of the crosscut table is parallel to the surface of the sliding table, then tighten the screw C & D. Lock the crosscut table with handle A, see ***Fig.18***.

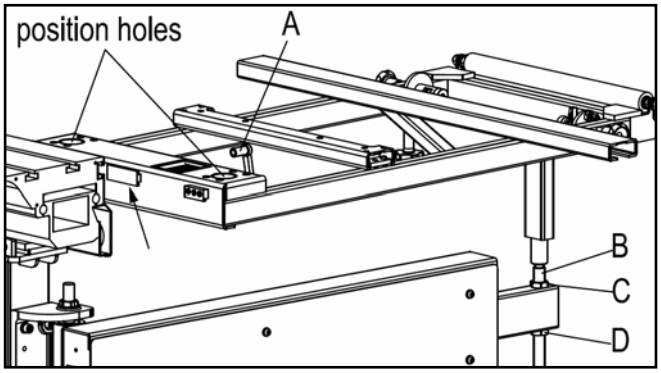



***Fig.18***

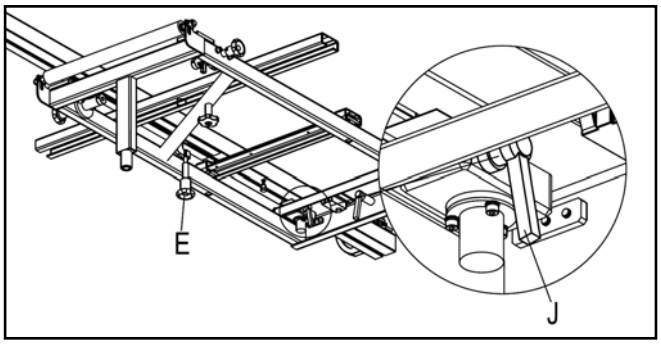



***Fig.19-1***

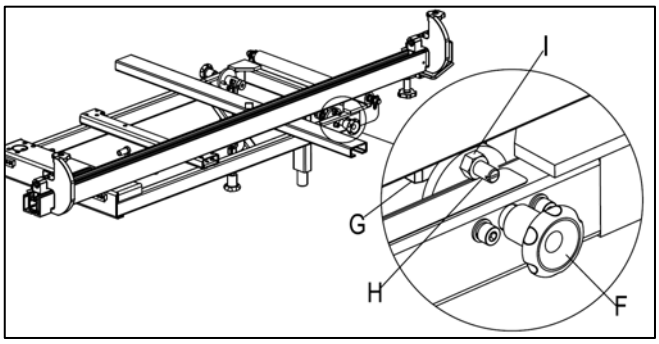



***Fig.19-2***

**c,** The outrigger table system with swing arm will be in working position, install the crosscut fence onto the crosscut table with two positioning holes（***Fig.18***）. Lock the fence onto the crosscut table with the knob (J) &（E），release knob (E), you can swung the fence, and can be locked in any degree(±45 degree) with lock knobs (E), see ***Fig.19-1***.

**d,** knobs (F)can be used to quick lock the fence for 90 degree, see ***Fig.19-2.***

There is a lock block (G) at the bottom of the fence, turn the knob (F), you can quick lock or release the fence, release nut (I), turn screw (H) in or out, you can adjust the fence position.

## 5.4.4 Side Extension Table Installation

**a.** Fix the side extension table to the side of the main table with three bolts (A),as ***Fig.20.***
**b.** Fit the legs (B) to the bracket of side extension table with bolts (C), as ***Fig.20***.
**c.** Adjust feet (D), ensure the side extension table is flat with the main table, as ***Fig.21***, when adjustment is over, tighten the nuts of the feet(D).
**d.** at the same time，ensure the Side of Extension Table is flat with the side of main table, as ***Fig.22***, it is very importance for the installation of Rip Fence.

***Fig.20***

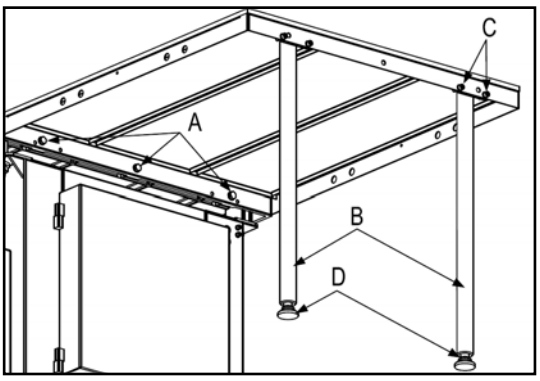



***Fig.21***

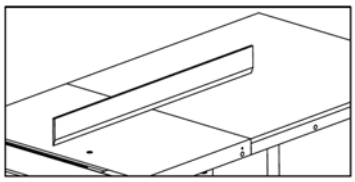
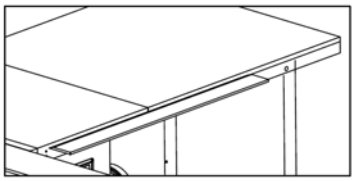


***Fig.22***



## 5.4.5 Rear Extension Table Installation

**a.** Fix the rear extension table to the rear side of the main table with three bolts(A),as ***Fig.23***.
**b.** Fit the leg (B) to the bracket of Rear Extension Table with bolts (C), as ***Fig.23***.
**c,** Adjust feet (D), ensure the rear Extension Table is flat with the main table, as ***Fig.24***, when adjustment is over, tighten the nuts of the feet(D).

***Fig.23***

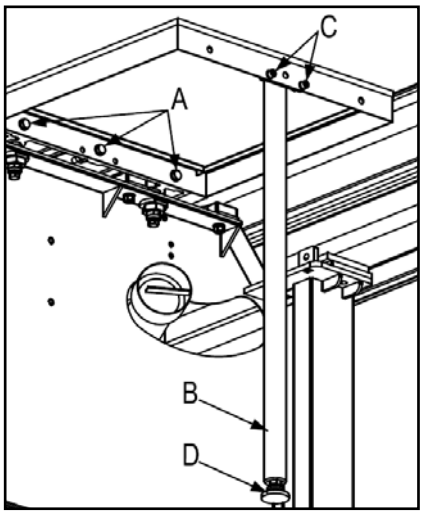
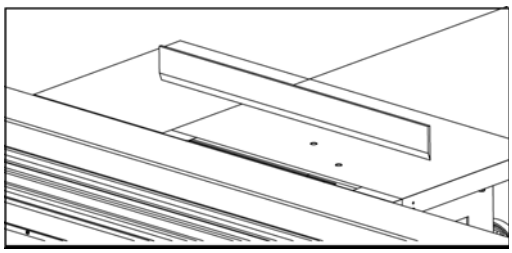
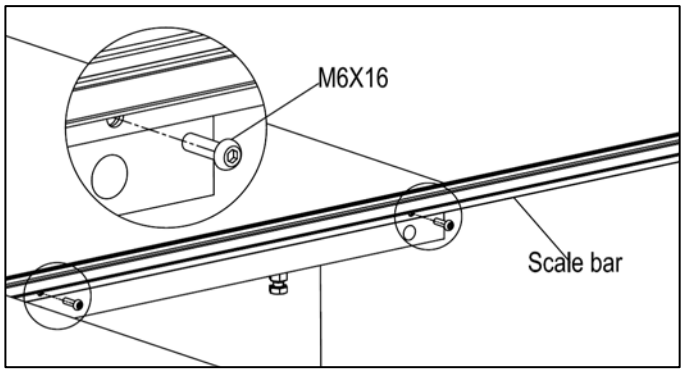



***Fig.24***



## 5.4.6 Rip fence installation

1, Mount the scale bar to the main table and right extension table, making sure it is lower than the top of the table. ***Fig.25***



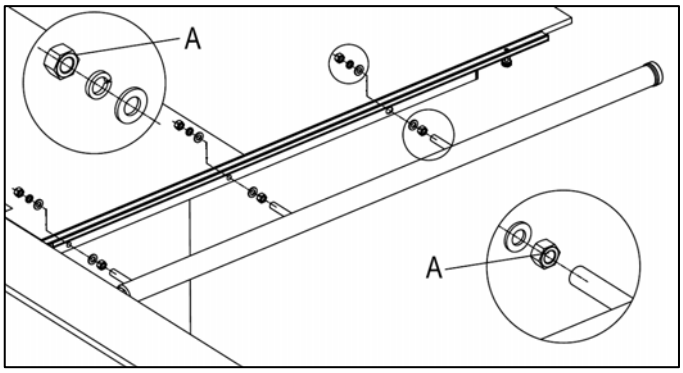




***Fig.25*** ***Fig.26***

2, Insert the guide round bar into the tables as shown in ***Fig.26*** Do not tighten the nuts at this time.

3, Slide the rip fence body onto the guide rail. (Note: Please remove the end cap firstly) See ***Fig.27.***

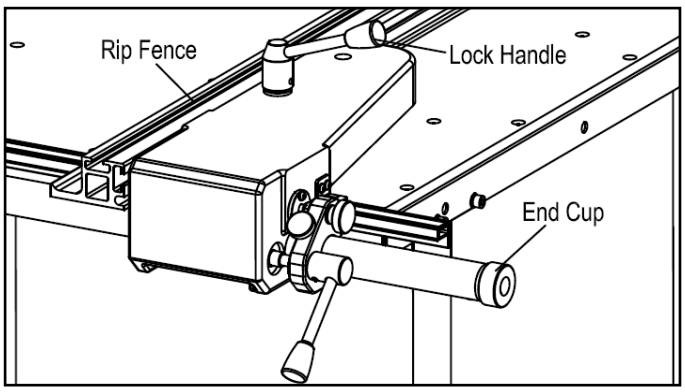



***Fig.27***

4, Slide the aluminum rip fence onto the clamping plate and lock it with the lock handle See ***Fig.27.***

## 5.4.7 Blade installation and changing

**⚠ WARNING**

***Turn the power switch "OFF" and unplug the power cord from its power source when changing the saw blade.***

***When replacing blades, check the thickness stamped onto the riving knife. You must select a blade with a kerf width larger than the thickness of the riving knife. Thinner blades may cause the workpiece to bind during cutting.***

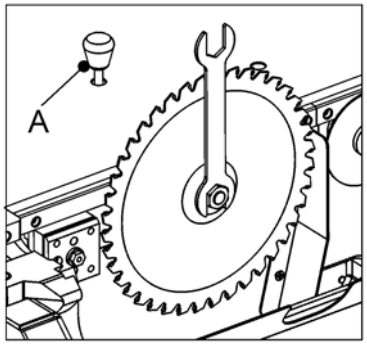



***Fig.28***

### Main blade installation and changing (*Fig.28)*

a. Push sliding table all the way to the Right.
b. Open blade cover
c. Raise the spindle to the highest position
d. Insert the locking pin (A) into the hole in the main table to hold spindle from rotating.
e. Put blade onto spindle arbor and put on the clamping flange and locking nut. Use the wrench(comes with machine) to tighten the blade locking nut.
f. Push back the blade cover

**Use reverse steps to change blade.**

*Take out the lock pin after blade is installed.*
*Machine will not run when blade cover is not closed.*

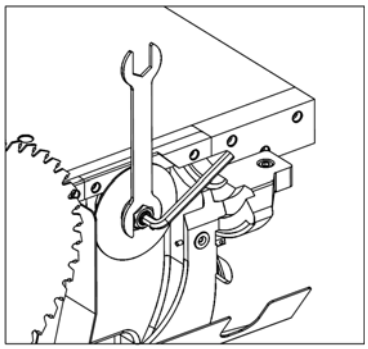


***Fig.29***

### Scoring blade installation and changing (*Fig.29)*

a. Push sliding table all the way to the Right.
b. Open blade cover
c. Use wrench(comes with machine) as shown to lock the scoring blade to arbor.
e. Push back the blade cover

**Use reverse steps to change blade.**

**⚠ NOTICE**

***Take out the lock pin (A) after blade is installed.***
***Machine will not run when blade cover is not closed.***

## 5.4.8 Blade Guard & Riving knife installation

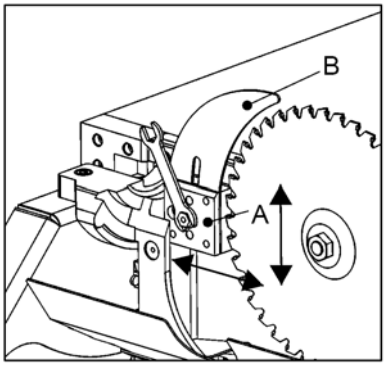



***Fig.30***

Installation of Blade Guard is the same as Installation of Riving knife

The Blade Guard & Riving knife can be adjusted in both horizontal and vertical directions, block(A) can be adjust left or right, the blade guard (B) can be adjust up or down. As ***Fig.30***

After changing a saw blade, always check that the Riving knife or Blade Guard is correctly set!

1. riving knives shall be manufactured from steel with an ultimate tensile strength of 580 N

mm-2 or of a comparable material, have flat sides (within 0,1 mm per 100 mm) and shall have a thickness less than the width of cut (kerf) and at least 0,2mm greater than the saw blade plate. As ***Fig.31***

***Key:***
***e riving knife thickness***
***b saw blade blade***
***B kerf(width of saw blade cut)***

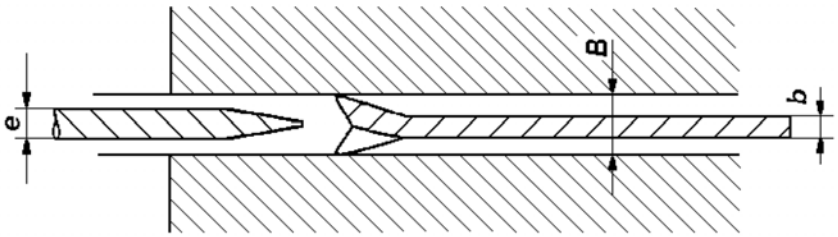



***Fig.31***

2, The distance of the riving knife from the gear rim must be between 3mm and 8mm. measured radially through the centre of the saw spindle. As **Fig.32**

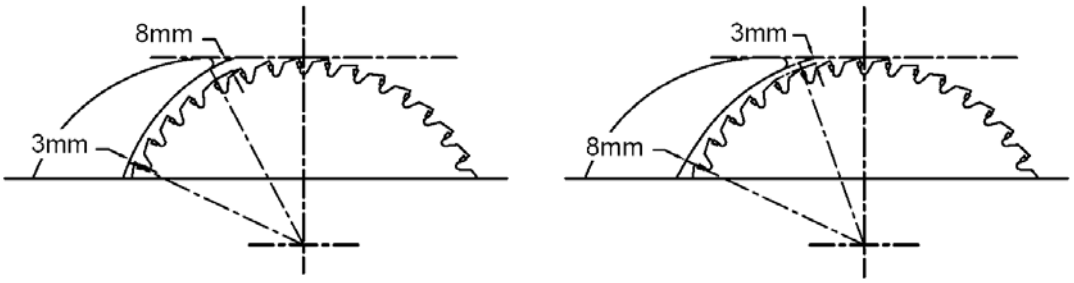



***Fig.32***

3. the highest point of the riving knife must be set beneath the topmost teeth.

## ⚠ WARNING

**Check that saw blade clamping system is tight before operating the machine.**

## 5.4.9 Connecting the extraction system

## ⚠ NOTICE

***Dust collector device should be prepared by customer;***

## ⚠ WARNING

***The dust extraction equipment is to be switched on before commencing machining;***

**As *Fig.33***

The outlet diameter of **A** is 100mm

The outlet diameter of **B** is 50mm

Air current speed is 20m/s for vacuum suction dust emission index, When air current speed of dust collector device (in accordance with EN 12779:2004) is not lower than 20m/s,ensure machine can be normal exhausted. User must wear dustproof mask.

***Fig.33***

**1.** Required air flow:1500 m3/h;

**2.** Ensure pressure drop of each dust collector outlet carrying air current speed: 1100Pa

**3.** Wind speed of dust collector tube m/s: dry chips: 20m/s, water content is equal to18% wet chips: 28m/s.

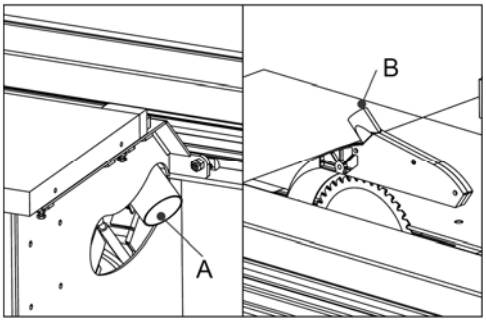



***Fig.33***

## 5.4.10 Electrical installation

**WARNING**

**1.** ***Wiring should only be done by professional electricians.***

**2.** ***All wirings in the cabinets should be protected against direct contact to at least IP2X when finishing electrical installation.***

**3.** ***All exposed conductive parts should be connected to the protective bonding circuit.***

**4.** ***Close and lock the door of cabinets, take off the keys and keep them well after finishing installation.***

**NOTICE**

***1. Enough space around the machine and the cabinets should be kept in order to maintain conveniently.***

***2. The machine should be installed in a workshop with good illumination and ventilation.***

***3. Over-voltage protection device should be provided by end user on spot.***

**WARNING**

***Entrust this operation to qualified personnel. Always make sure the machine is properly earthed.***

Check that the voltage and frequency required by the machine, shown on the machine's name plate, correspond to the electric power supply voltage and frequency.

The circuit breaker (16A) with RCD module (30mA) shall be installed for supplying electric power to this table saw, in order to protect people against electrical shock due to indirect shock

**Wiring:**

Finish electrical connection according to the electrical drawings.

The wirings on the spot should refer to the requirements of Clause 13 (Wring practices) of EN 60204-1:2006.

**Checking:**

After finishing wiring on the spot, check the following items at least:

Check the wirings of machine.

Check the direction of motors and change wiring if necessary.

Check the components for defects, such as loosening or damage.

Check the functions of safety devices (such as interlocked guards and emergent stop buttons).

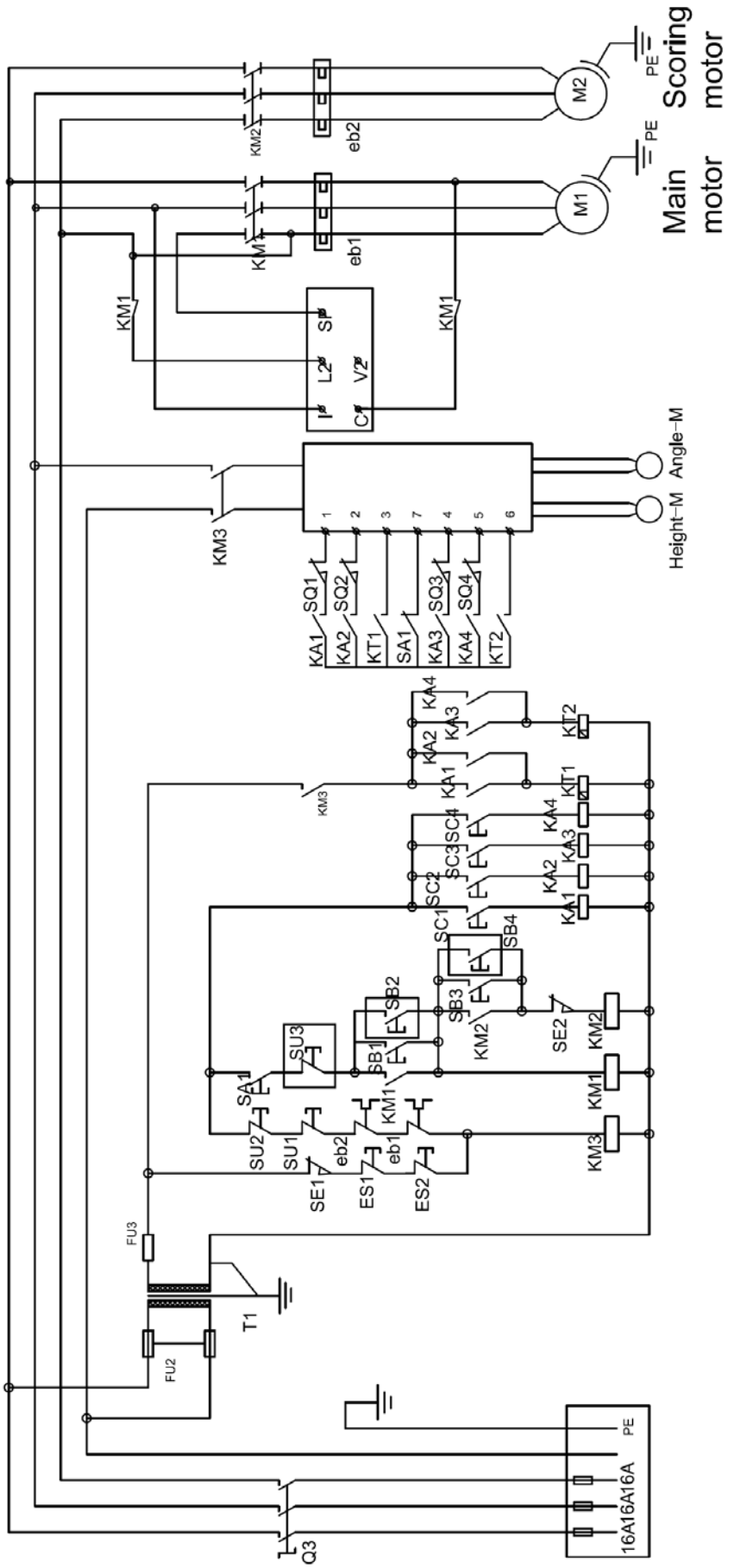
Check the direction of motors and change the phases if necessary.

Check the functions of all limited switches.

**The terminals are marked L1,L2,L3,N,PE,**
**If blade direction is wrong, please change any two "L" terminal position.**

# ELECTRICAL CONNECTIONS

400V/50(60)Hz/3PH



| No. | Code | Name | Specification |
|---|---|---|---|
| 1 | Q3 | main switch+handle+bar | OT25F3，Uimp=8kv，Ith=32A，50/60HZ +OHYBS1AH1(black-red）+OXS6X160 |
| 2 | FU2,FU3 | Fuse block | UK5-HES1,230V/400V，2A |
| 3 | SE1 | Safety limit switch | CNTD CZ-93B,3A/240V |
| 4 | T1 | Isolation transformer | JCY5-63，AC220V-AC24V,63VA,50/60HZ,IP2X |
| 5 | ES1,ES2 | E-stop button | CE3T-10R-02, 2NC,Ui=300V,Ith=5A |
| 6 | eb1 | Thermal relay | NR2-25,9-13A |
| 7 | eb2 | Thermal relay | NR2-25,1.6-2.5A |
| 8 | SU1,SU2,SU3 | Stop button | CP1-10R-01,ABB |
| 9 | SA1 | Selection switch | C2SS2-10B-10，300V,5A |
| 10 | Height-M,Angle-M | Direct push rod | TA2-Sries,Power：DC24V,Duty cycle：10%max2min/18min max load：push 2000N，Max current：Max 5.0Amp |
| 11 | SB1,SB2,SB3,SB4 | Start button | CP1-10W-10，300V,5A,1NO |
| 12 | KM1 | Contactor | CJX2-3210 |
| 13 | KM2,KM3 | Contactor | CJX2-0910 |
| 14 | SE2 | Position switch | QKS7，AC15，250V/10A |
| 15 | SC1,SC2,SC3,SC4 | Control button | CP1-10G-20，300V,5A,2NO |
| 16 | KA1,KA2,KA3,KA4 | Contactor | CR-P024AC2+CR-PSS+CR-P/M+42-CR-PH |
| 17 | KT1,KT2 | Time relay | H3YN-2 |
| 18 | SQ1,SQ2,SQ3,SQ4 | Position switch | QKS7，AC15，250V/10A |
| 19 | M | Brake circuit board | 102303002 |

# 6. Adjustment

**NOTICE**

**Before operation, the machine should be carefully adjusted for best performance. Please make adjustment as following:**

## 6.1 Sliding table

The sliding table must be parallel to the main blade.

1, Move the blade tilt to 0° (blade 90° to table), and raise the main blade as high as it will go.

2, slide the sliding table and use a dial indicator to Measure the parallelism, ***Fig.34***

3, If no more than 0.1mm, the parallelism is correct. If not, continue with the next step

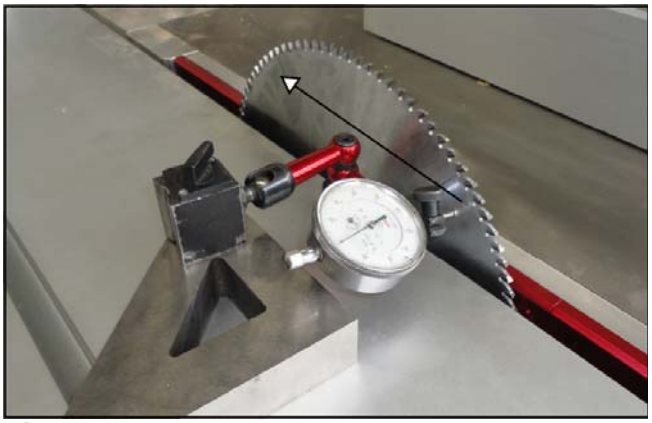


***Fig.34***

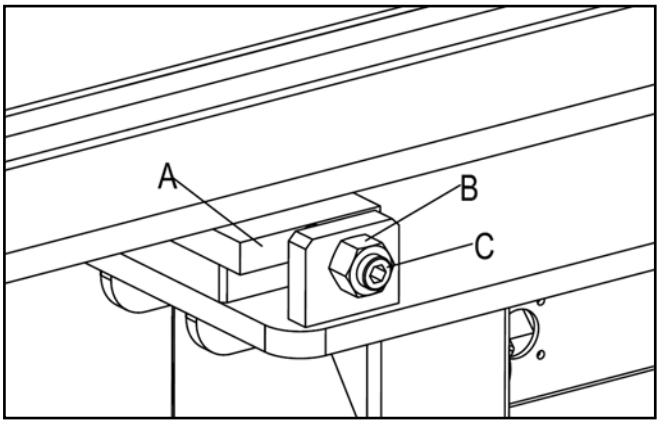



***Fig.35***

**Note: A dial indicator may be used for this measurement**

4,Loosen secure nuts under sliding table completely and hand tighten them.

5, Loosen nuts B, see ***Fig.35.***

6, Turn thread rod C out or in.

7, Push sliding table all the way in order to ensure the block A is against the thread rod C.

8, Repeat step 2 and 3, till the parallelism is correct;

9, tighten screw B and the secure nuts of the sliding table.

## 6.2 Main Table

Main table should be about 0.1mm lower than sliding table.

1, Using a straightedge and feeler gauge to check if the main table need to be adjusted. If yes, continue next step.

2, There are four bolts support the main table on four cabinet corners. Loosen A and B and turn bolt C for height adjustment ***Fig.36***

3, Repeat step 1

4, Secure A and B

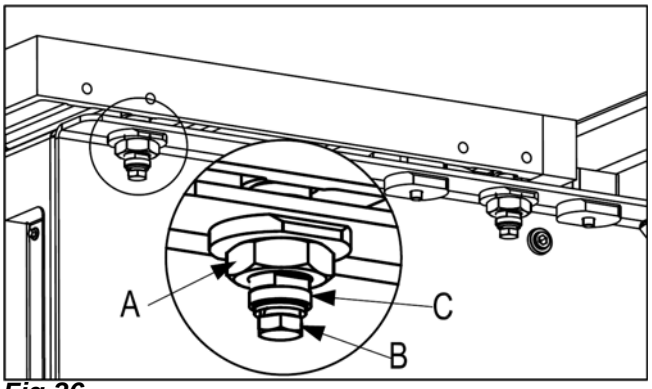



***Fig.36***

## 6.3 Scoring blade

1. Adjusting knob (A) through the cabinet, right revolve，scoring blade up，left revolve, scoring blade down, as ***Fig.37.***

2．Hex wrench (B), right revolve，scoring blade go forward，left revolve, scoring blade fall back, as ***Fig.38.***

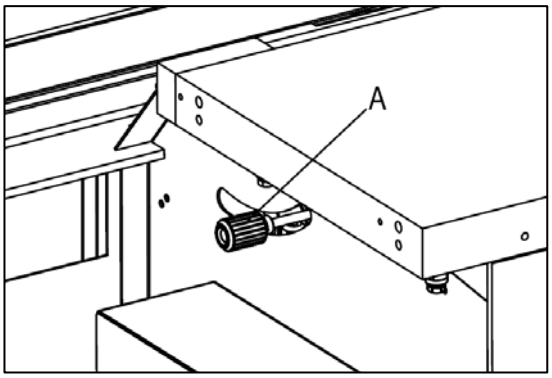



***Fig.37***

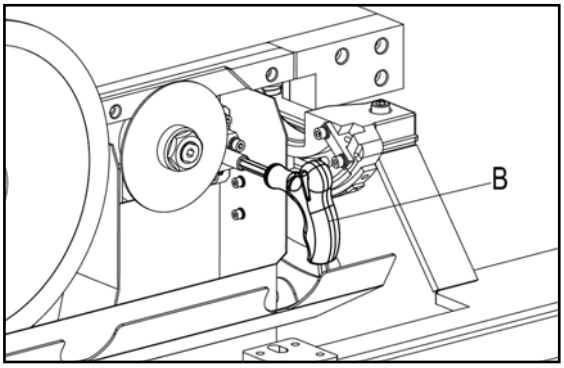



***Fig.38***

## 6.4 90 and 45 degree stops

1. Adjusting screw (A)，you can change the electronic stop position at 45 degree，as ***Fig.39.***
   Adjusting screw (B)，you can change the electronic stop position at 90 degree，as ***Fig.40.***
2. Adjusting screw (C)，you can change the fixed stop position at 45 degree，as ***Fig.41.***
   Adjusting screw (D)，you can change the fixed stop position at 90 degree，as ***Fig.42.***

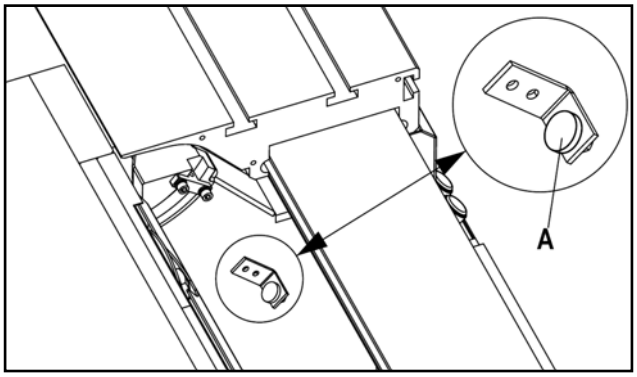



***Fig.39***

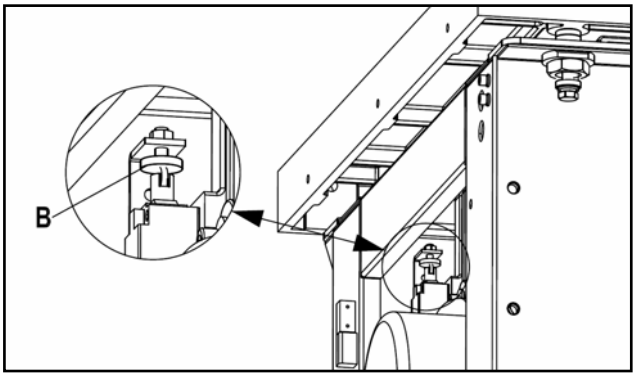



***Fig.40***

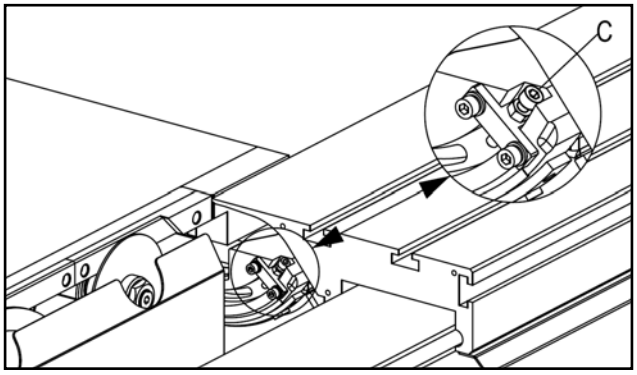



***Fig.41***

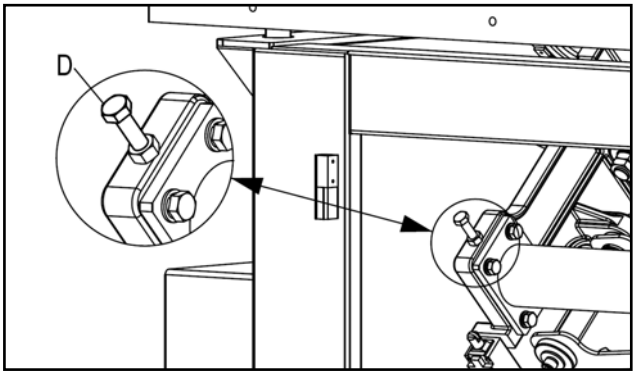



***Fig.42***

## 6.5 Crosscut fence

**Square to main blade:**

1,The crosscut fence/miter fence must be set 90 degree to the blade. Take a 1000x1000mm MDF or similar material with thickness at least 15mm, Make 5 cuts. (Put the last cut side against the fence for the next cut, keep turn the test piece in same direction). Measure the 5th cut off strip at both ends. The difference will be less than 0.75mm, see ***Fig.43***

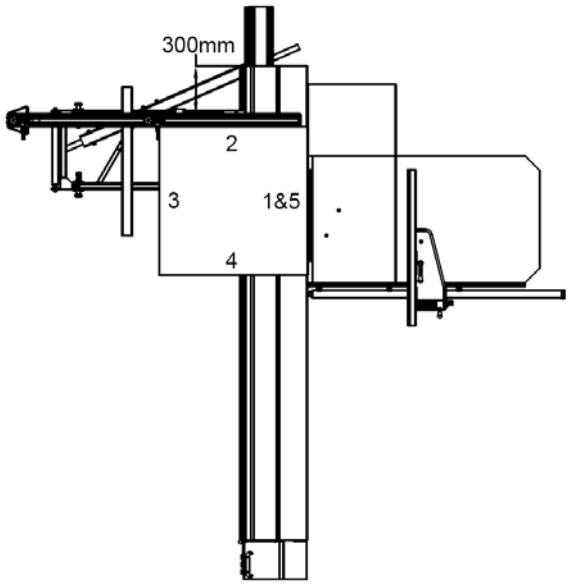



***Fig.43***

**Adjust as follow：**

2, Loosen knob D, E, and nut A

3, Turn screw B in or out

4, Push the fence and make block C is against screw B. Tighten A.

5, Secure the fence to the cross-cut table

6, Repeat step 1.

Step 2-5 as ***Fig.44***

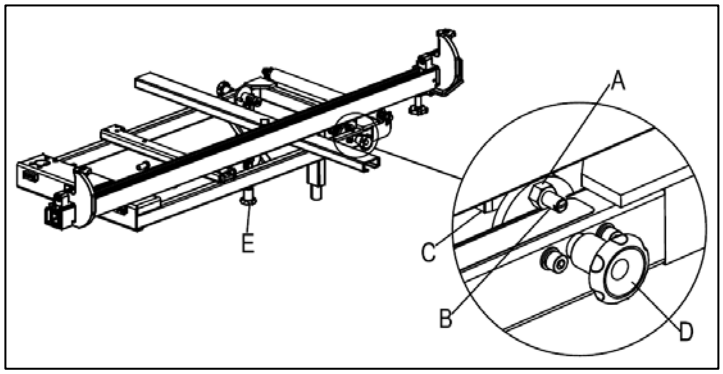



***Fig.44***

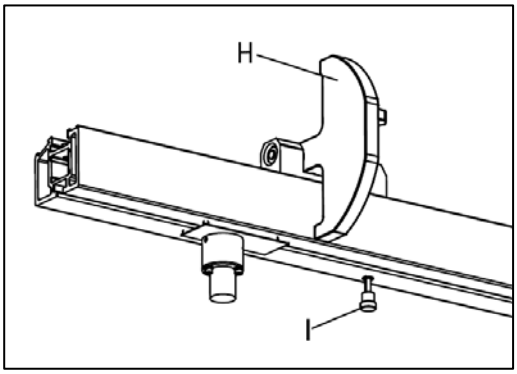



***Fig.45***

**Crosscut fence scale adjustment:**

For the first time to use the fence or replacing blade, the scale must be re-adjust:

Set the stop plate (H) ***(Fig.45)*** at a certain location and cut a piece of workpiece.

**a.** measure the length of the workpiece, release the little knob (I) ***(Fig.45)***under the fence, adjust the location of the scale to fit the length you measured, confirm the scale's location and lock the scale with knob (I)。

**b.** use the same mode to adjust the inner scale.

## 6.6 Rip Fence

**⚠ NOTICE**

***Rip fence must be adjusted as next before you use it.***

**a. To adjust the fence upright with the table surface, as *F ig.46*.**

**b. To adjust the fence parallel with the blade.**

the difference between L1 and L2 is 0.05-0.15mm, and that L1＞L2, as ***Fig.47***

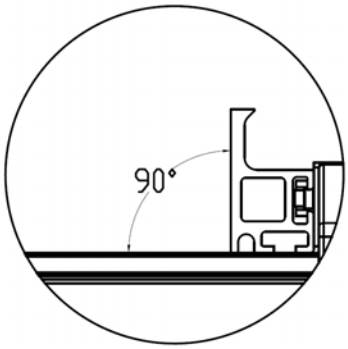



***Fig.46***

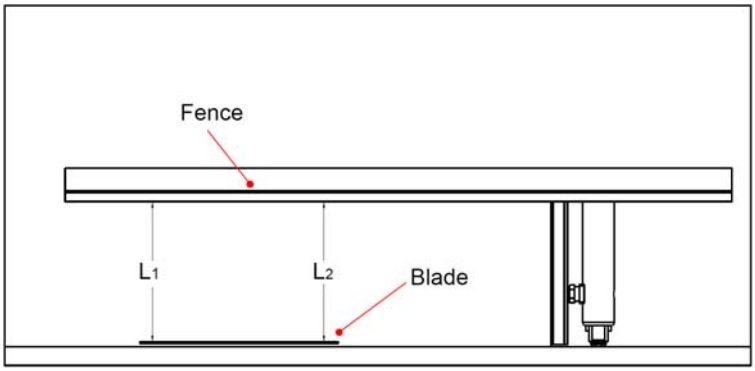



***Fig.47***

If the fence is not parallel with the blade, you can release the lock nut A(***Fig.48***), adjust the position of the round guide bar

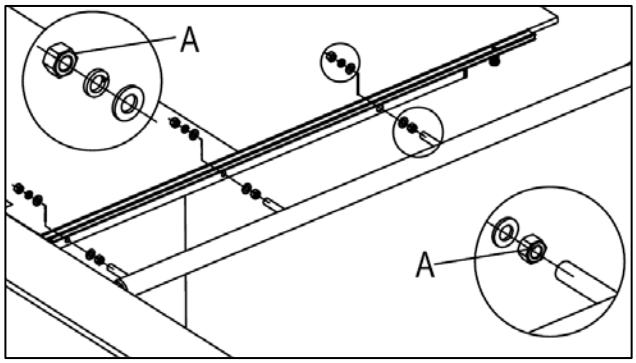



***Fig. 48***

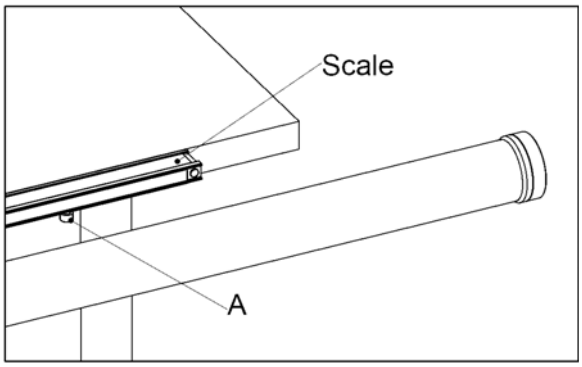



***Fig. 49***

**c. Adjust the Rip fence scale：**

First time use or each time the blade change, the scale must be adjusted. Put the fence in a certain position and cut a test piece. Measure the length of the test piece. Loose the knob (A) under the scale and move the scale until it matches the length of the previously cut sample, see ***Fig.49***

# 7. Operations

## 7.1 Safety Cautions

Machine operation may cause injury of operator. Before regular work we recommend you get the knowledge of operations to use scrap lumber to check settings. Read instructions carefully before you start to cutting. Always pay attention to safety cautions to avoid personal injury.

## 7.2 Electrical Operations ( *Fig.50*)

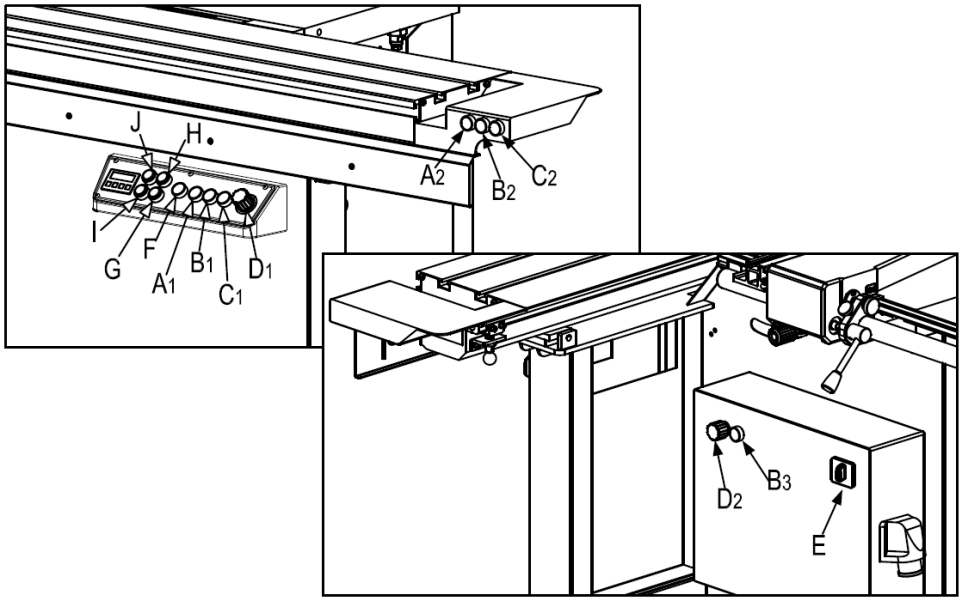



***Fig.50***

**A1,A2** **Start button for main blade**
—start the main motor.

**B1,B2,B3** **Stop button**
—stop all motors

**C1,C2** **Start button for Scoring blade**
—start the scoring motor

**D1,D2** **Emergency stop button**
—disconnects power to all motors in the motor cabinet

**E** **Main power switch**
—connect or disconnect the all motor power.

**F** **Pilot lamp**
—when the power is supply, this Pilot lamp will be light;

**G, H, I, J** **Operation button for blade**
—up or down the blade and angle the blade ;

### 7.3 Digital Readout of fence angle Operation *(Fig.51)*

**First time use this readout, you must calibrate it as next:**

a. Hold button ***"ON/OFF"*** ,you can open this digital readout.
   Hold button ***"ON/OFF"*** for more than 2 seconds, you can close this digital readout.
b. Make sure the crosscut fence square to the main blade, press button ***"ZERO"*** for more than 2 seconds to zero clearing.

**Calibration:**

The calibration of the display unit have be done at the factory, it's in the working position; You must running check it, If necessary, calibrate it as next:

a. Make sure the crosscut fence square to the main blade, press button ***"ZERO"*** for more than 2 seconds to zero clearing.
b. Swung the fence to 45 degree, then cut a piece of workpiece to check the actual angle.
c. Press ***"ON/OFF" & "ZERO"*** at the same time for more than 2 seconds, the last digit will twinkle, then press ***"ZERO"*** enter the calibration mode, digital display will decreased 1 degree.
d. Press ***"ZERO"*** again, the digit will add 0.1, repeat this action, until the display value equal to the measured value.
e. Press ***"ON/OFF"*** to save it and also exit the calibration mode, digital stops flashing,


***Fig.51***

## 7.4 Digital Readout of blade angle Operation

**Model：IZ15E-001-4-01,0-0**

### 7.4.1 Digital readout of angle blade


*Fig.52*

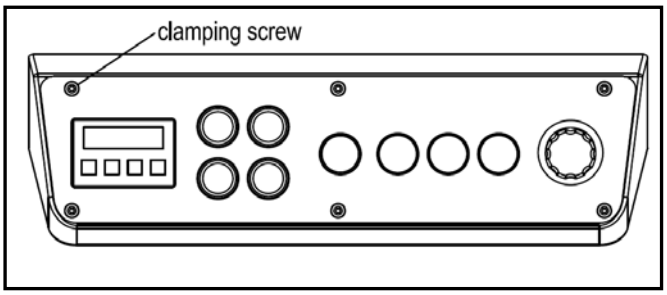



*Fig.53*

**Note:** Before you enter the environment of parameter setting, you must make sure the "⑥" shows "INC", if it shows "ABS", you must press " ③" to change it.

#### 7.4.1.1 Change the battery

**1.** Release the clamping screws and remove the housing with the display unit, ***as Fig.53;***

**2.** Change the batteries, making sure the poling is correct, ***as Fig.54***

#### 7.4.2.2 Basic setting of the display unit

The basic setting of the display unit have be done at the factory, it's in the working position; You must running check it, If necessary, reenter the basic setting as next:***(see Fig.52)***

**1.** Cut a test block to make sure the blade is in the position of 90 degree, then check the displayed whether or not "0",

**2.** If not, Hold the "①" button for more than 4 seconds to enter the environment of parameter setting; Press the "①" button to select the parameter, Till the appearance of the parameter "**P09**"; Then press "②"," ③" to input the number "0" and press " ②" to save it;

**3.** Cut a test block to make sure the blade is in the position of 45 degree , Then check the displayed whether or not "45",

**4.** If not, Hold the "①" button for more than 4 seconds to enter the environment of parameter setting; Press the "①" button to select the Parameter, Till the appearance of the parameter "**P08**"; Then press "②"," ③" to modify the number "**0.0420**" or other closer number , You can increase or decrease it, Then press " ②" to save it;

***modify the number example:***

*"**0.0423**" or "**0.0421**"or**0.0419**"or "**0.0418 and so on**")*

**5.** Hold the "①" button for more than 4 seconds, Till the screen flicker-free, Then check the displayed whether or not "45", If not, take the blade to the the position of 90 degree , press "①" and "②"at one time ,then take the blade to the the position of 45 degree, and repeat **Step 4 and Step 5；**

**Attached Table :**

**(Digital readout Parameter setting)**

| Parameter | reference value | |
|---|---|---|
| | angle measurement | length measurement |
| **P01** | 1 | 1 |
| **P02** | **3** | 0 |
| **P03** | 1 | 1 |
| **P05** | 000 | **000** |
| **P08** | 0.0420 | 1 |
| **P09** | 0 | The basic setting by user |


*Fig.54*

**7.5 Blade Guard/Riving knife**

The guard encloses the top of the blade to reduce the risk of accidental blade contact and contain flying chips or dust.

The guard is designed when workpiece is pushed toward the blade, keep in contacting with the workpiece during the cutting, then return to a resting position against the table when the cut is complete. When installed and properly maintained, the guard is an excellent device for reducing the risk of injury when operating the table saw.

To ensure that the guard works effectively, it MUST be installed and adjusted so that it moves up and down properly to accommodate workpiece and maintain cover the blade.

The spreader and riving knife are metal plates to prevent the freshly cut workpiece from pinching the backside of the blade and avoid kick-back. At the same time, these parts act as a barrier to shield hands from being pulled into the blade if a kick- back occurs and the operator is reaching behind the blade. (Reach behind the blade is a major safety risk and should not be done).

The blade guard Must be installed on the saw for all normal cuts. Sometimes the blade guard or its components hinder cutting very narrow workpieces or other specialized cuts. Because the blade guard is provided to decrease your risk of injury, it should not be used if it hinders a safe cut.

In general, the blade guard Must remain installed on the saw unless a specific operation requires its removal. If the blade guard is removed for specific operations, always immediately replace it after those operations are completed.

## 7.6 Crosscutting

**1.The crosscut fence can be installed at two positions.**

**See *Fig.55***

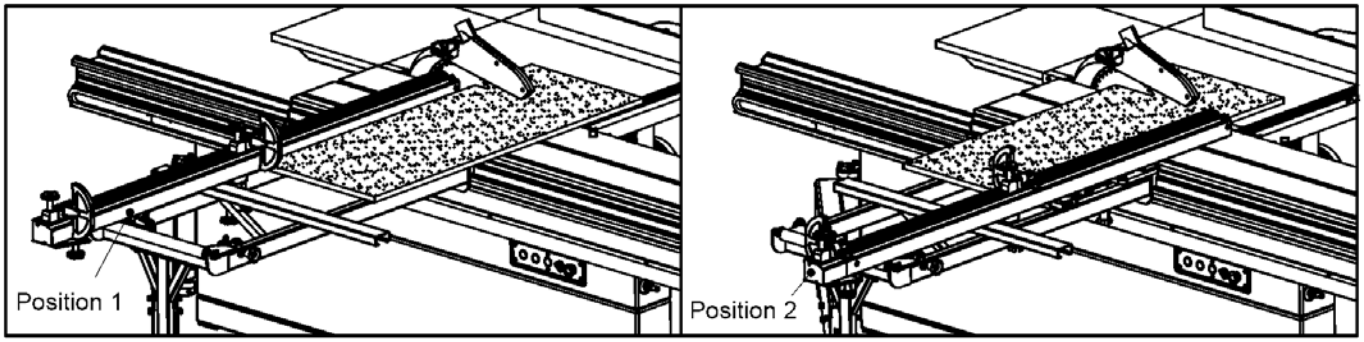



***Fig.55***

**Position 1:** the operator presses the workpiece against the fence in the cutting direction.

**Position 2:** the operator pulls the workpiece along the fence against the cutting direction.

**2.The crosscut fence can be swung ±45°。**

## 7.7 Rip Cutting

**⚠ WARNING**

***When you use aluminum rip fence, Remove the crosscut fence/miter fence Use the sliding table lock lever to lock the sliding table.***

***When cutting width is less than 120mm, make sure that the material is fed with a push stick, and the stop fence is laid flat.***

For cutting parallel, the rip fence is pushed up to the required dimension, the set dimension is read off from the edge of the aluminum rip fence.

The dimension can be adjusted to the individual tool thickness after release the knob under the scale.

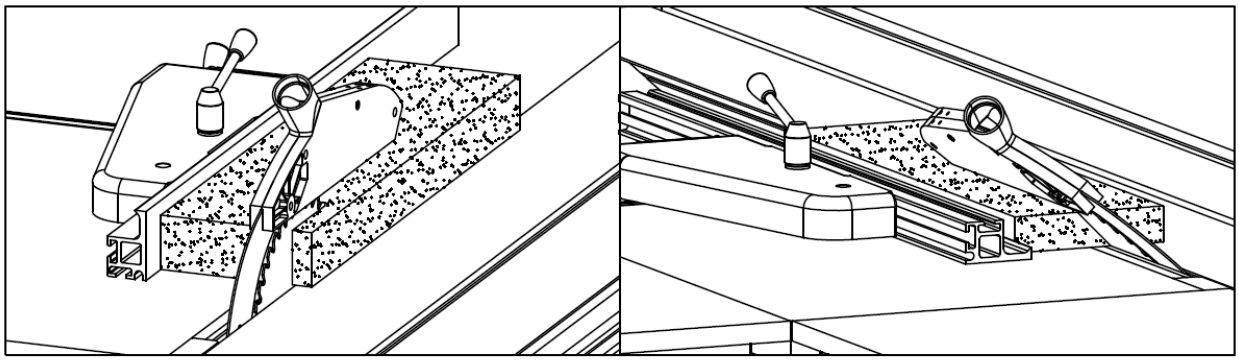
For cutting short workpieces, the stop fence is moved forward until its rear end is in front of the saw blade.

**The stop fence can be installed at two positions. See *Fig.56***

**Position 1:** Upright position of the stop fence for normal workpieces;

**Position 2:** Flat position of the stop fence;

The stop fence is moved into the flat position when cutting flat and narrow workpieces, this means there is more space for workpiece guidance and the fence can be moved closer to the saw blade, in particular, when the blade is tilted, without hitting the safety hood.



Upright position of the stop fence　　Flat position of the stop fence

***Fig.56***

## 7.8 Clamping shoe

A clamping shoe for the irregular lumber. See ***Fig.57***

Fit the clamping shoe on the sliding table, lay the workpiece with the hollow side down, and press underneath the shoe, push the workpiece forward by applying pressure with the ball of your right hand on the workpiece edge, place your hands with sufficient safety clearance from the tool.

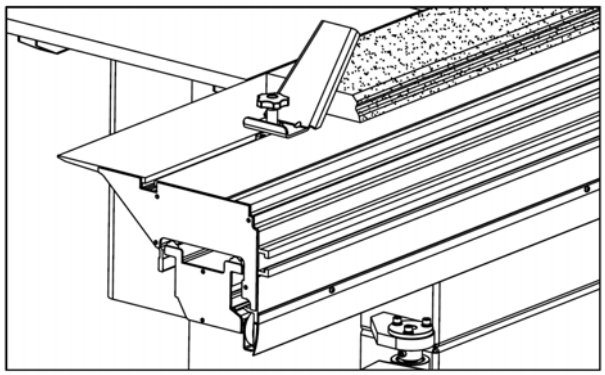


***Fig.57***

# 8. Maintenance

**WARNING**

***Always disconnect power to the machine before performing maintenance. Failure to do this may result in serious personal injury.***

## 8.1 Cleaning

Cleaning this machine is relatively easy. Vacuum excess wood chips and sawdust, and wipe off the dust with a dry cloth, if any resin has built up, use a resin dissolving cleaner to remove it, treat all cast iron and unpainted steel with a non-staining lubricant after cleaning.

Once a Week:

—clean sliding table surface and grooves.
—clean the cast iron saw table.
—clean the roller guide ways for the sliding table.
—clean the extruded aluminum rip fence and sliding grooves.
—clean the round guide bar.
—clean the tilt segments.
—clean machine interior and environment.

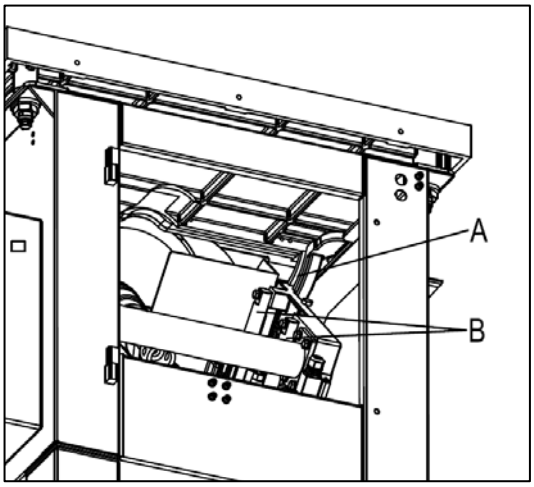



***Fig.58***

## 8.2 Lubrication:

**Saw shaft:**

No lubrication of the saw shaft bearing is required;

**Height adjustment / Tilt adjustment**

***As Fig.58***

Remove the motor cover, set the tilt to 45 degree, and cutting height to 0mm

Lubricated next once a month:

—grunion（A）, two side;
—Two guide(B)

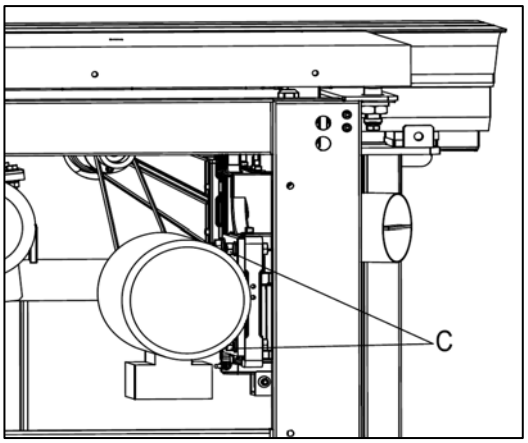



***Fig.59***

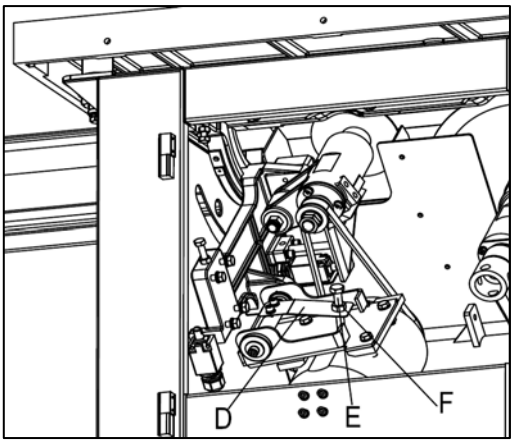



***Fig. 60***

## 8.3 Replacing belt.

Remove the motor cover, set the tilt to 45 degree, and cutting height to 0mm

### 1. Main motor belt. *(Fig.59)*

release four nuts (C)，relax the main motor, rise the motor, you can loosen the belt, take out it and install new belt, thread nuts (C) to tighten the main motor to the bracket.

### 2. Scoring motor belt. *(Fig.60)*

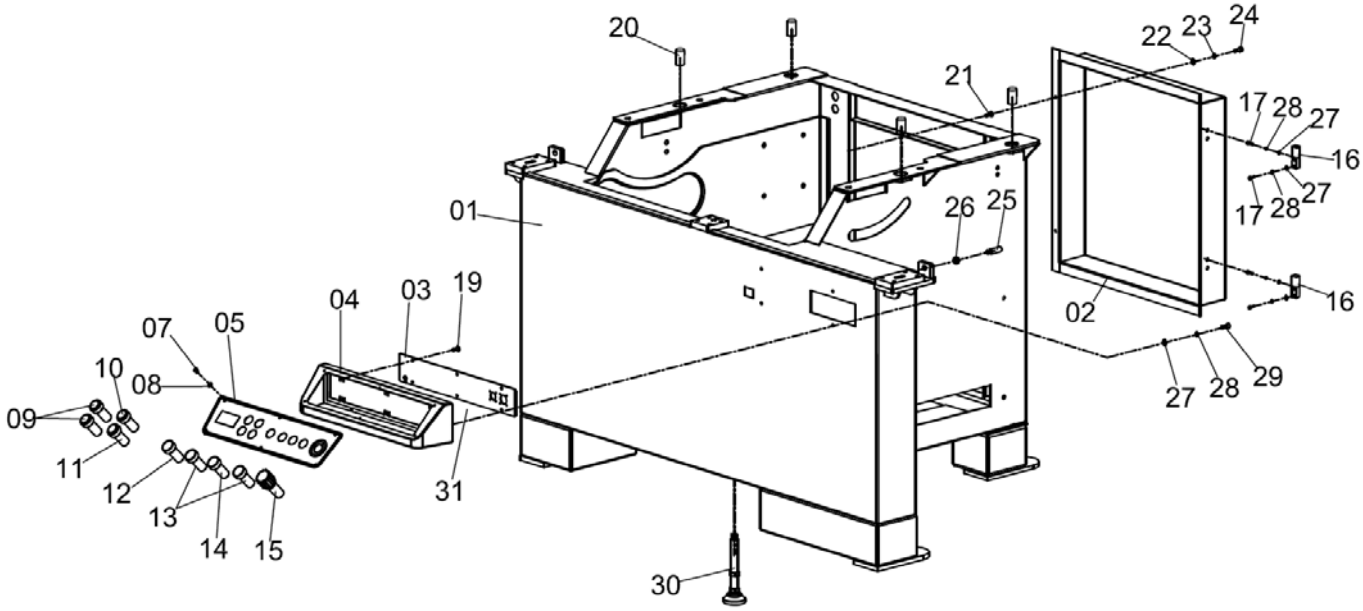
release nut (F) and bolt (E)， relax spring (D), rise the motor obey arrowhead, you can loosen the belt, take out it and install new belt, thread bolt (E) to tighten the spring and tighten nut (F).

# 9. Trouble shouting guide

| PROBLEM | SOLUTION |
|---|---|
| **SAW WILL NOT START** | |
| 1. Saw not plugged in. | 1. Plug in saw. |
| 2. Fuse blown or circuit breaker tripped. | 2. Replace fuse or reset circuit breaker. |
| 3. Cord damaged. | 3. Have cord replaced by a certified electrician. |
| **OVERLOAD KICKS OUT FREQUENTLY** | |
| 1. Extension cord too light or too long. | 1. Replace with adequate size cord |
| 2. Feeding stock too fast. | 2. Feed stock more slowly. |
| 3. Blade in poor condition (dull, warped, gummed). | 3. Clean or replace blade. |
| 4. Blade binding due to misaligned rip fence. | 4. Check and adjust the rip fence. See rip fence instructions. |
| 5. Blade binding due to warped wood. | 5. Select another piece of wood. |
| 6. Low house current. | 6. Contact your electrical company. |
| **DOES NOT MAKE ACCURATE 45 AND 90 RIP CUTS** | |
| 1. Positive stop(s) not adjusted properly. | 1. Check blade with square and adjust positive stop. |
| 2. Tilt angle pointer not set properly. | 2. Check blade with square and adjust pointer to zero. |
| **MATERIAL PINCHES BLADE WHEN RIPPING** | |
| 1. Rip fence not aligned with blade. | 1. Check and adjust rip fence. |
| 2. Warped wood. | 2. Select another piece of wood. |
| **MATERIAL BINDS ON SPLITTER** | |
| 1. Splitter not aligned correctly with blade kerf. | 1. Check and align splitter with blade kerf. |
| **SAW MAKES UNSATISFACTORY CUTS** | |
| 1. Dull blade. | 1. Replace blade. |
| 2. Blade mounted backwards. | 2.Turn blade around. |
| 3. Gum or pitch on blade. | 3. Remove blade and clean with terpentine and steel wool. |
| 4. Incorrect blade for work being done. | 4. Change the blade. |
| 5. Gum or pitch on table causing erratic feed. | 5. Clean the table with turpentine and steel wool. |
| **BLADE DOES NOT COME UP TO SPEED** | |
| 1. Extension cord too light or too long. | 1. Replace with adequate size extension cord. |
| 2. Low house current. | 2. Contact your electric company. |
| 3. Motor not wired for correct voltage. | 3. Refer to motor and /or nameplate. |
| **MACHINE VIBRATES EXCESSIVELY** | |
| 1. Table not mounted securely to cabinet stand. | 1. Tighten all mounting hardware. |
| 2. Stand is on uneven floor. | 2. Reposition on flat level surface. |
| 3. Damaged saw blade. | 3. Replace blade. |
| 4. Bad V-belt(s). | 4. Replace V-belt(s). |
| 5. V-belts not tensioned properly. | 5. Adjust V-belt tension. |
| 6. Bent pulley. | 6. Replace pulley. |
| 7. Improper motor mounting. | 7. Check and adjust motor mounting. |
| 8. Loose hardware. | 8. Tighten all nuts, bolts and set screws. |
| **BLADE DOES NOT RAISE OR TILT FREELY** | |
| 1. Sawdust or dirt in raising or tilting mechanisms. | 1. Brush or blow out loose dust or dirt. |

# 10. Parts List

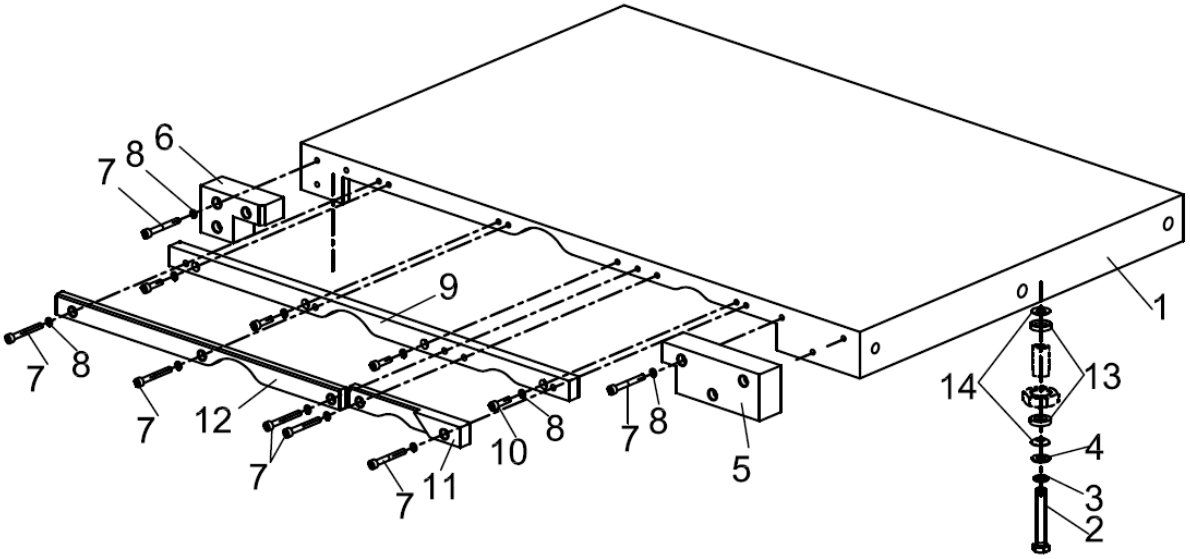
## Main Base--NANO




| REF | DESCRIPTION |
|---|---|
| 1 | Cabinet |
| 2 | Motor cover |
| 3 | Switch box back cover |
| 4 | Switch box |
| 5 | Switch box cover |
| 6 | / |
| 7 | Flat head screw M4X12 |
| 8 | Flat washer 4 |
| 9 | Button |
| 10 | Button |
| 11 | Button |
| 12 | Light |
| 13 | Start button |
| 14 | Stop button |
| 15 | Quick stop button |

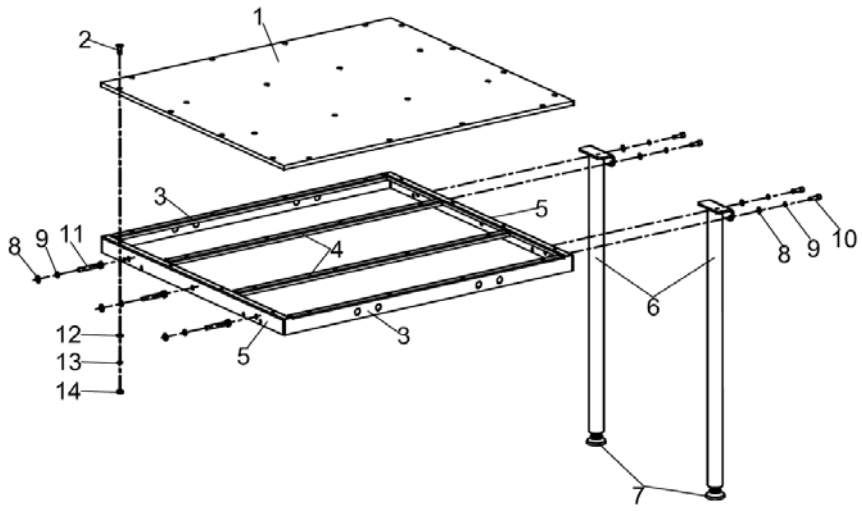
| REF | DESCRIPTION |
|---|---|
| 16 | Hinge |
| 17 | Cap screw M5X12 |
| 18 | / |
| 19 | Screw M4X8 |
| 20 | Adjustment nut |
| 21 | Rivet nut M6X18 |
| 22 | Flat Washer 6 |
| 23 | Spring Washer 6 |
| 24 | Cap screw M6x20 |
| 25 | Set screw M12X40 |
| 26 | Nut M12 |
| 27 | Flat washer 5 |
| 28 | Spring washer 5 |
| 29 | Cap screw M5X16 |
| 30 | Foot |

# Main Table




| REF | DESCRIPTION |
|---|---|
| 1 | Main table |
| 2 | Hex Bolt M10X70 |
| 3 | Spring Washer 10 |
| 4 | Big Washer 10 |
| 5 | Aluminium Block |
| 6 | Aluminium Block |
| 7 | Button Head Screw 6x4 |
| 8 | Spring Washer 6 |
| 9 | Aluminium Bar |
| 10 | Button Head Screw 6x25 |
| 11 | Aluminium Bar |
| 12 | Aluminium Bar |
| 13 | Washer with cone face D10 |
| 14 | Washer with ball face D10 |

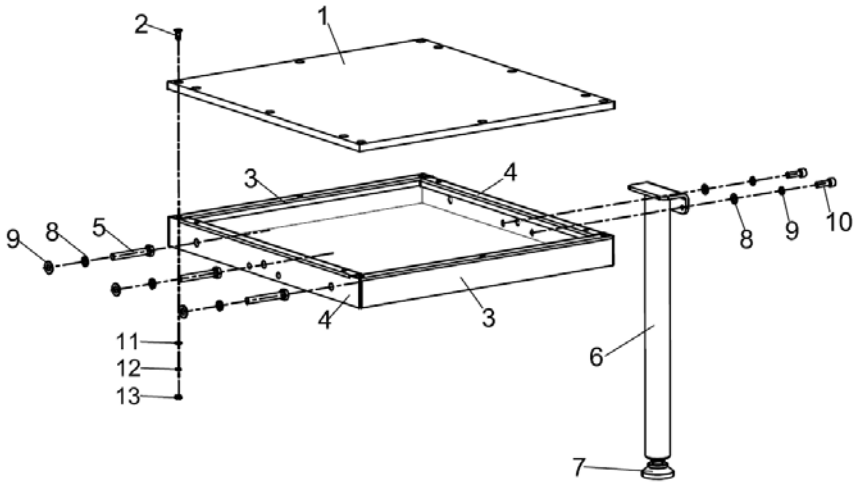
# Side Table




| REF | DESCRIPTION |
|---|---|
| 1 | Side table |
| 2 | Flat HD screw M6X16 |
| 3 | Bracket |
| 4 | Bracket |
| 5 | Bracket |
| 6 | Leg |
| 7 | Foot |

| REF | DESCRIPTION |
|---|---|
| 8 | Flat washer 8 |
| 9 | Spring washer 8 |
| 10 | Cap screw M8X25 |
| 11 | HEX bolt M8X30 |
| 12 | Fltat washer 6 |
| 13 | Spring washer 6 |
| 14 | Nut M6 |

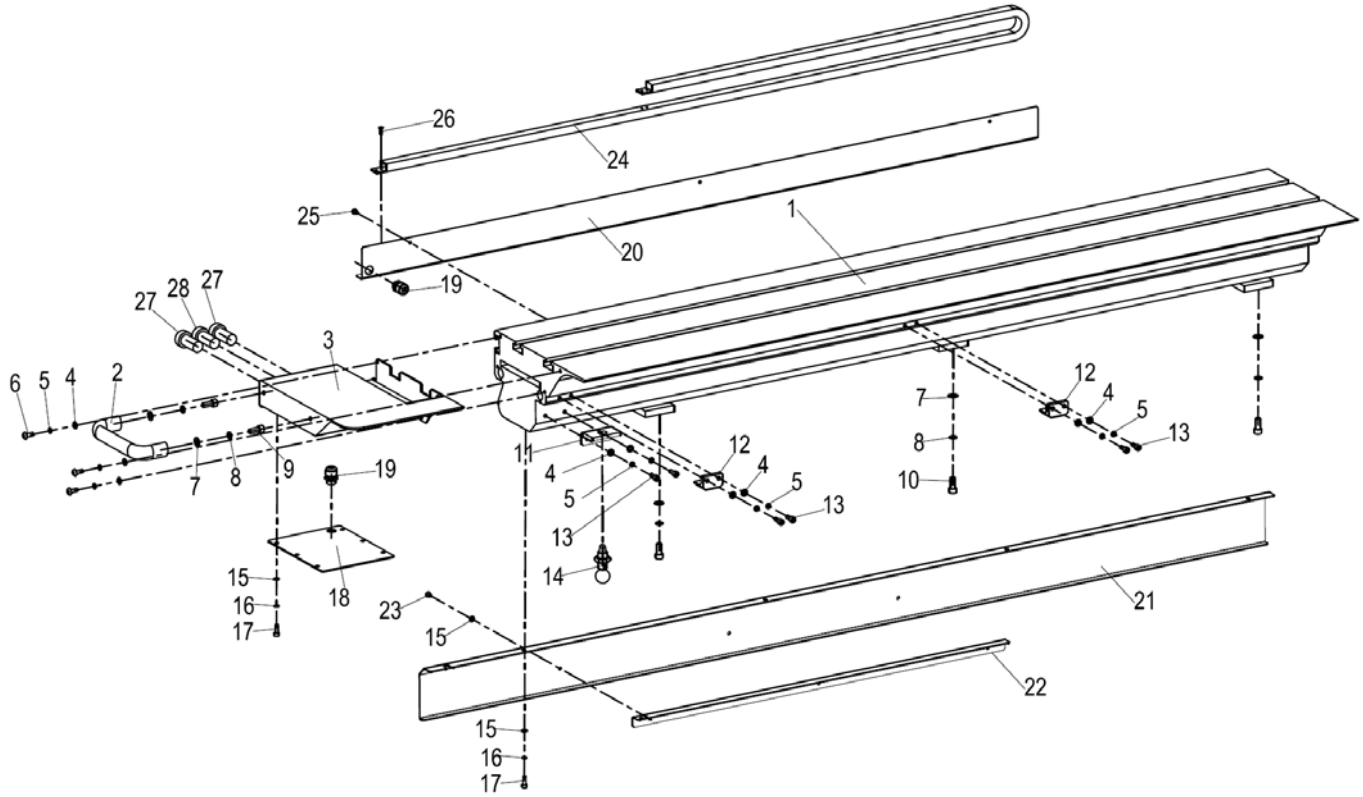
# Rear Table




| REF | DESCRIPTION |
|---|---|
| 1 | Rear table |
| 2 | Flat HD screw M6X16 |
| 3 | Bracket |
| 4 | Bracket |
| 5 | HEX bolt M8X30 |
| 6 | Leg |
| 7 | Foot |

| REF | DESCRIPTION |
|---|---|
| 8 | Flat washer 8 |
| 9 | Spring washer 8 |
| 10 | Cap screw M8X25 |
| 11 | Fltat washer 6 |
| 12 | Spring washer 6 |
| 13 | Nut M6 |

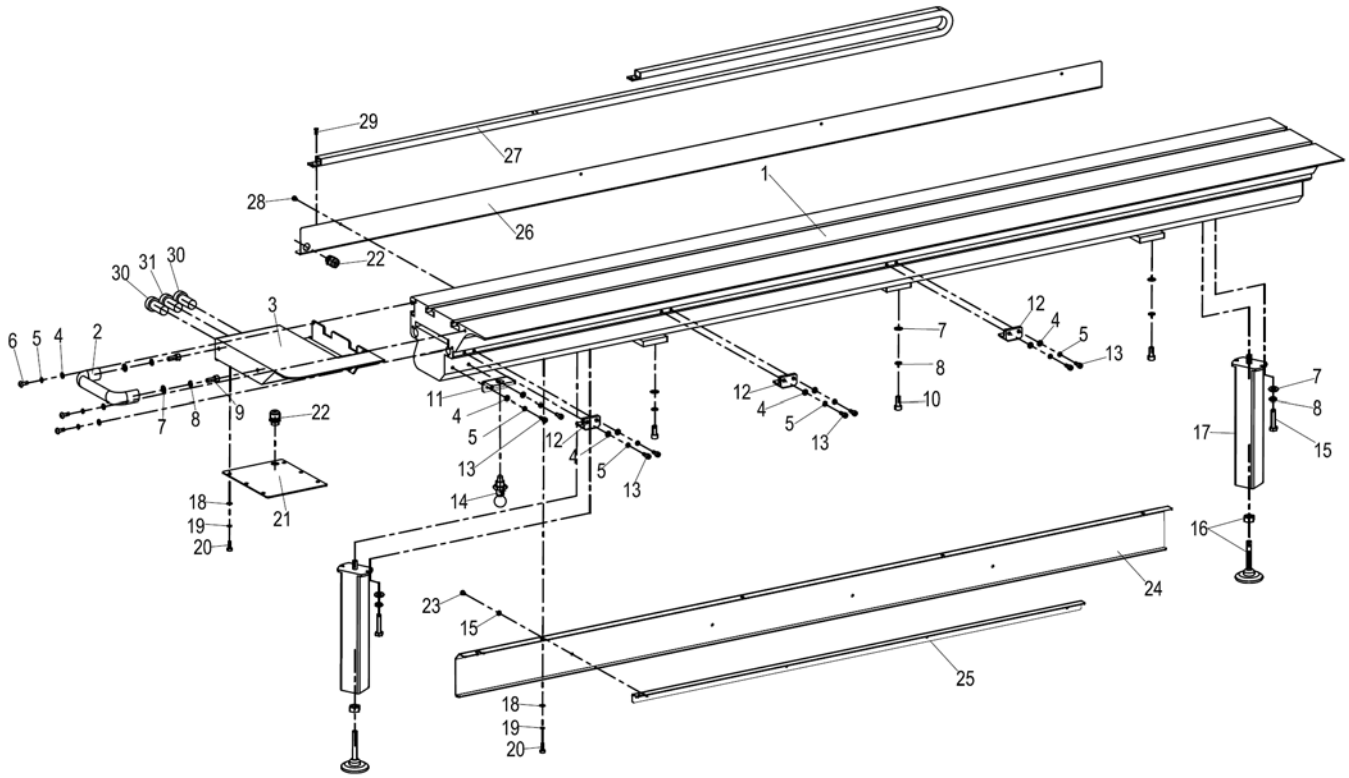
# Sliding Table for N-1600




| REF | DESCRIPTION |
|---|---|
| 1 | Sliding Table 1600 |
| 2 | Handle |
| 3 | Draw handle |
| 4 | Flat washer 6 |
| 5 | Spring washer 6 |
| 6 | Flat HD screw M6X16 |
| 7 | Flat washer 10 |
| 8 | Spring wahser 10 |
| 9 | Cap screw M10X16 |
| 10 | Cap screw M10X40 |
| 11 | Block |
| 12 | Stop block |
| 13 | Cap screw M6X16 |
| 14 | Positioning knob |
| 15 | Flat washer 5 |

| REF | DESCRIPTION |
|---|---|
| 16 | Spring washer 5 |
| 17 | Cap screw M5X12 |
| 18 | Under cover |
| 19 | Restrain PG 9 |
| 20 | Bracket |
| 21 | Cover |
| 22 | Bracket |
| 23 | Flat HD screw M5X12 |
| 24 | Towline |
| 25 | Flat HD screw M5X12 |
| 26 | Flat HD screw M4X8 |
| 27 | Start button |
| 28 | Stop button |

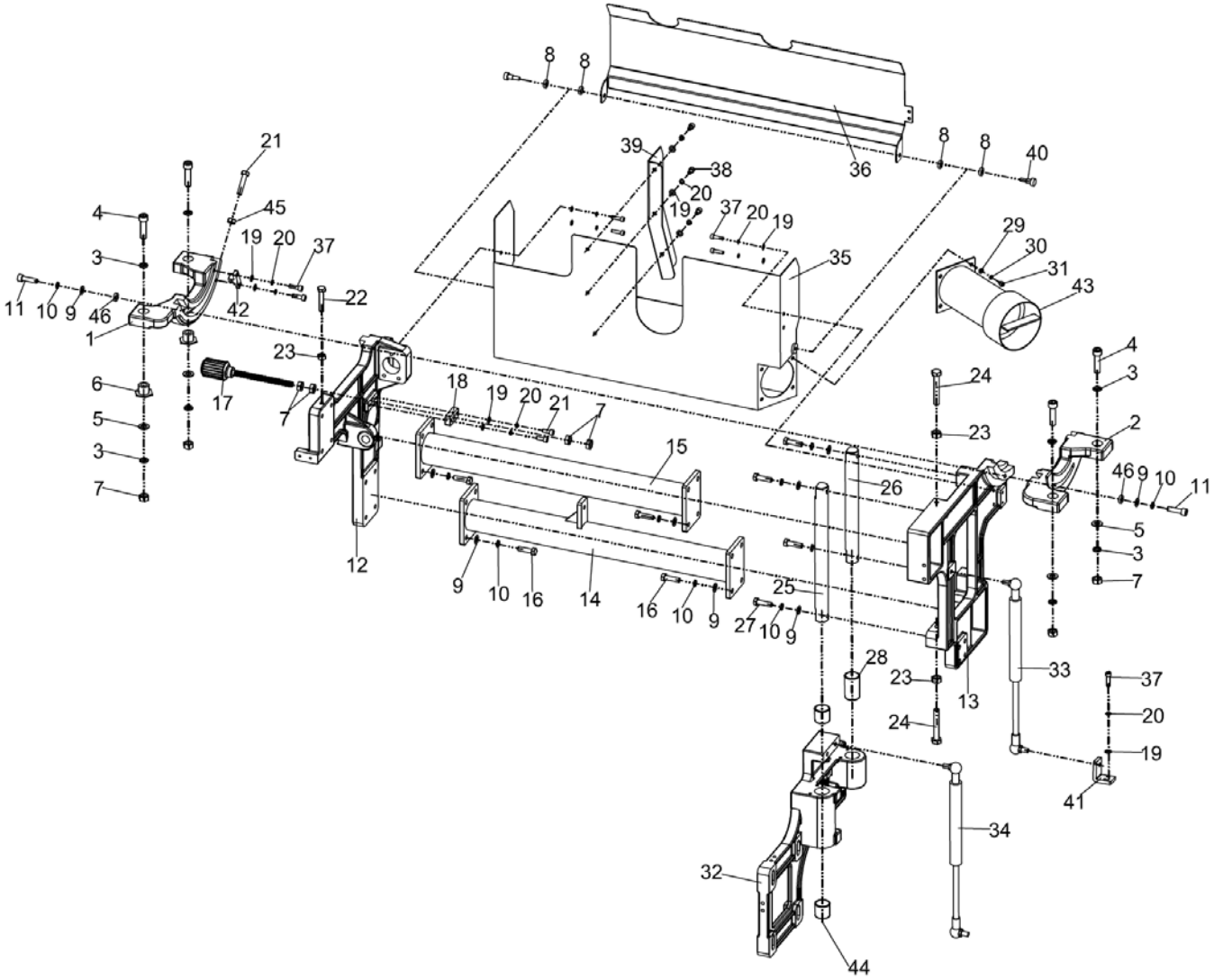
# Sliding Table for N-2500




| REF | DESCRIPTION |
|---|---|
| 1 | Sliding Table 2500 |
| 2 | Handle |
| 3 | Draw handle |
| 4 | Flat washer 6 |
| 5 | Spring washer 6 |
| 6 | Flat HD screw M6X16 |
| 7 | Flat washer 10 |
| 8 | Spring wahser 10 |
| 9 | Cap screw M10X16 |
| 10 | Cap screw M10X40 |
| 11 | Block |
| 12 | Stop block |
| 13 | Cap screw M6X16 |
| 14 | Positioning knob |
| 15 | Cap screw M10X25 |
| 16 | Adjust foot |

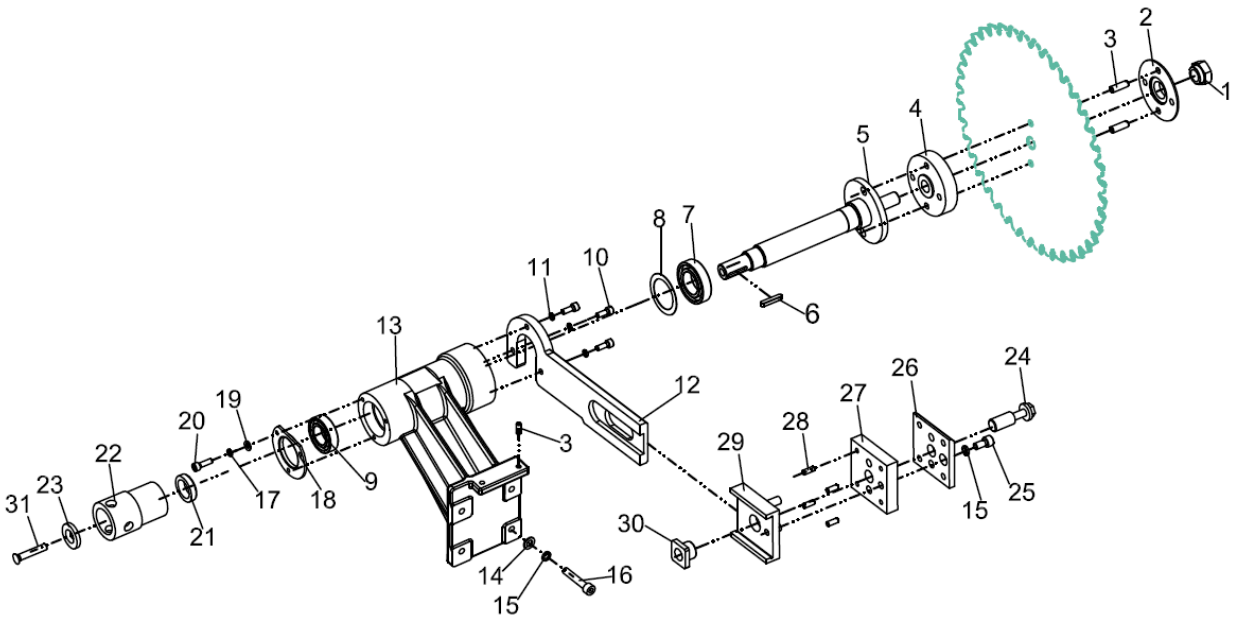
| REF | DESCRIPTION |
|---|---|
| 17 | Leg |
| 18 | Flat washer 5 |
| 19 | Spring washer 5 |
| 20 | Cap screw M5X12 |
| 21 | Under cover |
| 22 | Restrain PG 9 |
| 23 | Bracket |
| 24 | Cover |
| 25 | Bracket |
| 26 | Flat HD screw M5X12 |
| 27 | Towline |
| 28 | Flat HD screw M5X12 |
| 29 | Flat HD screw M4X8 |
| 30 | Start button |
| 31 | Stop button |

# Tilting assembly




| REF | DESCRIPTION | REF | DESCRIPTION | REF | DESCRIPTION |
|---|---|---|---|---|---|
| 1 | Front bracket | 16 | HEX head bolt M8X30 | 31 | Cap screw M5X16 |
| 2 | Rear bracket | 17 | Adjust knob | 32 | Lifting bracket |
| 3 | Spring washer 10 | 18 | Handle bracket | 33 | Air spring |
| 4 | Cap screw M10X40 | 19 | Flat washer 6 | 34 | Air spring |
| 5 | Flat washer 10 | 20 | Spring washer 6 | 35 | Dust box |
| 6 | Adjust nut | 21 | Cap screw M6X30 | 36 | Dust box cover |
| 7 | Nut M10 | 22 | HEX head bolt M8X40 | 37 | Cap screw M6X20 |
| 8 | Nylon washer | 23 | Nut M8 | 38 | Cap screw M6x12 |
| 9 | Flat washer 8 | 24 | HEX head bolt M8X65 | 39 | Dust plate |
| 10 | Spring washer 8 | 25 | Guide pillar | 40 | Shoudler screw 8X10 |
| 11 | Cap screw M8X30 | 26 | Guide pillar | 41 | Air spring bracket |
| 12 | Front supporting bracket | 27 | HEX head bolt M8X35 | 42 | Angle positioning block |
| 13 | Rear supporting bracket | 28 | Bearing JZF25-25 | 43 | Dust outlet |
| 14 | Connecting rod | 29 | Big washer 5 | | |
| 15 | Connecting rod | 30 | Spring washer 5 | | |

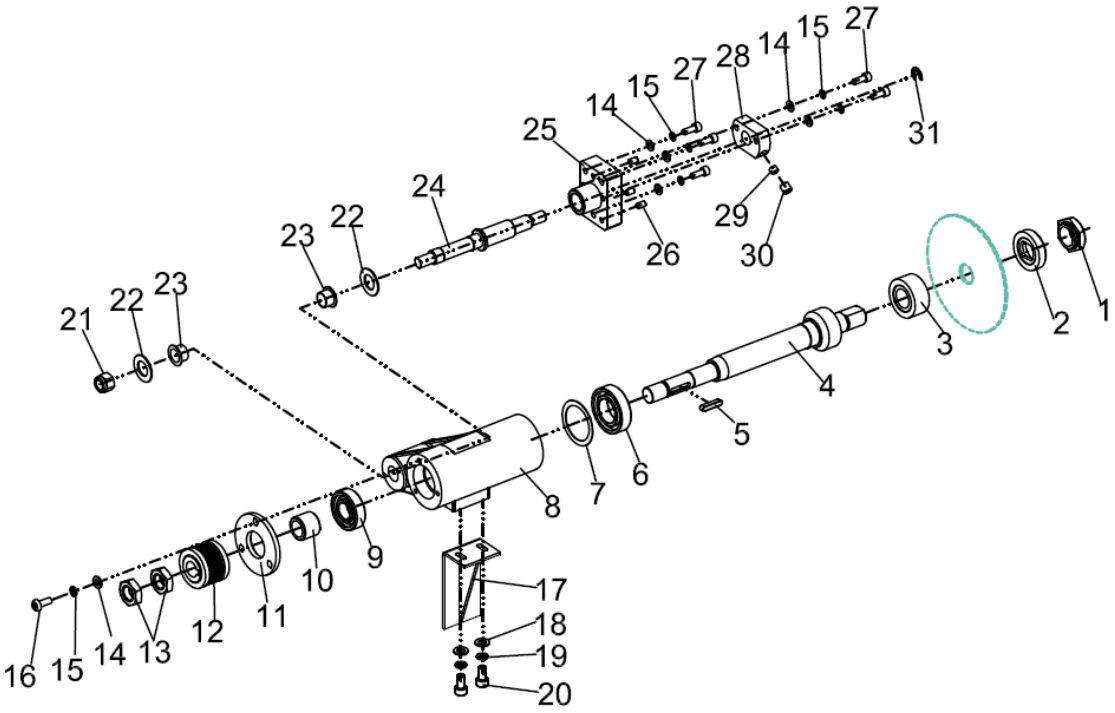
# Main arbor assembly




| REF | DESCRIPTION |
|---|---|
| 1 | Lock Nut |
| 2 | Flange |
| 3 | Set Screw M8x25 |
| 4 | Adjust Plate |
| 5 | Main Arbor |
| 6 | Key 6x32 |
| 7 | Bearing 6006-2RS |
| 8 | Spring Ring |
| 9 | Bearing 6005-2RS |
| 10 | Button HD screw M6X16 |
| 11 | Spring washer 6 |
| 12 | Blade Guard Bracket |
| 13 | Main Arbor Bracket |
| 14 | Flat washer 8 |
| 15 | Spring washer 8 |
| 16 | Cap Screw M8X45 |

| REF | DESCRIPTION |
|---|---|
| 17 | Spring washer 5 |
| 18 | Flange Ring |
| 19 | Flat washer 5 |
| 20 | Cap screw M5X16 |
| 21 | Collar |
| 22 | Pulley |
| 23 | Washer |
| 24 | Bolt |
| 25 | Cap Screw M8X16 |
| 26 | Plate |
| 27 | Adjust Plate |
| 28 | Set Screw M6x16 |
| 29 | Slide Block |
| 30 | Square Nut |
| 31 | Flat HD screw M10X25 |

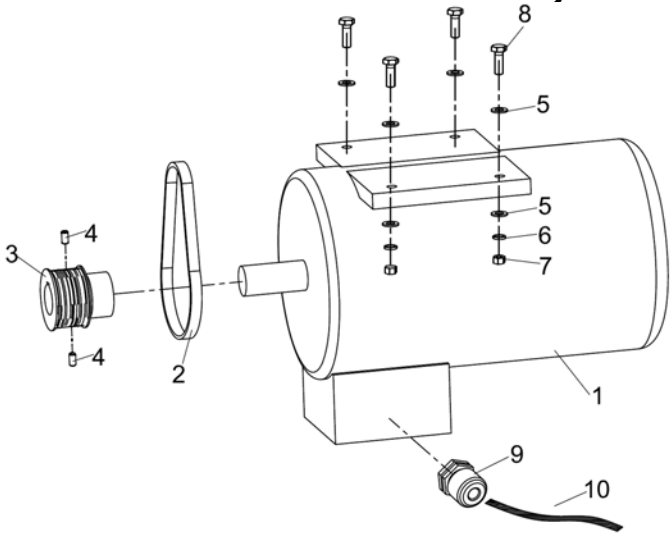
# Scoring arbor assembly




| REF | DESCRIPTION |
|---|---|
| 1 | Lock nut |
| 2 | Flange |
| 3 | Adjust plate |
| 4 | Scoring arbor |
| 5 | key 5x25 |
| 6 | Bearing 6005-2RS |
| 7 | Spring ring |
| 8 | Scoring sleeve |
| 9 | Bearing 6203-2RS |
| 10 | Collar |
| 11 | Flange ring |
| 12 | Pulley |
| 13 | Nut |
| 14 | Flat washer 6 |
| 15 | Spring washer 6 |
| 16 | Button HD screw M6X16 |

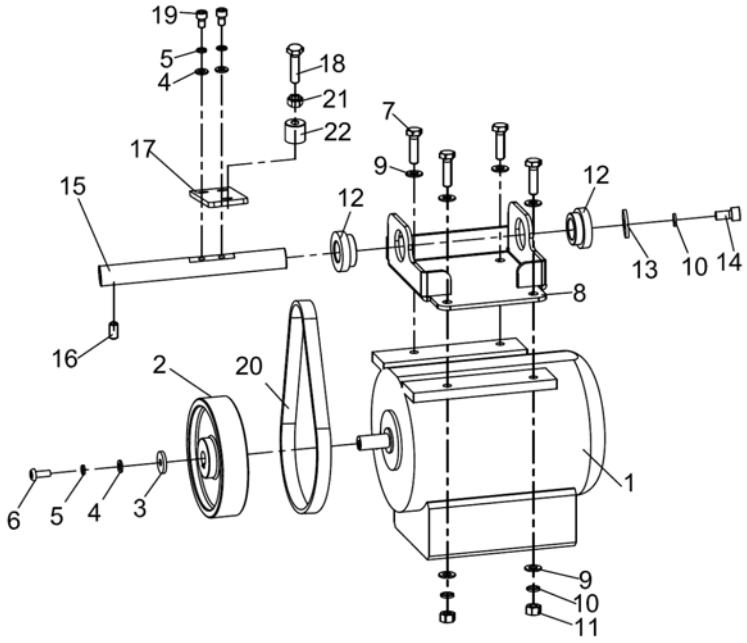
| REF | DESCRIPTION |
|---|---|
| 17 | Adjust plate |
| 18 | Flat washer 8 |
| 19 | Spring washer 8 |
| 20 | Cap screw M8X16 |
| 21 | Lock nut M12 |
| 22 | Washer |
| 23 | Bearing |
| 24 | Adjust shaft |
| 25 | Block |
| 26 | Set screw M6X16 |
| 27 | Cap screw M6X40 |
| 28 | Adjust nut |
| 29 | Nylon block |
| 30 | Set screw M10X12 |
| 31 | Opening ring 12 |

# Main motor assembly



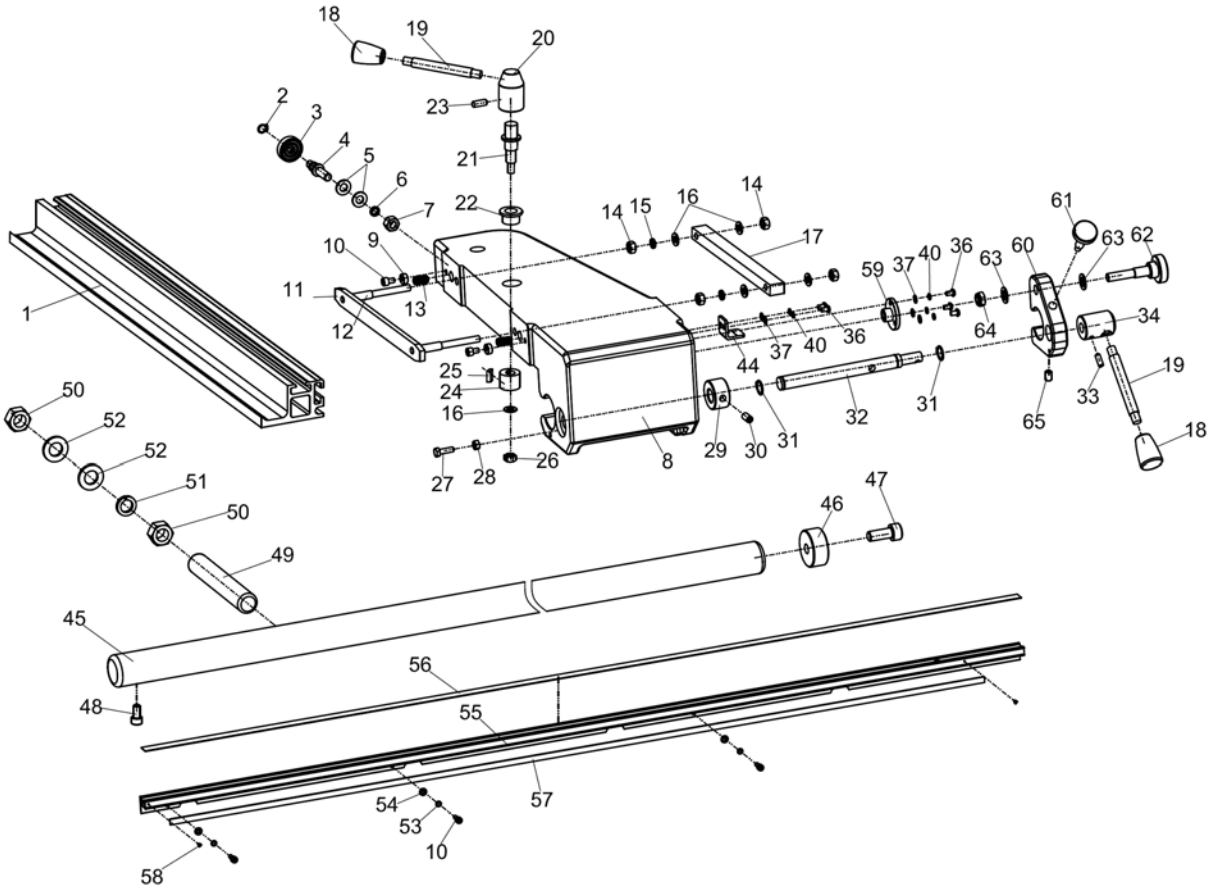

| REF | DESCRIPTION | REF | DESCRIPTION |
|---|---|---|---|
| 1 | Motor | 6 | Spring washer 10 |
| 2 | Beltt | 7 | Nut M10 |
| 3 | Pulley | 8 | HEX head bolt M10X50 |
| 4 | Set screw M6X12 | 9 | Resrrain M30-2 |
| 5 | Flat washer 10 | 10 | Cable |

# Scoring motor assembly



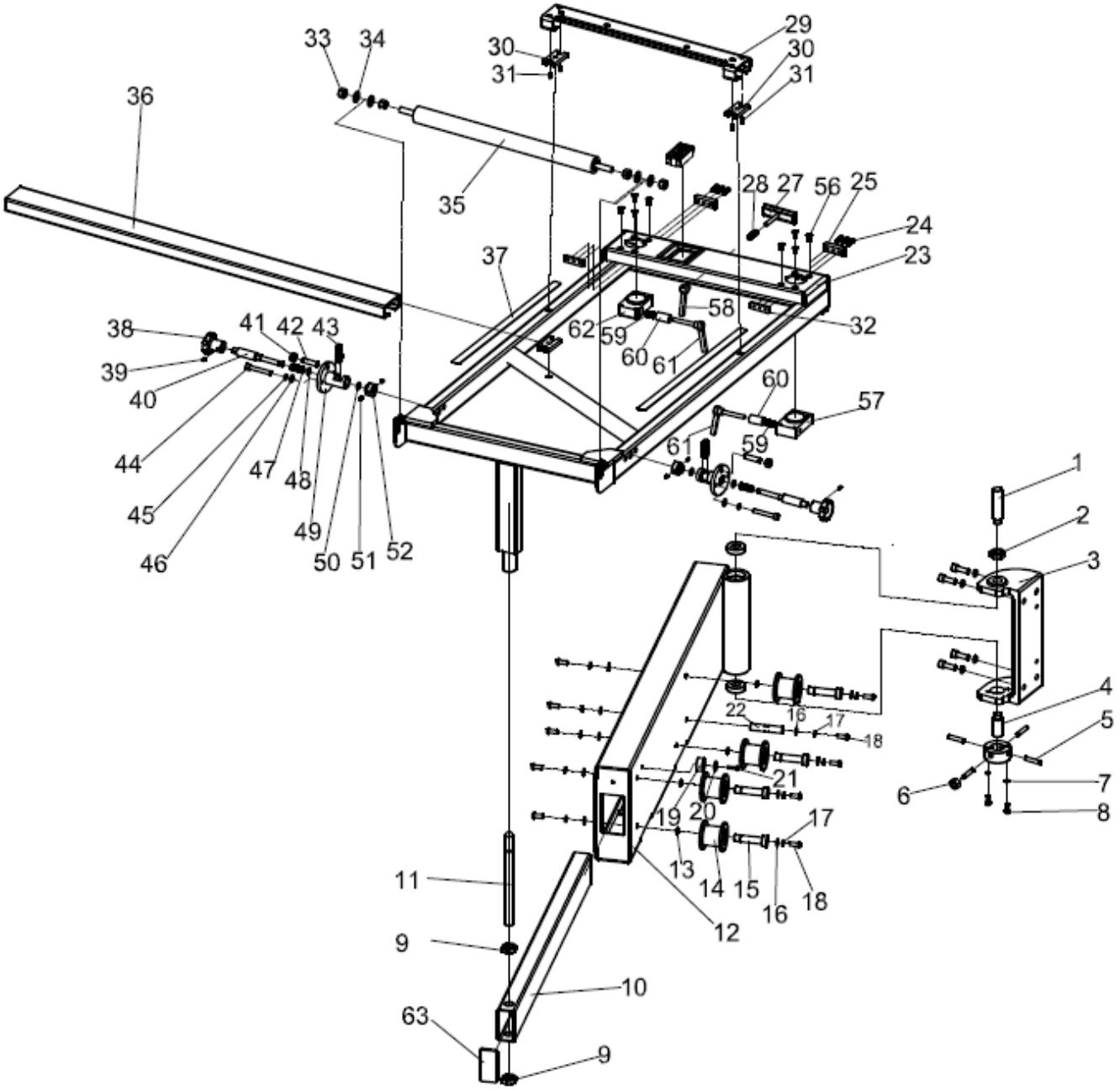

| REF | DESCRIPTION | REF | DESCRIPTION | REF | DESCRIPTION |
|---|---|---|---|---|---|
| 1 | Motor | 9 | Falt wsher 8 | 17 | Spring |
| 2 | pulley | 10 | Spring washer 8 | 18 | Hex Bolt M10x70 |
| 3 | Big Flat Washer 6 | 11 | Nut M8 | 19 | Cap Screw M6x12 |
| 4 | Flat Washer 6 | 12 | Nylon Sleeve | 20 | Strap PJ270 |
| 5 | Spring Washer 6 | 13 | Big washer 8 | 21 | Nut M10 |
| 6 | Button Head Screw M6*16 | 14 | Cap Screw M8x16 | 22 | Nylon block |
| 7 | Hex Bolt M8x30 | 15 | Supporting shaft | 23 | Cable |
| 8 | Motor Suppor | 16 | Set Screw M8x16 | | |

# Rip fence body assembly（Rod guide）



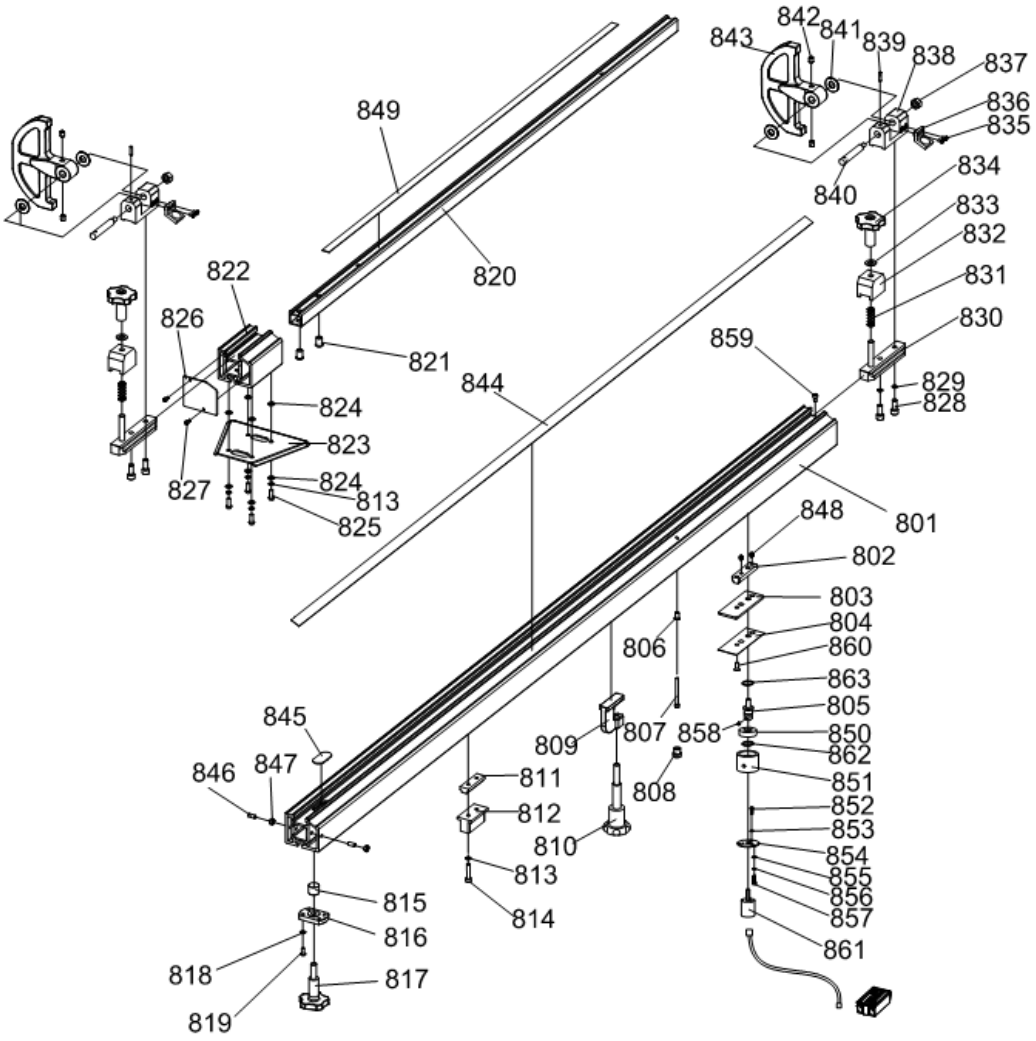

| REF | DESCRIPTION | REF | DESCRIPTION | REF | DESCRIPTION |
|---|---|---|---|---|---|
| 1 | Fence | 23 | Set screw M8X8 | 45 | Guide rod |
| 2 | Spring ring 12 | 24 | Cam | 46 | Positioning cover |
| 3 | Roller | 25 | Key 4X12 | 47 | Cap screw M12X25 |
| 4 | Shaft | 26 | Locking nut M8 | 48 | Cap screw M8X10 |
| 5 | Flat washer 10 | 27 | Nut M6 | 49 | Bolt |
| 6 | Spring washer 10 | 28 | HEX bolt M6X20 | 50 | Nut M16 |
| 7 | Nut M10 | 29 | Locking cam | 51 | Spring washer 16 |
| 8 | Fence body | 30 | Set screw M8X12 | 52 | Flat washer 16 |
| 9 | Eccentric wheel | 31 | Spring ring 16 | 53 | Spring washer 6 |
| 10 | Cap screw M6X16 | 32 | Locking shaft | 54 | Flat washer 6 |
| 11 | Locking bar | 33 | Set screw M6X16 | 55 | Ruler block |
| 12 | Locking bar rod | 34 | Lock Block | 56 | Ruler |
| 13 | Spring | 35 | / | 57 | / |
| 14 | Nut M8 | 36 | Flat HD screw M5X12 | 58 | Screw M2X10 |
| 15 | Spring washer 8 | 37 | Flat washer 5 | 59 | Adjust nut |
| 16 | Flat washer 8 | 38 | / | 60 | Adjust knob block |
| 17 | Connecting plate | 39 | / | 61 | Locking knob |
| 18 | Knob | 40 | Spring washer 5 | 62 | Adjust knob |
| 19 | Knob shaft | 41 | / | 63 | Washer |
| 20 | Knob block | 42 | / | 64 | Lock nut M10 |
| 21 | Locking shaft | 43 | / | 65 | Nylon screw M8X12 |
| 22 | Bearing | 44 | Calibration window | | |

# Crosscut table assembly



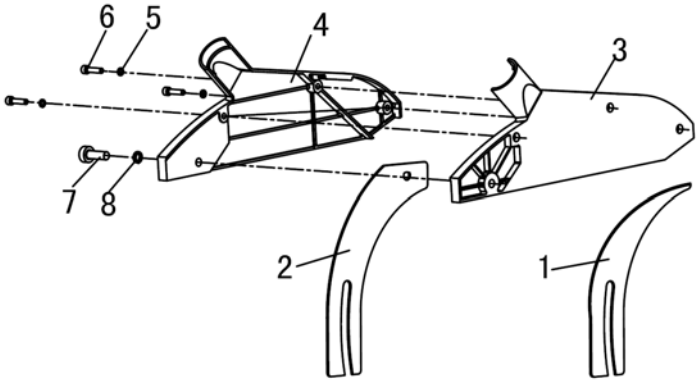
| REF | DESCRIPTION | REF | DESCRIPTION | REF | DESCRIPTION |
|---|---|---|---|---|---|
| 01 | Bearing shaft | 22 | Pin | 43 | Lock washer |
| 02 | Nut M20 | 23 | Work bench | 44 | Cap screw M8X60 |
| 03 | Block | 24 | Cap screw M5X20 | 45 | Flat washer 8 |
| 04 | Bearing shaft | 25 | Limit block | 46 | Spring washer 8 |
| 05 | Set screw M8X40 | 26 | / | 47 | Spring |
| 06 | Nut M8 | 27 | Lock block | 48 | Washer |
| 07 | Spring washer 6 | 28 | Spring | 49 | Block |
| 08 | Cap screw M6X25 | 29 | Bracket | 50 | O-Ring |
| 09 | Nut M20 | 30 | Plate | 51 | Set screw M6X8 |
| 10 | Slide bar | 31 | Set screw M6X12 | 52 | Collar |
| 11 | Supporting bar | 32 | Limit block | 53 | Spring washer 10 |
| 12 | Swing arm | 33 | Nut M12 | 54 | Cap screw M10X25 |
| 13 | Spring ring 15 | 34 | Flat washer 12 | 55 | Knob |
| 14 | Roller | 35 | Roll sleeve | 56 | Screw M6X12 |
| 15 | Roller shaft | 36 | Supporting bar | 57 | Block |
| 16 | Flat washer 8 | 37 | Film | 58 | Lock knob |
| 17 | Spring washer 8 | 38 | Lock knob | 59 | Spring |
| 18 | Flat HD screw M8X16 | 39 | Set screw M5X8 | 60 | Lock block |
| 19 | Nylon bllock | 40 | Lock shaft | 61 | Lock knob |
| 20 | Magnet | 41 | Nut M10 | 62 | Lock block |
| 21 | Screw M5X25 | 42 | Set screw M10X40 | 63 | Cover |

# Crosscut Fence assembly



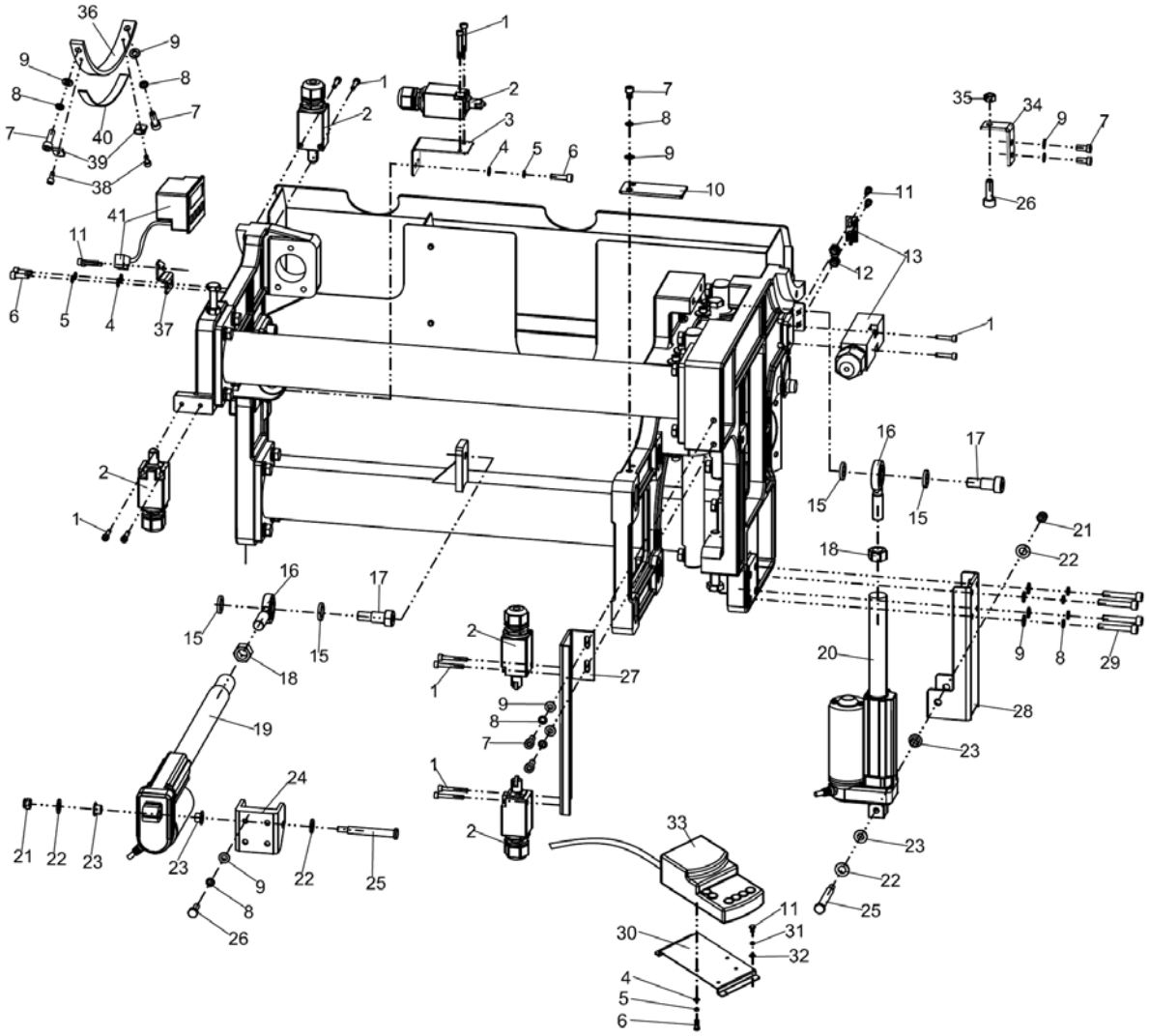

| REF# | DESCRIPTION | REF# | DESCRIPTION | REF# | DESCRIPTION |
|---|---|---|---|---|---|
| 801 | Crosscut Fence | 822 | Extend Fence | 843 | Board |
| 802 | Locking block | 823 | Below plate | 844 | Scale |
| 803 | Connection block | 824 | Flat washer 6 | 845 | windows |
| 804 | Transfer coating of splitting | 825 | Cap screw M6X16 | 846 | Set screw M6X12 |
| 805 | Connecting bar | 826 | Cover | 847 | Nut 6 |
| 806 | Rivet net M5X18 | 827 | Cap screw M4X8 | 848 | Set screw M6X12 |
| 807 | Cap screw M5X65 | 828 | Cap screw M8X20 | 849 | Scale |
| 808 | Konb | 829 | Spring washer 8 | 850 | Bearing 6002 |
| 809 | Locking block | 830 | T-oriented block | 851 | Rotating block |
| 810 | Handle | 831 | Spring | 852 | Cap screw M3X10 |
| 811 | T-block | 832 | Impact Block | 853 | Flat washer 3 |
| 812 | Limit block | 833 | Flat washer 10 | 854 | Connecting block |
| 813 | Spring washer 6 | 834 | Handle | 855 | Spring 4 |
| 814 | Cap screw M6X30 | 835 | Flat Head Screw M4X12 | 856 | Flat wahser 4 |
| 815 | Nylon Block | 836 | windows | 857 | Cap screw M4X10 |
| 816 | Lock Base | 837 | Locking nut M8 | 858 | Set screw M4X4 |
| 817 | Handle | 838 | Fixed block | 859 | Cap screw M5X8 |
| 818 | Flat washer 5 | 839 | Set screw M5X30 | 860 | Flat Head Screw M6X8 |
| 819 | Cap screw M5X16 | 840 | Pin | 861 | Angle display |
| 820 | Core Ruler | 841 | Washer | 862 | Circlip |
| 821 | Rivet net M8X18 | 842 | Nylon screw | 863 | Circlip |

# Blade guard assembly



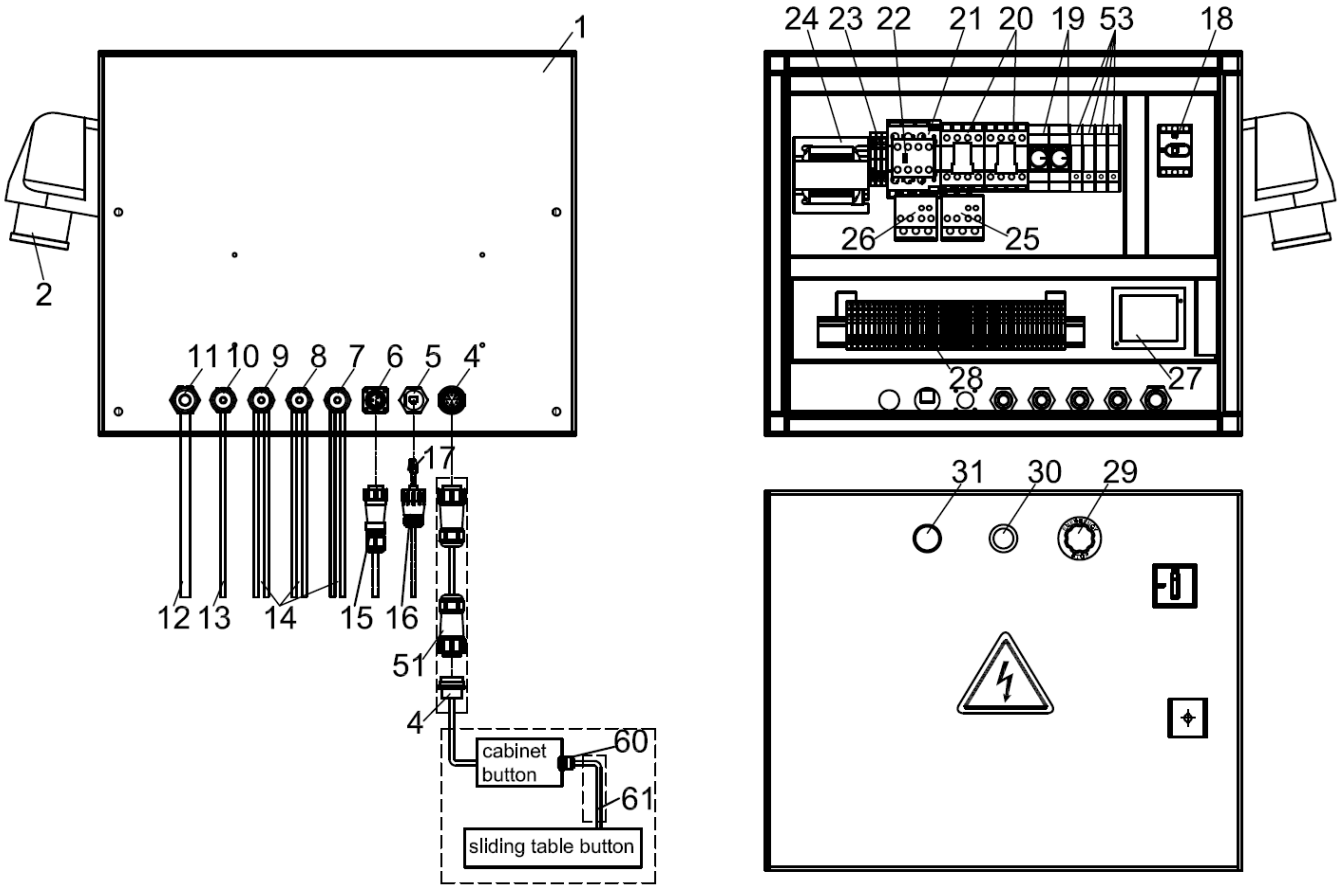

| REF | DESCRIPTION | |
|---|---|---|
| 01 | Riving Knife | 1 |
| 02 | Splitter | 1 |
| 03 | Blade Guard (left) | 1 |
| 04 | Blade Guard (right) | 1 |
| 05 | Spring Washer 6 | 3 |
| 06 | Cap Screw M6X25 | 3 |
| 07 | Cap Screw M10X25 | 1 |
| 08 | Spring Washer 10 | 1 |

# Electrical components for tilting assembly



| REF | DESCRIPTION | REF | DESCRIPTION | REF | DESCRIPTION |
|---|---|---|---|---|---|
| 1 | Cap screw M4X35 | 15 | Washer | 29 | Cap screw M6X35 |
| 2 | Switch | 16 | Bearing | 30 | Bracket |
| 3 | Switch bracket | 17 | Shoulder screw 10-16 | 31 | Spring washer 4 |
| 4 | Flat washer 5 | 18 | Nut M10 | 32 | Flat washer 4 |
| 5 | Spring washer 5 | 19 | Electric putter | 33 | Electric putter driver |
| 6 | Cap screw M5X20 | 20 | Electric putter | 34 | Contact bracket |
| 7 | Cp screw M616 | 21 | Lock nut M16 | 35 | Nut M6 |
| 8 | Spring washer 6 | 22 | Flat washer 8 | 36 | Magnescale bracket |
| 9 | Flat washer 6 | 23 | Bearing | 37 | Bracket |
| 10 | Switch contact | 24 | Bracket | 38 | Cap screw M3X10 |
| 11 | Cap screw M4X14 | 25 | Shoulder screw 8-55 | 39 | Gland |
| 12 | Lock nut M4 | 26 | Hex bolt M6X20 | 40 | Magnescale |
| 13 | Safety limit switch | 27 | Switch bracket | 41 | Display |
| 14 | / | 28 | Bracket | | |

# Electrical Box Assembly




| REF | DESCRIPTION |
|---|---|
| 1 | Electrical box |
| 2 | Combination plug |
| 3 | / |
| 4 | 12-pin connector |
| 5 | Network cord |
| 6 | 3-pin connector |
| 7 | Restrain PG11 |
| 8 | Restrain PG11 |
| 9 | Restrain PG11 |
| 10 | Restrain PG11 |
| 11 | Restrain PG16 |
| 12 | Cable (4x2.5) |
| 13 | Cable (4x3.5) |

| REF | DESCRIPTION |
|---|---|
| 14 | Cable (2x0.5) |
| 15 | 3-pin connector |
| 16 | Network cord |
| 17 | Network cord |
| 18 | Isolating switch |
| 19 | Relay |
| 20 | Contactor |
| 21 | Contactor |
| 22 | Contactor |
| 23 | Circuit Breaker |
| 24 | Transformer |
| 25 | Relay |
| 26 | Relay |

| REF | DESCRIPTION |
|---|---|
| 27 | Stop circuit board |
| 28 | Terminal |
| 29 | Quick stop button |
| 30 | Light |
| 31 | Stop button |
| 51 | Connector |
| 52 | Connector |
| 53 | Relay |
| 60 | Restrain PG11 |
| 61 | Cable |