CWI-B2414

STALLION 24" 5.5 HP "HD" SERIES BANDSAW

Instruction Manual

IMPORTANT

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

Original Instruction
V.2-202306

HEALTH AND SAFETY GUIDELINES

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

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

Always wear safety glasses when using woodworking equipment.

Always read the instructions provided before using woodworking equipment.

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1. GENERAL INFORMATION

1.1 FOREWORD

Some information and illustrations in this manual may difer 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 provde 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 a identification plate fixed to the machine, containing the manufacturer's data, year of construction, serial number and technical specifications.

1.3 CUSTOMER SERVICE RECOMMENDATIONS

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

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

2. SAFETY PRECAUTIONS

2.1 SAFETY REGULATIONS

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

The manufacturer disclaims all responsibilities for damages to persons or things, which might be caused by any failure to comply with the safety regulations.

- The machine operator shall have all necessary prerequisites in oder to operate a complex machiery.
- 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 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 ithrespect to the machine capacity.
- Do not work wood which has evident defects (cracks, knots, metal parts, etc.)
- Never place hands among the moving parts and/or materials.
- Keep 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 uckled, neither not correctlyreground tools.
- Never use the tools beyond the speed limit recommended bythe producers.
- Carefully clean the rest surfaces of tools and make surethat 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.

2.2 RESIDUAL RISKS

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

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

Bear in mind that the use of any machine tool carries risks.
Use the appropriate care and concentration for any type of machining (also the most simple).
The highest safety is in your hands.

2.3 SAFETY AND INFORMATION SIGNALS

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

SAFETY SIGNALS:

Risk of eye injury. Wear eye protection.

Wear hearing protection systems.

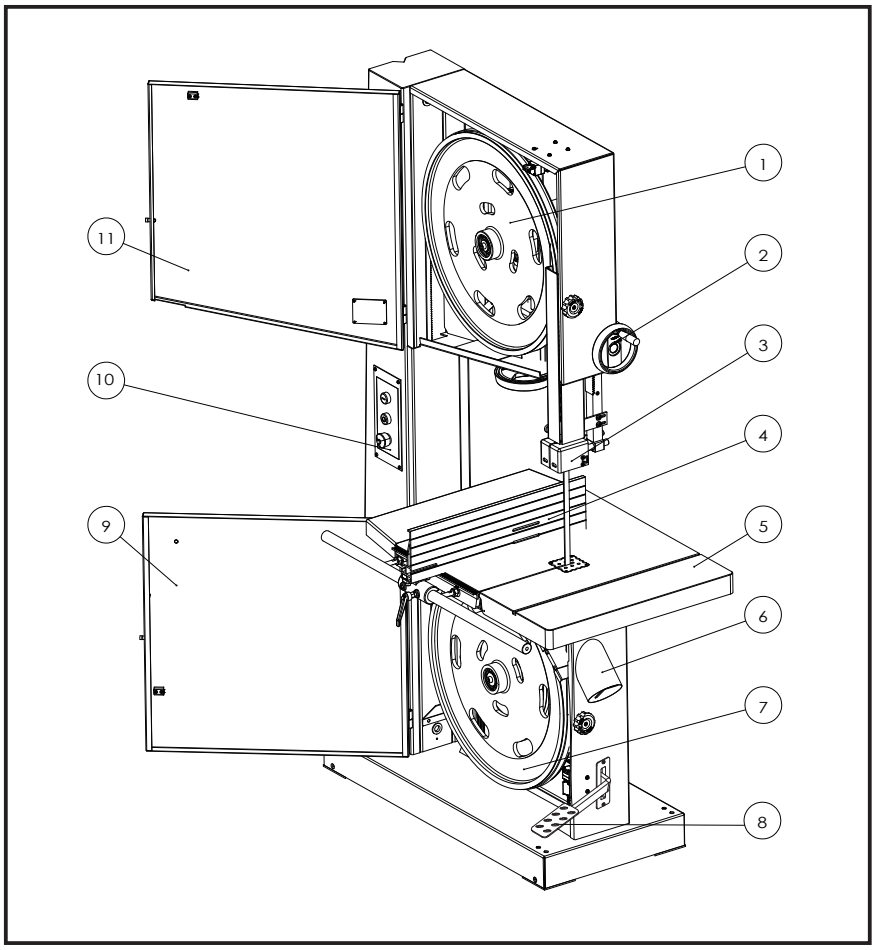
Danger of electric shock. Do not access the area when the machine is powered.

Carefully read and understand the manual before using the machine.

INFORMATION SIGNALS:
Indicate the technical characteristics, direction of rotation and inclination, block and release, etc.
Carefully following the directions to 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 - Upper wheel
2 - Upper guide lifting handwheel
3 - Upper guide
4 - Rip fence assembly
5 - Table
6 - Dust port
7 - Lower wheel
8 - Foot braking system
9 - Lower door
10 - Switch with electric brake
11 - Upper door

3.2 TECHNICAL SPECIFICATION

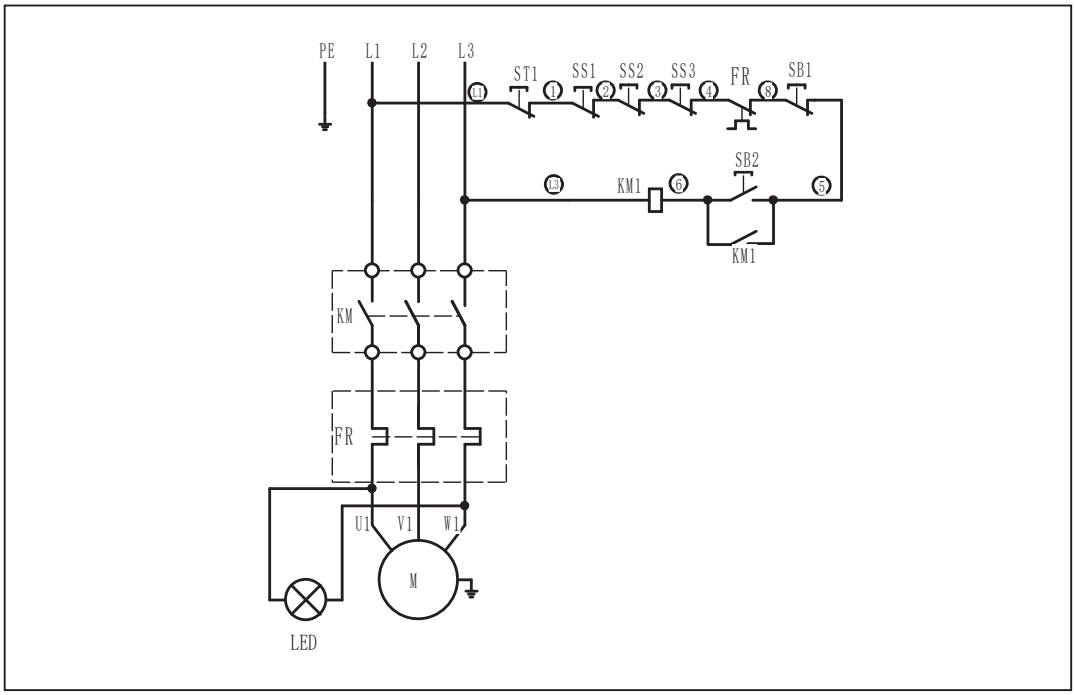
Motor Voltage	400 V± 5%/50HZ
Current	8.2A
Motor power output	4kW
Blade length	4470mm
Blade width	10-35mm
Max. cut depth	370mm
Throat width	580mm
Blade speed	1500m/min
Table size	700x608mm
Table tilt	0 - 20°
Dust port diameter	100mm

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.

WARNING

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



3.4 NOISE LEVEL

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

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

Other factors which reduce exposure to noise are:
- correct tool choice
- tool and machine maintenance
- use of hearing protection systems (e.g. headsets, earplugs,...)

WARNING Please use the hearing protection systems if the above mentioned noise levels exceed 95dB(A).

3.5 DUST EXTRACTION

If this band saw is operated indoors it is recommended to have it connected to a dust collector. The suction connector, supplied with the machine, has to be fitted to the dust ejection port of the saw for this purpose. The diameter of the suction connector is 100mm (4”).

- Workmen working in operations processing oak or beech timber where found to develop more often cancer of the mucous membrane of the nose (adenocarciome of the inner nose) then other workers.

- Experience shows that skin contact with oak or beech dust does not cause cancer

WARNING Wood dust and chips, together with an ignition source and the oxygen in the ambient air, can cause fires and explosions, injuries and allergies.

4. INSTALLATION AND OPERATION

4.1 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 closeto the selected machine setting and it must be conveniently lighted.

4.2 LIFTING

The machine can be lifted using a fork-lift truck, placing the forks under the feet or by using a “SLING”, as shown, with a lifting capability of 2000 Kg.

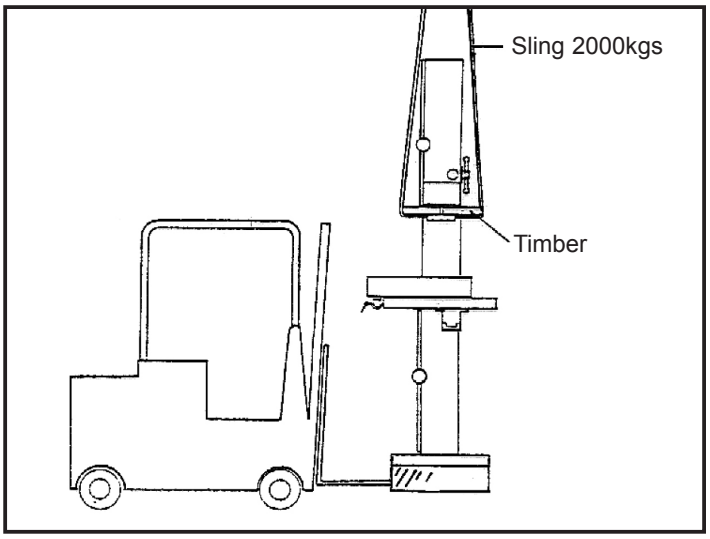


Fig.4.2

4.3 POSITIONING THE MACHINE

For a correct and rational organisation of the work area :

- Install the machine in an area that will not amplify vibration or noise
- Verify that the work area is adequately illuminated.
- When placed between other machinery there should be a space of at least 80 cm. It is necessary to anticipate sufficient space for cutting long work pieces traversly and for the fitting of rollers or other types of support,in front and at the rear of the table.

There are four holes for fixing the machine to the floor. When fixing to the floor it is recommended not to over tighten the fixtures to avoid increasing vibration.It is also advisable to place anti-vibration materials between the floor and the feet of the machine.

4.4 BLADE MOUNTING AND ADJUSTMENT

- To mount blade first remove the table insert (A of FIG.4.4.1) Place the blade onto the bandwheel checking the teeth are in a correct position, and then tighten the tension using the handwheel (A of FIG.4.4.2). The correct tension value is indicated on the tension scale inside the upper door, the indicated value corresponds to the width of the blade.

- Turn the bandwheels manually, checking that the blade does not interfere with any fixed parts and that the blade is placed correctly on the bandwheels. The points of the teeth should slightly protrude over the edge of the bandwheels. To adjust the blade position on the bandwheels slacken the locking lever(B of FIG.4.4.2), and then turn the knob(C of FIG.4.4.2): the blade will move inwards when turn the knob clockwise and the blade will move further out when turn the knob anticlockwise; A quarter of one circle is sufficient to make a noticeable displacement. Tighten the locking lever after the blade is positioned correctly.

- Then reinstall the table insert, close the band wheels accessing doors.

CAUTION

After use we recommend slackening the blade tension, and to display a visible sign on the machine advising of this procedure. Remeber to check and re-tension before use. This operation prevents damage to the bandwheel tyres.

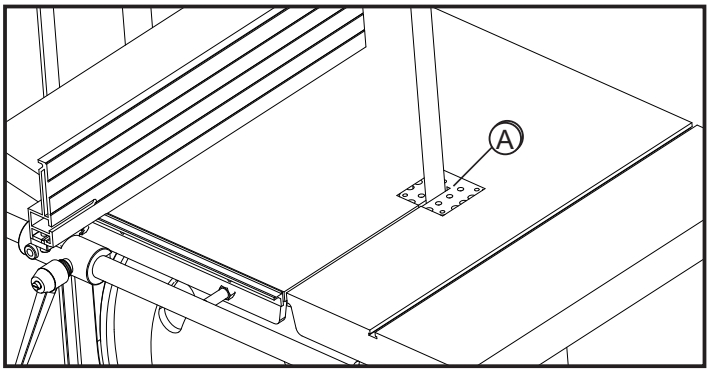


Fig.4.4.1

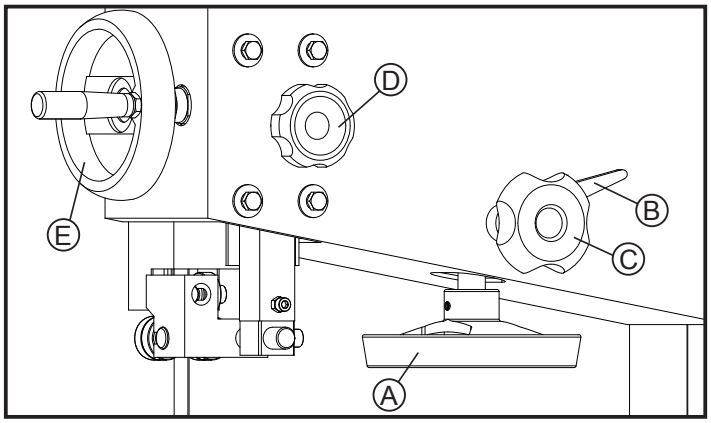


Fig.4.4.2

4.5 SETTING BLADE GUARD & GUIDE

AJUSTING THE SAW BLADE GUARD
The adjustable saw band guard should be positioned as close as possible to the workpiece. To adjust the height, release the locking knob(D of Fig.4.4.2) and turn the handwheel (E of Fig.4.4.2) to adjust the guard up or down. Lock the knob once the correct position of guard is obtained.
This operation must always be carried out while the machine is stopped.

ROLLER BEARINGS BLADE GUIDE
The roller bearings should lightly touch the blade, to prevent vibration during operation and ensure correct direction of cutting. The positioning of these bearings is controlled by screw “A”(Fig.4.5.1), once they have been adjusted, tighten the screw “A”(Fig.4.5.1); they should be 2mm behind the teeth of the blade.The rear bearing prevents excessive backward movement of the blade whilst in operation , and should be 1-2 mm from the back of the blade: this can be adjusted by srew “B”(Fig.4.5.1).

LOWER SAW BLADE GUIDE
- To roller bearing should lightly touch the blade, to prevent vibration during operation and ensure correct direction of cutting. The positioning of these rollers is controlled by screw “A”(Fig.4.5.2), once they have been adjusted, tighten the screw “A”(Fig.4.5.2); they should be 2 mm behind the teeth of the blade.The thrust shaftprevents excessive backward movement of the blade whilst in operation , and should be 1-2 mm from the back of the blade: this can be adjusted by srew “B”(Fig.4.5.2).

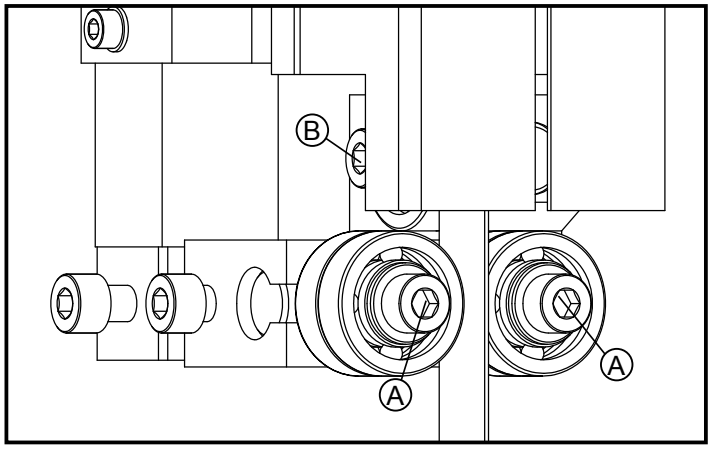


Fig.4.5.1

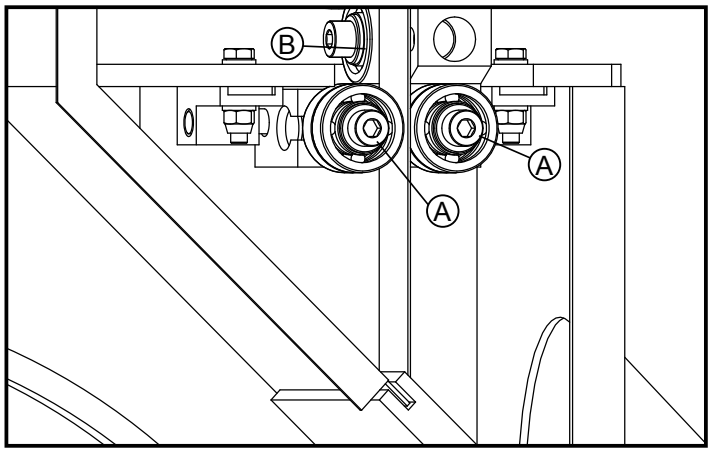


Fig.4.5.2

4.6 TILTING THE WORK TABLE

- The table may be set at 90degree to the blade by adjusting the table stop screw under the table. The table stop screw rests on the top of the lower wheel bandwheel housing. By first slackening the locking nut A and then adjusting the screw B, the table can be set correctly. Retighten the locking nut A making sure that the setting is maintained.

- To make adjustments of table tilting, slackening the bolt C . When adjustment is correctly finished, tighten the handle D to lock it.

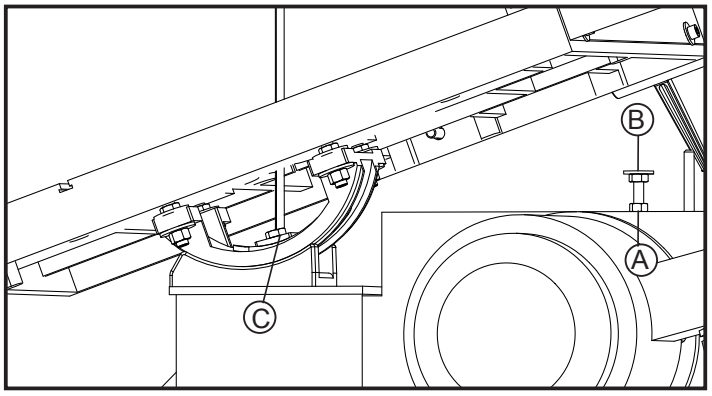


Fig.4.6

4.7 FACE CUTTING

Use a square for safe guiding of the work during face cutting. (FIG.4.7)

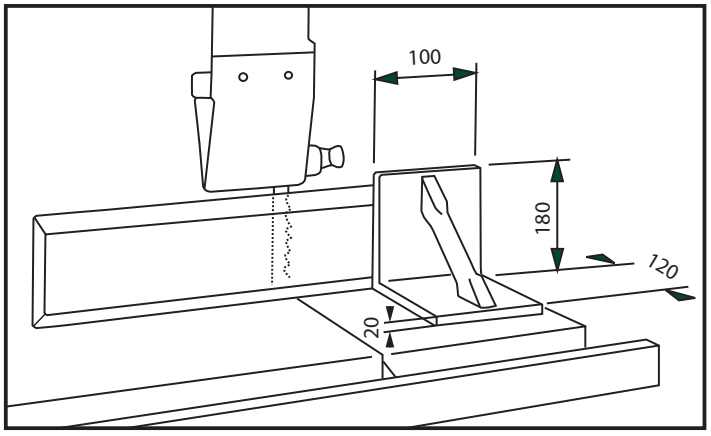


Fig.4.7

4.8 CUTTING SHORT PIECES

Use pushing devices for cutting of short pieces.
The pushing device type A is recommended for narrow pieces.

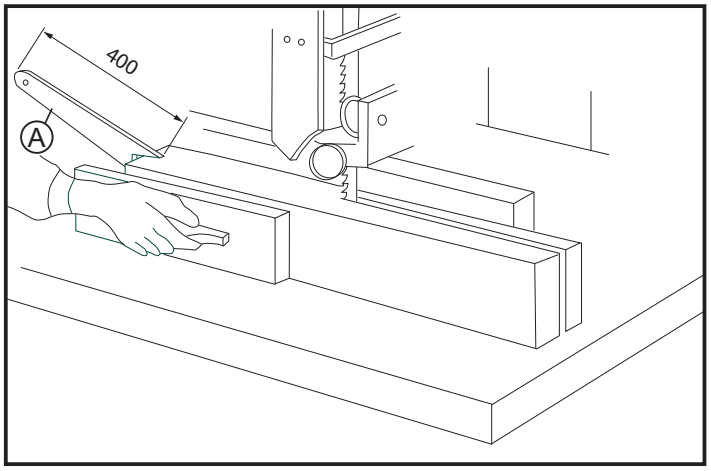


Fig.4.8

4.9 CUTTING OF ROUND PIECES

Use a wedge rest to prevent rotation of round parts during cutting.

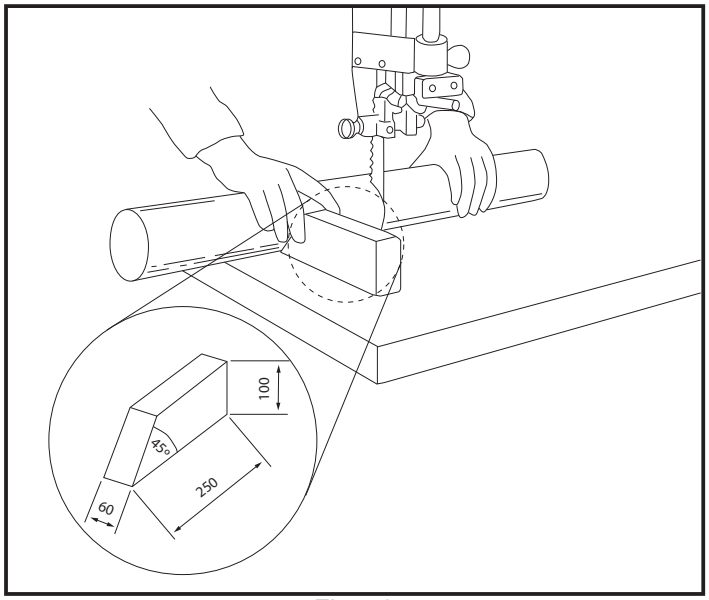


Fig.4.9

5. MAINTENANCE

WARNING

BEFORE ANY INTERVENTION ALWAYS DISCONNECT THE ELECTRICAL SUPPLY BY PLUG OUT!
Periodically check that all screws are tightly fastened and the condition of the various guards

- V BELTS

After the first few hours of operation it is necessary to check that the tension of the belts is correct,as they tend to stretch. To control the tension of the belts push the mid-point of the belt applying 3-4 Kg of pressure, the displacement should not exceed 5-6 mm.
It is recommended that the correct blade tension is maintained as loose belts reduce the motor power and can increase the braking time. Belts that are too tight can cause the belts to become hot .

- TO CHANGE THE BELTS

Slacken the blade tension , remove the screw at the center of lower bandwheel, pull-out the bandwheel from the shaft, repeat the operations in reverse to re-assemble.

- DISMANTLING THE UPPER BANDWHEEL

Remove the upper bandwheel is same as the operations of lower bandwheel.

- REPLACEMENT OF RUBBER COVERING OF THE FLY-WHEELS

It is recommended that this be carried out by a competent specialist or the manufacturer, this is because the rubber covering is not only glued onto the bandwheel, but also ground in a crown form. It is strongly advised not to grind and shape the rubber directly on the machine using gouges, files or abrasives.

- CLEANING AND LUBRICATING

Periodically clean the inside of the machine with the aid of a dust extractor for any saw-dust deposits, remove any resinous deposits from the bandwheels surface. The bandwheel bearings do not require any greasing. It is not necessary to lubricate any part or component of the machine as the sawdust circulating within will adhere to any oiled or greased surface jeopardizing the sliding of moving parts such as the shaft of the blade guide adjustment and the slide of the tensioning group.
Frequently control the cleanliness of the rubber surfaces on the bandwheels, particularly in cases of cutting resinous materials or chip-board. Clean the surfaces, while machine is not in motion , of any resinous deposits taking care do not damage the surface.

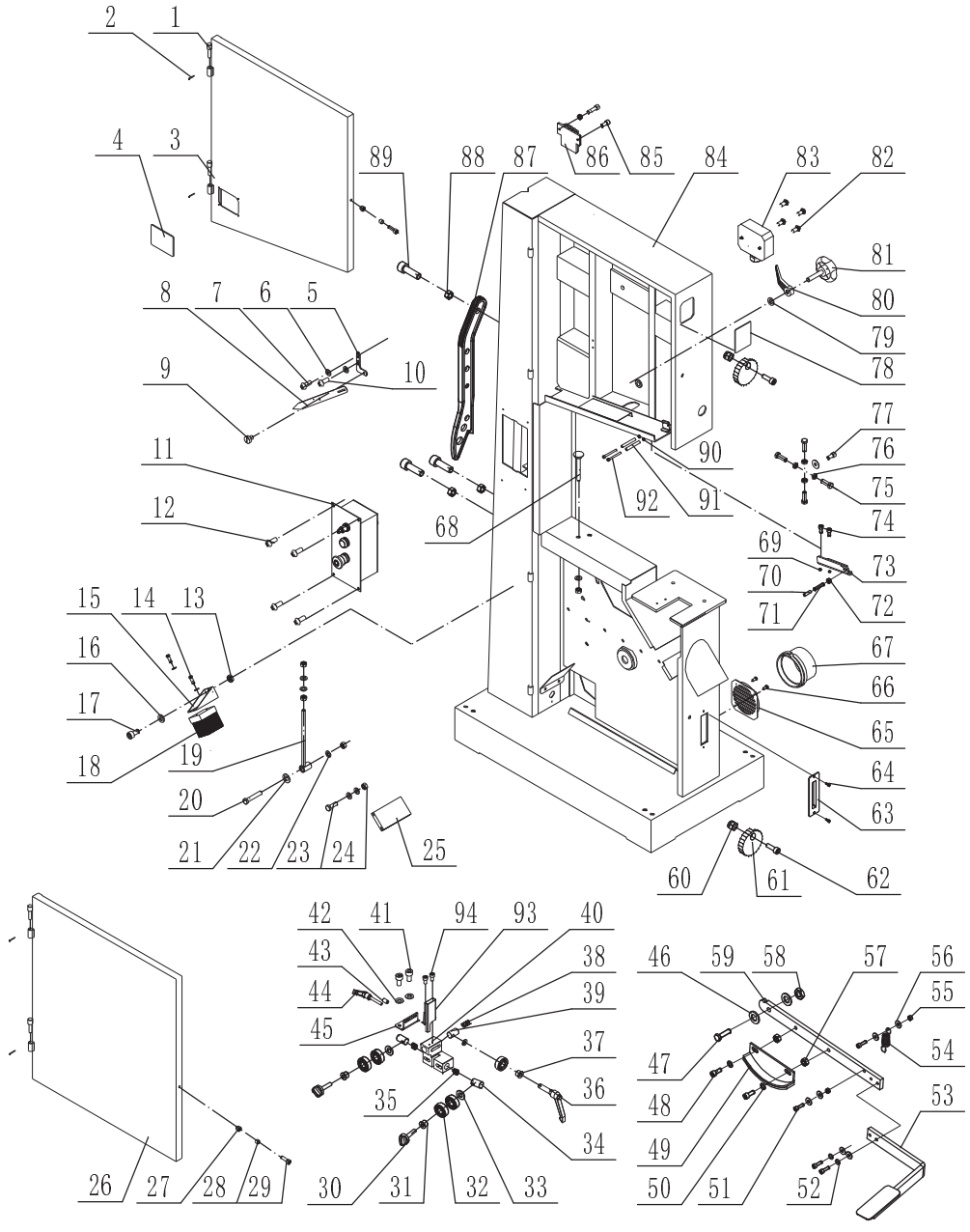
6. TROUBLE SHOOTING

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.

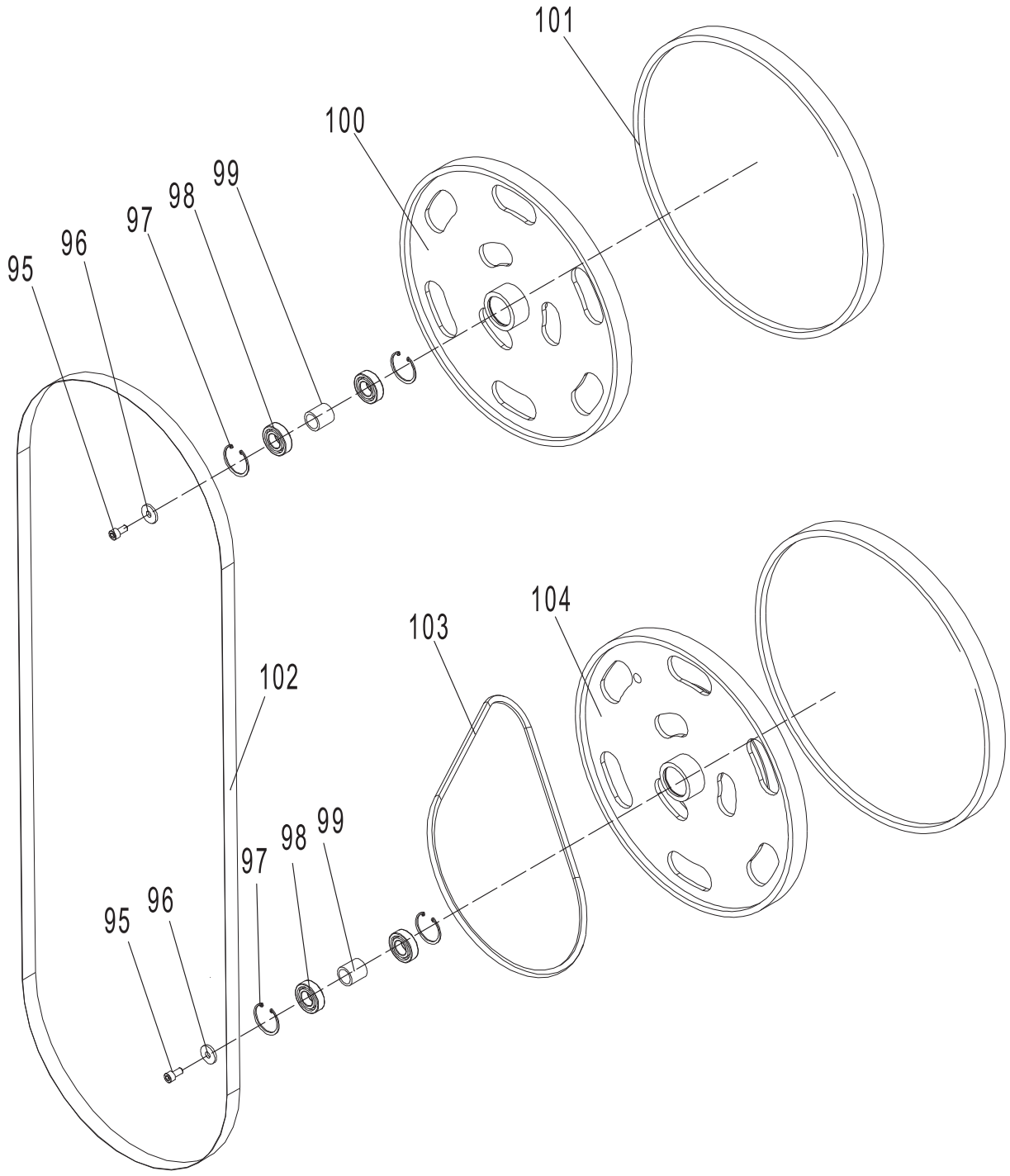
Trouble	Possible Cause	Solution
Saw stops or will not start	1. Saw unplugged 2. Fuse blown or circuit breaker tripped 3. Cord damaged	1. Check plug connections 2. Replace fuse or reset circuit breaker 3. Replace cord
Does not make accurate 45° or 90° cuts	1. Stop not adjusted correctly 2. Angle pointer not set accurately 3. Miter gauge out of adjustment	1. Check blade with square and adjust stop 2. Check blade with square and adjust pointer 3. Adjust miter gauge
Blade wanders during cut	1. Fence not aligned with blade 2. Warped wood 3. Excessive feed rate 4. Incorrect blade for cut 5. Blade tension not set properly 6. Guide bearings not set properly	1. Check and adjust fence 2. Select another piece of wood 3. Reduce feed rate 4. Change blade to correct type 5. Set blade tension according to blade size 6. Review guide bearing adjustment on pages 8 & 9
Saw makes unsatisfactory cuts	1. Dull blade 2. Blade mounted wrong 3. Gum or pitch on blade 4. Incorrect blade for cut 5. Gum or pitch on table	1. Replace blade 2. Teeth should point down 3. Remove blade and clean 4. Change blade to correct type 5. Clean table
Blade does not come up to speed	1. Extension cord too light or to long 2. Low shop voltage	1. Replace with adequate size and length cord 2. Contact your local electric company
Saw vibrates excessively	1. Base on uneven floor 2. Bad V-belt 3. Motor mount is loose 4. Loose hardware	1. Reposition on flat, level surface 2. Replace V-belt 3. Tighten motor mount hardware 4. Tighten hardware

7. DIAGRAMS & COMPONENTS



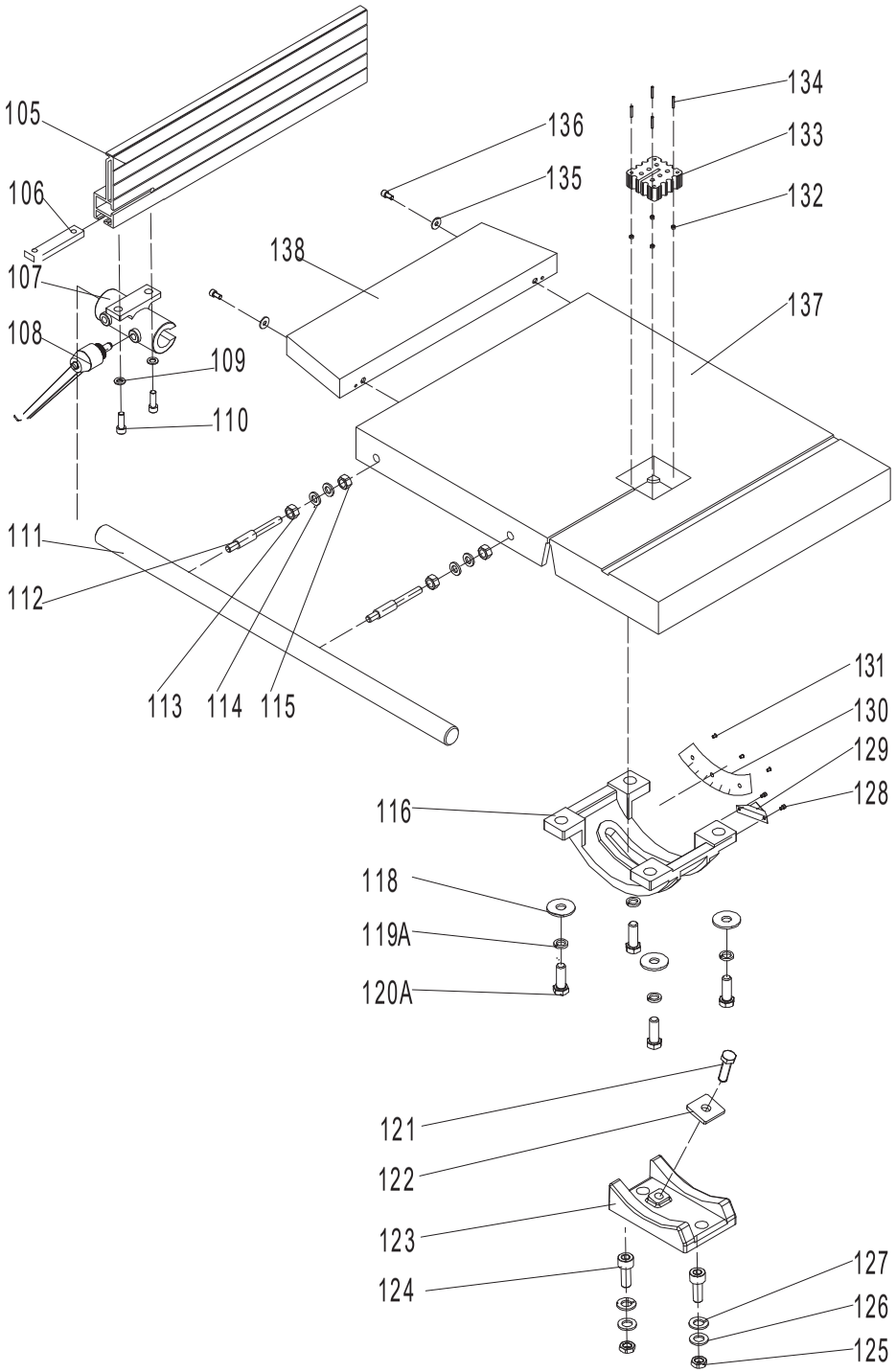
NO.	Description	Qty.	NO.	Description	Qty.
1	Hinge shaft	4	48	screw	2
2	Roll pin	4	49	brake block	1
3	Epigastric body	1	50	flat washer	2
4	Door window	1	51	screw	4
5	Pointer positioning plate	1	52	Elastic washer	2
6	Flat washer	6	53	Foot pedal	1
7	screw	1	54	drag spring	1
8	Pointer	1	55	nut	2
9	Pointer screw	1	56	Large washer	6
10	Shoulder screw	1	57	nut	2
11	Switch box assembly	1	58	nut	1
12	screw	4	59	connecting rod	1
13	Thin nut	1	60	self-locking nut	2
14	Self tapping screw	2	61	Door handle	2
15	Sawdust brush holber	1	62	screw	2
16	Flat washer	5	63	side cover	1
17	screw	1	64	screw	2
18	Sawdust brush	1	65	suction grille	1
19	Motor pull rod	1	66	self tapping screw	2
20	screw	1	67	suction nozzle	1
21	Large washer	2	68	support screw	1
22	Flat washer	6	69	nut	3
23	screw	1	70	plastic pipe	1
24	Hexagon nut	5	71	set screw	1
25	Dedusting plate	1	72	nut	1
26	Lower door body	1	73	connecting angle steel	1
27	Self-locking nut	2	74	screw	2
28	set	2	75	bolt	4
29	screw	2	76	nut	4
30	Long locking handle	2	77	screw	1
31	Lower bearing sleeve	2	78	window	1
32	Deep groove ball bearing	5	79	flat washer	1
33	Flat washer	3	80	locking of adjusting handle	1
34	Guide shaft	2	81	adjusting handle	1
35	Spring	2	82	screw	4
36	Adjustable handle	1	83	junction box assembly	2
37	Upper bearing sleeve	1	84	body frame assembly	1
38	Spring	1	85	screw	1
39	Lower guide shaft	1	86	tool rack	1
40	Lower conductor	1	87	plastic pusher	1
41	screw	2	88	nut	3
42	Flat washer	2	89	screw	3
43	set screw	1	90	thin nut	2
44	Adjustable handle	1	91	bushing	2
45	Lower guide plate	1	92	screw	2
46	Flat washer	2	93	lower guide passport	1
47	screw	1	94	screw	2

Frame Assembly



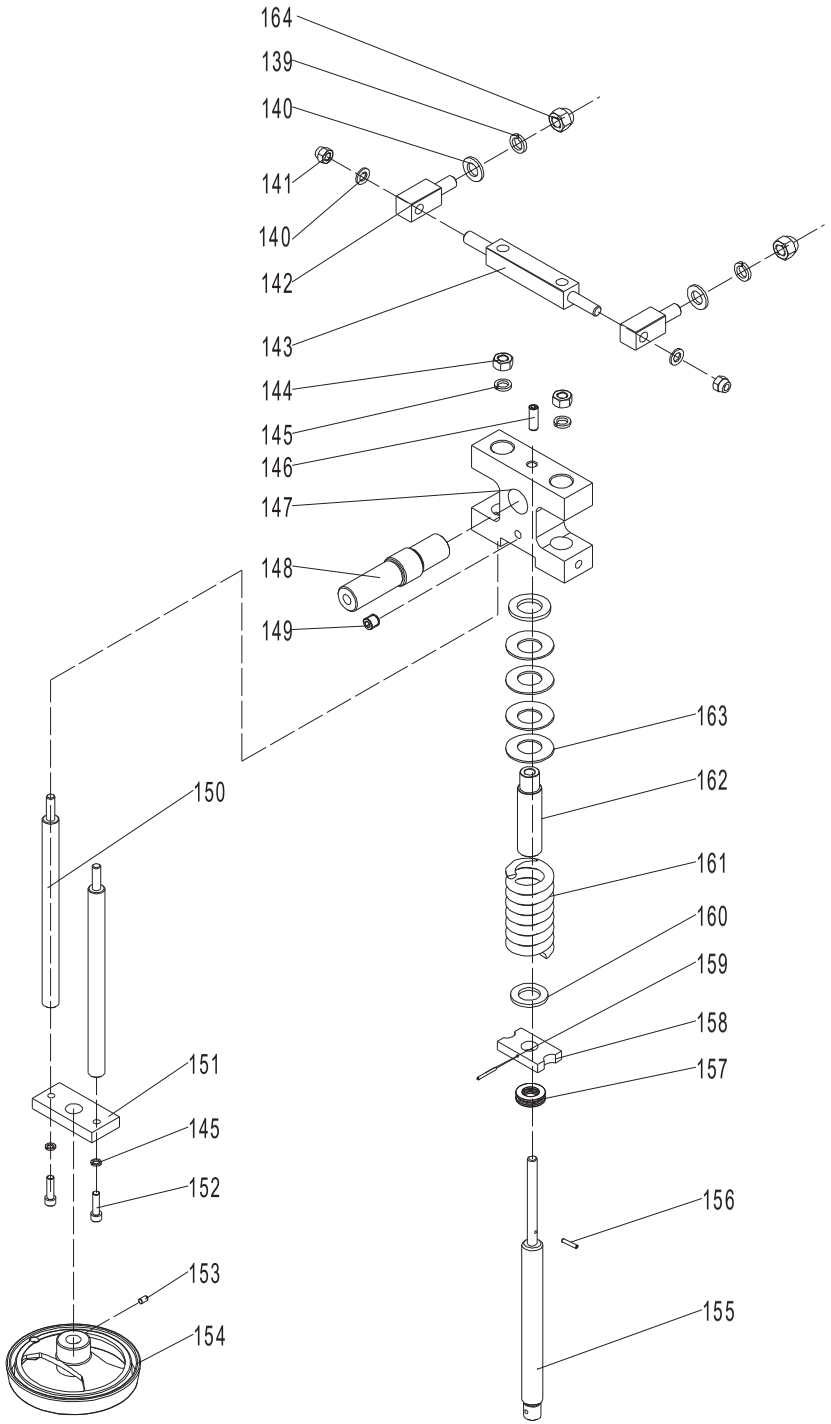
NO.	Description	Qty.
95	screw	2
96	Washer	2
97	Retaining ring	4
98	Bearing	4
99	Tube	2
100	Upper wheel	1
101	Tire	2
102	Blade	1
103	Belt	1
104	Lower wheel	1

Driving System Assembly



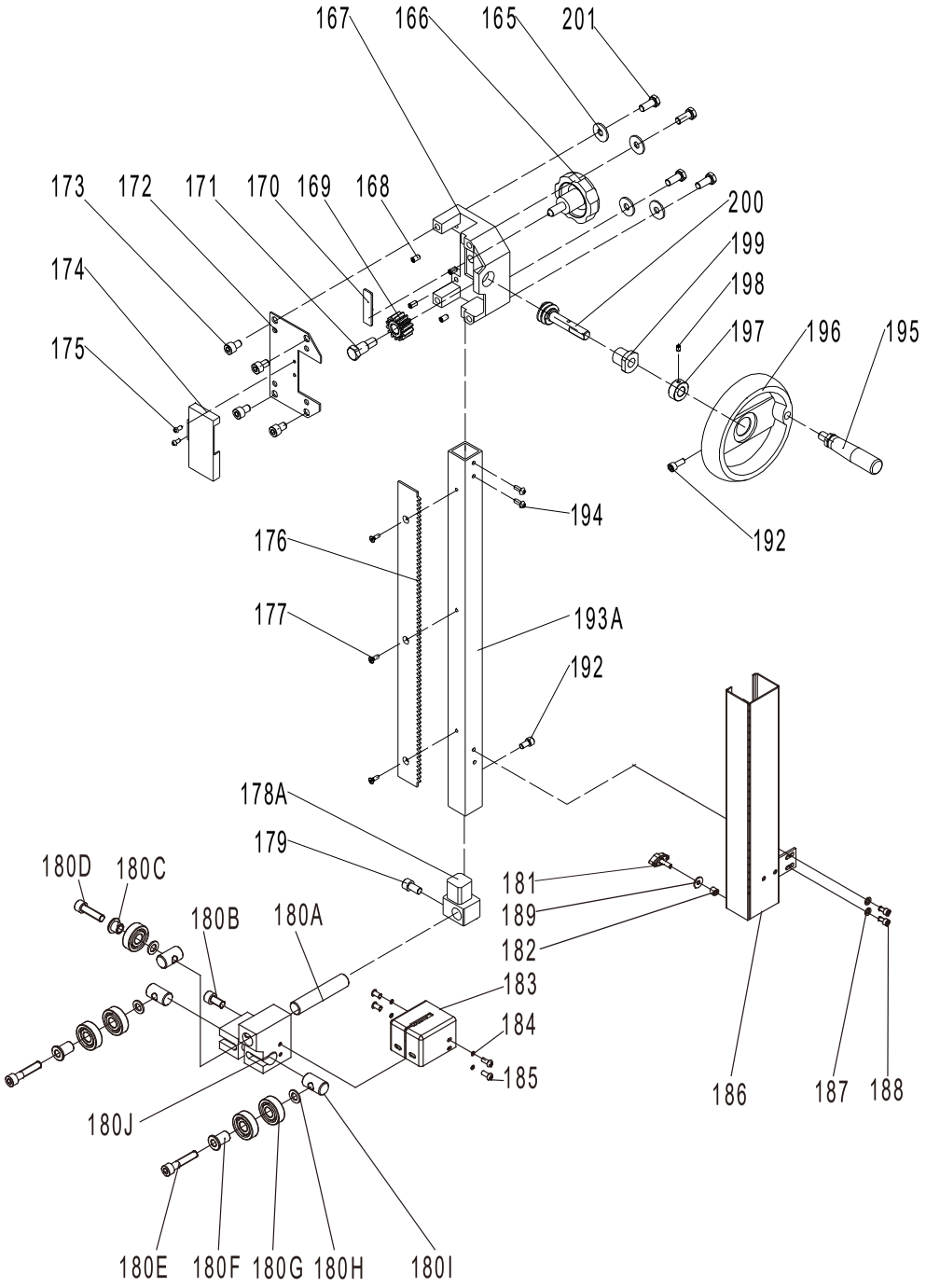
NO.	Description	Qty.
105	Rip fence	1
106	Lock plate	1
107	Fence bracket	1
108	Handle	1
109	Screw	2
110	Washer	2
111	Fence guide	1
112	Rod	2
113	Hex nut	2
114	Washer	4
115	Hex nut	2
116	Slider	1
118	Big washer	4
119A	Spring washer	4
120A	Bolt	4
121	Hex Bolt	1
122	Large pad	1
123	Support	1
124	Hex Bolt	2
125	Hex nut	2
126	Big washer	2
127	Spring washer	2
128	Nut	2
129	Angle pointer	1
130	Angle Signs	1
131	Rivet	3
132	Lock nut	4
133	Table insert	1
134	Nut	4
135	Big washer	2
136	Nut	2
137	Table	1
138	Extension table	1

Table Assembly



NO.	Description	Qty.
139	Spring washer	2
140	Flat washer	4
141	Lock nut	2
142	Bolt	2
143	Thread rod	1
144	Hex nut	2
145	Spring washer	4
146	Set screw	1
147	Bracket	1
148	Upper shaft	1
149	Set screw	1
150	Sliding rod	2
151	Upper shaft	1
152	Set screw	2
153	Set screw	1
154	Handwheel	1
155	Thread rod	1
156	Roll pin	1
157	Bearing	1
158	Flat washer	1
159	Roll pin	1
160	Flat washer	2
161	Sliding rod	1
162	Tube	1
163	Spring washer	4
164	Hex nut	2

Blade Tension Assembly



NO.	Description	Qty.
165	big washer	4
166	lock handle	1
167	Bracket	1
168	Set screw	4
169	Gear	1
170	Plate	1
171	screw	1
172	cover	1
173	screw	4
174	cover	1
175	Pan head screw	2
176	Rack	1
177	screw	3
178A	Bracket	1
179	screw	1
180A	Guide post	1
180B	screw	1
180C	tube	1
180D	screw	1
180E	screw	2
180F	tube	2
180G	Bearing	5
180H	flat washer	3
180I	Guide shaft	3
180J	Upper guide	1
181	Composite bolt	1
182	Nut	1
183	protective cover	1
184	Flat washer	4
185	Screw	4
186	Blade guard	1
187A	Large washer	1
188	Screw	2
189	big washer	2
192	screw	2
193A	Guide post	1
194	Pan head screw	3
195	handle	1
196	Handwheel	1
197	ring	1
198	Set screw	1
199	tube	1
200	worm	1
201	hex bolt	4
	Upper guide Assembly	

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