

# AW318BT


## Benchtop Thicknesser



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## EU Declaration of Conformity

<p><b>Cert No: MB1931(TP2000)</b></p> <p>Axminster Tool Centre Ltd Axminster Devon EX13 5PH UK <b>axminstertools.com</b></p> <p>declares that the machinery described:-</p> <table border="1"> <tr> <td>Type</td> <td><b>Thicknesser</b></td> </tr> <tr> <td>Model</td> <td><b>AW318BT</b></td> </tr> </table> <p>Signed </p> <p><b>Andrew Parkhouse</b> Operations Director</p> <p>Date: <b>06/06/2016</b></p>	Type	<b>Thicknesser</b>	Model	<b>AW318BT</b>	<p><b>EU Declaration of Conformity</b></p> <p><b>This machine complies with the following directives:</b></p> <table> <tr> <td>2006/42/EC</td> <td>EN 61000-3-11:2000</td> </tr> <tr> <td>EN 55014-1:2006/A2:2011</td> <td>EN 61029-1:2009+A11</td> </tr> <tr> <td>EN 55014-2:1997/A2:2008</td> <td>61029-2-3:2011</td> </tr> <tr> <td>EN 61000-3-2:2014</td> <td>AfPS GS 2014:01</td> </tr> </table> <p>and conforms to the machinery example for which the EC Type-Examination Certificate No S50328303 001, BM50328304 001, E8A 16 06 41469 839 has been issued by <b>TÜV Rheinland (China) Ltd. (Member of TÜV Rheinland Group)</b> at: Unit 707, AVIC Bldg., No. 10B, Central Road, East 3rd Ring Road, Chaoyang District, Beijing, 100022, P.R. China</p> <p>and complies with the relevant essential health and safety requirements.</p>	2006/42/EC	EN 61000-3-11:2000	EN 55014-1:2006/A2:2011	EN 61029-1:2009+A11	EN 55014-2:1997/A2:2008	61029-2-3:2011	EN 61000-3-2:2014	AfPS GS 2014:01
Type	<b>Thicknesser</b>												
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EN 55014-2:1997/A2:2008	61029-2-3:2011												
EN 61000-3-2:2014	AfPS GS 2014:01												

The symbols below advise the correct safety procedures when using this machine.



Fully read manual and safety instructions before use



Ear protection should be worn



Eye protection should be worn



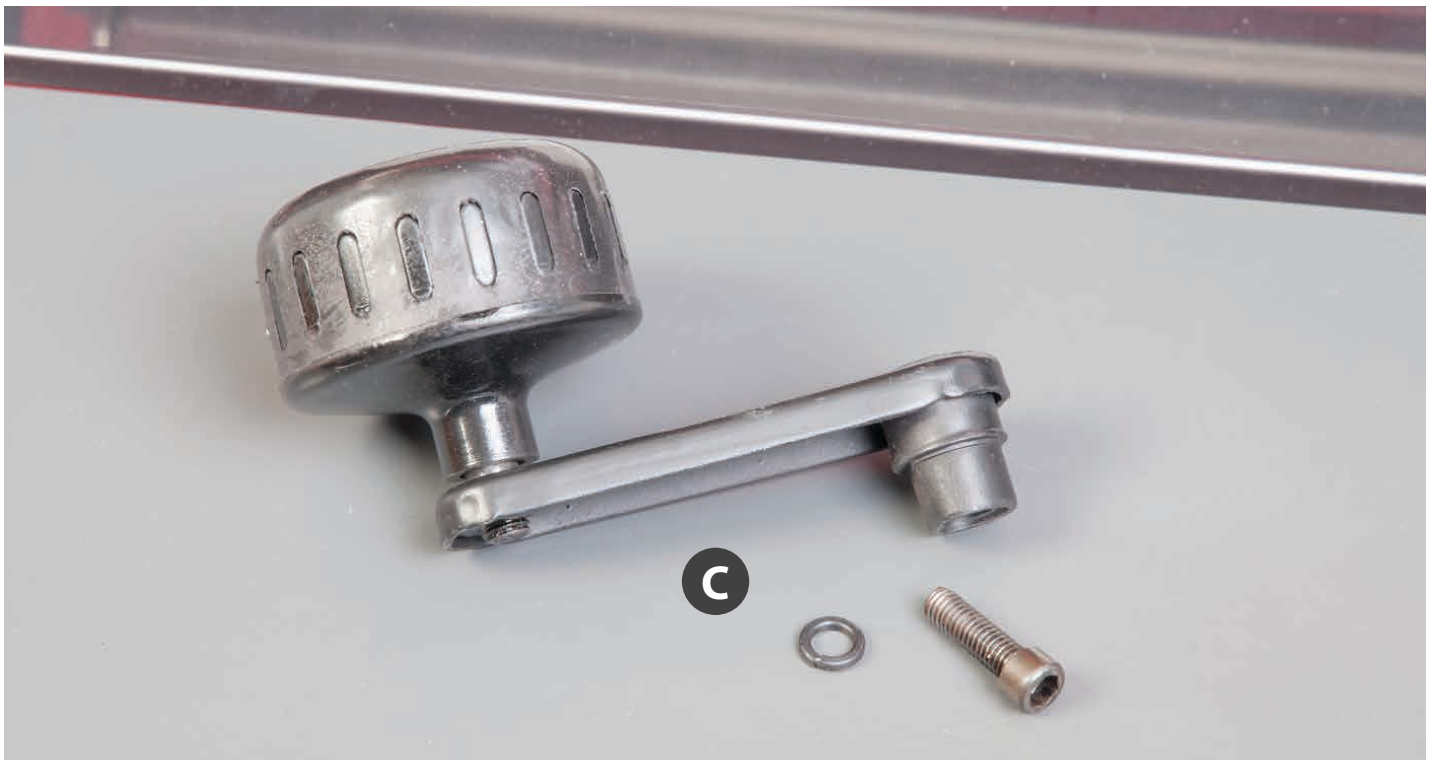
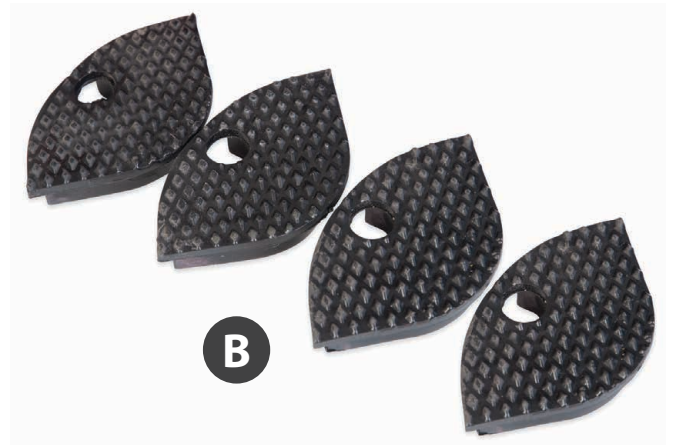
Dust mask should be worn



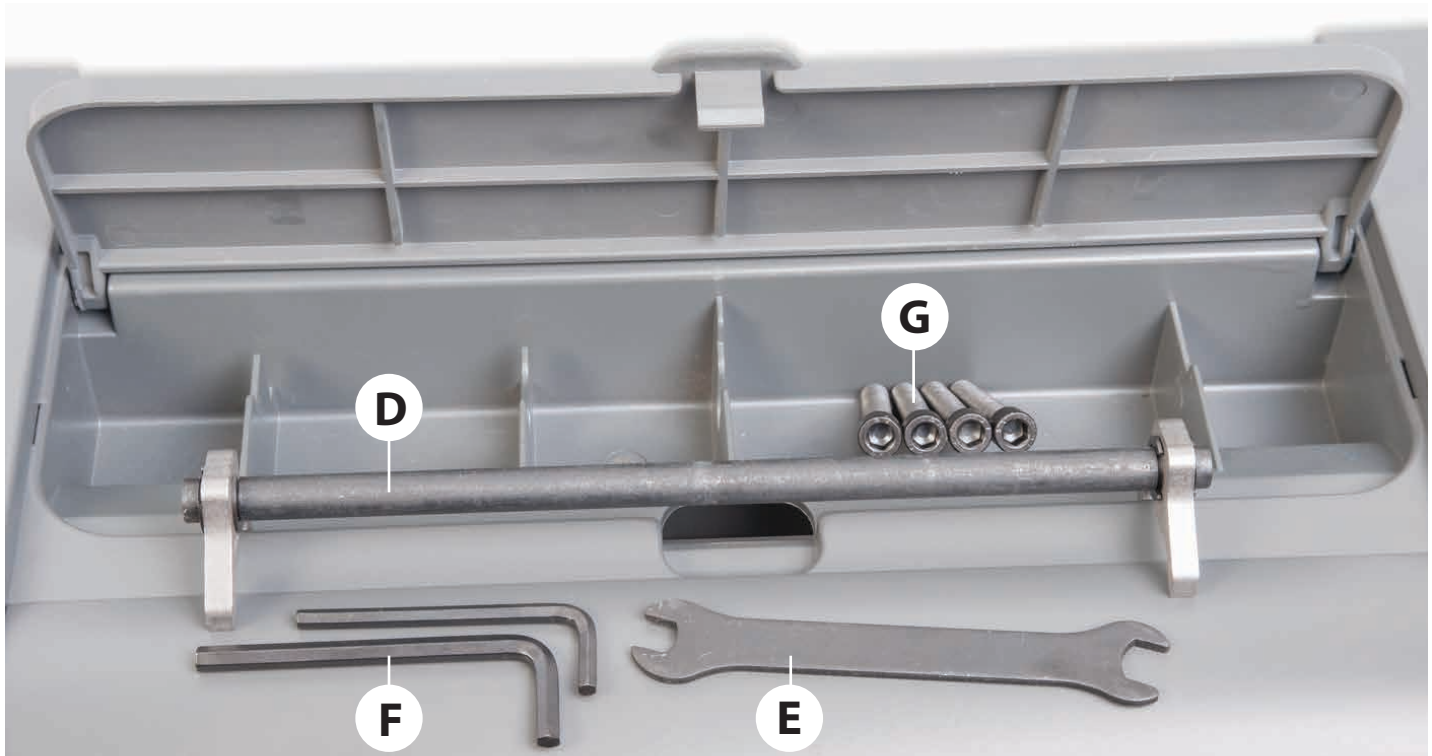
HAZARD

## What's Included

Quantity	Item	Part	Model Number
1	Benchtop Thicknesser	<b>A</b>	AW318BT
4	Rubber Feet	<b>B</b>	
1	Rise & Fall Operating Handle with M6 Hex Screw and Spring Washer	<b>C</b>	
1	Blade Setting Gauge	<b>D</b>	
1	8-10mm Spanner	<b>E</b>	
1	4-5mm Hex Key	<b>F</b>	
4	M8 x 45mm Nex Bolts to secure thicknesser to workbench	<b>G</b>	



## What's Included



## General Instructions for 230V Machines

The following will enable you to observe good working practices, keep yourself and fellow workers safe and maintain your tools and equipment in good working order.



**WARNING!! KEEP TOOLS AND EQUIPMENT OUT OF REACH OF YOUNG CHILDREN**



**KEEP WORK AREA AS UNCLUTTERED AS IS PRACTICAL. UNDER NO CIRCUMSTANCES SHOULD CHILDREN BE ALLOWED IN WORK AREAS.**

### Mains Powered Tools

- Tools are supplied with an attached 13 Amp plug.
- Inspect the cable and plug to ensure that neither are damaged. Repair if necessary by a suitably qualified person.
- Do not use when or where it is liable to get wet.

### Workplace

- Do not use 230V a.c. powered tools anywhere within a site area that is flooded.
- Keep machine clean.
- Leave machine unplugged until work is about to commence.
- Always disconnect by pulling on the plug body and not the cable.

- Carry out a final check e.g. check the cutting tool is securely tightened in the machine and the correct speed and function set.
- Ensure you are comfortable before you start work, balanced, not reaching etc.
- Wear appropriate safety clothing, goggles, gloves, masks etc. Wear ear defenders at all times.
- If you have long hair wear a hair net or helmet to prevent it being caught up in the rotating parts of the machine.
- Consideration should be given to the removal of rings and wristwatches.
- Consideration should also be given to non-slip footwear etc.
- If another person is to use the machine, ensure they are suitably qualified to use it.
- Do not use the machine if you are tired or distracted.
- Do not use this machine within the designated safety areas of flammable liquid stores or in areas where there may be volatile gases.
- Check cutters are correct type and size, are undamaged and are kept clean and sharp, this will maintain their operating performance and lessen the loading on the machine.
- **OBSERVE....** make sure you know what is happening around you and **USE YOUR COMMON SENSE.**

## Specific Instructions for Thickening Machines

When machining, long pieces of timber tend to be unstable. Bolting the machine to a bench increases stability. It is also advisable to use two outfeed roller stands. However you have mounted your machine ensure it is secure before you commence work.

**Note: Check there are no foreign objects e.g. old nails, screws, small stones etc embedded in the material you are about to machine.**



**WARNING!! DO NOT CARRY OUT ANY CLEANING OR MAINTENANCE WITH THE MACHINE CONNECTED TO THE MAINS SUPPLY!**



**THIS THICKNESSER IS FOR MACHINING TIMBER ONLY!**

1. Check knives are clean and sharp.
2. Check thickening table is clear of debris before commencing work.

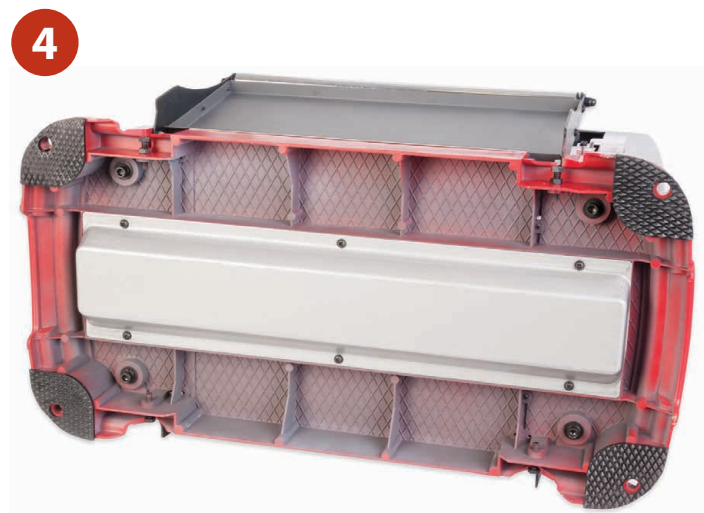
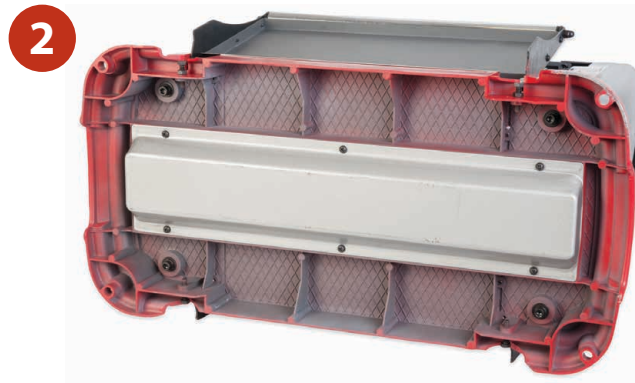
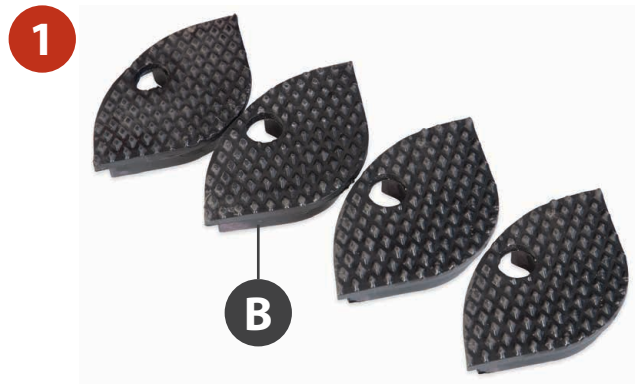
3. Check there is no excess build up of resin etc., on the thickening bed.
4. Check feed rollers are clean and unclogged.
5. Check the guards are in place and secure before using the machine.
6. Do not stand directly in line with the infeed or the outfeed of the machine especially when starting up.
7. Do not force the timber through the machine, it has its own feed rollers and will feed itself at the correct rate.
8. The machine is designed for PLANING TIMBER ONLY.
9. Do not put man-made materials through this machine.
10. Remove loose knots from timber before planing.
11. Always allow machine to run up to full speed before introducing the timber.
12. If your machine is fitted with 'pass over rollers' make sure that they are rotating freely.

### Specification

Code	107676
Model	AW318BT
Rating	Workshop
Power	1.8 kW
Feed Speed	7 m/min
Cutterblock Speed	9,000rpm
Cutterblock Diameter	48 mm
Max Thicknesser Capacity	153 mm
Max Planing Width	318 mm
Thickening Tables (Open)	700 mm
Max Depth of Cut Thicknesser	2.5 mm full width, 3 mm to 125 mm wide
Noise Level dB (A)	(Sound Pressure Level) LpA: 99.6dB (A) (Sound Power Level) LwA: 112.6dB (A) (Uncertainty) K: 3.0dB (A)
Knives	HSS (Resharpenable) x 2
Min Extraction Airflow Required	390 m <sup>3</sup> /hr
Dust Extraction Outlet	50 mm
Overall L x W x H	610 x 360 x 480 mm
Weight	30 kg

# Assembly

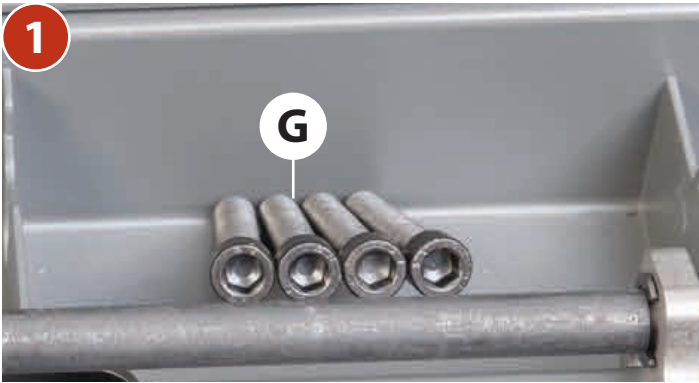
## Fitting Rubber Feet



## Rise & Fall Operating Handle



Workbench Assembly



Place a washer to each corner as shown



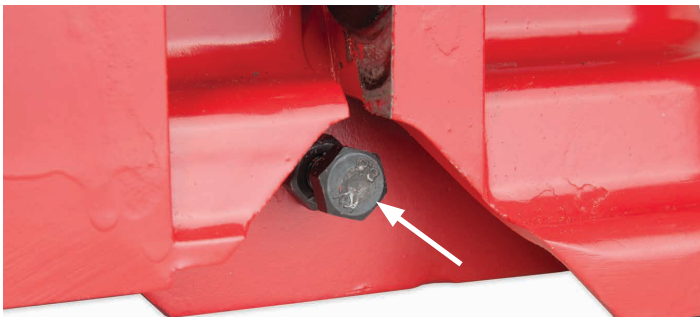
Mark the four holes with an pencil;  
drill a 9mm hole to each corner



Locate the four M8 Hex bolts (G) and insert down through  
each hole. Using four M8 washers nuts, secure in place



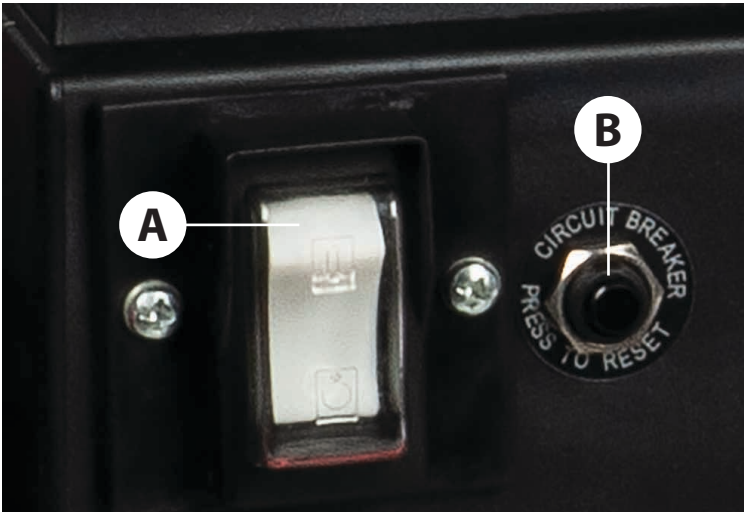
# Illustration & Parts Description



Extension table levelling bolt



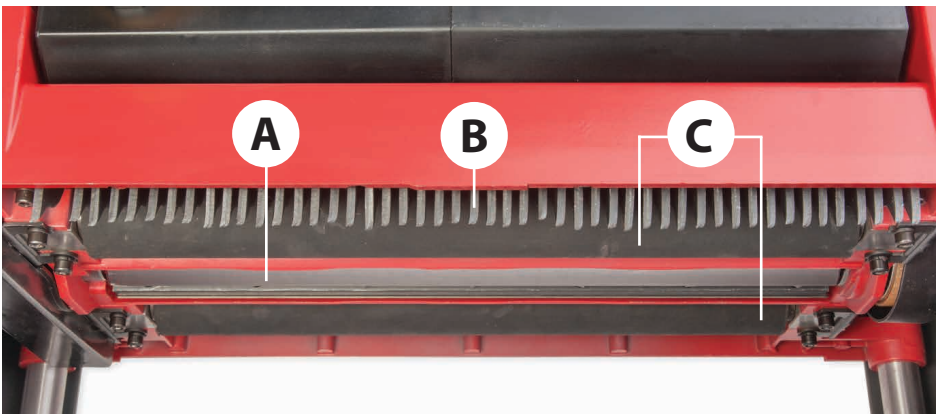
## Illustration & Parts Description



NVR switch (A), Circuit breaker 'RESET' switch (B)



Thickening head rise & fall control handle



Cutter block (A), Anti-kickback fingers (B), Feed rollers (C)

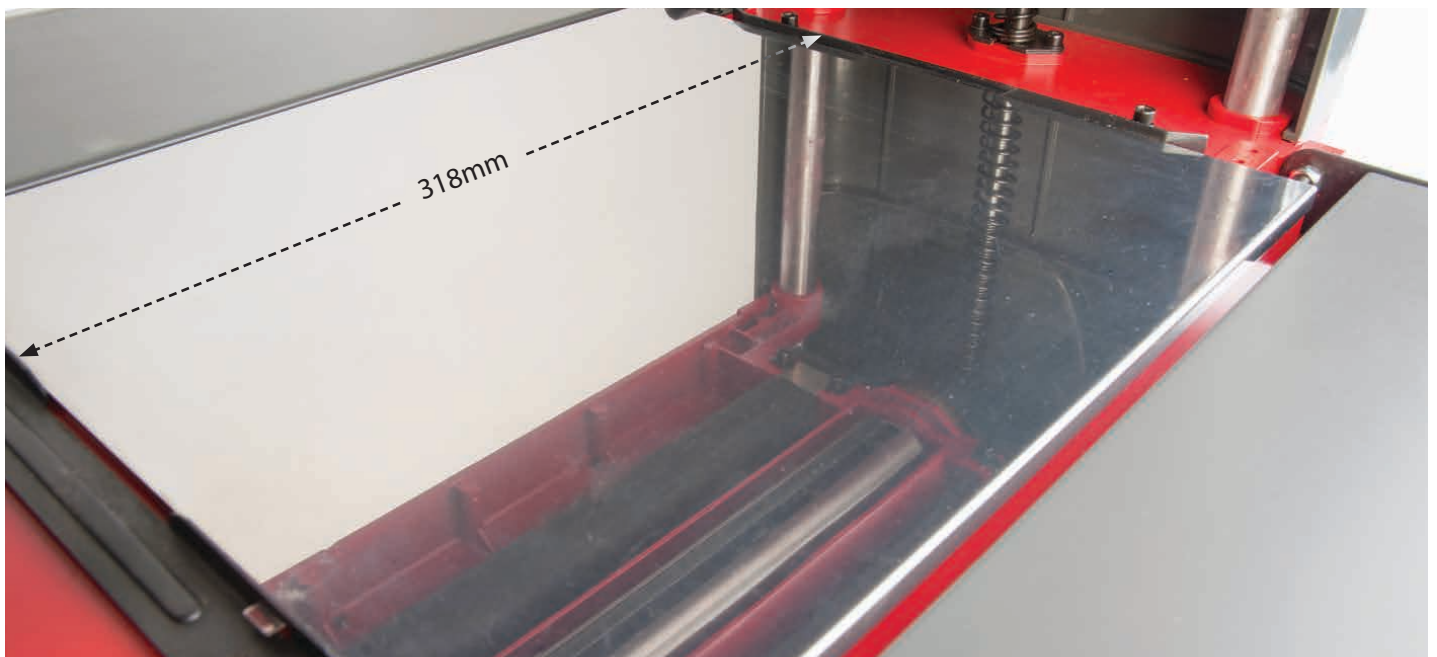
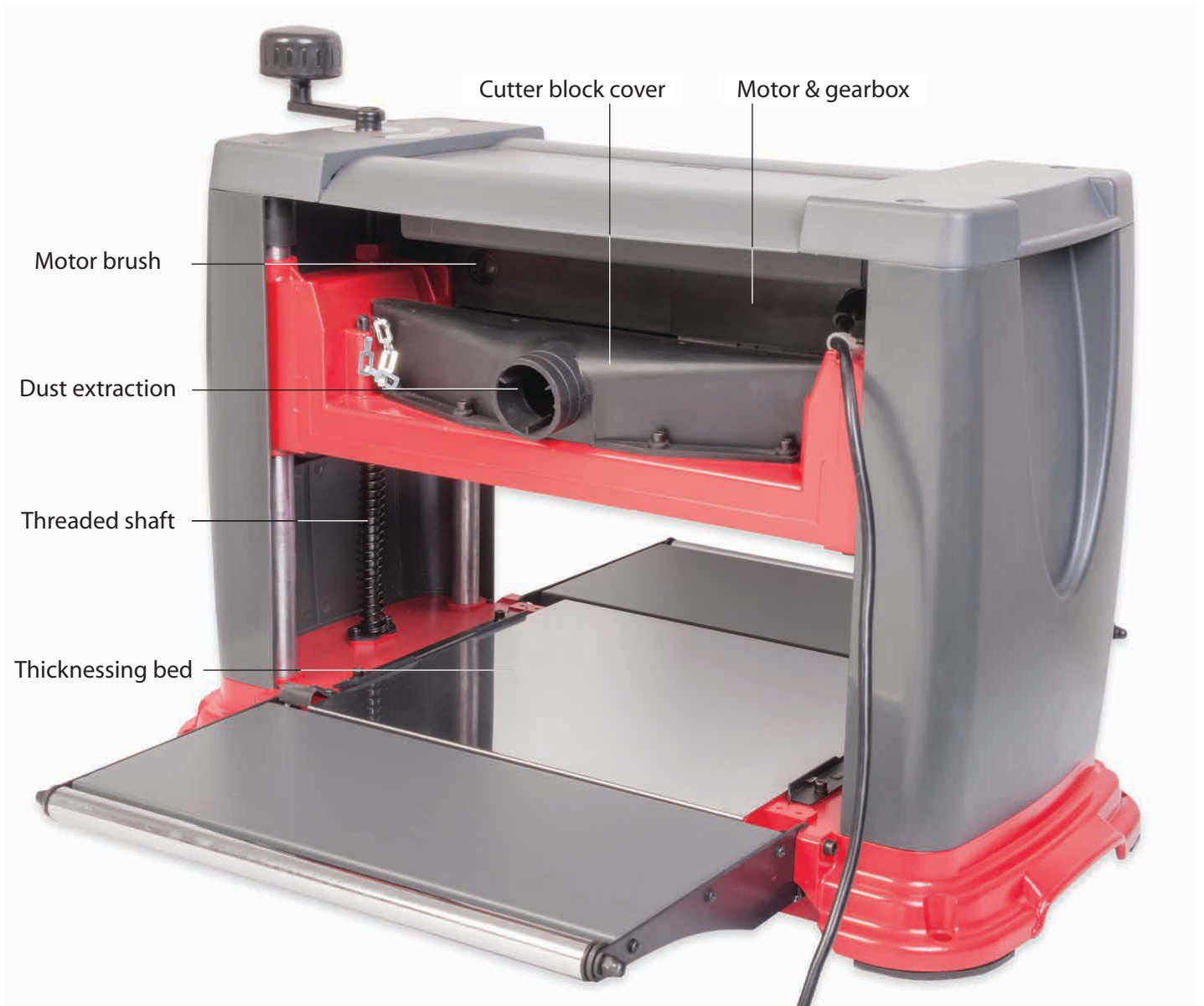


Tool compartment



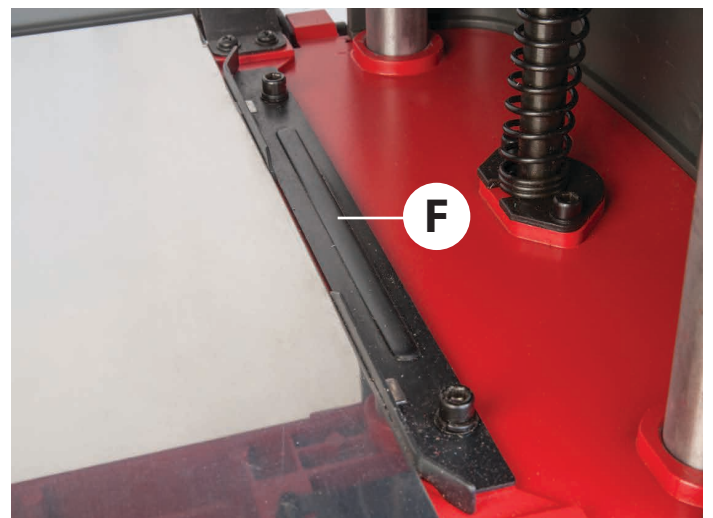
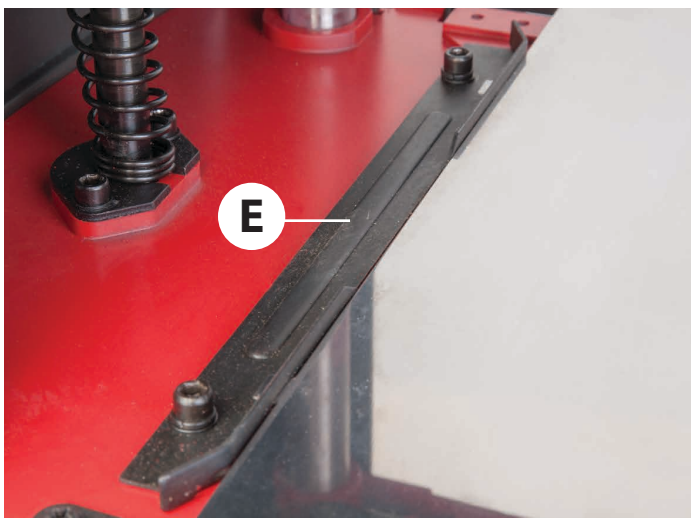
Thickening scale

## Illustration & Parts Description

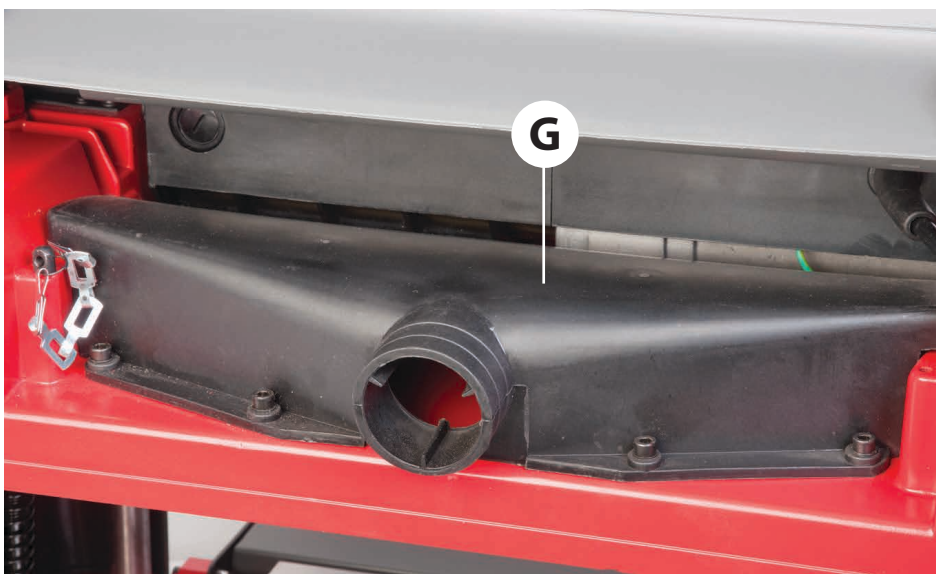




Cutter block (A), Blade holder (B), Blade (C), Square nut (D)



Width guides (E-F) keep the timber within the boundaries of the cutter block



Cutter block cover with a 50mm duct extraction outlet (G)



Folding infeed outfeed extension tables

# Setup & Adjustment

## Levelling Extension Tables

Wind the thickening head up and place a straight edge across the extension tables. Adjust the two stop bolts (A) below the table until level is correct.

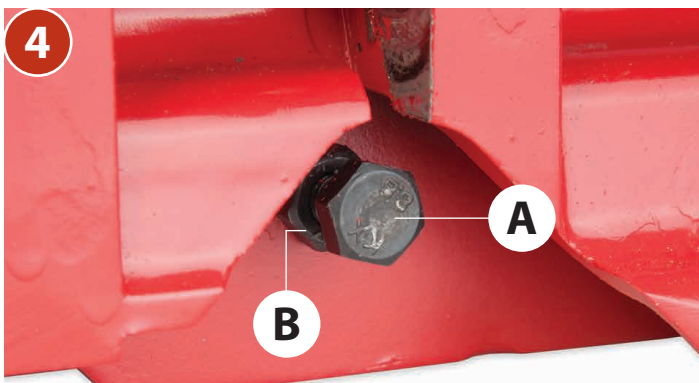
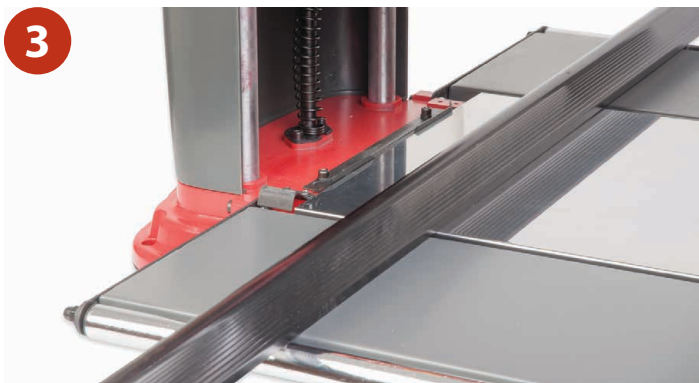
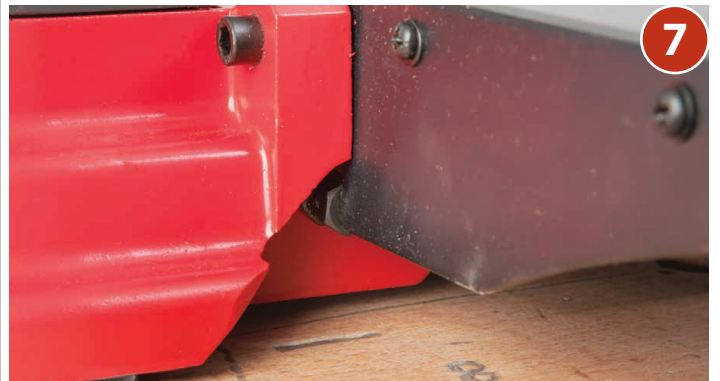
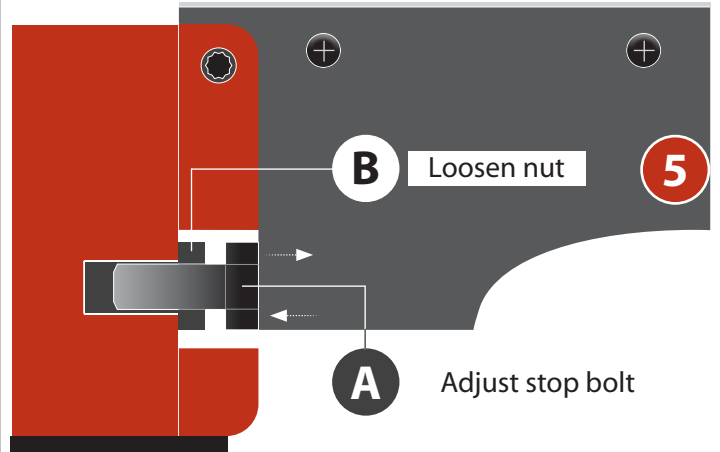


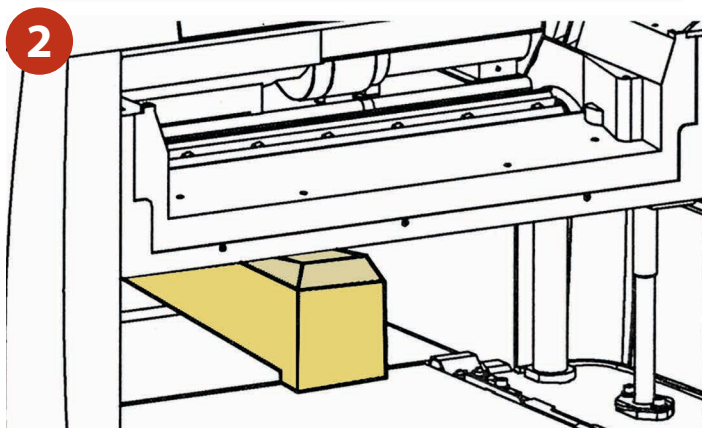
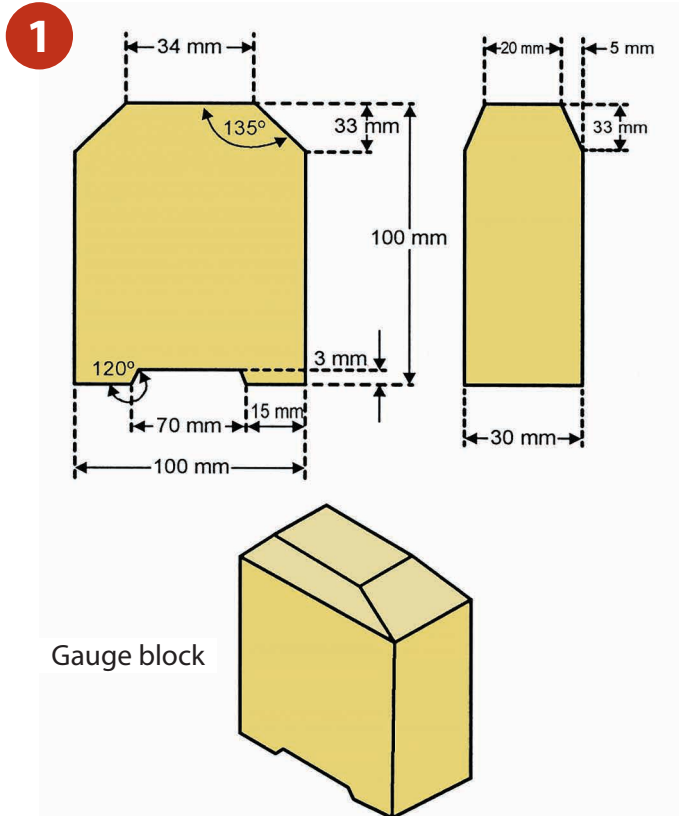
Table stop bolt (A) and locking nut (B)



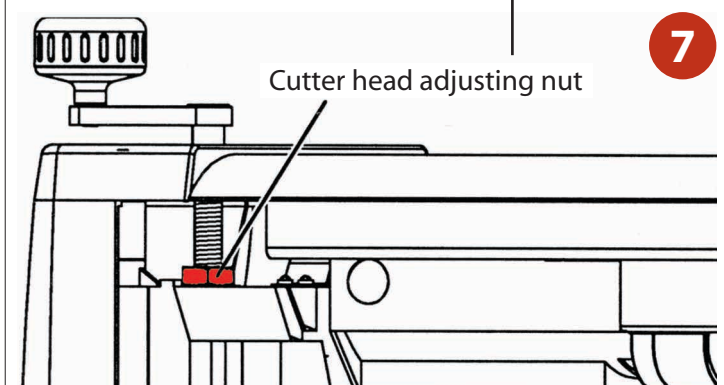
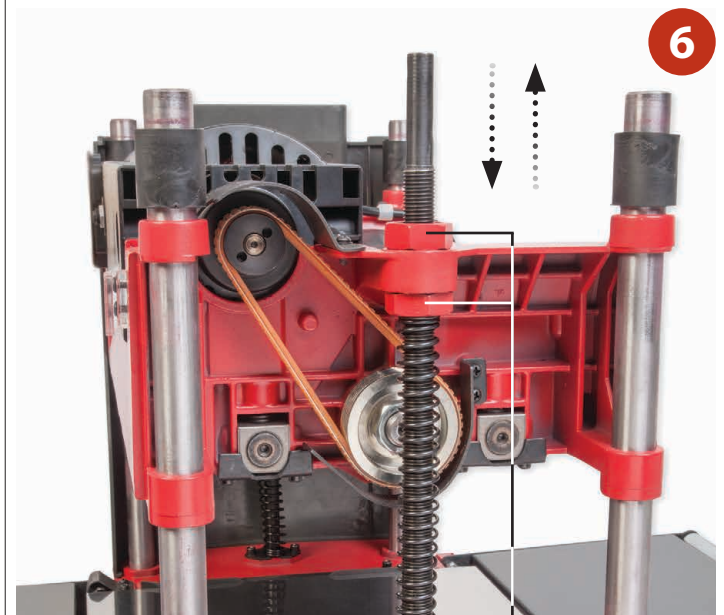
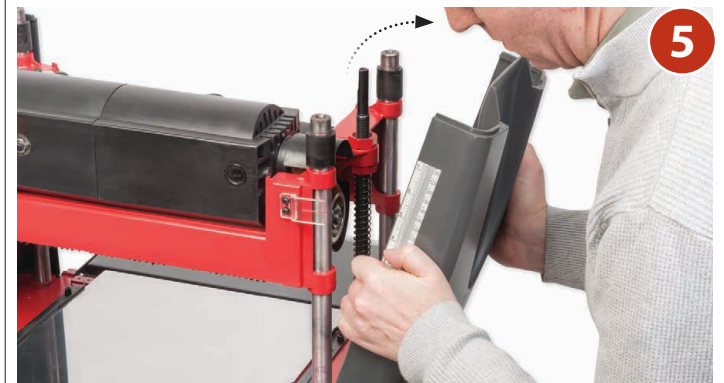
## Setting Cutter Head to Thicknessing Bed

Plane a piece of timber and measure the thickness after the cut. If the thicknesses are different on both sides of the work piece, follow the instructions below:

Use a piece of hardwood to make a tool gauge block (Illustrations 1-2).



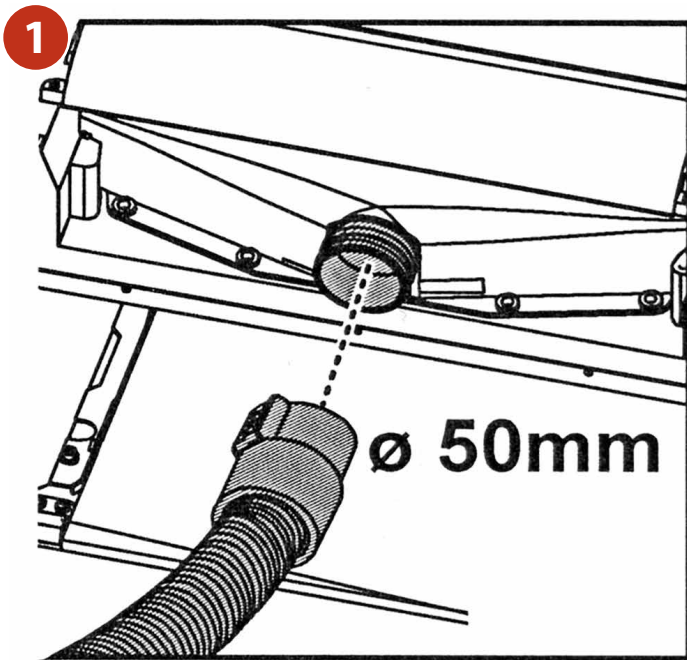
Make the following adjustments:



Adjust the height nuts on either side to suit the gauge block then tighten when level. Reassemble the thicknesser and remove gauge block.

# Operating Instructions

Connect the thicknesser to a dust extractor with an air volume of 700m<sup>3</sup>/hr.



**CONNECT THE THICKNESSER TO THE MAINS SUPPLY!**



**CLEAR ALL TOOLS AWAY FROM THE WORK AREA!**

Press the 'ON' switch. Let the thicknesser reach full speed and feed a piece of timber through from the infeed table. Wait until the timber has passed through then switch off the machine and wait until it comes to a complete stop.



**NEVER PLANE MORE THAN 3MM IN ONE PASS!  
NEVER PLANE A BOARD UNDER 127MM IN LENGTH!**



## Circuit Breaker 'RESET' Switch

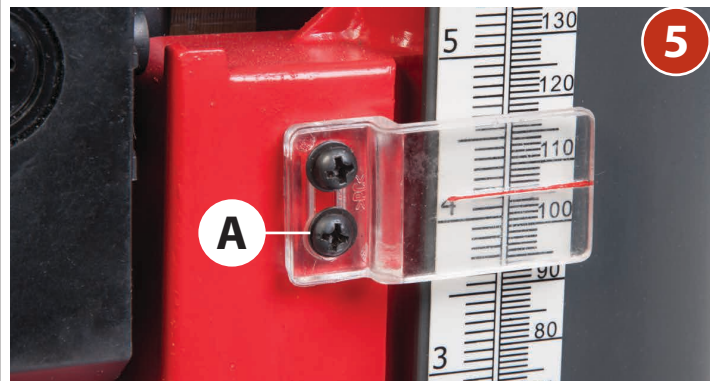
The thicknesser has an overload switch (3). If an overload occurs, the switch will pop out. Wait several minutes before pressing in the switch to reset the machine.



## Depth of Cut Scale

It is important that the depth of cut scale reads accurately. Adjust as follows.

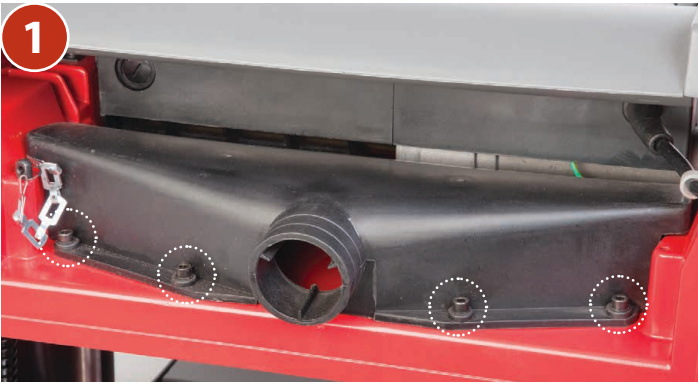
- Turn the rise & fall handle (4) to the required depth.  
NOTE: one revolution of the handle equals 1.6mm of depth.
- Switch 'ON' the thicknesser and wait until it reaches full speed.
- Feed a piece of timber through.
- Switch 'OFF' and wait until it comes to a complete stop.
- Compare the measurement on the timber with the reading on the scale. (5) If the reading is different, adjust the scales pointer by loosening the two screws (A).
- Feed another piece of timber through to check the depth of cut and make further adjustments if necessary.





**DISCONNECT THE MACHINE FROM THE MAINS SUPPLY BEFORE CONTINUING!**

1



2



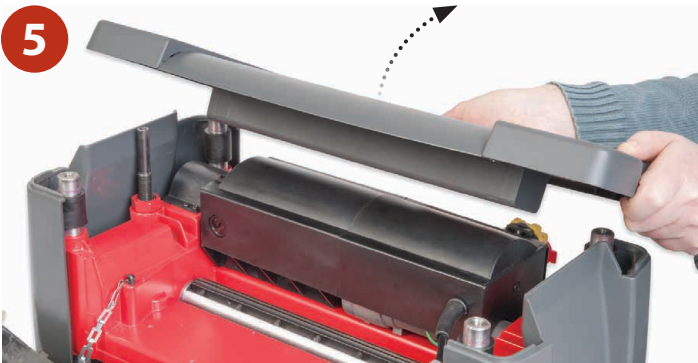
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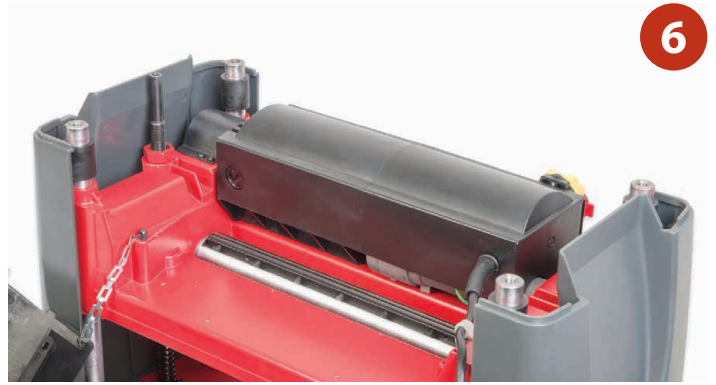
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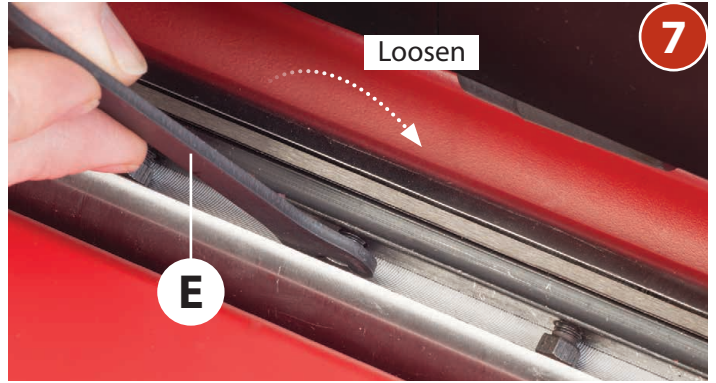
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6



7



8

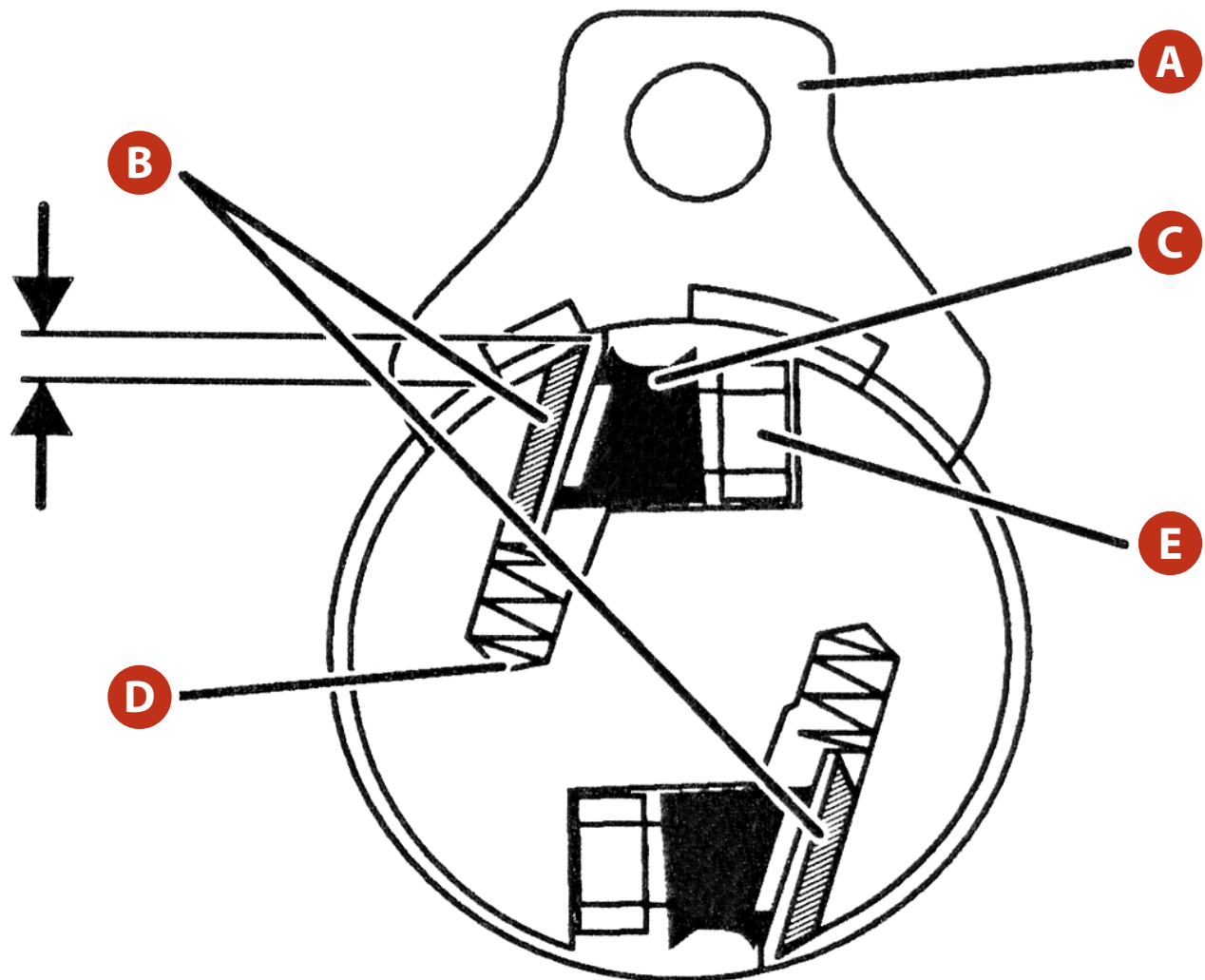


9



10





<b>Cutter Block Assembly</b>	
Blade Setting Gauge	<b>A</b>
Blade	<b>B</b>
Blade Holder	<b>C</b>
Spring	<b>D</b>
Clamping Square Nut	<b>E</b>



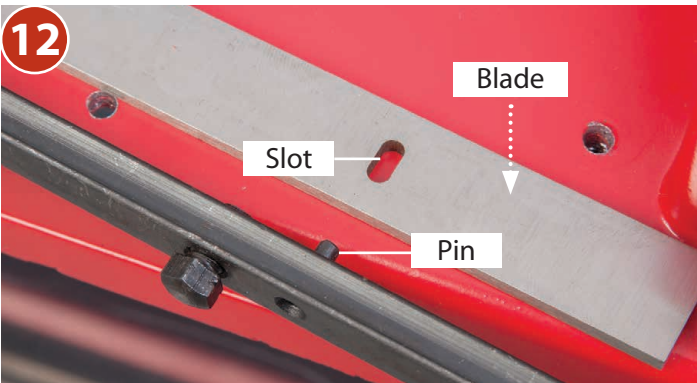


**CAUTION!! THE BLADES ARE SHARP!**

11



12



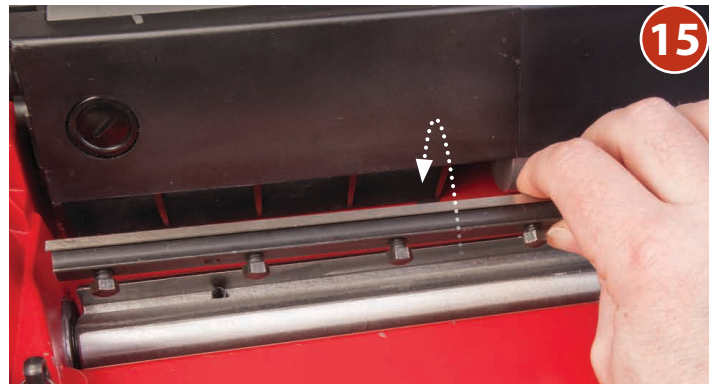
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14



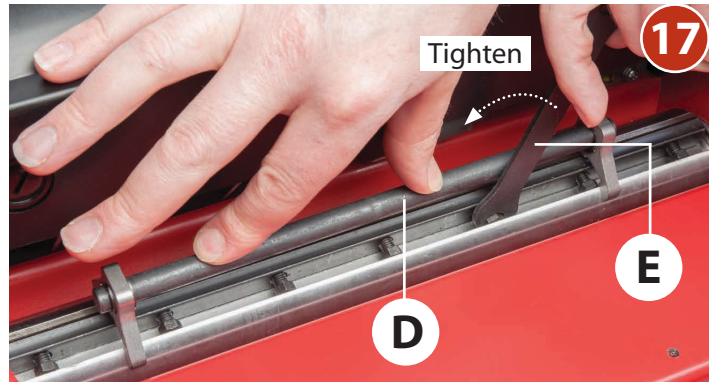
15



16



17



18



19



# Maintenance

## Changing the Motor Brushes



**DISCONNECT THE MACHINE FROM THE MAINS SUPPLY BEFORE CONTINUING!**

Check the carbon brushes every three months. Replace if worn.



Take careful note of the orientation of the brushes when you remove them, remember that they have bedded themselves to the profile of the commutator in that position. If you fit them reversed they may not be in exactly the same position, which can cause excessive sparking and heat until they have re-bedded themselves.

1



2



3



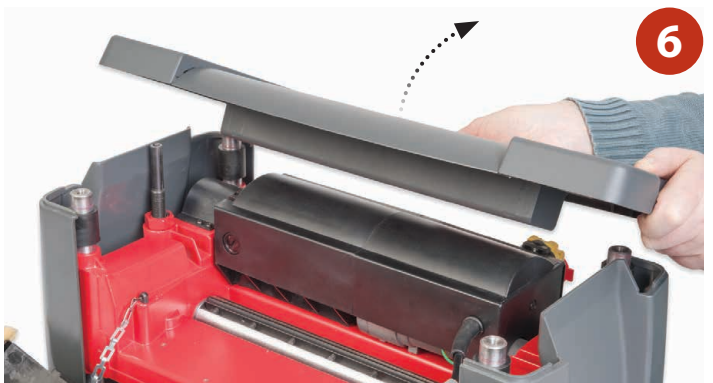
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5



6



7

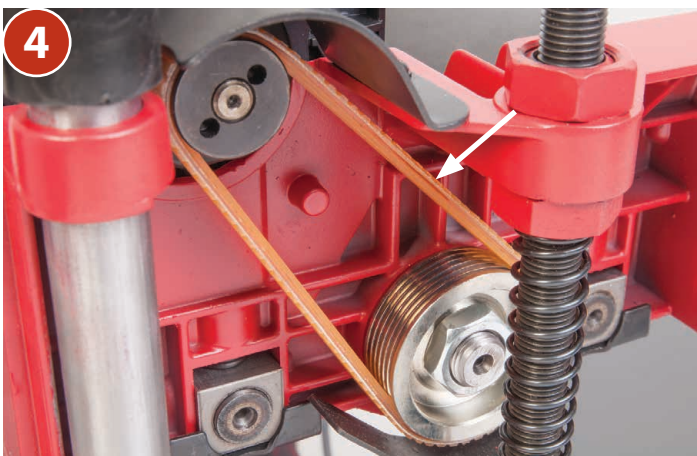
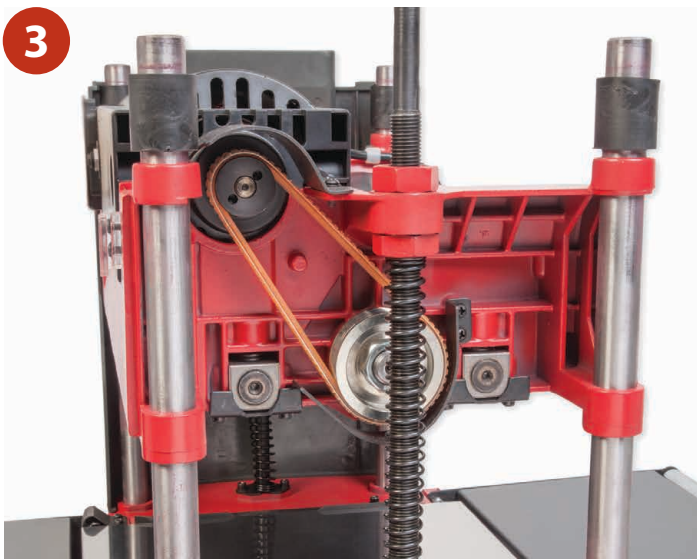
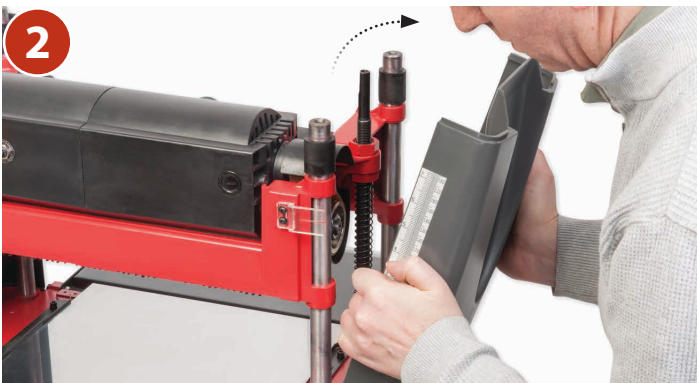


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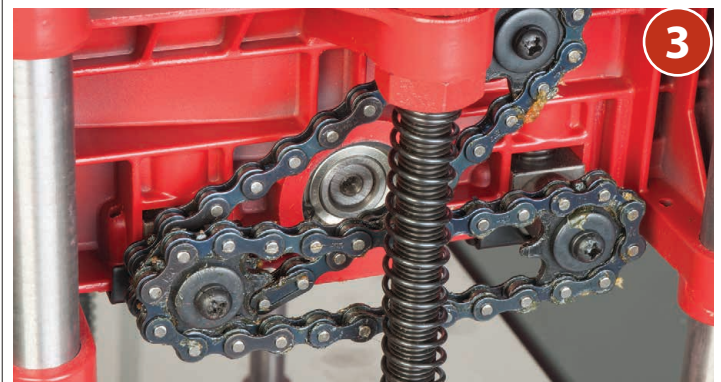
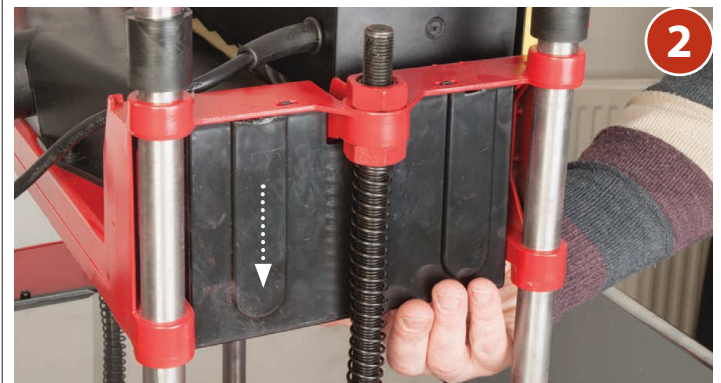
## Checking the Condition of Drive Belt

- Visually inspect the drive belt for damage or slackness every month.



## Checking the Condition of Drive Chain

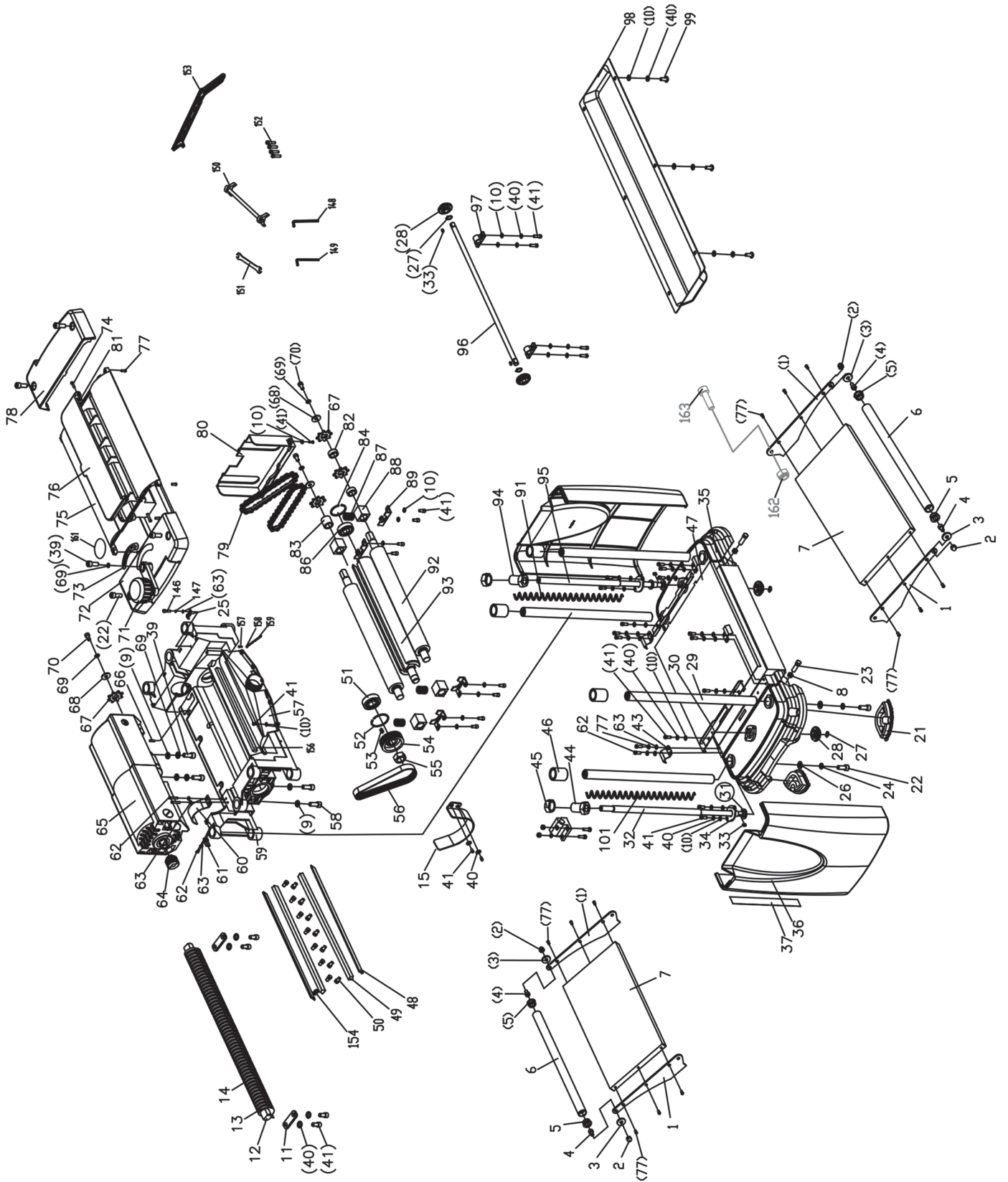
- Once a month, check the chain drive has not become too slack or the teeth on the sprockets too worn. Check the chain has not become clogged.



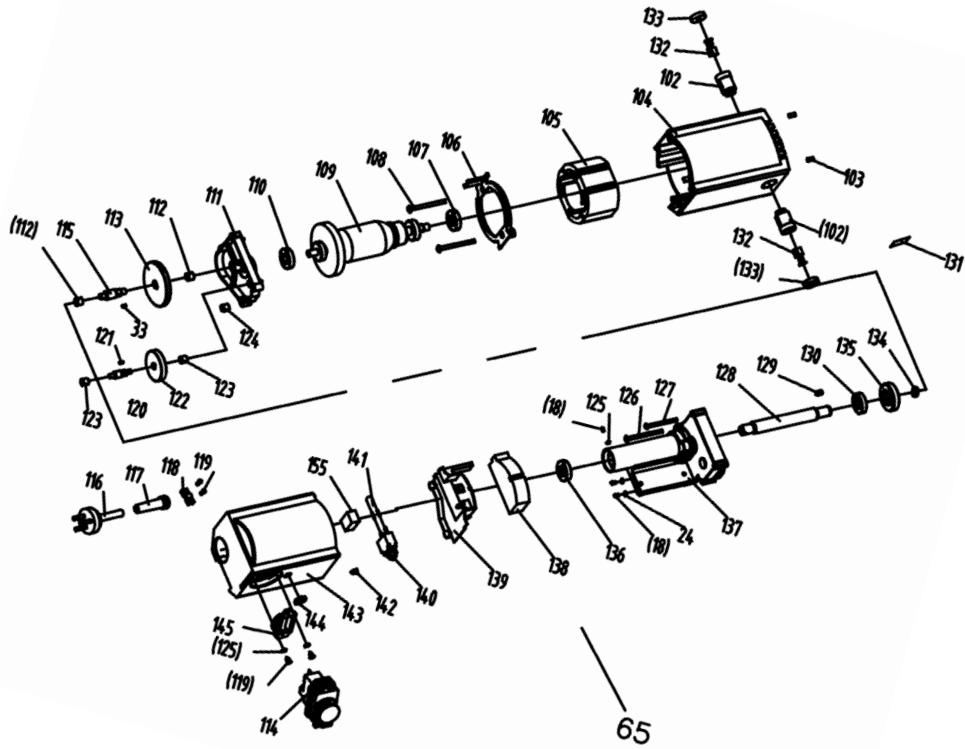
- Clean the chains, remove build-up of dust or wood shavings and apply a light coat of grease over the chains.
- Remove the build-up of sawdust and debris around the machine.
- Replace guard covers.

## Troubleshooting

PROBLEM	POSSIBLE CAUSE	SOLUTION
Grain is fussy	<ol style="list-style-type: none"> <li>1. Planing wood with high moisture content</li> <li>2. Blades are dull</li> </ol>	<ol style="list-style-type: none"> <li>1. Dry the wood</li> <li>2. Sharpen the blades</li> </ol>
Grain is torn	<ol style="list-style-type: none"> <li>1. The cut is too heavy</li> <li>2. Blades are cutting against the grain</li> <li>3. Blades are dull</li> </ol>	<ol style="list-style-type: none"> <li>1. Review proper depth of cut</li> <li>2. Feed the workpiece with the grain, or turn workpiece around</li> <li>3. Sharpen the blades</li> </ol>
Grain is rough/raised	<ol style="list-style-type: none"> <li>1. Blades are dull</li> <li>2. Cut is too heavy</li> <li>3. Moisture content is too high</li> <li>4. Cutter head bearings are damaged</li> </ol>	<ol style="list-style-type: none"> <li>1. Sharpen the blades</li> <li>2. Review proper depth of cut</li> <li>3. Dry the wood</li> <li>4. Replace the bearings</li> </ol>
Uneven depth of cut from side to side	<ol style="list-style-type: none"> <li>1. Blade projection is not uniform</li> <li>2. Cutter head is not levelled to planer bed</li> </ol>	<ol style="list-style-type: none"> <li>1. Adjust the blade projection</li> <li>2. Level the cutter head to table</li> </ol>
Board thickness does not match depth of cut scale	<ol style="list-style-type: none"> <li>1. Depth of cut scale is incorrect</li> </ol>	<ol style="list-style-type: none"> <li>1. Adjust the depth of cut scale</li> </ol>
Chain is jumping	<ol style="list-style-type: none"> <li>1. Sprockets are misaligned</li> <li>2. Sprockets are worn</li> </ol>	<ol style="list-style-type: none"> <li>1. Align the sprockets</li> <li>2. Replace the sprockets</li> </ol>
Machine will not start/restart	<ol style="list-style-type: none"> <li>1. Tool is not plugged in</li> <li>2. Motor failure</li> <li>3. Wire is loose</li> <li>4. Overload reset has failed</li> <li>5. Motor starter failure</li> </ol>	<ol style="list-style-type: none"> <li>1. Check the power source</li> <li>2. Check the motor</li> <li>3. Check the motor by a qualified electrician</li> <li>4. Allow machine to cool down and restart</li> <li>5. Check the motor by a qualified electrician</li> </ol>
Circuit tripping resulting in motor stoppage	<ol style="list-style-type: none"> <li>1. Extension cord is too long or too thin</li> <li>2. Blades are too dull</li> <li>3. Low voltage running</li> </ol>	<ol style="list-style-type: none"> <li>1. Use a shorter or thicker extension cord</li> <li>2. Sharpen or replace the blades</li> <li>3. Check the voltage</li> </ol>
Poor feeding of timber	<ol style="list-style-type: none"> <li>1. Planer table is dirty</li> <li>2. Feed roller is damaged</li> <li>3. Sprocket is damaged</li> <li>4. Gear box malfunctions</li> </ol>	<ol style="list-style-type: none"> <li>1. Clean off the pitch and residue, and lubricate the planer table</li> <li>2. Replace the feed roller</li> <li>3. Replace the sprocket</li> <li>4. Check the gear box</li> </ol>
Workpiece is jammed	<ol style="list-style-type: none"> <li>1. Inadequate blade setting height</li> </ol>	<ol style="list-style-type: none"> <li>1. Set the blade to the correct height</li> </ol>



# Exploded Diagrams/Lists



No.	DESCRIPTION	QTY
1	CONNECTING PLATE	4
2	NUT	4
3	WASHER	4
4	SCREW	8
5	PLUNGER	4
6	PIPE	2
7	TABLE	2
8	NUT	2
9	WASHER	4
10	WASHER	20
11	PRESSING PLATE	2
12	FIXED SPINDLE	1
13	REATAINING PART	54
14	RETAINING WASHER	53
15	PROTECTION GUARD	1
16		
17		
18	SCREW	6
19		
20		
21	FEET	4
22	SCREW	8
23	BOLT	4
24	WASHER	4
25	LINE PRESSING CARD	1
26	WASHER	4
27	SHAFT RING	4
28	BEVEL GEAR	4
29	GUIDE PILLAR	4

30	GUIDE PLATE	2
31		
32	LEAD SCREW	1
33	FLAT KEY	4
34	PRESSING PLATE	2
35	BASE	1
36	SIDE PLATE	2
37	SCALE	1
38		
39	SCREW	3
40	SPRING WASHER	22
41	SCREW	33
42		
43	LEAF SPRING	4
44	BARREL	1
45	NUT	2
46	LIMIT SLEEVE	4
47	WORK TABLE	1
48	PLANER CUTTER	2
49	PRESSING PLATE	2
50	COMPRESSION SCREW	14
51	BEARING	1
52	CHECK RING	1
53	FLAT KEY	1
54	DRIVEN WHEEL	1
55	NUT	1
56	BELT	1
57	CHIP SHIELDS	1
58	SCREW	2
59	BODY	1

60	CLAMP	1
61	POINTER	1
62	SCREW	4
63	FLAT WASHER	13
64	BELT WHEEL	1
65	MOTOR	1
66	LIMIT PIN	2
67	CHAIN WHEEL	4
68	WASHER	3
69	SPRING WASHER	6
70	SCREW	3
71	HANDLE	1
72	COVER	1
73	ROTATION MARK	1
74	SCREW	2
75	TOOL CABINET	1
76	TOOL CABINET COVER	1
77	SCREW	6
78	COVER	1
79	CHAIN	2
80	CHAIN SHILED	1
81	LOCKNUT	2
82	BUSH	3
83	BUSH	1
84	CHECK RING	1
85		
86	BEARING	1
87	SPRING	3
88	BEARING	4

89	BEARING PRESSING PLATE	4
90		
91	PRESSURE SPRING	1
92	COMPRESSION ROLLER	2
93	CUTTER	1
94	BARREL	1
95	LEAD SCREW	1
96	TRANSFER BAR	1
97	OIL BEARING	2
98	BAFFLE	1
99	SCREW	6
100		
101	SPRING	1
102	BRUSH HOLDER	2
103	SCREW	2
104	MOTOR SHELL	1
105	STATOR	1
106	WIND SHIELD	1
107	BEARING	1
108	SCREW	2
109	ROTOR	1
110	BEARING	1
111	REDUCTION BOX COVER	1
112	OIL BEARING	2
113	GEAR	1
114	SWITCH	1
115	AXIS	1
116	PLUG CORD	1
117	PROTECTING BUSH	1

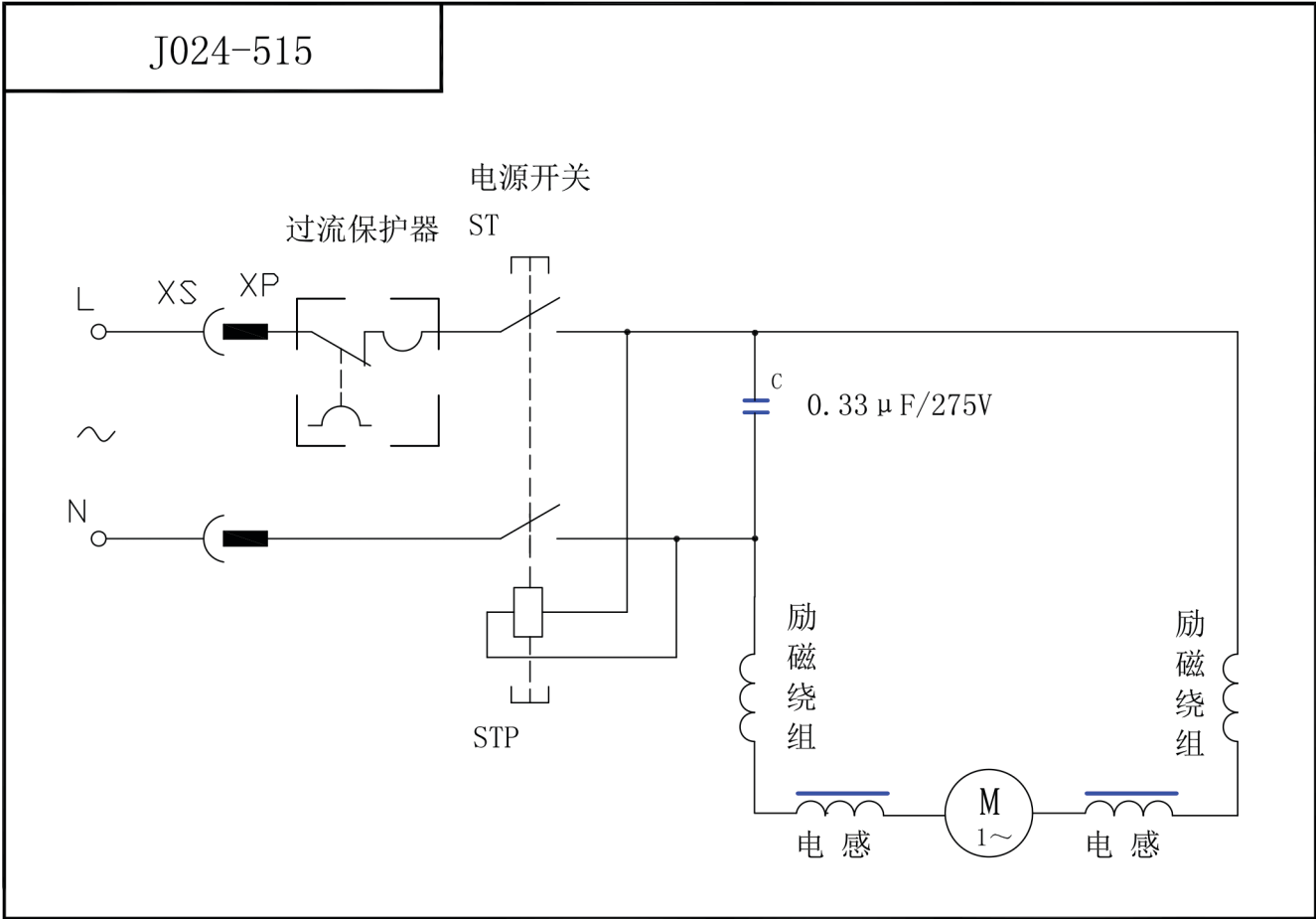
118	LINE PRESSING CARD	1
119	SCREW	4
120	AXIS	1
121	FLAT KEY	1
122	GEAR	1
123	OIL BEARING	2
124	LOCATING BUSH	2
125	WASHER	3
126	SCREW	1
127	SCREW	3
128	MOTOR SHAFT	1
129	FLAT KEY	1

130	BEARING	1
131	MOTOR LABEL	1
132	BRUSH	2
133	BRUSH CAP	2
134	CHECK RING	1
135	GEAR	1
136	BEARING	1
137	REDUCTION BOX	1
138	FOAM PAD	1
139	SHIELD	1
140	OVERLOAD PROTECTOR	1

141	INSERT	4
142	SCREW	2
143	HOUSING	1
144	NUT	1
145	SWITCH DEAD PLATE	1
146	SCREW	1
147	SPRING WASHER	1
148	WRENCH 4	1
149	WRENCH 5	1
150	FELLER BLOCK	1
151	8-10 SPANNER	1
152	SCREW	4

153	CHARGING ARM	1
154	SPRING	4
155	CAPACITOR	1
156	PANEL	1
157	SCREW	1
158	SCREW COLLAR	2
159	JOINING CHAIN	1
160		
161	SCALE	1
162	NUT	4
163	SCREW	4

Wiring Diagram



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