

Clarke® WOODWORKER



© 1000

305mm (12") Portable Bandsaw

Model CBS12WV

Part Number 6460030

OPERATING & MAINTENANCE
INSTRUCTIONS

Clarke[®]

INTERNATIONAL

This is an important document, and should be retained.



DECLARATION OF CONFORMITY

We declare that this product complies to the following standards/directives:

- 89/392/EEC
- 73/23/EEC
- EN 60335-1
- EN 60 204-1

EC TYPE APPROVAL No. 0466/95/13
AEA TECHNOLOGY, RISLEY, CHESHIRE

Product Description: 305MM (12") BANDSAW

Model Number: CBS12WW

Serial (Batch) No. See Front Cover

Signed

A handwritten signature in black ink, appearing to be 'L. S. J.', written over a horizontal line.

Clarke INTERNATIONAL
Hornall Street, Epsom, Essex CM16 4EG

Clarke International is a trading style of Clarke International Limited

Specifications

Model No.	CBS12WV
Part No.	6460030
Motor	230V 50Hz 1Ph
Power Rating	550 Watts
Motor Speed	1430rpm max.
Blade Speed	200-600M/Min under Load
Max. Depth of Cut	85mm (3 ⁵ / ₁₆ ")
Max. Throat Width	305mm (12")
Table Tilt	0-45 Degrees
Table Size	345 x 345mm
Dust Port	41.5mm
Weight	15.5kg
Noise Level	90dB LWA*

*(Sound Power Level) Cutting 25mm soft wood at maximum speed

Restrictions of Use

This saw is NOT suitable for cutting:

- *Timber greater than 110mm in depth.*
- *Metal, stone, rubber, plastic, bones, etc.*
- *Logs or round timber.*

Spare Parts & Service Contacts

For Spare Parts and Service, please contact your nearest dealer, or CLARKE International, on one of the following numbers.

PARTS & SERVICE TEL: 020 8988 7400

PARTS & SERVICE FAX: 020 8558 3622

or e-mail as follows:

PARTS: Parts@clarkeinternational.com

SERVICE: Service@clarkeinternational.com

Thank you for purchasing this Clarke 12 inch Bandsaw. This machine is designed to rip and cross cut wood exclusively and for DIY, and hobby use ONLY. Before attempting to operate this machine, please read this instruction manual thoroughly and follow all directions carefully. This is for your own safety and that of others around you, and to help you achieve long and trouble free service from your bandsaw.

Guarantee

This product is guaranteed against faults in manufacture for 12 months from purchase date. Please keep your receipt as proof of purchase.

This guarantee is invalid if the product has been abused or tampered with in any way, or not used for the purpose for which it is intended. The reason for return must be clearly stated.

This guarantee does not affect your statutory rights.

For your own Safety



WARNING! Read these safety instructions in conjunction with the operating instructions, and before using the equipment.

- ✓ **ALWAYS** wear suitable safety goggles, manufactured to the latest European Safety Standards, when using the bandsaw.
- ✓ **ALWAYS** keep your hands and fingers clear of the blade when sawing. Use a push stick with small workpieces.
- ✓ **ALWAYS** set the blade guide/guard assembly as close as possible to the workpiece.
- ✓ **ALWAYS** switch off the saw, and make sure the blade has come to a complete stop before clearing sawdust or off-cuts from the table.
- ✓ **ALWAYS** keep the saw properly adjusted, paying particular attention to the blade tension and tracking, and the blade guides.
- ✓ **ALWAYS** disconnect the saw from the mains supply before removing the front cover.
- ✓ **ALWAYS** make sure ON/OFF switch is in 'OFF' position before plugging in. Avoid accidental starting.
- ✓ **ALWAYS** keep children away. All visitors should be kept a safe distance from the work area, especially while operating unit.
- ✓ **ALWAYS** use in a well ventilated area. Remove sawdust frequently. Clean out sawdust from the interior of the saw to prevent a potential fire hazard.
- ✓ **ALWAYS** Wear proper apparel. Loose clothing or jewellery may get caught in moving parts. Wear protective hair covering to contain long hair.
- ✗ **NEVER** leave this saw running unattended. Turn power OFF. Don't leave tool until it comes to a complete stop.
- ✗ **NEVER** operate this saw while under the influence of drugs, alcohol or any medication.
- ✗ **NEVER** attempt to free a stalled saw blade without first turning the saw OFF. Turn off power switch immediately to prevent motor damage.

Electrical Connections



WARNING! THIS APPLIANCE MUST BE EARTHED

IMPORTANT: The wires in the mains lead are coloured in accordance with the following code:

Green & Yellow - Earth
Blue - Neutral
Brown - Live

As the colours of the flexible cord of this appliance may not correspond with the coloured markings identifying terminals in your plug proceed as follows:

- Connect **GREEN & YELLOW** coloured cord to plug terminal marked with a letter E or Earth symbol "⏏" or coloured GREEN or GREEN & YELLOW.
- Connect **BROWN** coloured cord to plug terminal marked with a letter L or coloured RED
- Connect **BLUE** coloured cord to plug terminal marked with a letter N or coloured BLACK

IMPORTANT! If this appliance is fitted with a plug which is moulded onto the electric cable (i.e. non- re-wireable) please note:

1. The plug must be thrown away if it is cut from the electric cable. There is a danger of electric shock if it is subsequently inserted into a socket outlet.
2. Never use the plug without the fuse cover fitted.
3. Should you wish to replace a detachable fuse carrier, ensure that the correct replacement is used (as indicated by marking or colour code).
4. Replacement fuse covers can be obtained from your local dealer or most electrical stockists.

Fuse Rating

The fuse in the plug must be replaced with one of the same rating (**13 amps**) and this replacement must be ASTA approved to BS1362.

Assembly and Installation

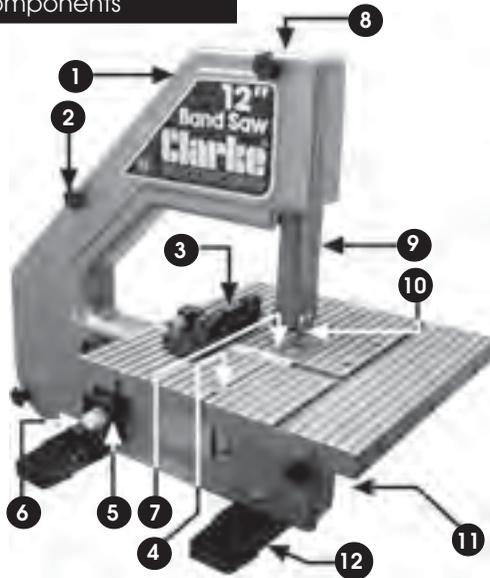
Upon unpacking the contents of the carton you will note that some assembly work is necessary before the Bandsaw can be installed. The Feet (**12, Fig.1**) and the Table Assembly must be fitted before the Bandsaw may be attached to a suitable workbench.



WARNING! Disconnect the bandsaw from the mains supply before

Note: The bandsaw is provided with a microswitch to prevent the saw from operating if the cover is left open or is opened whilst the saw is running. If the saw does not operate when the cover is replaced it may be because the microswitch is not closed. Check that the microswitch will operate when replacing the cover.

Fig. (1) Main Components



1	Front Cover	7	Table Insert
2	Front Cover Securing Knob (x4)	8	Blade Tensioning Screw
3	Rip Fence/ Mitre Gauge	9	Blade Guard
4	Table Set Screw	10	Upper Blade Guide
5	Control Panel (ON/OFF)	11	Dust Extraction Port
6	Speed Control Knob	12	Feet

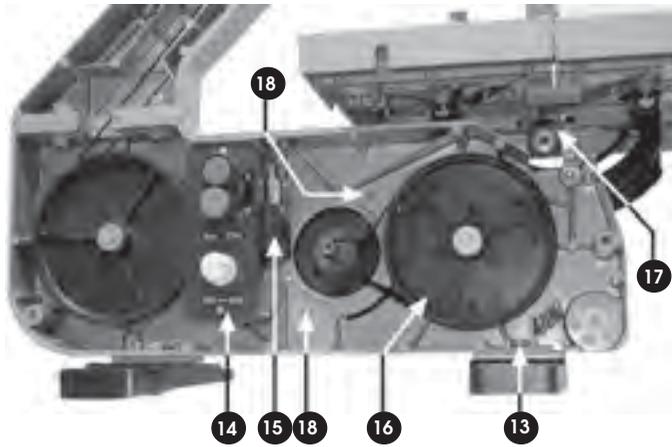
(1) Attach the Feet (Ref: fig 1)

1. Unscrew the four securing knobs **(2)** and remove the front cover. (see WARNING above)
2. Attach the feet **(12)** to the underside of the machine using the nuts and screws supplied, two for each foot **(13, Fig.2)**.
3. Replace the front cover.

(2) Attach the Table (Ref: fig 3)

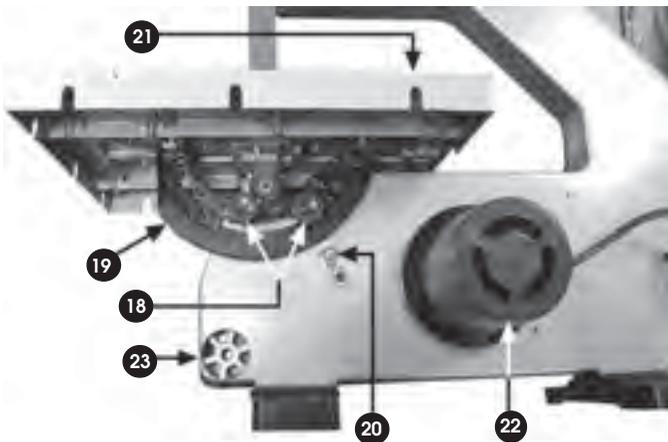
1. Attach the table tilt bracket **(19)** to the underside of the table, using the four screws and nuts supplied, as shown in fig. 3.
2. Remove the table insert **(7, Fig. 1)** and the counter sunk screw **(4, Fig. 1)** from the table slot. (This set screw locks the two sides of the slot together, preventing the table from flexing during use.)
3. Place the table into position from the motor side of the saw, taking care when passing the blade through the slot, then secure the table using the washers and adjusting knobs **(18)** supplied.
4. Replace the set screw **(4, Fig. 1)**, and fit the table insert **(7, Fig. 1)**.

Fig. (2) Cover Removed



- | | |
|--|---------------------------------------|
| 13 Foot Securing screw (x4) | 16 Drive Wheel |
| 14 Control Panel (On/Off/Speed) | 17 Lower Blade Guide |
| 15 Microswitch | 18 Motor Cover Securing Screws |

Fig. (3) Rear View



- | | |
|--|----------------------------------|
| 18 Table Securing Knobs (x2) | 21 Table Adjusting Screw |
| 19 Table Tilt Bracket | 22 Motor Cover |
| 20 Table Tilt Indicator (Degrees) | 23 Dust Extraction Outlet |

(3) Attach the Bandsaw to a Workbench

Fix the bandsaw to a suitable Workbench using screws or bolts (not supplied), through the holes in the feet with washers under the screw heads. Do not overtighten the securing screws.

Adjustments

IMPORTANT: To achieve the best performance and maintain the maximum level of safety, certain adjustments must be made, **BEFORE** use.



WARNING! The machine **MUST** be disconnected from the mains supply before any adjustments are made.

(a) Table Adjustment (Ref: Fig. 3)

The screw (21) allows the table to be adjusted so that it is square to the blade.

With the table securing knobs (18) slackened, slide a small square across the table so that it contacts the side of the blade, then check to ensure the angle made is a right angle. If necessary turn the adjuster screw (21) clockwise or anticlockwise, whilst maintaining a slight pressure on the adjusting screw side of the table top, until the table is at 90 degrees to the blade. Tighten the table securing knobs, then check the table angle Indicator (20). If necessary, reposition the pointer so that it points to zero on the scale.

(b) Blade Tension (Ref: fig 4)

1. Slacken the blade tension locking knob (25) one full turn.
2. Adjust the blade tension Hex. socket head adjuster screw (24) a little at a time: clockwise to tighten increase tension, anticlockwise to decrease.
3. When correct tension has been achieved tighten the blade tension locking knob (25).

The blade needs to be tight enough to give a straight cut without allowing it to wander or slip or lose its tracking, but must not be so tight that it is rigid, there must be a certain degree of flexibility.

A few minutes using the machine will allow you to get a feel for correct blade tension.

If the saw is not to be used for some time we recommend that you release the tension on the blade. REMEMBER therefore to ALWAYS check blade tension before use.

(c) Blade Tracking (Ref: fig 4)

NOTE: This adjustment is carried out at the factory. It is not therefore necessary to check or readjust before use for the first time.

The adjustment MUST be made whenever replacing a saw blade or if the saw blade runs off the wheels.

The blade must 'track' correctly otherwise it will continually run off the drive and idler wheels. The blade should run in the middle of the wheels rims, and the procedure for checking and adjusting is as follows:

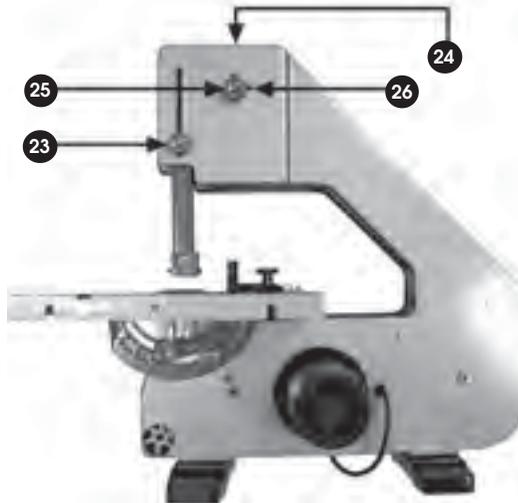
1. Remove the table by fully unscrewing the two securing knobs, then slacken off all upper and lower blade guides as described under 'Blade Guide Adjustments' on page 10.
2. Correctly tension the blade as described under 'Blade Tension' on page 8.
3. Remove the front cover in order to gain access to the blade and wheels.



WARNING! Disconnect the bandsaw from the mains supply before removing the front cover.

4. Carefully turn the driving wheel (**16, Fig. 2**) by hand to check blade tracking, taking care to keep fingers well clear of the blade, and not trapping them between the blade and the wheel. The blade must run true, as close to the centre of the rim of each wheel as possible.
5. Adjust the tracking by turning the Hex. socket head adjuster screw (**26**) a little at a time....clockwise to move the blade inwards towards the motor side of the machine, and anticlockwise to move it outwards. Turn the driving wheel by hand as you turn the adjuster screw.
6. Check blade tension once again after completing the tracking adjustment and adjust if necessary.
7. Replace the front cover (**1**), then adjust the Blade Guides as described in the following paragraphs.

Fig. (4)



- | | | | |
|-----------|------------------------------|-----------|-----------------------------|
| 23 | Blade Guard Locking Knob | 25 | Blade Tension Locking Knob |
| 24 | Blade Tension Adjuster Screw | 26 | Blade Tracking Adjust Screw |

(d) Blade Guide Adjustments (Ref: fig 5)

NOTE: These adjustments are carried out at the factory. It is not therefore necessary to check or make readjustments before using for the first time.

These adjustments MUST be carried out periodically or whenever replacing a saw blade or whenever blade tracking adjustment is carried out.

The lower guide is located beneath the table as shown at 17, Fig.2; The upper guide is within the blade guard assembly shown at 18, Fig.2.

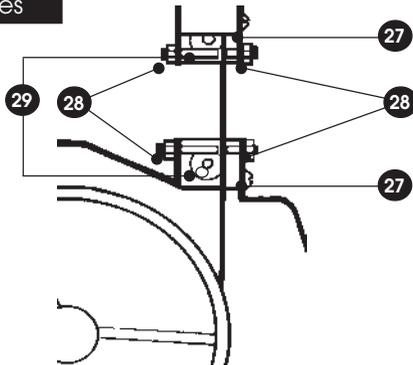
NOTE: It simplifies the procedure if the table is removed in order to gain easy access to the lower blade guides.

1. Slacken the guide lock nuts (28) and back off the guides, so that there is clearance between the guide and blade, and the support bearing locknut and back off the support bearing. (Support bearings are shown at 29, Fig.5)

NOTE: This procedure would have been carried out previously if a new blade is being installed, or if tracking has been reset.

2. Slacken the Guide Bracket securing screws (27) sufficiently to move the bracket laterally so that the guides are positioned approximately in the centre of the blade. They must not touch the teeth of the blade. When satisfied tighten the securing screws.
3. Screw in each guide until it makes light contact with the blade, then back off so that a clearance of not more than 0.5mm is achieved, then tighten the locknut. An ideal method of obtaining the correct clearance is to place a piece of paper between the guide and blade then screw in the guide until the paper is just nipped.
4. Screw in the Blade Support Bearings (shown at 29) until they make light contact with the back edge of the blade, then back off until a clearance of 0.5mm is obtained and tighten the locknut.

Fig. (5) Blade Guides



- | | |
|----|-------------------------------|
| 27 | Guide Bracket Securing Screws |
| 28 | Guide Lock Nuts (x4) |
| 29 | Blade Support Bearings |

OPERATION



WARNING! Make sure the bandsaw is correctly assembled and adjusted before use. Read and follow all safety instructions (see page 3)

- The blade supplied with the saw is suitable for general purpose cutting of hard and soft woods . It is not suitable for cutting metals (See restrictions of use, page 3). The speed of the bandsaw can be adjusted to suit the material by using the control knob below the on/off switch. Use slower speeds for harder materials.
- A dust extractor may be used during use. Simply connect a suitable hose (not supplied), from the dust extractor, to the dust extractor port (**23, Fig.3**). Dust Extractors are available from your Clarke dealer.
- The saw is supplied with a mitre gauge to allow mitre cuts to be made.
Set the gauge to the desired angle, and use the guide slot in the table to run the mitre gauge with the workpiece across the table, into the blade as shown in Fig. 6 .
- The mitre gauge can also be used as a rip fence by placing it in the slot at right angles to the blade. Fix it into place at the desired distance from the blade by using the countersunk screw in the slot. When using the mitre gauge as a rip fence you may wish to screw a suitable piece of hardwood or plywood (approximately 300 x 75 x 12 mm) to the face of the gauge to extend its length (fig 7).
- The saw table can be tilted up to 45 degrees to allow you to cut bevels and compound mitres. Slacken the table securing knobs, position the table to the desired angle, as shown on the scale beneath the table, and tighten the knobs (see fig 3).

NOTE: If accurate mitres are required, check the table angle using a suitable gauge between the table and blade. When adjusted, check to ensure the pointer is indicating the correct angle and adjust if necessary.

Fig. (6) Using the Mitre Gauge

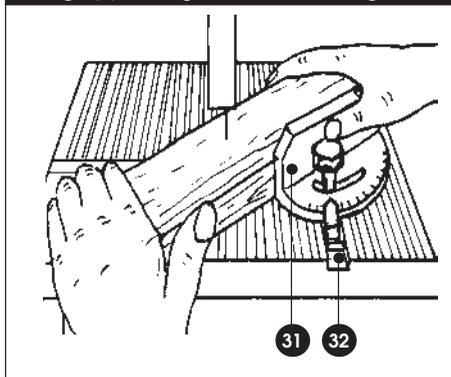
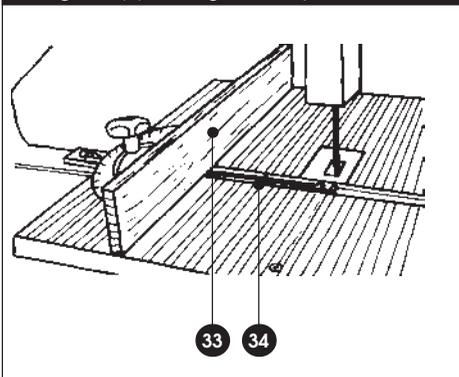


Figure (7) Using as a Rip Fence



- 31 Mitre Gauge
- 32 Mitre Gauge Slot

- 33 Option Rip Fence Extension
- 34 Rip Fence Fixing Screw

IMPORTANT: Before plugging in to the mains supply, the blade guard **MUST** be adjusted so that a minimum amount of blade is visible when cutting takes place. This is achieved as follows:

Offer the workpiece up to the blade, then lower the Upper Blade Guard by slackening the locking knob, (23, Fig.4) and tightening it again when the guard is as close to the workpiece as possible without interference.

When satisfied, plug the machine into the mains supply and observing all safety precautions previously stated, switch ON the machine by pushing the Green Knob on the control panel, marked 'I'. Turn the white speed control knob to select the appropriate speed.

Feed the workpiece slowly into the blade, with a light pressure. Pushing too hard will cause the blade to twist, resulting in a poor cut, or even cause the blade to stall or break. Thicker or hardwood workpieces will need to be fed more slowly than thin, softer stock.

Keep your hands and fingers well clear of the blade when cutting.

Always use a push stick or piece of scrap to push the work when the cut line is close to the edge of the workpiece, or when cutting small workpieces.

When cutting curves with the bandsaw, make relief cuts to allow the blade to follow the cutting line. Do not try to cut to too small a radius as you can twist and break the blade.

If you want to back the blade out of a cut, stop the saw and wait for the blade to come to a halt before backing the workpiece gently off the blade.

Always switch the bandsaw off after use. **NEVER** leave the bandsaw running unattended.

Maintenance



WARNING! Disconnect the bandsaw from the mains supply before removing the front cover.

The bandsaw requires very little maintenance other than routine adjustment and cleaning, and occasional inspection of the blade guides, blade and motor brushes.

Keep the saw clean, by clearing away sawdust and scrap frequently whilst working. When you have finished using the saw, remove the front cover and clear sawdust from inside the machine and around the motor vents using a vacuum cleaner or brush. Inspect the blade guides occasionally and replace them if they become worn.

Motor Brush Replacement (Ref: Fig.2)



WARNING! Disconnect the bandsaw from the mains supply before checking or replacing motor brushes.

The motor brushes must be checked after every 100 hours of use.

1. Remove the front cover to gain access to the two screws securing the motor cover (18, Fig.2).
2. Remove the motor cover (22 Fig. 3). The brush housings are each secured by two screws. Remove the screws and withdraw the brushes from the holders. The brushes must be replaced when they are worn down to 6mm in length.
3. Take care to avoid damaging the springs and wires when replacing the brushes.

Replacing the Saw Blade: (Ref: Fig.4)

The saw blade is not easy to sharpen, and we recommend fitting a replacement when the blade becomes blunt, loses its set, or becomes bent or cracked. Replacement blades are available from your local dealer or Clarke International Spare Parts Department.

1. Remove the table by first removing the table set screw then fully unscrewing the securing knobs.
 2. Back off all blade guides and blade supports as detailed under 'Blade Guide Adjustments' on page 10.
 3. Remove the front cover to gain access to the blade.
 4. Turn the blade tension locking knob **(25)** one complete turn anticlockwise.
 5. Turn the blade tension Hex. socket head adjuster screw **(24)** fully anticlockwise to relieve all tension from the blade.
 5. Carefully pull the blade from the wheels taking great care not to damage your hands on the teeth. It is recommended that a pair of industrial gloves be worn for this task.
 6. Position the new blade over the wheels, feeding it through the blade guides, ensuring that the teeth point downwards toward the table. Position it as close to the centre of each wheel as possible.
 7. Turn the blade tension locking knob clockwise and correctly tension the blade.
 8. Carry out tracking checks and adjust if necessary.
 9. Readjust all blade guides and blade supports as detailed under 'Blade Guide Adjustment' on page 10.
 10. Replace the table and the front cover.
 11. Plug the machine into the mains supply and with a slow speed selection, push the ON (I) button. Gradually build up the speed and allow to run for 10 - 15 minutes at a moderate speed in order to settle the blade. (Essential when running the blade for the first time).
- Before use, check blade tension and adjust if required.

NOTE: It is strongly advised that for the first few cuts, the cutting pressure exerted on the workpiece should be minimised in order to allow time for the blade to 'run in'.

Fault Finding

The bandsaw is fitted with a microswitch to prevent the saw from operating if the cover is opened whilst the saw is running. If the saw does not start, check the microswitch to ensure it operates correctly when the cover is closed. An audible click should be heard, when the cover is fitted, denoting the switch has closed. It may be necessary to adjust the mounting in order to achieve this.

Most operational problems with the saw can be corrected by adjusting blade tension, the blade guides or tracking. Poor adjustment will lead to the blade wandering, or not cutting in a straight line, or slipping from the wheels. It can even result in the blade breaking. Make sure the machine is always correctly set up and adjusted, and that the blade teeth are pointing downward toward the table. Similarly, if the blade is blunt or has lost its set, or is bent or cracked, it will not cut easily or in a straight line. A damaged or blunt blade must be replaced.

Spare Parts List

No.	Description	Part No.	No.	Description	Part No.
2	Wheel	HT14600203	56	Front Cover	HT14605601
3	Hex Nut	HT270100312	57	Wheel Body	HT14605601
7	Mitre Shaft	HT2601008112	58	Machine Screw	HT2651047112
11	Knob Screw	HT14601101	60	Angle Pointer	HT14302401
12	Switch Box	HT14601201	61	Machine Screw	HT2651010113
13	Machine Screw	HT2651011112	62	Insert Plate	HT14606201
15	Switch Cover	HT14601501	63	Table	HT14606301
16	Mitre Shaft	HT2601057112	67	Base	HT14606701
17	Knob Screw	HT14601701	68	Electronic Switch	HT286007
18	Hex. Screw	HT2611105112	69	Wheel Support	HT14606902
21	Screw	HT775515	70	Saw Blade	6470031
22	Guide Holder	HT14602201	71	Micro-Switch	HT3013020
23	Blade Guard	HT14602301	77	Machine Screw	HT2641005112
24	Ball Bearing	HT280120635	78	Mitre Gauge	HT14607801
25	Mitre Shaft	HT2621013112	79	Angle Pointer	HT14302401
26	Hex. Nut	HT270100312	81	Machine Screw	HT2651010113
28	Motor	HT12056	83	Knob Screw	HT14608301
29	Motor Cover	HT14602901	85	Guide Bar	HT14608502
30	Self-Tap Screw	HT845519	86	Clamp	HT10308202
31	Spring Seat	HT14603101	89	Machine screw	HT818850320
33	Drive Gear	HT14603301	90	Hex Nut	HT617003
34	Shaft	HT14603401	92	Wire	HT278035
35	Screw	HT14603501	95	Nameplate	HT14609502
36	Washer	HT2920073	97	Nameplate	HT14609701
37	C. S. Washer	HT14603702	98	Nameplate	HT14609802
38	Set Screw	HT2621031112	99	Knob	HT301305
39	Washer	HT254201322	103	Machine Screw	HT81885412
40	Machine Screw	HT2651104112	104	Earthplate	HT30013
41	Spiral Spring	HT14604101	105	Washer	HT958504
42	Set Screw	HT2621017112	106	Spring Washer	HT937604
43	Table Tilt Truss	HT14604301	107	I.G.Washer	HT861760
44	Square Nut	HT397606	108	Guide Holder	HT300902
45	Machine Screw	HT2641017112	109	Washer	HT300303
46	Self-Tap Screw	HT8453512	110	Hex. Nut	HT617006
47	Speed Switch	HT14604701	111	Washer	HT958508
48	Machine Screw	HT2651108112	112	C. S. Washer	HT89418606
50	Timing Belt	HT301204	113	Ball Bearing	HT80029
51	Hex. Nut	HT270100412	114	H. S. Washer	HT89318626
53	Hex. Head Bolt	HT2601023112	115	C. S. Washer	HT89418609
54	Drive Wheel	HT14605402	116	Rubber Tyres	HT300505
55	Screw	HT1460550	117	Motor Brush Set	see dealer

Spare Parts Diagram

