

#### Woodworking machinery at its best!

# 318mm (12 1/2") PORTABLE THICKNESSER OWNERS MANUAL Model: W570



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## **GENERAL SAFETY RULES**

**WARNING:** Do not attempt to operate the machine until you have read thoroughly and understood completely all instructions, rules, etc. contained in this manual. Failure to comply may result in accidents involving fire, electric shock, or serious personal injury. Keep this owner's manual and review frequently for continuous safe operation.

- 1. Know your machine. For your own safety, read the owner's manual carefully. Learn its application and limitations, as well as specific potential hazards pertinent to this machine.
- 2. Make sure all tools are properly earthed.
- 3. Keep guards in place and in working order. If a guard must be removed for maintenance or cleaning, make sure it is properly replaced before using the machine again.
- 4. Remove adjusting keys and spanners. Form a habit of checking to see that all keys and adjusting spanners are removed from the machine before switched it on.
- 5. Keep your work area clean. Cluttered areas and workbenches increase the chance of an accident.'
- 6. Do not use in dangerous environments. Do not use power tools in damp or wet locations, or expose them to rain. Keep work areas well illuminated.
- 7. Keep children away. All visitors should be kept a safe distance from the work area.
- 8. Make workshop childproof. Use padlocks, master switches and remove starter keys.
- 9. Do not force the machine. It will do the job better and be safer at the rate for which it is designed.
- 10. Use the right tools. Do not force the machine or attachments to do a job for which they are not designed. Contact the manufacturer or distributor if there is any question about the machine's suitability for a particular task.
- 11. Wear proper apparel. Avoid loose clothing, gloves, ties, rings, bracelets, and jewellery which could get caught in moving parts. Non-slip footwear is recommended. Wear protective hair covering to contain long hair.
- 12. Always use safety glasses. Normal spectacles only have impact resistant lenses. They are not safety glasses.
- 13. Do not over-reach. Keep proper footing and balance at all times.
- 14. Maintain the machine in good condition. Keep the machine clean for best and safest performance. Follow instructions for lubrication and changing accessories.
- 15. Disconnect the machine from power source before servicing and when changing the blade.
- 16. Never leave the machine running unattended. Turn the power off. Do not leave the machine until it comes to a complete stop.
- 17. Do not use any power tools while under the effects of drugs, alcohol or medication.
- 18. Always wear a face or dust mask if operation creates a lot of dust and/or chips. Always operate the tool in a well ventilated area and provide for proper dust removal. Use a suitable dust extractor.

#### ADDITIONAL RULES FOR PLANER/THICKNESSERS

- 1. This machine is designed for use with wood. Attempting to plane or thickness any other materials will result in damage to the machine, potential fire risk and/or health hazards.
- 2. The machine is designed for indoor use only.
- 3. Connection to a suitable dust extraction system is highly recommended. If you must use the machine on its own, you will need to stop it, unplug it from the mains and thoroughly clean it at regular intervals. Continuing to use the machine when it is clogged with shavings will result in damage to it, potential fire risk and/or health hazards.
- 4. The machine should be bolted to a bench or suitable stand.
- 5. Always hold the work firmly on to the table, using the push pads provided.
- 6. Never use the thicknesser with the guard and/or dust hood removed.
- 7.. If thicknessing a long piece of timber, provide additional support at the same height as the table.
- 8. Switch the machine off and unplug it before removing any debris.
- 9. Be aware of the possibility of kickback. Never stand directly in line with either the infeed or outfeed tables. Always stand off to one side of the machine.
- 10. Do not modify this machine in any way or use it or anything other than its designated purpose. Neither the manufacturer nor the suppliers will be liable for any damage or injury caused by incorrect assembly, operation or electrical connection of this machine.
- 11. Ensure the workpiece is free from nails, screws, stones or any other foreign objects which could damage the knives.
- 12. The cutting knives are sharp and can easily cut your hand. Be careful when handling the knives or cutter head.
- 13. Allow the cutter head to reach full speed before using.



#### **Rating Description**

**Hobby**: Suitable for Weekend DIY'ers and woodworking enthusiasts. Generally lighter weight machines with lower power ratings and smaller tooling capacities. Typically only ever used by one person for short periods of time or longer periods of time infrequently. Machinery should be well maintained in a clean, dry environment such as a home workshop, garage or timber shed. **Expected maximum use of 100 hours annually**.

**Please Note**: Using a product in excess of its rating will void the manufacturer's free warranty.

## **Charnwood W570 Specification**

Motor (induction)

Maximum Thicknessing Width

Maximum Depth of Cut

Work Table

Table Height (on optional floor stand)

Max Thicknessing Cut
Max Thicknessing Capacity

Feed Speed

Cutter Block diameter Number of Blades Cuts per Minute Cutter Block Rotation

Knives (HSS)

Extractor Outlet O/D – I/D Dimensions (WxDxH)

Weight Rating Warranty 1500w (2hp), 240V 50hz

318mm (12 ½")

3 mm

690mm x 318mm

700 mm 3mm

153mm (6") 8 m/min

48mm 2 (HSS)

16,000

8,000 rpm

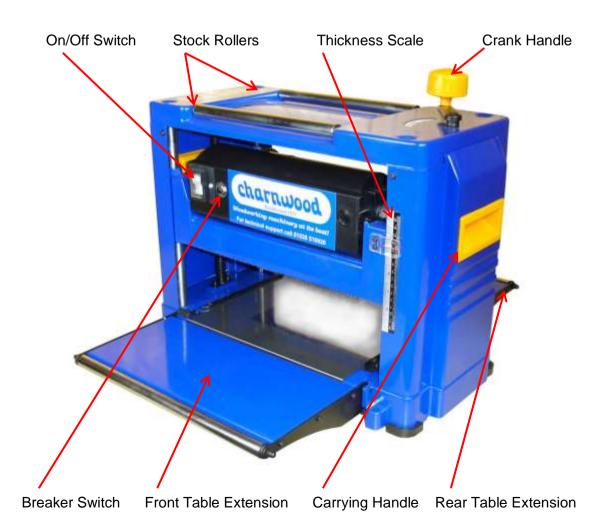
319mm x 18.2mm x 3.2mm

50/41mm (100/92mm with adapter provided)

550mm x 700mm x 470mm

30kg Hobby 1 Year

#### **Overview Of W570 Thicknesser**



## **Thickness Planing**

Thickness planing is the sizing of material to a specified thickness whilst creating a smooth surface, parallel to the opposite side of the board. The art of producing good results is not only good judgement about depth of cut, but also about the hardness of the timber, its moisture content, straightness, grain direction and structure. The effects of these factors on the quality of finish can only be learned through experience. When working with a new type of wood, or one with unusual problems, it is advisable to make test cuts on a scrap example if available. Make repeat cuts of no more than 3mm until the desired thickness is achieved.

#### **Finish Planing**

A smooth finish is best accomplished by taking light cuts (1mm). However there are several other factors that are important in achieving this. Always feed the timber in a direction that allows the blades to cut with the grain, which allows the cutter to sever the wood fibres rather than lifting and tearing them. Feeding against the grain can also cause the knives to lift large chips from the surface of the timber leaving a poor finish.

Unpacking



All parts are contained in one box.

Please do not dispose of the packaging until you have fully assembled and tested the machine.

In the unlikely event there is a fault, you will need to re-use the packaging.

Open the top of the carton and remove the top polyfoam shell.

Unpack all of the contents and lift the machine onto a bench.

Lay out the parts and familiarise yourself with them.

Please read the manual before operating the machine.



## **Assembling the Thicknesser**



Cut and remove the two Zip ties which support the cutter head/motor assembly during transit.

Fold down the infeed and outfeed tables.

Remove the protective covering from the polished thicknesser table.

Cut & remove both supporting Zip ties

Fold down front & rear extension tables

Remove protection from table



In turn, support each end of the machine on a 50 to 100mm block of wood

Slide the four rubber feet onto the corners of the base.



Attach the Crank Handle to the spindle which protrudes through the top of the machine.

Lock in place with the M6 x 15mm Cap Head Bolt and Spring Washer using the 5mm Hex Key provided.

## **Mounting the Thicknesser**



It is recommended that the thicknesser is secured to a suitable workbench.

#### Option 1

It can be mounted onto a work bench using four M8 bolts, nuts and washers of suitable length. (not provided)

Four holes are provided in the base, one at each corner.

Foot Mounting Hole.



#### Option 2

There are threaded mounting holes provided in the underside of the base of the thicknesser. The four M8 x 50mm bolts provided can be passed from below, through appropriate holes in the bench top.

**Tapped Mounting Holes** 



#### Option 3

A floor stand is available which provides a convenient working height for your machine.

The rubber feet should not be fitted when attaching the thicknesser to the optional floor stand.

Stock Ref. W570F

#### **Moving the Thicknesser**



When moving the thicknesser,

Raise the cutter head to the top position, Close the two table extensions, lift using the carrying handles positioned at each end of the machine.

Always ensure that the power lead is disconnected before moving.

## **Connecting To A Dust Extractor**



This thicknesser produces large amounts of shavings, it is essential to use dust extraction.

The extractor port has an outside diameter of 50mm. Alternatively a 100mm hose can be attached (recommended) using the adapter provided.

Always start the extractor before beginning the cut in order to prevent blockages.

Allow the extractor to run for several seconds after finishing cutting in order to ensure all shavings are removed from the machine.

When fitting the hose ensure it is routed to the side of the machine in order to keep it clear of the workpiece outfeed.

## **Using the Thicknesser**



On/Off Switch

Circuit Breaker Reset

#### 1) On/Off & Thermal Overload Switches

The switch is spring loaded and will only engage when a power supply is connected.

When starting the machine, allow the cutter head to run up to full speed before starting a cut.

The motor is fitted with a Thermal Overload Breaker which will cut-off the motor to prevent overheating when the machine is being used heavily. In the event of the breaker tripping, wait several minutes to allow cooling before pressing the reset button and restarting the machine.







#### 2) Adjusting The Thickness

The thickness of the finished cut is set by rotating the crank handle on the top of the thicknesser. Read off the finished thickness from the scale.

Clockwise to raise the cutter Anticlockwise to lower the cutter

One rotation of the handle = 2mm adjustment

#### 3) Making A Cut

Adjust the cutter head to the approximate starting size of the timber. Start the thicknesser and the extractor. Hold the timber parallel to the infeed table. Slowly feed the timber into the cutter. Once the infeed roller makes contact, the timber will be fed through the cutter. When working with longer lengths keep a supporting hand on the end of the timber until it is half way through the machine. Move position to the outfeed side of the thicknesser and again support the leading edge as it comes out of the cutter.

The feed rollers are spring loaded and project slightly below the cutter. It is therefore possible to feed timber through without making any cut. If the timber is rough sawn or particularly uneven, it is best to start this way and make several passes, gradually lowering the cutter head.

It is recommended to always start by making a light planing cut (1mm). The depth of cut can then be increased to a maximum of 3mm, but remember that a lighter cut creates a finer finish. A restrictor bar on the infeed side prevents a cut of more than 3mm being attempted. If the timber will not feed, raise the cutter head and try again.

#### **Please Note**

Minimum length of timber is 150mm (6") Minimum thickness is 5mm (1/4")

To thickness pieces smaller than the minimum dimensions, a sledge must be used to carry the timber through the cutter.



Rollers are built into the top of the thicknesser to facilitate the passing of workpieces from the back to the front of the machine when multiple cuts are required.

Timber placed on top of the machine can be easily moved by the operator ready for the next cut.

## **Fine Tuning**



Adjusting Bolt Locking Nut

#### **Adjusting The Thickness Scale**

The finished dimension scale may need to finely adjusted before being used.

To adjust the scale:

Plane both sides of a sample board and accurately measure its thickness. Compare the measured thickness with the reading on the Thickness Scale. If the reading on the scale is incorrect, loosen the screw which holds the plastic pointer and adjust accordingly.

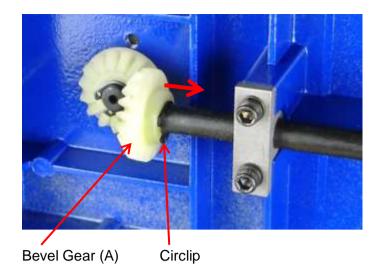
#### **Adjusting The Extension Tables & Rollers**

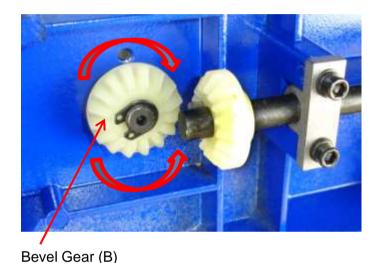
The Table Extensions are mounted at the front and rear of the main table and must be accurately adjust to ensure correct operation. If they need adjustment;

Raise the cutter head to give clear access to the tables.

Place a straight edge across the main table and the extension table. The straight edge should be in close contact with the full length of the main table and the roller on the end of the extension table.

If adjustment is required, loosen the locking nut then turn the adjusting bolt, on each side of the table, until the extension table is level.





#### **Adjusting For A Parallel Cut**

If the thickness of the finished timber is uneven, (one side is thicker than the other) the cutter head requires adjustment.

Measure the thickness of a test piece at each side to determine the difference in thickness.

Rest the machine on its back to access the bevel gears.

Expand the circlip holding Bevel Gear (A) onto the horizontal shaft and slide circlip and the gear along the shaft to disengage it from the other gear.

To make the adjustment; Turn Bevel Gear (B)

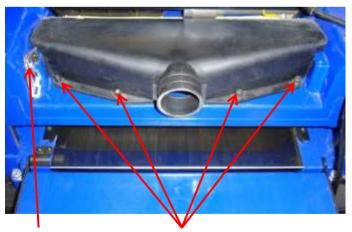
Clockwise to increase the finished thickness, Anticlockwise to decrease the thickness.

One tooth is equal to 0.12mm of thickness.

Re-engage Bevel Gear (A) and replace the circlip.

Complete another test cut to check accuracy and re-adjust as necessary.

## **Replacing Planer Knives**



Retaining Chain Hex Socket Bolts

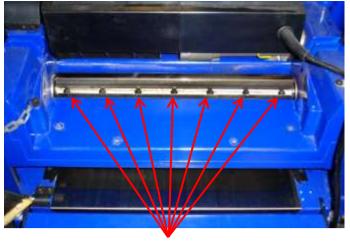
#### **Removing Used Knives**

Ensure the machine is disconnected from the power supply.

Remove the four bolts holding the chip collection hood.

Remove the hood and allow it to hang to the side on the retaining chain.

The cutting edge of the knife is very sharp – handle with caution to avoid injury.



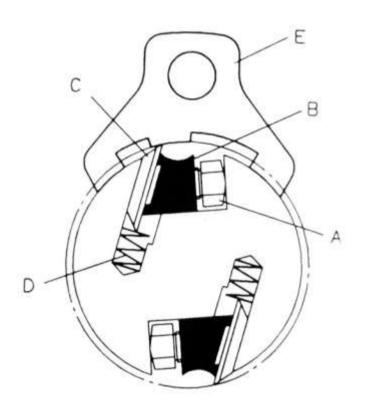
Locking Screws

Using the 8mm spanner provided, loosen the Lock Bar and Knife by turning the seven Locking Screws in a clockwise direction.

The knives are spring loaded and will push out when all screws are loose.

Remove the knife, the locking bar and two small springs.

Rotate the cutterblock and repeat for the other knife.



<u>WARNING</u> - The knives must be firmly locked in place to avoid accidents during the operation of the thicknesser.

#### **Installing New Knives**

Place springs (D) into the holes in the bottom of either end of the slot in the cutterblock.

Fit the Lock Bar (B) complete with Locking Screws (A) into the slot.

Slide the knife (C) into the slot next to the Lock Bar as shown in the arrangement drawing.

Lightly tighten the 2 outer Locking Screws (A) so that knives are held in position but are still able to move freely against the springs.

Hold the Knife Setting Jig (E) against the cutterblock, ensuring the new knife is in contact with the raised part of the Setting Jig. The spring will hold the knife up against the Jig, thereby setting the correct height.

Tighten all seven Locking Screws (A) by turning them anti-clockwise, locking the knife firmly in place.

Rotate the cutterblock through 180 degrees and repeat the procedure with the other knife.

#### **Periodic Maintenance**

#### Cleaning

A build-up of sawdust, shavings and other debris can cause your machine to plane inaccurately. Regular cleaning is essential to ensure good performance. The cutter head slots should be kept free of clinging matter which will adversely affect cutting efficiency.

Remove resin from the rubber rollers and the tables with a non-flammable solvent.

#### **Replacing The Motor Brushes**

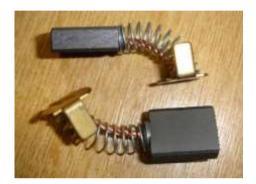
The carbon brushes should be regularly inspected. They will eventually need to be replaced when the blocks have worn down to a length of 7mm. Using a flat screwdriver, unscrew the two black plastic covers found on either side of the motor. Withdraw the worn brushes and springs then replace them with a new pair.



Front Brush Housing



Rear Brush Housing

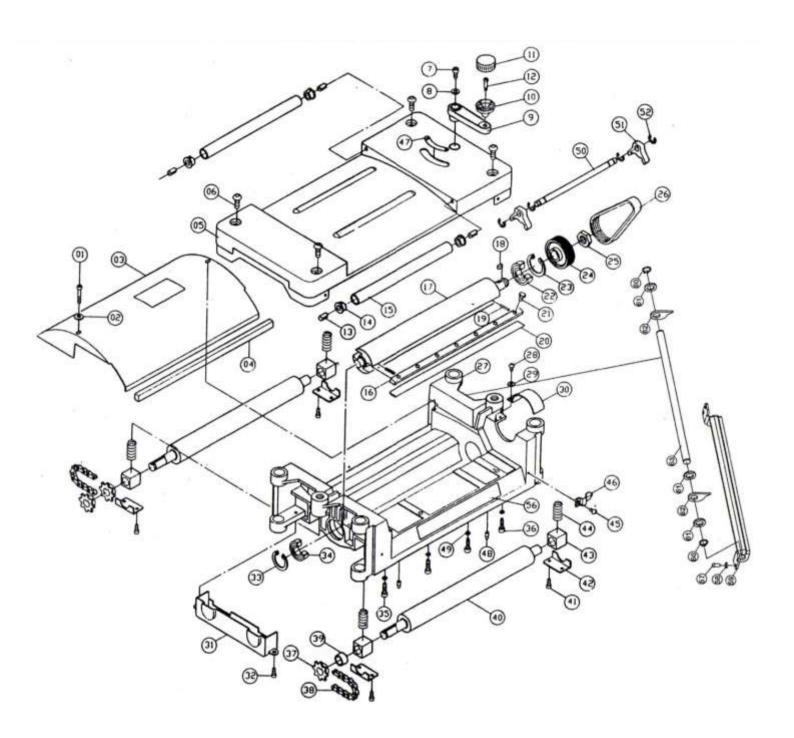




## **Troubleshooting Guide**

Problem/Fault	Cause	Remedy
Machine does not start	Blown fuse in plug	Replace fuse
	Loose switch terminal	Check connections at rear of switch
	Faulty switch	Replace switch
Machine runs only when switch is held in <b>ON</b> position	Faulty switch	Replace switch
Machine runs intermittently	Worn carbon brushes in motor	Replace motor brushes
Motor runs but the cutterblock does not rotate	Broken or stretched drive belt	Replace the drive belt
Motor slows during cut	Depth of cut too great	Take a shallower cut
	Chip hood is blocked	Clear the blockage
	Planing knives are blunt	Replace or sharpen the knives
Excessive vibration	Planing knives out of balance	Reset the height of the knives
Uneven depth of cut – side to side	Cutterblock not parallel to table	Adjust cutter head (as shown in manual)
	Knife projection not uniform	Reset the knives
Finished thickness does not match scale	Thickness scale incorrectly set	Adjust the scale (as shown in manual)
Ridges along length of workpiece	Knives chipped	Replace knives (as shown in manual)
Motor overheating – breaker tripped	Planer knives are blunt	Replace or sharpen the knives
	Cuts are too heavy	Take shallower cuts

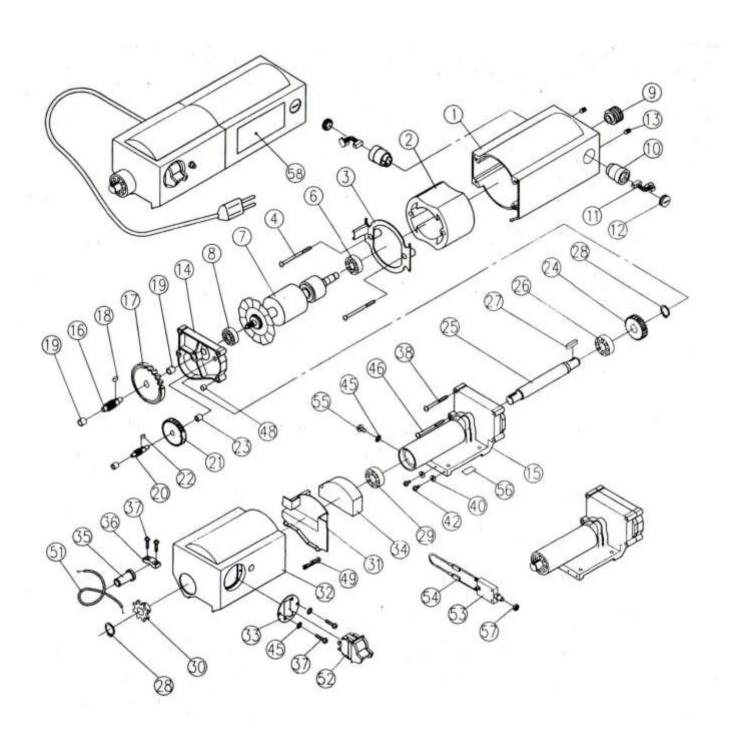
## **W570 Parts Drawing A**



## **W570 Parts List A**

Part No.	Description	Part No.	Description
A01	Hex Socket Head Screw M5 x 30	A02	Spring Washer M5
A03	Dust Collection Hood	A04	Sponge Piece
A05	Upper Guard	A06	Hex Socket Head Screw M8 x 16
A07	Hex Socket Head Screw M6 x 16	A08	Spring Washer M6
A09	Crank Handle	A10	Handle Knob
A11	Handle Guard	A12	Handle Shaft
A13	Spring Pin 6 x 20	A14	Bush
A15	Roller	A16	Locking Bar
A17	Cutter head	A18	Double Round End Key 5 x 5 x 10
A19	Knife Spring	A20	Knife
A21	Locking Screw	A22	Bearing 6203
A23	C Clip	A24	Cutter head Pulley
A25	Nut	A26	Belt 135-J6
A27	Upper Frame	A28	Cross Round Head Screw M4 x 8
A29	Plain Washer M4	A30	Pulley Guard
A31	Chain Guard	A32	Cross Round Head Screw M5 x 8
A33	C Clip	A34	Bearing 6202
A35	Hex Socket Head Screw M6 x 20	A36	Self Tapping Screw M6 x 20
A37	Chain Sprocket	A38	Chain
A39	Spacing Collar	A40	Rubber Roller
A41	Cross Round Head Screw M5 x 10	A42	Bracket Plate
A43	Roller Bracket	A44	Bracket Spring
A45	Cross Round Head Screw M4 x 8	A46	Indicator
A47	Indication Label	A48	Pin
A49	Spring Washer M6	A50	Gauge Rod
A51	Knife Setting Guide	A52	E Circlip
A55	-	A56	Warning Label
A57	Screw M5 x 10	A58	Spring Washer M5
A59	Support Base	A60	Retaining Ring 40
A61	Washer	A62	Anti-Kickback Gasket
A63	Fixed Axis		

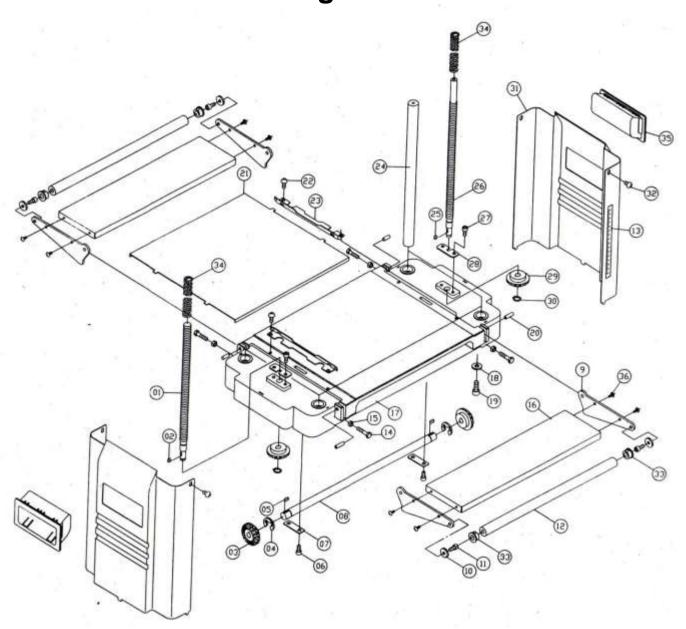
## **W570 Parts Drawing B**



## **W570 Parts List B**

Part No.	Description	Part No.	Description
B01	Motor Casing	B02	Stator Assembly
B03	Plate	B04	Self Tapping Screw M5 x 70
B05	-	B06	Bearing 6201
B07	Rotor Assembly	B08	Bearing
B09	Motor Pulley	B10	Carbon Brush Cover
B11	Carbon Brush	B12	-
B13	Set Screw M5 x 10	B14	Gear Box Cover
B15	Gear Box	B16	Gear Shaft
B17	Gear	B18	Double Round End Key 4 x 4 x 8
B19	Bronze Bush	B20	Gear Shaft
B21	Gear	B22	Double Round End Key 3 x 3 x 7
B23	Bush	B24	Gear
B25	Shaft	B26	Bearing 6202
B27	Double Round End key 4 x 4 x 10	B28	C Clip
B29	Bearing 6002	B30	Chain Sprocket
B31	Spacing Plate	B32	Dust Guard Plug
B33	Switch Plate	B38	Self Tapping Screw M5 x 50
B40	Plain Washer M4	B42	Cross Round Head Screw M4 x 8
B45	Teeth Washer M5	B46	Self Tapping Screw M5 x 60
B47	-	B48	Positioning Pin
B51	Power Wires	B52	Safety Switch
B53	Temperature Control Switch	B54	Temperature Control Wire
B55	Cross Head Round Screw M5 x 8	B56	Motor Label
B58	Motor Name Plate		

## **W570 Parts Drawing C**



## **W570 Parts List C**

Part No.	Description	Part No.	Description
C01	Left Screw	C02	Double Round End Key 4 x 4 x 8
C03	Bevel Gear	C04	E Circlip
C05	Double Round End Key 4 x 4 x 8	C06	Hex Socket Head Screw M6 x 10
C07	Fixing Piece	C08	Transmission Shaft
C09	Table Extension Bracket	C10	Plain Washer M6
C11	Table Extension Bracket	C12	Table Extension Roller 20 x 350
C13	Depth Scale	C14	Hex Head Screw M6 x 25
C15	Nut M6	C16	Table Extension
C17	Base	C18	Plain Washer 5/16"
C19	Hex Socket Head Screw M8 x 20	C20	Spring Pin 6 x 20
C21	Pad	C22	Cross Round Head Screw M6 x 10
C23	Guide Plate	C24	Column
C25	Double Round End Key 4 x 4 x 8	C26	Right Screw
C27	Hex Socket Head Screw M6 x 10	C28	Fixing Piece
C29	Bevel Gear	C30	S Circlip
C31	Side Guard	C32	Cross Round Head Screw M5 x 6
C33	Bush (A)	C34	Screw Spring
C35	Carrying Handle	C36	Cross Round Head Screw

## **Declaration of Conformity for CE Marking**

Charnwood Declare that Woodworking Thicknesser, Model W570

Conforms with the following Directive: Machinery Directive 2006/42/EC

And further conforms to the machinery example for which the EC type examination Certificate No. BM 50328304 which has been issued by TUV Rheinland LGA Products GmbH, Tillystrasse 2, 90431, Nurnberg.

I hereby declare that equipment named above has been tested and found to comply with the relevant sections of the above referenced specifications. The machinery complies with all essential requirements of the directive.

Dated: 31/03/2016 Location: Leicestershire

Richard Cook, Director



Please dispose of packaging for the product in a responsible manner. It is suitable for recycling. Help to protect the environment, take the packaging to the local amenity tip and place into the appropriate recycling bin.



Only for EU countries

Do not dispose of electric tools together with household waste material.

In observance of European Directive 2002/96/EC on waste electrical and electronic equipment (EEE) and its implementation in accordance with national law, electric tools that have reached the end of their life must be collected separately and returned to an environmentally compatible recycling facility.

Your local refuse amenity will have a separate collection area for EEE goods.



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