

charnwood

Woodworking machinery at its best!

12" x 9" PLANER THICKNESSER OWNERS MANUAL MODEL: W590



CE
UK
CA

Charnwood, Cedar Court, Walker Road, Hilltop Industrial Estate, Bardon,
Leicestershire, LE67 1TU

Tel. 01530 516 926
email: sales@charnwood.net

Fax. 01530 516 929
website: www.charnwood.net

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, 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 only be used on the stand provided.
5. Always hold the work firmly on to the table, using push pads when necessary.
6. Never use the planer/thicknesser with the guard and/or dust hood removed.
7. If planing or 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.
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.



Risk of Injury!
Never reach into
a running cutter block



**Wear Eye
Protection**



**Wear Ear
Protection**

Rating Description

Trade: Suitable for daily use by professional woodworkers.

Continuously rated, high power and a heavy duty construction. Typically used by several different operators in a small or medium sized business. Will be used up to the machines maximum limit with some long work periods. Expected maximum use of 1000 hours annually.

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

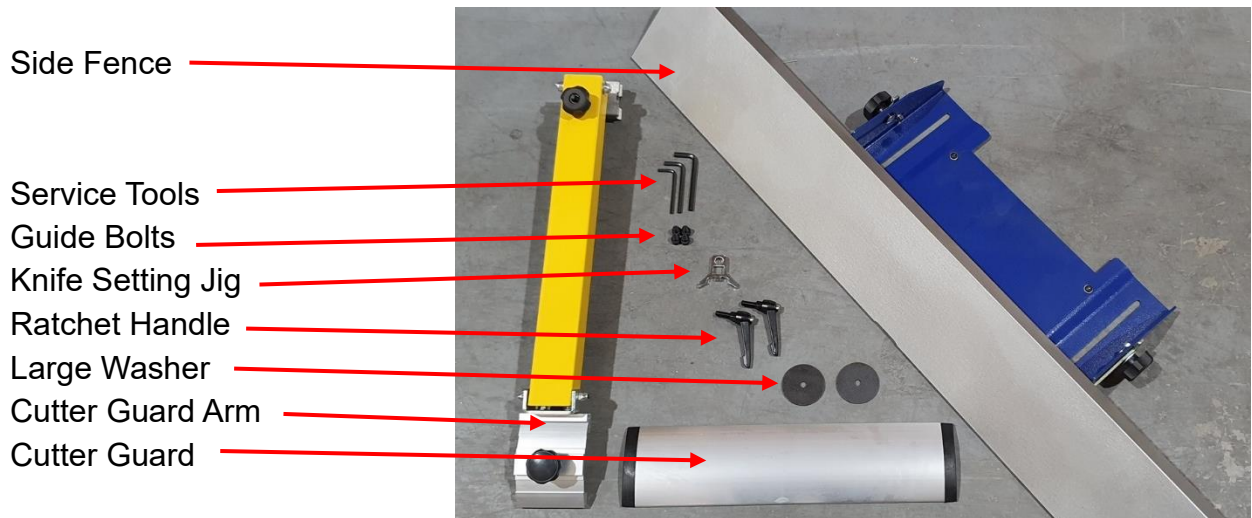
Charnwood W590 Specification

Motor (induction)	3000w (4hp), 240v, 50hz
Planer width	305mm (12")
Maximum planing / Thicknessing cut	3mm / 4.5mm
Fence tilt	0 to 45°
Thicknessing capacity	5mm to 230mm
Number of knives	3 x HSS
Dimensions of knives	310mm x 25mm 3.2mm
Weight	210kg
Noise Level (LpAeq)	87.3 dB(A)
Rating	Trade
Warranty	1 Year

Unpacking

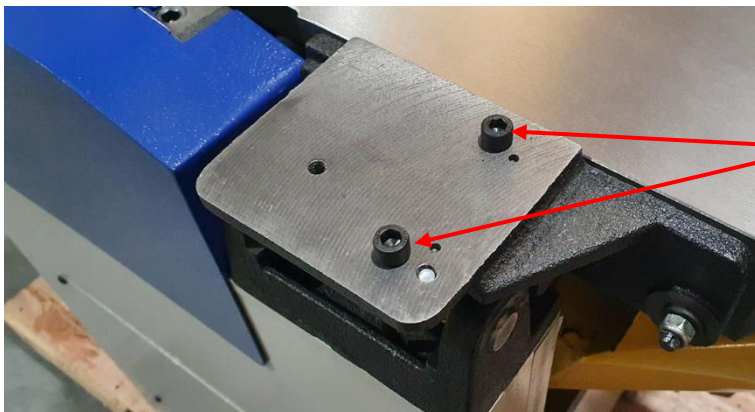
	<p>This product is packed into 1 wooden crate.</p> <p>To open the wooden crate, cut the strapping and lift the lid of the crate up from the pallet base.</p>
	<p>Remove the plastic cover and the loose items sitting on the thicknessing bed and underneath the machine.</p>
	<p>The machine is fixed to the pallet base with two bolts.</p> <p>Use a pair of 13mm spanners to undo the 2 securing nuts and remove the fixings.</p>
	<p>This part of the assembly requires 2 people:</p> <p>Lift the machine off the pallet base.</p>

Identify The Loose Parts



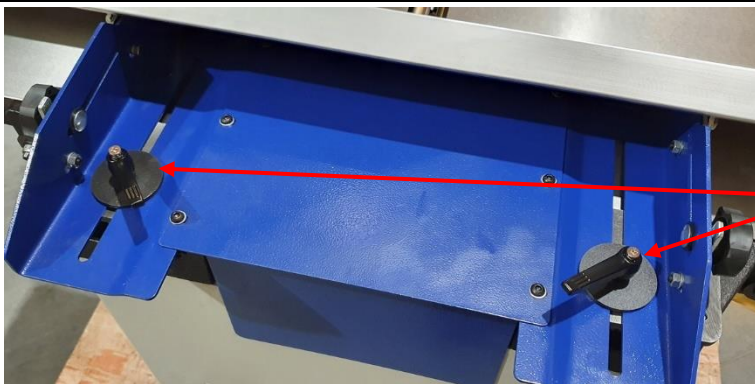
Assembly

Remove the protective paper and clean the rust preventer from the table using WD40 or similar, and a soft cloth.



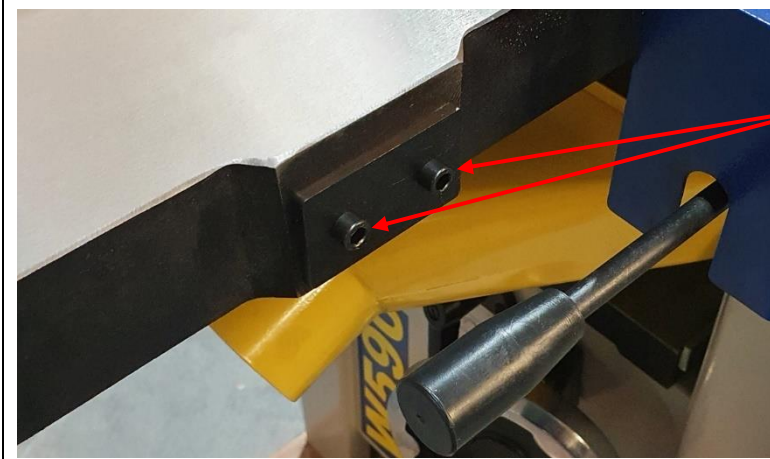
Fit the Side Fence:

Use a 6mm Hex key to fit the 4 Guide Bolts into 4 threaded holes.



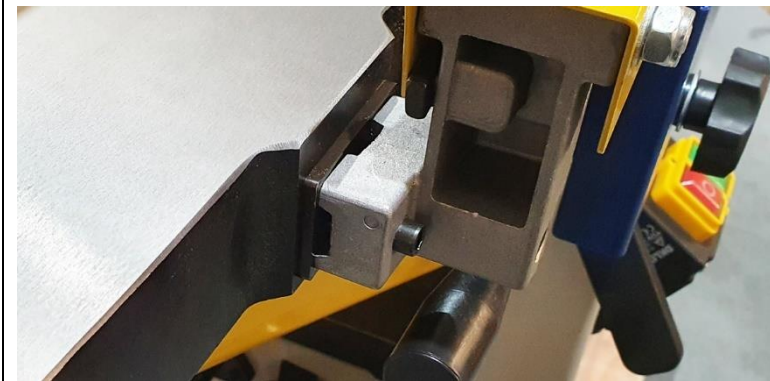
Sit the Side Fence onto the tables, with the back plate in between the 4 Guide Bolts.

Fit the Large Washers and Ratchet Handles into the remaining threaded holes.



Fit the Cutter Guard:

Use a 5mm Hex key to remove 2 bolts and the back plate from the side of the Outfeed Table.



Fit the back plate, Cutter Guard Arm and fasten them with the 2 bolts.



Slide the Cutter Guard into the end of the arm.

Using the Planer Thicknesser

PLANING MODE

Side Fence

Cutter Guard Height Adjuster

Outfeed Table

Cutter Guard Lock

Table Lift Lock

On / Off Switch

Infeed Table

Infeed Table Lock

Planing Depth Scale

Planing Depth Adjuster

Table Lift Lock

Feed Direction

THICKNESSING MODE

Lifting Handle

Dust Hose Connection

Dust Hood

Table Release Catch

Dust Hood Release Pin

Table Lift Lock

Thicknessing Scale

Thicknessing Bed Height Lock

Drive Rollers Lever

Digital Position Indicator

Thicknessing Bed Height Adjuster

16 amp Power Connection

Feed Direction

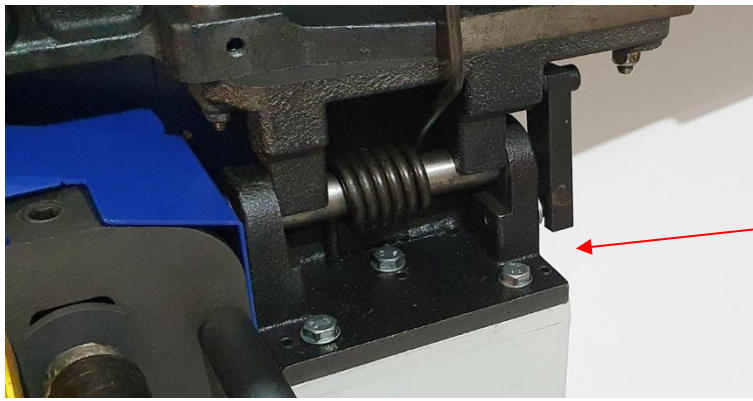


Table Release Catch

PLANING MODE

With the machine set up in planing mode:

Use the Cutter Guard Height Adjuster to adjust the height of the Cutter Guard, so that the work piece can fit underneath.

Set the Planing Depth Adjuster to the desired setting, reading off the Planing Depth Scale. If in doubt, set the depth to 0.5mm

Connect a dust extractor to the 100mm diameter outlet.

Start the machine, wait for it to get up to full speed.

Lay the work piece flat on the Infeed Table and push it over the cutter block. Use a push stick or push pad to ensure hands are kept well away from the cutters.

Pick up the work piece and return it to the starting position. Make as many passes as necessary to achieve a flat planed finish.

When planing deeper pieces, over 75mm, undo the Cutter Guard Lock and slide the Cutter Guard away from the Side Fence just enough to provide clearance for the workpiece.

SWITCHING MODES

To move from planing mode to thicknessing mode:

Engage the drive rollers by moving the Drive Rollers Lever into the upper position.

Release the tables using the 2 Table Lift Locks. Rotate upwards, pull away from the cutter block and then lower.

Use the Lifting Handle to move the tables into a vertical position. This process is spring assisted, but take care as the tables are heavy. The tables are automatically locked in the vertical position.

Swing the yellow Dust Hood up and over the cutter block, until it clicks into place.

THICKNESSING MODE

With the machine set up in Thicknessing mode:

Measure the thickness of the work piece.

Rotate the Thicknessing Bed Height Adjuster anti-clockwise to unlock the thicknessing bed.

Wind the Thicknessing Bed Height Adjuster handwheel clockwise to raise the thicknessing bed.

1 rotation is roughly equal to 4mm adjustment.

Read off the scale or use the Digital Position Indicator, with accuracy down to 0.1mm, to set the bed at the starting thickness. Then raise the bed another 1 – 4.5mm, depending on how much stock is to be removed.

Tighten the Thicknessing Bed Height Lock.

The feed direction is the opposite direction to planing mode.

Start the machine, wait for it to get up to full speed.

Lay the work piece flat on the end of the table. Slide it forward until you feel the drive rollers take it from you. Let go of the work piece and walk to the other end of the machine to support the work piece as it is fed out of the thicknesser.

A safety bar will prevent you from trying to make too big a cut. If the timber hits the safety bar, lower the table to take a smaller cut.

Make as many passes as necessary to get the desired finished dimension.

If making multiple components, consistency is best achieved by feeding them all through at one depth, before adjusting the table height and feeding them all through again.

SWITCHING MODES

To move from thicknessing mode to planing mode:

Disengage the drive rollers by moving the Drive Rollers Lever into the lower position.

Lower the thicknessing bed all the way down.

Pull the Dust Hood Release Pin and swing the Dust Hood underneath the cutter block.

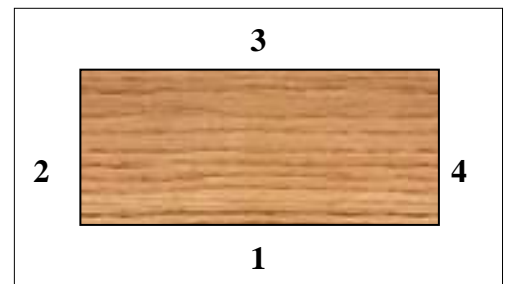
Support the tables with one hand and pull back the Table Release Catch.

Then lower the tables to the horizontal position. The weight is supported by springs, but take care as they are heavy.

Lock the tables in place with the 2 Table Lift Locks.

General Guide

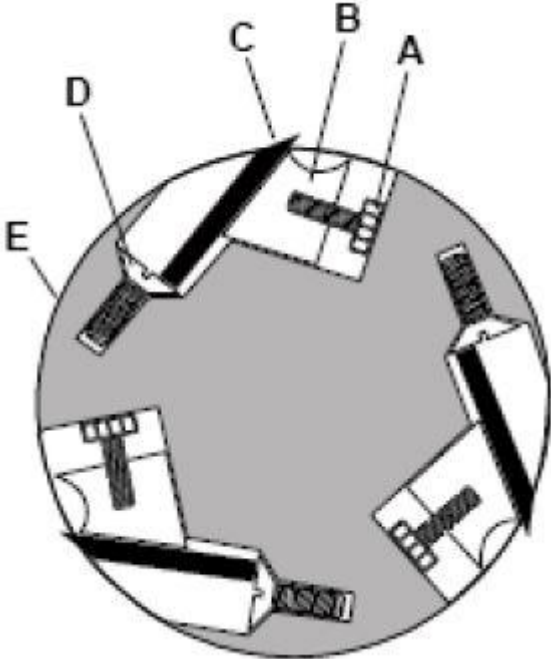
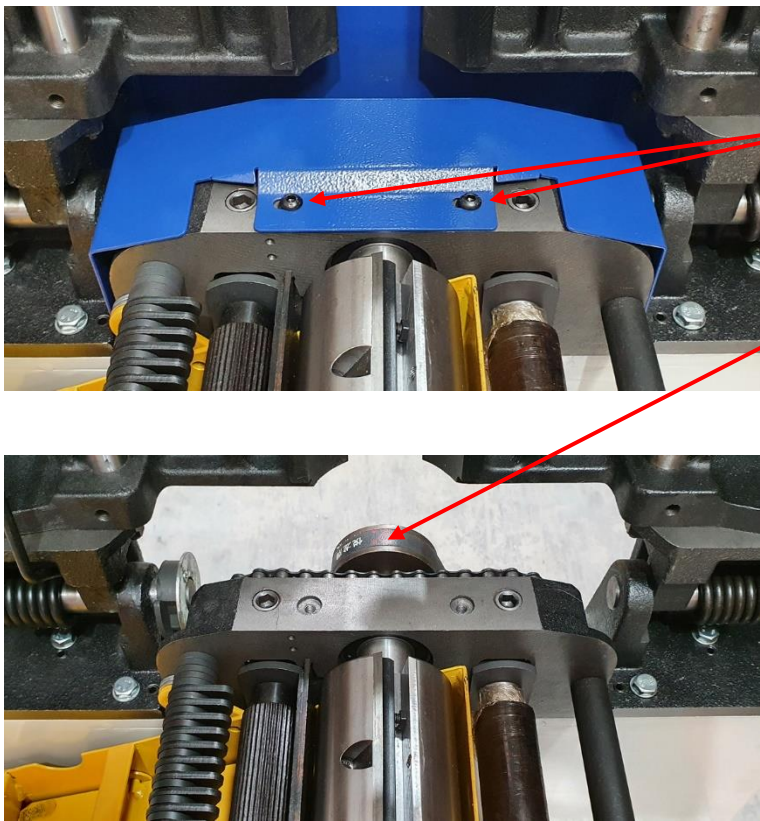
When faced with a rough sawn piece of timber which requires planing on all 4 sides and taking down to a specific finished dimension, follow this guide:



- Set the machine up for planing.
- Identify the flattest of the two wider faces on the timber. (Face 1 on diagram)
- Pass that side over the planer as many times as necessary until a flat and smooth finish is achieved.
- Hold the planed side firmly against the sidee fence and pass the narrow side (Face 2 on diagram) over the planer as many times as necessary until a flat and smooth finish is achieved.
- You should now have two planed sides at 90 degrees to each other.
- Set the machine up for thicknessing.
- Pass the timber through the thicknesser with the wider already planed side (Face 1 on diagram) facing down against the bed. Continue until the desired thickness for the timber is reached.
- Finally, pass the timber through the thicknesser with the planed narrow side (Face 2 on diagram) facing down against the bed. Continue until the desired thickness for the timber is reached.

Knife Removal and Replacement

If you are using the optional knife setting jig, please read those instructions first.

<p>Cutter Block Cross Section</p> 	<p>A – Square Head Locking Screw B – Locking Bar C - Knife D – Depth Screw E – Cutter Block</p>
	<p>Remove the side Fence.</p> <p>Undo 2 bolts using a 4mm hex key, to remove the blue cover to access the drive pulley.</p> <p>The pulley can then be turned by hand to access each of the 3 knives. Use a marker pen to number each knife in the cutter block to better keep track of progress.</p> <p>To remove the worn knives:</p> <p>Disconnect the machine from the power supply.</p> <p>Raise the tables to get better access to the cutter block.</p>



Note the direction of the beveled cutting edge and ensure the new knife is installed the correct way around.

Rotate the cutter block until knife number 1 is at the 12 O'clock position with the knife at the top of its cutting arc.

Use a 7mm spanner, turn the 5 Square Head Locking Bolts in a direction that winds them deeper into the locking bar.

Continue until the knife can be removed.

Fit the new or reground knife into the cutter block.



When the knife is correctly set, the tip of the knife, in the 12 O'clock position, will be level with the top of the outfeed bed.

Sit the Knife Setting Jig onto the cutter block, so that both curved cheeks sit against the block.

The tip of the knife should touch the bottom of the setting jig.

Reground knives will be slightly smaller than new ones and may require a height adjustment.

If there is a gap here or the jig is prevented from sitting on the face of the cutter block, adjust the depth screws.



The bottom edge of the knife sits on 2 Depth Screws. These screws can be adjusted using a 4mm Hex key.

Once the knife is correctly installed, wind the square head bolts out, to lock the knife in place.

Troubleshooting

Problem	Cause	Remedy
Machine does not start	Emergency stop activated	Release the emergency stop
	Blown Fuse	Replace Fuse
	Loose switch terminal	Inspect back of switch
	Faulty switch	Replace switch
	Cutter Guard not fitted	Check the alignment of the micro switch
Only starts when Green button is held down	Faulty switch	Replace switch
Machine hums but does not start	Start capacitor failed	Replace start capacitor
Cutter block runs at half speed, with lack of power	Run capacitor failed	Replace run capacitor
Motor running but cutter block is not rotating	Broken or stretched drive belt	Replace drive belt
Motor slows down during the cut	Depth of cut is too great	Take a smaller cut
	Dust & Chip collector hood is blocked	Clear the blockage and ensure the extractor is functioning correctly
	Planing knives are blunt	Replace or sharpen knives
Excess Vibration	Planing knives out of balance	Reset the height of the knives

Declaration of Conformity for CE Marking

Charnwood Declare that Woodworking Planer & Thicknesser, Model W590

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

Low Voltage Directive 2006/95/EC

Conforms with the following UK Regulations: Supply of Machinery (Safety) Regulations 2008
Electrical Equipment (Safety) Regulations 2016

And further conforms to the machinery example for which the EC type examination Certificate No. BM 50193812, AN 50193813 have been issued by TUV Rheinland LGA Products GmbH, Tillystrasse 2, 90431, Nurnberg, Germany.

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 directives and regulations.

Signed: 
Richard Cook, Director

Dated: 04/03/2022

Location: Leicestershire



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

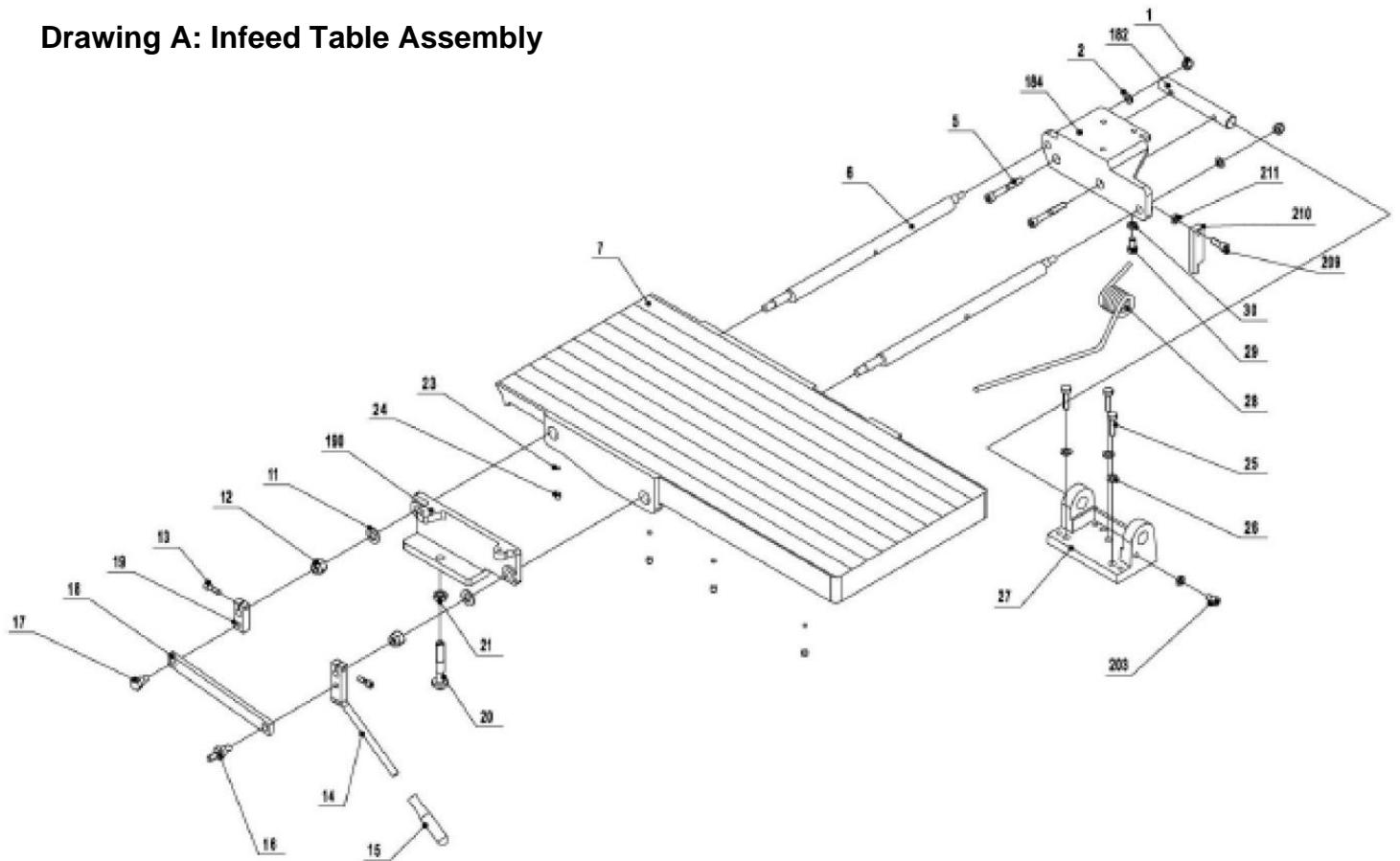
Do not dispose of electric tools together with household waste material!

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.

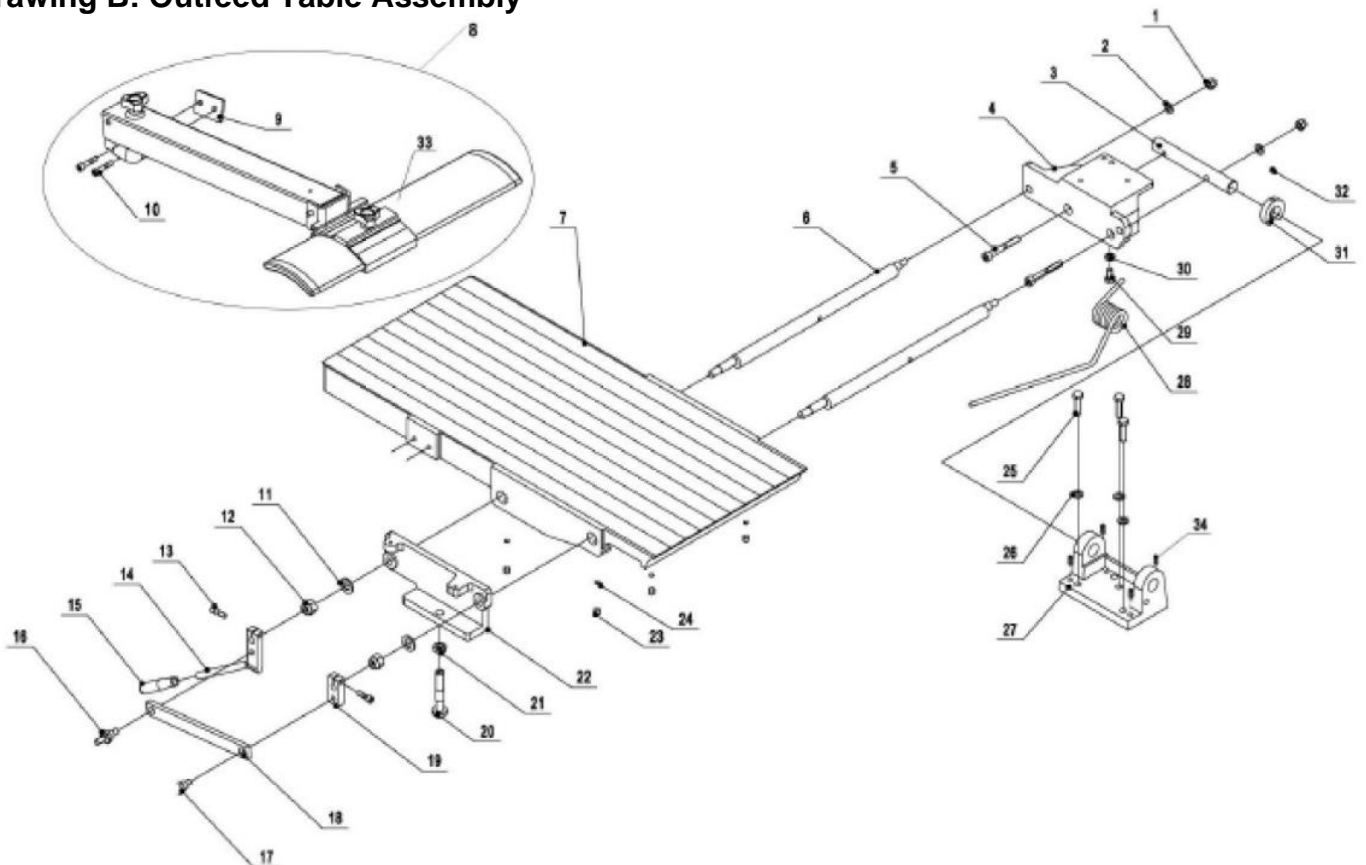
Your local refuse amenity will have a separate collection area for EEE goods

Charnwood W590 Parts Diagrams

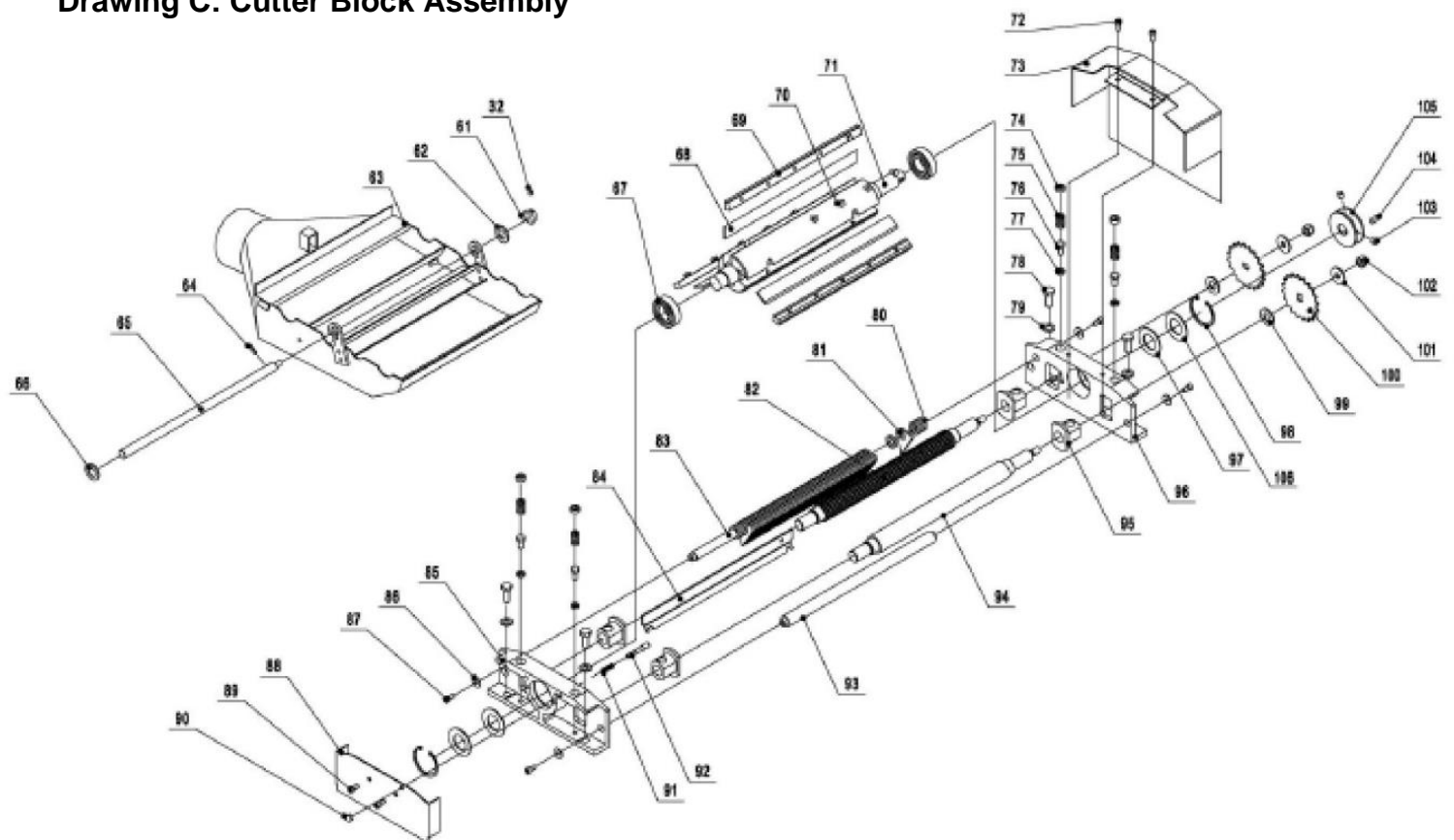
Drawing A: Infeed Table Assembly



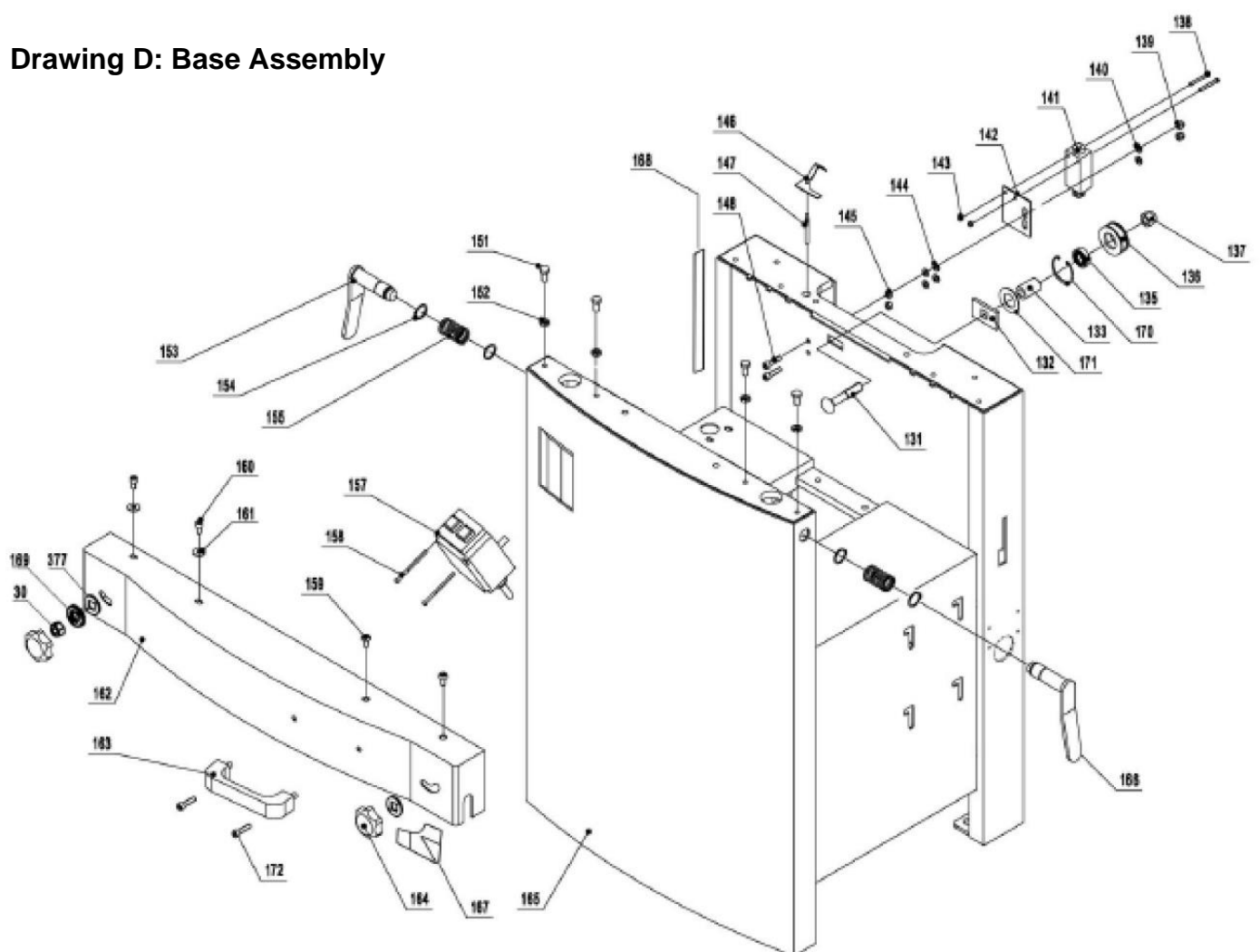
Drawing B: Outfeed Table Assembly



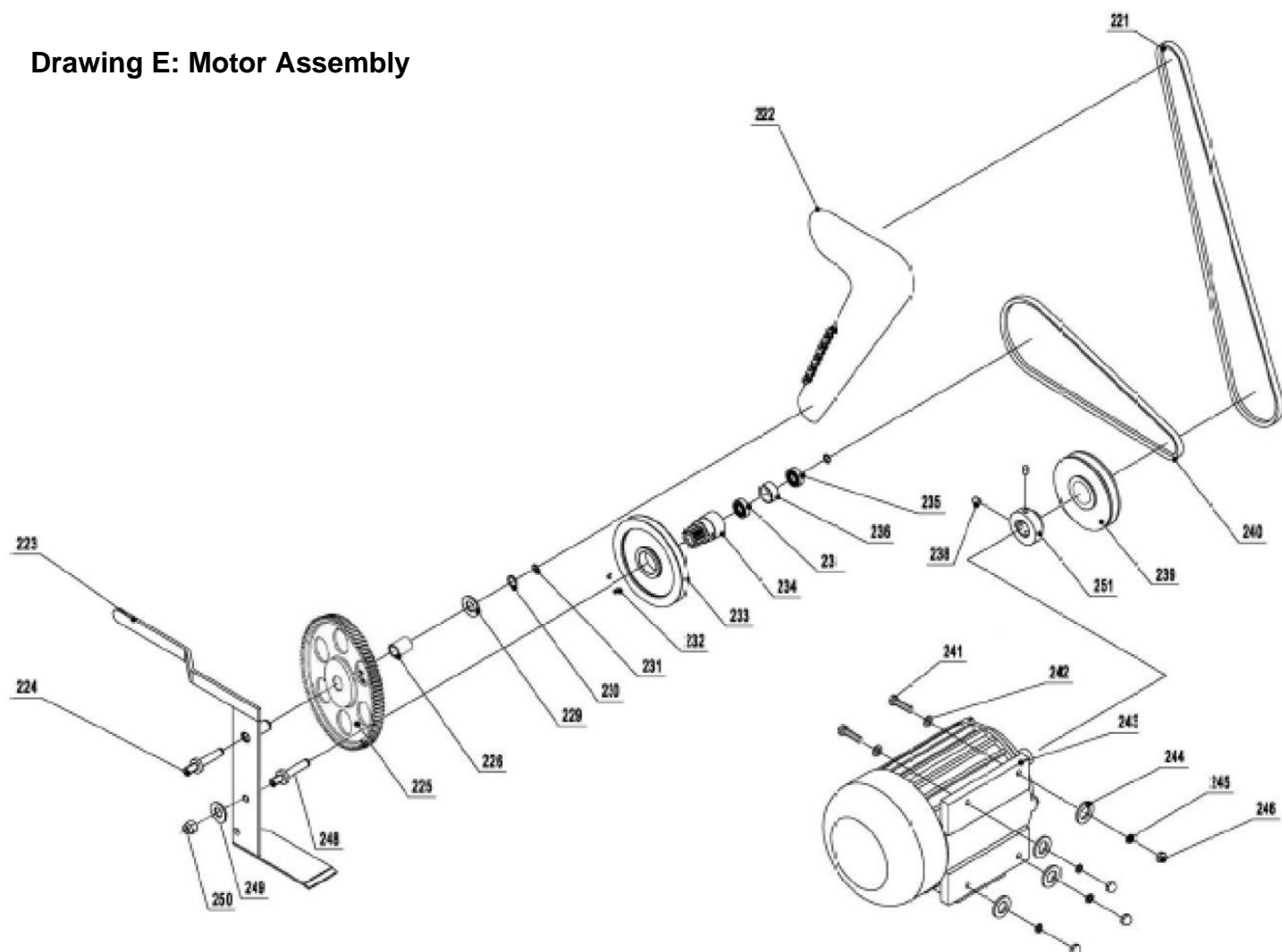
Drawing C: Cutter Block Assembly



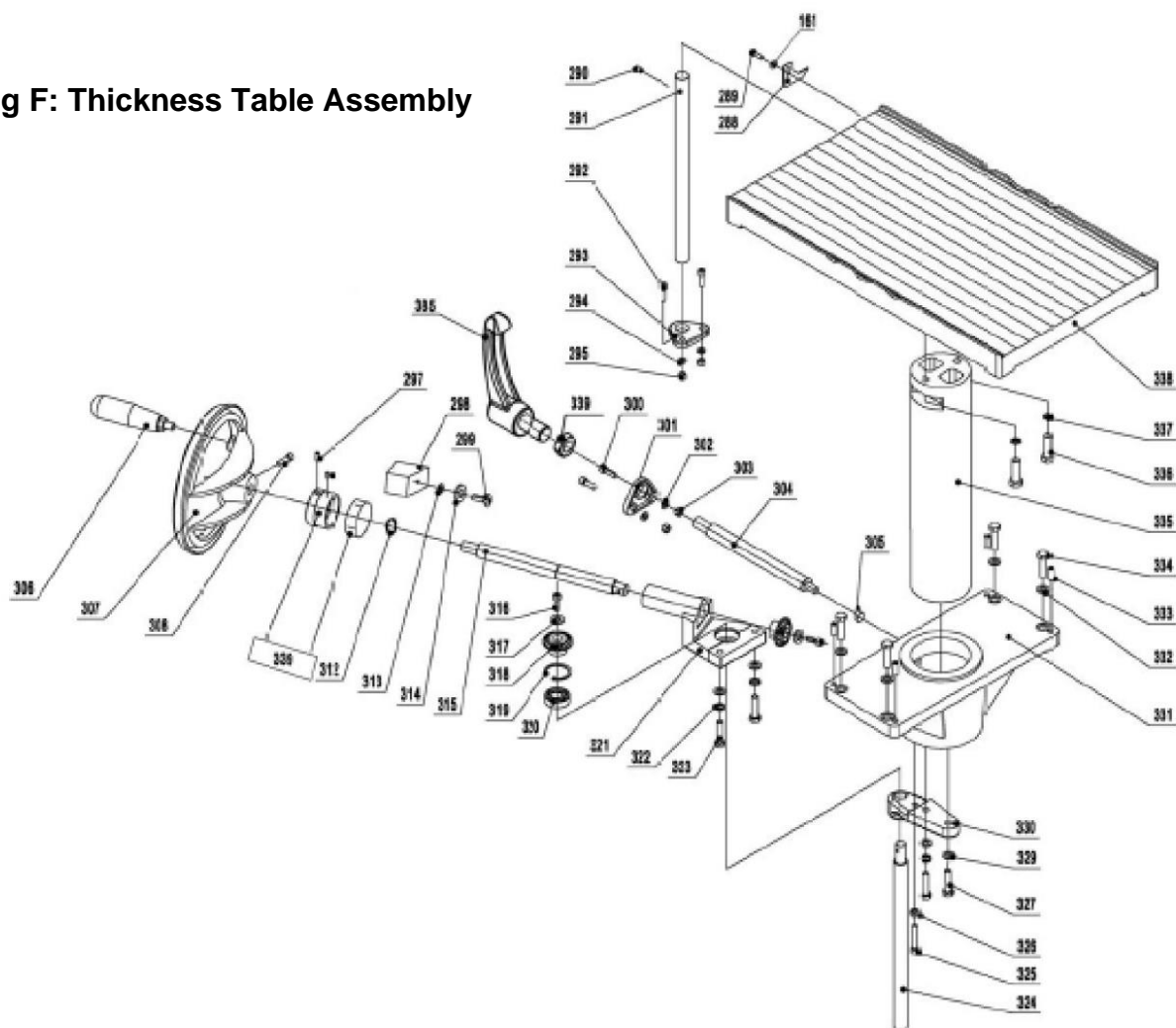
Drawing D: Base Assembly



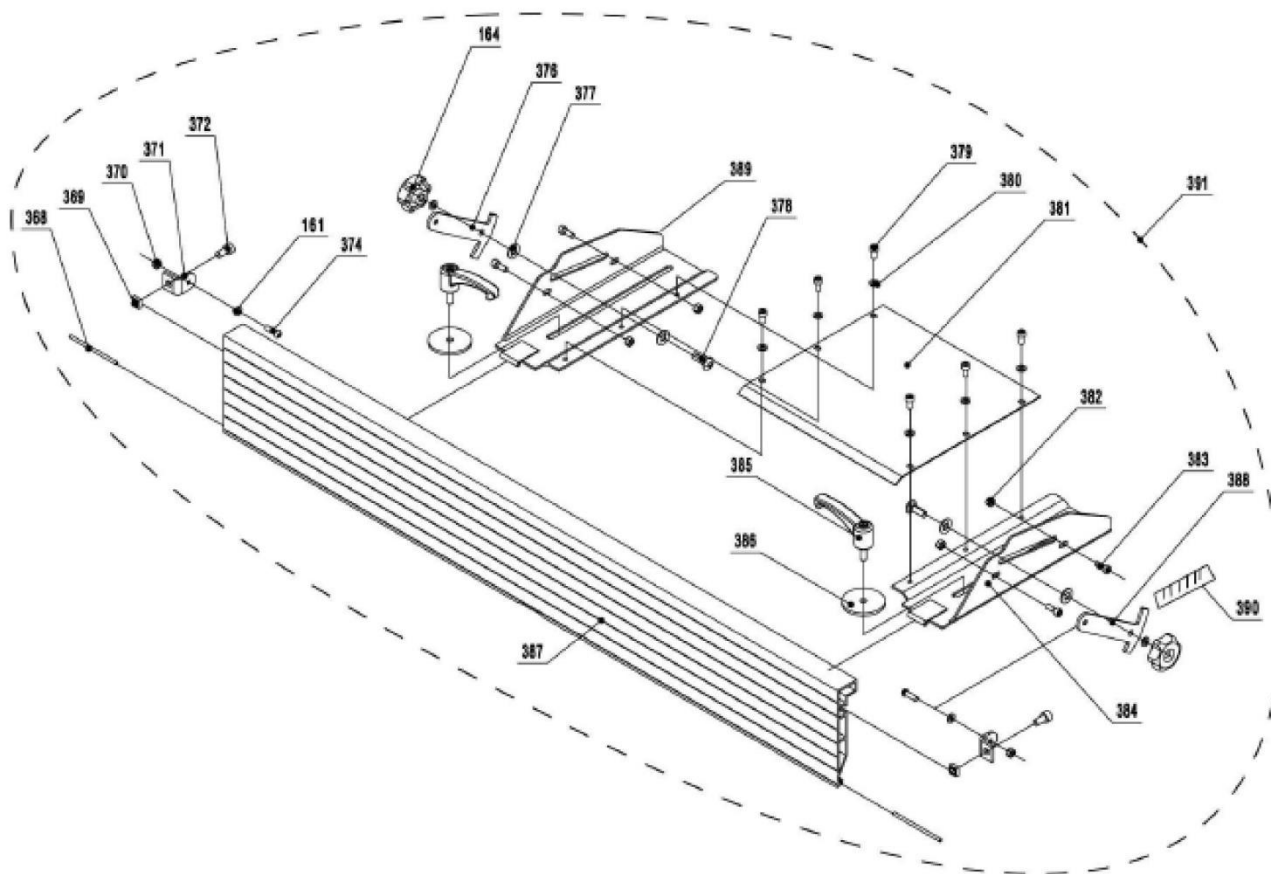
Drawing E: Motor Assembly



Drawing F: Thickness Table Assembly



Drawing G: Fence Assembly



Charnwood W590 Parts List

Part No.	Description	Part No.	Description
001	Lock Nut M8	002	Washer
003	Outfeed Table Bracket Shaft	004	Outfeed Table Bracket Right
005	Socket Head Cap Screw M8 x 60	006	Eccentric Shaft
007	Table	008	Cutterhead Guard Assembly - Complete
009	Bracket	010	Socket Head Cap Screw M6 x 30
011	Washer	012	Lock Nut M12
013	Socket Head Cap Screw M6 x 20	014	Adjusting Handle
015	Knob	016	Bracket Screw
017	Bracket	018	Eccentric Shaft Bracket
019	Eccentric Shaft Clamp	020	Table Locking Shaft
021	Hex Nut M12	022	Outfeed Table Bracket, Left
023	Socket Set Screw M8 x 10	024	Plastic Disc D6
025	Hex Cap Screw M8 x 30	026	Flat Washer M8
027	Table Support	028	Spring
029	Hex Cap Screw M8 x 16	030	Hex Nut M8

031	Big Cam Wheel	032	Socket Set Screw M5 x 10
033	Cutterhead Guard with Cap	034	Socket Set Screw M8 x 12
061	Small Cam Wheel	062	Washer H16
063	Dust Collector Assembly	064	Roll Pin M5 x 18
065	Shaft	066	Washer H16
067	Bearing 6205ZZ	068	Knife (Set of 3)
069	Knife Locking Bar	070	Knife Locking Bar Screw
071	Cutterhead	072	Button Head Socket Screw M6 x 12
073	Belt Cover	074	Screw
075	Spring	076	Hex Cap Screw M8 x 16
077	Hex Nut M8	078	Hex Cap Screw M10 x 25
079	Flat Washer M10	080	Adjusting Washer
081	Anti-Kickback Finger	082	Infeed Roller
083	Anti-Kickback Shaft	084	Cutterhead Cover
085	Cutterhead Bracket, Right	086	Flat Washer M6
087	Socket Head Cap Screw M6 x 12	088	Cutterhead Bracket Cover
089	Button Head Socket Screw M6 x 12	090	Cap Nut M6
091	Spring	092	Stop Pin
093	Support Rod	094	Outfeed Roller
095	Bushing	096	Cutterhead Bracket, Left
097	Wave Washer D52	098	Retaining Ring
099	Washer	100	Drive Chain Sprocket
101	Washer	102	Lock Nut M10
103	Socket Head Screw M8 x 6	104	Key PLN 6 x 16
105	Spindle Pulley	106	Washer D52
131	Carriage Bolt N12 x 65	132	Square Washer
133	Bushing	135	Bearing BRG80101
136	Chain Wheel	137	Lock Nut M12
138	Pan Head Screw M4 x 35	139	Lock Nut M6
140	Flat Washer M6	141	Safety Switch
142	Safety Switch Bracket	143	Lock Nut M4
144	Washer M6	145	Hex Nut M6
146	Safety Switch Rocker	147	Safety Switch Rocker Shaft
148	Socket Head Cap Screw M6 x 25	151	Bolt
152	Hex Nut M8	153	Outfeed Table Lock Handle
154	Retaining Ring CLP20	155	Spring
156	Direction Label	157	Switch 230/60/1
158	Pan Head Screw	159	Flat Head Socket Screw M6 x 16
160	Button Head Socket Screw M6 x 12	161	Washer H6
162	Front Cover	163	Handle
164	Lock Knob	165	Cabinet
166	Infeed Table Lock Handle	167	Infeed Scale
168	Thickness Scale, Inch	169	Washer H8
170	Retaining Ring	171	Washer H12

172	Socket Head Screw M8 x 20	182	Infeed Table Bracket Shaft
184	Infeed Table Bracket, Right	190	Infeed Table Bracket, Left
203	Socket Head Cap Screw M8 x 16	209	Socket Head Cap Screw M8 x 40
210	Table Stopper	211	Hex Nut M8
221	V Belt for Cutterhead, 60Hz	222	Drive Chain
223	Cam Wheel Bracket	224	Cam Wheel Shaft
225	Cam Wheel with Sprocket/Key	226	Bushing
229	Washer	230	Retaining Ring CLP15
231	Retaining Ring CLP10	232	Socket Head Screw M5 x 10
233	Flat Belt Feed Roller Pulley	234	Cam Wheel
235	Bearing BRG80100	236	Bearing Spacer
238	Socket Head Screw M8 x 12	239	Motor Pulley, 60Hz
240	Flat Belt Feed Roller	241	Hex Cap Screw M8 x 25
242	Flat Washer M8	243	Motor, 3HP, 230v, 60Hz, 1Ph
244	Washer H8	245	Lock Washer M8
246	Cap Nut M8	247	Capacitor 230/60/1
248	Shaft	249	Lock Washer M10
250	Hex Nut M10	251	Small Motor Pulley
288	Indicator	289	Button Head Socket Screw M6 x 12
290	Socket Head Screw M8 x 12	291	Table Guide bar
292	Socket Head Cap Screw M6 x 20	293	Guide Bar Bracket
294	Flat Washer M6	295	Hex Nut M6
297	Socket Set Screw M8 x 12	298	Indicator Seat
299	Button Head Socket Screw M6 x 20	300	Screw
301	Cover	302	Washer
303	Nut	304	Locking Bar
305	Locking Shoe	306	Crank Handle
307	Handwheel	308	Socket Head Cap Screw M6 x 20
312	Retaining Ring CLP20	313	Retaining Ring
314	Washer	315	Crank Bar
316	Button Head Socket Screw M6 x 12	317	Flat Washer M6
318	Bevel Gear	319	Retaining Ring CLP35
320	Bearing BRG80202	321	Bevel Gear Bracket
322	Flat Washer M8	323	Hex Cap Screw M8 x 35
324	Thread Rod	325	Bolt M6 x 40
326	Hex Nut M6	327	Hex Cap Screw M8 x 35
329	Flat Washer	330	Thread Rod Bracket
331	Column Support	332	Flat Washer M8
333	Socket Set Screw M x 20	334	Hex Cap Screw M8 x 35
335	Column	336	Hex Cap Screw M10 x 35
337	Lock Washer M10	338	Planer Table
339	Scale Ring Assembly, Inch	368	Hinge Pin
369	Square Nut M8	370	Lock Nut M6
371	Fence Mounting Bracket	372	Socket Head Cap Screw M8 x 16

374	Flat Head Socket Screw M6 x 16		376	Fence Support, Right
377	Nylon Washer		378	Carriage Bolt M8 x 25
379	Button Head Socket Screw M6 x 12		380	Flat Washer M6
381	Cutterhead Cover		382	Lock Nut M6
383	Socket Head Cap Screw M6 x 12		384	Fence Bracket, Left
385	Locking Handle		386	Special Washer
387	Fence		388	Fence Support, Left
389	Fence Support, Right		390	Fence Scale
391	Complete Fence Assembly			



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Last Updated February 2022

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