

charnwood

Woodworking machinery at its best!

PRO

SERIES

16" PLANER THICKNESSER

OWNERS MANUAL

MODEL: PT16S



Please Note:
This machine requires
a 16 amp electric supply
with a Type C breaker

CE
UK
CA

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

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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, 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.

Specification

Motor (induction)	3000w (4hp)/240v/50hz
Recommended Breaker size	16 Amps (Type C)
Planer width	410mm (16")
Maximum Depth of Cut Planer	3.5mm
Fence tilt	0 to 45°
Max. Depth of Cut Thicknesser	4.5mm
Thicknessing capacity	5mm to 230mm
Number of cutters	72 (4 x 18) TC
Cutter Size	15mm x 15mm x 2.5mm, R=150
Weight	261kg
Rating	Trade
Product Guarantee	1 Year

Unpacking



Open The Crate

This product is packed into 1 wooden crate.

To open the wooden crate:

Cut the vertical straps

Use a pry bar to release the nails around the base

Lift off the complete lid.

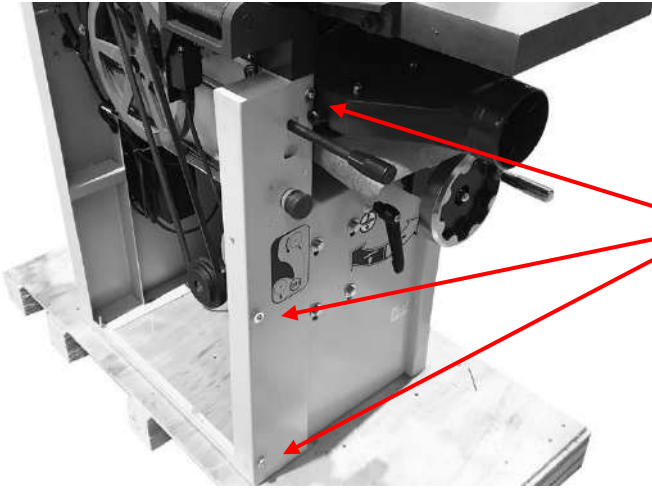
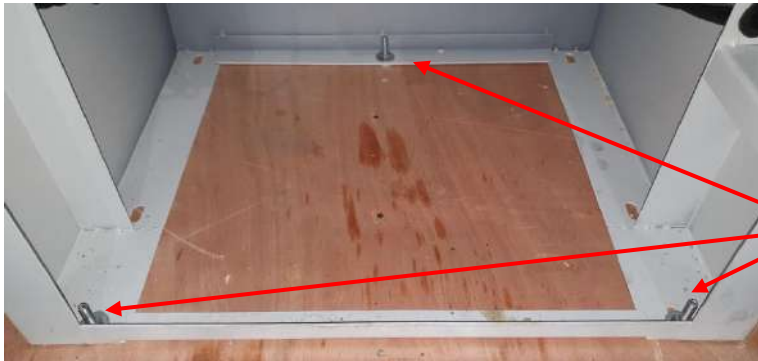


Remove Loose Items

Remove the plastic cover,

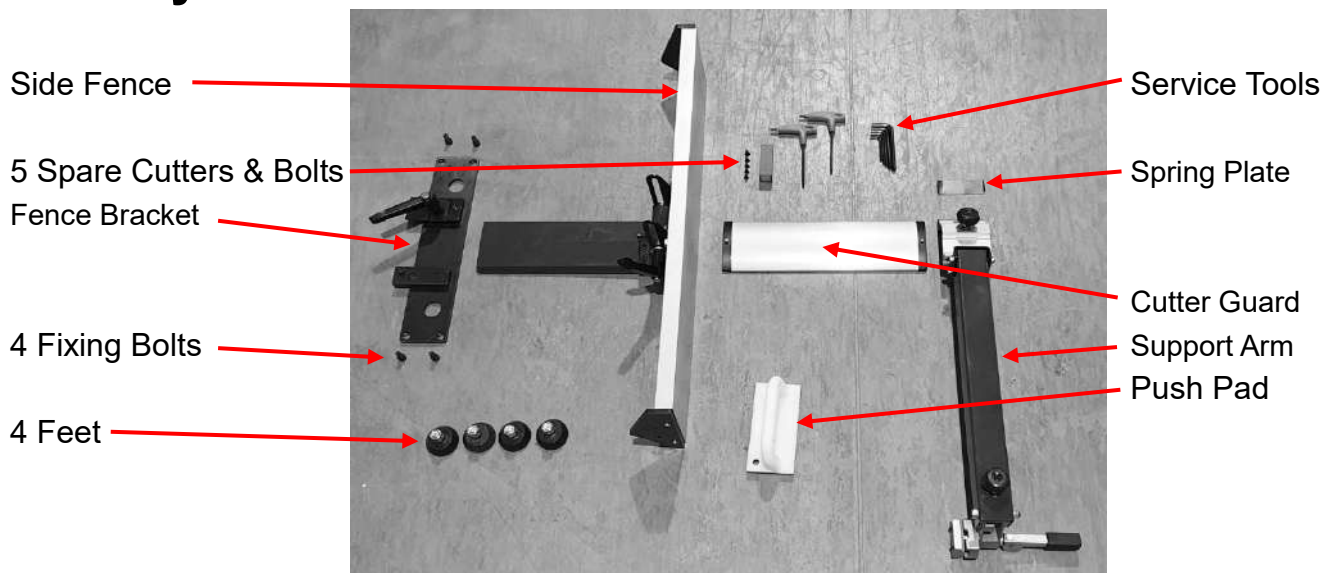
The fence,

Carton of assembly parts.

	Remove the side panel Use a cross head screwdriver to loosen 6 screws. 3 on each side of the panel. Lift and then remove the side cover.
 CAUTION  Two person lift.	Unbolt From The Base The machine is fixed to the pallet base with 3 bolts. Use a 13mm spanner to undo the 3 securing nuts. This part of the assembly requires 2 people: Lift the machine off the pallet base.

Do not dispose of any of the packaging until the machine has been completely assembled and tested.
In the unlikely event that the product needs to be returned, the original packaging will be required.

Identify The Loose Parts



Assembly

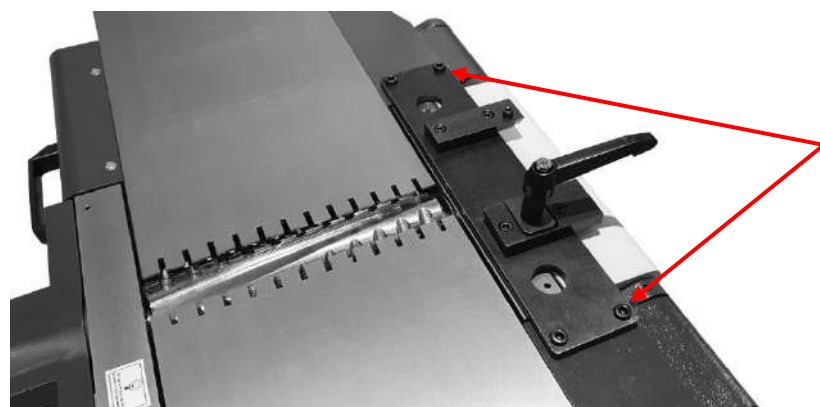
Remove the protective paper from the planing tables and clean the rust preventer from the table using WD40 or similar, and a soft cloth.



Fit The Feet

Lift one side of the machine and support with a block of wood to gain access to the hole for each foot. Remove the top nut from the foot, pass the stud through the hole and then refit the top nut. Lock in place with a pair of 16mm spanners.

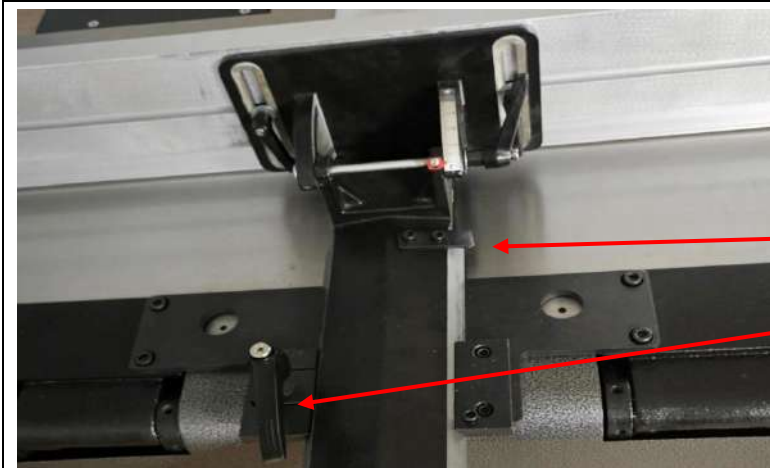
Refit the side Cover.



Fit The Fence Support Bracket

Attach the bracket to the machine using 4 bolts.

Secure with a 6mm Allen key

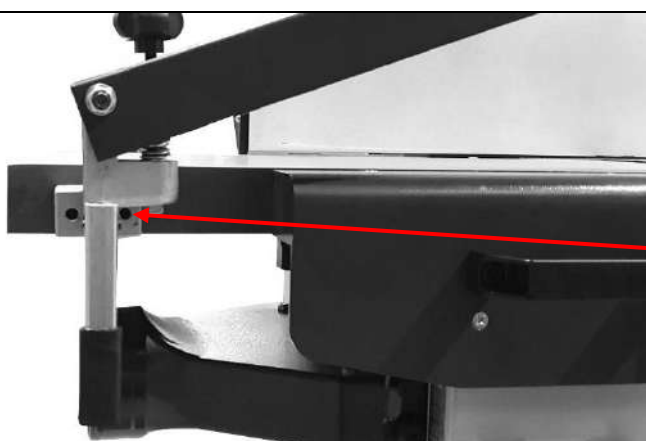


Fit the Fence

Slide the dovetailed end of the fence into the support bracket.

Push it all the way to the limit stop.

Use the ratchet handle to lock the fence.

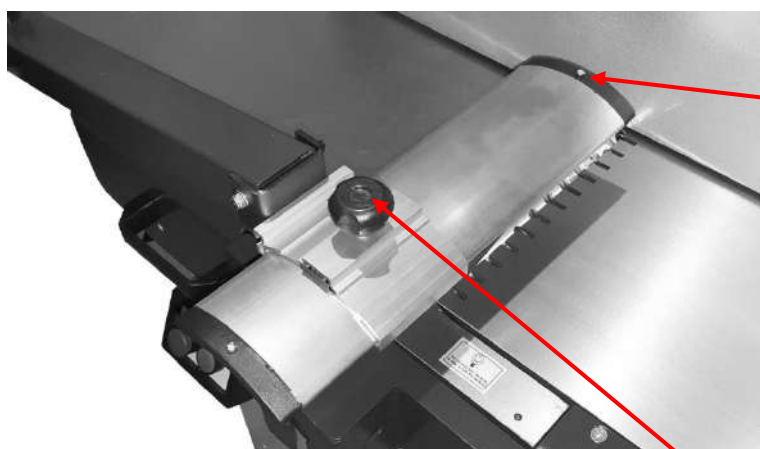


Fit The Cutter Guard Support Arm

Hold the arm up against the side of the machine.

Pass a 5mm Allen key through the access hole to tighten the bolt.

Repeat for the other bolt.



Fit The Cutter Guard

Use a cross head screw driver to remove the retaining screw from the end of the guard.

Insert the Spring Plate into the Support Arm, then slide the Cutter Guard into the end of the arm, underneath the Spring Plate.

Refit the retaining screw.

Lock the guard using the locking knob



Hang the Push Pad

Use the hanging point provided to keep the push pad within reach at all times.



Clean The Thicknessing Table

To access the thicknessing table:

Unlock the planing beds, one lock handle at each side on the front

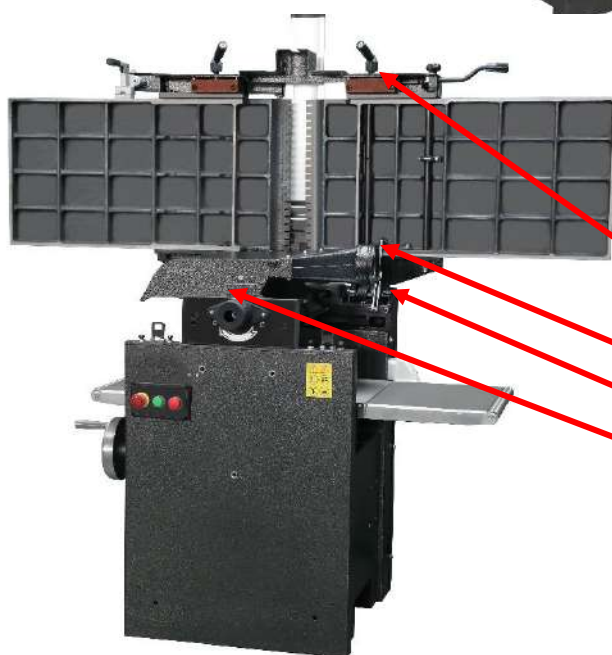
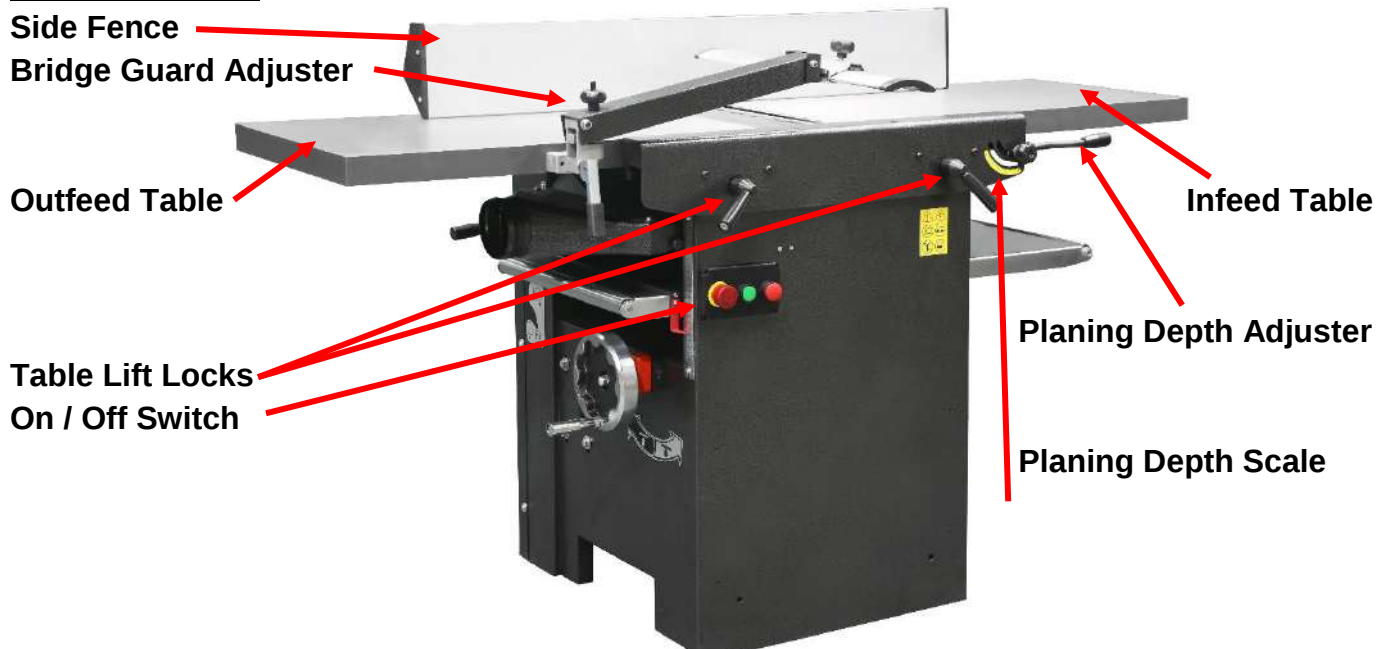
Raise the beds into the vertical position

Swing the extractor hood over cutter block

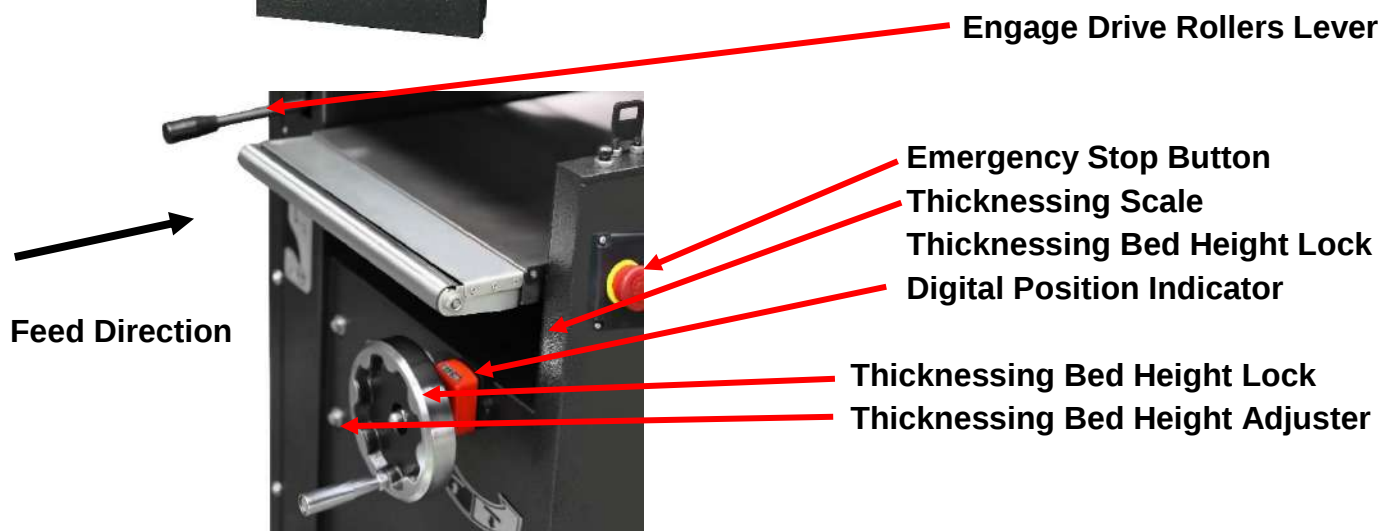
Remove the protective paper and clean the rust preventer from the table using WD40 or similar, and a soft cloth.

Using the Planer Thicknesser

PLANING MODE



THICKNESSING MODE



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 taller pieces, over 60mm, 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 Planing Bed Locks, both are located on the front of the machine.

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 Extractor 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 equal to 2mm 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 – 2.5mm, 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.

Release the extractor hood from the retaining pin and swing the Dust Hood underneath the cutter block.

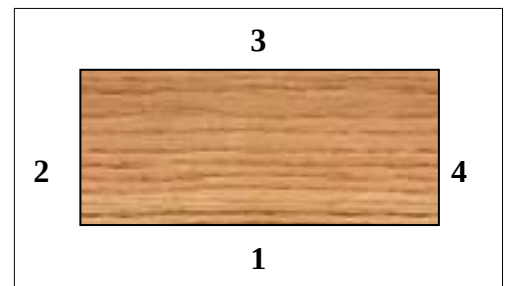
Support the tables with one hand and pull back the Planing Beds Release Catch.

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 Planing Bed 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 side 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.

Cutter Replacement



Disconnect the machine from the supply

The cutter block is fitted with 4 rows of Tungsten carbide cutters, 18 in each row.

Each cutter has 4 sides and 4 cutting edges.

A cutter can be rotated by 90 degrees to a new position to renew the cutting edge.



Each corner is numbered so you can keep track of which edge has already been used.

If one edge becomes damaged by a chip or nick, it can be rotated or replaced individually.

Eventually the cutters will become blunt and then the entire row should be rotated or replaced at the same time.

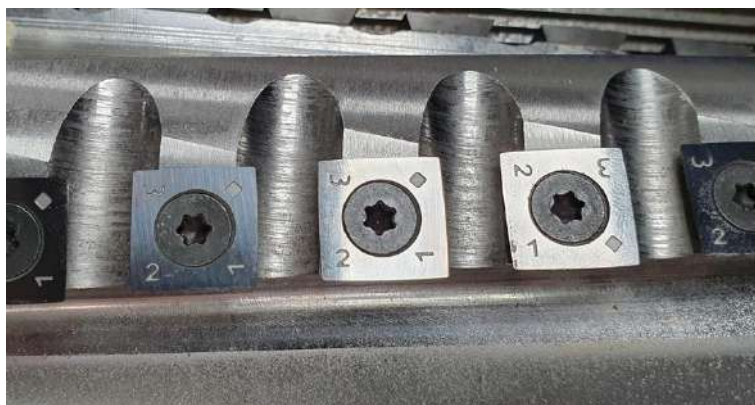


To change a cutter:

Rotate the cutterblock so the cutter to be changed is at the top of the arc.

Use a T20 Torx key to undo the locking screw.

Turn anticlockwise to undo.



Refit the cutter with a new edge uppermost.

The back edge of the cutter should fit tightly against the back stop on the cutter block.

Fit the locking screw and tighten it firmly.

Troubleshooting

Problem	Cause	Remedy
Machine does not start	Emergency stop activated	Twist to release the red emergency stop button
	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
MCB trips on Start up	MCB rating is too low	Replace with Type C 16amp
	Short circuit in cable or plug	Repair the damage
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
	Cutters are blunt	Rotate or replace the cutters
Feed rollers slipping	Build up of dust and sap on the table	Clean the table
Long lines or ridges along the length of planed timber	Nicked or chipped cutters	Rotate or replace the cutters
Excessive snipe	Outfeed table is set too low	Align the outfeed table to the height of the cutter when at the top of its arc
	Operator pushing down on the trailing end of the timber	Eliminate downward pressure on trailing end
	Timber not supported as it leaves the planer	Support the timber as it leaves the outfeed end of the planer

Declaration of Conformity for CE Marking

Charnwood Declare that Woodworking Planer & Thicknesser, Model PT16S

Conforms with the following EU Directives: Machinery Directive 2006/42/EC
Electromagnetic Compatibility 2014/30/EU
Conforms with the following UK Regulations: Supply of Machinery (Safety) Regulations 2008
Electromagnetic Compatibility Regulations 2016

And further conforms to the machinery example for which the EC type examination Certificate No. BM 50624960 & AE 50616103 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: 14/07/2025

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

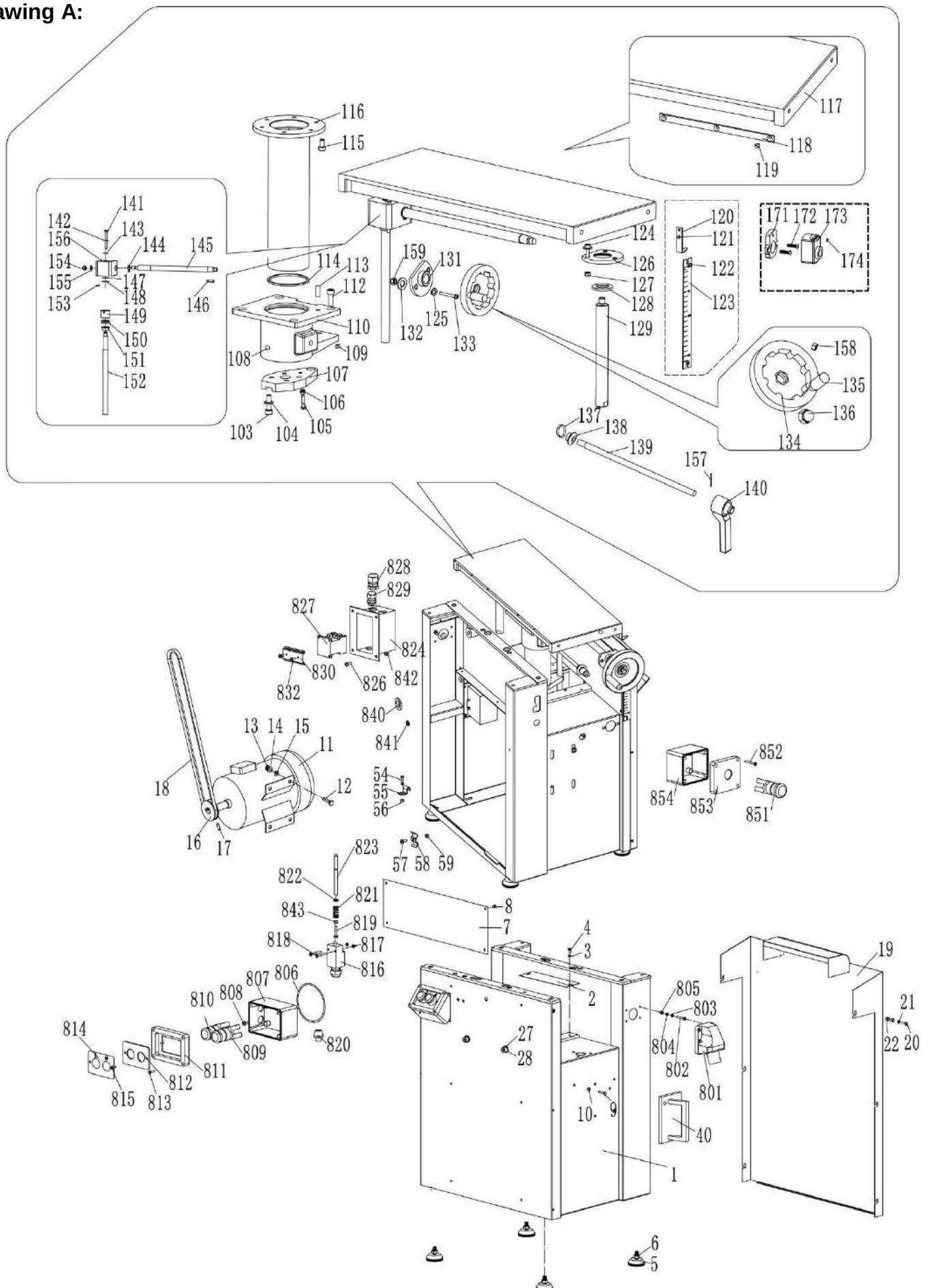
Do not dispose of electric tools together with household waste material!

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.

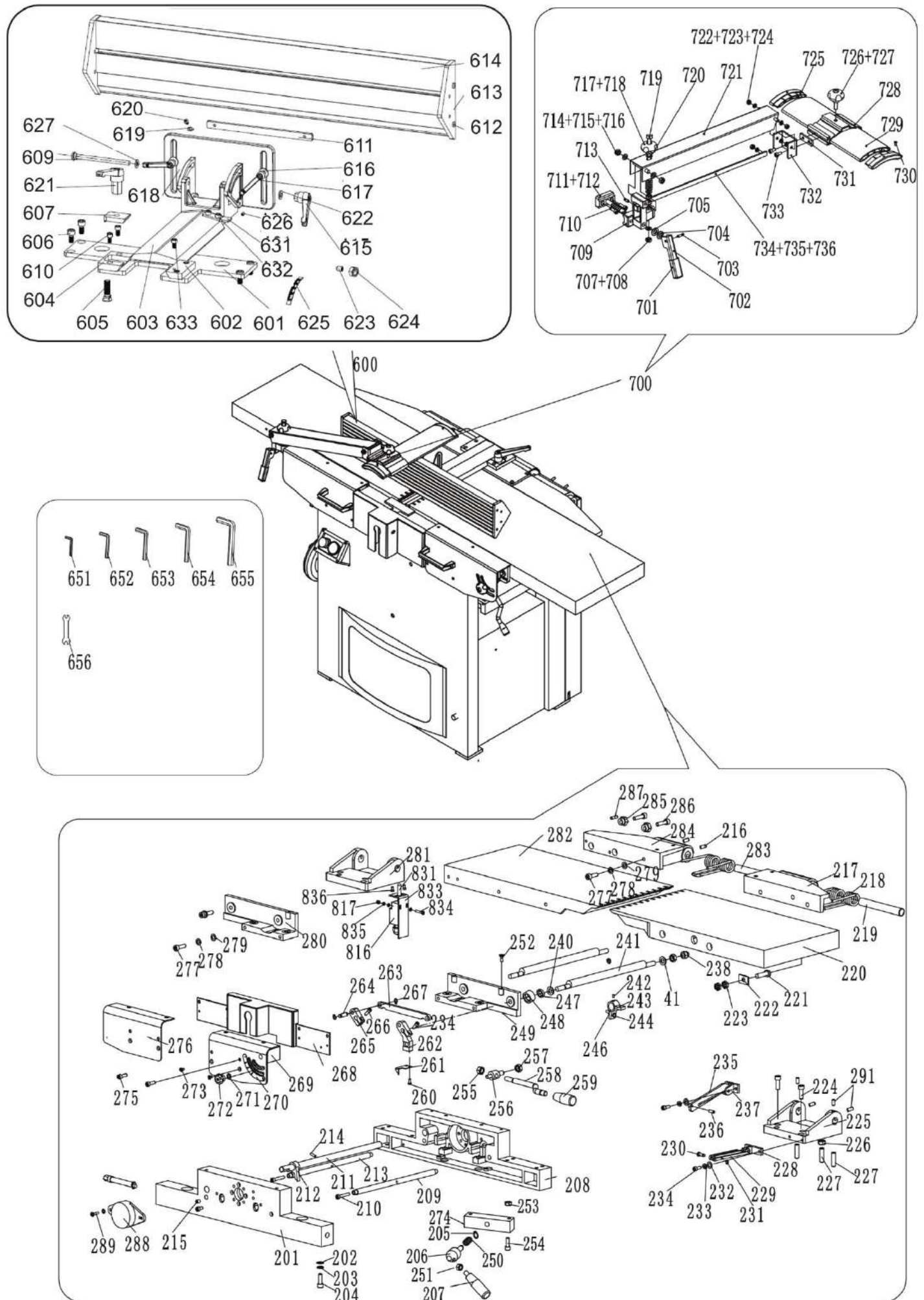
Your local refuse amenity will have a separate collection area for EEE goods

Charnwood PT16S Parts Diagrams

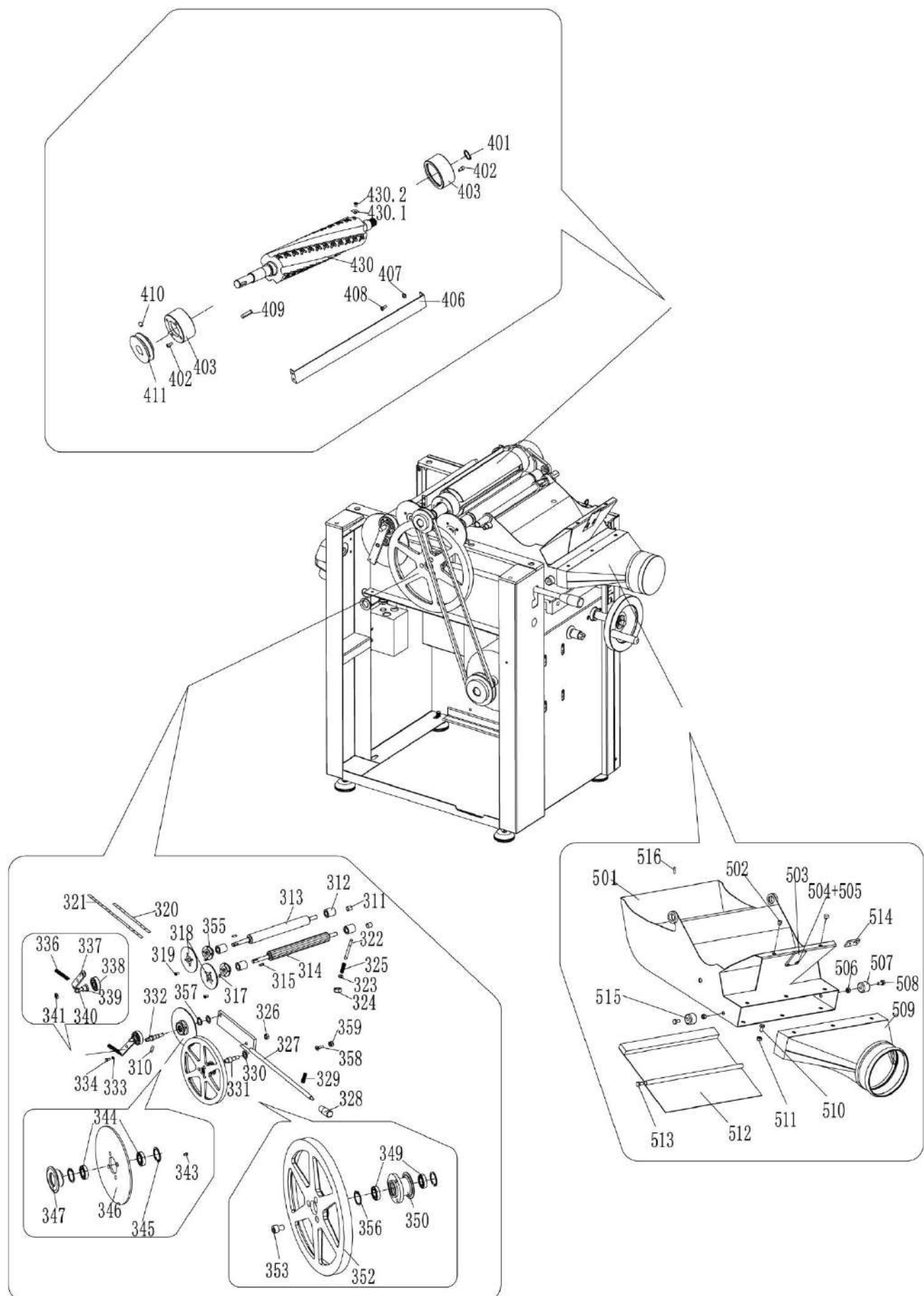
Drawing A:



Drawing B:



Drawing C:



Charnwood PT16S Parts List

Part No.	Description		Part No.	Description
001	Base Stand		002	Cover Plate
003	Flat Washer M5		004	Screw M5 x 8
005	Foot		006	Nut M10
007	Right Inner Plate		008	Countersunk Screw M5 x 6
009	Screw M5 x 50		010	Nut M5
011	Motor		012	Bolt M8 x 20
013	Nut M8		014	Spring Washer
015	Washer M8		016	Driving Pulley
017	Screw M6 x 8		018	V Belt
019	Protective Cover		020	Screw M5 x 25
021	Flat Washer M4		022	Nut M5
027	Screw M10 x 35		028	Flat Washer
040	Push Pad		050	Trim Cover
051	Trim Plate		052	Screw M5 x 10
053	Screw M4 x 6		054	Screw M4 x 16
055	Wire Clip		056	Nut M4
057	Screw M4 x 12		058	Wire Clip
059	Nut M4		103	Screw M8 x 30
104	Spring Washer		105	Screw M6 x 35
106	Nut M6		107	Support Plate
108	Lifting Tube Bracket		109	Locking Plate
110	Guide		112	Screw M8 x 16
113	Hex Socket Screw M6 x 10		114	Seal Ring
115	Screw M8 x 16		116	Lifting Sleeve
117	Thickneser Table		118	Limiting Plate
119	Countersunk Head Screw M4 x 6		120	Pointer
121	Screw M4 x 6		122	Screw M4 x 6
123	Scale		124	Bolt M6 x 20
125	Flat Washer		126	Locking Block
127	Nut M6		128	Washer
129	Oriented Bar		131	Locking Plate
132	Washer		133	Bolt M6 x 20
134	Handwheel		135	Handwheel Bar
136	Nut M12		137	Retaining Ring
138	Support Bush		139	Locking Rod
140	Locking Handle		141	Bolt M6 x 65
142	Spring Washer		143	Flat Washer
144	Retaining Ring		145	Gear Shaft
146	Flat Key A5 x 12		147	Retaining Ring
148	Flat Washer		149	Helical Gear
150	Thrust Ball Bearing		151	Bush

152	Lead Screw		153	Elastic Pin
154	Nut M10		155	Flat Washer
156	Gear Box		157	Elastic pin
158	Nut M8		159	Nut M6
171	Block		172	Hex Socket Head Screw M6 x 25
173	Digital Readout		174	Hex End Set Screw M5 x 8
201	Right Support Bracket		202	Flat Washer
203	Spring Washer		204	Screw M8 x 25
205	Retaining Ring		206	Eccentric Rod
207	Adjustable Handle		208	Left Support Bracket
209	Supporting Axle		210	Screw M6 x 35
211	Shaft		212	Anti Kickback Finger
213	Limit Axis		214	Elastic Cylindrical Pin 6 x 20
215	Hex Socket Set Screw M6 x 10		216	Hex Socket Set Screw M8 x 12
217	Right Table Bracket		218	Torsion Spring
219	Right Axle		220	Infeed Table
221	Bolt		222	Washer
223	Nut M10		224	Screw M8 x 25
225	Rear Support Base		226	Nut M10
227	Limit Screw		228	Small Support Base
229	Support Pole		230	Pin
231	Split Ring		232	Flat Washer
233	Spring Washer		234	Screw M6 x 18
235	Support Pole		236	Elastic Pin 5 x 16
237	Small Support Base		238	Nut M10
239	Nut M10		240	Flat Washer
241	Eccentric Shaft		242	Hex Socket Screw M6 x 12
243	Limit Block		244	Bolt M5 x 35
246	Nut M5		247	Flat Washer 12
248	Retaining Ring 12		249	Right Support Plate
250	Hex Socket Screw M10 x 1 x 30		251	Mut M10 x 1
252	Countersunk Head Screw M6 x 14		253	Nut M10
254	Hex Flange Bolt M10 x 45		255	Nut M10
256	Locking Support Base		257	Nut M10
258	Handle Lever		259	Handle
260	Screw M4 x 6		261	Pointer
262	Driving Connecting Rod		263	Connecting Rod
264	Cylindrical Pin		265	Driven Connecting Rod
266	Screw M6 x 14		267	Retaining Ring 8
268	Shield		269	Right Shield
270	Depth Gauge		271	Washer 8
272	Handle		273	Countersunk Head Screw M6 x 10
274	Block		275	Screw M8 x 25
276	Front Cover		277	Screw M8 x 30

278	Spring Washer		279	Flat Washer
280	Left Support Plate		281	Left Support Base
282	Outfeed Table		283	Left Axle
284	Left Table Bracket		285	Eccentric Sleeve
286	Screw M8 x 30		287	Cylindrical Pin 6 x 20
288	Protective Cover		289	Screw M6 x 10
290	Flat Washer 6		292	Hex Socket Screw M8 x 12
293	Hex Socket Screw M8 x 20		294	Screw M8 x 30
295	Spring Washer		296	Flat Washer
297	Screw M6 x 16		298	Cylindrical Pin
310	Hex Socket Screw M6 x 16		311	Sleeve
312	End Sleeve		313	Roller
314	Drive Roller		315	Flat Key A5 x 16
317	Hex Socket Screw M6 x 8		318	Sprocket
319	Screw M5 x 8		320	Chain
321	Chain		322	Stud Bolt
323	Flat Washer		324	Nut M8
325	Spring		326	Nut M10
327	Connecting Plate		328	Handle
329	Spring		330	Flat Washer 10
331	Pin		332	Long Pin
333	Washer 6		334	Bolt M6 x 10
336	Tension Spring		337	Tensioner
338	Ball Bearing 6303		339	Pin
340	Flat Washer 10		341	Nut M10
343	Screw M6 x 10		344	Ball Bearing
345	Retaining Ring		346	Sprocket
347	Sprocket II		349	Ball Bearing 6901
350	Sprocket III		352	Friction Wheel
353	Screw M6 x 16		355	Sprocket
356	Retaining Ring 24		357	Retaining Ring 12
358	Screw M5 x 16		359	Nut M5
401	Retaining Ring 25		402	Screw M6 x 10
403	Bearing Base		406	Protective Plate
407	Spring Washer 6		408	Screw M6 x 14
409	Flat Key A6 x 20		410	Screw M6 x 8
411	Driven Wheel		413	Cutter Block
415	Compressed Spring		416	Blade
417	Wedge		418	Square Head Bolt
430	Spiral Cutter Block		430.1	Cutter 15 x 15 x 2.5mm, R=150
430.2	Countersunk T20 Torx Screw		497	Anti Kickback Finger
498	Nut M6		499	Elastic Cylindrical Pin 5 x 16
501	Extractor Hood		502	Rubber Pad
503	Locking Plate		504	Bolt M6 x 10

505	Nut M6	506	Nut M6
507	Feet	508	Screw M6 x 16
509	Extractor Outlet 100mm Diameter	510	Bolt M6 x 10
511	Nut M6	512	Plate
513	Countersunk Head Screw M6 x 12	514	Pressure Plate
515	Foot	516	Elastic Cylindrical Pin 3 x 10
601	Connection Plate	602	Right Metal Plate
603	Guide Plate	604	Left Metal Plate
605	Square Bolt	606	Screw
607	Pressure Plate	609	Square Bolt
610	Screw	611	Sliding Plate
612	Screw	613	End Cap
614	Fence Plate	615	Adjustable Handle
616	Large Washer	617	Adjustable Handle
618	Supporting Plate	619	Pointer
620	Screw	621	Adjustable Handle
622	Flat Washer	623	Screw
624	Nut	625	Angle Scale
626	Screw	627	Flat Washer
631	Baffle	632	Screw
633	Screw	651	Allen Wrench S3
652	Allen Wrench S4	653	Allen Wrench S5
654	Allen Wrench S6	655	Allen Wrench S8
656	Wrench 7*5.5	657	Eye Bolt M6
701	Rubber Sleeve	702	Locking Handle
703	Elastic Cylindrical Pin 5 x 20	704	Disc Spring Washer
705	Flat Washer 10	707	Nut M8
708	Flat Washer 8	709	Swivel Block
710	Screw M6 x 20	711	Fixed Block
712	Spring	713	Cylindrical Pin 6 x 20
714	Screw M8	715	Nut M8
716	Flat Washer 8	717	Handle
718	Spring	719	Bolt
720	Washer 8	721	Support Bracket
722	M6 Screw	723	Nut M6
724	Flat Washer 6	725	End Cap
726	Locking Handle	727	Locking Plate
728	Guard Shell	729	Cutter Guard
730	Tapping Screw ST4 x 10	731	Fixing Plate
732	Adjustment Board	733	Screw M6 x 10
734	Connecting Rod	735	Flat Washer 6
736	Nut M6	801	Plug
802	Screw M5 x 25	803	Spring Washer 5
804	Flat Washer 5	805	Nut M5

806	Sealing Ring		807	Bottom Cover
808	Screw M5 x 10		809	Button (Green)
810	Button (Red)		811	Upper Cover
812	Switch Board		813	Tapping Screw ST4 x 16
814	Switch Label		815	Tapping Screw ST4 x 10
816	Switch		817	Nut M4
818	Countersunk Head Screw M4 x 35		819	Bolt M5 x 25
820	Strain Relief		821	Spring
822	Split Ring		823	Ejector
824	Electrical Box		826	Screw M5 x 16
827	AC Contactor		828	Strain Relief
829	Strain Relief		830	Mounting Plate
831	Elector		832	Tapping Screw ST4 x 10
833	Support Plate		834	Screw M4 x 35
835	Flat Washer 4		836	Spring Washer 4
837	Flat Washer 5		838	Spring Washer 5
839	Screw M5 x 14		840	Wire Sleeve
841	Wire Sleeve		842	Nut M5
843	Nut M5		844	Nut M4
845	Power Off Switch		851	Switch
852	Countersunk Head Screw M4 x 40		853	Upper Switch Cover
854	Bottom Switch Cover			



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