



*Woodworking machinery at its best!*

## **BELT & DISC SANDER OWNERS MANUAL**

**MODEL: BD48**



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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 the 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
8. from the work area.
9. Make workshop childproof. Use padlocks, master switches and remove starter keys.
10. Do not force the machine. It will do the job better and be safer at the rate for which it is designed.
11. 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.
12. 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.
13. Always use safety glasses. Normal spectacles only have impact resistant lenses. They are not safety glasses.
14. Do not over-reach. Keep proper footing and balance at all times.
15. Maintain the machine in good condition. Keep the machine clean for best and safest performance. Follow instructions for lubrication and changing accessories.
16. Disconnect the machine from power source before servicing and when changing the blade.
17. Never leave the machine running unattended. Turn the power off. Do not leave the machine until it comes to a complete stop.
18. Do not use any power tools while under the effects of drugs, alcohol or medication.
19. 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.



Risk of Injury.  
Never reach into  
a moving part



Wear Eye  
Protection



Wear Ear  
Protection

# Overview of BD48 Belt & Disc Sander



## Specification

Disc Diameter	200mm (8")
Disc Speed	2850rpm
Belt Size	100mm x 915mm (4" x 36")
Belt Speed	550m/min
Motor (Induction) 240v 50hz	500w (0.67hp)
Weight	21.5kg
Manufacturer's Warranty	1 year
Rating	Hobby

## 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.

# Unpacking



All items are contained in one cardboard box.



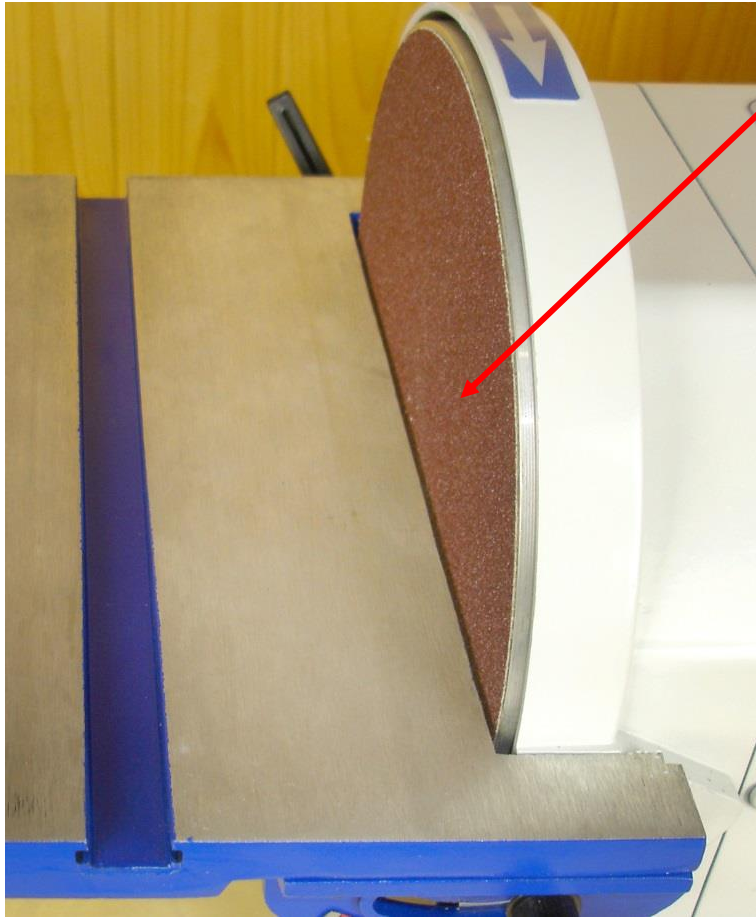
Carefully unpack and check that all items are included as in the photograph.

# Assembly



Attach the Disc Worktable using two locking handles and washers.

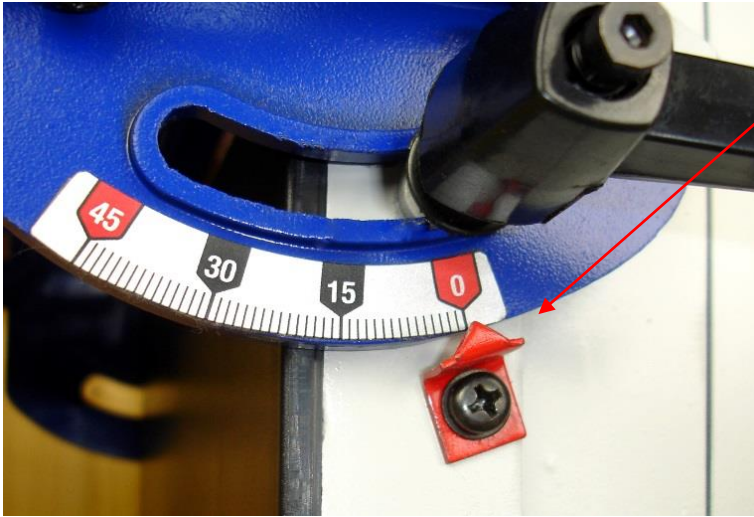




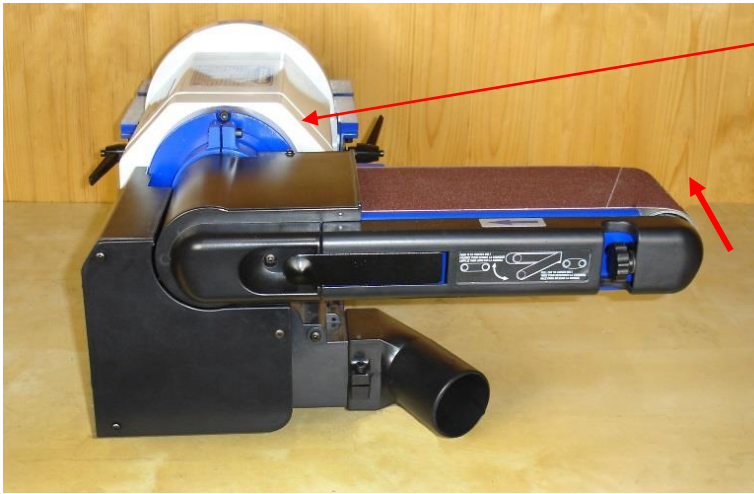
Ensure the gap between the disc and rear edge of the worktable is a maximum of 1.6mm in order to prevent finger trapping.



Using a set square ensure that the table is at 90 degrees to the sanding disc and lock in position.

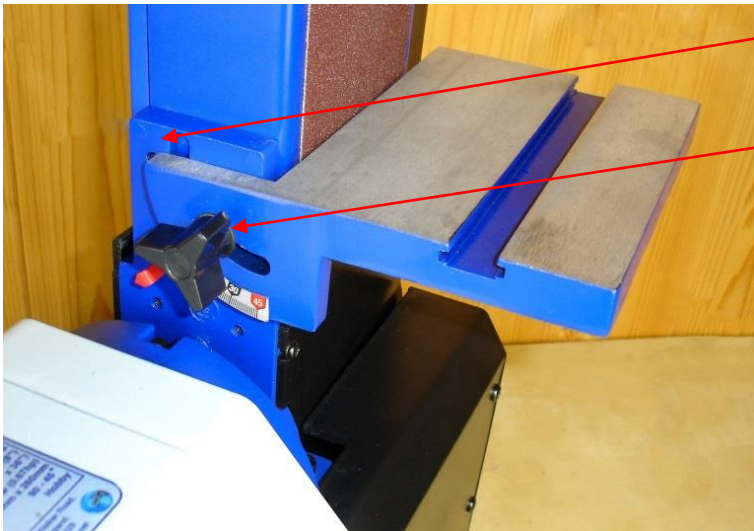


If necessary, adjust the red index pointer to align with the zero degree mark on the angle scale using a cross point screwdriver.



Loosen the belt angle locking screw using a 5mm hex key and raise the belt bed into a vertical position.

Re-tighten the screw.

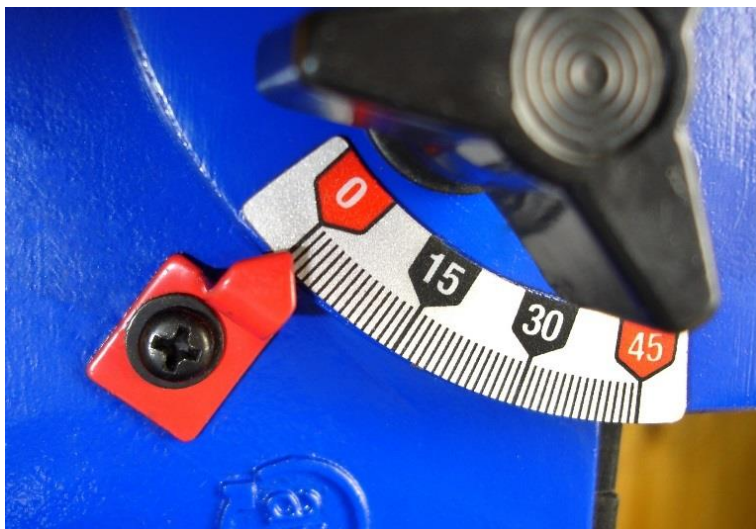


Locate the Belt Worktable onto the circular slot in the belt bed.

Secure using the threaded knob and washer.



Again, using a set square, adjust the Worktable to 90 degrees to the sanding belt and lock into position.



Set the red index pointer to align with the zero degree mark on the angle scale.



Thread the open end of the Dust Bag through the retaining clip and attach to the dust port. The tightness of the clamp can be adjusted by turning the clamping handle prior to locking it. Take care not to over-tighten.

Alternatively the sander can be connected to a suitable dust extractor. In this case the filter bag is removed and the extractor hose connected directly to the extractor port using an appropriate adapter.



The port is 64mm/57mm  
external/internal diameter.

## Setting Up



### Tracking the belt

Ensure the machine is disconnected  
Slowly rotate the belt by hand by  
turning the sanding disc, ensuring that  
it is travelling in the direction of the  
arrow.

Note if the belt is tending to slide off  
the bed and to which side.

If the belt doesn't slide sideways it is  
already correctly tracked.



Viewed from the switch end, if the belt  
moves sideways towards the disc:  
Turn the tracking knob clockwise  
(1/4 turn is usually sufficient).

If the belt moves sideways away from  
the disc:  
Turn the knob ant-clockwise.

Continue adjustments until the belt  
remains central on the rollers.

Tracking Knob



# Using The Sander

This sander is designed for use with wood and wood-based products only. It should not be used for sanding metal and any such use would invalidate the warranty.



## Sanding with the belt in the horizontal position

The worktable must always be used as a support when carrying out edge or face sanding in the horizontal position.

Move the workpiece across the belt while keeping one edge against the worktable.

Do not use excessive pressure and take extra care when sanding thin material.



## Sanding internal curves

With care the idler drum end of the sanding belt can be used for smoothing & shaping the inside of curved workpieces.

Never present the end of a workpiece to the drum as this can cause it to kick back.

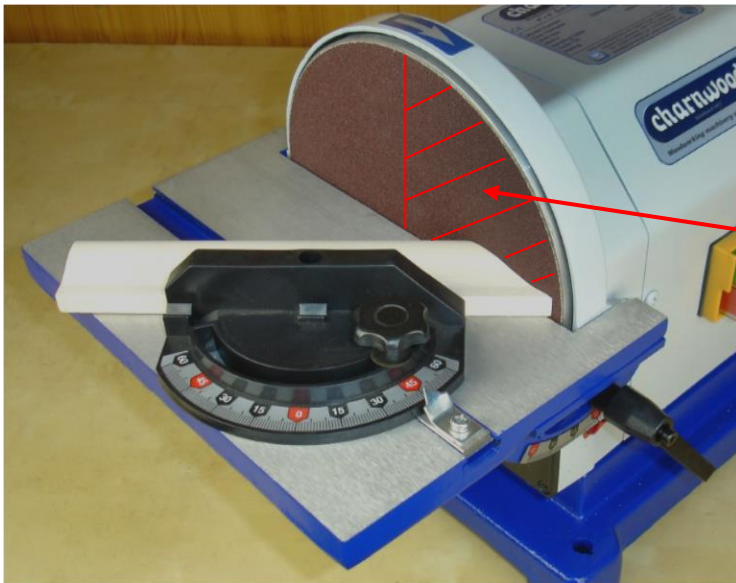


### **Sanding with the belt in the vertical position**

Sometimes the sanding on the belt is more convenient with it positioned vertically – or any angle in between 0 & 90 degrees.

To adjust, loosen the locking screw using a 5mm hex key. Position the belt bed as required and then re-tighten the screw.

Always use the worktable to support the workpiece.



### **Sanding with the Disc**

The disc sander is ideally suited to smoothing end grain and fine-tuning angled cuts with the aid of the mitre guide.

Whenever possible use the front half of the exposed disc as this will hold the workpiece against the table.

If it is necessary to use the full width of the disc, care must be taken to hold the workpiece firmly as the rear half will tend to cause it to lift.

Keep the workpiece moving to achieve the best finish.



# Maintenance



## Replacing the Sanding Disc

Always ensure the machine is disconnected from the power supply before changing the sanding disc.

Remove the disc worktable and then the disc cover which is secured with six screws.



Carefully remove the existing self-adhesive sanding disc with the aid of a flat bladed scraper.

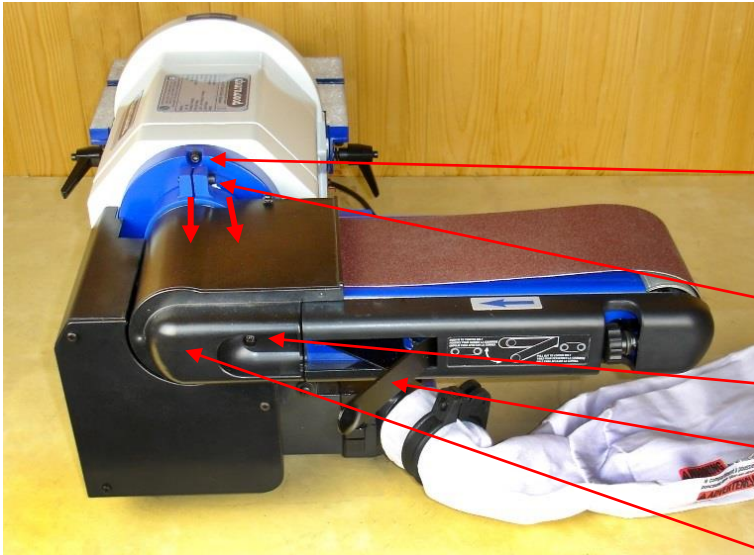
Remove any residue from the sanding plate using mineral / methylated spirit.

Peel the backing from the new sanding disc and apply to the sanding plate. Ensure that it is positioned centrally on the plate, then press firmly into place.

Re-fit the disc cover plate, tightening all screws, re-attach the worktable.

A Velcro Conversion Backing Pad (VB300) can be attached to the plate in the same way as a self-adhesive sanding disc. This enables Velcro backed sanding discs to be used which provide easier changing without damage to the discs.





## Replacing the Sanding Belt

Remove the belt worktable.

Position the belt horizontally by loosening the hex head screw with a 5mm hex key.

Loosen this screw

Remove this screw

Release the tension on the sanding belt by pulling out the tension lever.

Slide off the dust collecting cover



Loosen the two screws at the rear of the belt which hold the bottom tray.

Slide and remove the tray.

It is now possible to remove the sanding belt.



Locate the new belt over the two rollers. Ensure that the arrow on the inside of the belt corresponds to the direction marked on the machine.

Replace the exhaust cover and bottom tray, refitting/tightening all screws. Re-tension the belt by closing the tension lever.

Track the belt as in previous instructions.

# Troubleshooting

Problem	Cause	Remedy
Machine does not start	Blown House Fuse	Replace Fuse
	Loose switch terminal	Inspect back of switch
	Faulty switch	Replace switch
	Failed Motor	Replace Motor
Only starts when Green button is held down	Faulty switch	Replace switch
Machine Slows Down when Sanding	Operator applying too much pressure to work Piece	Use less pressure when applying work piece to sanding surface
Sanding Belt Runs Off Pulleys	Not tracked correctly	Adjust sanding belt tracking
Wood burns while sanding	Sanding surface clogged	Clean or replace disc or belt
	Excessive pressure being applied to work piece	Use less pressure when applying work piece to sanding surface
Motor overheats	Motor overloaded	Allow to cool, restart with reduced load
Dust collection ineffective	Collection bag is full	Empty collection bag
	Collection bag is clogged	Clean inside of bag or replace collection bag



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

## Declaration of Conformity for CE Marking

Charnwood Declare that Belt & Disc sander, Model BD48

Conforms with the following Directives: Machinery Directive 2006/42/EC  
EMC Directive 2014/30/EU

And further conforms to the machinery example for which the EC type examination Certificate No. AM 50413122 and AE 50392019 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 directive.

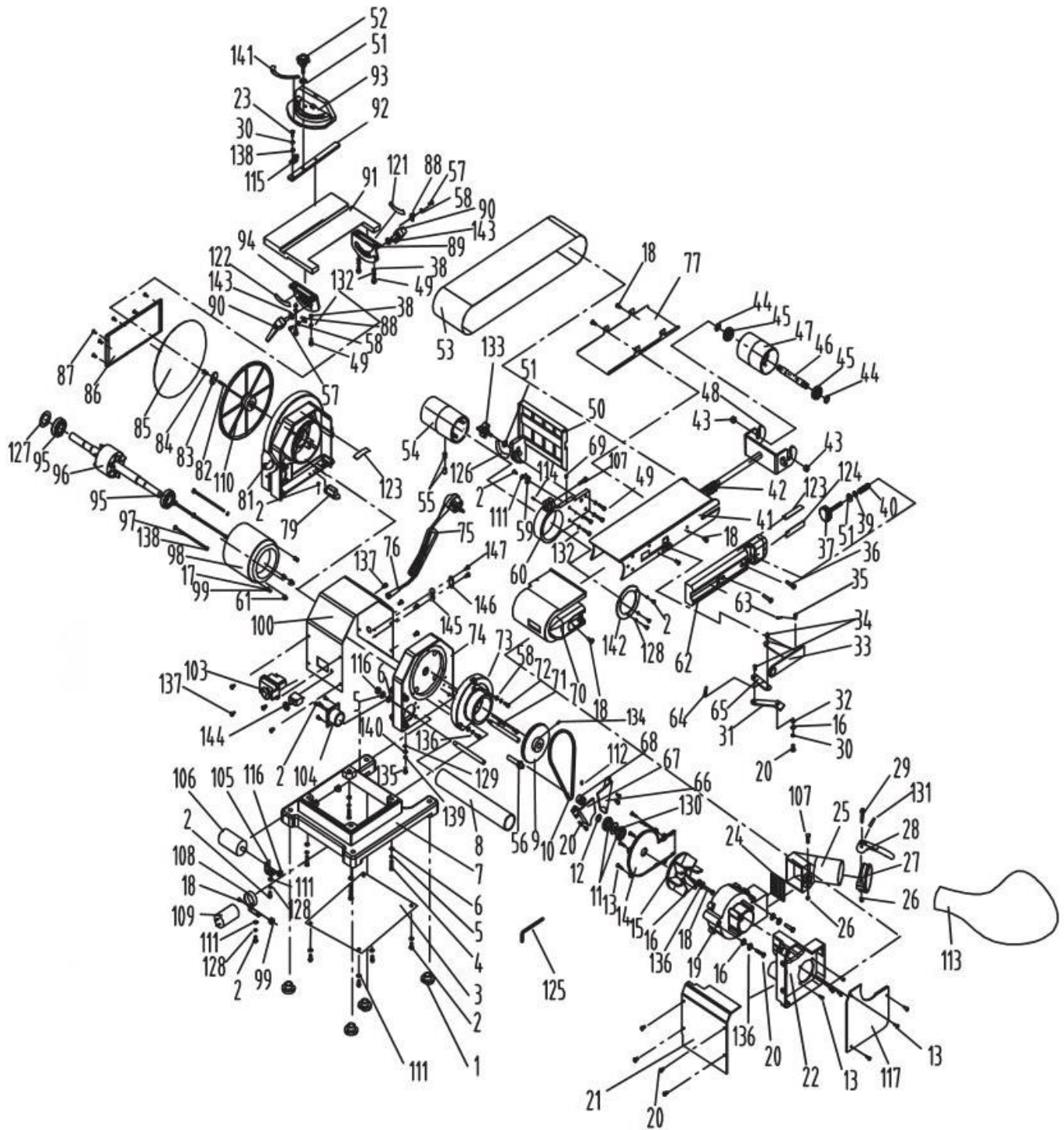
Signed: 

Dated: 28/12/2017

Location: Leicestershire

Richard Cook, Director

# Charnwood BD48 Parts Drawing





# Charnwood BD48 Parts List

Part No.	Description	Part No.	Description
001	Rubber Foot	002	Philips Screw M4 x 10
003	Bottom Plate	004	Philips Screw M8x5
005	Lock Washer D8	006	Flat Washer D8
007	Base	008	Connect Tube
009	Big Pulley	010	Poly V Belt
011	Bearing 6000RZ	012	Spring Washer D26
013	Philips Screw ST4.2 x 15	014	Fan Cover
015	Fan	016	Big Washer D5
017	Spring Washer D5	018	Fan Housing
019	Fan Housing	020	Philips Screw M5 x 10
021	Front Cover	022	Dust Storage Box
023	Philips Screw M5 x 8	024	Exhaust Cover
025	Dust Exhaust	026	I type hex Nut M6
027	Bag Clamp	028	Clamp Handle
029	Screw M6 x 40	030	Tooth Lock Washer D5
031	Tension Level	032	Sleeve
033	Tension Handle	034	Pin 5 x 8
035	Pin 5 x 8	036	Philips Screw M5 x 25
037	Belt Tracking Knob	038	Flat Washer D6
039	Rubber Washer	040	Adjust Spring
041	Belt Frame	042	Tension Spring
043	Sleeve	044	Spring Washer D12
045	Bearing 6001RZ	046	Idler Shaft
047	Idler Pulley	048	Belt Tension Assembly
049	Inner Hex Screw	050	Belt Working Table
051	Big Washer D6	052	Mitre Gauge Knob
053	Sanding Belt 100mm x 915mm	054	Drive Pulley
055	Inner Hex Screw M8 x 12	056	Collector Shaft
057	Philips Screw M5 x 8	058	Flat Washer D5
059	Work Table Angle Point	060	Belt Frame Connect
061	Cord Bushing	062	Belt Cover
063	Pin 2 x 10	064	Spring Washer
065	Connection Plate	066	Right Cover
067	Left Cover	068	Small Pulley
069	Philips Screw M4 x 12	070	Belt Exhaust
071	Collector Mounting Shaft	072	Inner Hex Screw M5 x 20
073	Belt Mounting Plate	074	End Cap
075	Power Cord	076	Strain relief
077	Preventer Plate	079	Relay
081	Left End Cap	082	Key 5x5x15
083	Washer	084	Philips Screw M6 x 16
085	Sanding Disc	086	Disc Cover
087	Philips Screw M4x10	088	Angle Pointer
089	Disc Left Support	090	Handle Assembly
091	Disc Work Table	092	Mitre Gauge Bar
093	Mitre Gauge	094	Disc Right Support
095	Bearing 6203RZ	096	Rotor
097	Philips Screw M5 x 180	098	Stator
099	I Type Hex nut M5	100	Motor Cover
103	Switch	104	Tube Connector
105	Capacitor Support	106	Capacitor 12uf, 450V

107	Inner Hex Screw M6 x 25	108	Capacitor Support
109	Capacitor 100uf, 250V	110	Disc Plate
111	Flat Washer D4	112	Inner Hex Screw M5 x 8
113	Dust Bag	114	Position Shaft
115	Mitre Gauge Pointer	116	I Type Hex nut M8
117	Dust Box Cover	118	
121	Scale Label Left	122	Scale Label Right
123	Rotation Label	124	Belt Tension Label
125	Inner Hex Wrench S=5	126	Scale Label
127	Spring Washer D40	128	Standard Spring Washer
129	Tooth Lock Washer D4	130	Bearing Bushing
131	Spring Pin 4x22	132	Spring Washer D6
133	Disc Work Table Knob	134	Inner Hex screw M5 x 12
135	Philips Screw M4 x 10	136	Spring Washer D5
137	Philips Screw M5 x 10	138	Flat Washer D5
139	Lock Washer D4	140	Flat Washer D4
141	Index Plate Scale	142	Support Locating Plate
143	Flat Washer D8	144	Over Current Protector 4A
145	Strain Relief	146	Strain Relief Plate
147	Philips Screw M4 x 16		



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Updated December 2018

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