



Woodworking machinery at its best!

12" DISC SANDER OPERATORS MANUAL

MODEL: W413



Charnwood, 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 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 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 SANDERS

1. This machine is designed for use with wood and plywood. Sanding metal, plastics and MDF will result in damage to the abrasive disc, fire risk and/or potential health hazards.
2. The sander is designed for indoor use only.
3. Never use the machine unless it is connected to a dust extraction system, which should be started prior to sanding and left to run for a few moments after the job has been finished. .
4. The sander should be bolted to a bench or suitable stand.
5. Always hold the work firmly on to the table.
6. Never use the sander with the disc cover, guard and/or dust hood removed.
7. Do not wear gloves or hold the workpiece with a rag. There is a risk that leather or fabric might get caught between the disc and the edge of the table. This could result in personal injury and/or damage to the machine.
8. Sand with the grain.
9. If sanding the end of a long piece of timber, provide additional support at the same height as the table.
10. Switch the machine off before removing debris from the table.
11. Switch the machine off before changing the table angle.
12. Disconnect the sander from the mains before changing the abrasive disc.
13. Do not operate the sander if the abrasive disc is torn, otherwise damaged or loose.
14. Always wear eye protection when sanding.

15. 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.

Specification

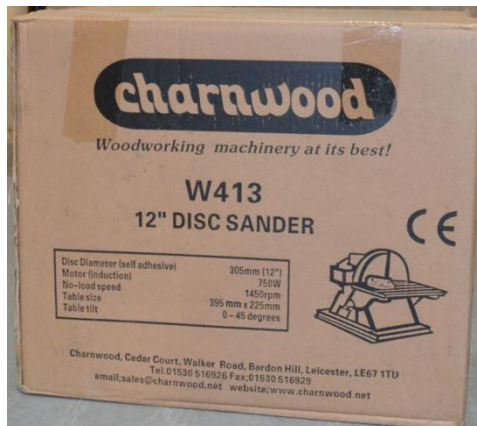
Disc diameter	305mm (12")
Motor (induction)	750w (1hp)
Disc speed	1450rpm
Table size	395mm x 295mm
Table tilt	- 10 to 45
Dimensions (WxDxH)	450mm x 550mm x 400mm
Weight	30kg
Rating	Light Trade
Warranty	1 Year

Rating Description

Light Trade: Suitable for professional woodworkers where the machine will not be in daily use.

Mid range machines with a heavier build and more power. Typically used by 2 or 3 people within a small business and also for the dedicated hobbyist with a larger budget. It is expected to be used up to the machines maximum limit with occasional long work periods. Suitable for income generation. Expected maximum use of 300 hours annually.

Unpacking



Open the carton, carefully unpack all of the contents and lift the sander onto a bench.

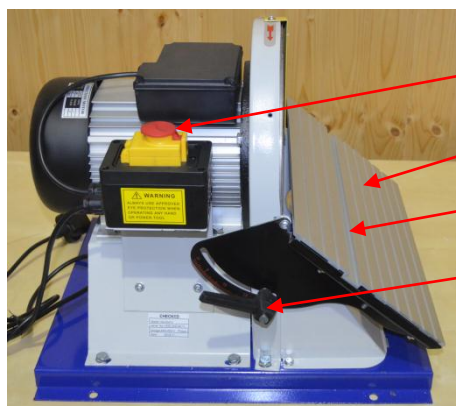


In addition to the sander you will find three spanners, a screwdriver and this instruction manual.

Assembly

This machine is supplied fully assembled. It is recommended that you bolt or screw it down to a work bench or suitable stand. The 63mm port at the back of the sander should be connected to a suitable vacuum system or dust extractor.

Using the Sander

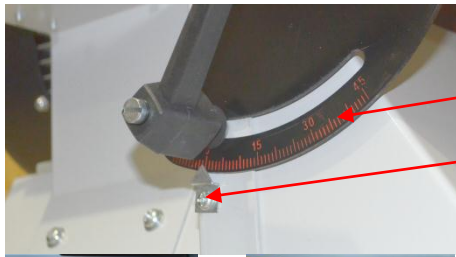


On/Off switch

Tilting table

T-slot for mitre fence

Tilt locking handle - there is also one at the other end of the table.



There is a scale on the trunnion, for accurate angle setting of the table.

If necessary, the pointer may be adjusted by loosening the small screw holding it in place.



To switch the sander on or off, slide the red section of the cover back. Lift the cover to expose the stop and start buttons. The cover is spring loaded and will return to the closed position. Hitting the red section of the cover will activate the stop button.



Compound angles can be set by using the mitre gauge in conjunction with the tilting table.

This sander is very easy to operate. Starting and stopping is accomplished by means of the NVR (No Voltage Release) switch. This type of switch is designed so that if the machine is disconnected from the mains whilst running and then reconnected, the motor will not automatically restart. The green button of the NVR switch will have to be pressed once to start the sander.

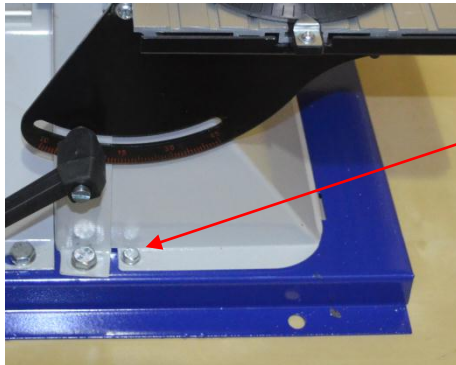
To tilt the table, loosen both of the locking handles, move the table to the desired angle and tighten both handles.

NOTE: It is possible to set the table up to -10° but this option must be used with extreme caution. Considerable down force is placed on the work piece by the abrasive disc and this makes it a little harder to move the wood across the table. The angle between the table and the disc also increases the force with which the work piece presses against the abrasive. Should the disc start to slow down more than normal, please reduce pressure between the work piece and the disc.

Adjustments to tilt should be made only when the sander is not running. Never force timber against the disc, always let the machine work at its own speed.

Always switch off and unplug the sander before removing or replacing the abrasive disc.

Disc Removal and Replacement



There are two bolts securing the dust collection hood, remove them both.

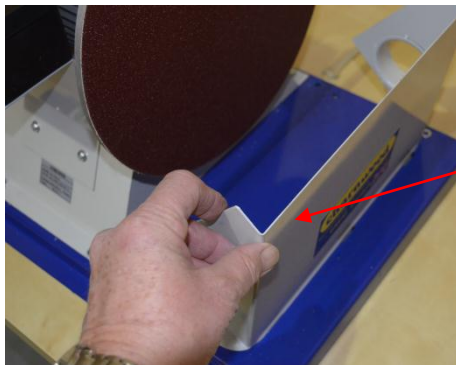


Remove the two bolts which secure the disc cover to the base.

Remove the two bolts fixing the disc cover to the motor.



Lift the disc housing, complete with table, off the machine and set it to one side.

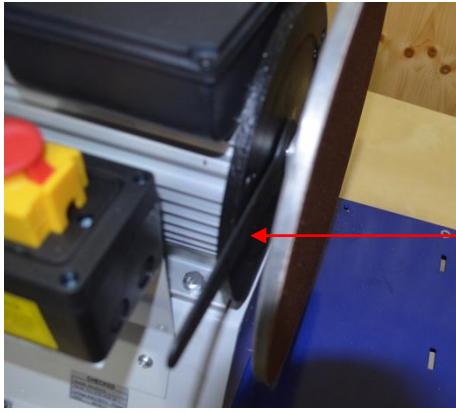


Swing the top of the dust collection hood forward and lift it clear of the base.



The abrasive disc can now be easily accessed for replacement.

Reverse these steps to replace the disc housing and dust hood.



Should it ever be necessary to remove the disc, the motor spindle can be locked with the largest of the three spanners provided and the disc unscrewed. It has a standard right hand thread.

Optional Items

More information can be found on our website www.charnwood.net

The sander is supplied with a 300mm diameter self-adhesive backed sanding disc. These are available from Charnwood in differing grit sizes, from 60 to 150.



Velcro Disc System

An alternate to using self-adhesive discs is to use Velcro backed discs. They offer the huge advantage of being able to change the disc quickly and easily, and even refit a disc which has previously been used.

This allows the operator to work down through different grit sizes to achieve a better finish.

Simply purchase the Velcro hook backing pad, VB300, which sticks to the metal disc. Our pad is specially designed for this application and prevents sponginess. Then use the velour backed discs available in various grit sizes.



Sanding Disc Cleaning Stick

Dramatically increase the life of sanding discs with this cleaning stick.

Removes clogged up pitch and sawdust when pressed lightly against the rotating disc.



Dust Extraction It is strongly recommended that a dust extractor is used with this sander to prevent inhalation of harmful sanding dust.

The W413 Sander is fitted with a 63mm diameter outlet for dust collection. A conversion kit, W413DE, is available to adapt the outlet for use with 100mm diameter dust extraction hose.

Troubleshooting

Problem	Cause	Remedy
Machine does not start	Blown Fuse	Replace Fuse
	Loose switch terminal	Inspect back of switch
	Faulty switch	Replace switch
Only starts when Green button is held down	Faulty switch	Replace switch
Motor slows down during operation	Attempting to take too heavy a cut	Reduce pressure between the work piece and the disc
Excess Vibration	Rotating parts out of balance	Check the disc plate is tight on the shaft
		Check the disc plate is not warped


Declaration of Conformity for CE Marking

Charnwood Declare that woodworking disc sander, Model W413

Conforms with the following Directives: Machinery Directive 2006/42/EC
 Low Voltage Directive 2006/95/EC
 EMC Directive 2004/108/EC

And further conforms to the machinery example for which the EC type examination Certificate No. AM 50039981, AN 50039850 and AE 50249743 have 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.

Signed:  Dated: 30/07/2010 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.



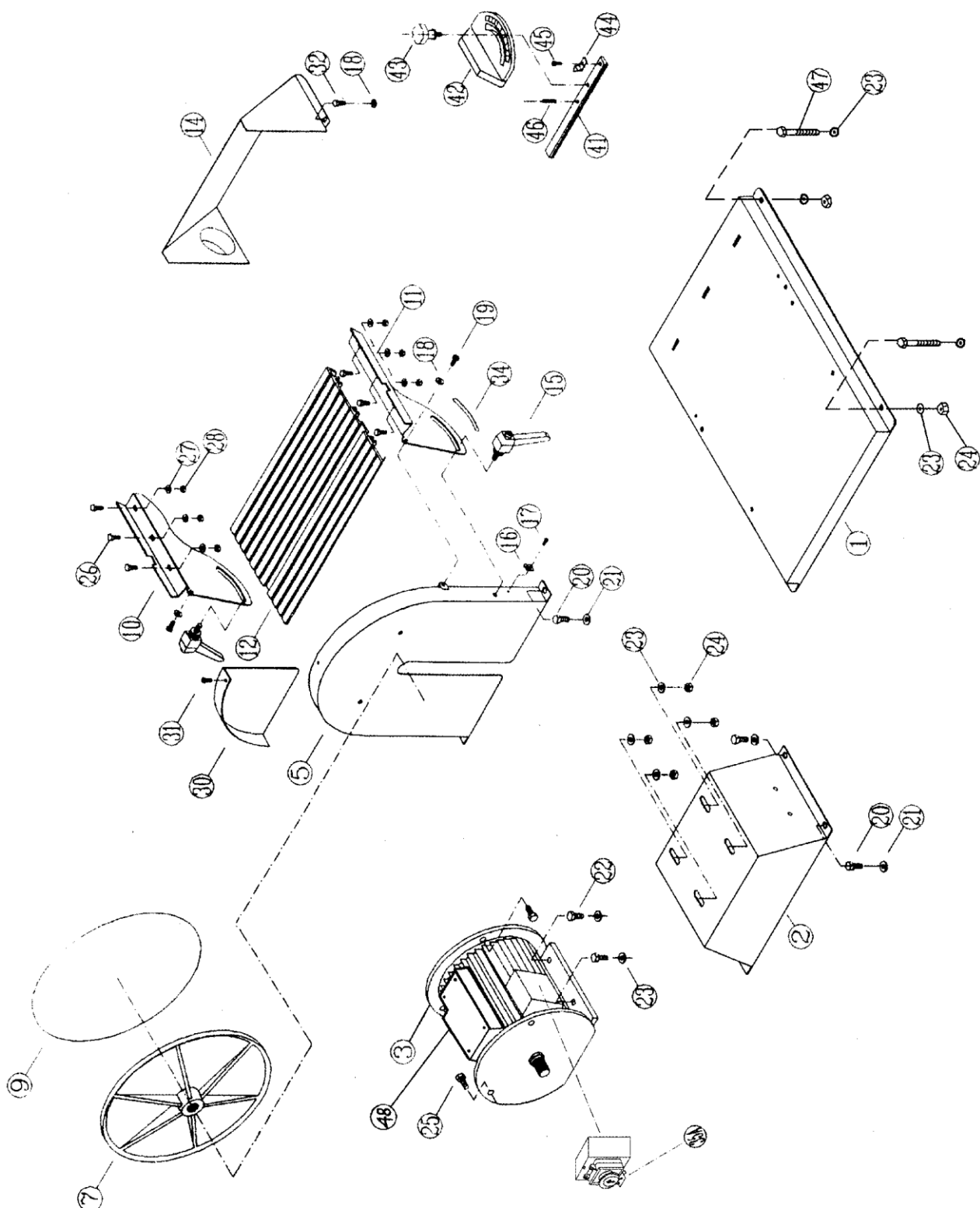
Only for EU countries

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

CHARNWOOD W413 EXPLODED DIAGRAM



CHARNWOOD W413 PARTS LIST

Item	Part	QTY	Item	Part	QTY
01	Base	1	25	Hex head set screw M8 x 16	2
02	Motor base	1	26	Hex head set screw M6 x 12	6
03	Motor	1	27	Washer M6	6
04	n/a		28	Nut M6	6
05	Disc Cover	1	29	n/a	
06	n/a		30	Guard	1
07	Disc	1	31	Rd head set screw M5 x 8	2
08	n/a		32	Hex head set screw M6 x 10	2
09	Abrasive	1	33	n/a	
10	Rear trunnion	1	34	Scale	1
11	Front trunnion	1	35A	Switch DKLD-6-2	1
12	Table	1	36	n/a	
13	n/a		37	n/a	
14	Dust Collection Hood	1	38	n/a	
15	Locking handle	1	39	n/a	
16	Pointer	1	40	n/a	
17	Pan head set screw M4 x 8	1	41	Mitre gauge bar	1
18	Spring washer	6	42	Mitre gauge	1
19	Pan head set screw M6 x 8	2	43	Bolt M6	1
20	Hex head setscrew M8 x 20	4	44	Pointer	1
21	Washer M8	14	45	Rd. head set screw M5 x 6	1
22	Hex head set screw M8 x 20	4	46	Pin	1
23	Washer M8	12	47	Hex head set screw M6 x 60	4
24	Nut M8	8	48	Motor junction box	1
			49	Capacitor 16UF 450VAC	



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