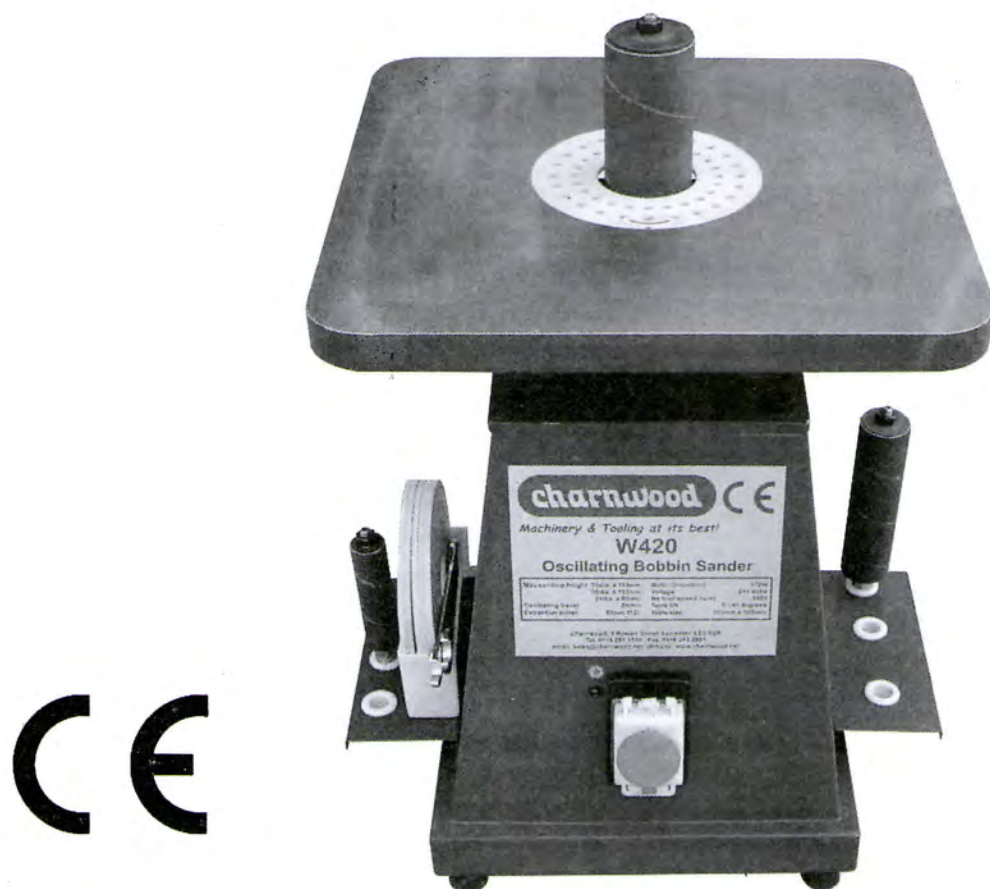


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Woodworking machinery at its best!

OSCILLATING BOBBIN SANDER OPERATING INSTRUCTIONS

MODEL: W420



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THANK YOU for choosing our product! For future reference, please read this manual carefully.

below :

SAVE THESE INSTRUCTIONS. It is important that you read the entire manual to become familiar with the unit BEFORE you begin assembly.

Technical Specifications

Model: Bobbin Sander

No load speed: 1400RPM 50HZ

1700RPM 60HZ

Power of Motor: 370W

Oscillations per Minute: 60 OPM

Oscillation travel: 24mm

Sanding Belt Capacity: $\phi 51 \times 140\text{mm}$ ($\phi 38 \times 140\text{mm}$, $\phi 21 \times 87\text{mm}$).

Dust Collection Capability: 50mm outlet

Table Tilt Angle: 0-45 degrees

Size of Machine: $370 \times 370 \times 600\text{mm}$

Net Weight: 33kg

Unpacking

Unpack and check contents. The new Oscillating Spindle Sander has been shipped completely assembled and ready to use with a 51mm sand belt and a regular core board. Metal parts of the machine that are covered with grease (to protect from rust) should be wiped with a dry cloth. the shipping box should also contain: (See Parts Diagram and Parts List on pages 7,8).

1.shock absorbing parts (#28, #53, #54, #55, #39)

2.Angle Core Board

3.Manual

READ ALL INSTRUCTIONS BEFORE USING THIS PRODUCT!

Work Area

To AVOID RISK OF PERSONAL INJURY, EQUIPMENT DAMAGE, FIRE AND SHOCK, MAKE SURE YOUR WORK AREA IS:

1. Free of damp, wet or rainy conditions
2. Free of flammable gasses or liquids
3. Childproof-use padlocks and master switches when not in use.
4. Well-lit, Clean and uncluttered, Well-ventilated

The Operator

COMMON SENSE AND CAUTION ARE FACTORS WHICH CANNOT BE BUILT INTO ANY PRODUCT. THESE FACTORS MUST BE SUPPLIED BY THE OPERATOR. PLEASE REMEMBER:

1. Prevent body contact with grounded surfaces such as pipes or radiators.
2. Stay alert. Never operate equipment if you are tired.
3. Do not operate the product if under the influence of alcohol or drugs. Read warning labels on prescriptions to determine if your judgment/reflexes might be impaired.
4. Do not wear loose clothing or jewelry as they can be caught in moving parts.
5. Non-skid footwear is recommended.
6. Wear restrictive hair covering to contain long hair.
7. Use eye and ear protection. Always wear:
 - ANSI approved dust mask or respirator when working around metal, wood and chemical dusts and mists.
 - A full face shield if you are producing metal or wood filings.
 - Ear protectors
8. Maintain proper footing and balance at all times.
9. Do not reach over or across running machines.

Before Operating

1. Know the machine. Learn its applications and limitations, as well as the specific potential hazards.
2. Check for damage, If part of the machine is damaged, it should be carefully inspected to ensure that it

can perform its intended function correctly. If in doubt, the part should be replaced.

3. Be sure the switch is OFF before plugging in.

4. Make sure tool has been cleaned and properly lubricated.

5. Check for damaged parts. Before using any tool, any part that appears damaged should be carefully checked to determine that it will operate properly and perform its intended function.

6. Check for alignment and binding of all moving parts, broken parts or mounting fixtures and any other condition that may affect proper operation. Any part that is damaged should be properly repaired or replaced by a qualified technician.

7. Do not use the tool if any switch does not turn off and on properly.

Operation

Do not insert fingers into the core board/rotating area unless the machine is unplugged. Never insert fingers into the core board/rotating axle area while operating the machine.

1. The sander is designed for use with plastic and wood materials only. Sanding metal and abrasive materials could be hazardous.

2. Never force the tool or attachment to do the work of a larger industrial tool. It is designed to do the job better and more safely at the rate for which it was intended.

3. Always unplug the cord by the plug. Never yank the cord out of the wall.

4. Always turn off the machine before unplugging.

5. With normal use, the motor housing may get hot.

6. Make all adjustments with the machine unplugged and the power OFF.

7. Never stand on the machine. Serious injury could occur if the machine is tipped over.

8. Never leave the sander unattended while it is running.

9. When turning off the machine, never leave unit until it has come to a complete stop.

Sanding of lead base paint is not recommended. It is very difficult to control the contaminated dust that could cause lead poisoning.

IF THERE IS ANY QUESTION ABOUT A CONDITION BEING SAFE OR UNSAFE, DO NOT OPERATE THE TOOL

To Change/Install Sand Belts

(see Parts Diagram and Parts List on page 7,8)

- 1.Place switch in "OFF" position, and unplug the sander before performing any of the steps below.
- 2.The Oscillating Sander has been shipped completely assembled with a 52mm sander belt (#49).and regular core board installed. Change sand belts as follows:

TO Remove Sand Belt

- 1.Grasp and hold sander belt (#49) on rotating axle (#46). Loosen nut (#51). If nut is too tight and rotating axle spins inside sand belt, secure the rotating axle with a wrench and loosen nut.
- 2.Remove nut, big washer (#50), and sand belt. Unscrew rotating axle clockwise and remove core board (#36) also see instructions below describing how to remove core board.
- 3.Remove big washer (#50) and clean sawdust accumulation.

To Install Sand Belt

- 1.Replace big washer (#50). Fin side of washer should always be installed down. The fins help push sawdust through the dust exhaust port opening, preventing buildup of sawdust. Sawdust buildup in this area may cause the oscillating motion to stop. The big washer must be used with all sanding sleeves.
- 2.Select and install the desired rotating axle.
- 3.Install appropriate sand belt on the rotating axle. (NOTE: If sanding sleeve becomes difficult to install or remove, apply talcum powder on the inside of the sand belt before installing on axle).
- 4.Install big washer (#50) and nut.
- 5.Grasp and hold sand belt and tighten nut. Do not overtighten.

Replacing Core Boards

The Oscillating Sander comes with two core boards. The core board with the circular opening is for sanding when the working table (#34) is level. The core board with the oblong opening is to be used when the working table is set at an angle.

To Remove Core Boards

Push firmly from underneath the working table until core board is removed.

To Insert Core Boards

1. Align the notch in the core board with the spring dowel (#35) located on the inner rim of the core board insert area.
2. Push down firmly until the core board is fully inserted and flush with the surface of the working table.

Preparing For Operation

NOTE:

1. This sander is designed for use on plastic and wood surfaces only. Do not use this sander for sanding metals. Sanding metals will cause sparks that will ignite wood and dust particles on sander, in the dust collector, or in workshop.
2. It is recommended that this tool not be used for extended work on any fiberglass or abrasive materials. It has been found that those materials are subject to accelerated wear and possible premature failure, as the fiberglass chips and grindings are highly abrasive to bearings, brushes, commutator, etc. During any sanding of these materials, it is important the tool be cleaned frequently blowing with an air jet.
3. Do not use sander without sander belt. Doing so will damage the rotating axle.
4. Make sure nut on the top of the rotating axle is tightened securely-but not overtightened.

SAND BELT SELECTION

Selecting the correct size diameter, type of grit and sanding sleeve is an extremely important step in achieving a high quality finish:

1. Aluminum oxide, silicon carbide, and other synthetic abrasives are best for power sanding.
2. Natural abrasives, such as flint and garnet are too soft for use in power sanding.
3. Select and install the desired sand belt for the particular application. Sand belts from 21mm-51mm can be used with this sander. Choose one that is close in size to the material you are sanding.

GRIT SELECTION

The condition of the surface to be sanded will determine which grit will do the proper job. In general, coarse grit will remove the most material. Finer grit will produce the best finish in all sanding operations. If the surface is rough, start with a coarse grit and sand until the surface is uniform. Medium grit may then be used to remove scratches left by the coarser grit and finer grit used for finishing of the surface. Always continue sanding with each grit until the surface is uniform.

Operation

Exercise caution! Never force the material into the sander. You will become familiar with the sander's features from practice and use. If possible, practice sanding with a scrap piece of wood.

ADJUSTING TABLE ANGLE

1. If working table is to be used at an angle, make sure to install the angle core board (with the oblong shaped opening) before sanding.
2. Loosen dial knob (#32) and adjust working table to the desired angle using the numbers on the rotating plate (#31) as a guide.
3. Tighten dial knob securely so that the working table will not move during operation.

SANDING

1. Turn sander on.
2. Let the motor build to its full speed, then gradually feed material against sanding sleeve. Do not let the material contact sanding sleeve before turning on sander and allowing it to develop full speed.

FEED DIRECTION

When sanding, the sanding sleeve rotates counterclockwise. Therefore, feed the material against the sanding sleeve from right to left. When the rotation of the sanding sleeve sands against the material. If fed in the opposite direction, the rotation forces of the spinning sanding sleeve will tend to throw or

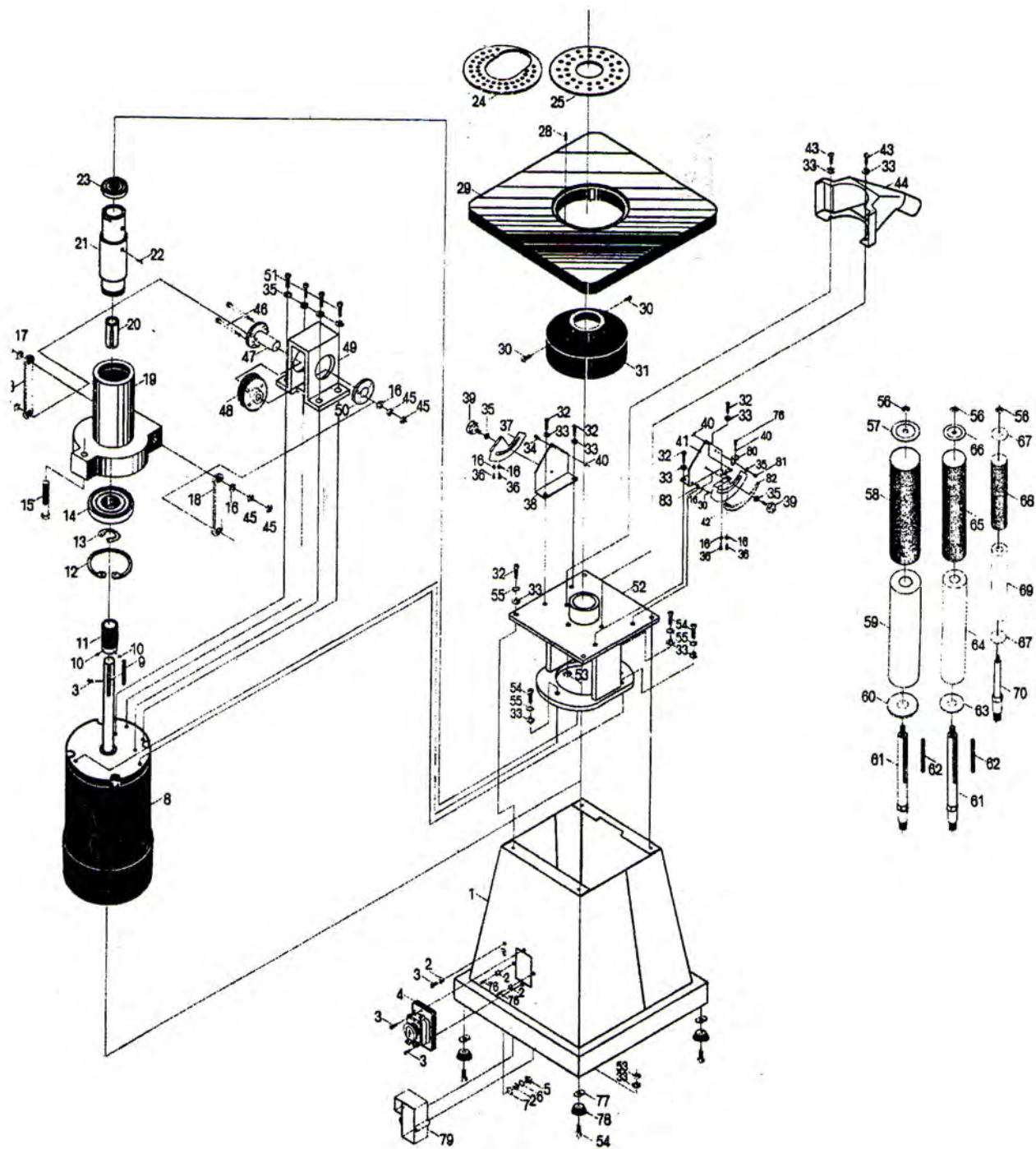
bounce the material away from the sanding sleeve. This could cause loss of control of the material.

Grounding /Voltage Warning

- 1.Common household current is 110-120 and 220-240 volts. As long as the tool is rated from 110-120V or 220-240V there will be no complications using this tool with household receptacles. Plug the sander into a 110-120V or 220-240V properly grounded outlet protected by a 5-amp, dual element time delay or circuit breaker.
- 2.NEVER try to plug a 110-120V tool into a 220-240V circuit (or vice-versa) or serious complications and possible injury to the operator may occur. The plugs have different shapes to prevent this.
- 3.This piece of equipment has a three-prong plug .The third (round) prong is the ground to protect the operator from electric shock. Cutting off the ground will result in a safety hazard and void the warranty.
- 4.If the outlet you are planning to use is the two-prong type, do not remove or alter the grounding prong in any manner. Use an adapter and always connect the grounding lug to a known grounding source.

Maintenance

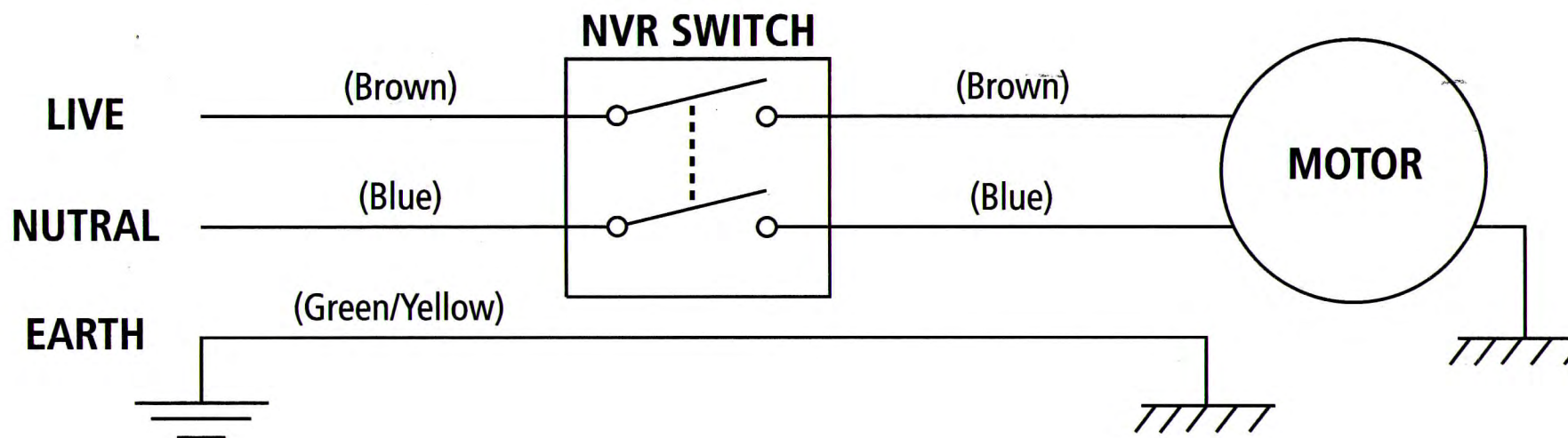
CLEANING: Regularly clean the work surface with dry brush or clean cloth. Clean sawdust accumulations from core board, big washers and rotating axle after each use.



NO.	DEC.	QTY
1	Base	1
2	Washer 4	4
3	Cross recessed pan head screw M4X12	4
4	Switch	1
5	Hexagon nut M4	1
6	Spring washer 4	1
7	Lock washer external teeth 4	1
8	Motor	1
9	Key 5 X 5X50	1
10	Hexagon socket set screws with flat point M6 X5	2
11	Worm	1
12	Circlips for holes 55	1
13	Circlips for shaft 32	1
14	Bearing 80106	1
15	Hexagon head bolt M8 X75	1
16	Washer 5	8
17	Rock arm dowel	2
18	Rock arm parts	2
19	Guide column	1
20	Inner sleeve for bobbin shaft	1
21	Bobbin shaft sleeve	1
22	Parallel pin Ø4 X30	1
23	Bearing 61804	1
24	2" center board	1
25	2" long hole center board	1
28	Spring-type straight pin Ø3 X8	1
29	Work table	1
30	Cross recessed pan head screw M5X6	2
31	Dust cover	1
32	Hexagon head bolt M8X20	8
33	Washer 8	17
34	Cross recessed pan head screw M6 X20	2
35	Washer 6	7
36	Cross recessed pan head screw M5 X10	4
37	Rotating disc	1
38	Left frame	1
39	Dial knob	2
40	Hexagon nut M6	3
41	Right frame	1
42	Dial	1
43	Cross recessed pan head nail M8 X16	2
44	Dust collect cover	1

45	Hexagon nut M5	4
46	Hexagon socket cap head screw M5 X30	2
47	Right core shaft	1
48	Worm wheel	1
49	Worm wheel frame	1
50	Left core shaft	1
51	Hexagon head bolt M6 X16	4
52	Motor frame	1
53	Hexagon nut M8	5
54	Hexagon head bolt M8 X25	7
55	Spring washer 8	7
56	Hexagon nut M8-left	3
57	2" convex washer	1
58	2" sand sleeve	1
59	2" rubber drum	1
60	2" rubber drum washer	1
61	Connecting rod	2
62	Key 5X5X50	2
63	1-1/2" rubber drum washer	1
64	1-1/2" rubber drum	1
65	1-1/2" sand sleeve	1
66	1-1/2" convex washer	1
67	Big washer	2
68	3/4" sand sleeve	1
69	3/4" rubber drum	1
70	3/4" connecting rod	1
76	Cross recessed pan head tapping screw ST3.5X12	2
77	Washer nut	4
78	Rubber washer	4
79	Bottom plate of switch box	1
80	Support board	1
81	Hexagon socket cap head screw M6X12	1
82	Dial scale	1
83	Point	1
84	Hexagon head screw M6X14	1

Wiring Diagram



WARNING: To avoid electrocution or fire, any repairs to electrical systems should be done only by qualified electricians using genuine replacement parts.