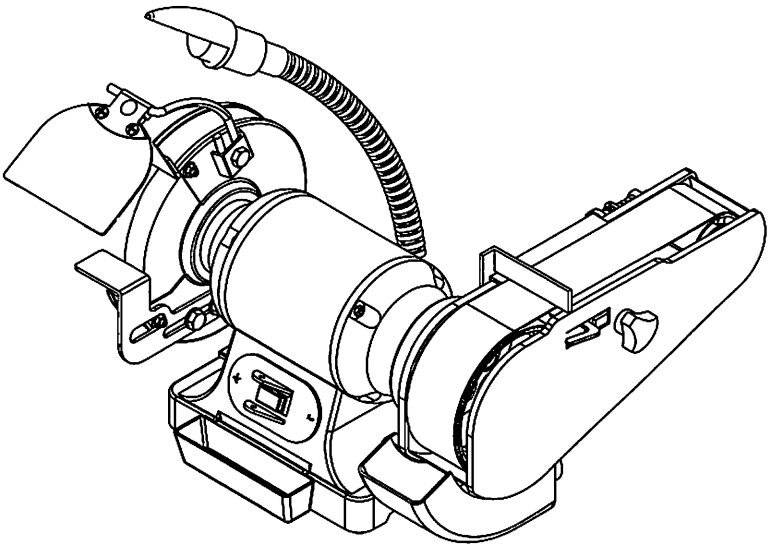
2"X28" BELT AND 6" WHEEL BENCH GRINDER SANDER



IMPORTANT:

For your own safety, read and follow all of the Safety Guidelines and Operating Instructions before operating this product.

INSTRUCTION MANUAL

TABLE OF CONTENTS

GENERAL SAFETY GUIDELINES BEFORE USING THIS POWER TOOL

- Operate in a safe work environment. Keep your work area clean, well lit and free of distractions.
- Keep anyone not wearing the appropriate s afety equipment away from the work area.
- Store tools properly in a safe and dry location. Keep tools out of the reach of children.
- Do not install or use in the presence of flammable gases, dust or liquids.
- Always wear impact safety goggles that provide front and side protection for the eyes. Wear a full-face shield if your work creates metal filings or wood chips. (Eye protection equipment should comply with ANSI Z87.1 standards.)
- Wear gloves that provide protection based on the work materials or to reduce the effects of tool vibration.
- Non-skid footwear is recommended to maintain footing and balance in the work environment.
- Wear the appropriate rated dust mask or respirator.
- Do not operate any tool when tired or under the influence of drugs, alcohol or medications.
- Avoid wearing clothes or jewelry that can become entangled with the moving parts of a tool. Keep long hair covered or bound.
- Do not overreach when operating the tool. Proper footing and balance enables better control in unexpected situations.
- Securely hold the material using both hands. Applying the material to the grinder with only one hand can result in a loss of control.
- Never use a tool with a cracked or worn grinding wheel. Change the grinding wheel before using.
- Replace cracked wheel immediately. Use only flanges supplied with the grinder.
- Clean dust and debris from beneath the grinding wheels frequently.
- Do not start the tool if the grinding wheel is in contact with the workpiece.
- Always ensure the safety guards are attached correctly and do not operate the bench grinder without the guards attached. Adjust the distance between the wheel and the tool rest to maintain a 1/16 in. or less separation as the diameter of the wheel decreases with use.
- Use an appropriate dust respirator when working for an extended period of time. This will help prevent breathing in the fine dust created while grinding.
- Do not grind on the sides of grinding wheels unless they are specifically designed for that purpose.
- Before using the tool on the workpiece, run the tool at the highest speed, without a load, for at least 30 seconds in a safe position. Stop immediately if there is any vibration or wobbling that could indicate poor installation or a poorly balanced grinding wheel. Check the tool to determine the cause.
- Do not allow the motor to overload or overheat. Take breaks to rest the tool.
- Do not subject the grinding wheel to any lateral pressure as it may damage the tool or cause it to kickback.

ADDITIONAL SPECIFIC SAFETY RULES

1. Only use a grinding wheel with the correct arbor size and shape that matches the grinder's spindle.
2. Ensure the grinding wheel has a clean edge. Check the grinding wheel for wear or chipping and replace if necessary.
3. Never install more than one grinding wheel at a time unless the tool and wheels are designed for that purpose.
4. A large amount of sparks will be created when working with a grinding wheel. Hold the tool so that sparks fly away from you and other persons or flammable materials. Have a fully charged fire extinguisher present.in the event of a fire.
5. Do not subject the grinding wheel to any lateral pressure as it may damage the tool or cause it to kickback.

6. Disconnect tool from power source before cleaning, servicing, changing parts/accessories or when not in use.
7. Protect yourself against electric shocks when working on electrical equipment. Avoid body contact with grounded surfaces. There is an increased chance of electrical shock if your body is grounded.
8. Do not expose tool to rain or water entering a power tool will increase the risk of electric shock.
9. Do not disconnect the power cord in place of using the ON/OFF switch on the tool.This will prevent an accidental startup when the power cord is plugged into the power supply.
10. Do not alter any parts of the tool or accessories. All parts and accessories are designed with built-in safety features that may be compromised if altered.
11. Make certain the power source conforms to requirements of your equipment.
12. Do not allow the tool to run without load for an extended period of time, as this will shorten its life.
13. Do not cover the air vents. Proper cooling of the motor is necessary to ensure normal life of normal life of the tool.
14. Avoid unintentional starting. Ensure the switch is off when connecting to the power source.
15. In the event of a power failure, turn off the machine as soon as the power is interrupted. interrupted. The possibility of accidental injury could occur if the power returns and the unit is not switched off.
16. Disconnect the power source before installing or servicing the tool.
17. After making adjustments, make sure that any adjustment devices are securely tightened.
18. Remove adjusting keys and wrenches before turning the tool on. A wrench or a key that is left attached to a rotating part of the tool increases the risk of personal injury.
19. Never force the tool. Excessive pressure could break the tool, resulting in damage to your workpiece or serious personal injury. If your tool runs smoothly under no load, but does not run smoothly under load, then excessive pressure is being used.
20. Do not touch an operating motor. Motors can operate at high temperatures.
21. Only use accessories that are specifically designed for use with the tool. Ensure the accessory is tightly installed.
22. Only use an accessory that exceeds the No Load Speed rating.
23. Do not touch an operating motor. Motors can operate at high temperatures and can cause a burn injury.
24. Insert the power cord plug directly to the power supply whenever possible. Use extension cords or surge protectors only when the tool's power cord cannot reach a power supply from the work area.
25. Do not operate this tool if the power cord is frayed or damaged as an electric shock may occur, resulting in personal injury or property damage.
26. Inspect the tool's power cord for cracks, fraying or other faults in the insulation or plug before each use.
27. Discontinue use if a power cord feels more than comfortably warm while operating the tool.
28. Keep all connections dry and off the ground to reduce the risk of electric shock. Do not touch plug with wet hands.
29. Do not allow people, mobile equipment or vehicles to pass over unprotected power cords.
30. This tool vibrates during use. Repeated or long-term exposure to vibration may cause temporary or permanent physical injury, particularly to the hands, arms and shoulders.

A separate electrical circuit should be used for your machines. This circuit should not be less than #12 wire and should be protected with a 20-A time-lag fuse. If an extension cord is used, use only 3-wire extension cords which have 3-pronged grounding type plugs and matching receptacle which will accept the machine's plug. Before connecting the machine to the power line, make sure the switch is in the "OFF" position and be sure that the electric current is of the same characteristics as indicated on the machine. All line connections should make good contact. Runningon low voltage will damage the machine.

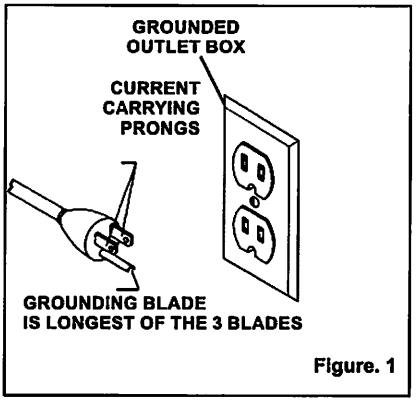


Figure. 1

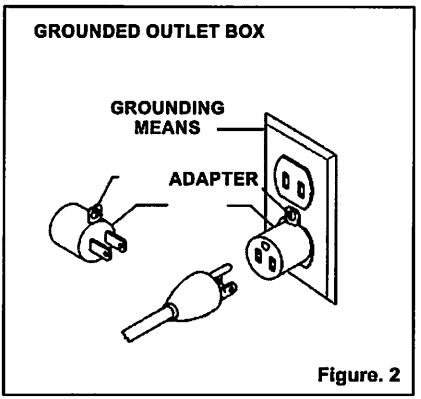


Figure. 2

MOTOR SPECIFICATIONS

Your machine is wired for 120 V, 60Hz alternating current. Before connecting the machine to the power source, make sure the switch is in the "OFF" position.

GROUNDING INSTRUCTIONS

All grounded, cord-connected machines: In the event of a malfunction or breakdown,grounding provides a path of least resistance for electric current to reduce the risk of electric shock. This machine is equipped with an electric cord having an equipment grounding conductor and a grounding plug.

DANGER!

DO NOT EXPOSE THE MACHINE TO RAIN OR OPERATE THE MACHINE IN DAMP LOCATIONS.

THIS MACHINE MUST BE GROUNDED WHILE IN USE TO PROTECT THE OPERATOR FROM ELECTRIC SHOCK.

The plug must be plugged into a matching outlet that is properly installed and grounded in accordance with all local codes and ordinances.
Do not modify the plug provided–if it will not fit the outlet, have the proper outlet installed by a qualified electrician.
Improper connection of the equipment-grounding conductor can result in risk of electric shock. The conductor with insulation having an outer surface that is green with or without yellow stripes is the equipment-grounding conductor. If repair or replacement of the electric cord or plug is necessary, do not connect the equipment-grounding conductor to a live terminal.
Check with a qualified electrician or service personnel if the grounding instructions are not completely understood, or if in doubt as to whether the machine is properly grounded.
Use only 3-wire extension cords that have 3-pronged grounding type plugs and matching 3-conductor receptacles that accept the machine's plug, as shown in Fig. A.Repair or replace damaged or worn cord immediately.

MINIMUM GAUGE FOR CORD SETS

Use proper extension cords. Make sure your extension cord is in good condition and is a 3-wire extension cord which has a 3-pronged grounding type plug and matching receptacle which will accept the machine's plug. When using an extension cord, be sure to use one heavy enough to carry the current of the machine. An undersized cord will cause a drop in line voltage, resulting in loss of power and overheating. The table shows the correct gauge to use depending on the cord length. If in doubt, use the next heavier gauge. The smaller the gauge number, the heavier the cord.

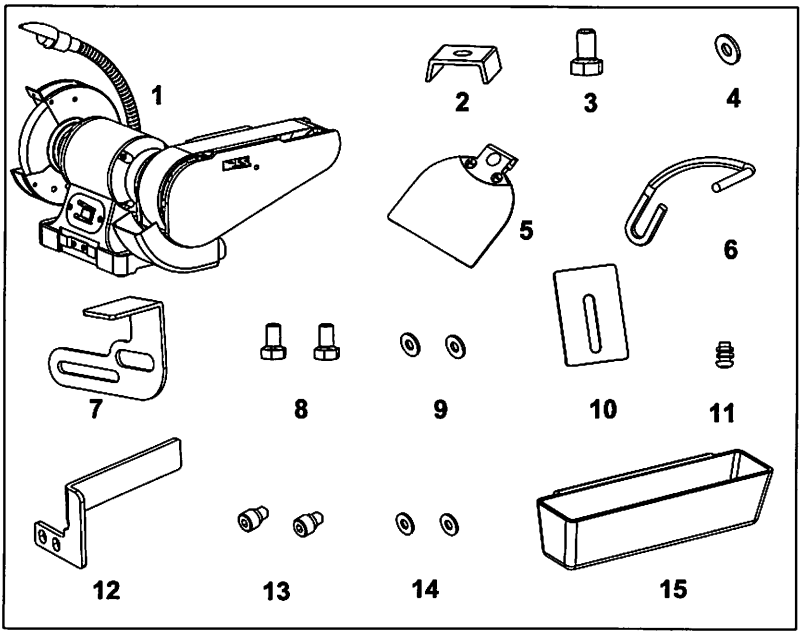
Ampere rating of the tool (120V circuit only)		Total length of cord			
		25' (7.62 m)	50' (15 24 m)	100' (30.48 m)	150' (45 72 m)
More than	Not more than	Minimum Gauge for the extension cord (AWG)			
0	6	18	16	16	14
6	10	18	16	14	12
10	12	16	16	14	12
12	16	14	12	Not recommended	

⚠ WARNING!

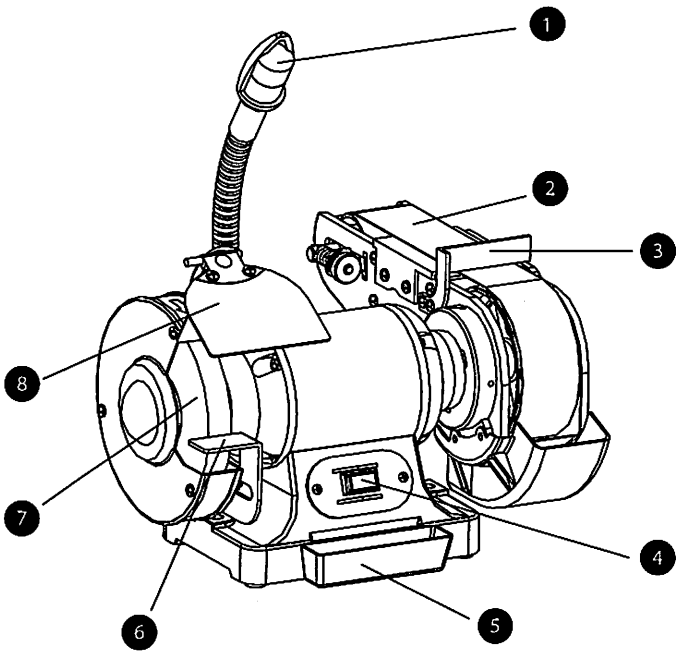
In all cases,make certain the receptacle in question is properly grounded.
If you are not sure,have a electrician check the receptacle.

PACKAGE CONTENTS

No.	Description	Qty.
1	Bench grinder sander	1
2	Pressing block	1
3	Flat washer D8	1
4	Hex bolt M8x14	1
5	Eyeshield+Eyeshield pressing plate assy	1
6	Eyeshield bracket	1
7	Tool rest	1
8	Hex bolt M8x10	2
9	Flat washer D8	2
10	Spark deflector	1
11	Philips screw + flat washer + spring washer M5X10	1
12	Work table deflector	1
13	Hex column screw M5x12	2
14	Flat washer D5	2
15	Coolant tray	1



No.	Description	Qty.
1	LED work light	1
2	Sanding belt	1
3	Work table deflector	1
4	ON/OFF switch	1
5	Coolant tray	1
6	Tool rest	1
7	Grinding wheel	1
8	Eyeshield assy	1



INSTALLATION TOOL RESTS

The tool rest attaches to the inward side of the guard and provides a surface that must be used to support the workpiece during operation.Certain types of grinding/sanding may require jigs or accessories that will be used with the tool rests to assure the proper angle of the workpiece against the wheel. Failure to install and use the tool rest can lead to serious personal injury.

To install the tool rests:

1.Loosely attach the tool rests perpendicular to the belt or wheel surface with the knob bolts, 5 mm washers and hex nuts.

2.To adjust the angle of the sanding belt tool rest, use a square or a protractor to set the angle of the tool rest in relation to the sanding belt.

3.Adjust both tool rests approximately 1/16 to 1/8 in. from the grinding wheel and the sanding belt and tighten the knob bolts. (in Fig. 3) shows the correct adjustment for the tool rest at the grinding wheel.

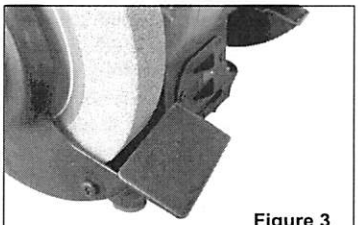


Figure 3

SPARK GUARD & EYE SHIELD

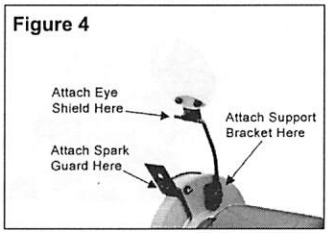
The spark guard must be installed and positioned 1/8 in. from the grinding wheel to minimize sparks flying towards the operator. The eye shield must be positioned between the grinding wheel and the operator's face to protect the operator from flying debris. This is not a replacement for safety glasses!

To install the spark guard and eye shield:

1.Using the included 5 mm screw and washer, install the spark guard as shown(in Fig. 4).

2. Attach the eye shield to the support bracket with the included 6 mm carriage bolt and hex nut.Use the 8mm hex bolt and washer to attach the support bracket to the grinder.

Figure 4



BELT TRACKING

Tracking the sanding belt means to center the belt on its rollers, so that it runs balanced and does not make contact with the sides of the belt cover.

To track the sanding belt:

1. Disconnect the machine from the power supply.
2. Rotate the grinding wheel.
3. As you rotate the grinding wheel,watch how the sanding belt rides on the upper roller.If the belt is tracking properly, the sanding belt should be centered between the sides of the belt cover as shown (in Fig. 5).

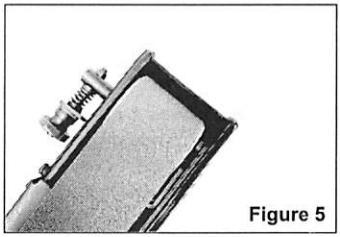
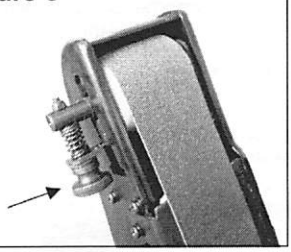


Figure 5

4. While spinning the wheel, turn the tracking control knob counterclockwise to make the belt move to the left, or turn the tracking control knob clockwise to make the belt move to the right (in Fig. 6).
5. After the belt is centered, spin the grinding wheel approximately ten times to ensure that the belt continues to track properly.

Figure 6



DUST PORT

The dust port is located behind the sanding belt, below the belt roller.
The openring is 1-1/2in.in diameter and can be connected to a utility vacuum or a dust collector.

To connect the dust port to a dust collection system:

1. Place a hose clamp over the dust hose.
2. Slide th hose over the dust port.
3. Secure the hose airtight with the hose clamp.
4. Check the hose with a light tug to ensure it is secure.

⚠ WARNING

The operation of any grinder can result in foreign objects being thrown into your eyes, which can result in severe eye damage.

Before beginning power tool operation, always wear safety goggles or safety glasses with side shields and a full face shield when needed. We recommend Wide Vision Safety Mask for use over eyeglasses or standard safety glasses with side shields.

TEST RUN

⚠ WARNING

All grinding wheels have the potential of breaking apart during operation, causing serious personal injury or death! Always stand to the side of the grinder when turning it ON and wear the proper safety equipment to protect yourself.

Once mounting is complete and adjustments are done to your satisfaction, you are ready to test the machine.

To test run the grinder/sander:

1. Plug the machine into the power source.
2. Stand to the side of the grinding wheel and turn the grinder ON.

The machine should run smoothly with little or no vibration or rubbing noises. Strange or unusual noises should be investigated and corrected before operating the machine further.

If the machine seems okay, stay out of the line of rotation of the grinding wheel and let it run for 1 to 2 minutes to make sure the wheel is structurally sound.

BEFORE GRINDING

The grinder is a safe tool when used properly. In addition to the safety instructions in this manual, the most important safety consideration is to use common sense at all times. What may be okay in one situation, may not be safe in another. Read the following statements to protect yourself before grinding:

- Make sure all guards and eye shields are in place.
- Remember that grinding often produces sparks. DO NOT allow anyone to stand in the path of the sparks. DO NOT grind near flammable liquids or gases.
- Wear the proper protective clothing. Remember that particles flying off of a grinding wheel will be traveling very fast. Wear safety glasses or a face shield, a dust mask, earplugs, a leather apron and heavy leather boots.
- DO NOT lean into the workpiece in a manner that may cause your hands to move into the spinning wheel if the workpiece slips off.
- Concentrate on the task at hand. STOP grinding/sanding if there are distractions.

OPERATING GRINDER

NOTICE! The grinder is designed for use with hard metals only. Soft metals and wood products should only be used on the sanding belt. They will quickly load the grinding wheel surface and ruin its abrasive qualities.

To grind with the grinding wheel:

1. Fill the coolant tray 3/4 full with water.
2. Move the red switch to the ON position.
3. Allow the machine to run for at least 1 full minute to ensure that the grinding wheel is safe for use.
4. Grasp the workpiece tightly and properly support it on the tool rest.
5. Place the workpiece against the front surface of the wheel with moderate pressure, moving it back and forth in a steady, even motion.

Note: Using too much pressure will slow the motor and may damage the wheel. Using too little pressure will make the workpiece bounce around and you will not make good contact with the wheel.

6. Regularly dip the workpiece into the coolant tray to cool it off.
7. When you are ready to stop the grinder, move the red switch to the OFF position. At this point, DO NOT continue grinding and DO NOT manually stop the grinding wheel with your workpiece!

SANDING

CAUTION! The sanding belt will remove large amounts of material quickly, including your skin. DO NOT touch the sanding belt and always position your hands so they will not slip into the belt or get caught

in the belt.

The 2 in. sanding belt on the machine works great for non-ferrous metals and wood products. A wide variety of belts are also available for many types of materials and stages of finishing.

To sand a workpiece:

1. Before starting the machine, adjust the angle of the tool rest so your workpiece is supported and the area you wish to sand is parallel with the sanding belt as illustrated (in Fig 7).
2. With the machine plugged into power, stand to the side of the grinding wheel and move the red switch to the ON position.

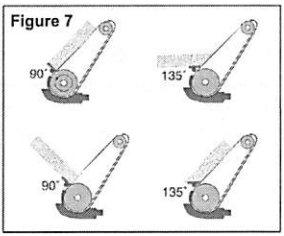


Figure 7

3. Allow the machine to run for at least 1 full minute to make sure that the grinding wheel is not going to fly apart and injure you, then move to the front of the machine.
4. Grasp the workpiece tightly and properly support it on the tool rest.
5. Press the workpiece evenly against the sanding belt with light pressure (see Fig 8 and 9). DO NOT press hard. Let the rotation of the belt do the work.
6. Remove your workpiece regularly to check the progress the sander has made. Remember you can always remove more material but you cannot add it.
7. When you are finished sanding, move the red switch to the OFF position. DO NOT continue sanding and DO NOT manually stop the sanding belt with your workpiece.

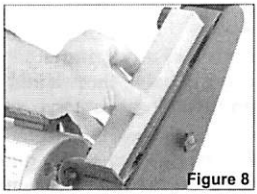


Figure 8

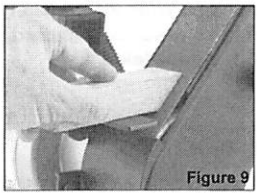


Figure 9

1. Maintain the tool with care. A tool in good condition is efficient, easier to control and will have fewer problems.
2. Inspect the tool components periodically. Repair or replace damaged or worn components.
3. Follow instructions for lubricating and changing accessories.
4. When servicing, use only identical replacement parts. Only use accessories intended for use with this tool. Replace damaged parts immediately.
5. Maintain the tool's label and name plate. These carry important information.
6. Wheels should be dressed periodically to maintain grinding efficiency, especially if they become clogged from grinding soft metals. Use a grinding wheel dresser to restore the wheel's original shape.
7. Keep all parts in working order. Check to determine that the guard or other parts will operate properly and perform their intended function.
8. A guard or other part that is damaged should be properly repaired or replaced. Do not perform makeshift repairs. Use the parts list provided to order replacement parts.
9. Disconnect tool when changing grinding wheels.
10. Replace a cracked wheel immediately and use only flanges supplied with the grinder.

⚠ WARNING

Only qualified service personnel should repair the tool. An mproperly repaired tool may present a hazard to the user and/or others.

WHEEL CARE

Your safety depends, on a large part, on the condition of the wheel during grinding. A wheel in poor condition may break apart during rotation, injuring the operator, a bystander and possibly causing property damage.

To properly care for your wheel, follow these tips:

- Always transport, store and handle wheels with care. Wheels may be damaged if they are dropped or if heavy objects are stacked on them.
- Select the right grinding wheel for the job. DO NOT grind material that is not designed for the wheel.
- Select the right wheel for the machine. A machine that rotates at a higher RPM than the wheel rating may cause the wheel to fly apart.
- Mount the wheels properly (see Replacing Wheels). Never use a wheel with the wrong arbor size for the grinder.
- DO NOT abuse the wheel by jamming the work into the grinding wheel with excessive force.
- Grinding on the side of the wheel may cause wheel damage.
- Dress the grinding wheel when the surface loses its abrasive quality or bite.

WHEEL DRESSING

Dressing restores the grinding wheel's abrasive quality. Whenever the front surface of the wheel loses its abrasive qualities (loading or polishing), then the wheel should be dressed.

To dress the grinding wheel:

1. With the machine plugged into power, stand to the side of the grinding wheel and move the red switch to the ON position.
2. Allow the machine to run for 1 full minute to make sure that the grinding wheel is not going to fly apart and injure you, then move to the front of the machine.
3. Hold the dressing tool firmly on the tool rest with both hands and press it lightly against the front surface of the grinding wheel as shown(in Fig10).
4. Move the dressing tool in a side-to-side motion, while keeping it even with the front surface of the grinder.
5. Regularly pull the dressing tool away from the wheel for visual inspection and repeat Steps 3 &4 until the surface of the wheel appears to be restored to its normal color and texture.

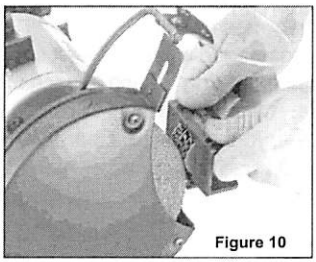


Figure 10

WHEEL INSPECTION

Before mounting a new grinding wheel, it must be inspected. DO NOT assume that a wheel is in sound condition because it is new. Damage can occur during shipping, with age or exposure to moisture.

Visually inspect the wheel. Look for any cracks, chips, nicks or dents in the wheel's surface. DO NOT use the wheel if you see any of these, Perform a Ring Test. This test will give you an indication of any internal damage that may not be obvious during a visual inspection.

To perform a Ring Test:

1. Make sure the wheel that you test is clean and dry; otherwise, you may get false results.
2. Balance the wheel with your finger in the hole if size permits, If this is not possible, hang the wheel in the air with a piece of cord or string looped through the hole in the centert.

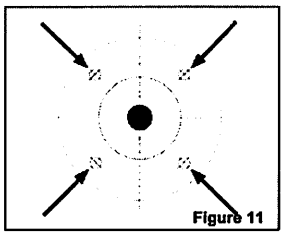


Figure 11

3. At the spots shown in Figure 11, gently tap the wheel with a light non-metallic device such asthe handle of a screwdriver or a wooden mallet.
4. An undamaged wheel will emit a clear metallic ring or "ping" sound in each of these spots. A damaged wheel will respond with a dull thud that has no clear tone.
5. DO NOT use it if you determine from the ring test that the wheel is damaged.

REPLACING WHEELS

⚠ WARNING

The hazards of using a damaged wheel include flying chunks of sharp abrasive material that could cause serious injury or death. Inspect every grinding wheel before it is mounted and DO NOT use a damaged grinding wheel!

The wheel guard assembly must be removed in order to mount or dismount a grinding wheel.

To remove/mount a wheel:

1. Disconnect the grinder from the power supply.
2. Remove the three Phillips head screws and nuts that go through the outer guard. Take off the outer guard and the rim guard.
3. Use a wrench on the nut that holds the wheel on the arbor. Hold the wheel to prevent it fromturning with your other hand. The grinding wheel arbor has a left-handed thread. Loosen the nut by turning it clockwise.
4. Remove the outer wheel flange and paper disc. Pull the wheel free from the arbor. There will also be a paper disc and a wheel flange on the back side of the wheel which should also be removed.
5. Mount the new wheel in the reverse order or as shown in Figure 12. Always make certain there is are paper or fiber discs between the wheel flanges and the wheel itself. Tighten the nut snugly but DO NOT over-tighten. Over-tightening can crack the wheel.
6. Re-install the guards and shields.
7. Run a new wheel for at least one minute while standing clear of the line of rotation. If a wheel does have defects it will generally fail as soon as it gets up to full speed.

8. Replacement wheels must have a minimum rated No Load Speed and a diameter as listed in the Specifications section.

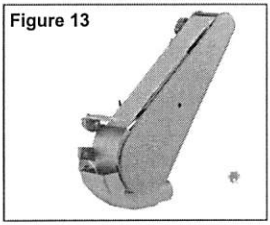
REPLACING SANDING BELT

Many belts are available with different grit sizes.

To remove/replace a sanding belt:

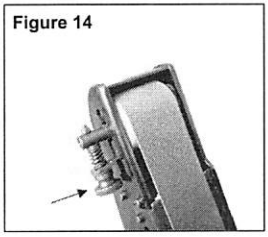
1. Disconnect the machine from the power supply.
2. Remove the star knob from the right-hand sanding belt cover as shown (in Fig 13) and remove the cover.

Figure 13



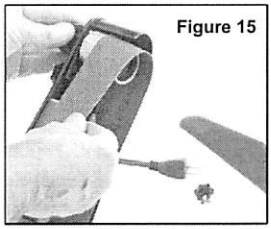
3. Loosen the sanding belt tension knob, as shown (in Fig 14).

Figure 14



4. Pull the sanding belt tension knob down with one hand and work the sanding belt off the rollers with the other hand as shown(in Fig15).
5. Install the new sanding belt in the reverse order of removal and replace the belt cover.
6. Track the new sanding belt before turning the machine on (see Belt Tracking).

Figure 15



Problem(s)	Possible Cause(s)	Suggested Solution(s)
Grinder won't start.	1. Blown line fuse or tripped circuit breaker. 2. Low line voltage. 3. Material wedged between wheel and guard. 4. Defective switch. 5. Defective, blown capacitor. 6. Defective circuit board.	1. Replace with fuse of proper size, if fuse is blown. Reset tripped breaker. 2. Check power supply for voltage and correct as needed. 3. Turn grinder off and remove material. 4. Replace switch. 5. Replace capacitor 6. Replace circuit board.
Excessive vibration.	1. Improper mounting of grinder or accessories. 2. Grinding wheel out of balance.	1. Remount bench grinder. 2. Dress wheels or replace wheels.
Motor overheating.	1. Excess pressure required to grind material. 2. Grinding on side of wheel. 3. Motor not turning freely (without power).	1. Dress or replace wheels. 2. Grind only on face of wheel. 3. Clean around wheels and shaft and/or replace bearings.
Fuses are being blown or circuit breakers tripped.	1. Overloading due to binding. 2. Defective plug. 3. Defective cord. 4. Defective switch.	1. Clean around wheels and shaft and/ or replace bearings. 2. Replace plug. 3. Replace cord. 4. Replace switch.
Machine slows when operating.	1. Depth of cut too great.	1. Slow down the rate of movement of the workpiece into wheel.
Wavy condition on surface of workpiece.	1. Machine vibrating. 2. Workpiece not being held firmly. 3. Wheel face uneven. 4. Wheel is too hard.	1. Make sure machines is securely mounted on a solid surface. 2. Use a holdingdevice to firmly retain the workpiece. 3. Dress the grinding wheel. 4. Use softer wheel, or reduce the feed rate.
Lines on surface of workpiece.	1. Impurity on wheel surface. 2. Workpiece not being held tightly.	1. Dress the grinding wheel. 2. Use a holding device to firmly retain the w orkpiece.
Burning spots or cracks in the workpiece.	1. Improper type of grinding wheel. 2. Improper feed rate. 3. Coolant required.	1. Try a wheel which is softer style or a coarser grit. 2. Slow down the rate of movement of the workpiece into w heel. 3. Add optional coolant system or introduce coolant by hand .

Problem(s)	Possible Cause(s)	Suggested Solution(s)
Wheel dulls quickly, grit falls off.	1. Depth of cut too great. 2. Wheel is soft. 3. Wheel diameter too small. 4. Bad wheel dress. 5. Defective wheel bonding.	1. Slow down the rate of movement of the workpiece into wheel. 2. Wheel too soft for the material. being ground, select harde r bond. 3. Replace the wheel. 4. Dress the wheel. 5. Consult manufacturer of grinding wheel.
Wheel clogs and workpiece shows burn marks.	1. Wheel is too hard. 2. Feed rate too slow. 3. Bad wheel dress. 4. Coolant required.	1. Wheel too hard for the material being ground, select softer bond . 2. Increase the rate of movement of the workpiece into wheel. 3. Dress the wheel. 4. Add optional coolant system or introduce coolant by hand.

EXPLONED VIEW

PARTS LIST

Part	Description		Qty
1	Philips Screw	M5x 48	3
2	Left Guard Cover		1
3	Hex Nut, IType M12 Left		1
4	Flange		2
5	Grinding Wheel Φ150x20xΦ12.7 60#		1
6	Philips Screw+Spring Washer Assy.	M5x10	6
7	Left Guard Assy.		1
8	Spark Deflect		1
9	Philips Screw + Flat Washer + Spring WasherAssy.	M5x10	7
10	Left Tool Rest		1
11	Flat Washer	D8	4
12	Eyeshield Pressing Plate		1
13	Outer Hex Bolt	M8X 10	2
14	Hex Nut	M6	1
15	Switch		1
16	Philips Screw	M4X 10	5
17	Left Eyeshield Bracket		1
18	Pressing Block		1
19	Hex Bolt	M8X14	1
20	Eyeshield		1
21	Dome Screw	M6X 16	1
22	Philips Screw	M4x135	4
23	Flat Washer	D4	4
24	End Caps		2
25	LED Bulb 12V0.36W		1
26	Philips Screw + Flat Washer + Spring Washer Assy.	M4x8	3
27	Outer toothed LockingWas her	D4	2
28	Cord Bushing		1
29	Cord Clip		1
30	Flat Washer	D10	1
31	Locking Nut	M10 x1	1
32	Wavy Washer	D35	1
33	Bearing 6202RZ		2
34	Stator		1
35	Rotor		1
36	Hex Nut	M4	4
37	Power Cord		1
38	LED Assembly		1
39	Hex Bolt	M5X20	1
40	Philips Screw	M5X 8	4
41	Adjusting Screw		1
42	Hex Bolt	M5X 10	2
43	Fixing Disc		1
44	Work Table Deflector		1

Part	Description		Qty
45	Flat Washer	D5	4
46	Limit Plate		1
47	Coolant Tray		1
48	Hex Nut	M5	3
49	Hex Nut	M4	2
50	Philips Screw	M4 x8	4
51	Philips Screw + Spring Washer Assy.	M6x18	2
52	Capacitor 16uF/300V		1
53	Compressing Spring		1
54	Work Table		1
55	Base Plate		1
56	Rubber Foot		4
57	Philips Screw + Flat Washer Assy.	M4x12	4
58	Base		1
59	Switch Plate		1
60	Nut	M5	2
61	Low Temperature Bearing 6200		2
62	Coolant Tray Clip		1
63	Idle Roller		1
64	Nut	M12	1
65	Washer	D10	1
66	Dust Cover		1
67	Bushing		2
68	Right Guard		1
69	Supporting Plate		1
70	Adjusting Spring		1
71	Hex Column Screw	M5X12	4
72	Guide Frame Assy.		1
73	Philips Screw + SpringWasher Assy.	M5X16	3
74	Rotating Disc		1
75	Belt 50x710 mm 80 #		1
76	Right Guard Cover		1
77	Pressing Plate		1
78	Driving Wheel		1
79	Knob	M5X18	1
80	Hex Screw	M6X 6	3
81	Big Flat Washer	D5	4
82	Idling Shaft		1
83	Wrench		1
84	Nut	M8	1
85	Rubber Washer		1
86	Capacitor support		1
87	Hex nut	M8	1
88	Lamp cover		1
89	Bushing		1