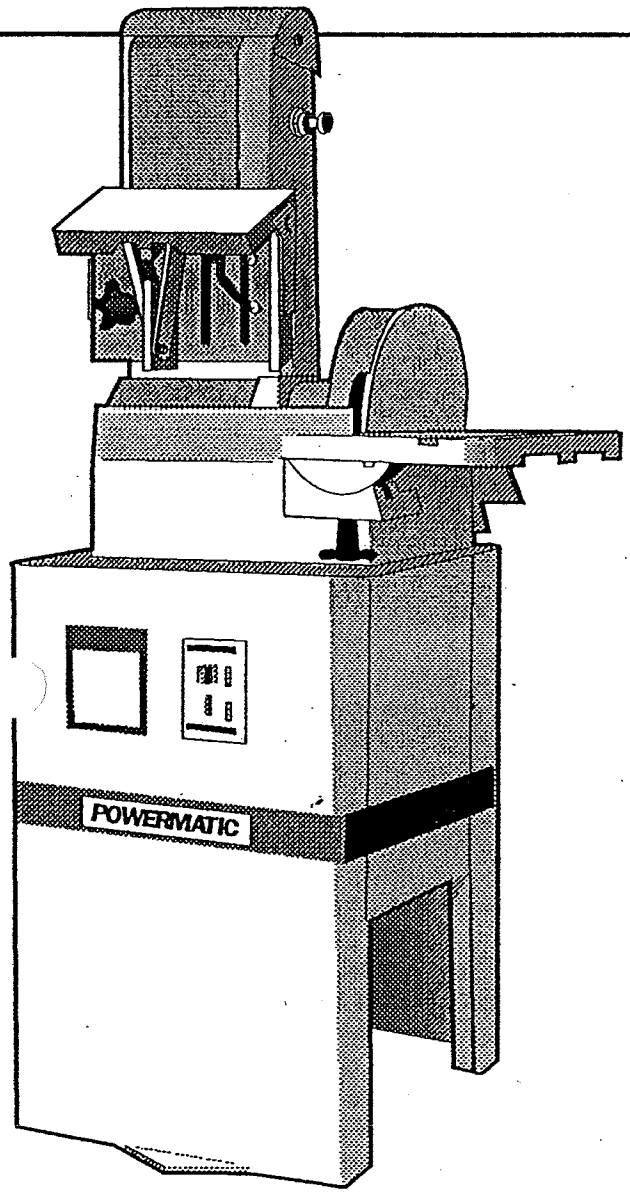
OPERATING INSTRUCTIONS



BELT/DISC SANDER

Models

31 BELT, DISC

32 BELT ONLY

Better By Design

POWERMATIC® ®

McMINNVILLE, TENNESSEE 37110 ☐ AC 615 / 473-5551

EDP# 0460210

SAFETY

BELT & DISC SANDER

READ, UNDERSTAND AND FOLLOW

the safety and operating instructions found in this manual. KNOW the limitations and hazards associated with this sander. A safety rules decal is installed on each machine to serve as a reminder of basic safety practices.

GROUNDING OF THE SANDER

Make certain the machine frame is electrically grounded and that a grounding lead is included in the incoming electrical service. When a cord and plug are used, make certain that the grounding lug connects to a suitable ground. Follow the grounding procedure required by the National Electrical Code (ANSI C- I).

EYE SAFETY

Wear an approved safety shield, goggles or glasses to protect eyes when operating the sander.

PERSONAL PROTECTION

Before operating the machine, remove tie, rings, watch and other jewelry and roll up sleeves above the elbows. Remove all loose clothing and confine long hair. Protective type footwear should be worn and hearing protectors should be used when noise levels exceed the level of exposure allowed in section I910.95 to the OSHA Regulations. DO NOT wear gloves.

WORK AREA

Keep the floor area around the machine clean and free of scrap material, saw dust, oil and grease to minimize the danger of tripping or slipping. Be sure the table and platen are free of all scrap, foreign material and tools before starting the sander. Powermatic recommends the use of anti-skid floor strips on the floor area where the operator normally stands and that each machine's work area be marked off. Make certain the work area is well lighted and that a proper exhaust system is used to minimize dust. Provide for adequate work space around the machine.

GUARDS

Keep the machine guards in place at all times when the machine is in use. If removed for maintenance purposes, use extreme caution and replace guards on completion of the maintenance task before operating the sander. DO NOT operate the machine with the guards off except for the belt end guard which swings away to allow for contour sanding. Keep that guard in place except when contour sanding and swing it back into position immediately after completing the contour sanding task.

DO NOT OVERREACH

Maintain a balanced stance and keep your body under control at all times. Let the sander do the work and don't apply excessive force where loss of control will result in an injury.

ABRASIVE BELT AND DISC

Be sure the belt or disc is in good condition with no tears or holes. A worn or torn belt can break and cause an injury.

OPERATOR POSITION

DO NOT stand in line or allow anyone else to stand in line with the belt in the direction that it is moving when the work stop is not in use.

HAND SAFETY

Keep hands away from the belt or disc. DO NOT clear sawdust from the table with the hands: use a brush. On small or thin parts, use a push stick or jig to keep the hands from contacting the abrasive.

BELT AND DISC DIRECTION

Proper belt direction is from the idler pulley towards the drive pulley. Proper disc rotation is counterclockwise facing the disc. CAUTION: Sand on the section of the disc from the center to the left edge. DO NOT use the right hand portion for sanding.

MACHINE ADJUSTMENTS

Make all adjustments with power off except for belt tracking. Belt tracking should be checked manually before starting the sander, but final adjustment may have to be made after starting up the sander.

MACHINE CAPACITY

DO NOT try to force the sander to remove material faster than the power available from the drive motor. The use of light pressure on either disc or belt sanding and moving the part back and forth will maximize belt or disc life, help to minimize the chances of an accident and keep the force within the capacity of the drive motor.

BELT TENSION

Be sure the sanding belt and driving belts are properly tensioned before starting the sander.

TABLE SAFETY

Be sure the table is locked in position before placing stock on it and that its front edge is within 1/1 6" or less, of the disc or belt.

MACHINE MAINTENANCE

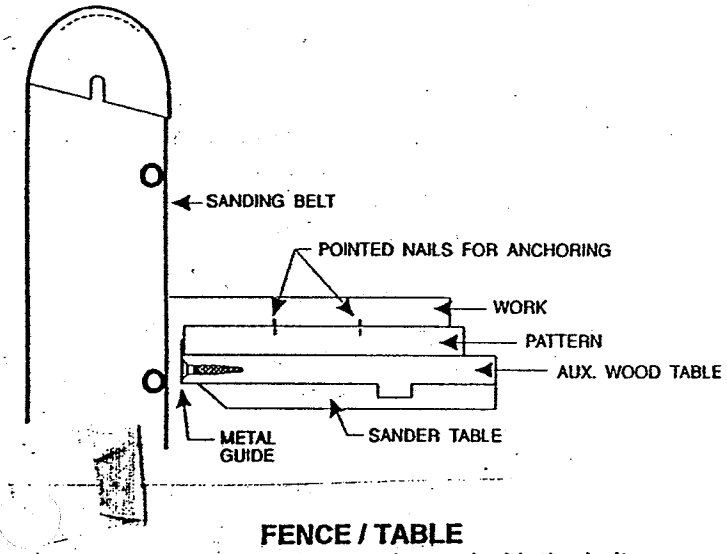
Be sure the machine is electrically disconnected before doing any maintenance.

OPERATION

GENERAL

Belt and disc sanders can be equipped with a variety of abrasives and grit sizes to handle a wide variety of materials from soft woods to hardened steel. They can be used to rapidly remove material and produce a mirror finish. Using various types of fixtures, they can be used to sand template forms (Fig. 1), sand angles (Fig.4), freehand contour sand (Fig. 5), and to sand flats on edges, surfaces and ends (Figs. 6, 7,)

Fig. 1

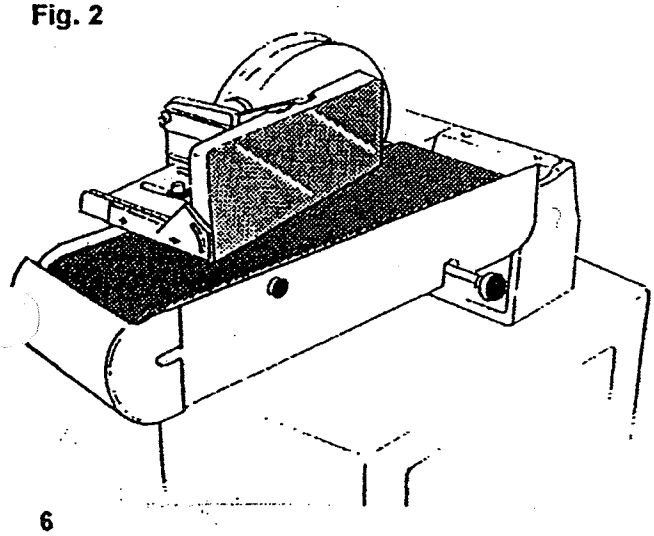


FENCE / TABLE

The fence/table attachement is used with the belt sander and can be positioned alternately as a table or a fence. The fence/table attachment can be tilted between 90 degree and 45 degree angles by loosening the knob on the center portion of the attachment. Manually move the fence/table to the desired angle and tighten the knob.

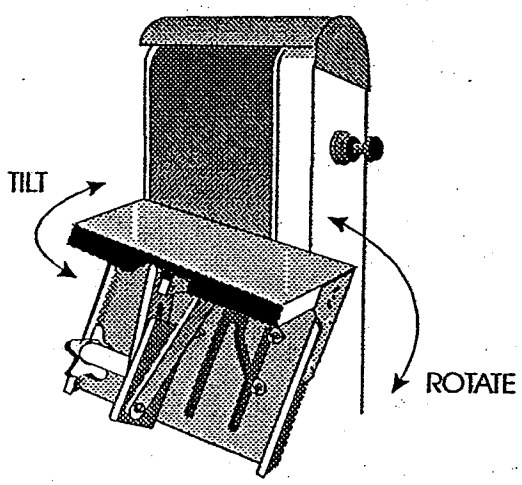
To position the fence at an angle across the belt (for skew sanding) as shown in Fig. 2 use a wrench to loosen the two bolts securing the fence/table base to the sander. Rotate the fence/table base by sliding the base around the bolts utilizing the arch slot and when in the proper position re-tighten the bolts.

Fig. 2



To utilize the fence/table attachment as a table, remove the two bolts securing the base to the machine. With the attachment removed from the sander rotate the pivot plate 180 degrees lining the holes up with the holes in the sander. Place the fence/table attachment on the pivot plate with the table perpendicular to the belt as shown in Fig. 3 . Line up the slots with the holes through the pivot plate and the sander and replace the blots. CAUTION: Always mount the base of the fence/table attachment through the pivot plate. Failure to do so could lead to damage to the fence/table as well as ruin a good belt.

Fig. 3



The chart shown on page 8 lists the various grits and materials used and lists the grit symbols. It is generally better to start with a slightly coarser abrasive than would seem practical because it will give faster material removal, generate less heat, and will sand more freely. As it dulls, it will tend to act like a finer abrasive.

Too often, the user will expect one belt or disc to take care of all situations; however, the materials to be sanded, the desired finish and the amount of material to be removed all have an effect on the selection grade of grit. abrasive material and construction. Contact suppliers of abrasive belts and discs for their recommendations on the work to be done.

Fig.4

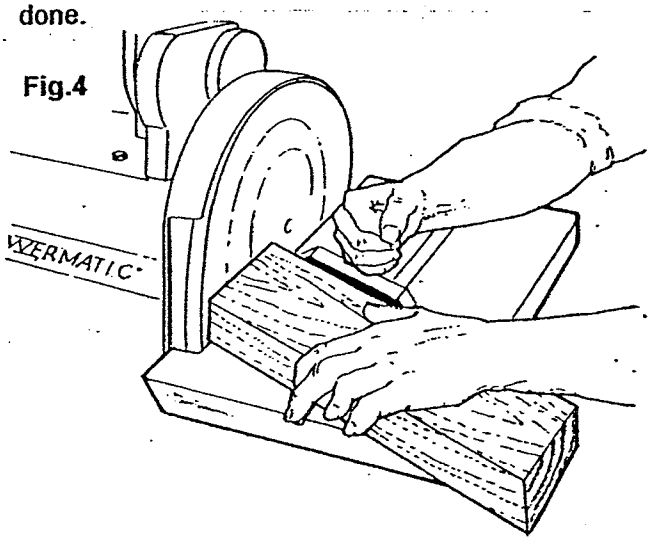
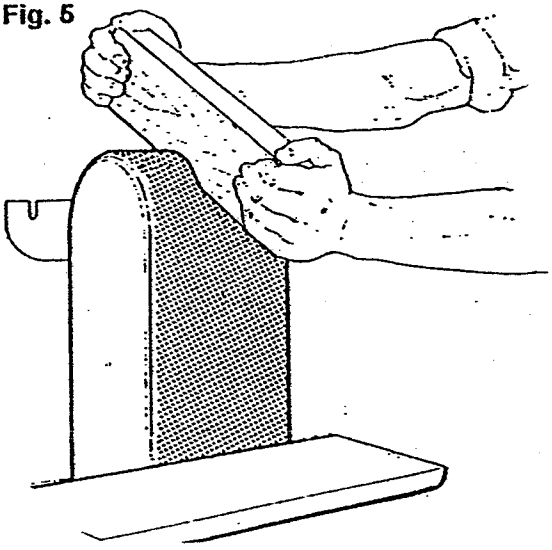
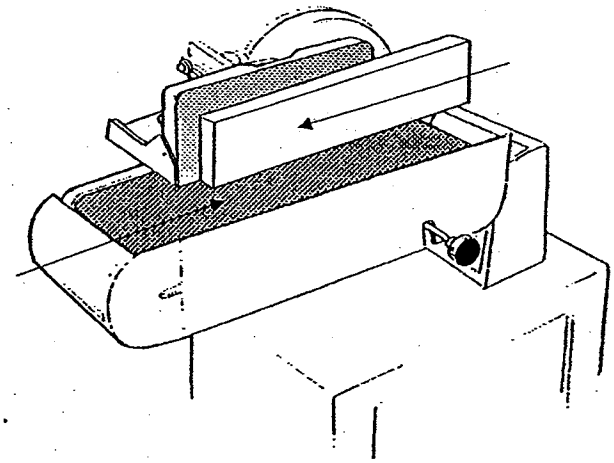


Fig. 5



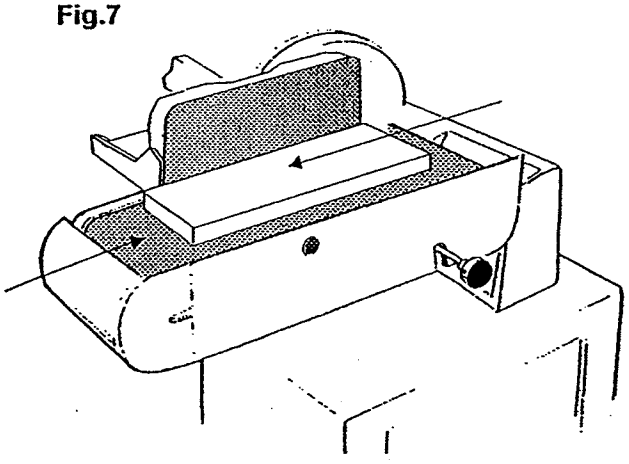
In edge sanding, another type of long surface sanding can be done using the fence (Fig. 6).

Fig. 6



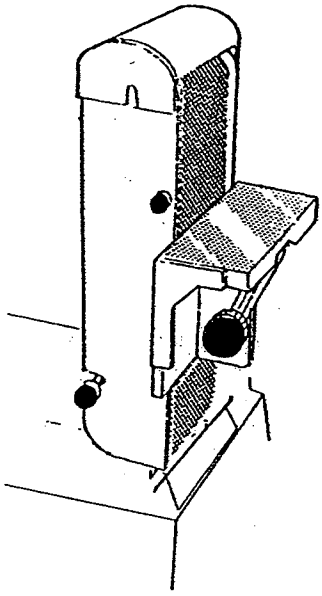
A belt sander can be used a number of ways to sand flat surfaces on stock. One method is shown in Fig.7where the major surface is sanded in a flat plane.

Fig.7



Flat surface sanding can also be done with the belt in a vertical position as shown in (Fig. 8).

Fig. 8



Using the table and a miter gauge, miters and compound miter cuts can be sanded. Special fixtures can also be designed for uses on the table for circular and form sanding. In addition to flat surface sanding, contour sanding (Fig. 5) can be done using the idler pulley with the end guard swung down.

CAUTION: **Always swing the end guard back in position and fasten it down immediately after the completion of any operation requiring the guard to be moved out of position.** Keep in mind that abrasive sanding developes heat when removing material so that burns can occur on wood if you t, remove material too fast. With metal, it may be necessary to use a water pot to keep the workpiece cool enough to hold it by hand.

Flat belt and contour sanding can be done in the horizontal, 45 degree, and vertical position of the arm (Fig.9) . To change position, pull out the locking shot pin and swing arm to the position desired and release shot pin. Check to see that the locating pin has gone into position by attempting to move arm back and forth.
Angle position of the table is determined by use of the protractor scale on the left hand trunnion. Periodically check zero position using a combination square.

Fig. 9