

**OPERATING INSTRUCTIONS
AND PARTS LIST FOR
BELT SANDER
6-INCH**

Model Number 103.27280

This is the model number of your Sander. It will be found on a plate on the right side of the base. Always mention this model number when communicating with us regarding your Sander or when ordering parts.

How to Order Parts

All parts listed herein must be ordered through a Sears retail store or mail order house. Parts are shipped prepaid. When ordering repair parts, always give the following information:

1. The Part Number.
2. The Part Name and Price.
3. The Model Number 103.27280.

This list is valuable. It will assure your being able to obtain proper parts service. We suggest you keep it with other valuable papers.

SEARS, ROEBUCK and CO.

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OPERATING INSTRUCTIONS AND PARTS LIST FOR SANDER MODEL 103.27280

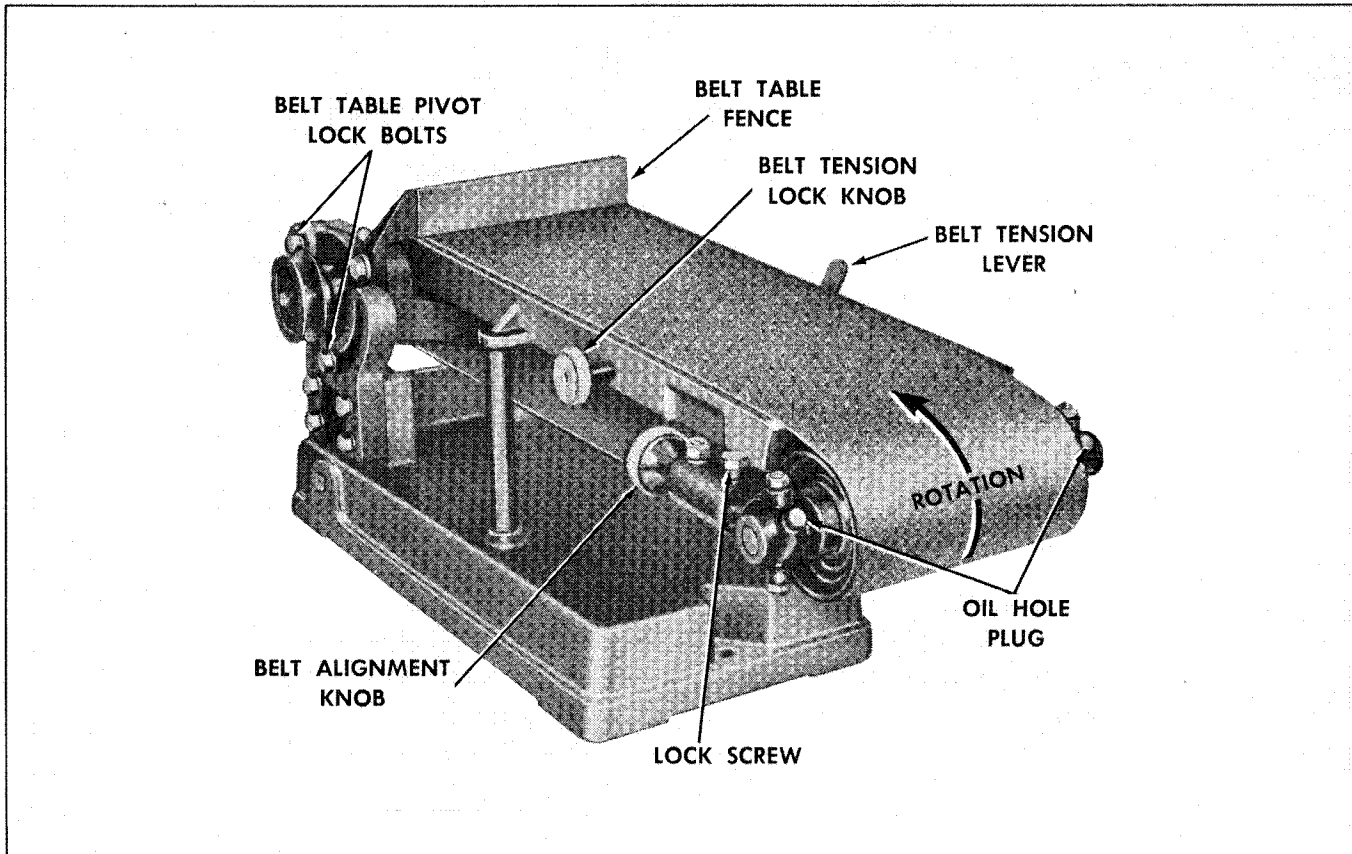


FIGURE 1

Many thousands of satisfied owners have found this 6 inch Quick Change Sander with its accessories to be one of the most vital tools in their workshop.

In just a few seconds you can swing the sanding table from a horizontal to a vertical position to suit your needs. In just as short a time, the sanding belt can be loosened, removed and replaced. You can be working with a coarse grit belt and within the same minute change to a fine grit belt.

With the accessories (Work Table and Mitre Gage cat. number 9-2729 and Sanding Disc—cat. number 9-2730) we are sure you will find this Sander one of the most versatile tools on the market.

ASSEMBLY:

To help prevent damage during shipment, the belt tension lock knob and the belt table fence were removed and packed separately. Install these units in position as shown in fig. 1. Keep the handy double end wrench close to your Sander for future use.

Note: The sanding belt has been left loose—see paragraph "Controls" for instructions covering belt tension.

LUBRICATION:

Before operating this Sander, fill the four bearing reservoirs with oil. Use a good grade automobile engine oil SAE No. 30. Remove the oil hole plugs over each of the idler and drive shaft bearings and fill the reservoir around each bearing with oil. Use a pressure type oil can or one with a small spout to displace the air in the reservoir. Each of the four reservoirs extends completely around the long life porous bronze bearing which absorbs the oil, filters it, and

feeds it to the turning shaft as it is needed to maintain smooth quiet operation. **Do not drill holes through these bearings.** Check the reservoirs regularly and keep them full of oil. Apply oil to other moving and sliding parts as needed to maintain the smooth operation of your Sander.

INSTALLATION:

Two 11/32 inch diameter holes in the Sander base provide a means of mounting the tool securely to a work bench or table. Keep in mind that work space is needed at each end of the sanding table, and that space should be allowed to the right of the Sander for changing the sanding belt quickly.

The motor should be mounted below on a bench shelf with the V-belt running through a hole cut in the bench top.

Consider the direction of rotation of the Sander when locating the motor. See fig. 1.

After the motor position has been established, measure around the outside, not in the groove, of the V-pulleys with a flexible tape to determine the length of the 1/2 inch V-belt needed.

SPEED-POWER:

For proper operation with the sanding belt supplied, the Sander should run at 1440 R.P.M. For general use, a 2 1/2 inch diameter pulley on a 1/3 horsepower 1750 R.P.M. motor will supply the proper speed and power. If continuous heavy duty work is planned, a 1/2 horsepower 1750 R.P.M. motor should be used. Be sure to specify the shaft size of your motor when ordering your motor pulley.

CONTROLS:

Changing table position: the sanding table may be placed anywhere between a horizontal and a vertical position after loosening the two **belt table pivot lock bolts** shown in fig. 1. Tighten these screws securely after the desired position has been reached.

The **tension lock knob** locks the idler bracket in place when tightened, thus holding the desired sanding belt tension. Loosen this lock knob before moving the tension lever.

The **tension lever** is equipped with teeth which engage the teeth in the tensioner rack No. 43. When the lever is moved forward, it loosens the belt for quick change. When moved backward, the lever moves the idler pulley assembly to tighten the sanding belt.

Sanding belt tension must not be excessive. Apply only enough tension to keep the belt from slipping during normal operation. Too much tension places unnecessary strain on the mechanism and greatly shortens the life of the belt. When proper tension has been applied you should be able to easily deflect the belt $\frac{1}{2}$ to $\frac{3}{4}$ of an inch from under the table.

ADJUSTMENTS:

The **belt alignment knobs** allow adjustment of the idler drum to insure a true running sanding belt. Loosen the hex head lock screw (Fig. 1) for each yoke before adjustment and tighten securely after adjustment.

Each idler bearing No. 29 is centered and held in the yoke by a pair of set screws and lock nuts. These screws may be adjusted to keep the idler shaft parallel with the drive shaft.

NOTE: Retighten all pulley set screws after a few hours operation.

OPERATION:

Surfacing, probably the most common operation performed on the Sander, is generally done with the grain of the work piece running parallel with the travel of the belt. Move the work piece slowly back and forth across the belt.

Hold the piece firmly, but do not press hard against the table.

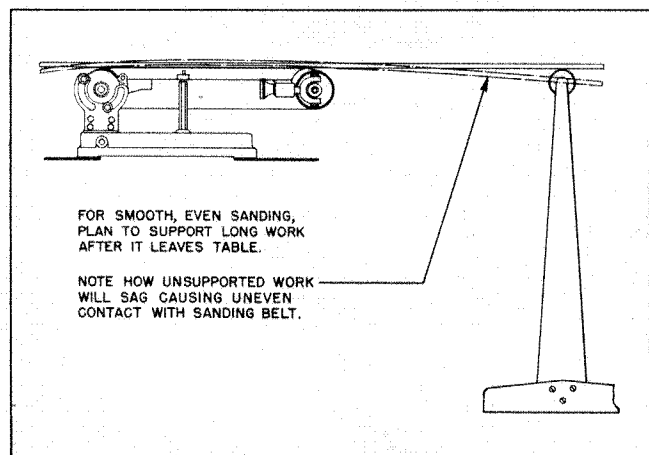


FIGURE 2

Extra long work should be supported behind the sanding table. (See Fig. 2).

Accurate edge and end sanding can best be done by providing a fence parallel with the belt and perpendicular to the sanding table surface.

If much end or edge sanding is planned, we suggest for your convenience that you equip your Sander with the work table (cat. number 9-2729) and the sanding disc (cat. number 9-2730). With these units, ends, edges and even compound miters can be sanded accurately.

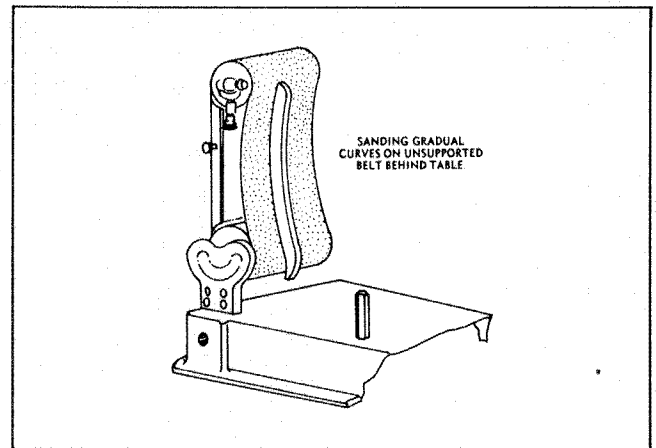


FIGURE 3

Gradual curves and rounded edges may be sanded by placing the belt table in the vertical position and sanding on the unsupported portion of the belt behind the table. (See Fig. 3).

Curves with a radius of more than 3 inches may be sanded on the drive or idler pulley at the end of the Sander. (See Fig. 4).

When a high quality surface is desired, the sanding belt should be changed after the rough cut is made, and the work finished with several light passes on a fine grit belt.

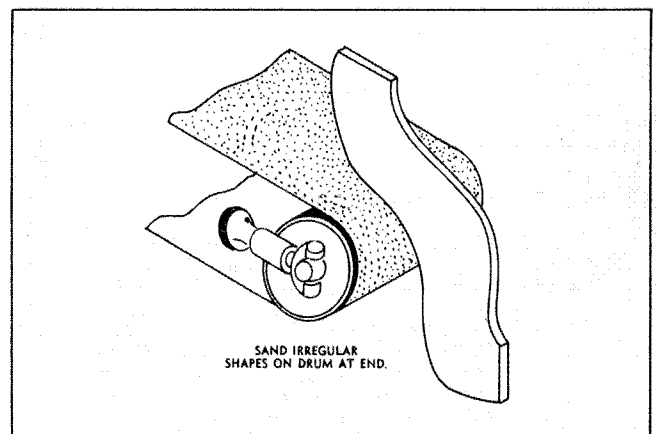
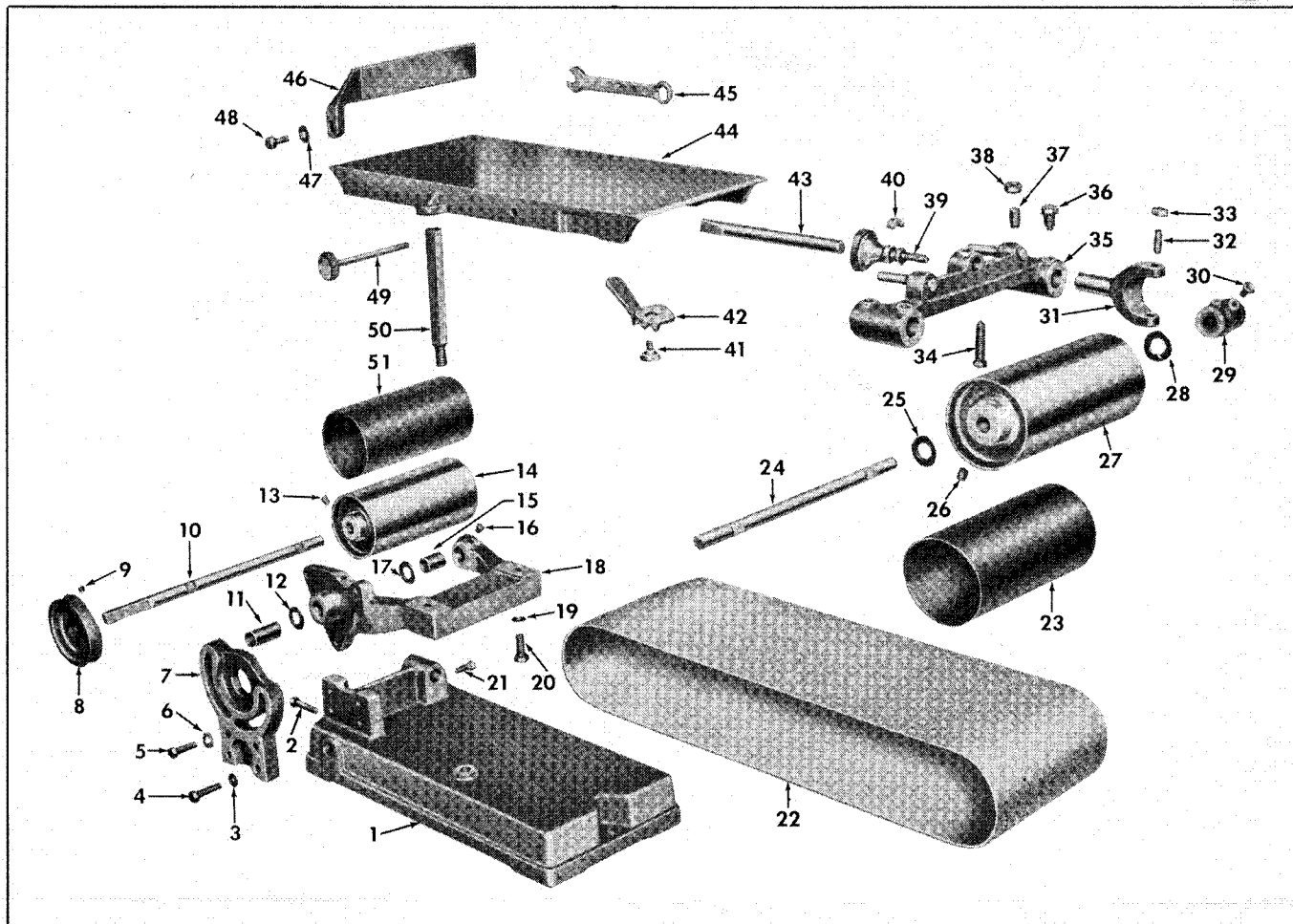


FIGURE 4

Sanding belts are available in three different grits—fine, medium, and coarse. If belts are used other than the type furnished with this Sander, be sure that your machine is running according to the speed recommendations of the belt manufacturer.

SAFETY:

It is obvious that due to the basic function of the tool, the greater portion of the sanding belt must remain exposed. **Be Careful!** Hold the work firmly, but do not use pressure that might drive the hands into the fast turning belt if the work piece should slip. Be particularly cautious when sanding thin strips. Be sure that the direction of rotation is correct, and use the belt table fence as a work stop whenever practical.



PARTS LIST

Ref. No.	Order Part Number	PART NAME	Prepaid Selling Price Each	Ref. No.	Order Part Number	PART NAME	Prepaid Selling Price Each
1	19047	Base	\$ 9.00	23	19018	Pulley sleeve	\$.85
2	*X 232	Cap screw $\frac{5}{16}$ -18 x $1\frac{3}{4}$ hex hd.	.10	24	19014	Idler shaft	.50
3	*X 611	Lock washer $\frac{5}{16}$	.10	25	18439	Fibre washer	.15
4	*X 212	Cap screw $\frac{5}{16}$ -18 x $1\frac{1}{4}$ hex head	.10	26	X 108	Set screw $\frac{5}{16}$ -24 x $\frac{3}{8}$ cup point	.10
5	*X 212	Cap screw $\frac{5}{16}$ -18 x $1\frac{1}{4}$ hex head	.10	27	19030	Idler pulley	3.00
6	X 623	Plain washer $\frac{5}{16}$ I.D. x $\frac{7}{8}$ O.D. x $\frac{1}{8}$ thick	.10	28	18439	Fibre washer	.75
7	19008	Table support bracket	3.65	29	592-50	Idler bearing—right hand	1.00
8	18039	Pulley with set screws—3 inch diameter single groove V-pulley $\frac{3}{8}$ inch bore. Purchase from nearest Sears retail store or mail order house. Ask for catalog number 9-2803— $\frac{3}{8}$ bore...	—	29	592-51	Idler bearing—left hand	1.00
9	X 132	Set screw $\frac{5}{16}$ -18 x $\frac{1}{4}$ cup point	.10	30	18931	Oil hole plug	.15
10	19064	Drive shaft	1.25	31	592-6	Pulley support yoke	.50
11	X 818	Porous bronze bearing	.30	32	X 118	Set screw $\frac{1}{4}$ -20 x $\frac{3}{4}$ cup point	.10
12	18434	Fibre washer	.15	33	*X 420	Hex nut $\frac{1}{4}$ -20	.10
13	X 108	Set screw $\frac{5}{16}$ -24 x $\frac{3}{8}$ cup point	.10	34	*X 144	Set screw $\frac{5}{16}$ -18 x $1\frac{1}{4}$ sq. hd. cup pt.	.10
14	19029	Drive pulley	3.00	35	19070	Idler pulley support bracket	2.65
15	X 804	Porous bronze Bearing	.25	36	18513	Yoke lock screw	.15
16	18931	Oil hole plug	.15	37	592-34	Retainer lock screw	.15
17	18434	Fibre washer	.15	38	*X 417	Hex nut $\frac{5}{16}$ -18	.10
18	19063	Table support arm with bearings	5.65	39	592-54	Yoke adjusting knob	.55
19	*X 616	Lock washer $\frac{3}{8}$	.10	40	592-12	Yoke screw retainer	.25
20	*X 203	Cap screw $\frac{3}{8}$ -16 x 1 hex hd.	.10	41	19057	Tensioner lever pivot screw	.15
21	*X 205	Cap screw $\frac{5}{16}$ -18 x $\frac{3}{4}$ hex. hd.	.10	42	19055	Tension lever	.25
22	19025	Sanding belt 6 x $48\frac{1}{16}$ in. Purchase from nearest Sears retail store or mail order house. Ask for catalog number 9-2167—fine, medium, or coarse grit.	—	43	19056	Tensioner rack	.60
				44	19052	Belt table	10.70
				45	592-36	Wrench	.30
				46	19062	Belt table fence	.95
				47	*X 601	Plain washer $\frac{5}{16}$	.10
				48	*X 205	Cap screw $\frac{5}{16}$ -18 x $\frac{3}{4}$ Hex Hd.	.10
				49	19060	Tensioner lock stud	.55
				50	19016	Table support post	.45
				51	19018	Pulley sleeve	.85

*Parts marked in this manner may be purchased locally.

This sheet is intended for instruction and repair parts only and is not a packing slip. The parts shown and listed may include accessories not necessarily part of this tool. All prices are subject to change without notice. All parts are shipped prepaid.