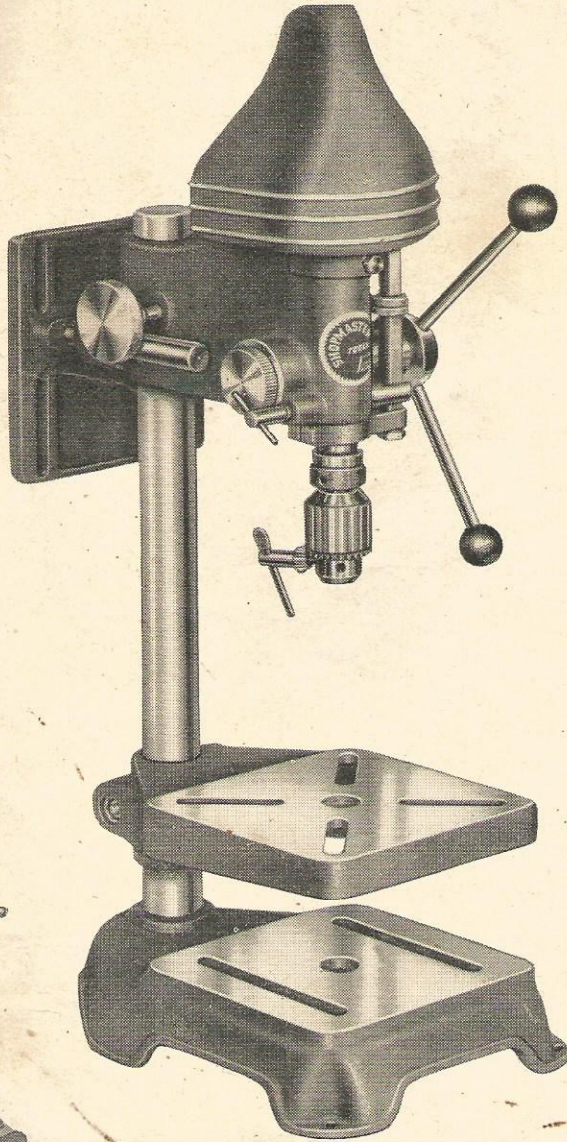


SHOPMASTER



TWELVE INCH BENCH TYPE DRILL PRESS

The advanced design and special features of the SHOPMASTER Drill Press make it an ideal power tool for modern shop operation. Sturdily built, with long life mechanism, the SHOPMASTER Drill Press performs excellently on drilling, routing, mortising, grinding, cutting, sanding, wire brushing, polishing, etc.

*Have you seen the other
Shopmaster tools?*



SHOPMASTER DRILL PRESS

OPERATING INSTRUCTIONS

UNPACKING

SHOPMASTER Drill Press is assembled complete ready to operate (less motor). Check container for chuck, motor pulley and belt.

MOUNTING DRILL PRESS

Mount Drill Press conveniently on a Deluxe SHOPMASTER Stand (see cover) or bench. It is advisable to check position on individual Stand so that balance is correct.

MOUNTING MOTOR

Mount motor on motor bracket with pulley on motor shaft opposite to step pulley on Drill Press. (small step close to motor). Next, place a straight edge across the two pulleys for perfect alignment. Bracket is adjustable. Attach belt. Motor should run clockwise.

LUBRICATION

With 20 or 30 SAE oil, thoroughly lubricate spindle bearings, and upper spindle pulley bearings, (a few drops of oil in splines at top of spindle), pinion shaft, (in oil hole on hub near three spoke feed wheel) and ball thrust bearing (just below depth gauge arm). Frequent oiling of these parts assures long life.

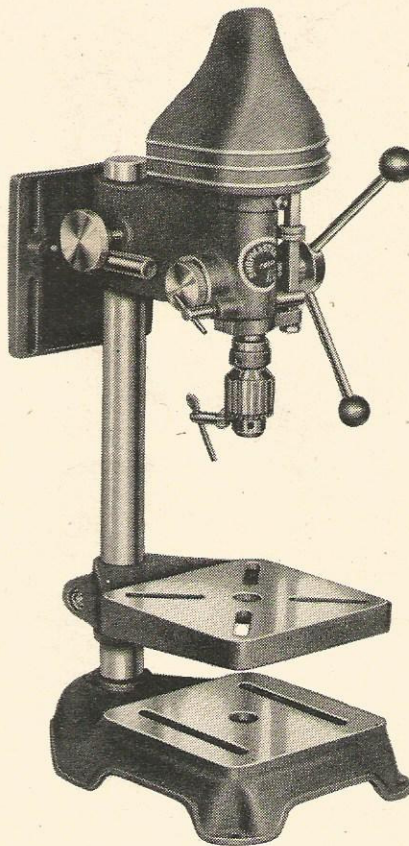
CONTROLS AND ADJUSTMENTS

The Jacobs Chuck is removable. Be sure it is secure before operating Drill Press. To remove, use wedge or plastic hammer.

Caution: Do not use iron or steel hammer to remove chuck. Spindle should turn freely. Spindle can be locked in any position for other type operations by tightening the "T" Handle Screw on side of Drill Press.

TO INCREASE RETURN TENSION

Loosen cover jam nut. Then loosen cover guide nut. Pull out feed wheel tension spring cover just far enough



COVERED SPINDLE PULLEY

FEED WHEEL TENSION SPRING

BALL BEARING THRUST

CHUCK REMOVING WEDGE INSERTS HERE

JACOBS CHUCK

CENTERLESS GROUND STEEL COLUMN

to clear studs and turn spring cover counter clockwise $\frac{1}{4}$ or $\frac{1}{2}$ turn until tension is right. Be sure cover seats properly. Then tighten cover guide nut and lock with cover jam nut.

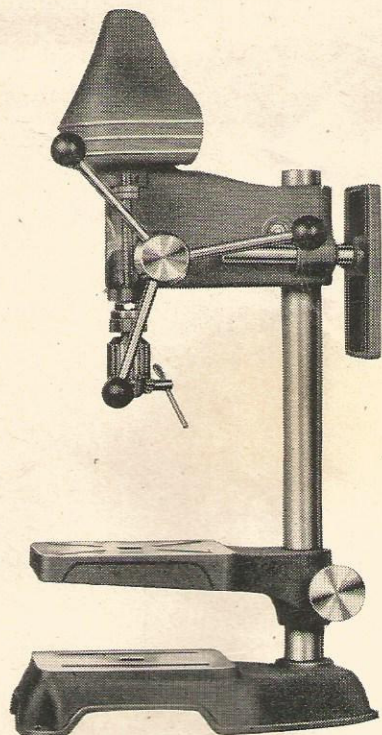
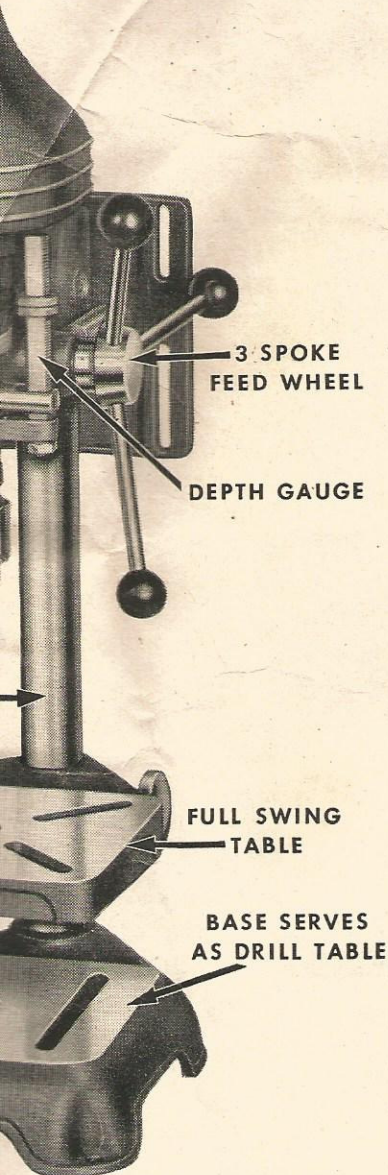
MOTOR SPECIFICATIONS

Use $\frac{1}{4}$ or $\frac{1}{3}$ HP motor of 1750 RPM speed. Remember it should run clockwise on Drill Press. Both 4-step pulleys that come with the Drill Press are the standard type, and no others should be used.

With both pulleys directly in line, top speed is 3500 RPM. Next speed down is 2250 RPM, the next 1360 RPM and the lowest step 875 RPM.

Vary speeds as follows:

Making the position changes starting from the second step down on motor, speeds of 2950, 1750 and 1040 RPM



will result. Simply raise motor on bracket until belt is in line. By lowering motor so that pulley is one step lower you will have speeds of 2660, 1750 and 1150 RPM.

SUGGESTIONS

- Maintain proper belt tension.
- Keep pulley set screws tight.
- Handle chuck with extreme care. Do not drop or remove with hammer.
- Clean spindle before replacing chuck.
- Do not use drills larger than $\frac{1}{2}$ inch.
- Spindle return should have light tension only.
- Do not use scored or dull drills.

- Be sure position hole in table is directly under drill.
- Always clamp work to table for better results.
- Oil spindle spline with light oil.
- Grease or oil column, table and base when not in use.

DRILLING

Make sure the chuck holds drill securely and true. It is advisable to counter sink material before drilling. Slow drill speed down on hard material and increase speed on soft material. Use oil or cutting compound on metals. Always clamp thin material securely to table before drilling. Always use sharp drills.

ROUTING

A routing adapter can be used with the SHOPMASTER Drill Press. To operate router, remove chuck as outlined in manual and follow directions and suggestions that come with routing adapter. Operate router at about 3500 RPM.

WOODCARVING

Use a woodcarving bit and operate bit at about 3500 RPM.

MORTISING

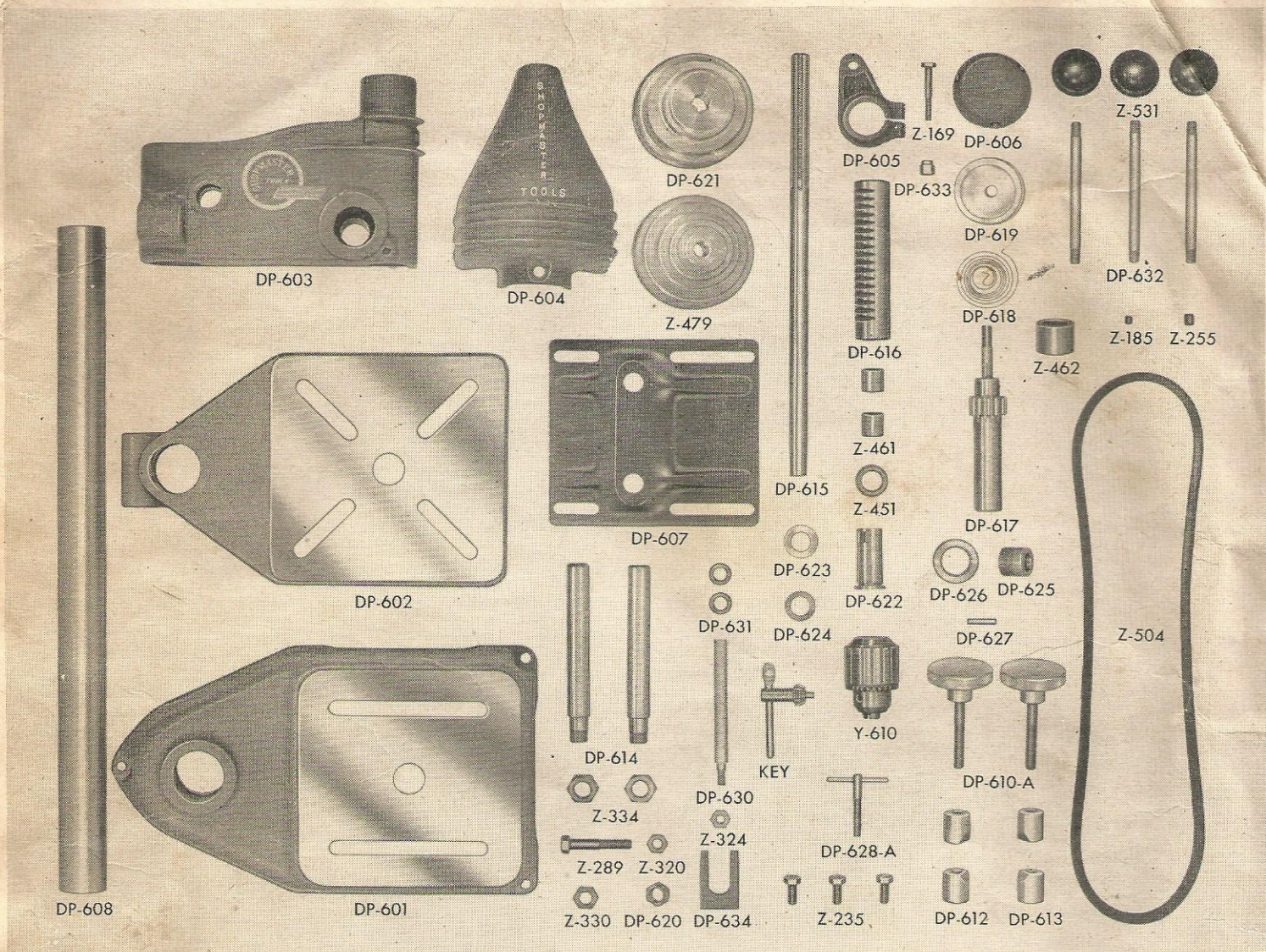
Your SHOPMASTER Drill Press can be used with mortising bits from $\frac{1}{4}$ inch up to $\frac{3}{4}$ inch. These bits are square hollow chisels with a wood bit revolving inside. Bits are used with a special chisel socket attached to the Drill Press spindle. Operate with a fence clamped to table as a guide. Do not force bit. Raise frequently to discharge chips.

SANDING

Drum sanding attachments are available for sanding. Use with special adapter after removing chuck. Sander operates efficiently at about 1750 RPM on flat or irregular shaped wood.

SHAPING

Shaping cutters for mouldings, tongue and groove, flutes, and other shapes are available for SHOPMASTER Drill Press. A special adapter is used instead of the chuck. It is advisable to use a securely fastened fence for straight work. Feed stock slowly and with the grain if possible. Run shapers at about 3500 RPM.

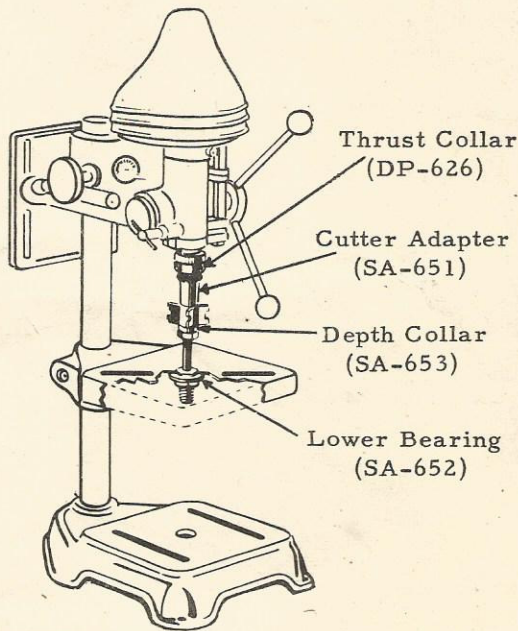


PARTS LIST— *Shopmaster 12" DRILL PRESS*

ITEM NO.	DESCRIPTION	PRICE EACH	ITEM NO.	DESCRIPTION	PRICE EACH
DP-601	Base	\$ 8.00	DP-627	Thrust Collar Pin	.15
DP-602	Table	7.50	DP-628-A	Rack Lock Stud Assembly	.40
DP-603	Head (with oilite)	8.50	DP-630	Depth Gauge	1.00
DP-604	Pulley Guard	2.00	DP-631	Depth Adjustment Nut	.15
DP-605	Depth Gauge Arm	1.00	DP-632	Handle Rod	.25
DP-606	Handle Hub	.75	DP-633	Depth Gauge Arm Nut	.15
DP-607	Motor Mount Bracket	1.50	DP-634	Chuck Wedge	.25
DP-608	Column	3.75	Z-169	1/4-20 x 1 3/4 Hex. Head Cap Screw	.15
DP-610-A	Column Locking Stud Assembly	.80	Z-185	1/4-20 x 1/4 Allen Head Set Screw	.15
DP-612	Threaded Column Clamp	.25	Z-235	5/16-18 x 3/4 Hex. Head Cap Screw	.15
DP-613	Drilled Column Clamp	.25	Z-255	5/16-18 x 3/8 Allen Head Set Screw	.15
DP-614	Motor Mount Shaft	.50	Z-289	3/8-16 x 1 3/4 Hex. Head Cap Screw	.15
DP-615	Spindle	2.50	Z-320	5/16-18 Regular Nut	.15
DP-616	Rack (with 2 oilites)	3.00	Z-324	3/8-16 Regular Nut	.15
DP-617	Pinion Shaft	2.00	Z-330	1/2-20 Hex. Jam Nut	.15
DP-618	Return Spring	.70	Z-334	5/8-18 Hex. Jam Nut	.15
DP-619	Return Spring Cover	.40	Z-451	#4956 Ball Thrust Bearing	1.00
DP-620	Cover Guide Nut	.15	Z-461	5/8 x 3/4 Oilite Bearing	.25
DP-621	Splined Pulley	2.45	Z-462	1 3/16 x 1 1/8 Oilite Bearing	.45
DP-622	Pulley Sleeve	.50	Z-479	4" 4-step Pulley, 1/2" Bore	1.00
DP-623	Spline Collar	.40	Z-504	36" A-Section V-Belt	1.15
DP-624	Fiber Washer	.15	Z-531	Plastic Knob, 3/8-16 Thread	.50
DP-625	Thrust Collar	.25	Y-610	#33 Jacobs Chuck with Key	6.50
DP-626	Thrust Collar Nut	.25		Chuck Key	.50

SHOPMASTER, INC., 1214 So. 3rd St., Minneapolis 15, Minnesota

INSTRUCTIONS FOR USE OF
SHOPMASTER DRILL PRESS SHAPER
ATTACHMENT



1. Remove Jacobs Chuck from drill press with wedge furnished with drill press, or with a light tap with a soft piece of wood.

2. Remove spindle thrust collar (DP-626) from drill press spindle. (This is the knurled ring directly above the Jacobs Chuck.)

3. Place cutter adapter (SA-651) on drill press spindle and replace collar, tightening the collar with the fingers. This should be sufficient to provide ample holding power. CAUTION: Do not operate shaper unless the collar is used. Failure to use collar may allow cutter adapter to fly loose at high speeds.

4. Remove nut and depth collar (SA-653) from cutter adapter, then select cutter that is to be used and place on cutter adapter, taking care that direction of rotation of cutter will be the same as spindle direction. (The sharpened edge should always move toward work first.) Then replace depth collar and nut. Then tighten nut.

5. Remove nut and washer from lower bearing sleeve (SA-652) and place sleeve through center hole in drill press table. Replace washer and nut, loosely.

6. Next, bring table up into position so that cutter adapter will fit into bearing. Now tighten bearing sleeve nut and check for free turning of spindle. (If the spindle binds, loosen nut and reset bearing sleeve until the shaper runs freely.)

There is a great variety of work that can be done with a shaper, from simple easing of an edge to running complete mouldings. The type of work that can be done is so varied that it is hard to list all of the types of it here.

There are a few cautions that must be followed;

1. Always feed work against rotation of cutters.
2. If you must go over a cut, START AGAIN, do not "back up".
3. See spindle rotates freely before turning on power.
4. Clear the table of tools, etc., before starting.
5. Use a fence or guide wherever possible. The fence for the SHOPMASTER mortising kit makes an excellent shaper fence.
6. Do not shape pieces too small to hold securely.
7. Tuck in your necktie and roll up your sleeves.

To shape irregular shapes, this shaper kit contains one 7/8" shaper collar. This collar may be installed above or below the cutter. Allow part of the piece being cut to run on the collar. This will allow proper depth of cut to follow the irregular shape of the piece. There is also available a complete set of these shaper collars from 7/8" to 1-3/8", available in sets of ten. These collars graduate in size in 1/16". All size cuts can be made. There is also available a complete set of shaper cutters in addition to the ones packed with the shaper kit. The shapes and stock numbers of these cutters are given below.

