



OWNER'S GUIDE

INSTALLATION • OPERATION • MAINTENANCE • REPAIR PARTS

8" x 27" LATHE

MODELS

15FD-2002A

25FD-2002A

35FD-2002A

84P-24B-1*

8" x 27" LATHE

ASSEMBLY

This tool is partially assembled at the factory, therefore, read these instructions carefully before attempting to assemble your lathe.

Remove bag set and parts to be used to complete the assembly of this lathe from the cartons and paper wrappings.

1. HEADSTOCK:

A. Lock to bed using square head 2-1/4" long bolt, washers and nut. Be certain dowel pins in headstock enter holes in bed casting before tightening in place.

B. BELT:

1. If motor is to be mounted under lathe, place belt over headstock pulley and connect with our 84-2895 matching 4" 4 step Pulley. Use our 84-2876 (48") Belt if mounting on our 84-2964 Steel Stand.

2. If motor is mounted in back of lathe, proceed as follows:

- Loosen set screws in pulley.
- Drive spindle through headstock from left.
- Place V belt of correct length on pulley.
- Drive spindle back into place being certain that Fibre Washer referred to as ST3-1/2"x1"x1/8" is in position.
- Force headstock pulley against front of headstock at the same time hold on front of spindle and lock pulley set screws into place on flats of spindle. **NOT TOO MUCH TENSION ON BELT.**

3. Our 84-2895 Motor Pulley matches the headstock pulley and must always be used to get correct speed ratios.

C. Spur center held onto flat of spindle by set screw.

D. GRINDING ATTACHMENT:

1. Fasten wheel guard onto head casting

using 1/2" long hex head cap screw furnished.

2. Place one nut onto threaded spindle in way indicated on assembly drawing, then:

- Washer - cup side toward grinding wheel.
- Grinding wheel.
- 2nd washer - cup side toward grinding wheel.
- Thread nut onto spindle and tighten. The grinding wheel must be tightened between the two hex nuts, not against the headstock.

3. Fasten tool rest to casting using second 1/2" long hex head cap screw.

4. Adjust guard and tool rest to working positions.

2. TAILSTOCK:

A. Attach to bed using square head 1 1/2" long bolt, clamp block, washer and nut.

B. Insert tailstock spindle lock (1/4" diameter on threaded section).

3. TOOL REST HOLDER:

Attach to bed using square head 1" long bolt, clamp block, washer and nut.

4. TOOL REST:

Tool rest is held in tool rest holder by tool rest locking handle (5/16" diameter on threaded section).

5. MOTOR:

For average work use 1/3 H. P. 1725 R.P.M. motor such as Ward's 83-4534M and attach 84-2895 4 Step Pulley.

6. WIRING DIRECTIONS:

A. Wire motor to our 84-2969 Switch following directions on motor plate or tag.

B. Spindle must turn toward front of lathe. For instructions on reversing of motor see plate or tag.

OPERATION

1. TURNING:

Two general types of turnings can be made on the lathe. First, the turning of long pieces between the centers which is invariably external turning. Second, the turning of work held by a face plate which may be entirely external or a combination of external and internal.

A. BETWEEN CENTERS TURNING:

If you turn a long piece between centers, we suggest the following. Draw lines diagonally from corner to corner on each end of the work. Use a sharp punch to impress a hole where these lines cross, that is, at the center point. Remove the spur center from the head stock and by using a wooden mallet or a soft head hammer make an impression of the spurs into one end of the wood. Check to determine if the impression is in the right location and then make a deeper impression by driving the spur center further into the wood, in order to assure that the spurs will hold the wood when the piece is being turned.

Insert the piece between centers in the lathe, place the wood first against the spur center so that the spurs fit, then bring the tailstock up to the contact point. Lock the tailstock at this point being certain that the spindle in the tailstock is pulled well back. Turn hand wheel to run the cup center into the wood, lock spindle locking handle. A little grease in the cup center will prevent burning at this point. While the spur center turns with the wood, the cup center remains stationary. Too much pressure on tailstock spindle will cause binding.

B. FACE PLATE TURNING:

Face plate turning is used to make powder bowls, small nut bowls, cigarette containers, etc. Use our 84-2030 3½" Face Plate. The procedure for this type of turning follows:

Let us assume that you have a piece of 4" square stock which is 2" thick. The first step in preparing this stock will be to draw lines diagonally from corner to corner in order to locate the center point. Use a punch to indent the center point and with dividers inscribe a 3-1/2" circle. Place the 3-1/2" face plate within this circle. Center punch for each screw hole and attach the face plate to the wood by using #12 wood screw 1/2" to 5/8" long. Instead of fastening wood to be turned directly to the face plate, you may attach a piece of scrap wood to the face plate and glue your stock to be turned to this piece.

Use the dividers and draw a circle as close to the extreme edge of the work as

is possible. The surplus material outside the large circle must be cut off before starting to turn the piece of wood. A band saw may be used or an attempt may be made to eliminate the corners by using a hand saw, or your bench saw.

If it is not possible to adopt any of the preceding methods for removing surplus material, then attach the face plate (with material attached) to the spindle.

Set the tool rest across the face of the block of wood as close to it as possible without striking. The rest is now at right angles to the bed of the lathe. Use the parting tool, work from the face of the wood toward the face plate - cutting off the corners.

Always bear in mind that the tailstock center can be quite helpful in steadying face plate work when exterior of block is being shaped.

C. GENERAL INFORMATION:

The tool rest should be set 1/16" to an 1/8" above center point and should be kept as close to the work as is possible without striking. Lock the tool rest in desired position.

2. TURNING SPEEDS:

We suggest that for all types of roughing work, whether roughing for legs or stretchers for tables or other items, including face plate turnings, that you use next to the lowest speed. If you have long pieces 6" to 8" diameter stock for face plate turning, we suggest the slowest speed because there is considerable throw on these pieces. After roughing you may use next to the top speed for smaller pieces and next to the lowest speed for larger pieces. Step up the speed correspondingly for your finishing operations.

We advise next to lowest speed for rough sanding, stepping up to the highest speed for small pieces and next to the highest for heavy pieces. When at this excess speed, lightly apply the garnet paper, sandpaper or crocus cloth to the work.

MAINTENANCE

BEARINGS:

The sleeve bearings in the headstock are of hardened bronze. An open face ball bearing is used for thrust. The bearings should be oiled quite frequently when new but after wearing in, oil every 6 to 8 hours running time should be sufficient. Oil cups have been assembled into headstock. Use SAE 10 oil.

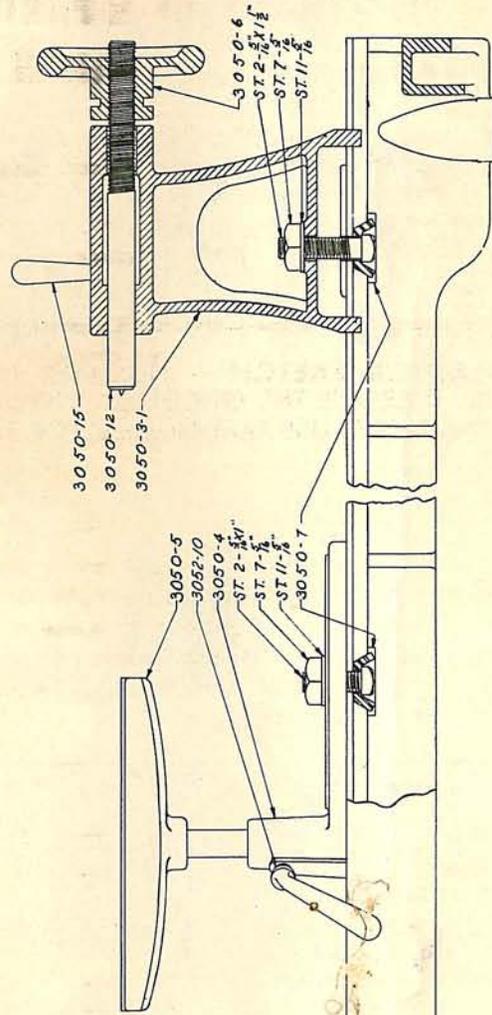
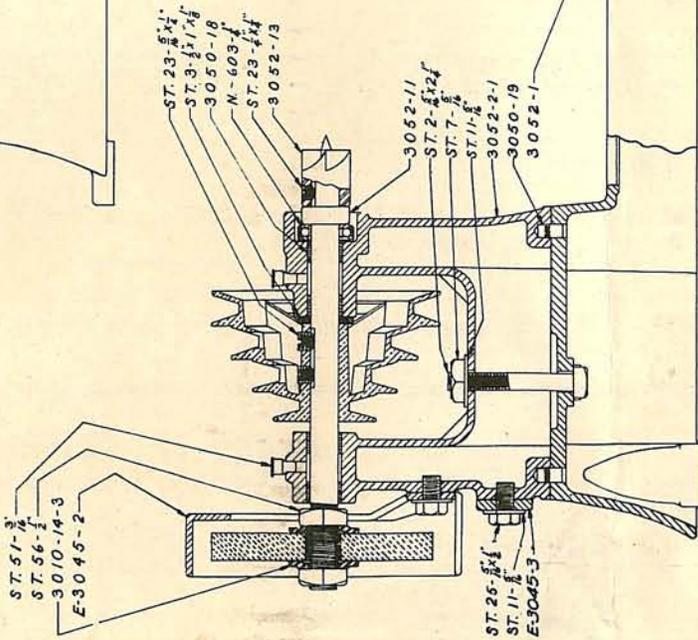
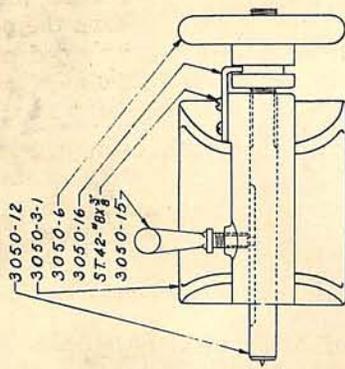
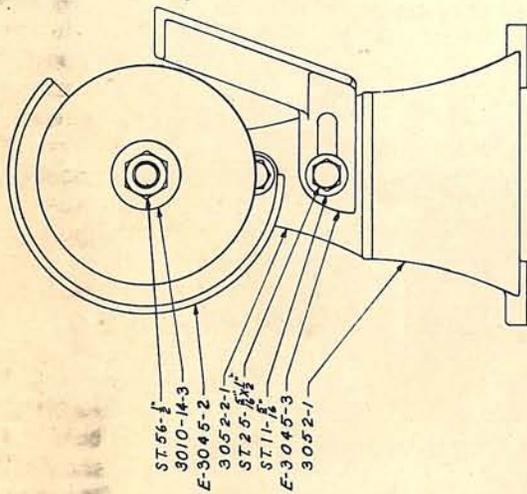
If it should become necessary to replace the bearings send the headstock to the factory. If this is not convenient and you have it done locally, instructions for removing spindle have been given in the paragraphs referring to "BELT".

HOW TO OBTAIN SERVICE

If the operation is not satisfactory and you can find nothing in this instruction book which covers the possible-cause of failure, we suggest that you follow this procedure to obtain service.

Call your nearest Wards Retail Store and request service if you live within 25 miles of the store. If not, write to your nearest Wards Mail Order House or Catalog Office. Provide the following information:

1. What is the model number? Give all information shown on the model plate.
2. To the best of your knowledge, what has happened?
3. When and where did you make the purchase?



HOW TO ORDER REPAIR PARTS FROM ANY WARDS BRANCH

To have your order filled promptly and correctly, please furnish **all** the following information:

1. **Model Number** appears on nameplate.
2. **Part Number, Name and Description** of part (see list).

You pay charges from shipping point. Charges based on size and total weight of order, use any one of the following shipping methods:

PARCEL POST . . . limit 70 lbs. Add postage to remittance.

EXPRESS . . . fastest for unmailable or bulky items.

FREIGHT . . . cheapest for unmailable or bulky items.

When goods arrive by express or freight, pay station agent; if no agent, add estimated shipping charges to remittance.

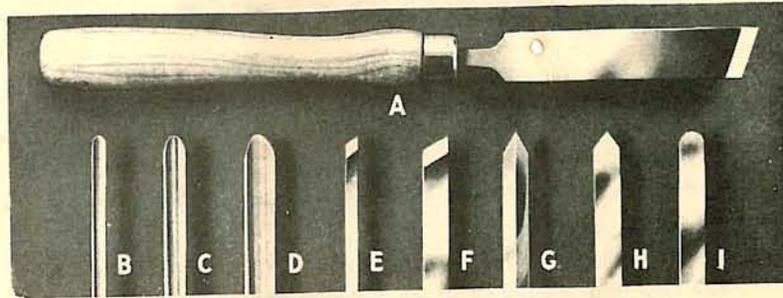
See Wards latest General Catalog for these charges. **In all cases, any excess will be refunded.**

REPAIR PARTS LIST

Part No.	Name of Part	Shpg. Wt.		Price Each
		Lbs.	Oz.	
N603 $\frac{1}{4}$	Thrust Bearing	-	4	\$.40
3010-14-3	Spindle Washer	-	2	.10
E3045-2	Wheel Guard	1	-	1.00
E3045-3	Work Rest	1	-	.60
3050-3-1	Tailstock	3	-	2.85
3050-4	Tool Rest Holder	1	-	.95
3050-5	Tool Rest	1	-	.90
3050-6	Spindle Hand Wheel	1	-	1.40
3050-7	Clamp Block	-	4	.10
3050-12	Tailstock Spindle	1	-	.75
3050-15	Spindle Locking Handle	-	4	.30
3050-16	Hand Wheel Retainer	-	2	.05
3050-18	Headstock Spindle Bushing	-	2	.15
3050-19	Headstock Dowel Pin	-	1	.05
3052-1	Bed	16	-	15.25
3052-2-1	Headstock	3	-	4.00
3052-5	$\frac{1}{2}$ " x 9/16" Open End Wrench	-	4	.30
3052-10	Tool Rest Locking Handle	-	3	.30
3052-11	Headstock Spindle (Grinder Type)	1	-	.85
3052-13	Driver Head Assembly	-	6	1.00
	4" Med. Grinding Wheel	See Ward Catalogs		
	4" x $\frac{1}{2}$ " 4 Step V Pulley	See Ward Catalogs		
ST2	5/16"-18x1" Square Head Bolt	-	1	.05
ST2	5/16"-18x1 $\frac{1}{2}$ " Square Head Bolt	-	2	.05
ST2	5/16"-18x2 $\frac{1}{4}$ " Square Head Bolt	-	2	.05
ST3	$\frac{1}{2}$ " x 1" x 1/8" Fibre Washer	-	1	.05
ST7	5/16"-18 Square Nut	-	1	.05
ST11	5/16" Standard Washer	-	1	.05
ST23	$\frac{1}{4}$ "-20x $\frac{1}{4}$ " Headless Set Screw	-	1	.05
ST23	5/16"-18x $\frac{1}{4}$ " Headless Set Screw	-	1	.05
ST25	5/16"-18x $\frac{1}{2}$ " Hex Head Cap Screw	-	1	.05
ST42	#8-32x3/8" Round Head Machine Screw	-	1	.05
ST51	3/16" Drive Oil Cup	-	1	.05
ST56	$\frac{1}{2}$ "-20 Hex Jam Nut (Left Hand Threads)	-	1	.05

IMPORTANT—All prices in this literature are subject to change without notice and are subject to an additional charge to cover any applicable sales tax, use, occupation, or other tax affecting our purchase or sale of merchandise.

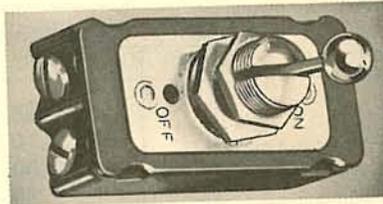
ACCESSORIES



HAND FORGED STANDARD CHISELS

84-2048 - (A) Regular Skew Chisel.	1"
84-2043 - (B) Gouge.	1/4" x 4"
84-2044 - (C) Gouge.	1/2" x 4"
84-2045 - (D) Gouge.	3/4" x 5"
84-2046 - (E) Skew Chisel.	1/4" x 4"
84-2047 - (F) Skew Chisel.	1/2" x 4"
84-2051 - (G) Parting Chisel.	1/2" x 4"
84-2049 - (H) Spear Point Chisel.	1/2"
84-2050 - (I) Round Nose Chisel.	1/2"
84-2052 - Set of 5 chisels consisting of C, D, E, F, G.	

FACE PLATE



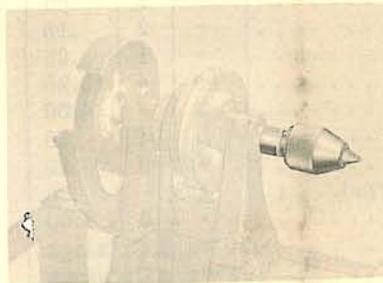
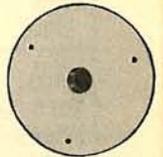
REMOTE CONTROL SWITCH

Double Pole Switch approved by Underwriters' Laboratories. Use with motor up to 1 H.P. 110 volts.

84-2969 - Remote Control Switch

Wood block is screwed to face plate for turning hollow in bowls, etc.

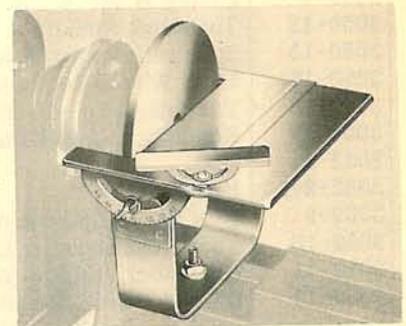
84-2030 - 3 1/2" diameter unthreaded 1/2" Bore.



DRILLING ATTACHMENT

Three jaw drill chuck attaches to the headstock spindle and makes it possible to do many drilling jobs easy which are otherwise difficult. Capacity of chuck 1/2".

84-2071 - Drilling Attachment



SANDING ATTACHMENT

Converts Lathe to Disc Sander--6" Diam. Disc, tilting work table with mitre gauge. Heavy sheet metal construction. Easy to install.

84-2066 - Sanding Attachment



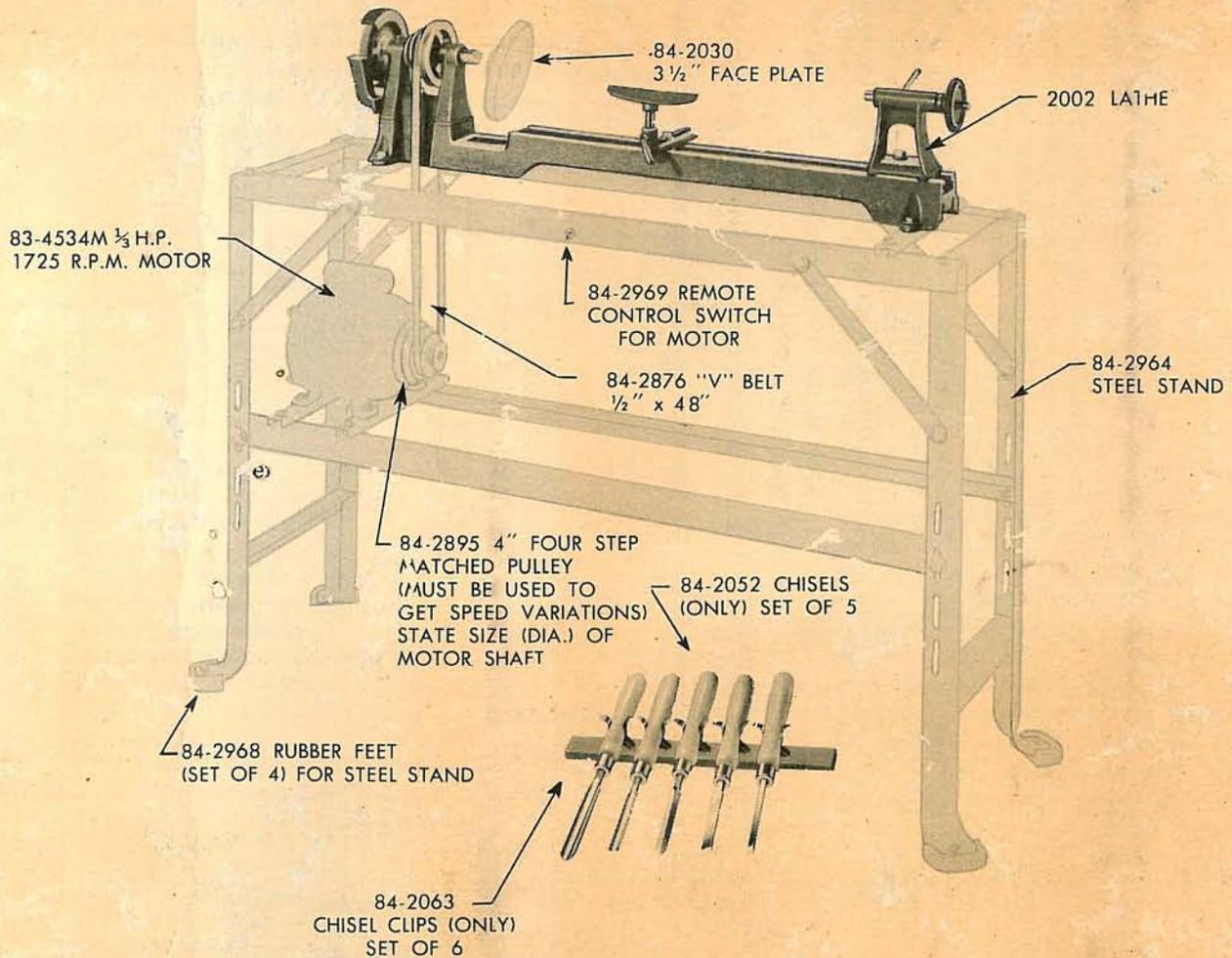
LATHE BED EXTENSION

LATHE BED EXTENSION

Increases distance between centers of the B3052 Lathe from 27 to 38 in. Machined surfaces bolted together, strong and true.

84-2011 - Bed Extension

PHANTOM SKETCH — INDICATES ITEMS AND THEIR PART NUMBERS. THESE ITEMS WILL INCREASE THE EFFICIENCY OF YOUR TOOL. WHEN ORDERING ANY OF THESE ITEMS PLEASE USE PART NUMBER FOR THE PART YOU WISH TO PURCHASE.



DARK PICTURE — INDICATES TOOL AS YOU PURCHASED IT.

SEE WARDS CATALOGS OR GO TO WARDS RETAIL STORE
FOR SELLING PRICE ON THE ILLUSTRATED ITEMS.