

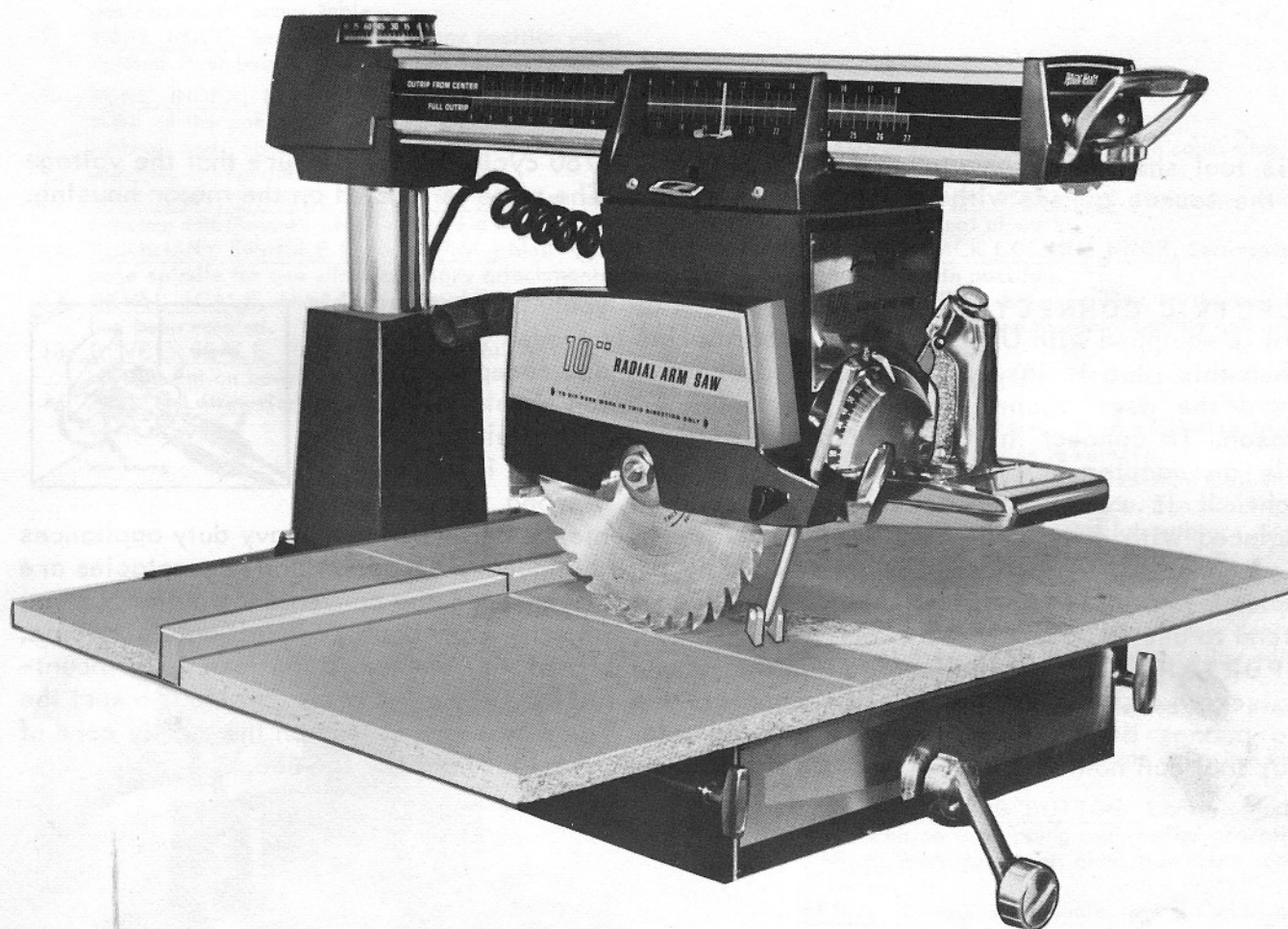
# 10" RADIAL ARM SAW

MODEL  
TPC - 2610B

WARDS  
**POWR-KRAFT**

owner's  
guide and  
PARTS LIST

96B20



**POWR-KRAFT** — SOLD EXCLUSIVELY BY **MONTGOMERY WARD**

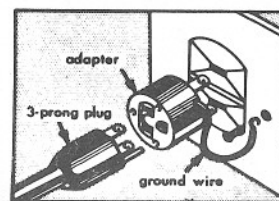
Dear Customer:

You are now the proud owner of the new #2610 Powr-Kraft Radial Arm Saw. We feel, without doubt, you have purchased America's finest Radial Arm Saw. As you use the machine you will continually find additional uses and operations for the saw and discover the versatility of this remarkable machine--virtually a workshop in itself.

#### CURRENT SUPPLY

This tool should be operated from 115 V A.C. 25/60 cycle power. Be sure that the voltage of the source agrees with the nameplate marking. The plate is located on the motor housing.

**ELECTRIC CONNECTIONS, POWERLINE:** For your protection, this tool is equipped with Underwriter's Laboratories approved 3-prong plug. When this plug is inserted into a properly grounded receptacle, it will guard the user against shock if the tool insulation should fail for any reason. To connect this plug to a standard 2-pole, parallel-slot receptacle an adapter is required to accept the 3 prongs. See illustration at right. It is recommended that the conventional 2-prong receptacle be replaced with a listed 3-prong receptacle at convenience outlets where heavy duty appliances are connected. The adapter is intended only as a temporary expedient until receptacles are replaced. **CAUTION:** Before using the Adapter, make sure the convenience outlet box you intend to use is properly and effectively grounded. If there is any doubt, consult an electrician. **IMPORTANT:** Connect the terminal on the ground wire of the Adapter to the face plate mounting screw of the receptacle. (This connects the third prong to the grounded box). Insert the two prongs of the Adapter into the receptacle. The new 3-prong plug on the supply cord of your tool can now be inserted into the Adapter and your tool is ready for use.



# NOMENCLATURE

1. ARM LOCK. Locks arm in any right or left angular position. Pushing the handle up locks the arm. Moving the handle down releases the arm. (To move the arm from 90° or 45° right or left, the index lock must also be released.)
2. ARM LOCK ADJUSTING WHEEL. Used to adjust tension of arm lock. Increase tension by turning wheel in a counter-clockwise direction.
3. ARM INDEX LOCK. Locates arm in pre-selected positions of 45° right or left and 90°.
4. MITER SCALE. Shows the angle of the arm with reference to the fence.
5. MITER SCALE POINTER. Moveable to allow adjustment on miter scale.
6. TABLE LOCKS. Locks fence and table boards in desired position. Turn handle counter-clockwise to loosen; clockwise to lock.
7. ELEVATING CRANK. Raises and lowers arm to desired height above table.
8. YOKE LOCK. Secures yoke in any position when rotated. Push back to lock, to release pull forward.
9. YOKE INDEX. Indexing the yoke index into the slots of the yoke positions the yoke for cross-cutting and inboard and outboard ripping. To operate, lift handle out of slot in yoke.
10. AUXILIARY SPINDLE (20,000 R.P.M.) For accessory attachments which require a high R.P.M.
11. AUXILIARY SPINDLE (3,450 R.P.M.) Multi-purpose spindle for use with accessory attachments.
12. BEVEL SCALE. Shows bevel angle when motor has been rotated.
13. BEVEL SCALE POINTER. Moveable to allow adjustment on bevel scale.
14. BEVEL LOCK. Securely locks motor when it has been rotated.

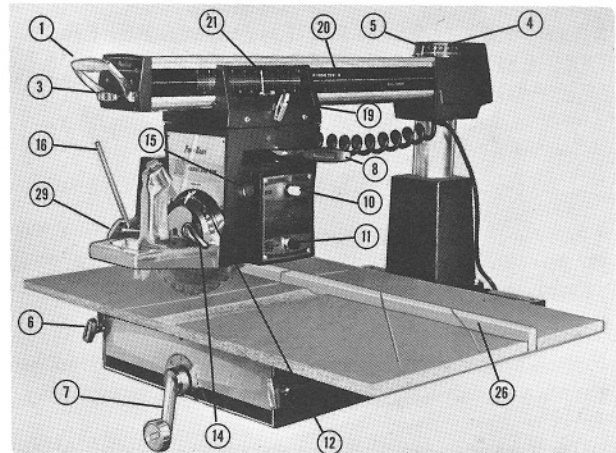


Fig. 1

15. MOTOR BRUSHES. Located under caps. Check as outlined in maintenance instructions.
16. ANTI-KICKBACK ASSEMBLY. Used when ripping to insure control of work.
17. ANTI-KICKBACK LOCKING KNOB. Secures anti-kickback rod in position.
18. CARRIAGE. Four ball bearings in the carriage support the yoke and motor assembly and insure smooth operation.
19. CARRIAGE LOCK. Firmly secures carriage in any desired position on arm. It is used mainly for ripping operations. Turn clockwise to lock and counter-clockwise to release.
20. RIP SCALE. The two rip scales show the distance between the fence and the blade. The scale on the left side of the arm is used for outboard ripping and the one on the right side is used for inboard ripping. The top scale is used when the fence is in the forward position and the bottom scale is used when the fence is in its full rear position.
21. RIP SCALE POINTER. Moveable to allow adjustment on rip scale.
22. SWITCH KEY. Must be inserted and pressed down before trigger switch will operate.
23. TRIGGER SWITCH. Will operate only when switch key is depressed.
24. SWITCH HOLDING BUTTON. Locks switch in "on" position for ripping and similar operations.
25. TABLE. Warp resistant, gives maximum support of work.
26. FENCE. Guides and steadies work. Can be positioned to suit cut being made.
27. BLADE. This saw is equipped with a combination blade to do both ripping and crosscutting. Special purpose blades are available to fit this saw.
28. BLADE GUARD. Directs sawdust from operator. May be rotated to provide proper blade coverage to protect operator.
29. GUARD LOCK. Locks blade guard in desired position. Twist clockwise to tighten, counter-clockwise to loosen.

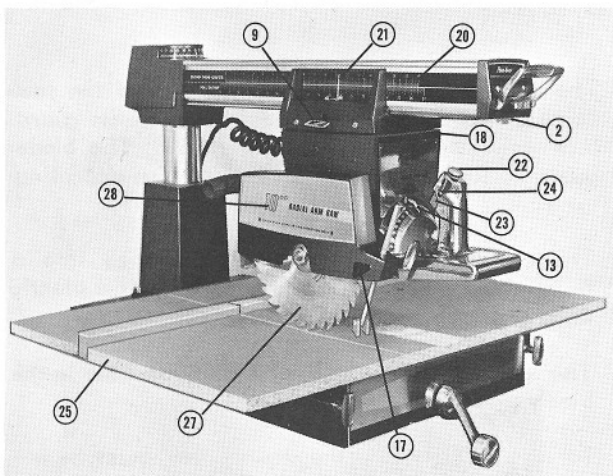


Fig. 2



# ASSEMBLY

NOTE: LETTERS IN PARENTHESES REFER TO CORRESPONDING LETTERS ON PARTS LIST. SEE PAGES PL-1 thru PL-4.

For your convenience your RADIAL ARM SAW is partially assembled, allowing complete assembly to be accomplished with ease.

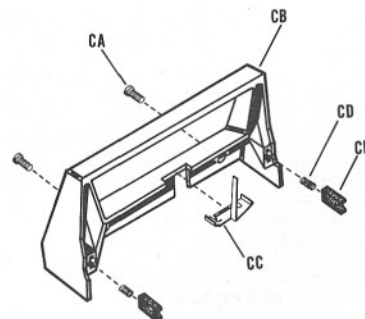
Follow the instructions carefully. Secure frame to stand, cabinet or work bench before starting.

1. Attach handle by tightening set screw with allen wrench provided.
2. Insert column into base. Turn crank counter-clockwise until column is engaged. Lower column approximately 3" into base.
3. Insert tapered plug (AF), spring washer (BO), and threaded plug (AE) into base as shown. Be sure taper engages in slot on column. Finger tighten.
4. Remove "T" handle and end cap from arm. Place arm lock lever in up position. CAUTION: While the end cap is removed, do not move the arm lock adjusting wheel.
5. Lift motor assembly and engage "V" groove bearing on carriage onto arm track. Motor assembly should move freely on track.
6. Replace end cap and "T" handle. CAUTION: Be sure arm cover (rip scales) fits inside of end cap before tightening screws.
7. Attach cord clamp (BM) to rear of arm.
8. Attach table clamp and leveling bracket assemblies to frame with hex head bolts, flat washers and lock washers as shown on page PL-1 of parts list.
9. Assemble large table board to leveling brackets. Insert set screws and elevate table board approximately 1/4 inch above frame.

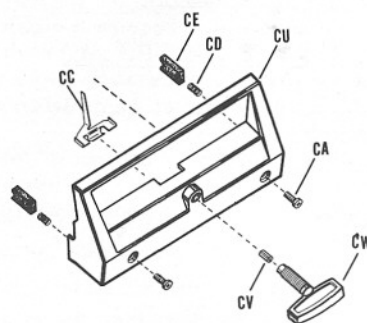
## NOTE:

Before completing assembly check the "adjustments" section of this guide for instructions on "squaring the table", "checking the saw blade for heel" and "tension of carriage bearings."

10. Next the carriage covers are assembled. Slide a pointer (CC) over the center section of each cover from the back so the pointer shows in cover window. Place spring (CD) and track wiper (CE) (felt) in each end of cover. Attach carriage covers to carriage.



11. Insert track lock pin (CV) into carriage lock (CW) and thread carriage lock into position through right hand carriage cover.



12. See "Assembly of Blade" section for blade installation.
13. The blade guard fits in a ring around the saw spindle and is locked in position with the guard lock which threads into the guard. The blade guard should be used at all times when operating the saw.
14. The anti-kickback assembly is slipped into a hole in the blade guard and secured with a plastic knob and stud.
15. The exhaust tube is slipped into the hole in the blade guard.
16. To operate the saw the switch key must be inserted in the handle and held down while the trigger is depressed. The trigger will not operate if the key is not pressed down.



# ADJUSTMENTS

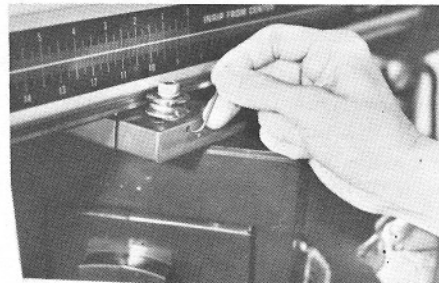
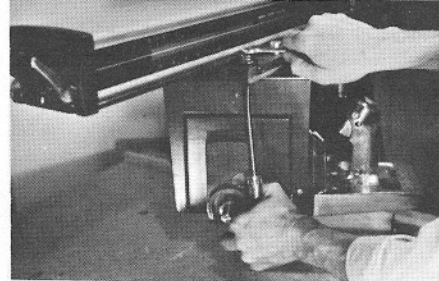
## ELEVATING CRANK TENSION

Undesirable side movement of the arm may be eliminated by adjusting the column plug (AE). Use a wrench to tighten the plug while moving the arm slightly up and down with crank. Do not

over tighten the plug or the elevating crank will be difficult to operate. Plug should be snug enough to eliminate excessive column movement.

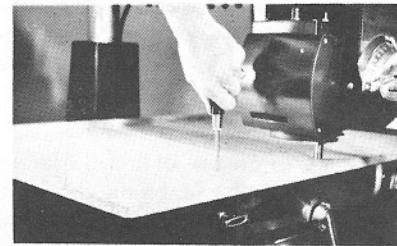
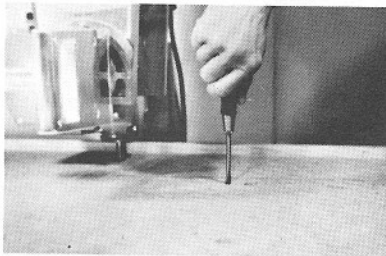
## TENSION OF CARRIAGE BEARINGS

If excessive play exists between the carriage rollers and the track, the following adjustment should be made. Remove the carriage lock by turning in a counter-clockwise direction. Remove the right hand carriage cover. Release the yoke index and pivot the motor and yoke assembly to expose the adjusting screws under the carriage (see picture). Use screwdriver and wrench to loosen nut at top of each roller. Adjust bearing tension by turning screw until bearing is firm but not tight on track. Secure adjustment by holding screw in place and tightening lock nut on top, then tighten set screws on side of carriage.



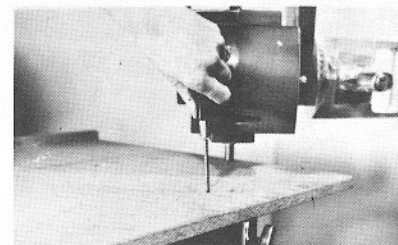
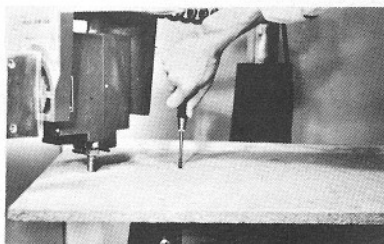
## SQUARING THE TABLE

Place fence in full rear position. Make sure table boards are flat and tighten both table locks securely. Pivot motor so blade spindle points down to the table. Lower saw with elevating crank until spindle just clears the table top. With arm locked in 0 degree position, pull the saw back and forth on the arm to determine if front of table is high or low.



Without changing the setting of the elevating crank, move the arm to the 45 degree right position and check the spindle clearance while moving the saw.

Repeat clearance check with the arm in the 45 degree left position.



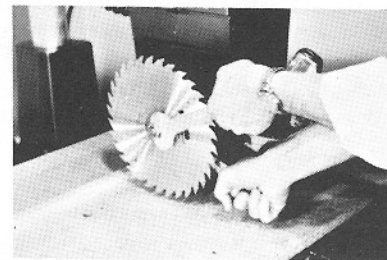
If table is not level adjust as follows:

1. Loosen four channel screws (AW).
2. Adjust table by tightening or loosening adjusting screws (BL). Use above procedure to check level.
3. When table is level, securely tighten the four channel screws.

## ASSEMBLY OF THE BLADE

DISCONNECT FROM POWER SOURCE BEFORE REPLACING OR ADJUSTING THE SAW BLADE.

The blade should be assembled as illustrated, with the large face of the washers against the blade. The thread on the saw spindle is left handed and therefore the nut is turned counter-clockwise to tighten.



BE SURE THE BLADE IS ASSEMBLED PROPERLY AS SHOWN IN THE PICTURE.

To secure the blade, a 15/16 inch open end wrench should be used to hold the flats on the saw spindle, while a 1 inch open end wrench is used to tighten the blade nut.

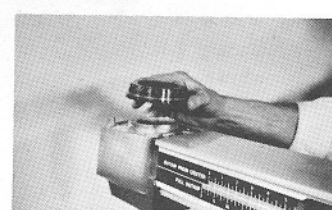
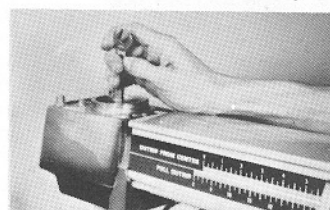
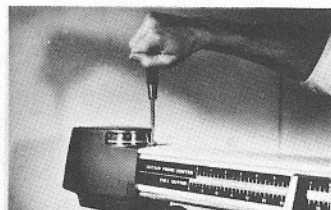
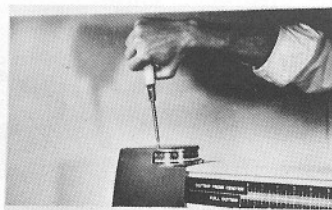
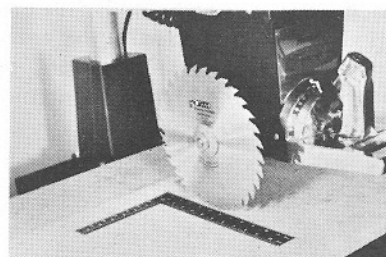
### CARE OF SAW BLADE

A saw blade must be kept sharp at all times to perform well. Indications of dullness are rounded tips on the teeth and the accumulation of hard gum on the blade. Saw blades in this condition have insufficient set in the teeth for proper

clearance and cut poorly. The blade rubs and binds and thus heats and cracks. Saw blades which fail under these conditions, by not being properly sharpened, are not defective and are not covered by warranty.

## SQUARING THE SAW BLADE TO THE FENCE

Place fence in center of table. Place a carpenter's square against the fence as shown in picture and position until it just clears a blade tooth. When the saw is moved back and forth on the track, the blade tooth should just touch the square in all positions. If not, the following adjustment should be made:

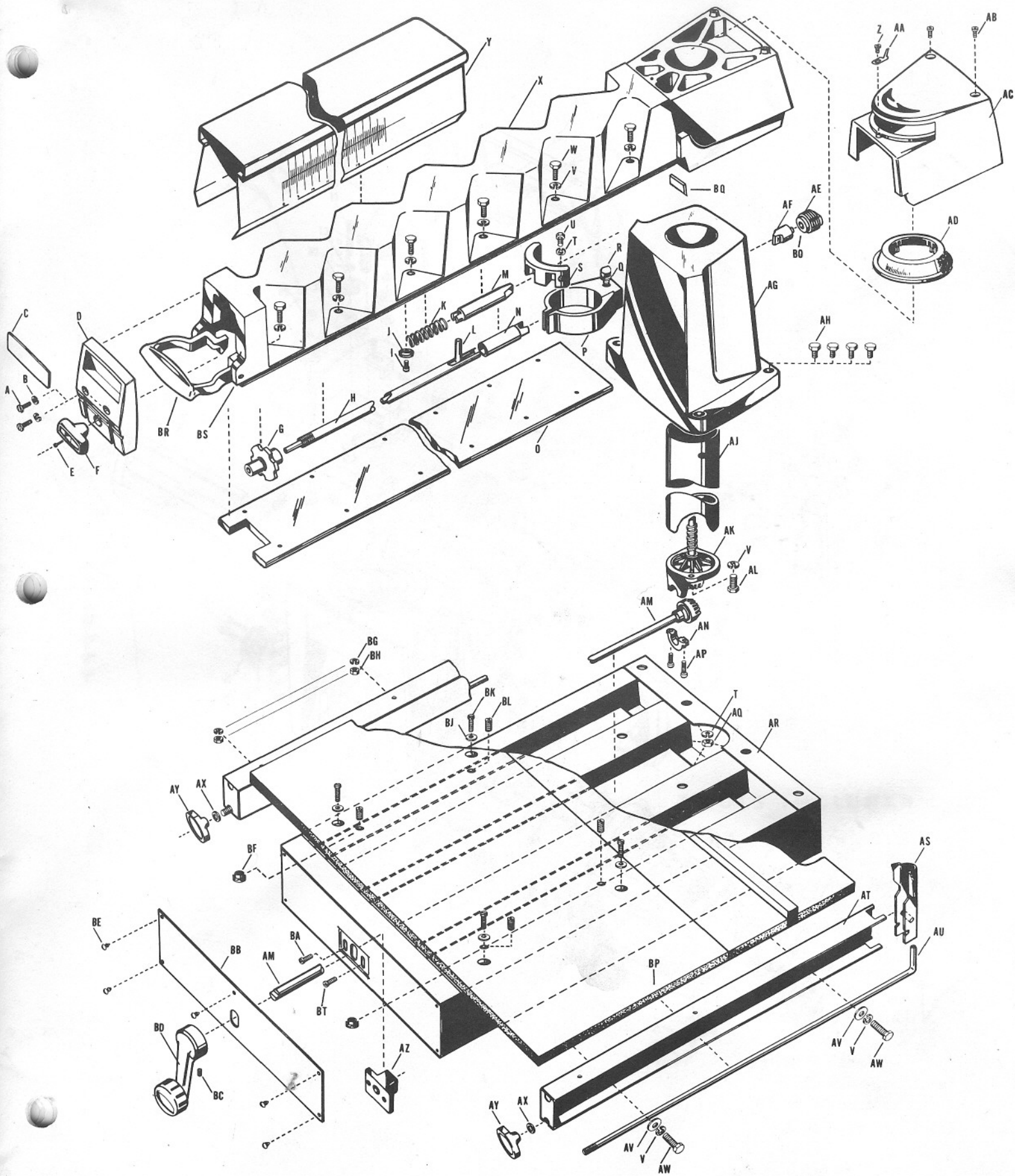


Remove two arm hood screws (AB). Remove index pointer screw (Z) and pointer (AA). Lift off hood (AC). Loosen both screws (U). Move arm until saw tooth touches square at all positions. Lock screws. Replace hood and pointer. Adjust

dial, by turning, so that pointer lines up with 0 degree on scale.

Once adjusted slight misalignment of pointer and scale may be corrected by moving the pointer. Refer to "cross cutting" on page 14.

# ARM, COLUMN AND BASE ASSEMBLY

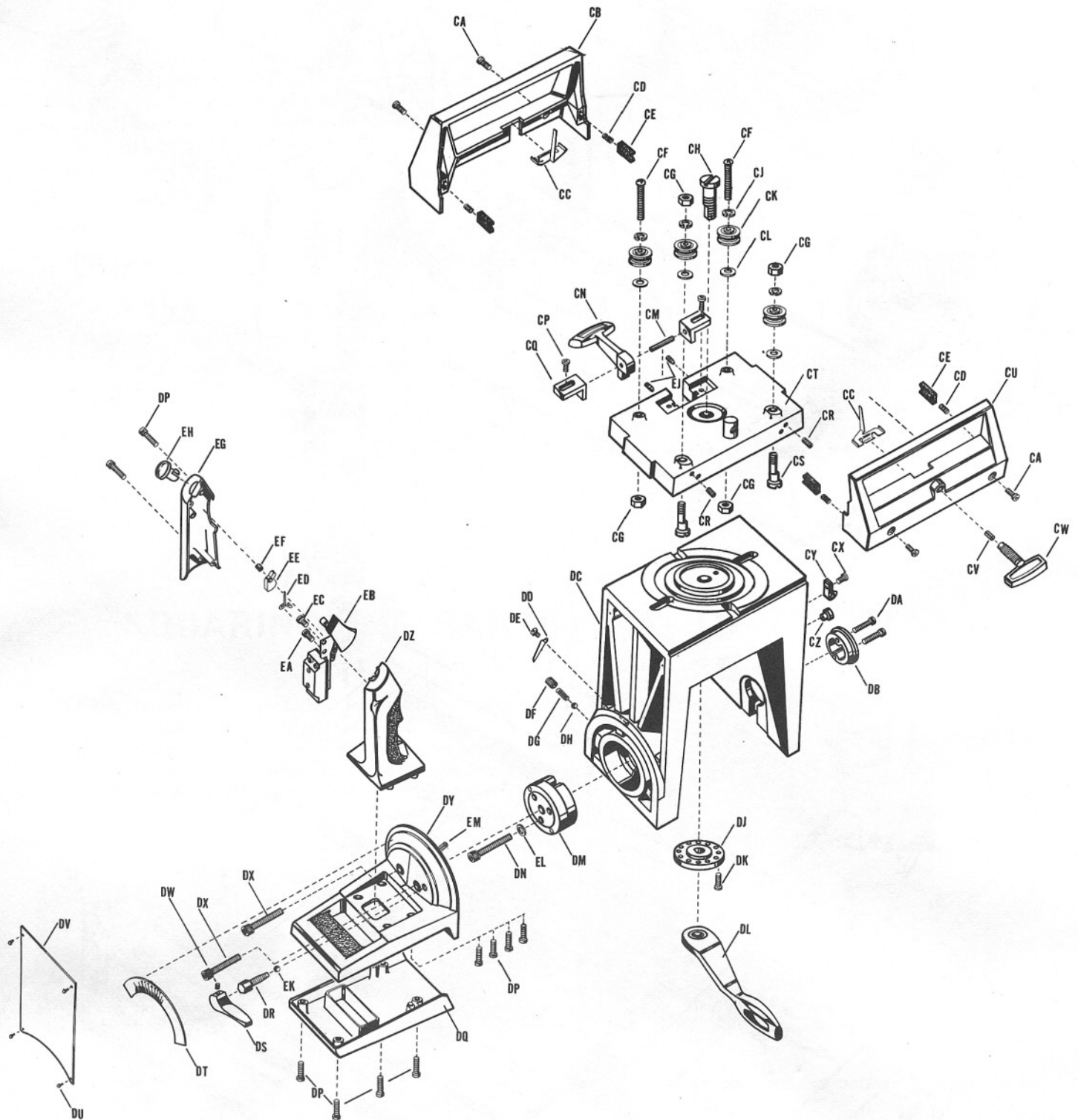


See Page PL-4 for list of parts.

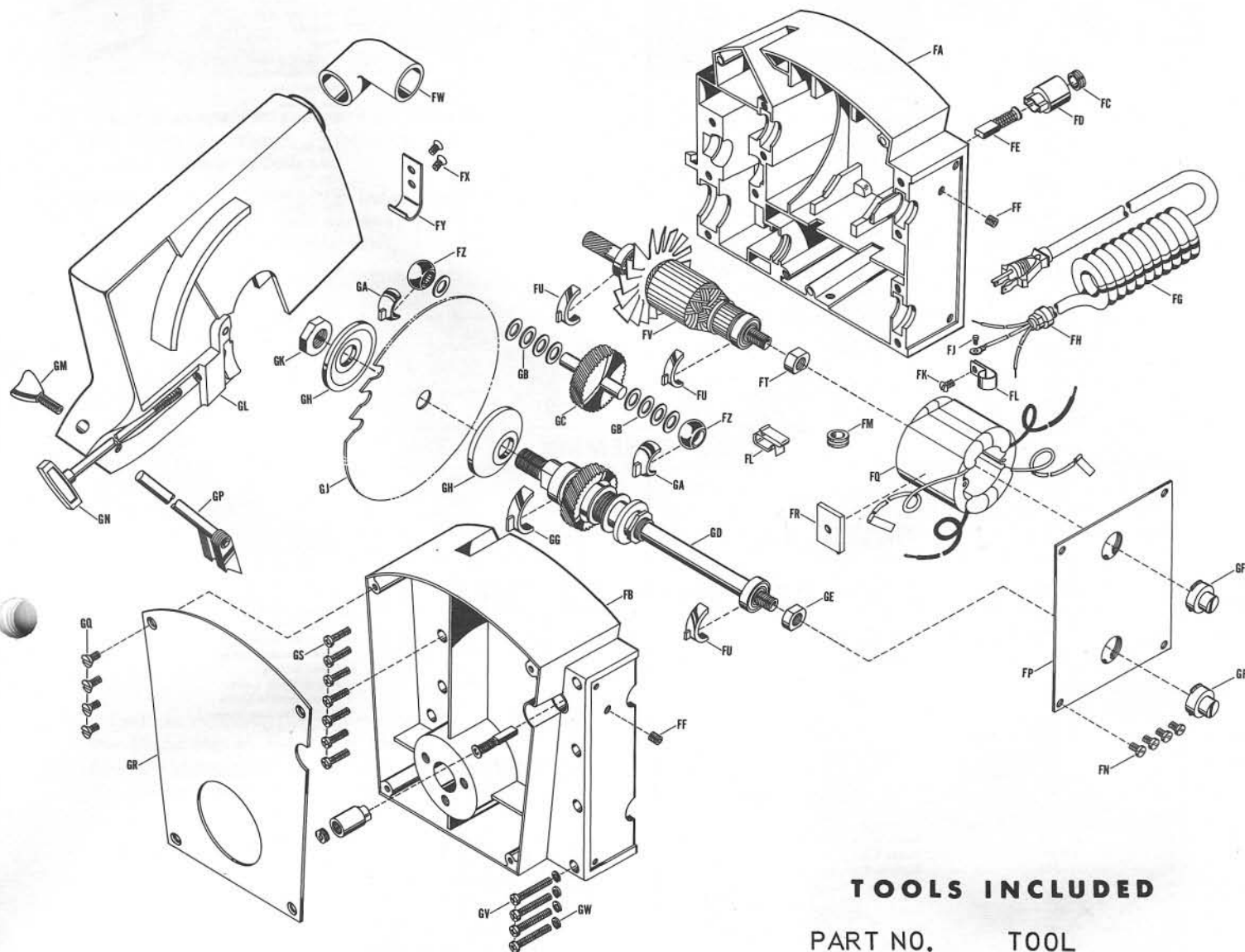
PL-1



# YOKE ASSEMBLY



# MOTOR ASSEMBLY



## TOOLS INCLUDED

PART NO.	TOOL
4-115	Allen Wrench (.250 Across Flats)
4-23	Allen Wrench (.094 Across Flats)
WR-11	Open End Wrench 3/4", 1"
WR-13	Open End Wrench 5/8", 3/4", 15/16"
4-17	Allen Wrench (.125 Across Flats)
4-113	Allen Wrench (.078 Across Flats)

## ARM, COLUMN AND BASE ASSEMBLY

Ref. Ltr.	Part No.	DESCRIPTION	Ref. Ltr.	Part No.	DESCRIPTION
A	22-764	Screw	AM	1-1441	Elevating Shaft and Gear Assembly
B	17-74	Split Lock Washer	AN	5-792	Bearing Support Cap
C	21-2298	Nameplate	AP	22-255	Machine Screw
D	6-797	End Cap	AQ	22-38	Hex Nut
E	22-13	Screw	AR	43-837	Table Base Frame
F	5-813	Knob	AS	1-1428	Clamp Assembly
G	1-1436	Adjustment Wheel	AT	43-838	Channel
H	1-1429	Brake Rod	AU	1-1445	Fence Lock Rod
I	22-279	Screw	AV	17-224	Steel Washer
J	17-242	Steel Washer	AW	22-573	Machine Screw
K	27-96	Compression Spring	AX	17-159	Washer
L	1-1424	Index Rod	AY	6-812	Knob
M	1-1413	Index Pin Assembly	AZ	45-61	Elevating Shaft Support
N	1-1412	Brake Activator	BA	22-357	Machine Screw
O	43-839	Track	BB	21-2299	Nameplate
P	6-815	Brake Shoe	BC	22-756	Set Screw
Q	17-202	Lock Washer	BD	25-824	Elevating Crank Assembly
R	22-746	Shoulder Bolt	BE	1-1427	Clip
S	45-66	Index Collar	BF	1-1446	Tee Nut
T	17-307	Split Lock Washer	BG	17-74	1/4" Split Lock Washer
U	22-753	Hex Bolt	BH	22-465	Hex Nut
V	17-284	Split Lock Washer	BJ	17-323	Steel Washer
W	22-327	Machine Screw	BK	22-750	Machine Screw
X	25-795 BMW	Arm and Handle Assembly	BL	22-751	Set Screw
Y	43-849	Arm Cover (Rip Scales)	BM	1-936	Cable Clamp
Z	22-763	Machine Screw	BN	22-174	Screw
AA	43-862R	Painter	BO	27-132	Belleville Spring
AB	22-440	Machine Screw	BP	1-1438A	Main Table Board
AC	5-796	Arm Hood		1-1438B	5 5/8" Wide Board
AD	44-96	Dial Indicator		1-1438C	2 15/16" Wide Board
AE	1-1409	Column Tube Plug		1-1438D	Fence
AF	45-72	Column Support	BQ	28-144	Bumper Pad
AG	6-794	Hex Bolt	BR	6-809MS	Index Lock Handle
AH	22-749	Hex Bolt	BS	2-177	Pin
AJ	1-1435	Column and Pin Assembly	BT	17-181	Washer
AK	1-1434	Elevating Shaft and Bracket Assembly			
AL	22-748	Machine Screw			

## YOKE ASSEMBLY

Ref. Ltr.	Part No.	DESCRIPTION	Ref. Ltr.	Part No.	DESCRIPTION
CA	22-754	Machine Screw	DG	27-133	Spring
CB	5-799	Carriage Cover (Left Hand)	DH	10-61	Ball
CC	43-861R	Painter	DJ	45-58	Index Plate
CD	27-86	Spring	DK	22-548	Machine Screw
CE	1-1404	Track Wiper	DL	25-810	Yoke Locking Handle
CF	22-361	Machine Screw	DM	1-1437	Motor Pivot
CG	22-394	Hex Nut	DN	22-759	Cap Screw
CH	22-747	Pivot Bolt	DP	22-13	Machine Screw
CJ	17-227	Lock Washer	DQ	5-803	Index Handle Cover
CK	10-59	Track Bearing	DR	1-1418	Index Screw
CL	17-323	Flat Washer	DS	6-816	Motor Lock Lever
CM	1-1421	Dowel Pin	DT	21-2301	Index Handle Scale
CN	6-811	Yoke Lock	DU	22-412	Self - Tapping Screw
CP	22-357	Machine Screw	DV	21-2898	Cover Plate
CQ	45-65	Yoke Index Bracket	DW	22-140	Set Screw
CR	22-210	Set Screw	DX	22-752	Cap Screw
CS	1-1410	Eccentric Screw	DY	6-802	Index Handle Support Half
CT	25-800	Carriage Assembly	DZ	6-804	Switch Handle Support Half
CU	5-798	Carriage Cover (Right Hand)	EA	22-436	Machine Screw
CV	1-1420	Track Lock Pin	EB	18-205	Trigger Switch
CW	25-817	Carriage Lock	EC	17-75	#8 Lock Washer
CX	22-174	Machine Screw	ED	27-95	Torsion Spring
CY	1-936	Cable Clamp	EE	45-59	Lock Cam
CZ	28-126	Rubber Bumper	EF	2-222	Lock Cam Shaft
DA	22-1	Machine Screw	EG	6-805	Switch Handle Cover
DB	45-60	Motor Pivot	EH	44-95	Key
DC	6-801	Yoke	EJ	22-758	Set Screw
DD	43-860R	Painter	EK	10-60	Ball
DE	22-122	Machine Screw	EL	17-284	Lock Washer
DF	22-557	Set Screw	EM	1-1405	Pin

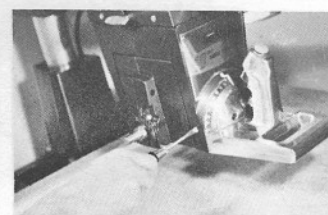
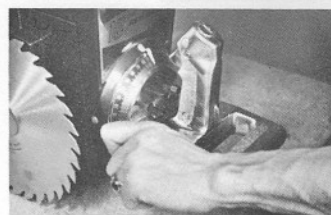
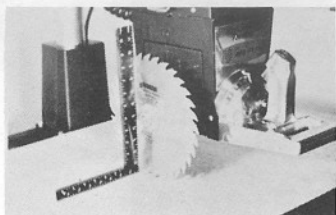
## MOTOR ASSEMBLY

Ref. Ltr.	Part No.	DESCRIPTION	Ref. Ltr.	Part No.	DESCRIPTION
FA	6-807 BMW	Support Half	GA	28-84	Bearing Cap
FB	6-808 BMW	Cover Half	GB	17-325	Steel Washer
FC	14-57	Brushholder Cap	GC	1-1440	Intermediate Gear
FD	14-56	Brush Holder	GD	1-1444	Spindle Shaft Assembly (includes one #10-22 and one #10-67 Ball Bearings)
FE	14-58	Brush and Spring			
FF	22-481	Set Screw	GE	1-1430	Nut, Special
FG	11-162	Cord Set	GF	44-231	Protective Cap
FH	11-93	Strain Relief	GG	28-116	Bearing Cap
FJ	22-594	Self-Tap Screw	GH	17-272	Blade Washer
FL	43-449	Cable Clamp	GJ	CS-131	Blade
FM	28-6	Rubber Grommet	GK	22-550	Blade Nut
FN	22-122	Machine Screw	GL	25-806 BMW	Upper Guard Assembly
FP	21-2879	Nameplate	GM	1-986B	Knob
FQ	8-152	Field Assembly	GN	25-827	Guard Lock Screw
FR	28-91	Rubber Pad	GP	25-362	Anti-Kickback Rod Assembly
FS	44-68	Protective Cap	GQ	22-660	Machine Screw
FT	1-1431	Nut, Special	GR	43-851	End Plate
FU	28-115	Bearing Cap	GS	22-697	Machine Screw
FV	7-208	Armature Assembly (includes one #10-67 and one #10-68 Ball Bearings)	GV	22-629	Machine Screw
FW	28-124	Exhaust Tube	GW	17-4	#10 Lock Washer
FX	22-537	Machine Screw	GX	28-145	Bearing Cap
FY	43-365	Bracket		11-73B	Adapter Plug
FZ	1-1439	Bearing Assembly			



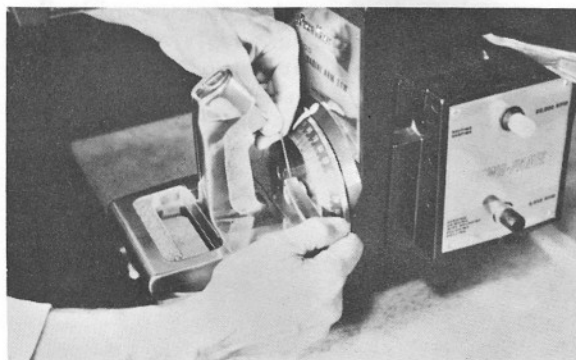
## BEVEL ANGLE ADJUSTMENT

Rotate the motor until the right angle detent snaps\* into place. Then tighten bevel locking clamp.\*\*



Place a carpenter's square on table top against the blade as shown in picture. If blade is not square, adjust as follows:

Remove lower portion of index handle (DQ) by removing the four (DP) screws. This will expose the lower adjusting screw (DN).



Loosen three adjusting screws (DX, DN). Rotate motor housing so the blade is parallel to the square. Without moving motor assembly, re-tighten the three screws and replace handle cover.

\*Adjust the detent snap at the left hand side of the bevel scale. Adjust the snap by tightening screw.

CAUTION: DO NOT COMPRESS SPRING SOLID IN DETENT SNAP.

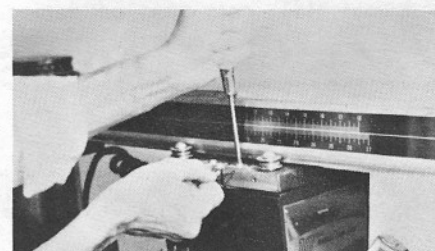
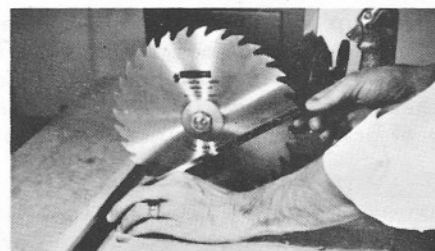
\*\*If bevel locking clamp does not tighten securely when placed in a locked position, it may be adjusted as follows:

Loosen set screw (DW) in clamp lever. Remove clamp lever (DS). Using clamp lever as a wrench, tighten index screw (DR), do not overtighten. Replace lever in locked position and tighten set screw.

## CHECKING THE SAW BLADE FOR "HEEL"

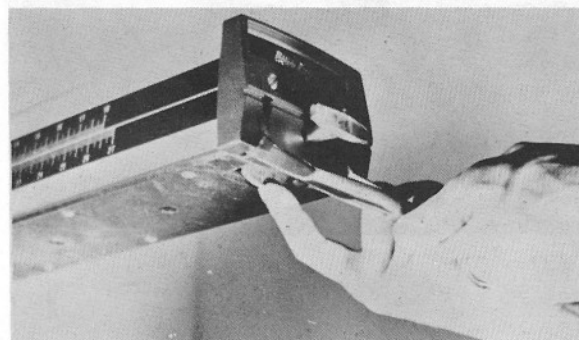
"Heel" in the blade is the condition where, although the blade moves in a path that is square to the fence, the blade itself is not square to the fence. To check, proceed as follows:

Place a carpenter's square against the fence and the blade as shown in the picture. Do not allow the square to rest on the saw teeth. If blade is not parallel to the square, remove the left hand carriage cover. Release yoke lock. Lock yoke index. Loosen adjusting screws (CP), then adjust screws (EJ) until blade is parallel to square. Replace carriage cover. (See assembly instructions.)

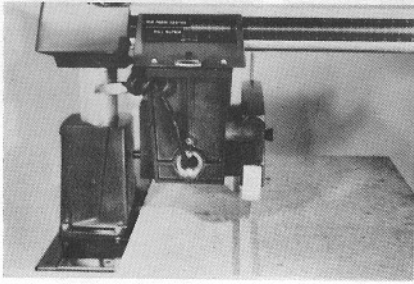


## ADJUSTING ARM LOCK

If play should develop in arm lock, it may be tightened by releasing lock and turning adjusting wheel under front of arm in a counter-clockwise direction.



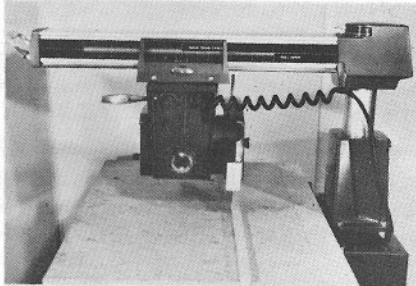
## ADJUSTMENT OF RIP SCALE



### OUTRIP FROM CENTER

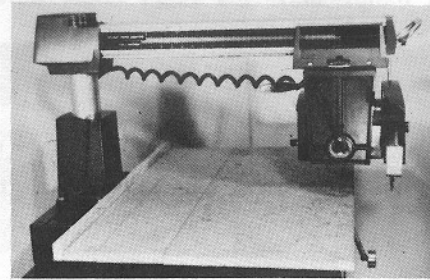
OUTRIP from center of table fence (Position 1) with fence positioned as shown.

Rotate the yoke so that the blade faces away from the column. Move carriage toward the column until the blade touches front of fence. Adjust indicator on left side of arm to zero position at the top of scale.



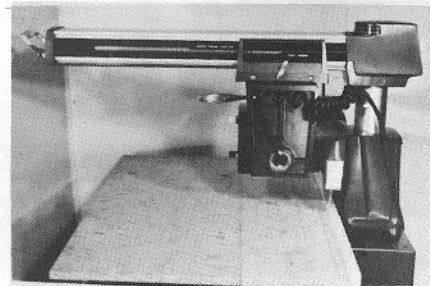
### INRIP FROM CENTER

Position rip fence as shown and rotate the yoke so that the blade faces the column. Move the carriage toward the column until the blade just touches front of fence. Adjust indicator on right side of arm to zero position at the top of scale.



### FULL OUTRIP

Move rip fence to rear position as shown, to obtain maximum outrip.

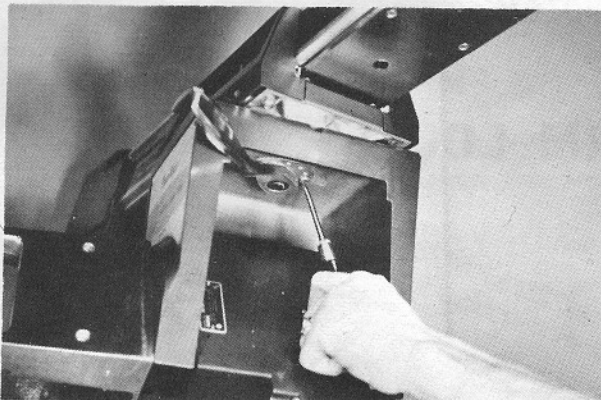


### FULL INRIP

Position rip fence as shown and rotate the yoke so that the blade faces the column. Move the carriage toward the column support until blade touches the rip fence and adjust the right indicator at zero on the bottom scale.

**IMPORTANT:** Lock the yoke during all rip operations with the carriage lock.

## ADJUSTING YOKE LOCK



The yoke lock has been adjusted at the factory.

Handle should "Lock" carriage when positioned in center of yoke.

If handle does not hold securely in the "LOCK" position, adjust as follows:

1. Rotate motor as shown in picture.
2. Remove screw (DK) from locking plate (DJ).
3. Rotate plate slightly counter-clockwise (as viewed from underside of yoke). Replace screw and tighten.

# PREPARATION OF TABLE

Operation of the saw requires that the blade extend into the table during most cutting operations. The table, therefore, must be cut prior to use. Certain basic cuts can be made in the table

AFTER completing the adjustments previously described. The basic cuts are: CROSS CUT, RIGHT AND LEFT MITER and RIPPING.

The method to be used to prepare the table for these cuts is as follows:

## CROSS CUT

Position the lock lever in the yoke so that the blade is at right angles to the fence. Tighten the yoke clamp. Set the arm at 0 degrees on the miter gauge, making certain the column is seated in the detent. Tighten the arm lock. Be sure the bevel scale is set at 0 degrees and the bevel locking clamp is tight. Move the fence adjacent to the large stationary board, with the saw against the rear stop. Lower the saw until the blade just clears the table. Turn on the saw and with saw running, slowly lower the arm until the blade is about an eighth of an inch into the table. Then pull the saw to the front stop.

## RIGHT MITER

Move arm to 45 degree right miter setting, with saw against rear stop and tighten arm lock. Lower saw until the blade just clears the table. Turn on the saw and lower it until the blade is about one eighth of an inch into the table and pull the saw to the front stop.

## LEFT MITER

Move arm to 45 degrees left miter setting. Then proceed as outlined in cutting the right miter.

## RIPPING

Return the saw to the cross cut position against the front stop and tighten the arm lock. Raise the arm so the blade clears the table. Position the yoke index in the carriage so that the blade is parallel to the rip fence (fence adjacent to column), and the motor is between the blade and the column. Loosen the bevel lock and rotate the blade downward about ten degrees, and tighten the bevel lock. Position the arm so that the blade extends approximately one eighth of an inch below the top of the table. Turn on the motor and with the motor running, slowly push the saw until the carriage is against the rear stop. Turn off the motor. This will cut a trough in the large stationary board. To complete the rip trough for the full width of the table, it will be necessary to reverse the position of the saw blade. This is accomplished by first pulling the saw to the front stop, then loosen the yoke index and yokelock and rotate the yoke and motor 180 degrees so that the blade is between the column and the

motor. Lock yoke index and yokelock. Turn motor on and lower until blade cuts approximately 1/8" into table. With the motor running, slowly push the saw against the rear stop. This trough will be offset from front trough.



RIPPING



# OPERATING INSTRUCTIONS

## CROSS CUTTING OR 90° CUTOFF

Position the yoke index in the carriage so that the blade is at right angles to the fence. Tighten the yoke lock. Set the arm at 0 degrees on the miter scale, making certain the column is seated in the detent. Tighten the arm lock. Be sure the bevel scale is set at 0 degrees and the bevel lock is tight. Lower the arm until the saw blade just clears the bottom of the 90 degree cut-off groove.

**NOTE:** The detents at 0 degrees and 45 degrees right and left are provided for quick setting. To assure accuracy, move the arm to the right of the detent position. Bring the arm back slowly to the left until the index pin engages the detent and the arm comes to a complete stop. Then tighten arm lock.

Push the saw to its rear stop. With the material against the fence, line up the cut-off mark on the workpiece with the saw blade. The saw should then be **PULLED** at a controlled rate through the work. Return the saw to its rear stop before removing the workpiece.

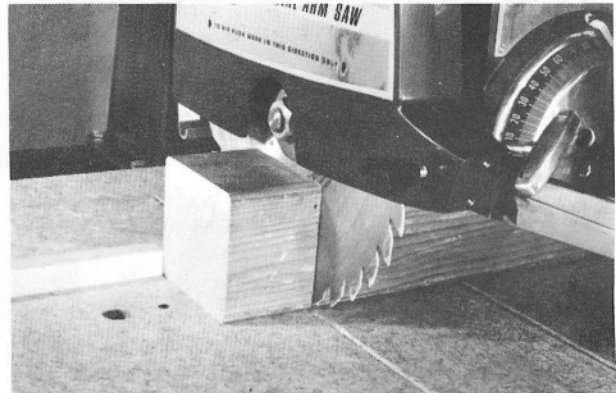
## RIPPING — INBOARD AND OUTBOARD

Basically, inboard and outboard ripping are the same except for the position of the blade. For inboard ripping, the blade is between the motor and the column. For outboard ripping, the motor is between the blade and the column. The position selected should be the one which gives maximum wood support during the ripping operation. Position the yoke index in the carriage so that the blade just clears the bottom of the rip trough previously prepared. The blade guard should be rotated so that it is one eighth to one quarter of an inch above the wood, and then secured. Lower the anti-kickback so that the pawls are one eighth of an inch below the top of the wood to be cut, and secure its knob. The wood is fed into the blade, using the fence as a guide to keep the work true to the blade.

**CAUTION:** WORK MUST BE FED INTO THE BLADE FROM OPPOSITE THE ANTI-KICKBACK FOOT SIDE ONLY. NEVER FEED FROM THE OTHER SIDE BECAUSE THE DIRECTION OF BLADE ROTATION WILL TEND TO FORCE THE BLADE TO CLIMB UP THE WORK.

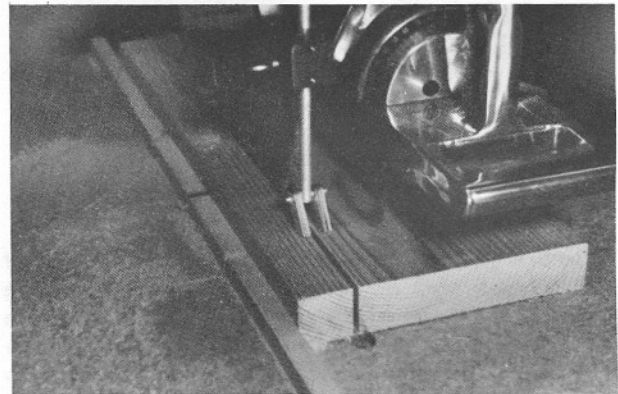
On long cuts in large pieces of wood, the work off the table should be supported so as not to bind the blade.

**NOTE—BE CAREFUL NOT TO TRAP CORD BETWEEN AUXILIARY SPINDLES AND COLUMN.**

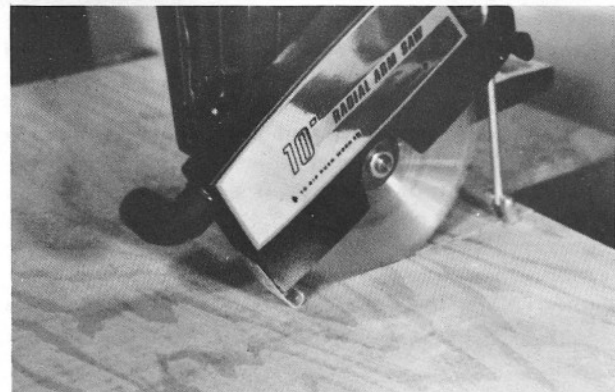


CROSS CUTTING OR 90° CUTOFF

**NOTE:** Chips or other debris between the fence and the work will interfere with the accuracy of the cut.



RIPPING-INBOARD



RIPPING-OUTBOARD

## MITERING

Mitering is performed in the same manner as a 90 degree cut off. The saw should be pushed to its rear stop. Release arm lock and push arm to the desired angle, then retighten lock. The saw should then be pulled at a controlled rate through the work. Return the saw to its rear stop before removing the workpiece. NOTE: There are detents to precisely locate the 45 degree right and left miter cuts. When using these positions, be sure column is seated in detent.

When cutting miters, there might be a tendency for the work to creep along the fence, spoiling its accuracy. If this occurs, strips of coarse sandpaper can be glued to one side of the fence. Use this side against the work for all operations except ripping.

For in-between miter angles, it will be necessary to adjust arm height and to make a cutting groove.

## BEVELING

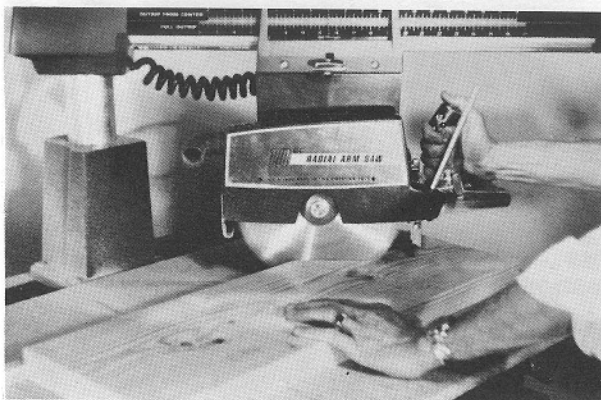
Bevel cuts are made exactly like cross cuts except for the blade angle. Pull the saw to the end of the track, then loosen the bevel lock and rotate the motor housing to set the desired angle on the bevel scale. Retighten the bevel lock. Detent stops are provided at 90, 45, 0, 45, 90. Precut groove per instructions outlined in table preparation. With clamp against rear stop, place work against the fence and proceed as in crosscutting.

### BEVEL — MITERING

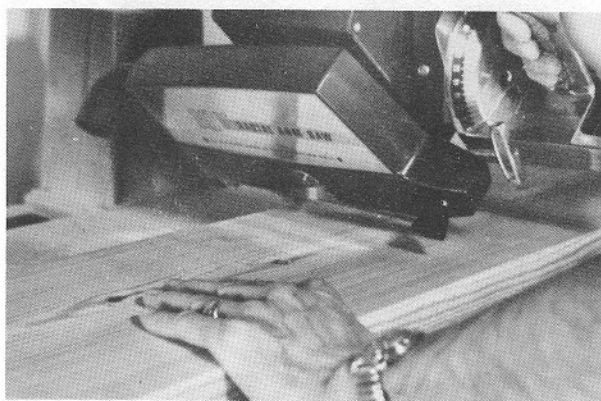
Bevel-mitering, or Compound Angles are also easy to perform. Set the saw blade at the desired bevel angle, then set the miter angle. Precut groove if necessary. Pull the saw through the work at a controlled rate as in all cross cuts.

### BEVEL — RIP CUTTING

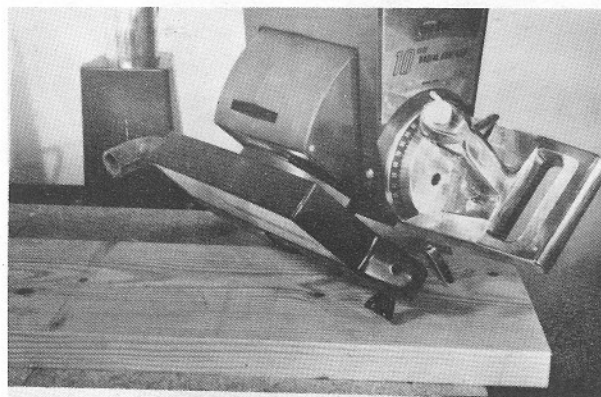
Bevel rip cutting is basically performed the same as rip cutting. With the yoke set for ripping, the blade is then set at an angle as in bevel crosscutting. Proceed as in rip cutting.



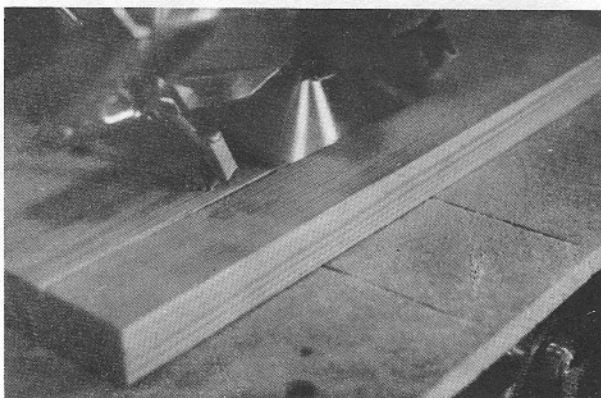
MITERING



BEVELING

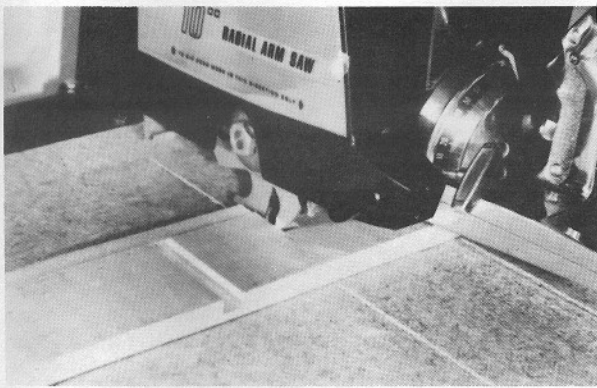


BEVEL-MITERING



BEVEL-RIPCUTTING





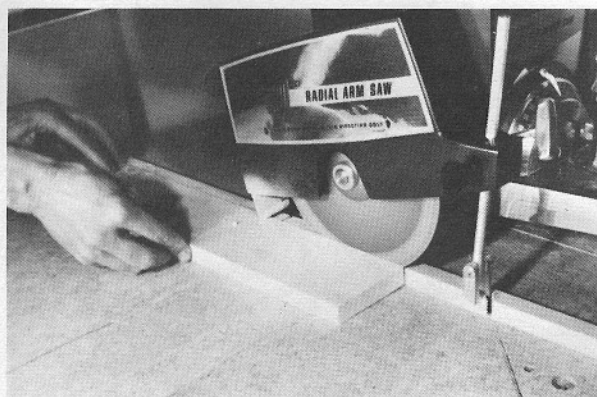
DADOING



DADO BLADE ASSEMBLY



USING MOLDING CUTTER HEAD



USING THE DISC SANDER

## DADOING

The Dado blade is put on the regular saw spindle. It is important that the dado blade be assembled with the inner chippers positioned between side blade teeth as much as possible in a balanced arrangement.

The width of the dado is determined by the number and width of the side blades and chippers assembled on the spindle. The depth of the dado is obtained by adjusting the height of the arm with respect to the work, to give the desired depth.

The dado can perform all of the operations that the regular cutting blade is capable of doing.

Either a 6" or 8" Dado Set is recommended for use with the Radial Saw. The "wobble" type may also be used.

## MOLDING CUTTER HEADS

Molding heads with various shapes of cutters are available to fit this saw. They are mounted on the saw spindle shaft and the upper guard should be left in place as a safety precaution. The same rules apply for direction of feed as in ripping. For edge molding, the rip fence should be prepared by cutting a notch from the center of the fence. Then, with the motor in the vertical position, various edge molds can be done. The molding cutters should be adjusted so that approximately one eighth inch of material is being removed at a time, until full depth is obtained.

## DISC SANDING

This saw was specifically designed to fully utilize the flexibility of the tungsten carbide disc sander. The disc sander is normally mounted on the saw spindle and the upper guard may be left in place for most operations. For short edges, such as cross cut, the sanding disc can be used in the same manner as the saw blade. This also applies to bevel cuts.

For accurate long edge sanding, the rip fence should be prepared by mounting the disc sander and putting the saw in the outboard rip position. Lower the arm into the rip trough and with the fence in the full forward position, feed the sanding disc into the fence until about  $1/32"$  of the disc protrudes. The rip fence can then be used as a guide for sanding the long edges of the work piece.

Face sanding can be done with the motor housing mounted in the vertical position. Care should be taken to feed the work against rotation of the disc sander so that it does not have the tendency to pull the work away from the operator.



# AUXILIARY SPINDLES

This saw is equipped with two auxiliary spindles. They operate at 3,450 and 20,000 RPM to give maximum flexibility with attachments. Speeds and direction of rotation are shown on the spindle plate. Each of these spindles is intended for the use of certain accessories. The 20,000 RPM spindle has a 15/32"-20 thread, and the 3,450 has a 1/2"-20 thread. The auxiliary spindles are covered by protective caps. The caps should be kept on when spindles are not being used. The caps are easily removed by twisting 1/4 turn to the right or left.

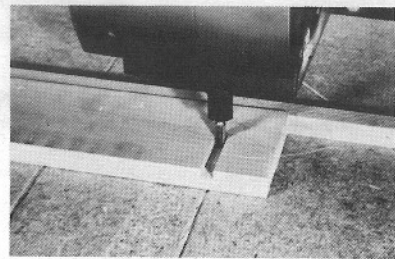
## 20,000 RPM SPINDLE

The 20,000 RPM spindle is intended for routing and shaping use. Router adapter Wards no. 2613 is available from your nearest Wards outlet. This adapter is used to mount the router bits to the saw. Shaper adapter Wards no. 2612 is needed to attach shaper cutter to the saw.

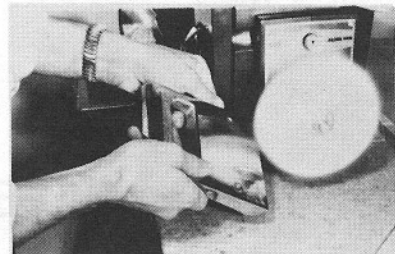
## 3,450 RPM SPINDLE

This spindle is used for such accessories as drilling, buffing, wire brushing, drum sanding and grinding. Wards arbor adapter no. 2611 is used to attach grinding wheels, wire brushes and buffing wheels.

**CAUTION:** Grinding wheel, wire brush, sanding drums, etc. must be put on the 3,450 RPM spindle only, or serious injury may result.



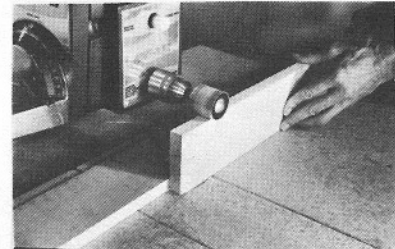
ROUTING



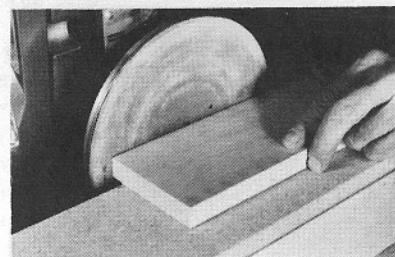
BUFFING



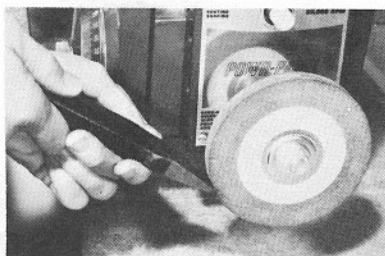
WIRE BRUSHING



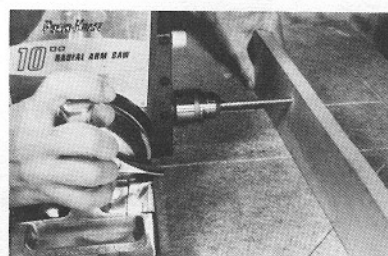
DRUM SANDING



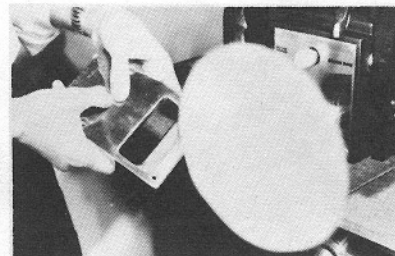
SANDING



GRINDING



DRILLING



POLISHING

# MAINTENANCE

Arm track should not be lubricated. Keep track clean by wiping it with a clean dry cloth.

Elevating shaft and gear should be lubricated periodically by coating the gears with a good grade of grease.

The brushes should be checked regularly and if worn to approximately 1/4" in length, should be replaced. Brushes are accessible by unscrewing the plastic brush caps in the motor, and removing the spring and brush assembly.

**IMPORTANT NOTE:** Be sure saw blade is kept sharp.

## SAFETY PRECAUTIONS

1. Lock all handles.
2. Avoid wearing long neckties, long sleeves, or other loose clothing when working.
3. Never make adjustments or set-up changes while motor is running.
4. Use a push stick for ripping narrow pieces.
5. Support long work properly.
6. Keep your working table clear and uncluttered.

## STORAGE

When storing your Radial Arm Saw for an extended period of time, always take the following precautions:

1. Be sure to disconnect from power source.
2. Clean unit.
3. Motor and yoke assembly should be moved to rear of arm next to column.
4. Armlock should be released.
5. Switch key should be removed and stored out of the reach of children.

## HOW TO OBTAIN SERVICE



The merchandise you have purchased from us has been carefully engineered and manufactured under Wards rigid quality standards and should give you satisfactory and dependable operation. However, like all mechanical merchandise, it may occasionally require adjustment or maintenance. Should you ever need technical assistance, please contact or write your nearest Wards Retail Store, Catalog Store or Catalog House.

*provide the following:*

1. Model, serial number and all of the other data shown on the model plate.
2. The date and the Wards branch from which you purchased your merchandise.
3. State briefly the trouble you are having.

## HOW TO OBTAIN REPLACEMENT PARTS



Replacement Parts may be obtained from your Wards Retail Store, Catalog Store or Catalog House and will be made available at current prices. If requested, prices will be quoted in advance when not listed.

When requesting replacement parts, be sure to give the model and serial number which is shown on the model plate. Also give the part number and the name of the part as shown in the parts list.

If you order by mail, you will pay the transportation charges from the shipping point.

## \*\*\*\*\* WARRANTY \*\*\*\*\*

Wards will repair or replace free, at our option, any Powr-Kraft electric portable power tool which fails and is returned to us within one year of purchase. This guarantee does not cover damage due to abuse or to use of improper voltage. Tools used in the rental service are excluded.

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