

**GENERAL****SHEET 3500**

DATED: 1-6

## 10" TILTING ARBOR SAW

### OPERATING AND MAINTENANCE INSTRUCTIONS

The General 10" Tilting Arbor Saw is well designed, of rigid construction and accurately built. Its ease of Operation makes it a favorite. It is designed for use in schools, work shops, cabinet shops, pattern shops and many other uses. It is easy to operate and requires little maintenance, but a reasonable amount of care and attention is required to insure perfect performance and accurate work. It will take just a few moments to read and familiarize yourselves with these instructions they will probably save you a lot of trouble and time.

#### INSTALLATION

The Tilting Arbor Saw has been assembled and tested at the factory. Remove the packing and clean the surfaces of the table and other outside mechanism which have been covered with grease to prevent rusting. This should be cleaned off with a mild solvent, never use a paint solvent.

The saw is now ready to be put in its place and to receive the motor. If the saw is to be bolted to the floor, care should be taken in doing so in order that your machine will not be twisted out of true when tightened to the floor. This is of utmost importance to keep the exactness of your saw.

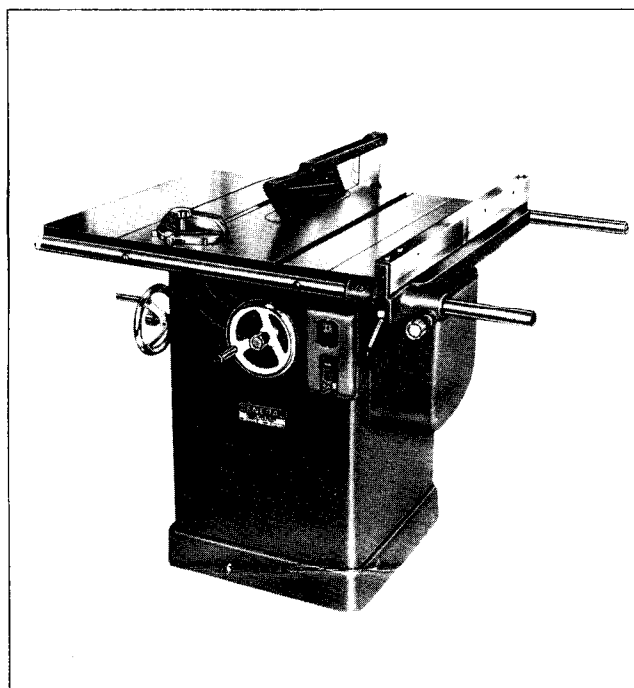
#### POWER REQUIRED

The recommended motor is 1½ H.P. Single Phase and 2 H.P. 3 Phases, both 3450 Rpm. With the 3-5/16" Diameter Motor Pulley, the 10" Blade will have a cutting speed of 10,500 feet per minute and turn at 4,000 Rpm.

A totally enclosed motor is required for use on this Tilt Arbor Saw, as the motor operates in a position where there is great amount of dust. Totally enclosed motors are built to operate at higher temperature, and higher temperature rise is normal. Do not use open-type motor as it will soon overheat and burn out.

#### INSTALLING MOTOR

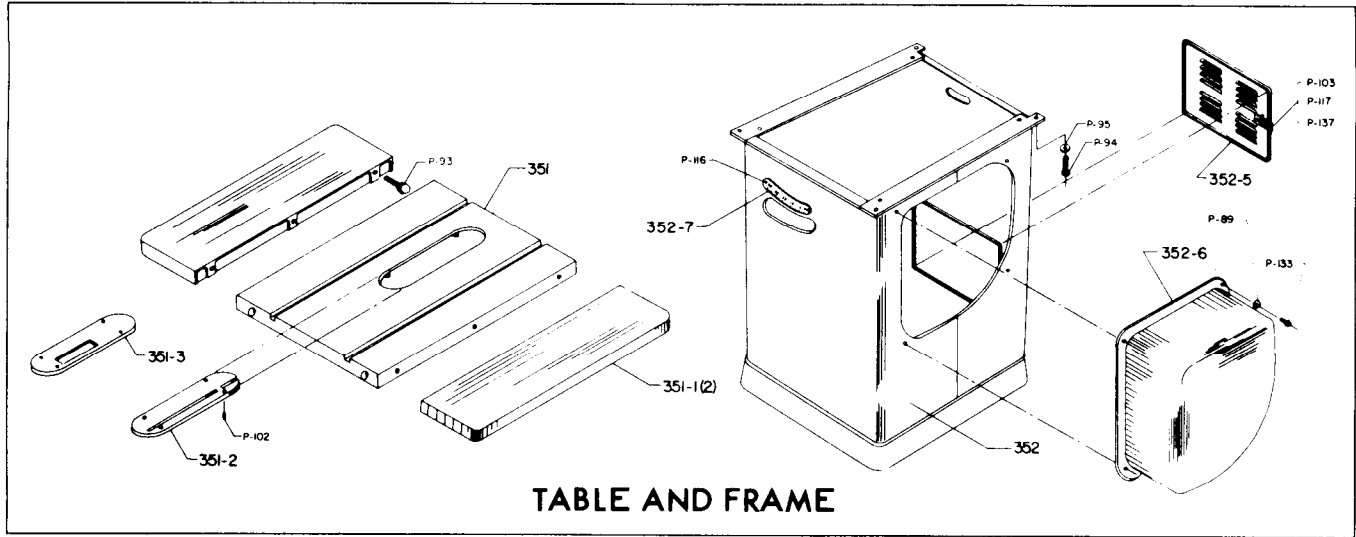
Place the pulley which is supplied with the machine (motor pulley is for 3450 Rpm. motor) on the motor



shaft. Do not drive the pulley in place because this makes it difficult to remove, and heavy blows may damage the bearings causing noise, and early bearing failure.

The pulley with hub outside should measure 4-1/8" from its outside face to the center of the first hole in the motor base. Tilt the saw slightly and place one V-Belt on the arbor pulley. The motor should be put in place and the inner belt put on, then put one screw to hold the motor to the mounting. The other belt should now be put in place. Place the 3 other screws. The tension of the belts should not be too tight, then tighten the screws in place. (Do not hang weight of motor on belts). The motor is now ready to be connected to the starter.

When the motor is supplied locally care should be taken that our recommendation in choosing the motor be followed closely. The largest frame of motors that can be used is CEMA No. 182 T.E. N.V.



**TABLE AND FRAME**

**ADJUSTMENTS**

Your tilting arbor saw leaves the factory completely adjusted, however a check-up is recommended, both to familiarize yourself with it and to be sure that everything is in order. The front handwheel is used to raise and to lower the saw blade. The saw blade will lower flush with the table and can be raised to a maximum of 3-1/8" above the table. Stops are provided to limit this travel. They are fixed at the factory and cannot be changed.

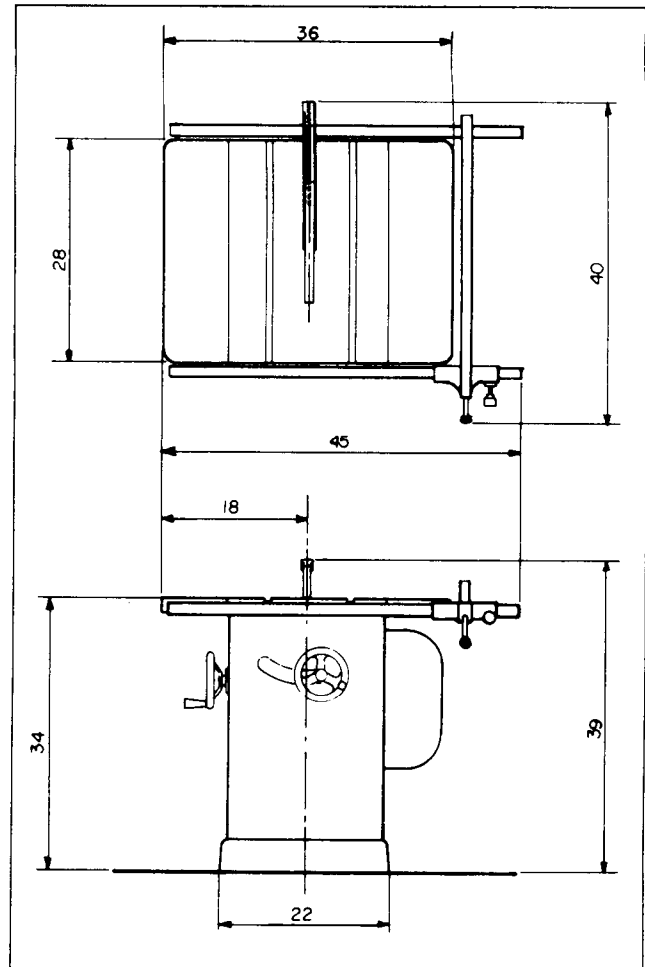
The left handwheel is used to tilt the saw blade from 90° to 45°. The saw blade can be locked at any height or at any angle of tilt by the knobs extending in front of the handwheel. Only a small amount of force is required to lock securely, any added force only puts unnecessary strain on the locking device. The saw blade should be placed at 90° and the stop screw adjusted. This is done through the motor opening by screwing the screw up or down and locking in place with the nut. The pointer should be adjusted at 0. It will now give the right reading. Tilt the saw blade to 45° and adjust the stop, proceeding in the same manner as above.

**FENCE**

The fence guide bar with the graduation and rack is placed at the front of the table with the graduation up. Put the screws in the guide bar and into the drilled hole in front of the table with spacers in between, and lock in place with nuts. Place the rear guide bar in the same manner;

The rip fence is assembled on the saw by sliding the front bracket and rear bracket over the guide bars. Be sure that the locks are loose before trying to slide it on. The fence travels the full length of the table when unlocked. The most common position is on the right hand side of the saw blade. The fence should be parallel with the saw blade, and is aligned

by loosening the two front cap screws on top. Tighten the front bracket while the rear is loose and adjust the fence parallel to the saw blade by moving the rear end to one side or the other then tighten again. The pointer for indicating the width of cut should be placed at 0 on the guide bar when the fence just touch the side of the saw blade.



Care should be taken when tilting, that the fence be moved away from the saw blade because, if it is too near, the saw blade will strike it damaging both your blade and fence.

### ARBOR BRACKET ADJUSTMENT

The arbor bracket is adjusted at the factory so that the blade is in the center of the opening of the table insert, at both 90° and 45°. If a derangement should occur, the arbor bracket can be adjusted as follows.

The arbor bracket is held in place on the pivot shaft with a key to prevent rotation, and a Hex. Head Screw clamping the split end of the bracket around the shaft, by loosening this screw, it is possible to move the arbor bracket sideways on the shaft to bring it into the alignment required. This screw can be reached by lowering the saw blade and tilting to 45°.

After proper alignment is made, tighten the screw securely.

### SAW BLADE

The machine is furnished with a combination saw blade, suitable for either ripping or cross cutting,

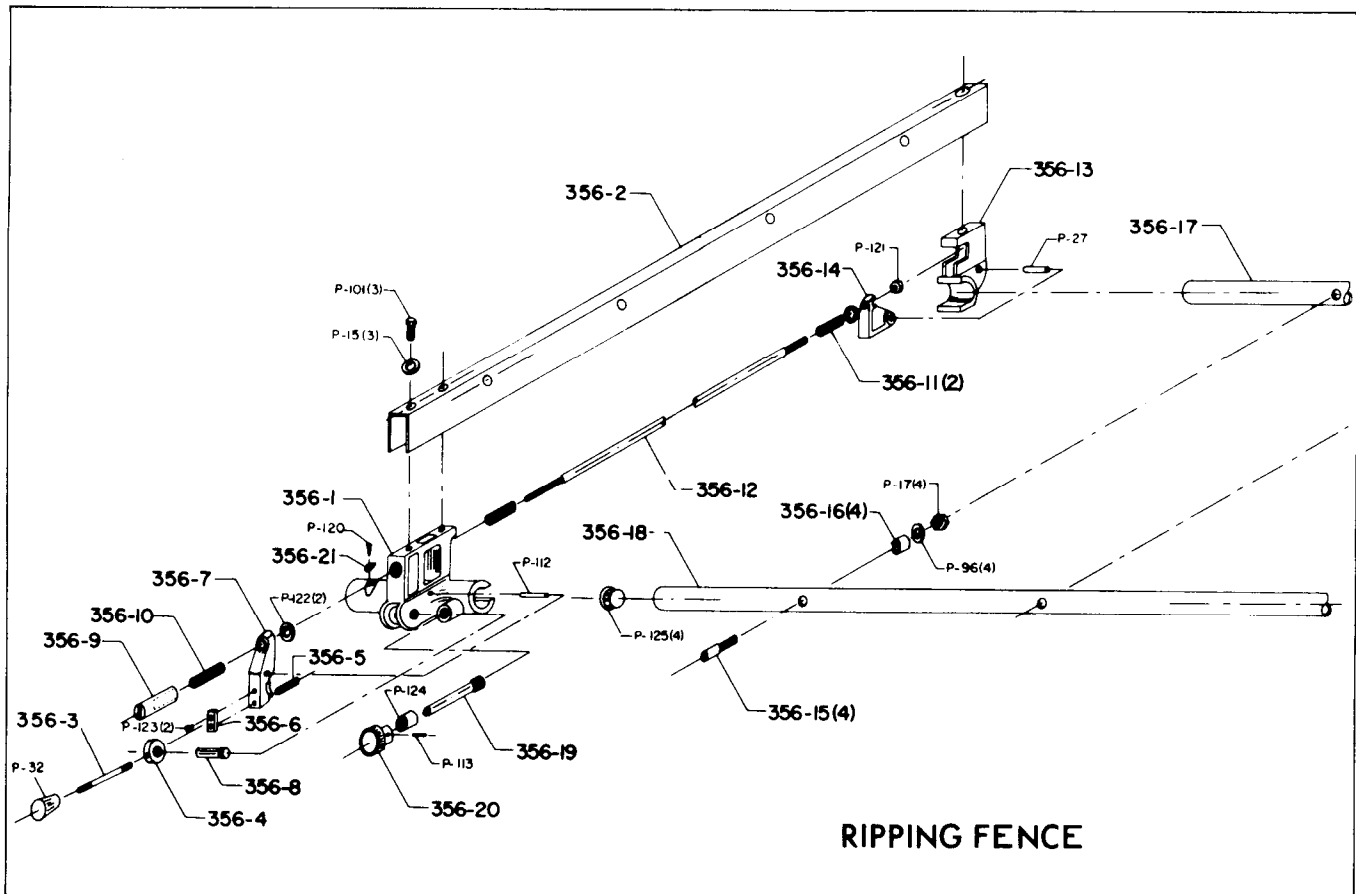
which will save considerably time in a shop, where the amount of ripping and cross cutting is about equal.

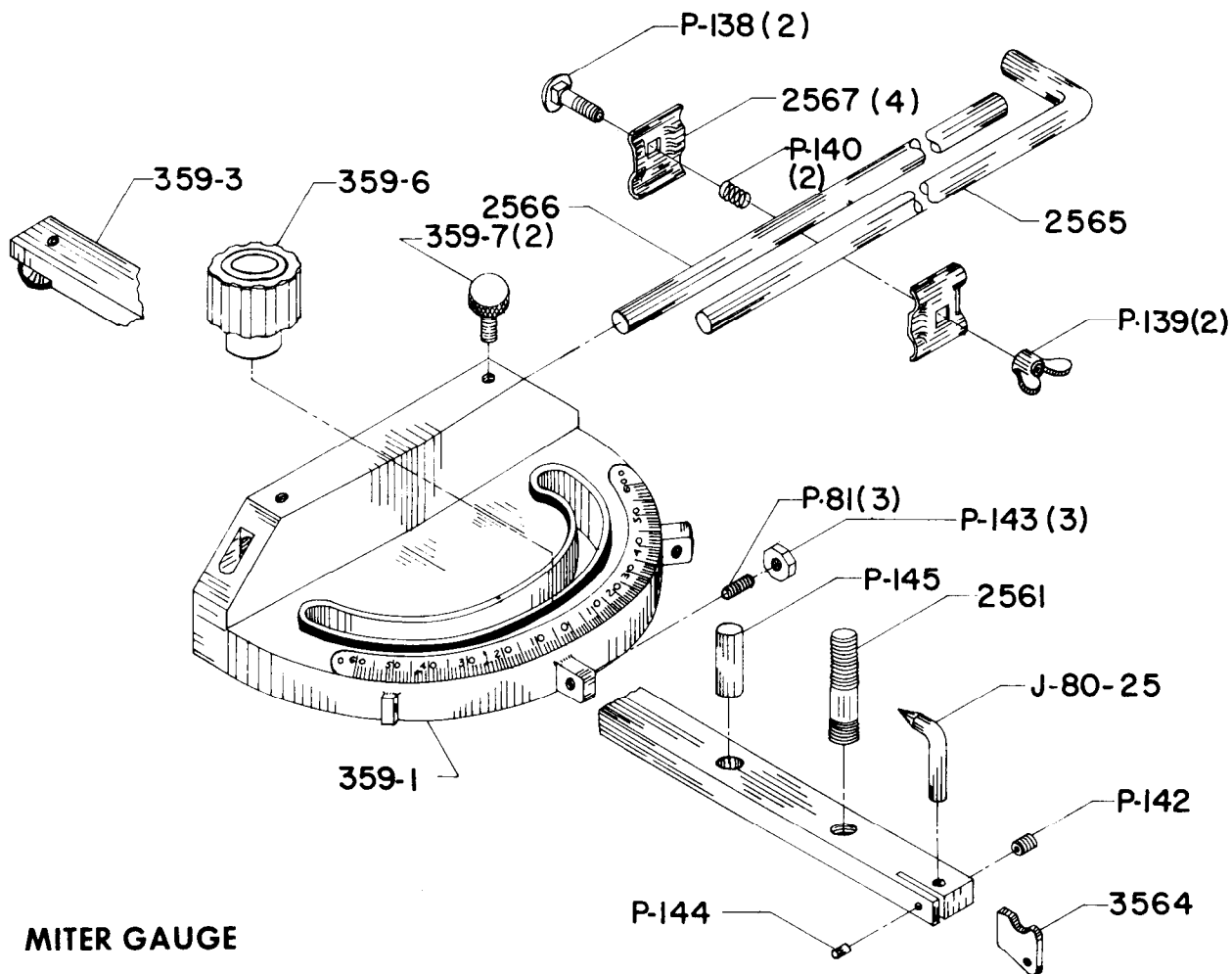
The tilting arbor saw uses ripping saw, combination saw, cross cutting saw or planer saw, 10" diameter with hole 5/8" diameter. It is important that the saw blade be kept sharp at all time as dull blades required several times more power than a sharp one. Always keep saw sharp and well set to obtain satisfactory work.

The saw blade is slipped on the arbor with teeth pointing toward front and placed firmly against the flange. The loose flange is then placed against the saw blade. Use the wrench, which is furnished, on the flat behind the arbor flange to prevent the saw arbor from turning while the nut is being drawn up tight. To change saws, reverse the procedure. Be sure that the flange, saw and nut are cleaned of dust when put back in place. Never strike on the nut to loosen or tighten it, this will damage the saw arbor.

### GUARD

A splitter mounted guard is available as an accessory for this saw. Instructions, for mounting are packed with the guard, **Sheet 350-7**.





**MITER GAUGE**

**LUBRIFICATION**

The ball bearings of the arbor spindle are sealed and lubricated for the life of the bearing, and no additional lubrication is necessary. Light oil should be applied periodically to the trunnions, the worms, gear segments, wheel bearing and pivot shaft in order to keep them working freely. Dust should be removed frequently from the worms and gear segments for smooth operation. Following this procedure regularly, will assure a long service from your saw.

**ALIGNMENT**

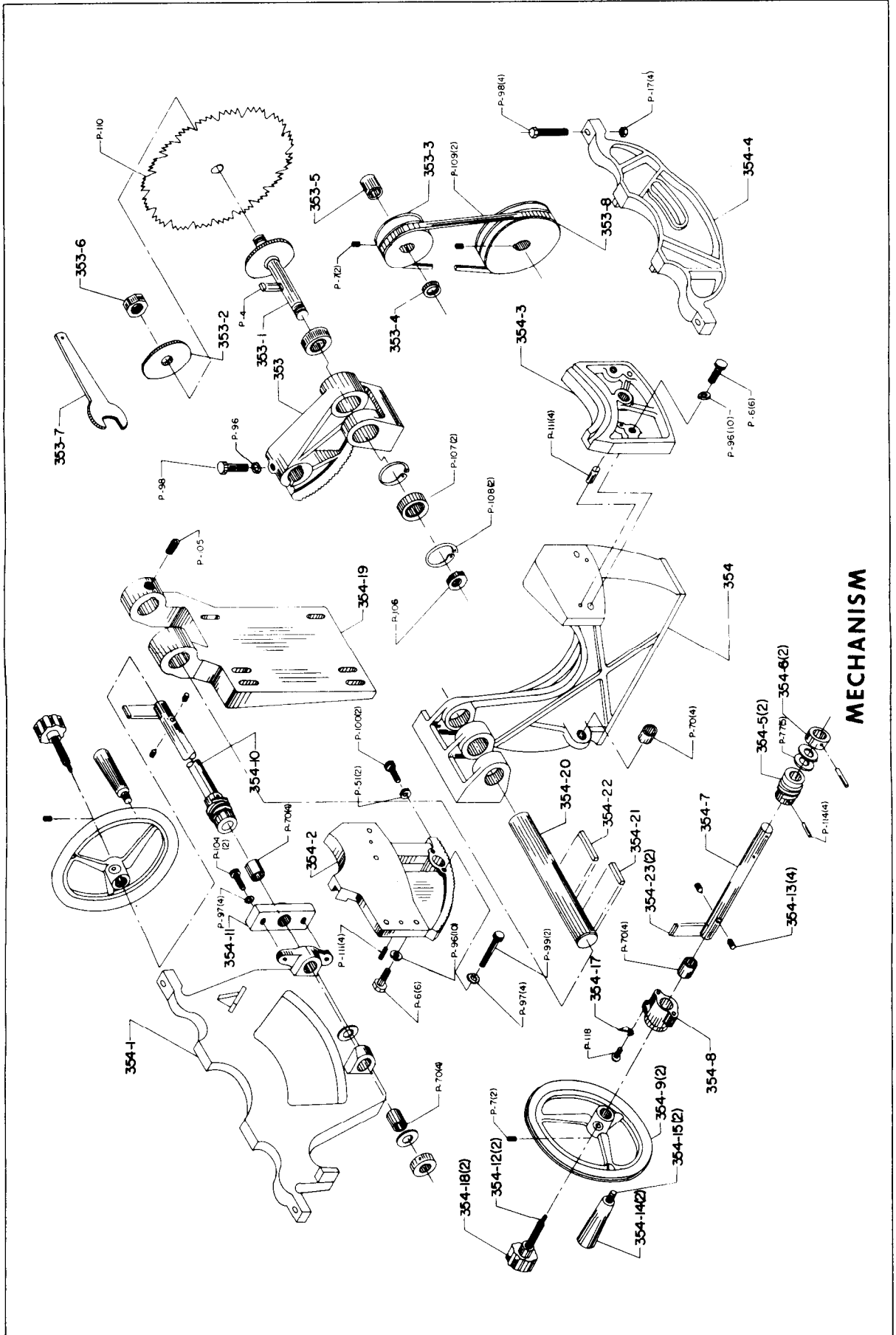
All saws are aligned at the factory, but it may be necessary at some time, to realigned the saw blade. To do so, the following procedure is used. Loosening the four screws at each corner which hold the table to the cabinet and move the table until the blade is in the center of the insert and parallel with the miter gauge groove then tighten the screws to secure the table to the cabinet.

**DADOING AND MOULDING**

When dado cutter or moulding cutter are used, a special insert must be used. This will permit the use of dado cutter up to 13/16" wide. The flange is not used with these cutters. Parallel piece of wood should be screwed to the fence in the holes provided when doing dado or moulding. This will protect your fence and cutters when doing certain type of work.

**MITER GAUGE**

The miter gauge furnished with this type of saw is a very useful tool and will enable you to cross cut at 90° or at any angle desired between 90° to 30° right or left. It is operated by loosening the hand knob and flipping the stop back, after setting to the angle desired, the knob is tightened. Care should be taken not to use the miter gauge in the right groove when the saw is tilted as it will not clear the blade. The stop rods are used to cut a number of pieces to the same desired length and may be used on either side of the miter gauge.



# REPLACEMENT PARTS

**IMPORTANT** When ordering parts always give both the part number and the description of each item, also the serial number of arbor saw on which the parts are to be used.

Part No.	Description	Quant.	Part No.	Description	Quant.
<b>TABLE PARTS</b>			<b>MECHANISM PARTS Cont'd</b>		
351	Table	1	P-97	Lockwasher 5/16"	4
351-1	Extension	2	P-104	Fill. H. Screw 5/16" x 3/4"	2
351-2	Insert	1	P-99	Hex. H. Set Screw 5/16" x 1-1/2"	2
P-93	Hex. H. Screw 7/16" x 1"	6	P-7	Socket H. Set Screw 5/16" x 5/16"	2
P-102	Set Screw 1/4" N.F. x 3/8"	4	P-118	R.H. Screw 8-32 x 3/8" Type F	1
P-94	Hex. H. Screw 7/16" x 3/4"	4	P-105	Socket Set Screw 5/16" x 1/2"	1
P-95	Lockwasher 7/16"	10	<b>RIP FENCE PARTS</b>		
<b>FRAME PARTS</b>			356-1	Front bracket	1
352	Frame	1	356-2	Fence	1
352-5	Door	1	356-3	Clamping handle	1
352-7	Tilt. Scale	1	356-4	Locking Cam	1
P-116	B.H. Screw Type Z No. 7 x 3/8"	2	356-5	Compression spring	1
P-103	R.H. Screw No. 8-32 x 1/2"	2	356-6	Bearing pad	1
P-117	Hex. Nut No. 8-32	2	356-7	Clamping shoe	1
P-137	Handle & Latch	1	356-8	Pin	1
<b>ARBOR BRACKET PARTS</b>			356-9	Adjusting screw	1
353	Arbor Bracket	1	356-10	Compression spring	1
353-1	Arbor	1	356-11	Compression spring	2
353-2	Flange	1	356-12	Draw bar	1
353-3	Arbor Pulley	1	356-13	Rear bracket	1
353-4	Spacer-Small	1	356-14	Rear clamp	1
353-5	Spacer-Large	1	356-15	Screw	4
353-6	Arbor nut	1	356-16	Spacer	4
353-7	Wrench	1	356-17	Rear bar	1
353-8	Motor Pulley	1	356-18	Front bar	1
P-106	Hex. Jam Nut 5/8" N.F.	1	356-19	Pinion	1
P-107	Bearing No. 88503	2	356-20	Knob	1
P-108	Ring No. 5008-168	2	356-21	Pointer	1
P-98	Hex. H. Screw 3/8" x 1-1/2"	1	P-15	Flat Washer 3/8"	3
P-96	Lockwasher	1	P-101	Hex. H. Screw 3/8" x 5/8"	3
P-4	Woodruff Key 3/16" x 3/4"	1	P-27	Roll Pin 1/4" x 1-1/4"	1
P-7	Socket H. Set Screw 5/16" x 5/16"	2	P-121	Hex. nut ESNA 1/4"	1
P-109	V. Belt (Matched) 23" O.D.	2	P-17	Hex. nut 3/8"	4
P-110	Saw Blade	1	P-96	Lockwasher 3/8"	4
<b>MECHANISM PARTS</b>			P-125	Tubing plug	4
354	Yoke Housing	1	P-112	Roll Pin 5/16" x 1"	1
354-1	Front Trunnion	1	P-120	R.H. Screw Type F No. 8-32 x 1/4	1
354-2	Front Tilt. Trunnion	1	P-122	Flat washer 1/4"	2
354-3	Rear Tilt. Trunnion	1	P-124	Oilite bearing 5/16" x 1/2" x 5/8"	1
354-4	Rear Trunnion	1	P-113	Groove Pin 3/32" x 3/4" Type 1	1
354-5	Worm	2	P-123	Fill. H. Screw 8-32 x 1/4	2
354-6	Collar	2	P-32	Knob No. 10017 7/16" - 14	1
354-7	Elevating shaft	1	<b>MITER GAUGE PARTS</b>		
354-8	Tilt. bracket	1	359-1	Miter gauge bracket	1
354-9	Handwheel	2	359-3	Miter gauge bar	1
354-10	Tilting shaft	1	J-80-25	Pointer	1
354-11	Flange	1	3564	Stop	1
354-12	Locking screw	2	2561	Lock stud	1
354-13	Locking pin	4	2565	Stop rod	1
354-14	Handle Ass.	2	2566	Ext. Rod	1
354-15	Tilt. Pointer	1	2567	Clamp	4
354-18	Knob	2	359-6	Knob	1
354-19	Motor base	1	P-138	Carriage bolt No. 10-24 x 3/4"	2
354-20	Pin	1	P-139	Wing nut No. 10-24	2
354-21	Key	1	P-140	Compression spring	2
354-22	Key	1	359-7	Thumb screw	2
354-23	Key	2	P-81	Slot H. Set Screw No. 10-32 x 1/2	3
P-17	Hex. nut 3/8"	4	P-143	Jam nut No. 10-32	3
P-98	Hex. H. Screw 3/8" x 1-1/2"	4	P-142	Socket H. Screw (Cup point) No. 10-32 x 1/4"	1
P-6	Hex. H. Screw 3/8" x 1-1/4"	6	P-144	Groove pin 1/8" x 1/4" Type 2	1
P-96	Lockwasher 3/8"	10	P-145	Groove pin 5/16" x 1" Type 2	1
P-111	Rollpin 1/4" x 3/4"	4	<b>ACCESSORIES</b>		
P-51	Hex. Jam nut 5/16"	2	351-3	Dado insert	1
P-100	Hex. H. Screw 5/16" x 3/4"	2	P-102	Set screw 1/4" N.F. x 3/8"	4
P-70	Oilite Bearing 3/4" x 7/8" x 3/4"	4	352-6	Motor cover	1
P-77	Fibre Washer 3/4" x 1-1/4" x 1/32"	5	P-89	Lockwasher 1/4"	4
P-114	Groove Pin 3/16" x 1-1/4" Type 3	4	P-133	R.H. Screw Type F 1/4" x 1/2"	4

## GENERAL MFG. CO. LTD.

**MANUFACTURER OF CIRCULAR SAWS, BAND SAWS, WOOD LATHES, PLANERS,  
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