

**Instruction Manual**



**MODEL 3-A POWER CHAIN SAW  
AND  
MODEL 30 CHAIN SAW**

**Including Parts List  
and  
Chain Sharpening Instructions**

*St. Louis Sport Sales  
2904 Olive St.  
St. Louis, Mo.*

This Instruction Manual applies to both Model 30 and 3A Chain Saw with the following exceptions: Pages 12 and 13 apply specifically to Model 30 saws; Pages 14, and 15 apply only to Model 3A saws.

**LOMBARD GOVERNOR CORPORATION**

CHAIN SAW DIVISION

**ASHLAND, MASSACHUSETTS**



IMPORTANT OPERATING INSTRUCTIONS

AND GENERAL INFORMATION ON

**LOMBARD MODEL 3-A WOODLOT WONDER CHAIN SAW**

and

**LOMBARD MODEL 30 CHAIN SAW**

1. ENGINE-STARTING INSTRUCTIONS

(A) Fuel

In a clean container thoroughly mix 1/2 pint of No.30 motor oil with each gallon of gasoline. (Low grade or white gasoline is preferred, but any grade of gasoline will operate satisfactorily). Fill the tank with this mixture.

(B) Starting Engine

Completely open the shut-off valve, located on the right side of the engine below gas tank.

Move the choke lever to the choke position. Check to see that the carburetor dial is set at No. 7 NOTE: The choke lever is on the left side of the carburetor and the choke position is back toward the filter.

Pull handle of recoil starter straight out, on same angle that it is mounted, with your left hand. Hold the saw by placing the right hand on the rear handle bar, and at the same time hold the throttle lever in open position. In very cold weather, or if engine has not been run for a long period, two or more pulls may be necessary. After the engine starts gradually move the choke lever back until the engine has warmed up.

When restarting a warm engine, choking is not necessary. Choking a warm engine, or over-choking a cold engine may result in flooding. If this occurs, continue cranking engine, with the choke pushed back until the engine starts. In severe cases of flooding, the shut-off valve should be closed and the engine cranked until it starts. After the engine starts, the valve should again be opened.

(C) Stopping Engine

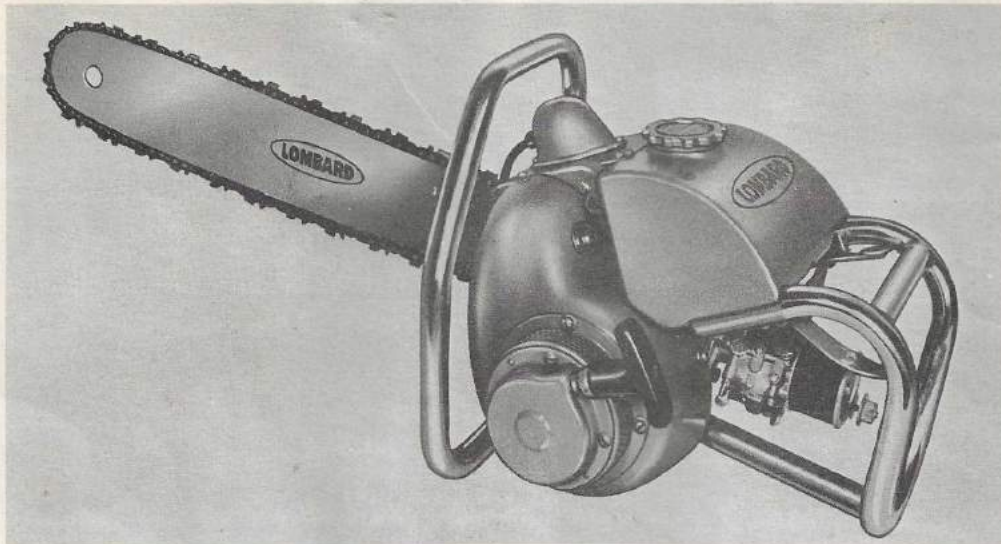
To stop the engine, push stop button located on air shroud, left side of engine. Completely close gas shut-off valve.

2. SAW OPERATION

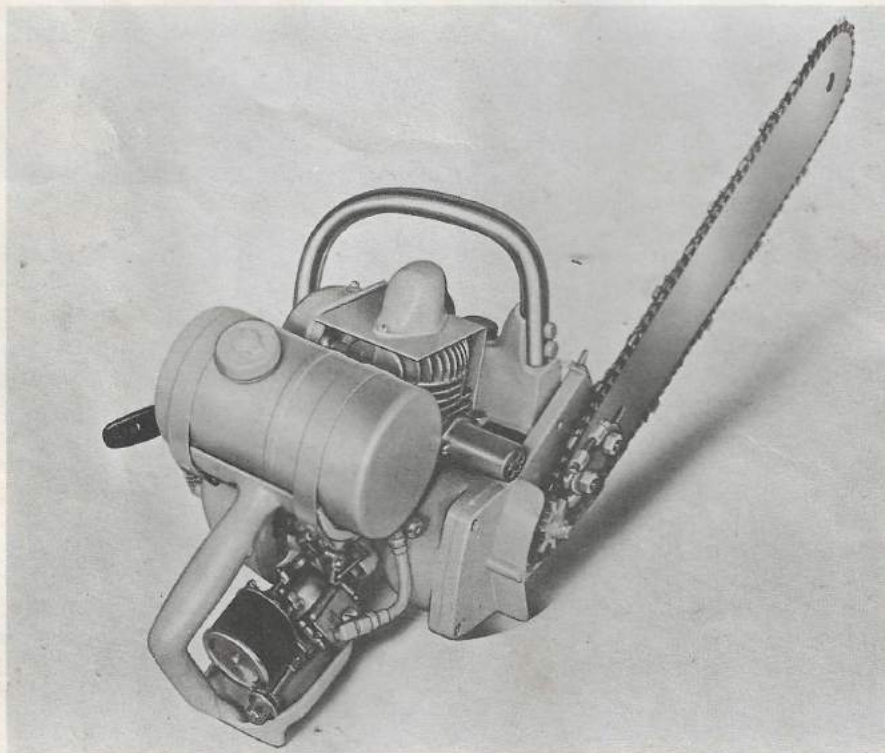
(A) Chain Tension

To get the correct tension of chain, loosen the two nuts on studs so cutter bar can be moved easily. Tighten chain tension screw until chain is reasonably tight. To check for correct





MODEL 3-A CHAIN SAW



LOMBARD MODEL 30 CHAIN SAW



Felling Position



Bucking Position



tension, the chain on the lower part of the cutter bar should be hanging loose so there is at least 1/8" between the side links and the edge of cutter bar. The chain tension is an important item and should be watched carefully. If chain tension is too tight, chain will not run, or end of bar may become burnt.

(B) Chain Lubrication

The chain is lubricated by an automatic oiler which shuts off automatically when the chain is not moving. Therefore, when engine is idling, the chain will not be oiled. Remove the filler cap on the oil reservoir to fill with SAE #30 oil.

It may be necessary in sub-zero weather to mix kerosene with the oil or use a much lighter oil. Kerosene may also be added to cut gummy pitch.

There is a small hole in the sprocket which allows the oil to get on the chain and this should be checked daily to see that it is not plugged with sawdust.

(C) Gear Lubrication

An oil hole cover, on gear case near muffler, has been provided for lubricating gears. Hold the throttle lever down enough so chain is moving very slowly and oil will be distributed on teeth of driven gear inside gear case, (use two or three squirts from an oil can). There is a small hole in the back of the gear case which acts as an overflow if excess oil is used on gears. Leakage through this hole is a normal function and should not cause alarm.

REMEMBER: Oil Daily: using SAE 30 oil.

(D) Positions of Cutting (see photos on opposite page)

Either Model Saw will cut in any position from vertical to 90° on the right side. The cutter bar side of saw should be held toward the ground when making a felling cut. When cutting, be sure engine is up to speed before entering chain into wood.

3. ENGINE MAINTENANCE

(A) Spark Plug

The spark plug should be checked periodically. A dirty, oily or carboned plug causes starting trouble and poor operation.

The spark plug should be cleaned, and the points set at .030 inches. If there is any doubt about the condition of the plug, it should be replaced with an A.C. No. 45M or equivalent.



(B) Air Filter

Air filters are the dry type and normally need little attention. If the engine is run in a dusty atmosphere, the filter element should be removed and cleaned in gasoline once a week.

These engines are equipped with a tubular filter, and should be cleaned in gasoline and allowed to drain. The filter should be re-installed dry.

(C) Muffler & Exhaust Ports

The muffler and the exhaust ports should be cleaned every 50 hours. Failure to clean these parts periodically results in loss of power.

To clean the muffler, remove from cylinder and scrape carbon from all cavities and the exhaust outlet space.

To clean the cylinder exhaust ports, remove the spark plug, and turn the starter pulley so that the piston is at the bottom of the stroke, below the exhaust holes. With any blunt instrument scrape the carbon, from the three cylinder exhaust holes so that they are completely open and remove the carbon from the surrounding exhaust chamber. Crank the engine several times to blow out the loosened carbon. Replace the spark plug and muffler.

(D) Starter - See Fig. 4

To replace starter cable, remove four screws holding cover to body. Remove nut and washer, now take out old cable and handle. Push cable backward through handle to remove lug or pry lug out of handle with a screw driver and remove old cable. Thread new cable through handle and pull tight, until lug is flush with handle. Thread cable through thimble on cover and through hole in sheave from inside. Put one complete turn of cable under washer and replace nut. Rewind cable on sheave and place into cover. Hold cover, and rotate plate and bushing assembly clockwise until spring engages, then rotate approximately one full turn and line up holes. Holding cover in this position put four screws through holes in both pieces. Reassemble to starter housing.

To replace, rewind spring, remove four screws which hold starter assembly to air shroud. Remove four screws holding cover to body. Remove nut and washer, then remove sheave from axle. Be careful when removing old spring from sheave, it is apt to fly. To put in new spring, hook outside end in slot of sheave and wind in from outside to center. Reassemble as in above.



(E) Carburetor Adjustments

There are two adjustments on the carburetor, the full load adjustment and the idling adjustment. The full load adjustment is the numbered dial located at the back of the carburetor below the air filter. The idling adjustment is located on top of the carburetor. The normal setting of full load adjustment is at No. 7, and the idling adjustment is about 3/4 turn open.

Should it be necessary to check the adjustments, the engine should first be run at full load until it is warmed up. The full load adjustment may then be checked by turning it in (clockwise) until motor slows down or coughs and the position noted. The adjustment should then be turned open (counter-clockwise) until the engine after speeding up again slows down and runs unevenly; this position should be noted. Correct adjustment will be half way between these two points. At this position, the engine should deliver maximum power.

Make sure that the numbered dial is tight on the carburetor shaft. If it should become loose, remove it from the adjustment shaft. Turn the adjustment shaft in until it seats in the carburetor. Do not turn in too tight as this may damage the seat. Then back out 1/8 turn; place the dial on the needle valve, push all the way in and rotate clockwise until the stop on the back of the dial strikes the left side of the projection on the filter cover. Tighten set screw.

To check the idling adjustment, the carburetor throttle must be held in the closed position and the idling adjustment screw on top of carburetor turned in or out until the engine runs smoothly. If after this adjustment the engine keeps stalling, it can be adjusted with the idling adjusting screw on the throttle shaft.

Two-cycle engines when running under light loads may appear to miss. This in no way affects the operation of the engine.

(F) Should Engine Fail to Start

The following material is presented as an aid in the maintenance and repair of the engines. Proper maintenance of an engine will result in hundreds of hours of satisfactory operation.

Check for fuel in the gas tank and check to see that shut-off valve is open.

Check magneto. Hold the spark plug wire 3/16" from engine, spark should jump from the terminal to the engine when cranked. If no spark occurs, test the condenser and coil; if faulty, replace.

Check for spark; remove spark plug and with magneto wire attached hold the base of the plug against the engine, crank engine. A spark should jump across the plug points. If it doesn't, clean the plug or replace with a new one.



Check for gasoline in carburetor. Remove the full load adjustment needle from the carburetor. Gasoline should flow in a small continuous stream. If it does not, clean gas line; also clean filter screen in carburetor inlet and the gas tank outlet.

Check for flooding. Remove spark plug and if plug is wet or if gap is closed by liquid fuel, the plug should be dried, and with main adjustment needle closed, the engine should be cranked until vapor stops coming out of spark plug hole. Re-insert plug and open adjustment dial to No. 7 or 3/4 turn open.

Check for gasket leaks and for leaks around the crankshaft seal.

(G) Should Engine Overheat

Check the flow of air over the cylinder. If restricted by dust or dirt, remove the cylinder shield and clean the cylinder fins, and if necessary, remove the air shroud and clean the flywheel fan and the air intake holes on rewind starter.

Be sure to have correct fuel mixture; 1/2 pt. of No. 30 motor oil to each gallon of gasoline. Use a separate clean container for mixing oil and gasoline.

(H) Should Engine Lack Power

Check carburetor adjustment. See instructions. (Item E in engine maintenance).

Check magneto timing. Corresponding match marks on the stator plate and crankcase should be lined up. If the timing has been changed, loosen the stator plate lock screw. Move the stator plate to the correct timing position as indicated by the marks and tighten the screw. Proper timing is indicated by the breaker points opening when the piston is 1/8" before the top dead center of the stroke.

Check for carbon. If exhaust ports and muffler are restricted by carbon, scrape clean.

Check compression. Remove spark plug and place compression gauge in cylinder spark plug hole. After cranking the engine several times, the gauge should register 55 lbs. or more. If compression is faulty, replace piston rings.

Check for gasoline and oil ratio in fuel. Be sure engine has 1/2 pint of oil for each gallon of gasoline.

Check cylinder, carburetor, reed plate, and transfer port gaskets for leaks. Also check for leaks around the crankshaft seals.



(I) General Information

Magneto point setting . . . . . .020 inch  
Spark Plug gap. . . . . .030 inch  
Fuel Ratio . . . . . 1/2 pt. No. 30 oil per gal. of gasoline  
Recommended engine speed . . . . . 2700 to 4000 r.p.m.  
Clean muffler and exhaust ports every 50 to 75 hours.

If magneto is removed from the engine, be sure to replace cam in original position, with the beveled side out.

When replacing piston, be sure tapered side of baffle is toward muffler side of engine.

4. SAW MAINTENANCE

(A) Chain

One of the most important parts of the saw is the chain. The cutting efficiency of the unit depends on the condition of the chain. Therefore, it should be inspected daily for sharpness and damage. If the chain appears to be dull (noticed by slower cutting) or if it has struck a hard object such as a stone, etc., do not continue to cut. Use a round file with file holder to sharpen this Chipper Chain. A chain cutting wood after becoming dull will damage both chain and cutter bar as it will require forcing the saw. It will also reduce the life of the chain as it necessitates excessive filing of the radius face angles of the cutters.

Use your chain with care and see that it has plenty of lubrication so parts will not wear and keep it sharp at all times.

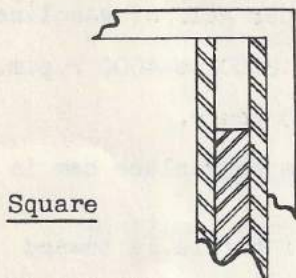
If a cutter is broken or damaged beyond repair, it may be replaced from the spare parts that are shipped with all new chains. Check to be positive the correct cutter, that is, left or right, is assembled into the chain. When peening rivets, do not strike too hard, or you will bulge large diameter of rivet in center blanks; therefore, binding the chain. Light blows using the ball end of a small hammer is sufficient. Always check chain for flexibility at repaired joint.

(B) Cutter Bar

Many cutter bars are damaged by ill use, that is, lack of proper lubrication on chain and cutter bar, unnecessary forcing of saw when cutting, and twisting of cutter bar in some cuts. Always remember the lack of proper oil will cause excess wear on both chain and cutter bar: therefore, reducing the life of both items.



The top edges of slot of cutter bar, where side links of chain run, should be checked for parallelism periodically. A good method is to place a square on side of cutter bar as shown in sketch #7.



Square

Sketch #7

File or stone edges parallel and remove all burrs. If one edge is lower than the other, the chain will cut crooked, and then the operator will force the saw to try and remedy this situation; therefore, resulting in considerable damage to the cutter bar.

#### (C) Clutch

This saw is equipped with a special shoe-type, automatic clutch mounted on engine shaft, inside gear housing. It will automatically engage and release according to engine speeds, which are controlled by the throttle lever.

This clutch cannot be adjusted. If chain creeps, then the idling speed of the engine is incorrect. This is remedied by adjusting idle mixture.

When repairing saw, never run engine with clutch assembly on engine shaft unless drum is also assembled in proper position on same shaft. Because of centrifugal force the shoes may fly off and cause injury or damage.

#### (D) Gear Housing

The gear housing contains the gears and clutch assembly. The only attention it requires is to oil gears daily by 3 or 4 squirts of SAE #30 motor oil from an oil can. At the same time, hold throttle lever down a small amount so chain will be traveling very slow, thus gears will be rotating slowly and get oiled properly.

### 5. SERVICE AND REPAIR INSTRUCTIONS

#### (A) Suggested Procedure for Dismantling Saw

Remove Cutter Bar and Chain.

Sprocket - Hold sprocket stationary and remove sprocket nut. Lift sprocket from spline shaft.



Cover - Gear Case: Remove eight screws.

Remove lock nut on engine shaft.

Clutch: Use puller to remove.

Remove clutch key.

Remove special washer.

Remove drum - gear assembly.

Remove bushing and special washer from engine shaft.

Driven gear and transmission shaft assembly are removed as one unit.

Front handle bar, remove four screws.

Gear case, remove three screws.

Gas line, disconnect and remove.

Remove throttle link between carburetor and arm.

Oil Pump, - if necessary to remove oil pump from back of gear case, loosen holder, keeping in mind the threads are left hand.

Remove gas tank and rear handle bar.

(B) Suggested Procedure for Dismantling Engine

Air Filter--remove air filter cover and filter.

Carburetor and Reed Plate--remove two nuts.

Muffler--remove the screws holding muffler to the cylinder.

Air Shroud--remove screws holding the air shroud to the shroud base, and remove wire to stop button.

Rewind Starter--remove four screws holding starter to air shroud.

Flywheel--loosen the starter nut two turns; sharply strike the end of the nut with a raw-hide hammer until the flywheel is loosened from the crankshaft taper.

Magneto Stator Plate--loosen the friction screw at the base of the stator plate. Pull the stator plate off by turning back and forth.



Cam and Key--remove by tapping. Note position before removal.

Shroud Base--remove four screws holding the shroud base to the engine.

Cylinder--remove four nuts.

Crank Case--remove six screws holding the crankcase together, then tap the end of the crankshaft gently to separate the case and bearing from shaft, tap the shaft gently.

To replace ball bearing in the case, remove lock ring, washer and seal. Heat the case evenly with a blow torch or over a gas flame until the bearing drops out. At this temperature a new cold bearing can be dropped in. Make sure that the beveled side of the inner race of the bearing is up when it is dropped into the crankcase. Also, be sure when replacing the seal that the lip is toward the center of the engine.

Connecting Rod--to remove the connecting rod from shaft, remove the two screws holding the cap to the rod. When reassembling the rod and cap to the shaft, be sure that the match markers on the rod and cap, are on the same side. Be sure that there are 30 rollers in assembly. Be sure that the straight side of the piston baffle is toward the tapered end of shaft.

To remove the rod from the piston pin, remove the lock ring from one side of the piston and slide the piston pin to one side.

It is extremely important that all parts be thoroughly clean, and the moving parts oiled before assembly. A reassembled engine will require a run-in period of about an hour before full power will be developed.

OUR MOTTO IS:

"GIVE YOUR SAW A LITTLE ATTENTION TODAY AND  
YOUR SAW WILL REQUIRE LESS ATTENTION TOMORROW"

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EXPLODED VIEWS

AND PARTS LISTS

MODEL 30

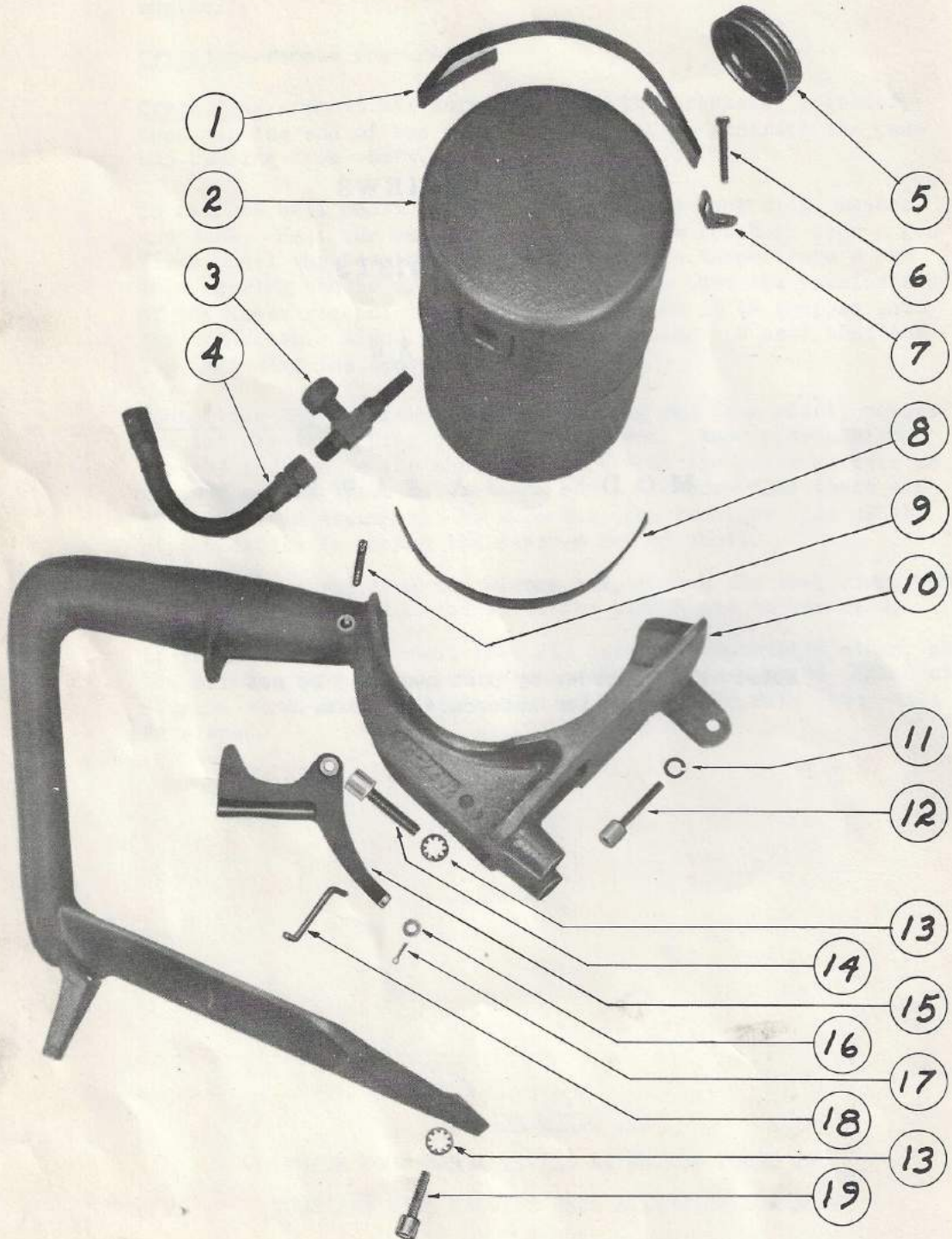
AND

MODEL 3A SAWS

Note: Kindly order by part number. Do not use  
illustration reference numbers.



MODEL \*30 GAS SAW - PHOTO # YS-2310  
GAS TANK & REAR HANDLE BAR ASSEMBLY



LOMBARD GOVERNOR CORP. ASHLAND, MASS.



**PARTS LIST YS-2310**  
**For Gas Tank and Rear Handlebar Assembly**  
**Model 30**

Item No.	Part No.	Part Name	Qty. Per Unit
1	YS-2304	Strap — Gas Tank	2
2	PM-159	Gas Tank w/cap	1
3	PM-153	Valve — Shut Off	1
4	YS-2309	Fuel Line	1
5	PM-160	Cap — Gas Tank	1
6	PS-613	Screw — Fil. Hd. #10-24 x $\frac{3}{4}$ lg.	2
7	YS-2303	Clip — Strap	2
8	YS-2306	Spacer — Gas Tank	2
9	YS-2308	Pin — Pivot	1
10	YS-2302	Handlebar — Rear	1
11	PW-203	Lockwasher — #10 Std.	1
12	PS-127	Screw — Socket Hd. Cap #10-24 x $1\frac{1}{4}$ lg.	1
13	PW-211	Lockwasher — $\frac{1}{4}$ Shakeproof	3
14	PS-109	Screw — Socket Hd. Cap $\frac{1}{4}$ -20 x $1\frac{1}{2}$	2
15	YS-2307	Trigger	1
16	PW-107	Washer — Plain	2
17	PM-144	Cotter Pin	2
18	YS-2305	Link — Throttle	1
19	PS-101	Screw — Socket Hd. Cap $\frac{1}{4}$ -20 x $\frac{3}{4}$ lg.	1

CAUTION: When ordering, include serial number of saw, part number,  
part name and quantity desired.

Ask your Dealer for parts and prices — Parts normally sold only through Dealer.



WOODLOT WONDER GAS SAW MODEL 3A

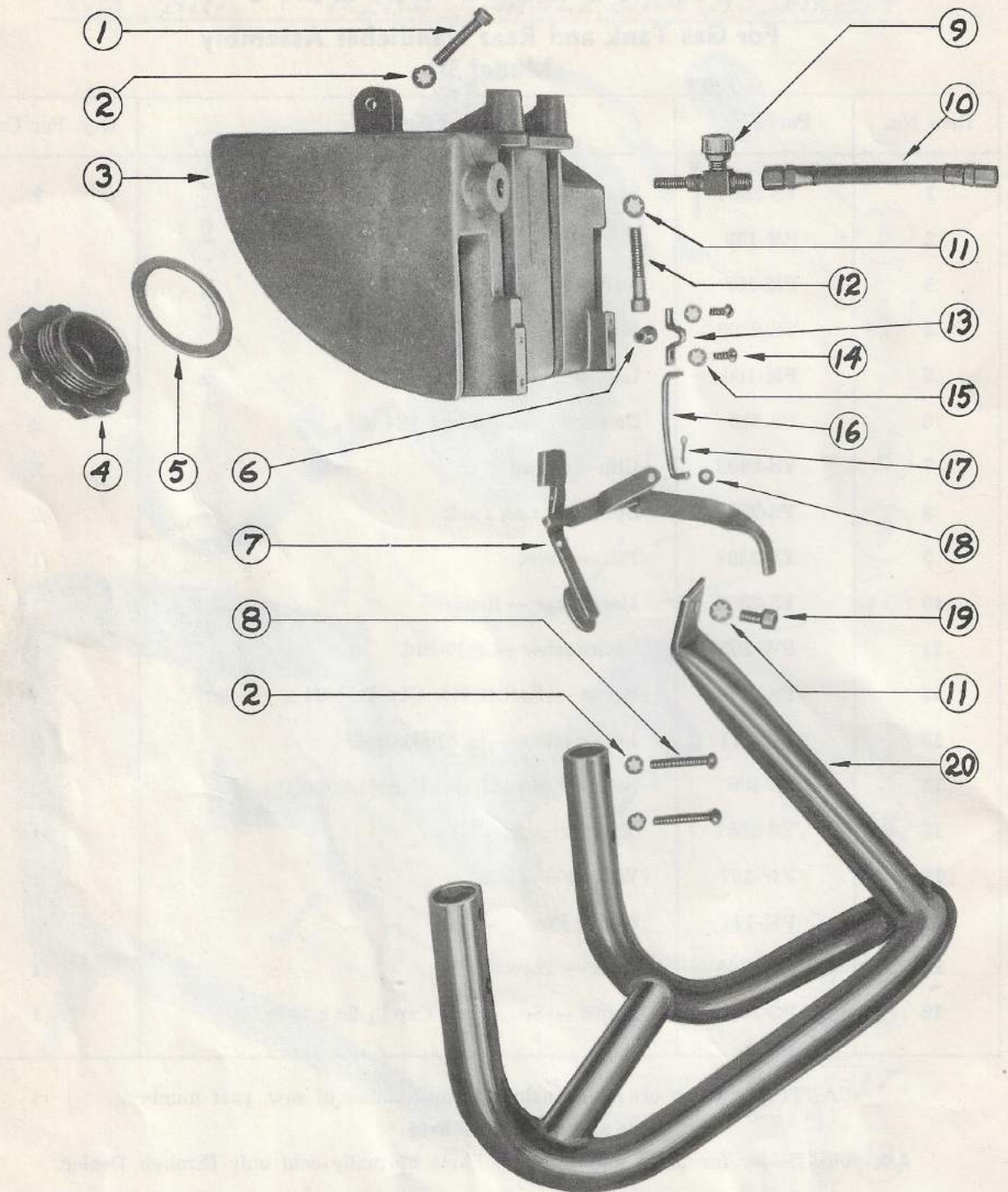


PHOTO \*YS-2098 GAS TANK & REAR HANDLE BAR ASSEMBLY  
LOMBARD GOVERNOR CORP. ASHLAND, MASS.



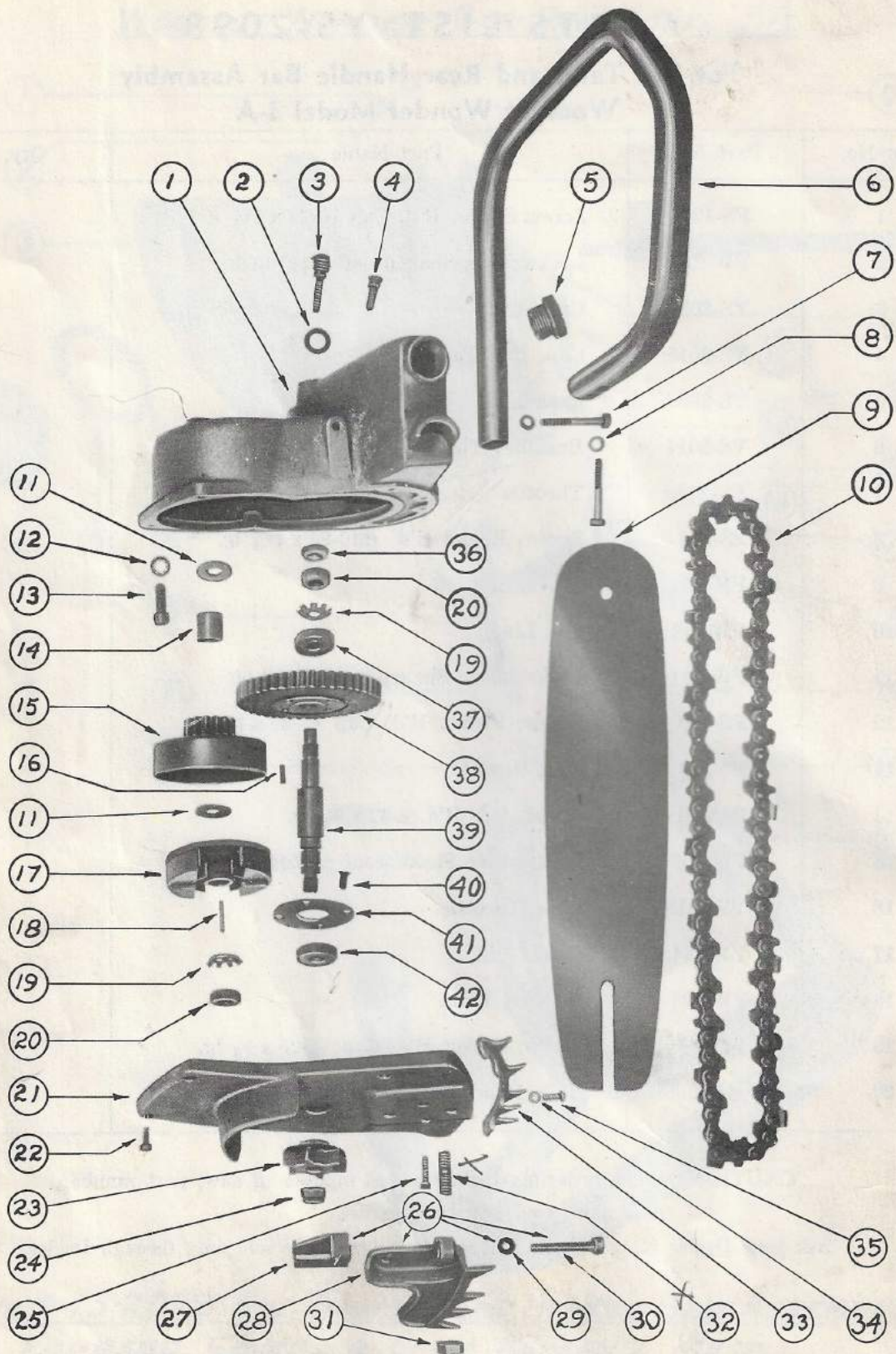
**PARTS LIST YS-2098**  
**For Gas Tank and Rear Handle Bar Assembly**  
**Woodlot Wonder Model 3-A**

Item No.	Part No.	Part Name	Qty. Per Unit
1	PS-127	Screw, Socket H'd. Cap 10-24 x 1¼ lg.	1
2	PW-210	Lockwasher, Shakeproof #1210-00	5
3	YS-2055	Gas Tank	1
4	YS-2015	Cap, Gas Tank	1
5	YS-2023	Gasket, Gas Tank Cap	1
6	YS-2014	Bushing, Throttle	2
7	YS-2080	Throttle	1
8	PS-315	Screw, Round H'd. #10-24 x 1¼ lg.	4
9	PM-153	Valve, Shut-off	1
10	PM-152	Gas Line	1
11	PW-211	Lockwasher, Shakeproof #1214-00	3
12	PS-109	Screw, Socket H'd. Cap ¼-20 x 1½	2
13	YS-2017	Clip, throttle	2
14	PS-308	Screw, Rd. H'd. 8-32 x ⅜ lg.	4
15	PW-209	Lockwasher, Shakeproof #1208-00	4
16	YS-2018	Link, Throttle	1
17	PM-144	Cotter Pin	2
18	PW-107	Washer, Plain	2
19	PS-106	Screw, Socket H'd. Cap ¼-20 x ⅝ lg.	1
20	YS-2063	Rear Handlebar	1

CAUTION: When ordering, include serial number of saw, part number,  
part name and quantity desired.

Ask your Dealer for parts and prices — Parts normally sold only through Dealer.





LOMBARD GOVERNOR CORP ASHLAND, MASS.



# PARTS LIST YS-2099

## For Gear Case Assembly Model 30 or Model 3-A

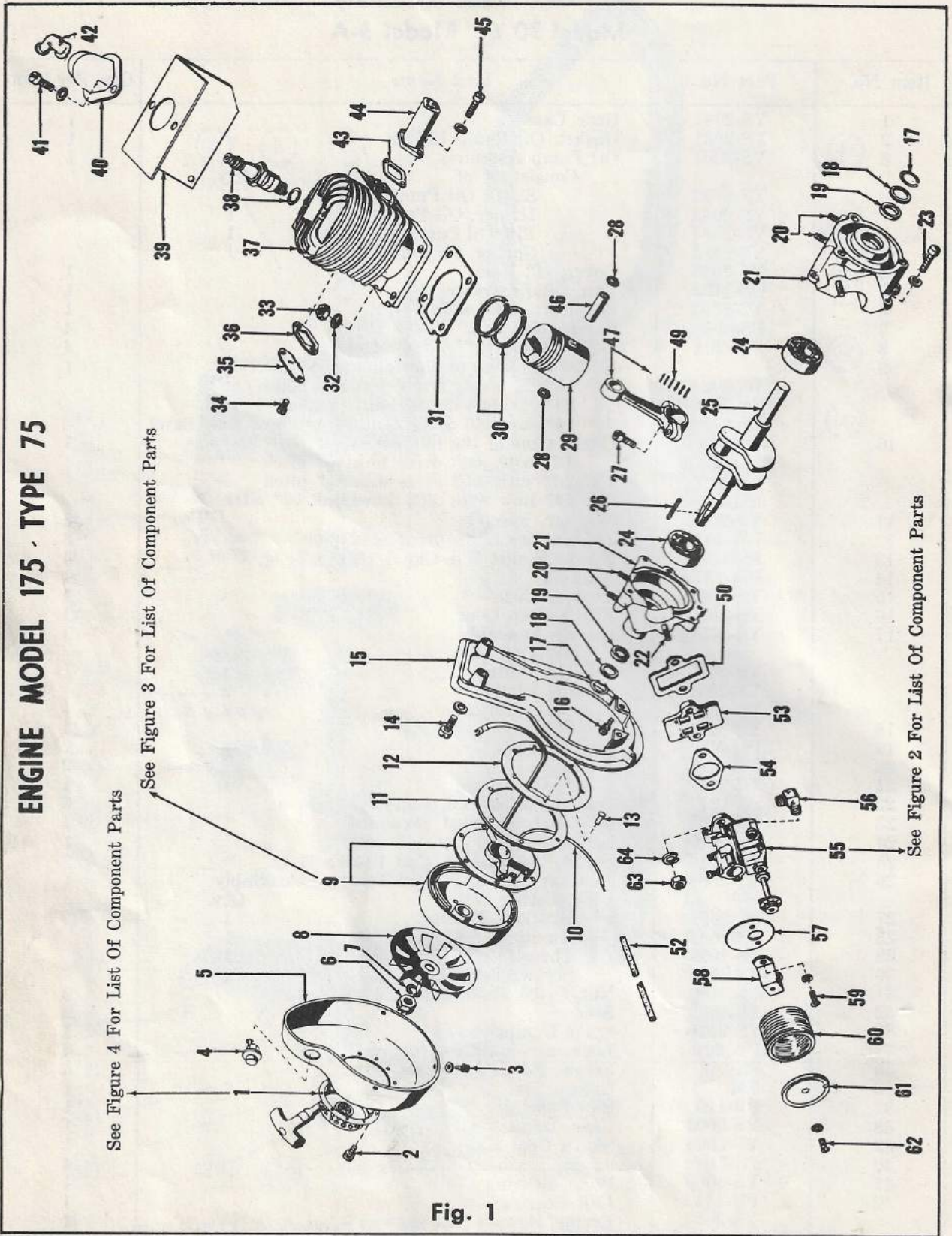
Item No.	Part No.	Part Name	Qty. Per Unit
1	YS-2081	Gear Case	1
2	YS-2031	Gasket, Oil Pump Holder	1
3	YS-2201	Oil Pump Assembly	1
		Consisting of	Qty.
	YS-2082	Shaft, Oil Pump	1
	YS-2083	Holder, Oil Pump	1
	YS-2084	Pin, Oil Pump	1
	YS-2085	Spring, Oil Pump	1
4	YS-2035	Cover, Oil Hole	1
5	GS-1135	Cap, Oil Reservoir	1
6	YS-2064	Handlebar (Front)	1
7	PS-405	Screw, Hex H'd. 1/4"-20 x 1 1/2" lg.	4
8	PW-204	Lockwasher, 1/4" Standard	4
9		Cutterbar (One of the following)	1
	YS-2022	16" for .063 drive chain (Standard)	
	YS-2052	20" for .063 drive chain (Standard)	
	YS-2058	14" for .063 drive chain (Standard Bow Saw)	
10		Chain (One of the following)	1
	PM-151	16" with .063 drive link 1/2" pitch	
	PM-147	20" with .063 drive link 1/2" pitch	
	PM-150	14" Bow with .063 drive link 1/2" pitch	
11	YS-2032	Washer, Special	2
12	PW-212	Lockwasher, Shakeproof #1218-00	3
13	PS-123	Screw, Socket H'd. Cap 5/16-18 x 7/8 lg.	3
14	PM-137	Bushing	1
15	YS-2056	Gear, Driver	1
16	YS-2025	Key, Driven Gear	1
17	YS-2050	Clutch Assembly	1
		Consisting of:	Qty.
	YS-2050-A	Body, Clutch	1
	YS-2050-B	Shoe, Clutch	2
	YS-2050-C	Spring, Clutch	2
18	YS-2071	Key, Clutch	1
19	PM-135	Lockwasher	2
20	PM-134	Locknut	2
21	YS-2062	Cover, Gear Case	1
22	PS-124	Screw, Socket H'd. Cap 10-24 x 1/2" lg.	6
23	YS-2067	1/2" Pitch Sprocket Standard	1
24	PN-308	Locknut	1
25	PS-125	Screw, Socket H'd. Cap 10-24 x 3/4" lg.	2
26	YS-2087	Auxiliary Spike (Chain Tension) Assembly	1
		Consisting of:	Qty.
27	YS-2091	Bracket, Tension	1
28	YS-2068	Auxiliary Spike	1
29	YS-2093	Thrust Collar	1
30	YS-2092	Screw, Tension	1
31	PN-103	Nut, 3/8"-16 Standard	2
32	YS-2065	Stud	2
33	YS-2030	Spike Bumper	1
34	PW-210	Lockwasher, Shakeproof #1210-00	4
35	PS-318	Screw, Rd. H'd. 10-24 x 5/8" lg.	4
36	PM-132	Grease Seal	1
37	PB-110	Ball Bearing	1
38	YS-2003	Gear, Driven	1
39	YS-2066	Shaft, Gear Case	1
40	PS-210	Screw, Flathead 8-32 x 1/2" lg.	4
41	YS-2009	Plate, Bearing Cover	1
42	PB-111	Ball Bearing	1
	YS-2054	Frame, Bow — (not shown)	1

CAUTION: When ordering, include serial number of saw, part number, part name and quantity desired.



ALWAYS SPECIFY ENGINE MODEL & SERIAL NUMBER WHEN ORDERING REPAIR PARTS!

**ENGINE MODEL 175 - TYPE 75**



ALWAYS SPECIFY ENGINE MODEL & SERIAL NUMBER WHEN ORDERING REPAIR PARTS!



ALWAYS SPECIFY ENGINE MODEL & SERIAL NUMBER WHEN ORDERING REPAIR PARTS!

## PARTS LIST

Ref. No.	Part No.	Part Name	No. Req.	Ref. No.	Part No.	Part Name	No. Req.
1	1133-03	Starter - Schnacke Rewind	1	36	1065-01	Gasket - Transfer Port Cover	1
2	PS-612	Screw - 10-24 x $\frac{3}{8}$ Fil. Hd. Sems	4	37	010-12	Cylinder	1
3	1007-01	Screw & #10 Lockwasher	8	38	S-1106	Spark Plug 14MM-45 M	1
4	3084-01	Button - Stop	1	39	1023-01	Cylinder Shroud	1
5	1018-03	Shroud - Air	1	40	YS-2013	Shield - Spark Plug Protection	1
6	1133-04	Nut - Schnacke Rewind Starter	1	41	PS-604	Screw - #10-24 x $\frac{1}{2}$ Fil. Hd. Sems	2
7	PW-213	Lockwasher - 7/16 S.A.E.	1	42	227	Nipple - Spark Plug	1
8	1063	Fan - Flywheel	1	43	3014	Gasket - Cylinder Exhaust	1
9	F-109-K	Magneto - Complete (Without Fan). See Fig. 3 for Details	1	44	1058-02	Muffler	1
10	3066-01	Ignition Wire - Cut-off	1	45	PS-610	Screw - 1/4-20 x 5/8 Fil. Hd. Sems	2
11	3117	Seal - Magneto Dust	1	46	1016-02	Pin - Piston	1
12	3118	Plate - Magneto Dust Seal Retainer	1	47	005-06	Connecting Rod Ass'y. with Bearings	1
13	3134	Rivets	6	49	Q4212	Bearing - Needle	30
14	PS-604	Screw - #10-24 x $\frac{1}{2}$ Fil. Hd. Sems	1	50	1027	Gasket - Reed Plate	1
15	1019-03	Base - Shroud	1	52	1136	Sleeve - Ignition Cut-Off	1
16	PS-608	Screw - 1/4-20 x $\frac{1}{2}$ Fil. Hd. Sems	2	53	026-04	Reed Plate Assembly, w/stops	1
17	1004	Spring - Crankshaft Seal Retaining	2	54	1009	Gasket - Carburetor	1
18	1003	Retainer - Crankshaft Seal	2	55	MD60A	Carburetor - Complete. See Fig. 2 for Parts Listing	1
19	1002	Seal - Crankshaft	2	56	1042-05	Elbow - Gas Line Connector	1
20	1022	Stud - Cylinder	4	57	1092	Base - Air Filter	1
21	020-05	Crankcase - Assembly, Complete with 2 Ball Bearings	1	58	1077	Bracket - Air Filter Cover	1
22	1031	Stud - Carburetor	2	59	PS-609	Screw - #8-32 x $\frac{1}{2}$ Fil. Hd. Sems	2
23	PS-606	Screw - #10-24 x 5/8 Fil. Hd. Sems	6	60	1029	Filter - Air	1
24	3203	Ball Bearing - N.D.	2	61	1047-04	Cover - Air Filter	1
25	1001-20	Crankshaft	1	62	PS-604	Screw - #10-24 x $\frac{1}{2}$ Fil. Hd. Sems	1
26	1062	Key - Flywheel	1	63	PN-102	Nut - 1/4-20	2
27	100702	Screw - Connecting Rod	2	64	PW-204	Lockwasher - 1/4	2
28	1119	Ring - Retainer	2				
29	1015-07	Piston	1				
30	1017-05	Ring - Piston	2				
31	1012-02	Gasket - Cylinder	1				
32	PW-204	Lockwasher - 1/4	4				
33	PN-102	Nut - 1/4-20	4				
34	PS-604	Screw - #10-24 x $\frac{1}{2}$ Fil. Hd. Sems	2				
35	1064	Cover - Transfer Port	1				

WARNING - Order By Part Number - Do Not Use Illustration Reference Numbers

Ask your Dealer for parts and prices—Parts normally sold only through Dealer.

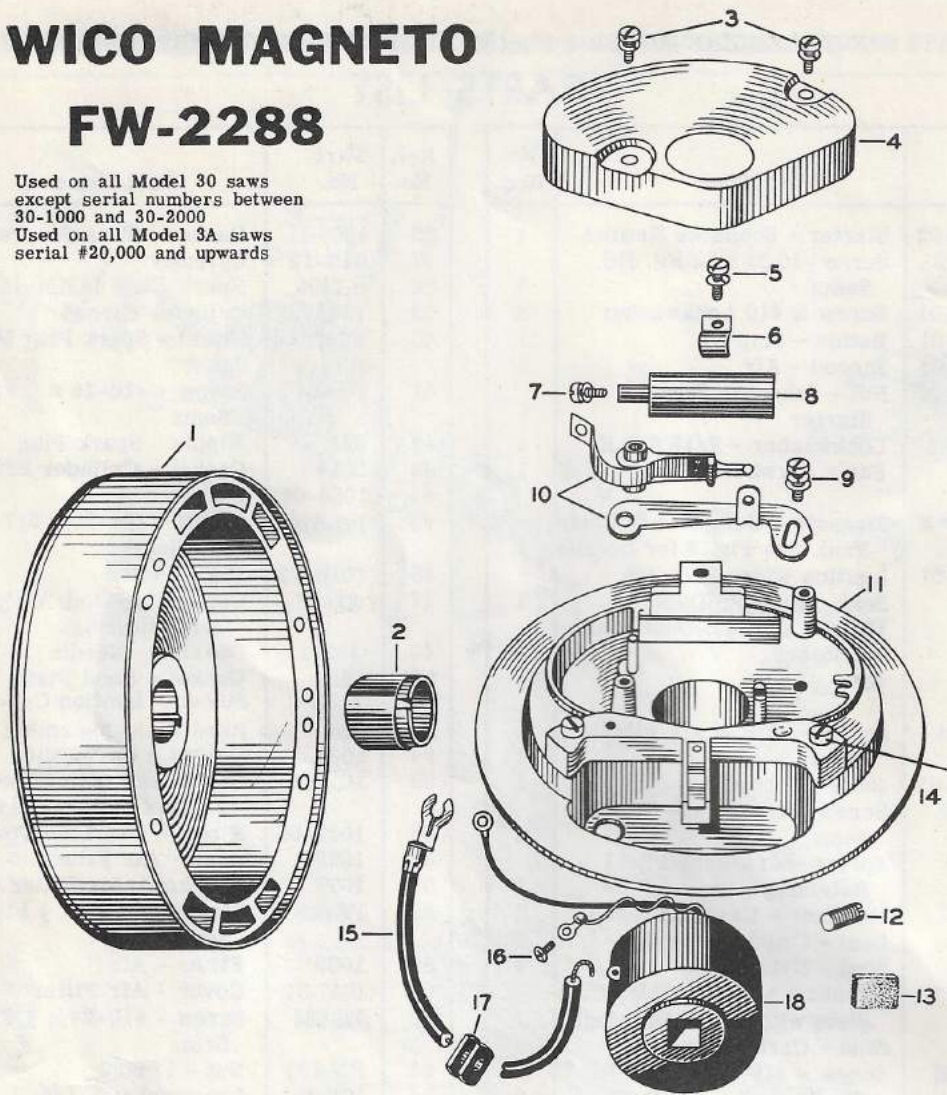
ALWAYS SPECIFY ENGINE MODEL & SERIAL NUMBER WHEN ORDERING REPAIR PARTS!



# WICO MAGNETO

## FW-2288

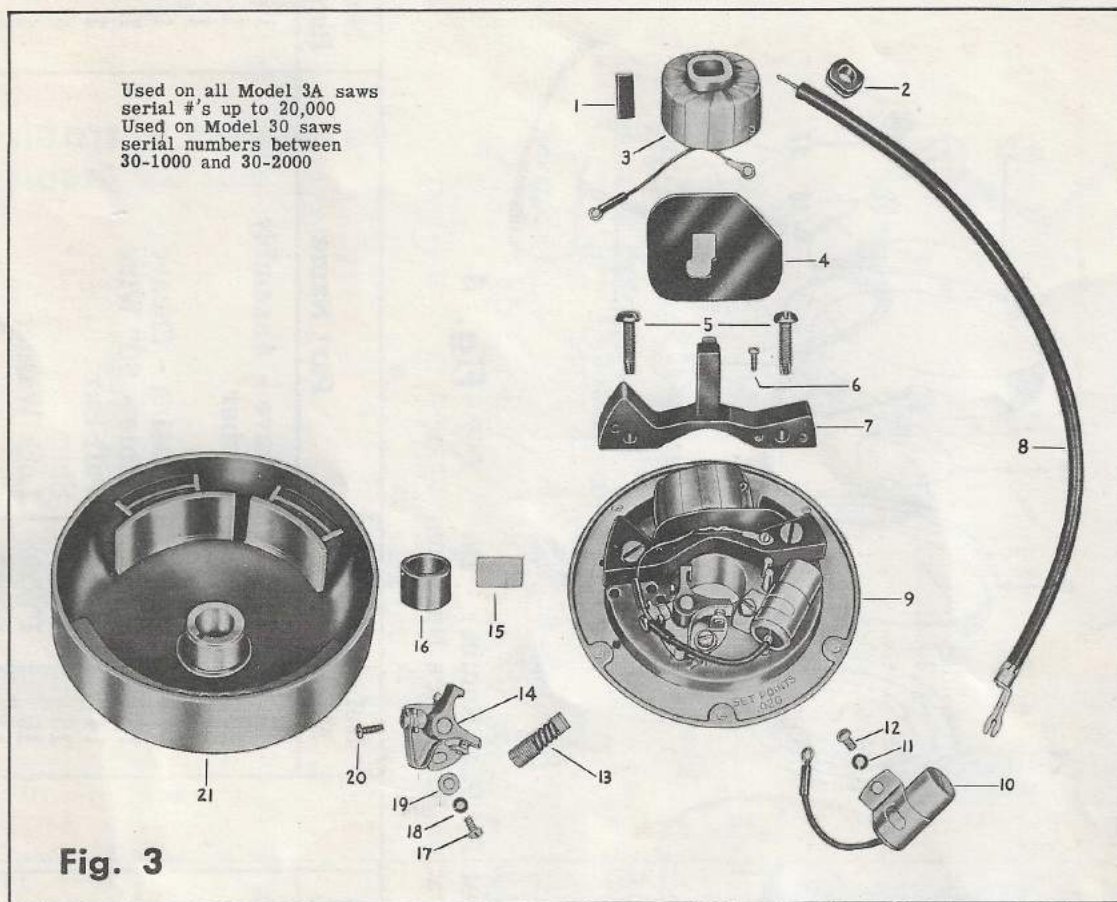
Used on all Model 30 saws  
except serial numbers between  
30-1000 and 30-2000  
Used on all Model 3A saws  
serial #20,000 and upwards



Ref. No.	Part No.	Part Name	Qty. Per Unit	Ref. No.	Part No.	Part Name	Qty. Per Unit
1	Y8873	Rotor	1	12	8857	Friction Screw	1
2	8852	Breaker Cam	1	13	6318	Cam Wiper Felt	1
3	5411	Breaker Cover Clamp Screws and Washers	2	14	5428	Core Screw	2
4	8855	Breaker Cover	1	15	X7782	Lead Wire Group	1
5	5411	Condenser Clamp Screw	1	16	8732	Primary Lead Wire Clip Screw	1
6	8854	Condenser Clamp	1	17	5486	Lead Wire Grommet	1
7	5431	Condenser Connection Screw and Washer	1	18	X8877	Coil Group	1
8	X7461	Condenser Group	1		X8875	Stator Plate Unit (Includes Stator Plate, Core, Coil, Condenser, Breaker Mechanism, and Lead Wire Group)	1
9	5900	Fixed Contact Clamp Screw and Washer	1			FW-2288 Complete Magneto	
10	X8920	Breaker Contact Set	1				
11	X8919	Stator Plate Repl. Assembly (Includes Stator Plate and Coil Core)	1				



# PHELON MAGNETO F-109K



Ref. No.	Part No.	Description	No. Req.
1	F-280	Coil Wedge	1
2	F-128	Lead Wire Grommet	1
3	FG-470B	Coil	1
4*	F-416B	Coil Shield	1
5	F-438	Core Screw	2
6	F-422	Ground Terminal Screw	1
7	F-414	Core	1
8	FG-862	Lead Wire	1
9	F-184K	Complete Stator Assembly	1
10	FG-471B	Condenser	1
11	F-147C	Condenser Screw Lockwasher	1
12	F-204	Condenser Screw	1
13	FG-358B	Friction Shoe Group	1

Ref. No.	Part No.	Description	No. Req.
14	FG-626	Breaker Assembly	1
15	F-341B	Cam Wiper Felt	1
16	F-111E	Breaker Cam	1
17	F-132	Fixed Contact Screw	1
18	F-147C	Fixed Contact Screw Lockwasher	1
19	F-247	Fixed Contact Screw Plain Washer	1
20	F-601	Breaker Connection Screw	1
21	FG-233	Flywheel	1
22	FG-472B	Coil & Core Assembly (not shown assembled)	1

\* Not used with molded coil.

WARNING - Order By Part Number - Do  
Not Use Illustration Reference Numbers

Ask your Dealer for parts and prices—Parts normally sold only through Dealer.



Serial No - 30-6865 Saw No. Herb. Saw. No.  
 Model No - 3-16  
 New Blade 4/52

# STARTER ASSEMBLY No. 1133-03

ALWAYS SPECIFY ENGINE MODEL & SERIAL NUMBER WHEN ORDERING REPAIR PARTS!

STARTER ASSEMBLY  
 NO. 1133-03

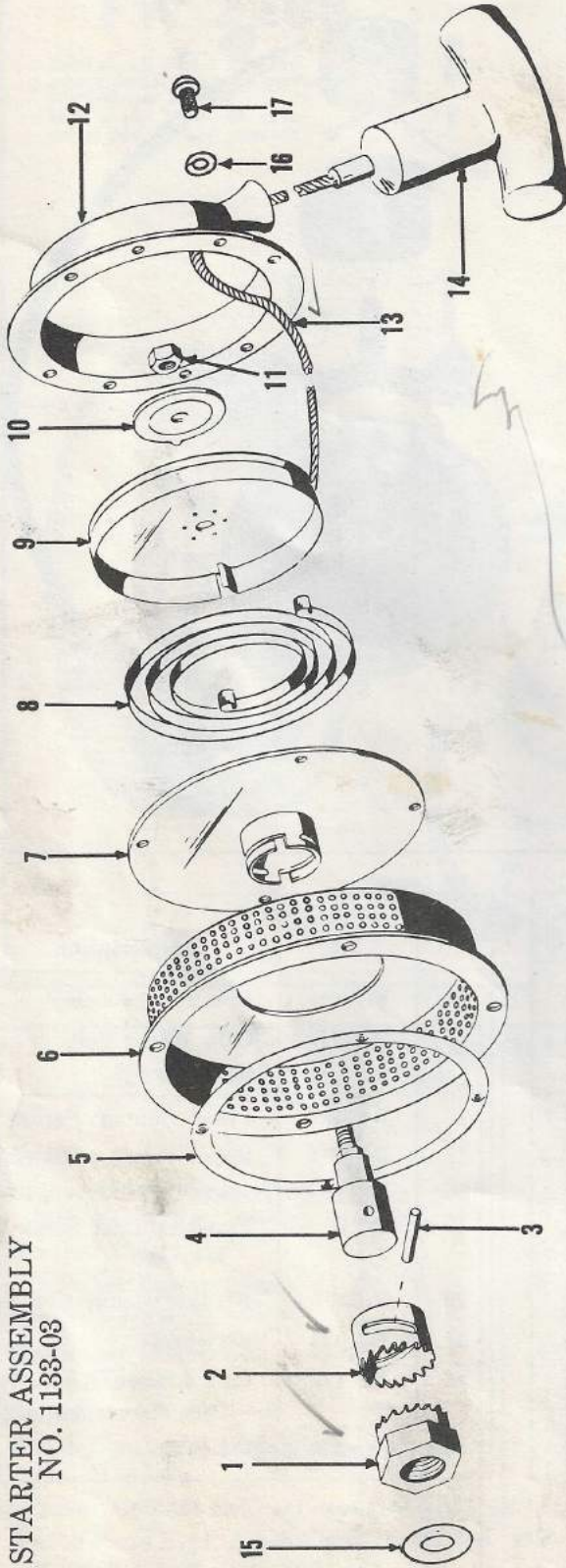


Fig. 4

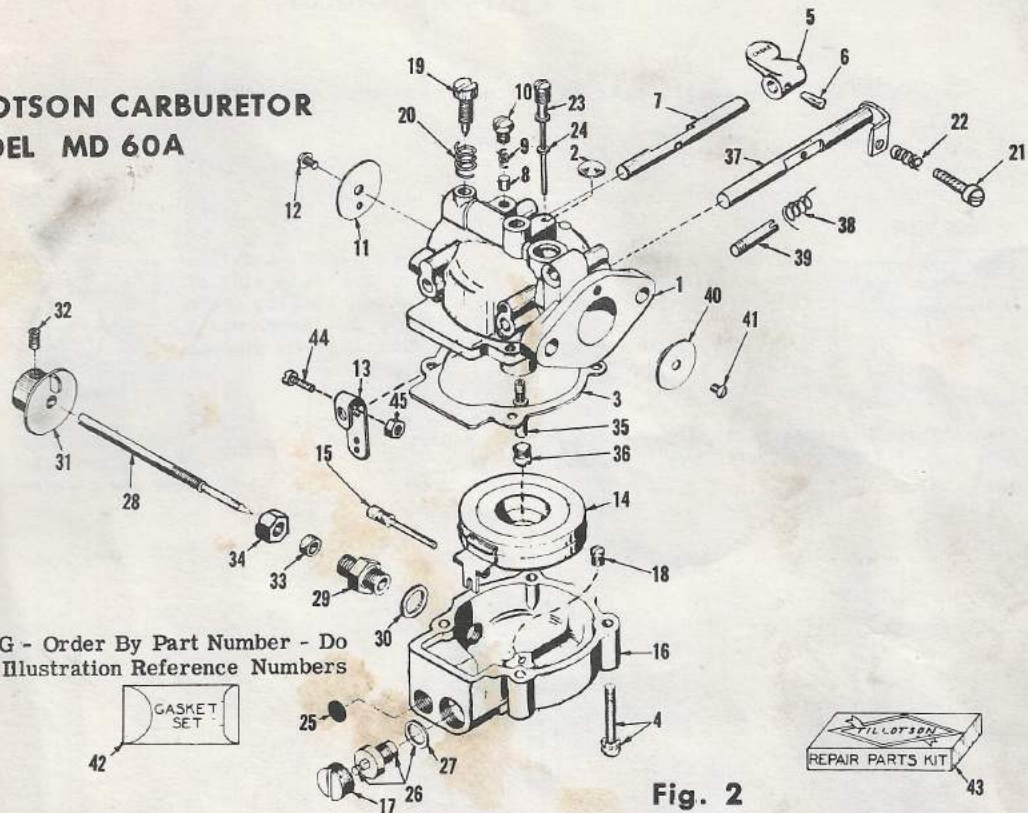
Warning - Order By Part Number - Do  
 Not Use Illustration Reference Numbers

Ref No.	Part No.	Part Name	No. Req.	Ref No.	Part No.	Part Name	No. Req.
1	1133-04	Nut - Driven Member	1	9	250-5	Sheave - Assembly	1
2	250-9	Clutch - Driving Member	1	10	250-13	Washer	1
3	250-10	Pin	1	11	250-14	Nut	1
4	250-3	Axle - Sheave	1	12	250-7	Housing - Sheave	1
5	250-15	Plate - Nut	1	13	250-6	Cable - 60" Wire	1
6	250-8	Housing - Starter	1	14	250-12	Pull Bar	1
7	250-16	Mounting Plate & Bushing Assembly	1	15	1135	Shim	4
8	250-4	Spring - Recoil	1	16	PW208	Lock Washer	4
				17	PS317	Screw - #10-32 x 3/8 R. Hd.	4



ALWAYS SPECIFY ENGINE MODEL & SERIAL NUMBER WHEN ORDERING REPAIR PARTS!

**TILLOTSON CARBURETOR  
MODEL MD 60A**



**Fig. 2**

Ref No.	Part No.	Part Name	No. Req.	Ref. No.	Part No.	Part Name	No. Req.
1	09527	Body - Upper Half	1	24	07900	Gasket - Idle Tube	1
2	*02531	Welch Plug - Body Channel	1	25	*07283	Screen - Inlet Connection	2
3	07903	Gasket - Body	1	26	*07895	Seat & Gasket - Needle, Inlet	1
4	08872	Screw & Lockwasher - Body Retaining	4	27	02510	Gasket - Inlet Seat	1
5	05566	Lever - Choke	1	28	*08611	Screw - Main Adjustment	1
6	03208	Pin - Choke Lever Retaining	1	29	0702	Gland - Main Adjustment Screw	1
7	08454	Shaft - Choke	1	30	0676	Gasket - Main Adjustment Screw Gland	1
8	*05454	Pin - Choke Friction	1	31	08612	Knob - Main Adjustment Screw	1
9	*03860	Spring - Choke Friction Pin	1	32	06969	Screw - Set, Main Adjustment Screw Knob	1
10	*07912	Screw - Choke Friction Pin	1	33	09112	Packing - Main Adjustment Screw	1
11	08585	Shutter - Choke	1	34	0703	Nut - Packing, Main Adjustment Screw	1
12	0120	Screw - Choke Shutter	1	35	*07911	Nozzle - Main	1
13	3105	Lever—Clamp On	1	36	02395	Screw - Channel Plug, Main Nozzle	1
14	07804	Float	1	37	09546	Shaft & Lever - Throttle	1
15	*07901	Screw - Float Pinion	1	38	*09602	Spring - Throttle Lever Return	1
16	07929	Bowl - Fuel	1	39	04594	Pin, Stop - Throttle Lever	1
17	07896	Screw - Fuel Bowl Plug ( Large )	1	40	08781	Shutter - Throttle	1
18	*03311	Screw - Fuel Bowl Plug ( Small )	1	41	*05204	Screw - Throttle Shutter	1
19	*06910	Screw - Idle Adjustment	1	42	*08025	Gasket & Packing Set	1
20	*05725	Spring - Idle Adjustment Screw	1	43	09548	Kit, Repair Parts	1
21	*05095	Screw - Idle Speed Regulating	1	44	PS609	Screw—8-32 x 1/2 Fil. Hd.	1
22	*0788	Spring - Idle Speed Regulating Screw	1	45	PN108	Nut—Hex #8-32	1
23	*07899	Tube - Idle	1				

\* Indicates Contents of Designated Repair Parts Kit



## Filing Instructions FOR #10 CHIPPER CHAIN

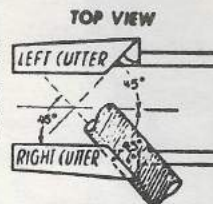
"Your file held in one position does the job"



Use only a 1/4 inch round, straight (not rat-tail) file. Draw long, even strokes. Press firmly back and slightly up. Hold one position.

Always keep this edge vertical when viewed from side. Keep 1/5 of file diameter above top plate.

Keep file up. Low filing undercuts side of cutter, causing chain to grab. **Never** use a flat file to sharpen top plate.



Keep the same 45° angle on both left and right cutters.

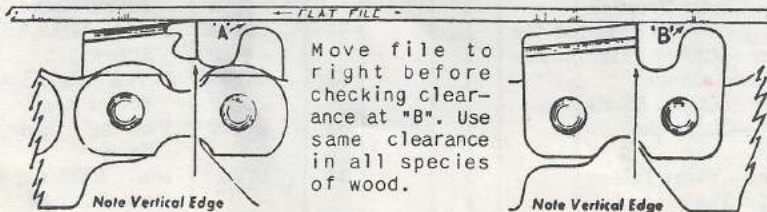


END VIEW

KEEP FILE LEVEL

### Chain Rider Clearance

To check rider clearance place a flat file on two cutters as illustrated... Use a feeler gauge in space "A".



Move file to right before checking clearance at "B". Use same clearance in all species of wood.

Depth gauge clearance should be about .030 inch, or as set at factory.