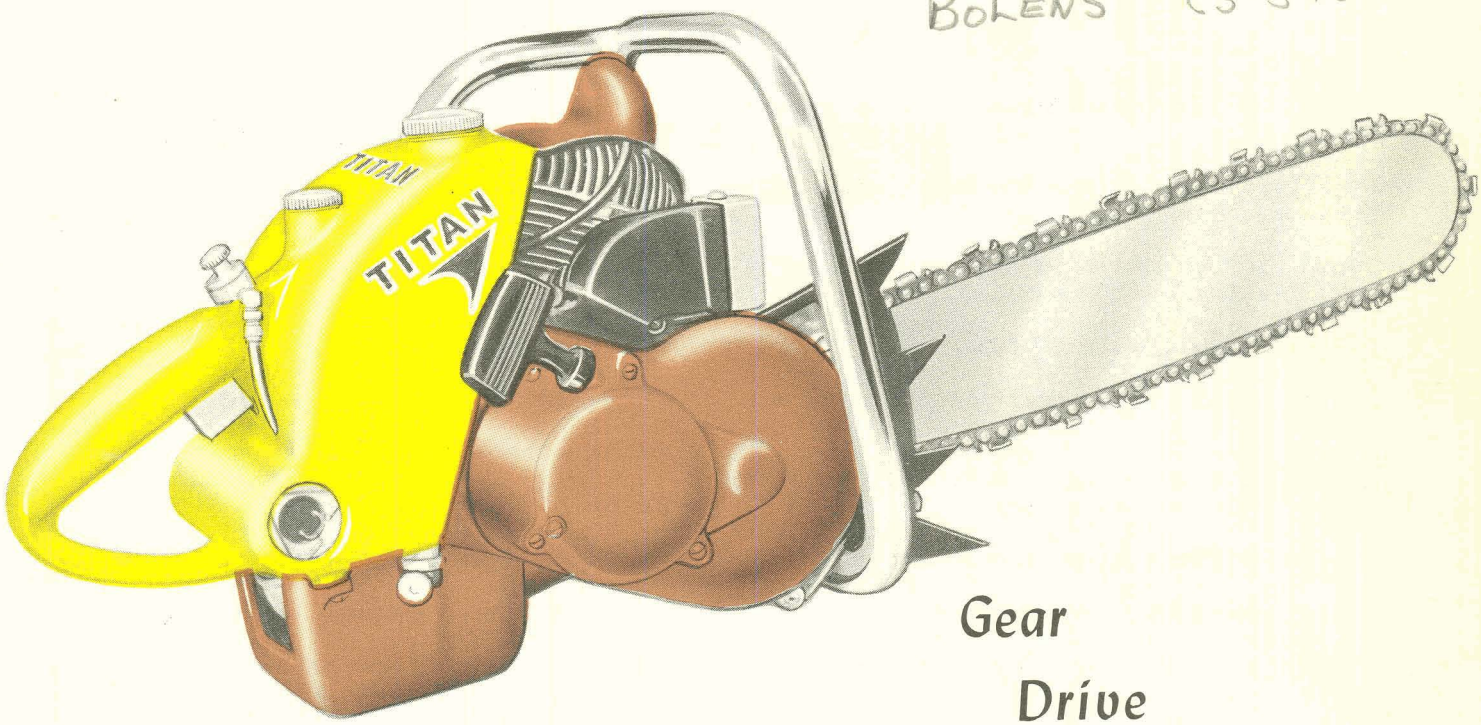
Owner Manual with Parts List

TITAN

5100 SERIES - HIGH SPEED
5200 SERIES - STANDARD SPEED

BOLENS CS-5700



Gear Drive

fmc
FOOD MACHINERY AND CHEMICAL CORPORATION ®

PROPULSION ENGINE CORPORATION
SUBSIDIARY OF FOOD MACHINERY AND CHEMICAL CORPORATION
311 Marion Ave., South Milwaukee, Wis.

INTRODUCTION

Your Chain Saw is precision built and specifically engineered. It has been carefully inspected throughout all phases of its production and assembled by men who are well trained in the production of fine air-cooled gasoline engines and equipment. Your Chain Saw is the finest that money can buy.

We suggest for continued successful operation of your Chain Saw that all service and major repair be handled through an authorized Dealer who is experienced in servicing the equipment and has the necessary parts on hand to give you prompt and efficient service.

IMPORTANT INSTRUCTIONS

SAFETY PRECAUTIONS

Do not start the engine in a closed room.

Do not start saw if other people are near the bar end.

Do not cover a hot engine to be left outdoors or indoors over night.

Do not touch chain when engine is running, even at idle speed.

Always stop engine when moving from one location to another.

Keep engine adjusted to an idle speed, which stops chain completely.

During break-in period (5 hours) never run engine at top throttle unless under load.

Do not start saw at place of fueling.

Do not allow machine to run while it is resting on a concrete floor.

Keep chain sharp; a dull or improperly filed chain will cause the saw to buck and jump.

Keep saw clean of sawdust and inflammable material.

Keep spark plug and wire connections tight.

Never permit children within the cutting area.

Before falling a tree plan a route of exit to a safe distance.

Always check closely for overhead obstructions that may be knocked loose by a falling tree.

Use wedges to control the tree's fall direction and to prevent the chance of bending.

A safety helmet is good insurance against unseen falling objects. Wear one at all times in the woods.

Plan a good working set of signals when two or more people are operating in the same area.

Always give ample warning prior to falling a tree if other people are in the vicinity.

Turn off your saw engine before calling warnings.

PREVENTIVE MAINTENANCE

Daily:

Clean the entire unit thoroughly.

Tighten all nuts, bolts and screws.

Sharpen and adjust chain to proper tension.

Check manual chain lubricator for proper operation.

Check fuel and oil lines and connections for leaks; correct if necessary.

Remove air cleaner element and clean thoroughly by rinsing in pure gasoline.

Check chain oiler tank and fill with oil.

Refill gas tank with proper fuel mixture.

Weekly:

Thoroughly clean all dirt and sawdust from unit.

Remove and clean spark plug. Set point gap to .040".

Check bar for wear on nose and rail. Clean out sawdust. Check groove depth all around bar. Regroove if necessary. Turn bar over to equalize wear.

Check sprocket for wear. Replace sprocket if grooved on tips. Do not attempt grinding sprocket tooth tips. NEVER install a new chain on a worn sprocket.

Remove cutting chain from guide bar and soak overnight in oil for relief of sap and resin deposits and to assure complete lubrication of chain.

Thoroughly check chain. Sharpen and set depth gauges.

Check all items as outlined in daily check.

TO YOU -- THE OWNER

This Owner Manual has been especially prepared to give you all the information needed to operate and maintain your chain saw with maximum efficiency. Read these instructions carefully before starting your saw because, regardless of previous experience, you will find new features in this CHAIN SAW never before included in other saws.

Before delivery to you, the Chain Saw has been carefully tested and inspected to assure you the high degree of performance and satisfaction built into it. However, in order to maintain its standard of performance, this equipment requires a small but IMPORTANT amount of attention on your part.

Always observe good operating procedure, make regular inspections, and perform lubrication and other maintenance services regularly as instructed in manual. By studying the manual carefully and following our operation and maintenance suggestions, you will be rewarded by long efficient service from your CHAIN SAW.

CONSULT YOUR DEALER

In appointing dealers, consideration has been given to their ability to provide prompt and efficient service. We recommend that your local dealer be contacted for your service requirements. Your dealer also stocks the genuine factory replacement parts you may need, or through his close contact with the factory, can get them for you with minimum delay.

REGISTER YOUR TYPE AND SERIAL NUMBER

Register your type number and serial number in the spaces provided below and always refer to them when writing for information or ordering parts. Complete the registration card received with the saw and return to the factory.

TYPE NO._____

SERIAL NO. _____

SPECIFICATIONS

Engine	West Bend
Displacement	6.46 cu. in.
Number of Cylinders	One
Cooling	Air
Bore	2-1/4 Inches
Stroke	1-5/8 Inches
Cycle	Two
Fuel	Oil and Gasoline Mixed
Spark Plug	H12J or Equal
Point Gap	.040 Inches
Ignition Timing	9/64 Inch before top dead center
Breaker Points	.020 Inches
Type of Valve	Reed
Operating Speed	5000 RPM
Carburetor	Diaphragm Fuel Pump
Type of Ignition	High Tension Flywheel
Type of Starter	Recoil
Chain Tension Device	Positive Screw Type
Oiler	Built-in Plunger Type
Type of Chain	*Chipper* - .063 gauge
Fuel Ratio	1/2 pint of Outboard Motor Oil to 1 gal. of gasoline
Recommended Gasoline	Regular gasoline - 72-83 octane
Type of Clutch	Automatic Centrifugal
Capacity of Chain Oiler Tank	7/8 pint
Capacity of Gas Tank	2-1/2 pint
Weight (Less Bar and Chain)	24-1/2 lbs

GENERAL INFORMATION

The gear drive saw was designed to meet the needs of the commercial user who needs a saw of the highest quality and maximum dependability.

Construction is of magnesium cast parts for lightness and ability to withstand hard wear. The unit is powered by a high performance, light weight engine that assures power when needed. Carburetor is the all-position fuel pump type which allows the saw to operate in any position without interruption of fuel supply.

The saw is available in two speeds, "high" for light or medium cutting and "standard" for heavy cutting. Optional gear sets are available to change either saw to the other speed. The gears are made of material requiring no lubrication.

Automatic centrifugal clutch allows load free starting and stops chain when engine is at idle.

The special alloy hardened steel guide bar gives longer life and smoother performance. Thumb tip oil plunger assures proper lubrication of guide bar and chain during operation.

ASSEMBLY

The saw is shipped in two cartons, one containing the power head with spike bumper removed, the other the guide bar, and chain.

Install spike bumper to front of main frame with screws and washers provided (Figure 3).

Remove guide bar clamp assembly. Mount the slotted end of guide bar over the two studs in saw frame and move guide bar backward as far as possible.

Position chain over drive sprocket and around guide bar with the chain cutters facing forward along the top side of bar. Move the guide bar forward and be sure the chain drive links are properly seated in guide bar groove around the entire bar. (Figure 2.)

Replace bar clamp, washers, and nuts but do not tighten completely.

IMPORTANT: The chain tightener pin must be seated in one of the holes in guide bar so the clamp will rest evenly against the guide bar.

Raise the front end of the guide bar as far as possible. With the bar in this position, turn adjusting screw until proper chain tension is obtained and tighten bar clamp nuts securely. When properly adjusted the chain should sag free so that about one half of the depth of drive links are visible along the bars lower edge. After several cuts are made with a new chain, additional adjustment will be necessary to take up the accumulated slack.

CAUTION

Do not adjust chain too tight. If the chain is too tight on guide bar the drag friction will cause loss of power and also damage to guide bar and chain through overheating.

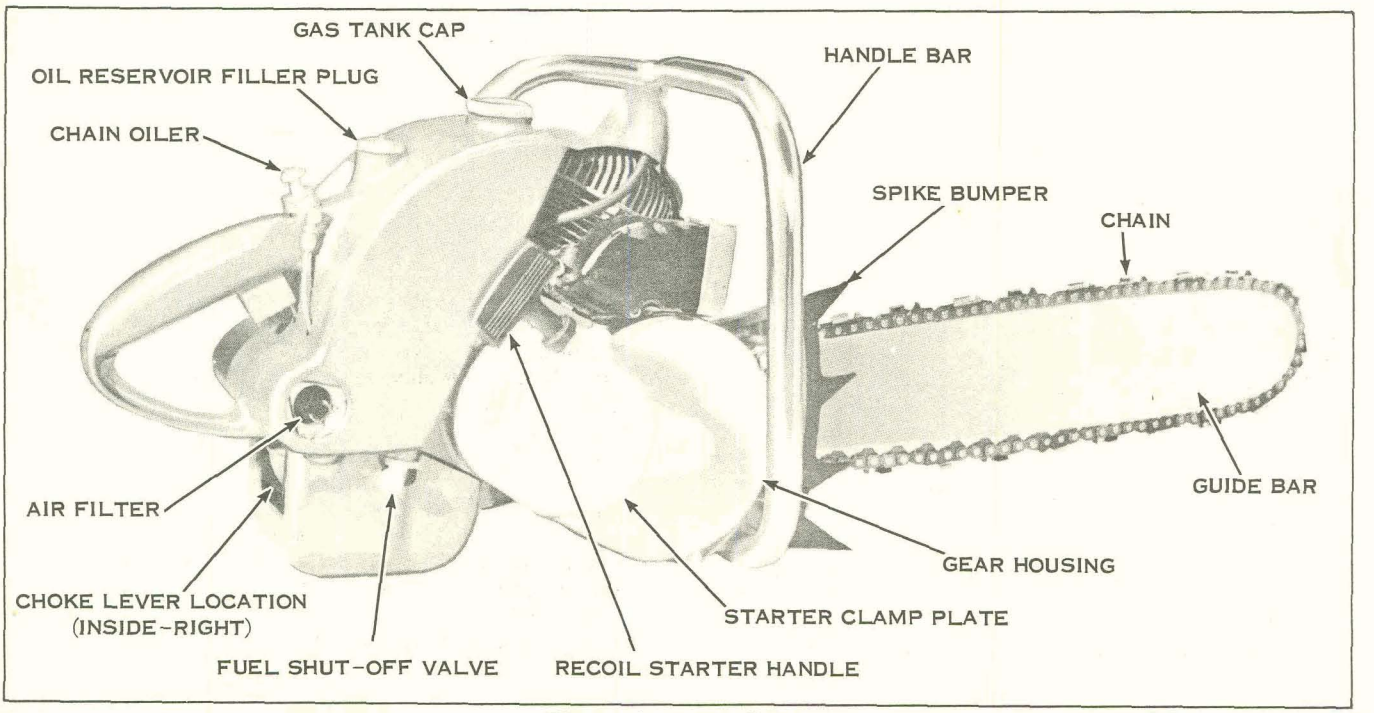


Figure 1. Chain Saw

FUEL AND LUBRICATION

IMPORTANT: UNITS ARE SHIPPED WITH ENGINES COMPLETELY DRY SO FOLLOW INSTRUCTIONS CAREFULLY BEFORE STARTING ENGINE. The lubrication of the two cycle engine depends entirely on the oil mixed with the gasoline. The proper mixture is 1/2 pint of Outboard Motor Oil, to one gallon of gasoline. For the first few hours of operation it is recommended that a mixture of 3/4 pint of oil per gallon of gasoline be used. Be sure to mix gasoline and oil in a separate container. Do not pour unmixed gasoline or oil into engine fuel tank.

Fill the oil tank with #30 or heavier for use in warm or moderate temperatures and #10 in winter. In extreme cold weather or when working in pitchy wood a mixture of 4 parts of oil and one part of kerosene is recommended. Before using saw, press chain oiler plunger until a quantity of oil has entered the guide bar groove. During operation use oil pump plunger frequently to keep guide bar and chain adequately lubricated.

STARTING ENGINE

1. Open fuel tank shut-off valve.

2. Check carburetor needle settings. Both the idle and the high speed needles should be set at one turn open.

3. Place carburetor choke lever in full choke position (DOWN).

4. Push ignition switch to ON position.

5. Pump chain oiler plunger several times to provide lubrication to guide bar and chain.

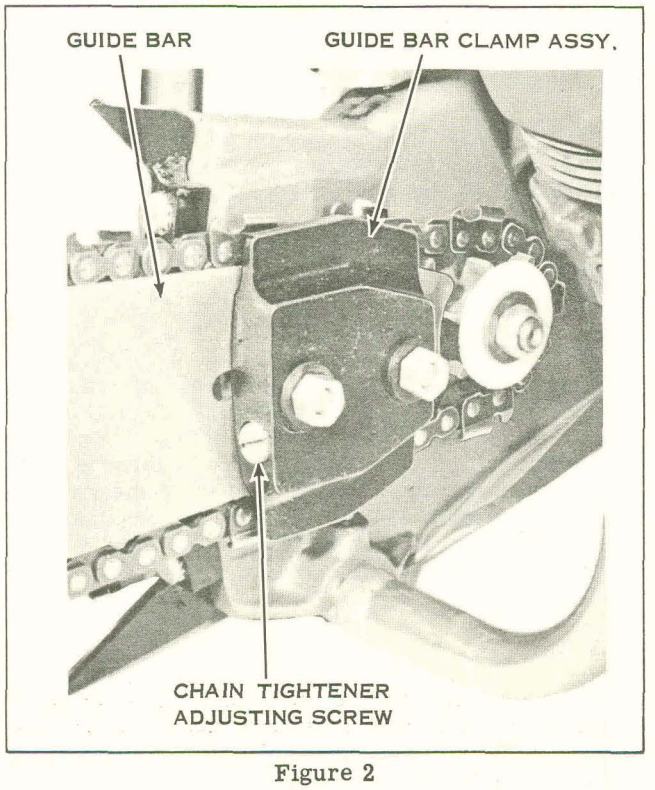


Figure 2

6. With throttle depressed, pull starter with quick snap pulls until engine fires.

7. Move choke lever to half-open position and run engine at low speed until it is warm enough to operate with choke in full open position.

CAUTION

Do not race engine without a load.

SAW OPERATION

For the first few days of operation, at least, treat your Chain Saw as you do a new car. Give it plenty of time to warm up before starting to cut. Don't race the engine in small timber. Provide plenty oil lubrication to guide bar and chain.

Start cut by bringing cutting chain into contact with log --- with spike bumper against log. Open throttle. Don't force the cutting, use spike bumper as pivot point. The saw is guided very easily using both hands -- one in complete control of the engine, the other to support the unit. Always cut at full throttle.

As cut is completed, release throttle and allow engine to idle.

To buck a log larger than the capacity of the guide bar, cut into the log away from you until the saw approaches a vertical position, engine up and guide bar and chain down. This is done by lifting the rear of saw and holding front handle downward. After the far side of the log has been cut, work the engine toward you until it is approximately level. Finish the cut in this horizontal position. As the cut nears completion, hold the saw firmly to prevent the chain from entering the ground. When cut is finished, release throttle.

To stop engine, push switch to "STOP" position.

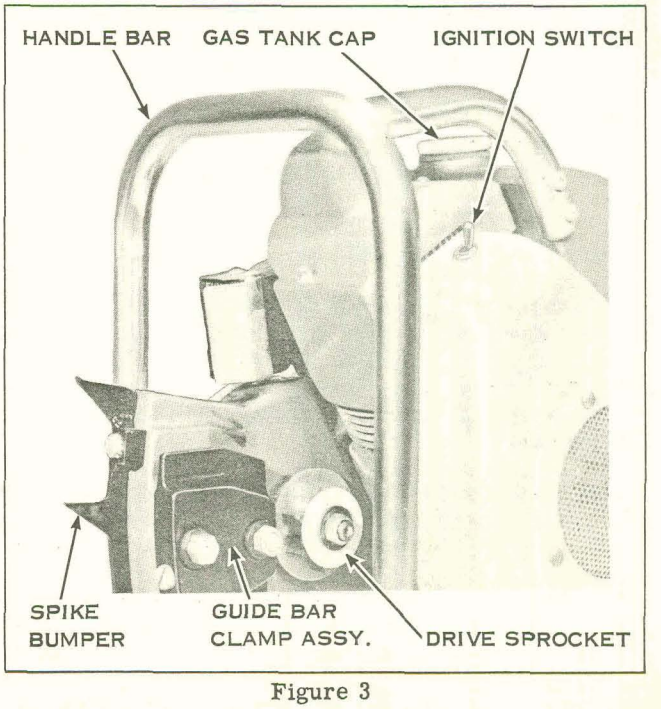


Figure 3

CARBURETOR ADJUSTMENT

The carburetor has been pre-adjusted at the factory during the run-in period, both for proper idling and maximum power. In most instances the high speed adjustment needle located at the rear of carburetor on right hand side will perform best at one turn open. The position of this setting is variable on different engines, but will remain close to one turn in most cases.

The idle adjustment needle located to the left of high speed adjustment needle will ordinarily perform best at one turn open also. As in the case above, this too is variable and may require some closer adjustment for best results.

IMPORTANT: Before running the chain saw for a test cut and also all cuts thereafter, be sure the bar and chain are thoroughly LUBRICATED. Neglecting to do this will quickly ruin the saw chain.

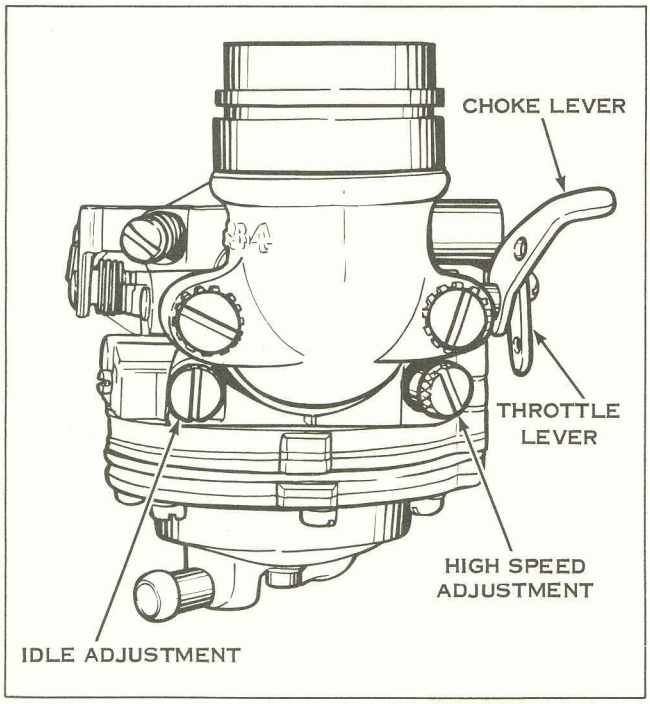


Figure 4. Carburetor

CARE OF THE SAW CHAIN

To get top efficiency from your gear drive saw the chain must be kept in top condition. A dull chain produces a rough action and causes chain to bind in the cut. This action loosens the teeth and rivets of the chain and causes excessive wear of groove in guide bar.

The chain is sharpened best by removing it from the saw and sharpening in a filing vise designed for the job. Several acceptable models are on the market.

File the cutting angle exactly the same on all cutting teeth, 35°, using a 1/4 inch round chain saw file. This will insure maintaining the correct shape of the cutting teeth. Keep the file horizontal and use firm strokes, applying pressure only on the forward stroke.

If it is necessary or expedient to file chain on the guide bar be sure to take the following precautions:

1. When clamping the guide bar in a bench vise take care that you do not pinch the guide bar groove.

2. After filing the chain on the guide bar, slacken chain and run free with a surplus of chain oil to flush out filings.

The performance and life of any chain depends upon how well it is maintained. If the filing is 50% below standard, the performance will be 50% below standard. If the filing is up to standard but the chain is being run under adverse conditions which include, for example, a bad sprocket, shallow bar channel, lack of lubrication, the life of the chain will be shortened.

In replacing damaged cutters be sure they are correct as to right or left. When peening the rivets, do not strike too hard as this will bulge the large diameter of rivet and cause chain to bind. Always check chain for flexibility after repair.

SPARK PLUG

The spark plug should be checked periodically. A fouled plug causes starting trouble and poor operation. The plug should be cleaned and points set at .040 inch. If there is any doubt as to the condition of the plug it should be replaced.

AIR FILTER

Under ordinary operating conditions, the air cleaner should be cleaned daily. However, under extremely dusty conditions, more frequent cleaning may be necessary.

To clean air filter, remove the retainer lockwire securing cap located on the right side of the tank. Remove element from right side and wash thoroughly in solvent or blow clean with compressed air.

IMPORTANT: Dirt entering the carburetor is one of the greatest causes of engine wear.

CLEAN FILTER REGULARLY. NEVER OPERATE ENGINE WITHOUT FILTER.

MUFFLER AND EXHAUST PORTS

The exhaust ports should be cleaned approximately every 50 hours of operation. Failure to do this may result in loss of engine power. Remove the spark plug and muffler and turn engine so piston is at the bottom of the stroke. With a blunt instrument scrape carbon from exhaust holes and surrounding chamber. Pull starter cord several times to blow out loose carbon and replace plug and muffler.

CLUTCH

The saw is designed with an automatic clutch which requires no adjustment. If the chain creeps when engine is idling, adjustment should be made on the carburetor idler control.

CHAIN,BAR AND SPROCKET MAINTENANCE TIPS*

The following are some of the points to look for when a chain is not giving satisfactory service.

CORRECT ASSEMBLY

Check the parts assembly. Frequently, the user will install the wrong parts when he repairs his chain.

1. See that parts have not been installed backwards.

2. See that all parts are correct size and pitch. Sometimes a 7/16 inch pitch chain will be repaired with 1/2 inch parts.

3. Tight joint. If the rivet has been struck too hard, the center hub will be broken, resulting in a tight joint.

4. Discourage the installation of used parts in chain repair. For example, if a used rivet is placed in a chain, it may break off, and a piece of the rivet head or spindle will become lodged between the tie strap, or cutter and drive link. A tight joint results.

"SOFT" CHAIN

If the chain will not hold an edge, look for these faults:

1. When the file has been held too low, the top plate will be feathered, or filed too thin. The cutting edge will then break off and quickly become dull.

2. If the file is held too high, the result is a blunt cutting edge on the front of the top plate. In effect, the chain has not been sharpened at all.

3. Incorrect setting of depth gauges or "stops." Depth gauges should be adjusted to the power of the saw and the type of wood being cut. If they are too high, the cutter will not perform, and will become rounded no matter how frequently the chain is sharpened. Adjust the depth gauges downward as the cutters are filed. For Hi-Speed .030 - .035 and Low-Speed .035 - .040 will give best all-around performance.

4. If the chain has been run in rocks, gravel, or grit, some of the chrome may have been knocked off the cutting edges. Rapid cutter wear will result if the chain is operated under these conditions.

5. The front angle of the top plate on both right and left hand cutters should be approximately the same. If not, the cutters on one side will be doing most of the work and the chain will lead off to that side.

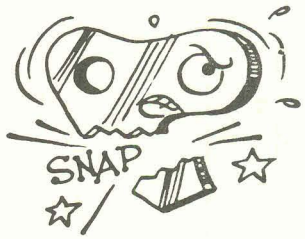
EXCESSIVE SPROCKET WEAR

An excessively tight chain or a chain being out of pitch will cause undue sprocket wear.

1. Do not put a new chain on a worn sprocket.

2. Do not put an out-of-pitch chain on a new sprocket.

DRIVE LINK BREAKAGE



Breakage in a chain generally occurs in drive links. The following factors contribute to this condition:

1. Chain has been run on a bar with a shallow groove or a worn rail. This causes excessive chain chatter which produces heat and strain on the drive links.

* COURTESY OF OREGON SALES AND SERVICE NEWS

2. Improper depth gauge setting. To reduce chain chatter, depth gauges should be set uniformly at the correct height. For example, ten depth gauges in a row set at .035 inch below the cutters, followed by one set at 0.60 inch, will result in chatter and undue strain on the latter. In such a case, all depth gauges should be set at .035 inch.

3. Drive links striking the back or motor mount end of the saw bar, or at any other point, will produce undue strain or breakage.

EXCESSIVE STRETCH

More than 1/4 inch stretch to the lineal foot of chain will change chain pitch so much that the chain cannot be used satisfactorily. The following are causes of "stretch."

1. The chain has been run too tight on the bar.

2. Sufficient oil has not been applied to the chain during operation.

3. Depth gauges have not been properly set, resulting in excessive chatter.

4. Faulty bar. When drive links strike any portion of the mounting end, the tang or point of the drive link will be broken or rounded off. This permits sawdust to build up in the bar channel and produces excessive stretch by tightening the chain.

GUIDE BARS

Some causes of poor chain performance and short chain life, resulting from faulty bars, follow.

1. The bottom of the drive links riding on the bottom of the bar channel. This prevents the chain from being seated properly. Worn bars have shallow grooves all the way around. Some are shallow only on the mounting end or at the nose of the bar. Either bar condition is undesirable.

2. Faulty bar groove is usually caused by the thinner of the two rails leaning out, resulting in improper support for the chain.

3. Improper chain entry at the motor mount end of the bar causes excessive wear and breakage of the drive links.

TROUBLE SHOOTING - CHECK CHART

TROUBLE	POSSIBLE CAUSE	REMEDY
1. Engine fails to start.	Ignition switch off. No fuel in tank. Gasoline shut-off valve closed. Spark plug shorted or fouled. Flooded.	Turn on. Fill tank. Open shut-off valve. Install new plug. Close carburetor main adjustment and pull starter cable until engine starts. Then turn 1/2 to 3/4 turn open.
	Fuel line or fuel tank clogged. Ground wire loose.	Clean fuel line and screen. Remove fan housing and attach loose end of magneto ground wire to the ignition switch.
	Spark plug broken (Cracked porcelain or electrodes broken). Magneto lead wire shorted, broken or disconnected from spark plug. Magneto inoperative. (No spark from lead wire).	Replace spark plug. Replace lead wire or attach to spark plug. Contact the factory or your nearest authorized dealer.

Check Chart Continued on Next Page

TROUBLE	POSSIBLE CAUSE	REMEDY
2. Engine hard to start.	Engine over or under choked.	If flooded by over-choking, proceed according to instructions in previous section. If under-choked, pull choke lever toward air cleaner and pull starter rope two or three times.
	Spark plug fouled, shorted or broken. Carburetor out of adjustment.	Replace with a new plug. Close main adjustment needle and reset to 3/4 turn open.
	Gasket leaks (Carburetor or reed plate gasket).	Replace gasket.
	Water in gasoline or stale fuel mixture.	Drain entire fuel system and refill with fresh fuel.
	Poor compression.	Contact the factory or your nearest authorized dealer.
	Weak spark at lead wire.	Contact the factory or your nearest authorized dealer.
	Reed broken or standing open.	Replace with a new reed.
3. Engine misses.	Spark plug fouled, broken or incorrect gap setting. Carburetor out of adjustment. Dirt in fuel line or carburetor.	Clean or replace spark plug. Set points at .040. Proceed as in item 2. Remove drain plug and flush, if not correct remove carburetor for more thorough cleansing.
	Weak or intermittent spark at lead wire.	Contact the factory or your nearest authorized dealer.
	Reed broken or standing open.	Replace with a new reed.
4. Engine lacks power.	Air cleaner clogged. Carburetor out of adjustment. Muffler clogged. Clogged exhaust ports.	Remove and clean. Proceed as in item 2. Clean carbon from muffler. Remove muffler, pull starter rope until piston is at bottom of cylinder. With a wooden scraper or blunt tool, remove all the carbon from the exhaust ports. Be careful not to scratch the piston or cylinder walls. Blow out the loose carbon with compressed air. Start engine and run briefly to remove all carbon then install muffler and gasket.
	Poor compression.	Contact the factory or your nearest authorized dealer.
5. Engine overheats.	Air flow obstructed.	Clean flywheel and cylinder fins and screen on starter.
	Insufficient oil in fuel mixture.	Mix fuel as shown on tank decal.
6. Engine noisy or knocking.	Spark plug incorrect heat range.	Replace with plug specified for engine.
	Loose flywheel. Bent fan housing. Worn bearings, piston rings or cylinder walls.	Tighten flywheel nut. Remove fan housing and straighten. Contact the factory or your nearest authorized dealer.
7. Engine stalls under load.	Carburetor main adjustment too "lean".	Readjust carburetor as described under item 2.
	Engine overheats.	See Section 5 above.
8. Chain runs in cut.	Routers high on one side.	Refile to uniform height. Will run to high side.
	Bar worn low on one side.	Remove and dress bar down level. See instructions under Maintenance and Adjustments.
9. Chain cuts rough (grabs).	One or more high routers. Depth gauges too low.	Refile to uniform height. Routers should be filed back until proper gauge setting is reached.
10. Chain drags.	Idle set too fast.	Reset idling.

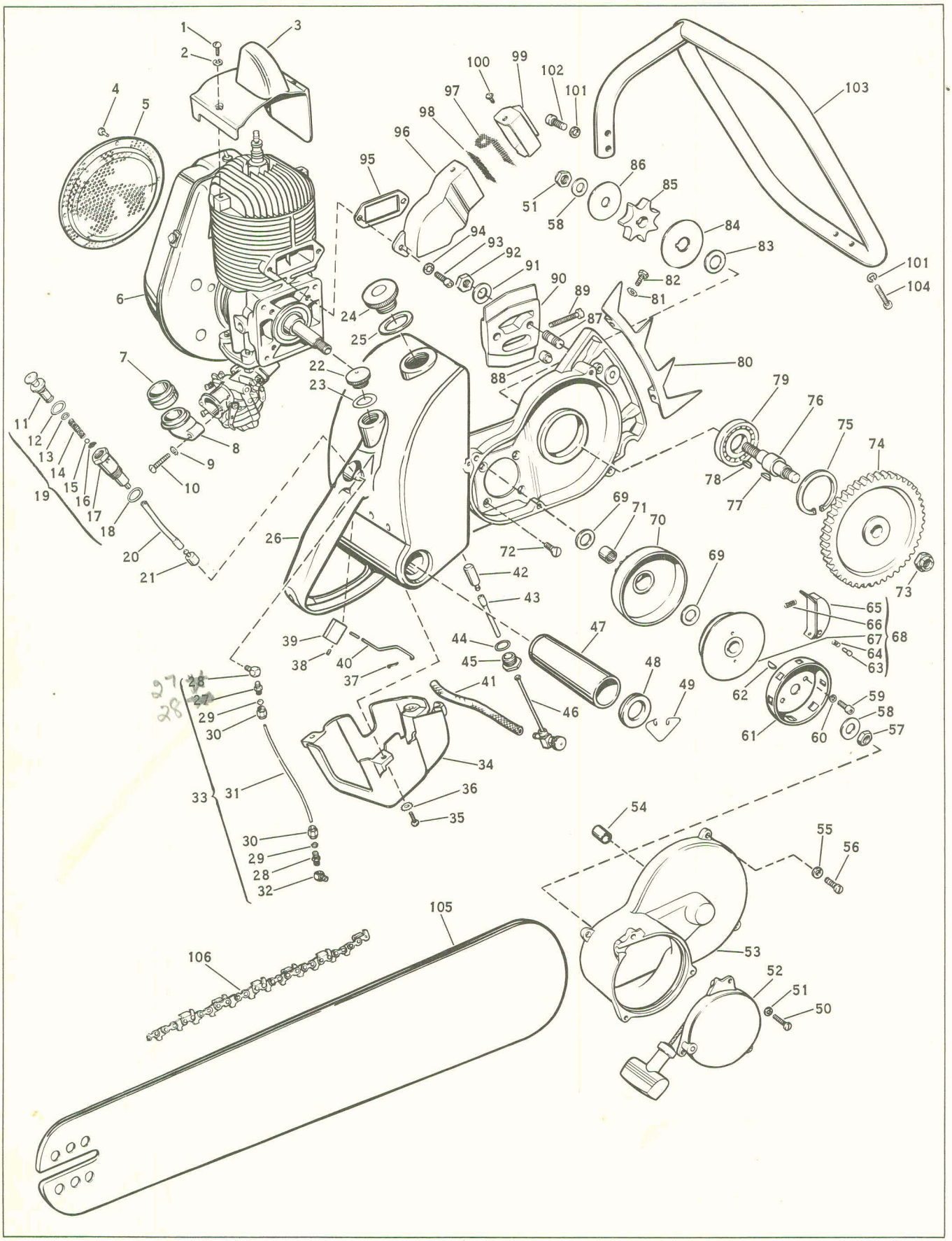


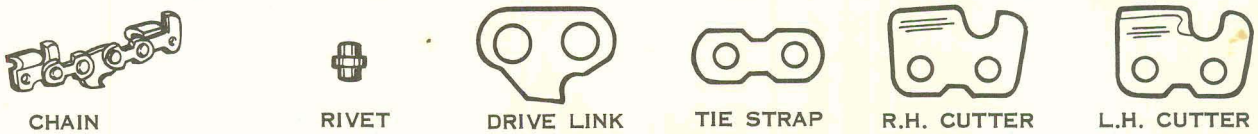
Figure 5

Ref. No.	Part No.	Description	No. Req'd.
1	1185367	Screw	2
2	1100240	Lockwasher	2
3	1707688	Cylinder Cover	1
4	1707841	Rivet	4
5	1707842	Screen	1
6	1708265	Engine (Incl. 4 and 5)	1
7	1707699	Grommet	1
8	1707652	Adapter	1
9	1187559	Lockwasher	2
10	1114766	Screw	2
11	1707835	Oiler Piston (Inc. 12 and 13)	1
12	1707894	Gasket	1
13	1185362	O-Ring	1
14	1707892	Oiler Spring	1
15	1185363	Ball	1
16	1707891	Oiler Screen	1
17	1707886	Oiler Body	1
18	1185360	O-Ring	1
19	1707671	Oil Pump Assy. (11 thru 18)	1
20	1707863	Pick Up Tube	1
21	1707875	Sinker	1
22	1707837	Oil Cap	1
23	1707872	Gasket	1
24	1707820	Fuel Cap	1
25	1707895	Gasket	1
26	1708397	Fuel Tank (Inc. 29 thru 31)	1
27	1707907	Connector Elbow	1
28	1185357	Straight Adapter	2
29	1106671	Compression Sleeve	2
30	1185356	Compression Nut	2
31	1707690	Oil Line	1
32	1185365	Connector Elbow	1
33	1708396	Oil Line Kit (Inc. 27 thru 32)	1
34	1707654	Carburetor Guard	1
35	1185369	Screw	4
36	1187559	Lockwasher	4
37	1185366	Cotter Pin	1
38	1112654	Set Screw	1
39	1707898	Trigger	1
40	1707860	Throttle Rod	1
41	1707672	Hose	1
42	1707817	Filter	1
43	1707833	Hose	1
44	1185361	O-Ring	1
45	1707816	Adapter Fitting	1
46	1707834	Shut Off Valve	1
47	1707878	Element Assembly	1
48	1707881	Cap Assembly	1
49	1707880	Retainer	1
50	1114354	Screw	3
51	1100240	Lockwasher	3
52	1707678	Starter Assembly	1
53	1708470	Transmission Cover (Inc. 54)	1
54	1185167	Bronze Bearing	1
55	1100241	Lockwasher	4
56	1185371	Screw	4
57	1185372	Nut	2
58	1707760	Washer	2
59	1112268	Socket Head Screw	2
60	1185098	Washer	2
61	1707867	Starter Cup	1

Ref. No.	Part No.	Description	No. Req'd.
62	1100275	Key	1
63	1707107	Pin	2
64	1707108	Spring	2
65	1708466	Shoe	2
66	1707110	Spring	2
67	1708467	Clutch Plate	1
68	1707777	Clutch Assy. (63 thru 67)	1
69	1706512	Washer	2
70	1707682	Clutch Cup-High Speed (Inc. 71)	1
	1707681	Clutch Cup-Standard Speed (Inc. 71)	1
71	1185294	Bearing B-1112	1
72	1185368	Screw	4
73	1185377	Nut	1
74	1707669	Gear - High Speed	1
	1707670	Gear - Standard Speed	1
75	1185373	Retainer Ring	1
76	1707793	Sprocket Shaft	1
77	1707791	Key	1
78	1707789	Key	1
79	1185354	Ball Bearing	1
80	1707780	Spike Bumper	1
81	1185180	Lockwasher	2
82	1106840	Screw	2
83	1707684	Spacer	1
84	1707685	Inner Sprocket Plate	1
85	1707767	Sprocket	1
86	1708433	Outer Sprocket Plate	1
87	1706522	Stud	2
88	1707884	Adjusting Nut	1
89	1707769	Adjusting Screw	1
90	1707656	Clamp Plate	1
91	1707758	Washer	2
92	1109529	Nut	2
93	1187916	Screw	2
94	1187612	Lockwasher	2
95	1707824	Gasket	1
96	1707788	Muffler	1
97	1707674	Spark Arrester Screen	1
98	1707673	Screen	1
99	1707906	Exhaust Deflector	1
100	1185381	Screw w/Washer	1
101	1185159	Washer	4
102	1185378	Screw	2
103	1707667	Handle	1
104	1187857	Screw	2
105	1707912	Guide Bar 16"	
	1707913	Guide Bar 20"	
	1707914	Guide Bar 25"	
	1707915	Guide Bar 31"	
	1707916	Guide Bar 37"	
106	1708144	Chain 16" (Oregon #10)	
	1708145	Chain 20" (Oregon #10)	
	1708146	Chain 25" (Oregon #10)	
	1708147	Chain 31" (Oregon #10)	
	1708148	Chain 37" (Oregon #10)	
	1708413	Chain 16" (Bluejet #50-51)	
	1708414	Chain 20" (Bluejet #50-51)	
	1708415	Chain 25" (Bluejet #50-51)	
	1708416	Chain 31" (Bluejet #50-51)	
	1708417	Chain 37" (Bluejet #50-51)	

RACE
9/16 ID
5/8 OD
7/8 LONG

Pre-Set Tie Strap 1708172 Inc. (1) 1704385 and (2) 1704387 (Oregon #10)
Pre-Set Tie Strap 1708420 Inc. (1) 1708421 and (2) 1708432 (Bluejet #50-51)



CHAIN	RIVET	DRIVE LINK	TIE STRAP	R.H. CUTTER	L.H. CUTTER
Oregon #10	1704387	1708171	1704385	1704384	1704383
Bluejet #50-51	1708432	1708419	1708421	1708422	1708423

Figure 6. Cutting Chain Parts

REWIND STARTER

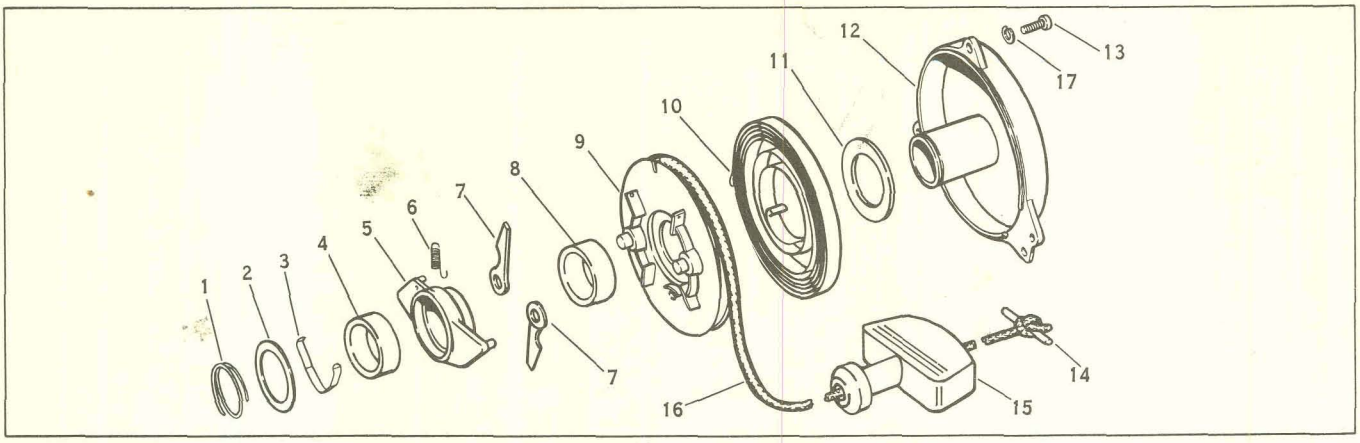


Figure 7

Ref. No.	Part No.	Description	No. Req'd.
1	1185359	Retaining Ring	1
2	1707677	Washer	1
3	1707807	Spring Clip	1
4	1707810	Pawl Plate Bushing	1
5	1707785	Pawl Plate 401019	1
6	1707808	Pawl Spring	1
7	1707827	Pawl	2
8	1707809	Pulley Bushing	1
9	1707864	Pulley	1
10	1707829	Recoil Spring	1
11	1708156	Thrust Washer	1
12	1708179	Starter Housing Casting	1
13	1114354	Screw	3
14	1185376	Pin	1
15	1707862	Starter Handle	1
16	1707828	Rope	1
17	1100240	Lockwasher	3

MAGNETO

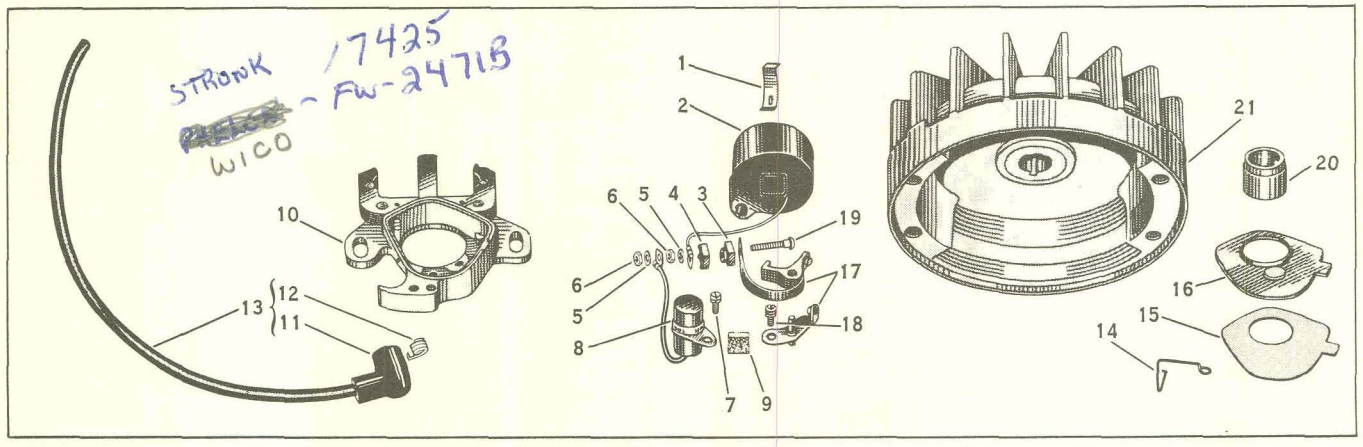


Figure 8

Ref. No.	Part No.	Description	No. Req'd.
1	1707718	Coil Wedge Spring	1
2	1707719	Coil	1
3	1707720	Connection Stud Insulator	1
4	1707721	Connection Stud Insulator	1
5	1100250	Lockwasher	2
6	1109764	Nut	2
7	1110595	Condenser Clamp Screw	1
8	1707722	Condenser	1
9	1707723	Cam Wiper - Felt	1
10	1707724	Stator Plate and Core Only	1
11	1707738	Lead Insulator	1
12	1707739	Terminal	1
13	1707725	High Tension Lead Assy. (Incl. 11 and 12)	1
14	1707727	Breaker Box Cover Spring	1
15	1707728	Breaker Box Cover Gasket	1
16	1707729	Breaker Box Cover	1
17	1707730	Breaker Point Set	1
18	1707731	Screw	1
19	1707732	Connection Stud	1
	1707740	Stator Plate Unit (Incl. 1 thru 19)	
20	1708481	Breaker Cam	1
21	1708482	Flywheel	1

USE PAGE 10 OF 5000 MODEL PARTS LIST.
FOR WICO MAG'S

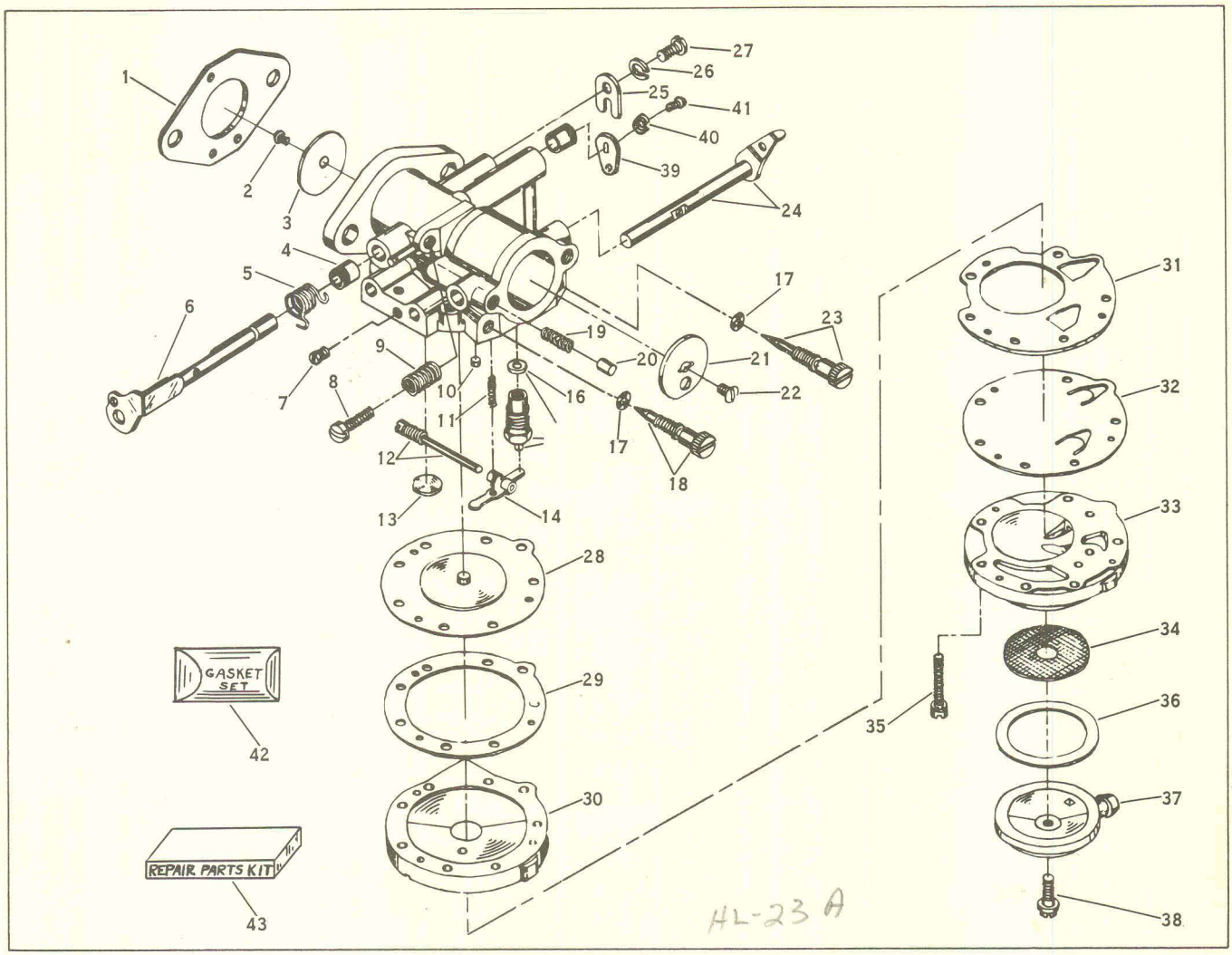
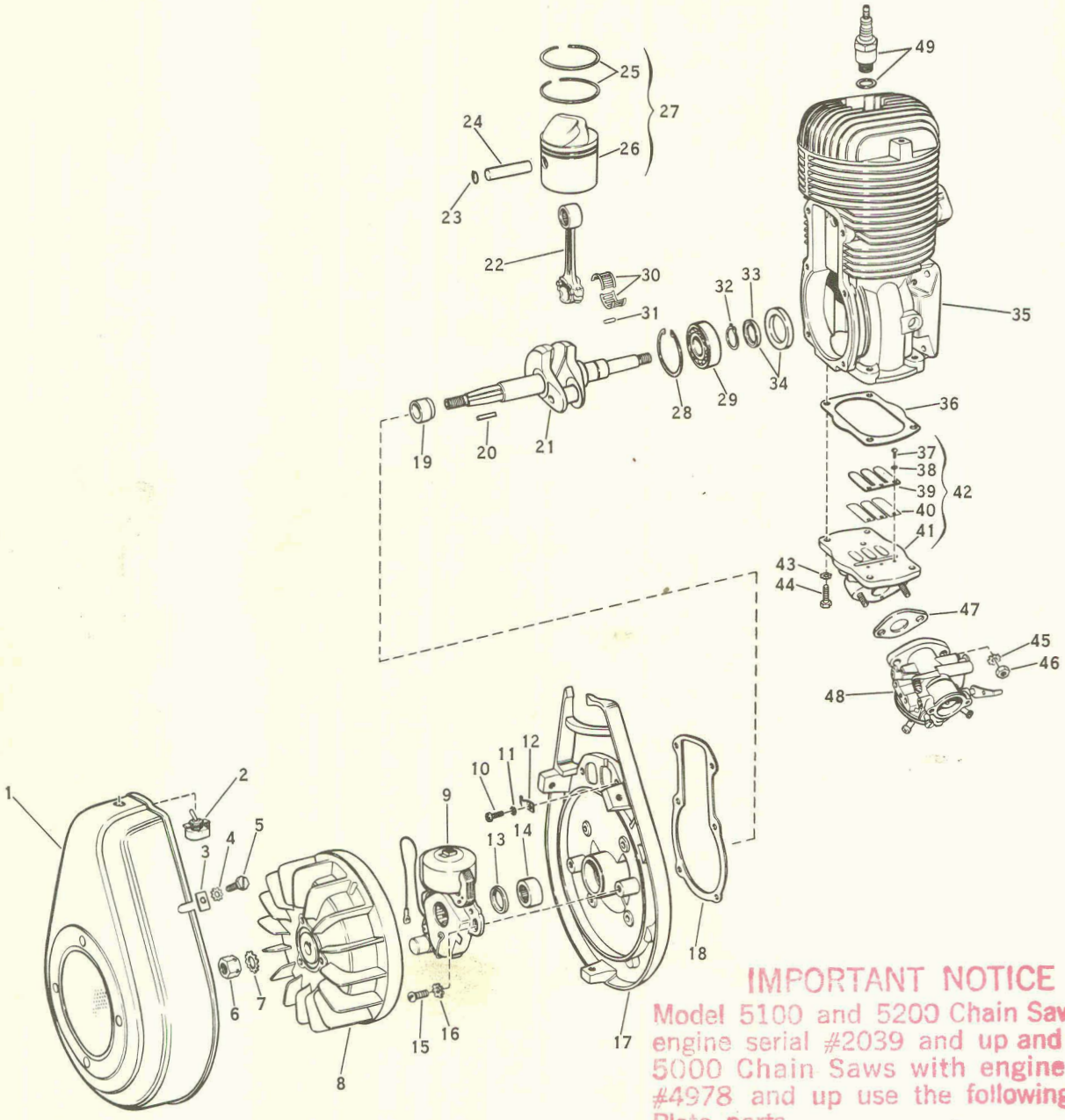


Figure 9

Ref. No.	Part No.	Description	No. Req'd.
1	1707701	Gasket	1
*2	1707100	Throttle Shutter Screw	1
3	1707099	Throttle Shutter	1
4	1707095	Throttle Shaft Bushing	2
*5	1707098	Spring	1
6	1707704	Shaft and Stop Lever	1
7	1707070	Chamber Drain Screw	1
*8	1707085	Idle Speed Screw	1
*9	1707086	Idle Speed Spring	1
*10	1707063	Body Channel Plug	1
*11	1707091	Inlet Tension Spring	1
*12	1707090	Inlet Control Lever Screw	1
*13	1707064	Body Channel Welch Plug	1
*14	1707089	Inlet Control Lever	1
*15	1707087	Inlet Needle Seat and Gasket (Incl. 16)	1
16	1707088	Inlet Seat Gasket	1
17	1707093	Idle Screw Seal Ring	2
*18	1707703	Idle Adjusting Screw (Incl. 17)	1
19	1707069	Choke Friction Spring	1
20	1707068	Choke Friction Pin	1
21	1707066	Choke Shutter	1

Ref. No.	Part No.	Description	No. Req'd.
22	1707100	Choke Shutter Screw	1
*23	1707702	Main Adjusting Screw (Incl. 17)	1
24	1707706	Choke Shaft and Lever	1
25	1707096	Throttle Shaft Clip	1
26	1185098	Lockwasher	1
27	1707097	Retaining Screw	1
*28	1707071	Diaphragm	1
29	1707072	Diaphragm Gasket	1
30	1707073	Diaphragm Cover	1
31	1707075	Fuel Pump Gasket	1
*32	1707076	Fuel Pump Diaphragm	1
33	1707077	Fuel Pump Body	1
*34	1707079	Fuel Strainer Screen	1
35	1707078	Screw and Lockwasher	6
36	1707080	Gasket	1
37	1707081	Fuel Strainer Cover	1
*38	1707082	Screw	1
39	1707708	Throttle Lever	1
*40	1707710	Lockwasher	1
*41	1707709	Screw	1
*42	1707101	Gasket and Packing Set	
43	1707705	Repair Kit	

(*) Indicates Contents of Repair Kit



IMPORTANT NOTICE

Model 5100 and 5200 Chain Saws with engine serial #2039 and up and Model 5000 Chain Saws with engine serial #4978 and up use the following Reed Plate parts.

37 - 1110595 Screw
38 - 1100250 Washer
39 - 1708908 Reed Stop
40 - 1708907 Reed
41 - 1708906 Reed Plate
42 - 1708910 Reed Plate Assy.
1708909 Stud

Figure 10 Engine

ENGINE

Ref. No.	Part No.	Description	No. Req'd.
1	1707691	Fan Housing	1
2	1707751	Switch	1
3	1707755	Washer	3
4	1100256	Lockwasher	3
5	1106830	Screw	3
6	1708480	Flywheel Nut	1
7	1103996	Lockwasher	1
8	1708482	Flywheel	1
9	1707740	Stator Plate Unit	1
10	1118172	Screw	6
11	1187559	Lockwasher	6
12	1707753	Lead Wire Clip	2
13	1707747	Crankshaft (Flywheel End)	1
14	1185374	Needle Bearing (Flywheel End)	1
15	1110685	Screw	2
16	1185180	Lockwasher	2
17	1708479	Support Plate (Includes 13 and 14)	1
18	1707754	Gasket	1
19	1708481	Breaker Cam	1
20	1707735	Flywheel Key	1
21	1707768	Crankshaft	1
22	1707752	Connecting Rod Assembly	1
23	1707757	Lock Ring	2
24	1707745	Wrist Pin	1
25	1707924	Piston Ring	2
26	1707743	Piston	1
27	1707756	Piston and Ring Assembly (Includes 25 and 26)	1
28	1185044	Retaining Ring	1
29	1104441	Ball Bearing	1
30	1707749	Roller Cage	1
31	1707750	Crank Pin Roller (Set of 14)	1
32	1707794	Retaining Ring	1
33	1707748	Crankshaft Seal (Clutch End)	1
34	1707712	Seal Collar Assembly (Includes 33)	1
35	1707742	Cylinder Assembly (Includes 34)	1
36	1707797	Gasket	1
37	1187133	Screw	3
38	1103989	Lockwasher	3
39	1707811	Reed Stop	1
40	1707812	Reed	3
41	1707899	Reed Plate	1
42	1707900	Reed Plate Assembly (Includes 37 thru 41)	1
43	1100241	Lockwasher	4
44	1108837	Screw	4
45	1185180	Lockwasher	2
46	1109527	Nut	2
47	1707701	Gasket	1
48	1707711	Carburetor (Includes 47)	1
49	1707795	Spark Plug w/Gasket	1

TITAN

5100 SERIES-HIGH SPEED
5200 SERIES-STANDARD SPEED

FORM NO. 1892725