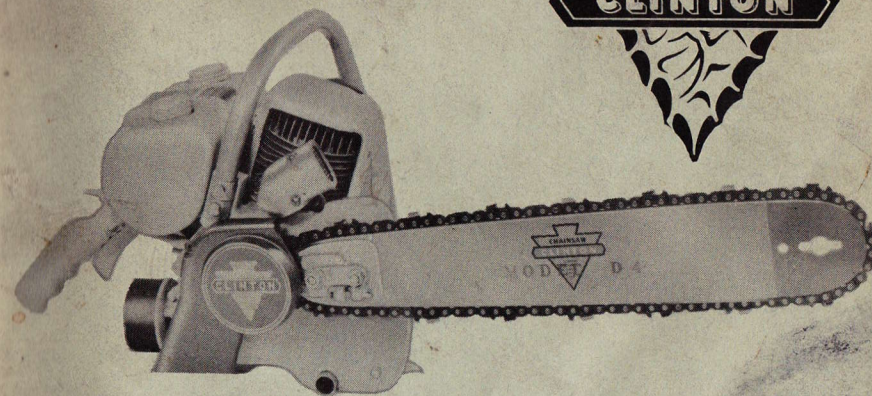
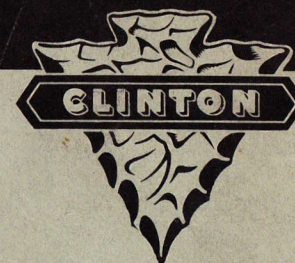


INSTRUCTION MANUAL
and
PARTS LIST



★ **CLINTON** ★
CHAINSAW

Model D-4

Part No. 400761

CLINTON CHAINSAW

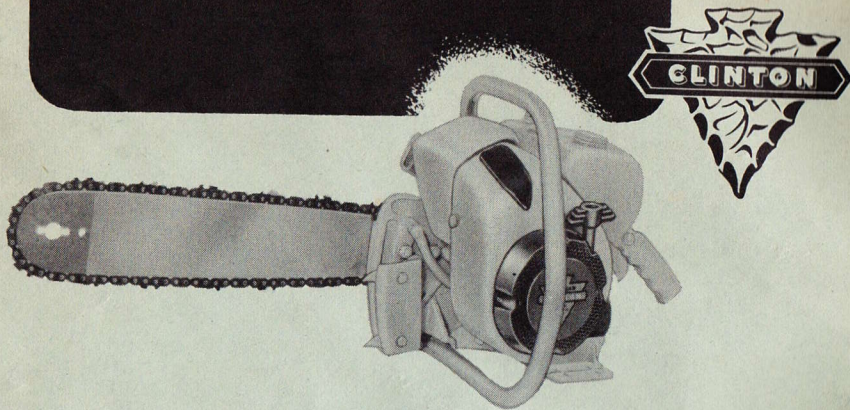


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INTRODUCTION

By following the instructions in this manual you can look forward to dependable service from your Chainsaw. Quality made, time tested your chainsaw is designed to provide efficient cutting on a great variety of jobs. It is checked for high standards during all phases of production and assembly. Treat your Chainsaw right, and it will become the most valuable tool you own.

For periodic servicing and all major repairs, you should consult the Author-

ized Clinton Service Station in your area. Here you will find factory-trained mechanics, genuine parts and prompt, efficient service at your disposal. There are Clinton Service Stations throughout the United States, Canada and many foreign countries. Consult the yellow pages of your telephone directory for list of Authorized Clinton Service Stations.

For additional information about your Chainsaw please feel free to write directly to the factory.

SERVICE DEPARTMENT
CHAINSAW DIVISION
CLINTON MACHINE COMPANY
CLINTON, MICHIGAN

SPECIFICATIONS

ENGINE—Clinton two cycle, one cylinder, air-cooled.

BORE—2 $\frac{1}{8}$ inch.

STROKE—1 $\frac{5}{8}$ inches.

FUEL—Oil and Gasoline mixed.

SPARKPLUG—Champion H11 or equal, Gap .025 inches.

POINT GAP—.020 inches, nominal setting.

IGNITION TIMING—Fixed.

TYPE OF VALVE—Reed.

OPERATING SPEED — Approximately 4500 R.P.M.

IDLING SPEED — Approximately 1500 to 1800 R.P.M.

TYPE OF BEARINGS—Ball and needle bearings throughout.

TYPE OF CARBURETOR—Diaphragm.

FUEL TANK CAPACITY—1 quart.

FUEL RATIO— $\frac{3}{4}$ pint of SAE #30 to 1 gal. gasoline.

RECOMMENDED GASOLINE — Any good grade (non-leaded).

RECOMMENDED OIL GRADE—SAE #30 (non-detergent).

TYPE OF IGNITION—High tension fly-wheel magneto.

TYPE OF STARTER—Recoil.

TYPE OF CLUTCH—Automatic Centrifugal.

CHAIN OILER CAPACITY — One pint SAE #30.

GUIDE BAR LENGTHS—From 16 inches to 26 inches (straight guide bars); 16 inch Bow Saw Attachment and Helper's Handle, available.

OPERATION OF THE TWO CYCLE ENGINE

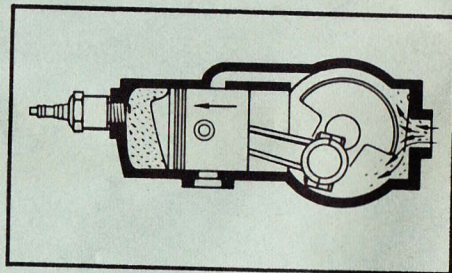
In a two cycle engine, intake, compression, power and exhaust are completed in two strokes of the piston. A power stroke results with every revolution of the crankshaft. On the upward stroke of the piston, a partial vacuum is created in the crankcase. (See Figure No. 1)

First, the vacuum and outside air pressure cause the reed valve between the crankcase and the carburetor to open. The air-fuel mixture from the carburetor flows in to the engine crankcase. Then, the downward movement of the piston causes the reed valve to close while continued downward movement of the piston compresses the fuel charge in the crankcase. Near the bottom of its stroke the piston uncovers the intake by-pass port, which connects the combustion chamber and the crankcase.

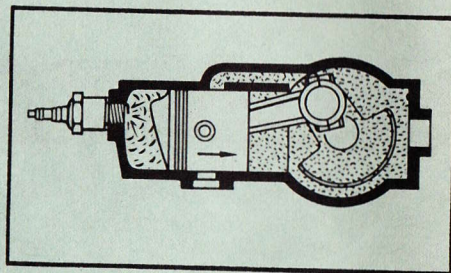
As the piston moves upward on its stroke, it passes the intake port, closing the port opening. Its continued upward movement causes the fuel mixture in the cylinder to be compressed. At the same time a new fuel charge is drawn into the crankcase. As the piston nears the top of the compression stroke, the fuel mixture in the combustion chamber is ignited by the spark. The explosion and expansion of gases forces the piston down on its power stroke. Power is not delivered for the full length of the stroke. Some time is required to rid the cylinder of burned gases, so that it may receive a fresh fuel charge from the crankcase.

As the piston nears the bottom of its stroke, it uncovers the exhaust port opening slightly ahead of the intake port. This permits taking advantage of the pressure of the exhaust gases in the cylinder, which are still comparatively high, and allows them to start escaping. Further downward travel of the piston uncovers the intake by-pass port. The incoming charge assists in forcing the exhaust gases out of the cylinder, to complete the cycle.

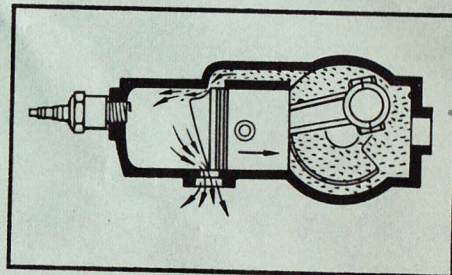
The chief attributes of the two cycle engine are its lightweight, low cost and powerful but simple operation. With only three basic moving parts (crankshaft, piston and rod), maintenance costs are at a minimum while efficiency is at a maximum.



COMPRESSION

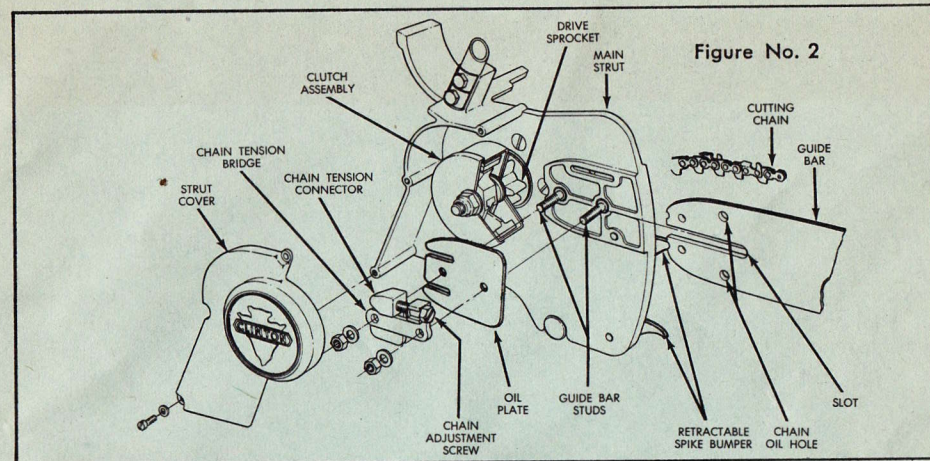


POWER



EXHAUST

Figure No. 1



ASSEMBLY OF GUIDE BAR AND CHIPPER CHAIN

- Slide the guide bar over the mounting studs to the full length of the guide bar slot. (See Figure No. 2.)
- Place the cutting chain over the clutch drum and locate chain drive links around the drive sprocket, proceed to seat chain drive links in the guide bar groove. **BE SURE CHAIN CUTTING TEETH EDGES FACE FORWARD FROM ENGINE AT TOP SIDE OF GUIDE BAR.** (See Figure 2.)
- Pull the guide bar out from the engine unit until the chain slack is taken up. Make sure that the chain drive links at the bottom of the bar are properly seated in the bar groove.
- Place Oil Plate over guide bar studs, now position the chain tension bridge on the Oil Plate with the two lugs located in the guide bar slots. Place the Chain Tension Bracket Connector over the guide bar studs, assemble the washers and nuts to the guide bar studs making them snug but not tight against the guide bar. Now place Chain Adjustment Screw in slot of Chain Tension Bracket Connector and thread into Chain Tension Bridge.
- While holding with upward pressure
- of the finger in the hole at end of Guide Bar, turn Tension Adjusting Screw clockwise until the chain has a free sag of not less than $\frac{1}{8}$ inch nor more than $\frac{1}{4}$ inch from the bottom of the guide bar. If the blade is not in the up position as high as it will go against the guide bar studs, it will cause excessive wear on the top of the guide bar closest to the sprocket.
- Securely tighten the mounting stud nuts and then re-check for proper chain tension. If the tension has changed, then loosen the mounting stud nuts and repeat the procedure outlined in Step 5.
- Be sure the chain is properly tensioned at all times. Check it often. A chain that is too tight will interfere with proper cutting and will cause serious damage to the guide bar and the engine. **CAUTION:** Check and maintain chain tension for long life and best operation. Use extra care with a new chain until the stretch, which is most noticeable in the first hour of cutting, is eliminated.

CAUTION — Never Adjust Chain Tension While Engine Is Running.

FUEL PREPARATION AND LUBRICATION

Correct fuel mixture is one of the most important points in operating your engine. Follow these instructions carefully, and **DO NOT POUR UNMIXED GASOLINE OR OIL INTO THE FUEL TANK.**

Type of Oil

Use SAE #30 motor oil (non-detergent), such as Mobiloil or a comparable straight mineral oil. A detergent oil or oil containing additives is not advised.

Type of Gasoline

A good grade of regular gasoline, available at your local filling station, is recommended for use in your Chainsaw engine. High octane or leaded fuels offer no advantages and **ARE NOT** advised.

Mixing Ratio of Oil to Gasoline

Thoroughly mix $\frac{3}{4}$ pint of oil with each gallon of gasoline. This rich oil mixture may cause difficulty with idling,

but it is necessary to properly wear in the various parts of the engine.

Chain and Guide Bar Lubrication

A positive action oil pump located in the lower right portion of the oil tank reservoir (See Figure No. 3) provides ample lubrication to the cutting chain and guide bar. Fill this oil reservoir with SAE #30 oil. When the reservoir is filled and cap replaced, push the oil pump plunger a couple of times until pressure is felt, or until you see oil appearing on the guide bar opposite the convenient oil fitting in the reduction housing. In extremely cold weather, or when cutting wood which contains a lot of pitch, sap or resin, use a 50-50 mixture of kerosene and oil in the oil reservoir. This will provide good lubrication as well as keeping the guide bar groove and chain comparatively clean.

CHAINSAW CONTROLS

Major controls on your chainsaw are conveniently grouped around the hand grip assembly for finger tip action. You will find your saw easy to manage once you associate the following controls with their locations on the saw. (See Figure 3).

THE IGNITION SWITCH—Toggle-type, located directly under the fuel tank.

THE RECOIL STARTER—Located on the left side of the unit. A slight pull will engage the starter with the engine and a spring disengages it when the tension is relieved. **CAUTION:** The starter cable when pulled out, should not be released abruptly and allowed to snap back into its socket. Release slowly to permit complete re-winding.

THE CHAIN OILER—Control located on top of throttle handle. This system forces oil to the guide bar and chain for positive lubrication.

FUEL SHUT-OFF VALVE—On the bottom of the fuel tank at the lower

left. To open, turn counter-clockwise until a slight tension is noticed.

THE THROTTLE CONTROL—Trigger-type, located on the handle grip. The engine speed, or throttle opening, is increased by squeezing the trigger upward into the handle.

THE HIGH SPEED MIXTURE ADJUSTMENT SCREW—Located on the left side of the carburetor. The adjustment is used to obtain proper fuel and air mixture, make the engine run smoothly and achieve maximum power.

THE IDLE MIXTURE ADJUSTMENT SCREW—Located on left side of carburetor. It is used to obtain smooth and proper idling speed.

THE CHOKE LEVER—Located on the top of the carburetor. When the choke lever is forward full distance choke is off—when back full distance choke is on.

THE FUEL PUMP—Located on cylinder block and maintains proper fuel supply to the carburetor.

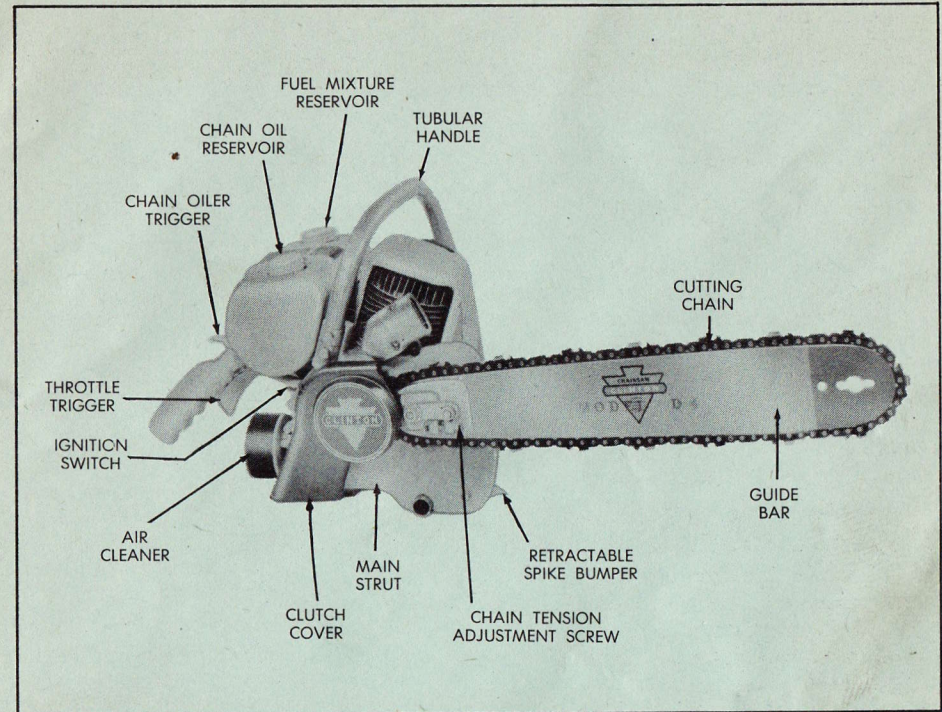


Figure No. 3

CARBURETOR ADJUSTMENTS

The diaphragm carburetor is adjusted at the factory for best performance. If for any reason the carburetor is removed and disassembled the following procedure may be followed to obtain proper adjustments:

1. Open high speed adjustment needle $\frac{3}{4}$ turn counter-clockwise. (See Figure No. 4)
2. Open idle mixture adjustment needle one turn counter-clockwise.
3. Turn idle speed adjusting screw clockwise until throttle butterfly is just cracked open.
4. Start engine and allow to warm up for approximately 5 minutes.
5. If necessary, re-adjust the idle speed to keep engine running after warm-up period.
6. With engine idling, open throttle suddenly. If engine accelerates,

turn idle mixture needle clockwise $\frac{1}{8}$ turn and repeat above procedure until engine will not accelerate. Open mixture needle $\frac{1}{8}$ turn counter-clockwise from this setting and then set idle speed to 1500-1800 R.P.M. by means of the idle speed adjusting screw.

If engine does not accelerate when throttle is suddenly opened, turn idle mixture needle $\frac{1}{8}$ turn counter-clockwise until engine will accelerate, and then adjust idle speed to 1500-1800 R.P.M. by means of the idle speed adjusting screw.

7. For final high speed adjustment, the saw should be cutting in a log. While applying a very heavy load to the engine, adjust high speed needle to as rich a mixture as is possible without causing engine to load up.

STARTING PROCEDURE

1. Fill fuel and oil tanks according to Fuel Preparation Instructions on Page 6.
2. Move high speed adjustment screw, located on right side of carburetor approximately one (1) turn open.
3. Open idle mixture adjustment screw, located on top left side of carburetor approximately $\frac{1}{4}$ turn. (See Figure No. 4)
4. Turn the idle speed control screw, located on throttle stop lever on the left side of carburetor, clockwise about one turn to open throttle.
5. Pull choke lever toward operator.
6. With the ignition switch in "on" position and the carburetor in full "choke" position, hold throttle wide open and proceed to crank the engine.
7. After the engine has fired, warm it up for approximately 15 to 20 seconds with the choke in a half open position.
8. After engine has been started, turn the idle speed control screw until idle speed is sufficient to keep engine idling smoothly and accelerating without hesitation.

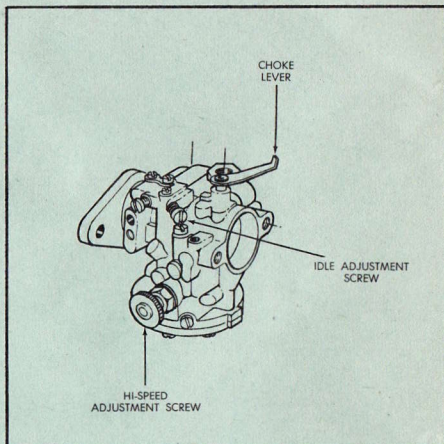


Figure No. 4

BREAK-IN PERIOD

In order to obtain maximum efficiency and service from your Chainsaw, it is necessary that the engine be operated during a break-in period of approximately five (5) hours. Never operate the engine without load or allow it to become overheated. Proper breaking in of key parts will have much to do with the life of your engine. Be sure to check often for loose nuts and screws and make all necessary adjustments. Periodic inspection and service by your Authorized Clinton Service Station dealer will result in long life and good performance of your Chainsaw.

BUCKING CUT Small Logs

Try your hand at bucking a few

stove wood lengths, just to get the feel of your saw.

1. Select a suitable log approximately 12 to 18 inches in diameter.
2. Start your saw according to instructions above.
3. Place one hand on the handle grip for complete control of the engine. Use the other hand on the tubular handle to support the unit.
4. Chain should be allowed to feed itself with a minimum amount of pressure on the unit by the operator to achieve best cutting results.
5. As the cut is completed, release the throttle which disengages the clutch.
6. Continue this bucking practice until you are well acquainted with the saw.

BUCKING CUT Large Logs

To cut a log up to the capacity of the guide bar, start at the top of the log.

1. Raise the power unit and lower the cutting mechanism to begin your cut on the side of the log that faces away from you.
2. Notice that sawing action holds the saw against the log. (See Figure No. 5)
3. After tilting the unit to the maximum angle (about 35°) for initial cut, pull the Chainsaw toward you.
4. Repeat this rocking motion until the cut is completed.
5. CAUTION: As the cut nears completion you must be careful to keep the sawing unit from entering the ground. It is sometimes possible to roll the log forward and complete the cut from the opposite side, but often this cannot be done, and extreme care is necessary.
6. Release the throttle as you complete the cut, and this action disengages the clutch.



Figure No. 5

NOTCHING AND FELLING

1. Remember that the undercut notch guides the fall of the tree and should be made with care. By holding your saw at the desired angle any type of notch can be made, but plan carefully. (See Figure No. 6)
2. As you start your felling cut remember to LEAVE HOLDING WOOD (See Figure No. 6) or the tree might spin out of control.
3. Think before you cut!

Figure No. 6



MAINTENANCE

By making the following practices a habit you can help keep your saw in good running order and avoid repairs that neglect might make necessary.

1. Remove sawdust and dirt daily so that a thorough inspection can be made.
2. Tighten any loose nuts or screws.
3. Check fuel and oil lines for leaks, especially at connection points.
4. Check air filter and brush off dirt.
5. Do not use compressed air to remove dust or dirt from the OUTSIDE of the carburetor, since particles may be blown into the mechanism if you do, or the collapsing of the float may result.
6. Check muffler and exhaust ports periodically, when the loss of power is apparent. If ports are dirty, clean them.
7. As often as necessary remove the cutting chain from the guide bar and allow it to soak overnight in a pan of kerosene to remove the sap and resin deposits and to provide lubrication for all parts of the chain.
8. If you notice symptoms of trouble but cannot find the cause, check with an Authorized Clinton Service Station, and be sure your saw is in good running order.

CHAIN MAINTENANCE

SPECIAL TOOLS NEEDED: CST-11 File Holder Assembly CST-34 Depth Gauge

Your Chainsaw is precision sharpened at the factory and comes to you ready for general use. To obtain the best service from your saw KEEP THE CHAIN SHARP AT ALL TIMES. Remember that your sawing chain and guide bar are a working team. An improperly seated chain, or one that is poorly sharpened or tensioned, will put a serious strain upon the guide bar and the engine.

1. A dull chain forces the guide bar to exert more pressure, and this may spread the bar groove or cause uneven wear on the edges. Check the guide bar regularly with a square and file the edges parallel.
2. If the saw is not cutting straight, do not try to remedy this in the cutting. By forcing the guide bar you can bend or burn it. Stop the engine and check for the trouble on the bar or chain.
3. Careful maintenance and sharpening will minimize all these troubles.
4. Look carefully at the chain illustration (Figure No. 7) and you will notice that the cutting teeth are not

the only important parts of it. The depth guides or riders have much to do with the effectiveness of the saw's operation and must be filed about every third time the teeth are sharpened to maintain the proper clearance. Use CST-34.

5. Correct tools are a vital part of a successful maintenance job. You may have some of these tools on hand, but if you do not they are all available at Authorized Clinton dealers.
 - a. A 1/4" round (not tapered) file. Clinton dealers stock the file handle, holder with guide marks and correct file. Ask for CST-11. (See Figure No. 8)
 - b. A flat file (cross-cut or mill bastard) for use with depth gauge in maintaining proper rider clearance.
 - c. Depth gauge (CST-34) with adjustable dial for determining clearance. (See Figure No. 8)
 - d. Filing clamp or straight edge vise to hold the chain while it is being sharpened.

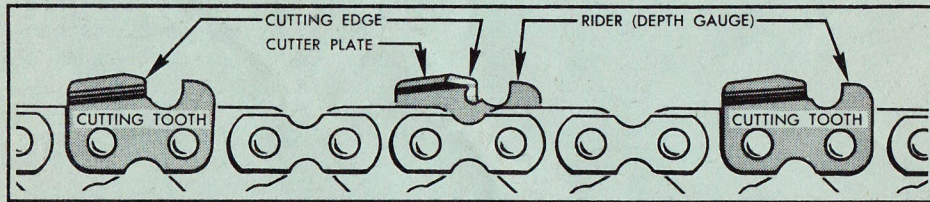


Figure No. 7

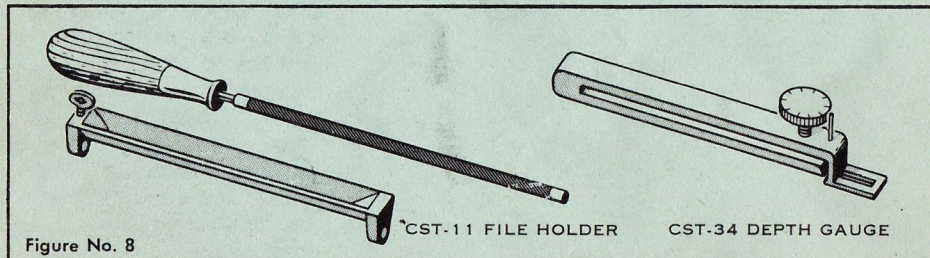


Figure No. 8

FILING PROCEDURE

1. Place chain in file clamp or straight edge vise.
2. Place the file so that it is level with and at a 35° angle to the cutting tooth. (See Figure No. 9) Avoid low cutting which leads to "hooks" on teeth. Keep about 1/5 of the file diameter showing above the cutter plate. (For proper filing use CST-11 File Holder Assembly, which gives you the 35° angle and holds the file at a proper position.)
3. Two or three firm strokes (with strength applied on the forward stroke) will give a keen edge to the tooth.
4. For best results:
 - a. Keep the same cutting angle on all teeth.
 - b. Use the right size file.
 - c. Keep side cutting edge vertical.
 - d. Shape the cutting tooth angle correctly.
5. File guides or riders about every third time you file the cutting teeth to maintain the proper clearance (.020). If the guides are too high

teeth will not take a big enough bite, and if guides are too low the chain will grab or gouge. Proceed as follows:

- a. Turn the dial on the depth gauge (CST-34) to the right until it is closed, then turn it to the left to the desired measurement (.020). Place gauge on top of cutting tooth with the dial up and the flat lip pointed in the same direction as the cutting edge of the tooth. (See Figure No. 10)
- b. Be sure that the rider protrudes through the slot in the lip of gauge.
- c. Take a flat file and file off all of the rider that shows above the filing notch in the gauge lip. (You needn't worry about hurting the lip itself, since it is hard-chromed for reasonable wear.)
- d. Remove the gauge and round off the leading edge of the rider so it will not grab at wood when chain is cutting.

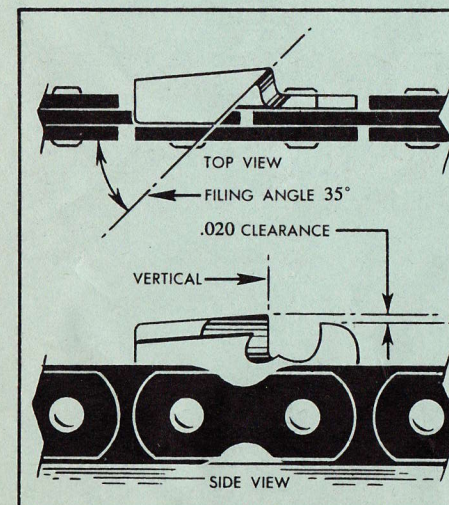


Figure No. 9

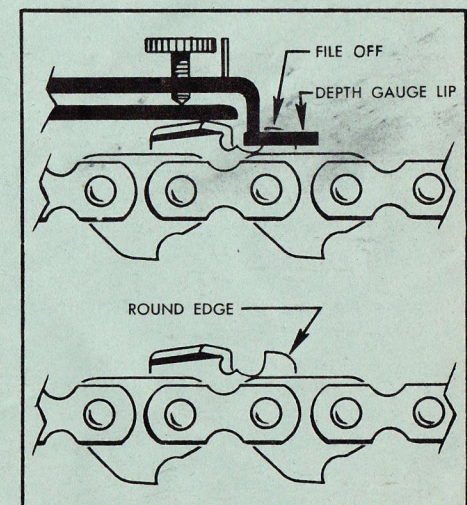


Figure No. 10

SERVICE TIPS

OIL PUMP OPERATION

Since proper lubrication of chain and guide bar is so important, be sure to notice any failure in this system. If oil fails to flow to the guide bar and chain when the oil pump plunger is pushed, or if there is no pressure on the plunger, the pump is not functioning. See your Authorized Clinton Service Station Dealer.

FILLER CAPS

The filler caps are designed to perform two functions. One is to prevent fuel and oil from discharging from the reservoir and the other function is to allow breathing action which is necessary to eliminate any vacuum in the oil or fuel reservoir. It is very important that good sealing and breather performance be obtained to assure best chainsaw operation.

FUEL SYSTEM

The fuel system in your Chainsaw is composed of fuel lines and orifices. It utilizes an automatic fuel pump which puts the proper mixture into action throughout the system. Fuel system defects can cause serious trouble throughout your Chainsaw. At the first sign of trouble of this kind, consult the Authorized Clinton Service Station.

SAFETY AND FIRE PRECAUTIONS

Your Chainsaw is well-built for maximum safety and efficiency, but carelessness in operation can cause accidents. Read the following suggestions carefully, and remember them as you work with your saw.

1. Do not start the engine in a closed room. Have ample ventilation at all times.
2. Do not touch the chain when the engine is running even at a slow speed.
3. Keep engine adjusted to an idle speed which stops the chain completely.
4. Do not move the chain from one location to another without first stopping the engine.

12

CLEANING VALVE PORTS

Exhaust

The only servicing required for the valve ports is an occasional cleaning to remove carbon deposits.

1. Remove muffler assembly from Chainsaw Engine which will expose the exhaust valve ports.
2. Clean with suitable instrument capable of scraping and removing carbon deposits within these ports.
3. The engine should be turned over by hand until the piston moves below the port openings, which will allow greater access for the cleaning of these ports.
4. Care should be taken not to damage or score top of piston when cleaning.

IGNITION SYSTEM

Remember the magneto should be inspected after every 100 hours of operation. If the engine refuses to start or is hard to start, check the gas supply, carburetion system and spark plug. (If the latter is badly burnt, replace.) If the engine still does not start see your Authorized Clinton Service Station Dealer for magneto inspection and repair.

5. Be sure that the spike bumper (abutment strut) is flush against the sawing log to keep the engine unit from being pulled against the log.
6. Do not operate your Chainsaw when it needs repair.
7. Do not allow the saw to run while on a cement floor.
8. Do not run saw when it is dull or improperly filed.
9. After refueling, move the engine a few feet away from the fueling site.
10. Keep Chainsaw clean of dust and inflammables, and check to see that spark plug and electrical connections are tight.

HELPERS HANDLE

For specialized sawing operations which require the use of the long guide bar, your Chainsaw can be fitted with a Helpers Handle for two-man use.

This assembly is in two parts. A mounting stud on the handle-and-guard half slips through the slotted hole in the rounded end of the guide bar. Note that the lugs on either side of the mounting stud engage the slot to position the handle securely. The cover half is then placed over the stud and secured with a washer and wing nut. (See Figure 11)

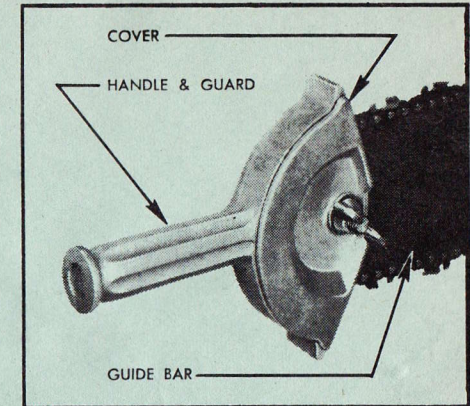


Figure No. 11

BOW SAW

1. To install Bow Saw Blade and Chain refer to page 5 and follow instructions on Guide Bar & Chain assembly. The Bow Saw is installed in identical manner.

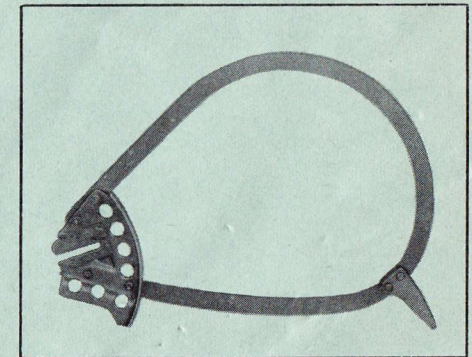


Figure No. 12

HOW TO IDENTIFY SUB-ASSEMBLY DIGIT SYSTEM

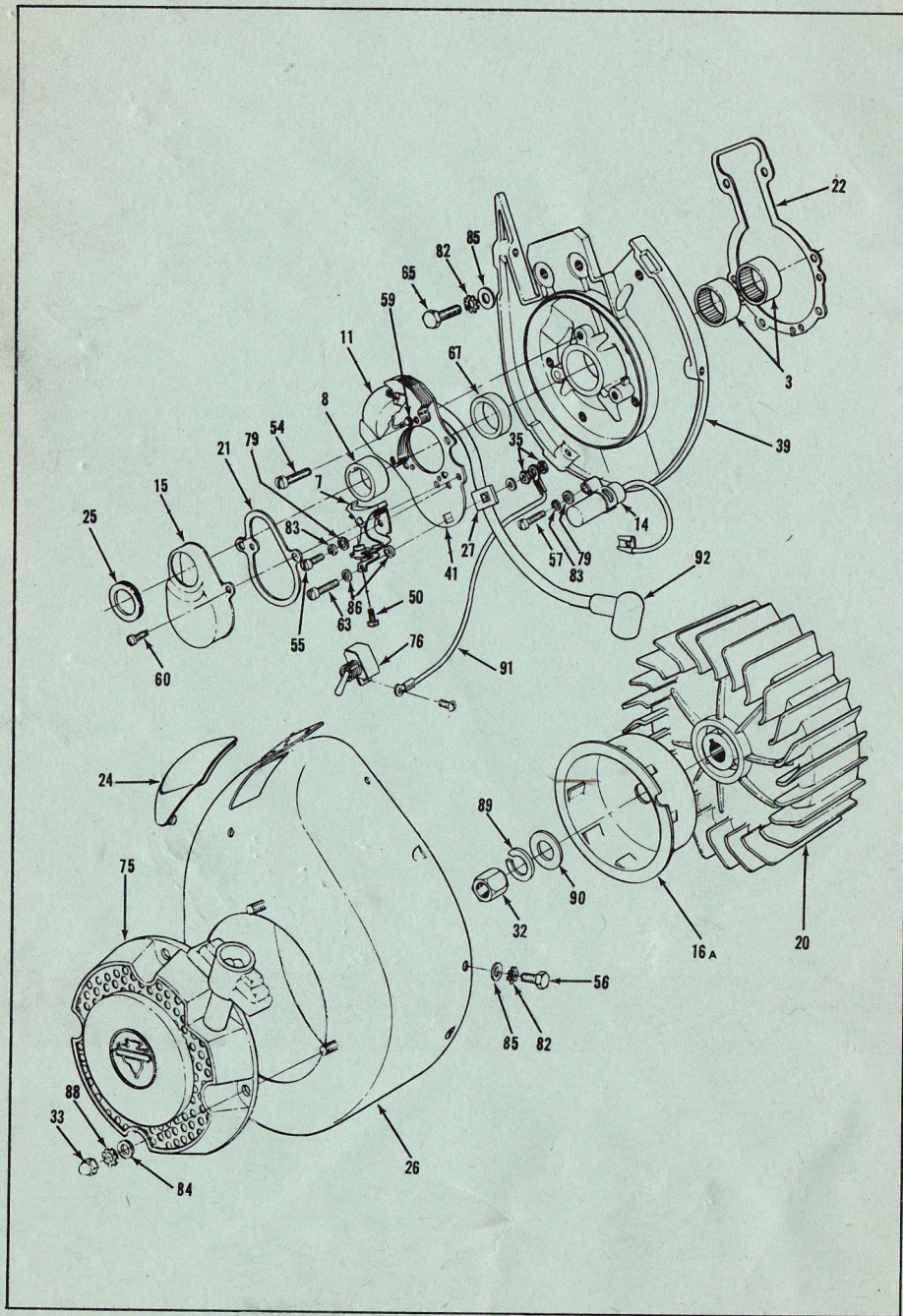
Each Digit in the Six Digit "TYPE" number stamped on the nameplate of your Chainsaw refers to a **Specific** Type of Assembly for each of the SIX Sub-Assemblies making up the complete Chainsaw. For example: **Type 11 - 11 - 14 - 0 - 11 - 9** is made up of a Type 11 Power Head, a Type 11 Tank Ass'y, a Type 14 Induction Ass'y, etc. Identify the parts or assembly in which you are interested and find the part number in one of the six Parts Lists making sure you have the right part number for the **TYPE** of Sub-Assembly used on your Chainsaw. **ALWAYS ORDER BY PART NUMBER.**

13



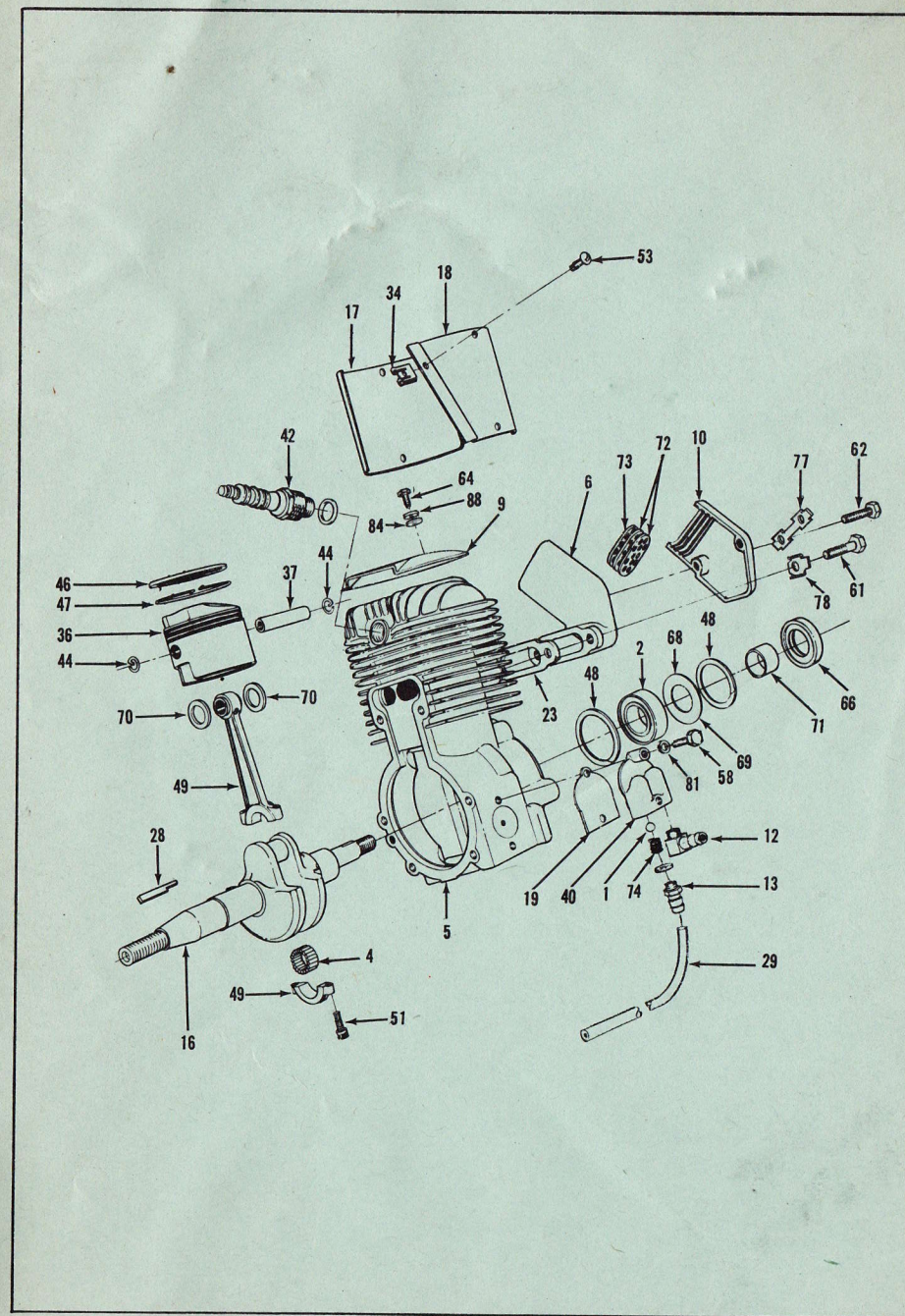
CLINTON CHAINSAW

FIRST DIGIT — POWER HEAD



CLINTON CHAINSAW

FIRST DIGIT — POWER HEAD





CLINTON CHAINSAW

FIRST DIGIT — POWER HEAD

NOTE: The Power Head is represented by the first digit in the six digit Chainsaw Type Number found on the name plate.

Ref. No.	Part No.	PART DESCRIPTION	TYPE	Qty.
1	700460	Ball — Nylon, Check	11	1
2	233	Bearing — Ball	11	1
3	820	Bearing — Needle	11	2
4	400073	Bearing — Needle, (Tapered)	11	25
5	400690	Block Ass'y — Cylinder, 2 1/4"	11	1
NOTE: Ass'y Inc. Ref. Nos. 2, 9, 17, 18, 34, 48 & 66				
6	400701	Body — Muffler	11	1
7	400792	Breaker — Point Assembly	11	1
8	400682	Cam — Breaker	11	1
9	400744	Cap — Cylinder, Air	11	1
10	400653	Cap — Muffler	11	1
11	400789	Coil — Magneto	11	1
12	400675	Connector — Hose Fitting — 90° Bayonet Type	11	1
13	700450	Connector — Hose Fitting, Bayonet Type	11	1
14	400777	Condenser — Magneto	11	1
15	5595	Cover — Breaker Point, Dust	11	1
16	400577	Crankshaft	11	1
16A	400678	Cup — Starter	11	1
17	2037	Deflector — Cylinder Block, Air	11	1
18	400702	Deflector — Cylinder Block, Air	11	1
19	700447	Diaphragm — Fuel Pump	11	1
20	400743	Flywheel	11	1
21	400609	Gasket — Dust Cover	11	1
22	700716	Gasket — Bearing Plate to Cylinder Block	11	1
23	700038	Gasket — Muffler to Block	11	1
24	400533	Grommet — Blower Housing, Rubber	11	1
25	5596	Grommet — Dust Cap, (Rubber)	11	1
26	400525	Housing — Blower	11	1
27	400795	Insulator — Terminal	11	1
28	958	Key — Flywheel	11	1
29	400643	Line — Fuel Pump to Carburetor, Fuel	11	1
	400692	Magneto Ass'y	11	1
NOTE: Ass'y Inc. Ref. Nos. 11, 14, 27, 35, 41, 50, 55, 57, 59, 63, 79, 83, 86, 91, 92				
	400686	Muffler Ass'y — Exhaust	11	1
NOTE: Ass'y Inc. Ref. Nos. 6 10, 23, 72, 73, 77 & 78				
32	185	Nut — Starter Cup, 1/16 - 20 Hex	11	1
33	281	Nut — Starter to Blower Housing, Lock Hex., #10 - 32	11	4
34	400704	Nut — Tinnerman, Speed	11	1
35	400801	Nut — Terminal, #6 - 32	11	1
36	400688	Piston — High Compression, 2 1/4"	11	1
37	662	Pin — Wrist	11	1
	400647	Piston & Rod Ass'y	11	1
NOTE: Ass'y Inc. Ref. Nos. 36, 37, 44, 46, 47, 49 & 70				
39	400680	Plate Ass'y — Bearing	11	1
NOTE: Ass'y Inc. Ref. Nos. 3 & 67				
40	400679	Plate — Fuel Pump	11	1
41	400790	Plate — Stator	11	1
42	859	Plug — Spark	11	1
	400676	Pump Ass'y — Fuel	11	1
NOTE: Ass'y Inc. Ref. Nos. 1, 12, 13, 19, 40, 58, 74, 80, 81.				
44	663	Retainer — Wrist Pin	11	2
46	400615	Ring — Piston, Compression	11	3
47	400616	Ring — Piston Ring, Lock	11	3
48	234	Ring — Retaining, Bearing	11	2

CLINTON CHAINSAW

FIRST DIGIT — POWER HEAD



NOTE: The Power Head is represented by the first digit in the six digit Chainsaw Type Number found on the name plate.

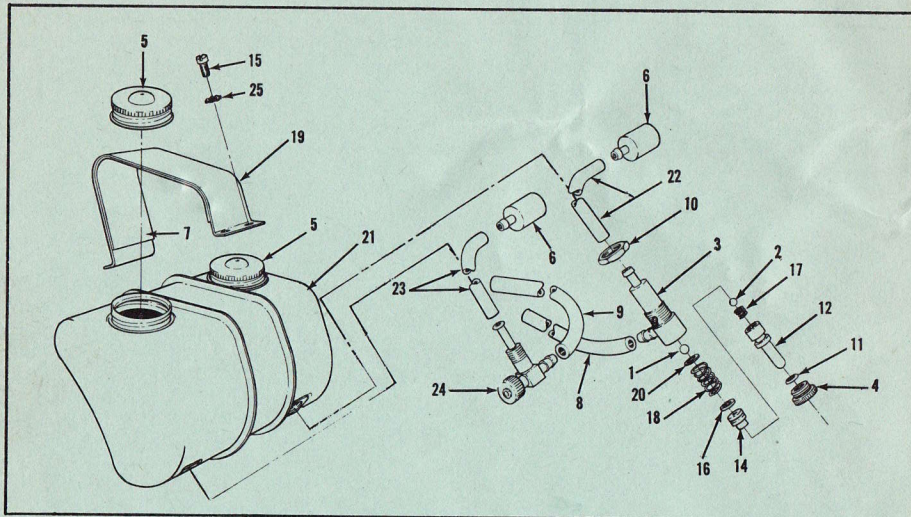
Ref. No.	Part No.	PART DESCRIPTION	TYPE	Qty.
49	400093	Rod & Cap Ass'y — Connecting	11	1
50	400802	Screw — Breaker Point Terminal, S.T., 6 - 32 x 7/16	11	1
51	400585	Screw — Cap to Rod, A.H.M., 10 - 32 NC-2	11	2
53	700175	Screw & L'washer Ass'y — Deflector to Block, R.H.S.T., #8 - 32 x 5/16	11	5
54	5430-A	Screw & L'washer Ass'y — P.H.S.T., #10 - 24 x 1	11	2
55	400799	Screw — Breaker Point, P.H., 8 - 32 x 5/16	11	1
56	400246	Screw — Blw. Hsg. to Brg. Plate, F.H.M., 1/4-20 x 1/2 (Nylock)	11	3
57	400798	Screw — Condenser, F.H., 8 - 32 x 3/8	11	1
58	700790	Screw — Fuel Pump to Block, H.H.S., 8 - 32 x 3/4	11	1
59	400791	Screw — Ground Terminal, 4 - 40 x 1/4	11	1
60	5405	Screw — Magneto Dust Cover, S.T., 6 - 32 x 3/8	11	2
61	400703	Screw — Muffler Body to Block, S.H., 1/4 - 20 x 3/4 N.C.	11	2
62	400264	Screw — Muffler Cap to Body, 1/4 - 20 x 1 1/4, N.C.	11	2
63	400797	Screw — Terminal, F.H., 6 - 32 x 3/4	11	1
64	936	Screw — Tie Strap to Cylinder, H.H.S.T., 10 - 24 x 3/8	11	2
65	400178	Screw & Nylock Ass'y — Bearing Plate to Cylinder Block, H.H.C., 1/4 - 20 x 3/4 (Nylock)	11	6
66	247	Seal — Oil	11	1
67	257-1	Seal — Oil	11	1
68	515	Shim — Crankshaft, End Play (.005)	11	as req.
69	400198	Shim — Crankshaft, End Play (.002)	11	as req.
70	400238	Spacer — Connecting Rod Wrist Pin	11	2
71	400539	Spacer — Oil Seal Ride	11	1
72	400654	Spark Arrester — Muffler	11	2
73	400694	Spark Arrester — Muffler	11	1
74	700747	Spring — Valve	11	1
75	400698	Starter Ass'y — Recoil	11	1
76	860	Switch Ass'y — Ignition	11	1
77	400740	Tab Lock — Cap to Muffler Body	11	1
78	400670	Tab Lock — Muffler Body to Block	11	2
79	400800	Washer — Breaker Spring, Screw	11	1
80	700715	Washer — Fiber	11	1
81	400112	Washer — Flat, No. 8	11	2
82	113	Washer — Lock, 1/4	11	9
83	400803	Washer — Lock #8	11	1
	400624	Washer — Flat, #10	11	6
85	657	Washer — Flat, 1/4	11	9
86	400796	Washer — Insulator	11	1
88	192	Washer — Lock, #12, Starter to Blower Housing (4), Tie Strap to Block (2)	11	6
89	198	Washer — Starter Cup, Lock	11	1
90	402	Washer — Starter Cup, Flat 1/4	11	1
91	400793	Wire — Connector	11	1
92	400794	Wire — Hi-Tension, Lead	11	1



CLINTON CHAINSAW

SECOND DIGIT — TANK ASSEMBLY

NOTE: The Tank Assembly is represented by the second digit in the six digit Chainsaw Type Number found on the name plate.



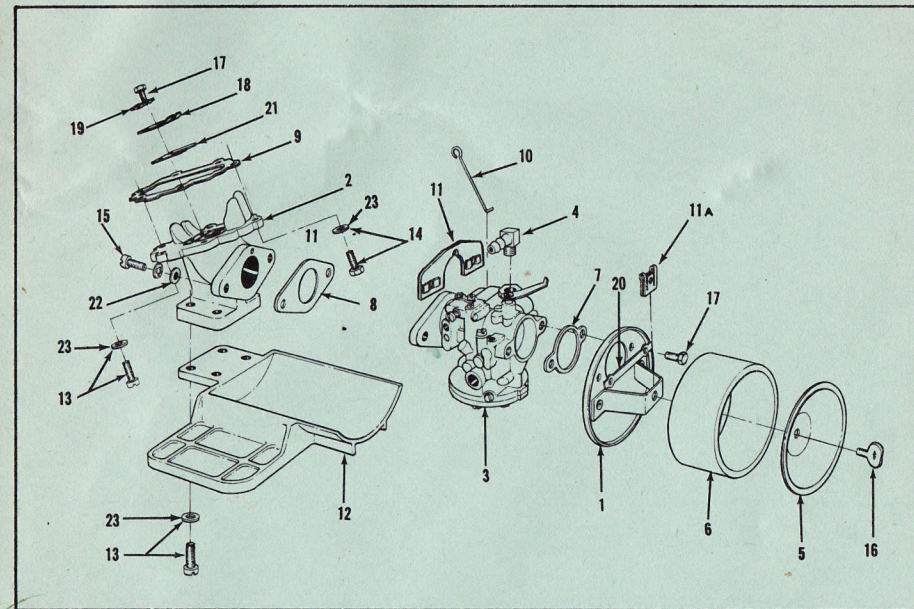
Ref. No.	Part No.	PART DESCRIPTION	TYPE	Qty.
1	400596	Ball — Oil Discharge, Check	11	1
2	400595	Ball — Oil Intake, Check	11	1
3	400547	Body — Oil Pump	11	1
4	400543	Cap — Oil Pump Body	11	1
5	400569	Cap Ass'y — Fuel & Oil Reservoir	11	2
6	130	Filter — Fuel Tank, Internal	11	2
7	400681	Gasket — Fuel Tank, Strap	11	1
8	400631	Line — Oil (Rubber)	11	1
9	400633	Line — Fuel (Rubber)	11	1
10	400544	Nut — Oil Pump, Adjustment	11	1
11	400590	"O" Ring — Oil Pump Cap	11	1
12	400545	Piston — Oil Pump	11	1
	400597	Pump Ass'y — Oil	11	1
	NOTE: Ass'y Inc. Ref. Nos. 1, 2, 3, 4, 10, 11, 12, 14, 16, 17, 18, 20			
14	400546	Retainer — Check Ball	11	1
15	191	Screw & L'washer Ass'y — F.H. #10 - 24 x 1/2	11	4
16	400591	Seal — Ball Check, Retainer	11	1
17	400592	Spring — Check Ball, Retainer	11	1
18	400593	Strainer — Oil Pump	11	1
19	400578	Strap — Tank Retaining	11	1
20	400594	Spring — Oil Pump, Piston	11	1
21	400552	Tank Ass'y — Fuel & Oil	11	1
22	400632	Tube — Oil Reservoir, Pick-up	11	1
23	400634	Tube — Fuel Reservoir, Pick-up	11	1
24	834	Valve — Fuel Shut-Off	11	1
25	192	Washer — Lock #12	11	4



CLINTON CHAINSAW

THIRD DIGIT — INDUCTION ASSEMBLY

NOTE: The Induction Assembly is indicated by the third digit in the six digit Chainsaw Type Number found on the name plate.

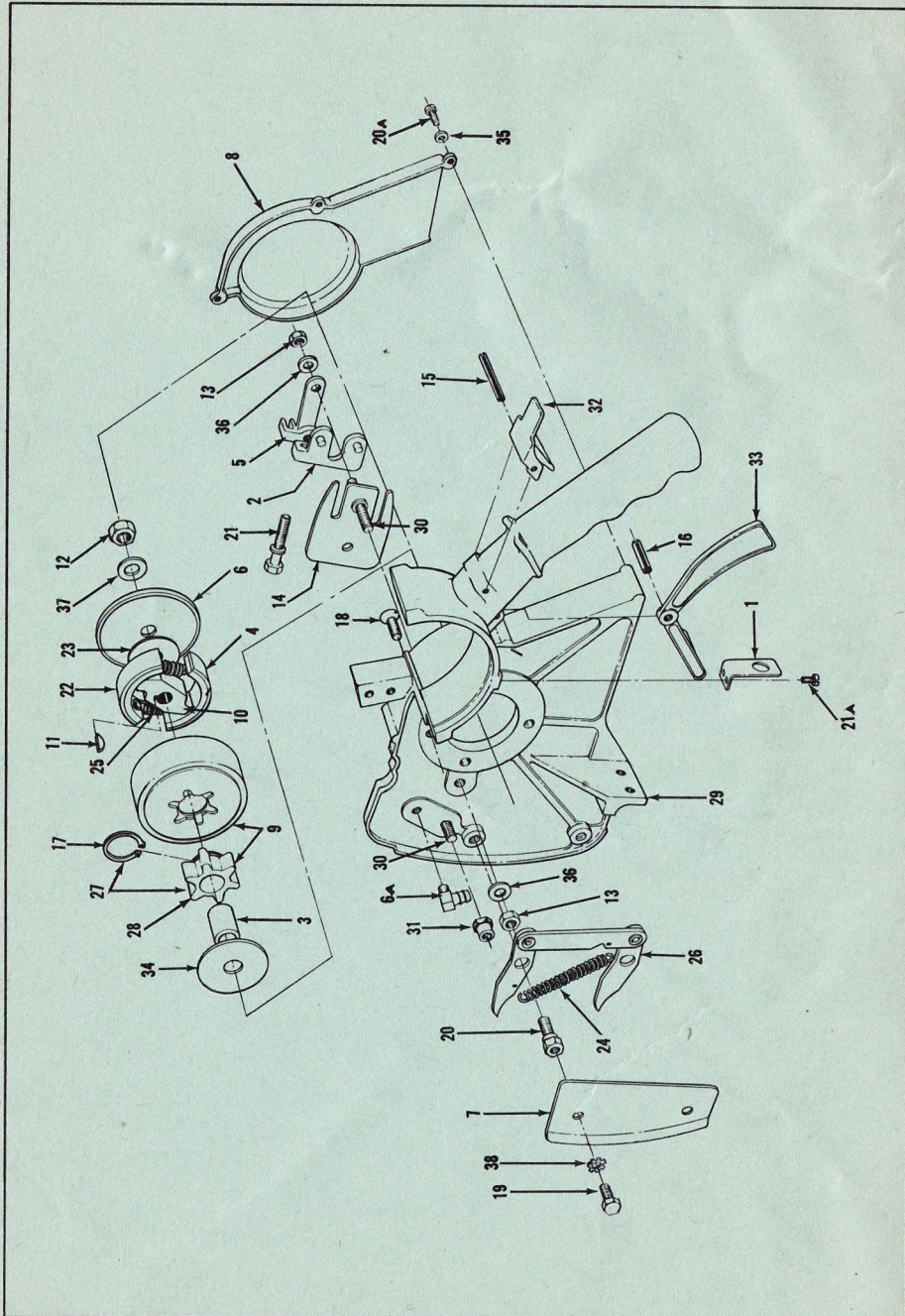


Ref. No.	Part No.	PART DESCRIPTION	TYPE	Qty.
1	400657	Baffle & Nut Ass'y — Air Filter	14	1
2	400520	Bracket — Induction	14	1
3	400559	Carburetor — Tillotson (Diaphragm) H-15A	14	1
4	5052	Connector — Carburetor Fuel Line	14	1
5	400655	Cover — Air Filter	14	1
6	164	Filter — Element (Air Cleaner)	14	1
7	920	Gasket — Air Cleaner Mounting Plate	14	1
8	400034	Gasket — Carburetor	14	1
9	137	Gasket — Induction Bracket to Block	14	1
10	400571	Linkage — Throttle	14	1
11	681	Nut Plate Ass'y — Carburetor Mounting	14	1
11A	400651	Nut — Tinner Man	14	1
12	400519	Plate — Induction Base	14	1
13	400179	Screw & L'washer Ass'y — F.H.M. 1/4-20 x 3/4 (Nylock)	14	9
14	400178	Screw & L'washer Ass'y — F.H.M. 1/4-20 x 3/4 (Nylock)	14	1
15	400648	Screw — F.H.M. 1/4-20 x 1	14	2
16	400650	Screw — Air Filter, Thumb	14	1
17	400707	Screw — H.H.M. 8-32 x 3/8 (Self Tap.)	14	4
18	136	Stop — Reed Valve	14	1
19	400706	Tab Lock — Reed Stop Plate	14	1
20	400731	Tab Lock — Air Filter	14	1
21	135	Valve — Reed	14	1
22	113	Washer — Lock, 1/4	14	12
23	657	Washer — Flat, 1/4	14	12



CLINTON CHAINSAW

FIFTH DIGIT — TRANSMISSION ASSEMBLY



CLINTON CHAINSAW

FIFTH DIGIT — TRANSMISSION ASSEMBLY

NOTE: The Transmission Assembly is represented by the fifth digit in the six digit Chainsaw Type Number found on the name plate.

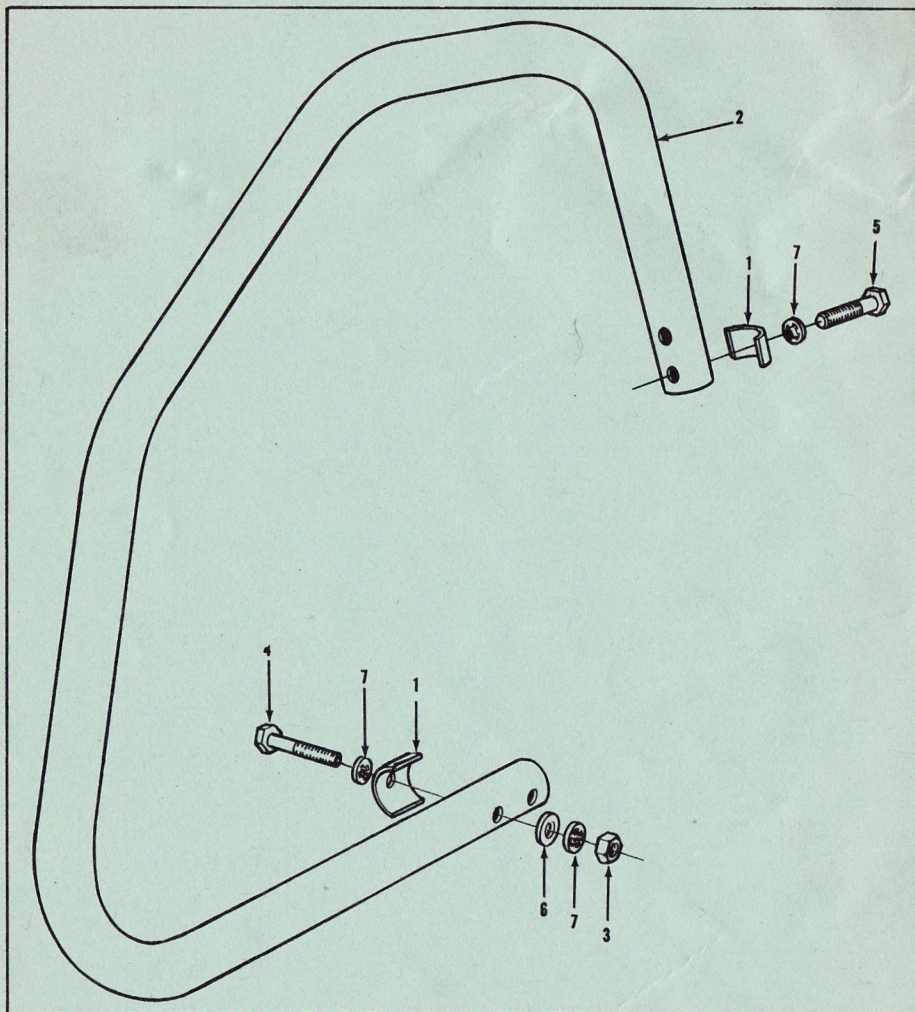
Ref. No.	Part No.	PART DESCRIPTION	TYPE	Qty.
1	400606	Bracket — Ignition Switch	11	1
2	400523	Bridge — Chain, Tension Bracket	11	1
3	400614	Bushing — Oilite, Bronze	11	1
4	400641	Clutch Ass'y — Centrifugal	11	1
NOTE: Ass'y Inc. Ref. Nos. 10, 22 & 25.				
5	400524	Connector — Chain, Tension Bracket	11	1
6	400542	Cover — Clutch	11	1
6A	5052	Connector — Oil Line	11	1
7	400716	Cover — Pipe Bumper	11	1
8	400575	Cover — Strut	11	1
9	400621	Cup & Driver Ass'y — Clutch	11	1
10	400640	Hub — Clutch	11	1
11	184	Key — Woodruff #6 5/32 x 5/8	11	1
12	400684	Nut — Hex, Grip 7/16-20 x 3/8	11	1
13	949	Nut & L'washer Ass'y — Hex., 3/8-24	11	4
14	400549	Plate — Guide Bar, Oil	11	1
15	400610	Pin — Oil Trigger, Roll 1/4 x 1 3/8	11	1
16	400611	Pin — Throttle Trigger, Roll 1/4 x 3/4	11	1
17	400622	Ring — Drive Sprocket, Tru-Arc Retainer	11	1
18	400612	Screw — Flat H.M., 5/16-18 x 7/8 (Nylock)	11	4
19	400246	Screw — F.H.M., 1/4 - 20 x 1/2	11	2
20	400709	Screw — Spike Bumper, H.H.M., 3/8 - 24 x 2	11	2
20A	400189	Screw & L'washer Ass'y — H.H.M. #10-24 x 3/8 (Nylock)	11	3
21	400548	Screw — Chain, Adjustment	11	1
21A	400715	Screw — Ignition Brkt. Mounting, S.T.R.H., 8 - 32 x 2	11	2
22	814	Shoe — Clutch	11	2
23	400540	Spacer — Clutch, Cover	11	1
24	400714	Spring — Spike Bumper	11	1
25	815	Spring — Clutch (2100 R.P.M.)	11	2
26	400742	Spike Bumper Ass'y	11	1
27	400623	Sprocket Ass'y — Chain, Drive Inc. Ref. Nos. 17, 28	11	1
28	400536	Sprocket — Chain, Drive	11	1
29	400582	Strut — Main	11	1
30	400587	Stud — Guide Bar, 3/8 - 24	11	2
31	400708	Stud — Spike Bumper	11	1
32	400532	Trigger — Oil Feed	11	1
33	400535	Trigger — Throttle	11	1
34	400538	Washer — Chain Guide	11	1
35	400624	Washer — Flat	11	3
36	507	Washer — Flat, 13/32 x 13/32 x 1/16	11	4
37	402	Washer — Flat, 15/32 x 15/16 x 1/16	11	1
38	113	Washer — Lock, 1/4	11	2



CLINTON CHAINSAW

SIXTH DIGIT — TUBULAR HANDLE ASSEMBLY

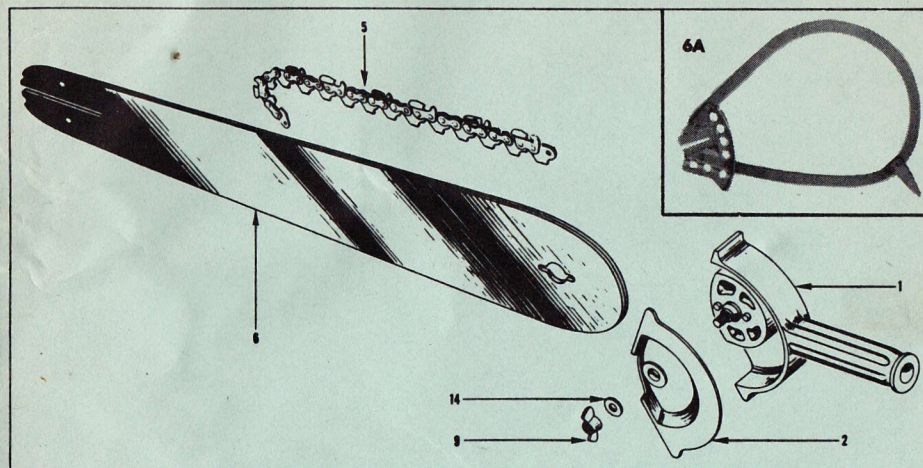
NOTE: The Tubular Handle Assembly is indicated by the sixth digit in the six digit Chainsaw Type Number found on the name plate. There are six types of Tubular Handle Assemblies (1, 2, 4, 5, 6 and 8) used on the Clinton Chainsaw and usage is noted for each part.



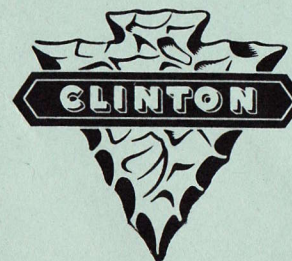
Ref. No.	Part No.	PART DESCRIPTION	TYPE	Qty.
1	201	Clamp — Tubular Handle	9	4
2	400551	Handle — Tubular	9	1
3	400584	Nut — Lock Hex. 1/4 - 20	9	2
4	700127	Screw — 1/4 - 20 x 1 3/4	9	2
5	850	Screw & L'washer Ass'y — H.H.C. 1/4 - 20 x 1 1/2	9	2
6	657	Washer — Flat, 1/4	9	2
7	113	Washer — Lock, 1/4	9	6

CLINTON CHAINSAW

GUIDE BARS & CHAINS



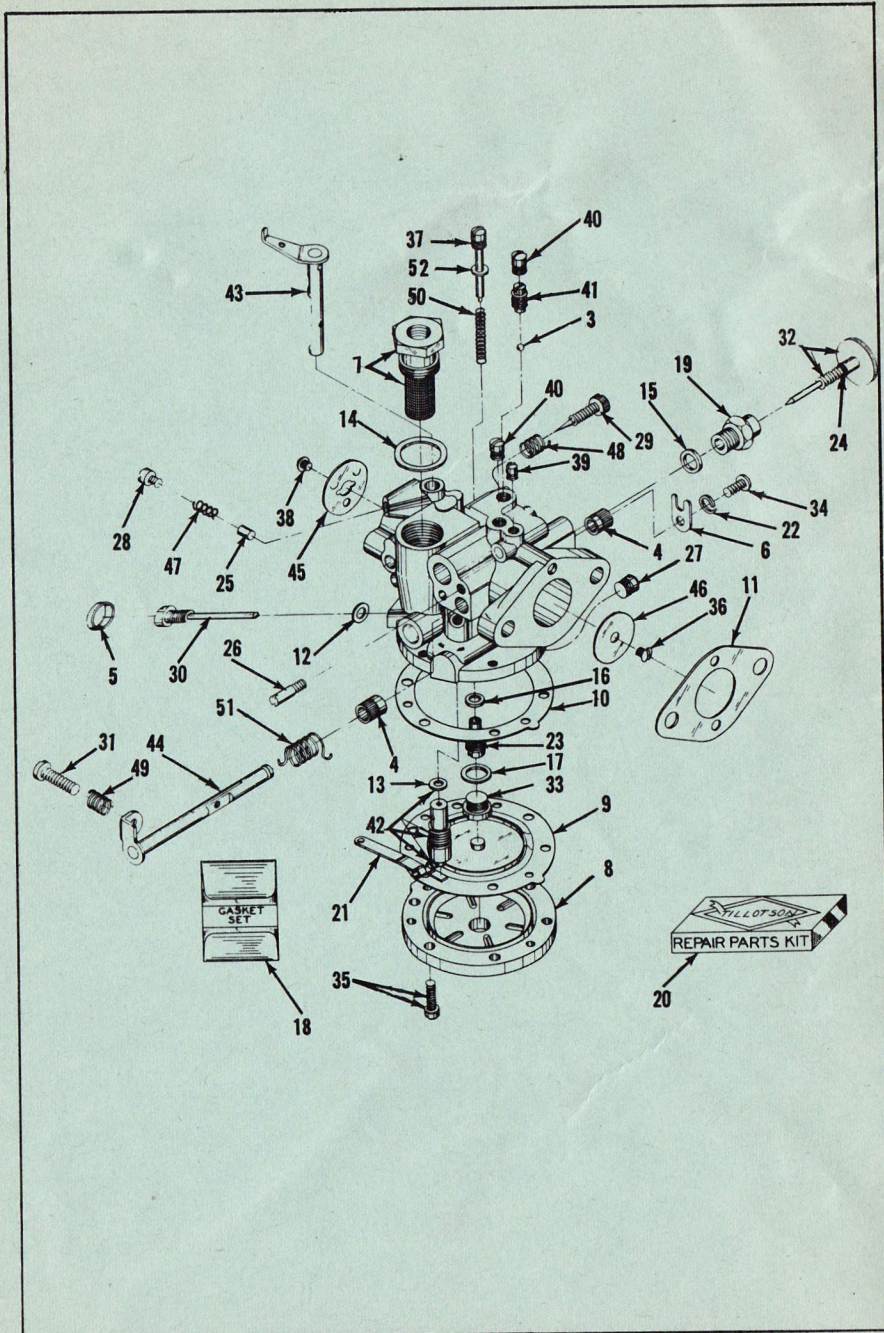
Ref. #	Part #	PART DESCRIPTION	Quan.
1	A564	BODY ASS'Y — Helpers Handle	1
2	A565	COVER — Helpers Handle	1
5	A400866	CUTTING CHAIN — 16" (Oregon #21C)	1
	A400865	CUTTING CHAIN — 20" (Oregon #21C)	1
	A400869	CUTTING CHAIN — 26" (Oregon #21C)	1
	A400830	CUTTING CHAIN — Bowsaw (Oregon #21C)	1
6	A400855	GUIDE BAR — 16"	1
	A400854	GUIDE BAR — 20"	1
	A400870	GUIDE BAR — 26"	1
6A	A400829	GUIDE BAR — Bow Saw	1
	A563	HELPERS HANDLE ASS'Y	1
	A400871	NOTE: Assembly includes Ref. Nos. 1, 2, 9, 14.	
	A400871	KIT — Master Link Repair	1
9	A567	NUT — Wing (Helpers Handle)	1
14	A569	WASHER — 1/2 S.A.E. (Helpers Handle)	1
	A400831	CLUTCH DRUM & SPROCKET ASS'Y	1
		NOTE: Used with Bow Saw.	





CLINTON CHAINSAW

CARBURETOR



CLINTON CHAINSAW

CARBURETOR



CLINTON ASS'Y NO.	TILLOTSON PART NO.	REBUILD KIT NO.	IND. ASS'Y USAGE
C400559	H-15A	400729	Type 14

Ref. #	Part No.		PARTS DESCRIPTION	Quan.
	Clinton*	Tillotson		
3	*400755	05322	BALL - Idle Check Valve	1
4	761	09780	BUSHING - Throttle Shaft	2
5	764	09884	CAP - Inlet Control Lever Pinion Screw	1
6	739	09678	CLIP - Throttle Shaft	1
7	776	09834	CONNECTION & SCREEN - Inlet	1
8	735	09614	COVER - Diaphragm	1
9	*772	09698	DIAPHRAGM - Carburetor	1
10	737	09676	GASKET - Diaphragm, Cover	1
11	400034	05591	GASKET - Flange	1
12	705	0648	GASKET - Inlet Control Lever Pinion Screw	1
13	400726	010404	GASKET - Inlet Seat (Copper)	1
14	742	09681	GASKET - Inlet Connection	1
15	706	0676	GASKET - Main Adj. Screw Gland	1
16	400726	010404	GASKET - Main Nozzle (Copper)	1
17	765	09930	GASKET - Main Nozzle Channel Plug Screw	1
18	*400728	GS-121	GASKET & PACKING SET	1
19	400724	010591	GLAND - Main Adj. Screw	1
20	400729	RK-296	KIT - Repair Parts	1
21	*753	09708	LEVER - Inlet Control	1
22	711	0992	LOCKWASHER - Throttle Shaft Clip	1
23	*773	09705	NOZZLE - Main	1
24	400725	010259	PACKING - Main, Adj. Screw, "O" Ring	1
25	722	05454	PIN - Choke, Friction	1
26	400758	05006	PIN - Throttle Stop	1
27	716	02395	SCREW - Drain, Plug	1
28	400754	07912	SCREW - Choke, Friction	1
29	*400720	09699	SCREW - Idle Adjustment	1
30	*771	09695	SCREW - Inlet Control Lever Pinion	1
31	*400721	01108	SCREW - Idle Speed Control	1
32	*400723	010596	SCREW - Main Adjustment	1
33	740	09679	SCREW - Main Nozzle Channel Plug	1
34	714	01947	SCREW - Throttle Shaft Clip	1
35	747	09689	SCREW & LOCKWASHER - Diaphragm, Cover	6
36	*733	08942	SCREW & LOCKWASHER - Throttle Shutter	1
37	400272	010005-S	SCREW & LOCKWASHERS - Inlet Tension	1
38	400753	0120	SCREW - Choke Shutter	1
39	715	02232	SCREW - Body, Channel Plug	2
40	719	02983	SCREW - Body, Channel Plug	1
41	*400756	09938	SEAT - Idle Check Valve	1
42	*400722	010141	SEAT & GASKET - Inlet Needle	1
43	400717	010601	SHAFT & LEVER - Choke	1
44	400757	010598	SHAFT & STOP LEVER - Throttle	1
45	400718	09626	SHUTTER - Choke	1
46	728	08646	SHUTTER - Throttle	1
47	400719	03860	SPRING - Choke, Friction Pin	1
48	*730	08793	SPRING - Idle Adjustment Screw	1
49	*710	0788	SPRING - Idle Speed Control Screw	1
50	*744	09683	SPRING - Inlet Tension	1
51	*400727	09983	SPRING - Throttle Shaft Return	1
52	766	010004	WASHER - Inlet Tension Screw	2

NOTE: Asterisk (*) Denotes Parts in Repair Kit.





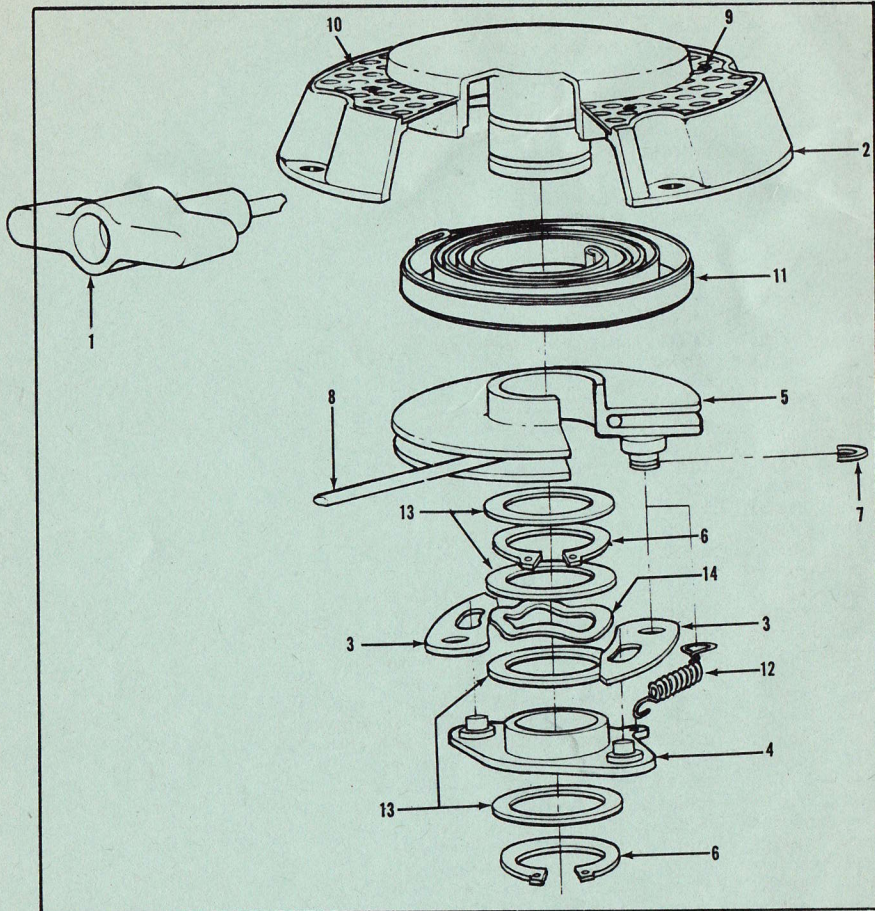
CLINTON CHAINSAW

STARTER

STARTER ASS'Y NO.
400698

DESCRIPTION
CLINTON TYPE

TYPE USAGE
ALL MODELS



Ref #	Part #	PARTS DESCRIPTION	Quan.
1	700753	HANDLE — Recoil Starter	1
2	400529	HOUSING — Recoil Starter	1
3	700582	PAWL — Starter	2
4	700773	PLATE — Pawl Activating	1
5	700757	PULLEY — Starter Rope, Recoil	1
6	700585	RING — Retaining	2
7	700586	RING — Retaining	2
8	700597	ROPE — Pull	1
9	700590	SCREW — Starter Screw, Drive	4
10	700789	SCREEN — Starter Housing	1
11	700772	SPRING — Starter, Recoil	1
12	700770	SPRING — Starter Pawl, Tension	1
13	700630	WASHER — Flat	4
14	700592	WASHER — Wave	1



USE

GENUINE

CLINTON

REPLACEMENT

PARTS

