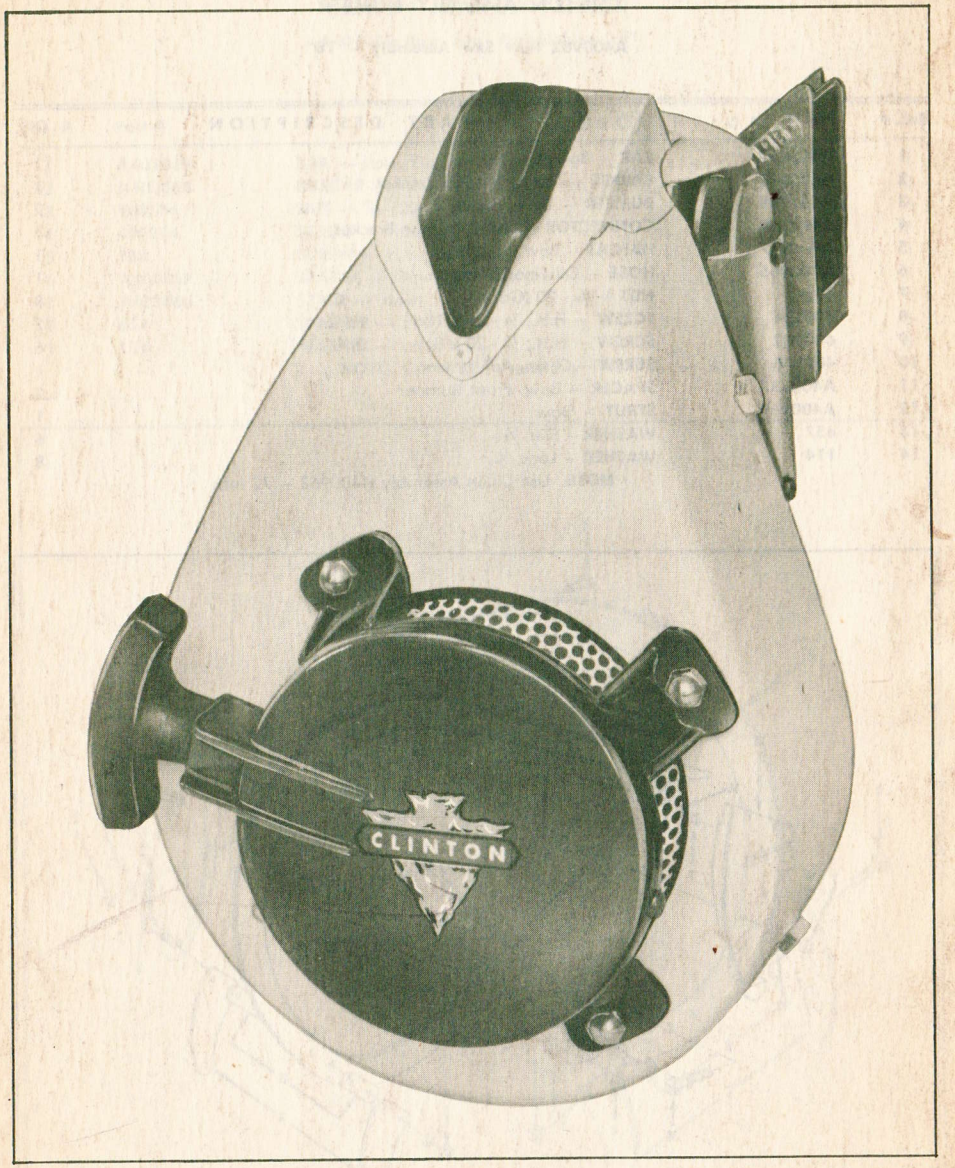


Part No.	PART DESCRIPTION	— TYPE 16
A401169	Power Head Ass'y	1⅞" Bore

INSTRUCTION MANUAL and PARTS LIST

★ CLINTON ★
CHAINSAW

Part No. 401174

CLINTON CHAINSAW

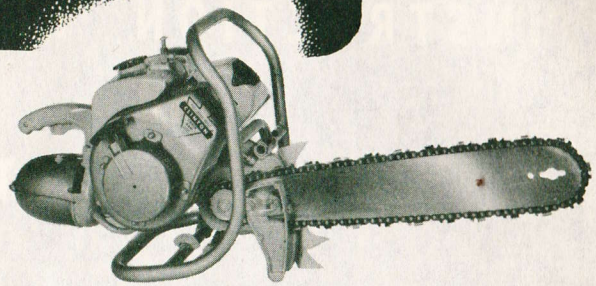


TABLE OF CONTENTS

INTRODUCTION

By following the instructions in this manual you can look forward to dependable service from your Chainsaw. Quality made, time tested Clinton Chainsaws are designed to provide efficient cutting on a great variety of jobs. They are 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 Authorized Clinton Service Station in your area. Here you will find factory-trained mechanics, genuine Clinton 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 Clinton 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—1⅞

STROKE—1⅝ 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 — Float.

FUEL TANK CAPACITY — 1 quart.

FUEL RATIO—¾ 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 — Clinton high tension fly-wheel magneto.

TYPE OF STARTER—Clinton recoil.

TYPE OF CLUTCH—Automatic Centrifugal.

CHAIN OILER CAPACITY — ½ pint SAE #30.

GUIDE BAR LENGTHS—From 16 inches to 30 inches (straight guide bars); 14 & 18 inch Bow Saw Attachments available.

OPERATION OF THE TWO CYCLE ENGINE

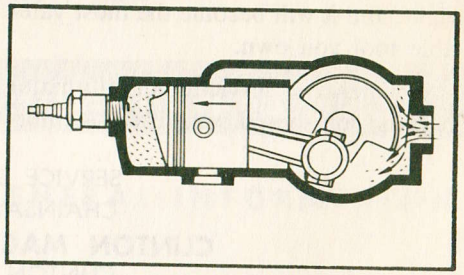
In a two cycle engine, intake, compression, power and exhaust are completed in two strokes of the piston. A power stroke results with every revolution of the crankshaft. On the upward stroke of the piston, a partial vacuum is created in the crankcase. (See Figure No. 1)

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.

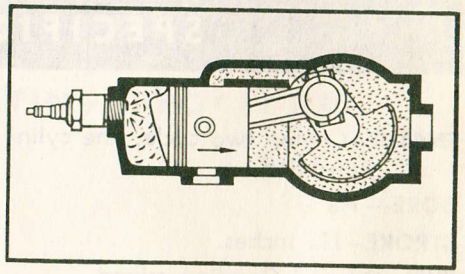
As the piston moves upward on its stroke, it passes the intake port, closing the port opening. Its continued upward movement causes the fuel mixture in the cylinder to be compressed. At the same time a new fuel charge is drawn into the crankcase. As the piston nears the top of the compression stroke, 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.

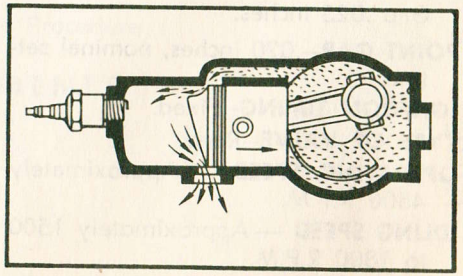
The chief attributes of the two cycle engine are its lightweight, low cost and powerful but simple operation. With only three basic moving parts (crankshaft, piston and rod), maintenance costs are at a minimum while efficiency is at a maximum.



COMPRESSION



POWER



EXHAUST

Figure No. 1

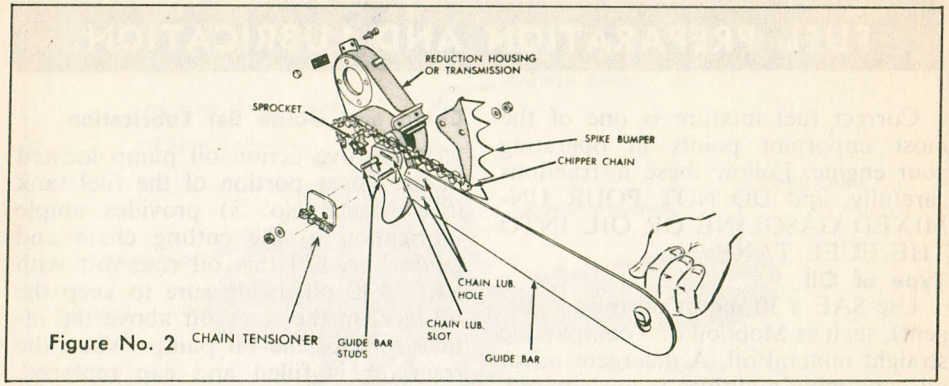


Figure No. 2

ASSEMBLY OF GUIDE BAR AND CHIPPER CHAIN

1. Slide the guide bar over the mounting studs on the reduction housing to the full length of the guide bar slot. (See Figure No. 2)
2. Place the chain around the guide bar so that cutting edges of teeth on top of the guide bar point away from the engine unit.
3. Seat the Chipper Chain drive links in the guide bar groove then over the chain drive sprocket.
4. 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.
5. Place the cover strut on mounting studs with the smooth pad against the guide bar.
6. Make sure that the chain tension hook bolt, located in the cover strut, fits into the guide bar slot.
7. Place the spike bumper over the studs on the reduction housing and secure with nuts.
8. Put washers and nuts on the guide bar mounting studs to make them snug, but not tight against the guide bar mounting plate.
9. While holding with upward pressure of the finger in the hole at end of guide bar, turn tension adjusting screw on the hook bolt clockwise until the chain has a free sag of not less than ⅛ inch nor more than ¼ 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.
10. 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 9.
11. 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 ¾ 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 upper portion of the fuel tank (See Figure No. 3) provides ample lubrication to the cutting chain and guide bar. Fill this oil reservoir with SAE #30 oil, being sure to keep the oil level in the reservoir above the intake tube of the oil pump. 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.

SAFETY AND FIRE PRECAUTIONS

Your Clinton 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.
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.

Never Carry the Chainsaw from Place to Place with the Engine Running

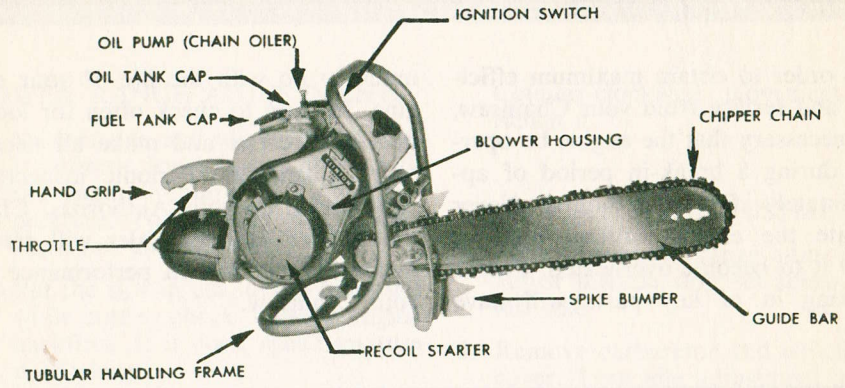


Figure No. 3

CHAINSAW CONTROLS

Major controls on your Clinton 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 No. 3).

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 — Projects through an opening in the B'Nose on the left. The adjustment is used to obtain proper fuel mixture, make the engine run smoothly and achieve maximum power.

THE IDLE FUEL MIXTURE ADJUSTMENT SCREW — This device is found on the left side of carburetor. It is used to obtain smooth and proper idling speed.

THE CHOKE LEVER—Located on the right side of the carburetor projecting through an opening in the B'Nose.

THE FUEL PUMP—Located on side of fuel tank and maintains proper fuel supply to the carburetor.

THE IGNITION SWITCH—Toggle-type, located on top of the blower housing to the right of the fuel cap.

THE RECOIL STARTER—Located on the right 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 rewinding.

THE CHAIN OILER — Manually operated, plunger type oil pump, located in the upper portion of the fuel tank just below the tubular 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.

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.

STARTING PROCEDURE

1. Fill fuel and oil tanks according to Fuel Preparation Instructions on Page 6.
2. Open fuel tank. Shut-off valve.
3. Open high speed adjustment screw 1¼ to 1½ turns.
4. Push choke lever into "Choke" position.
5. Turn ignition switch to "On."
6. Pull on recoil starter handle, then let it slowly return to the socket.
7. After two or three pulls, engine will start. Then return "choke" lever to "run" position.
8. Before cutting with saw, pump the chain oiler (See Figure No. 3) a few times to lubricate groove in guide bar. Use the pump frequently while the chain is in operation.
9. Run the engine for a few minutes at ½ speed to engage the clutch, and when chain is moving around the guide bar, check to make sure chain is being lubricated. Never operate saw at wide open throttle without load.

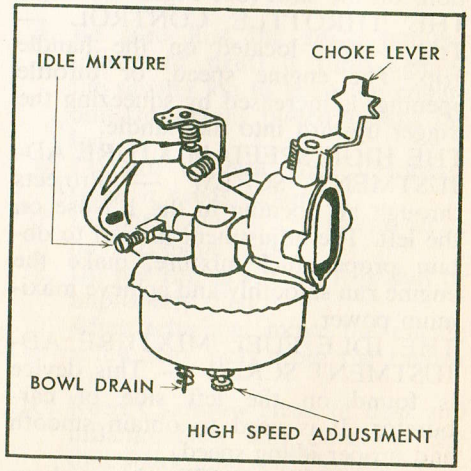


Figure No. 5

CARBURETOR ADJUSTMENTS

POWER RANGE ADJUSTMENTS

1. Start engine and allow it to run at ½ throttle for a few minutes until the engine acquires uniform temperature. Never race the engine when not under load.
2. Put the saw in cut, under load and while cutting check to see if engine backfires. If it does, speed mixture is too lean.

   TO CORRECT: Slowly turn high speed mixture needle valve counter-clockwise until the engine runs smoothly. (Refer to Figure No. 5)
3. If the engine loads up, is sluggish and has heavy exhaust, the mixture is too rich.

   TO CORRECT: Turn the adjustment device clockwise until the engine runs normally under cutting load.
4. The richest mixture between these two points will allow satisfactory acceleration.
5. Remember: Clockwise movement of the needle will lean the mixture. Counter-clockwise movement will richen it.

IDLE MIXTURE ADJUSTMENT

1. Following power range adjustment, adjust throttle stop set screw to a fast idle.
2. Remove carburetor and air cleaner cover. Turn idle adjustment needle clockwise until engine starts missing or losing speed.
3. Then turn needle counter-clockwise until engine runs more smoothly again.
4. The point at which the engine begins to run smoothly is the proper idle mixture adjustment. Final adjustment can be made with throttle stop screw set at approximately 1800 R.P.M.
5. If you detect any serious trouble in the carburetor, which may make a tearing-down operation necessary, be sure to consult your Authorized Clinton Service Station Dealer for adjustment and overhaul.

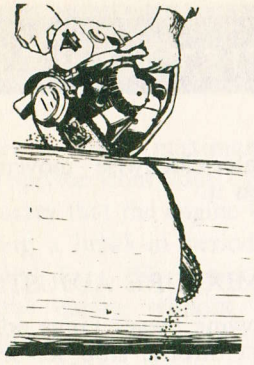


Figure No. 6

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 on page 8.
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. 6)
3. After tilting the unit to the maximum angle (about 35°) for the 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. 7

NOTCHING AND FELLING

For this type of operation rotate the guide bar in a horizontal position against the tree. DO NOT allow spectators within six feet of the chain when it is running.

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. 7)
2. As you start your felling cut remember to LEAVE HOLDING WOOD (See Figure No. 7) or the tree might spin out of control.
3. Think before you cut!

CHAIN MAINTENANCE

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

Clinton Chainsaws are precision sharpened at the factory and come 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. 8) 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 your Authorized Cilnton dealers.
   a. A ¼" round (not tapered) file. Clinton dealers stock the file handle, holder with guide marks and correct file. Ask for CST-11. (See Figure No. 9)
   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. 9)
   d. Filing clamp or straight edge vise to hold the chain while it is being sharpened.

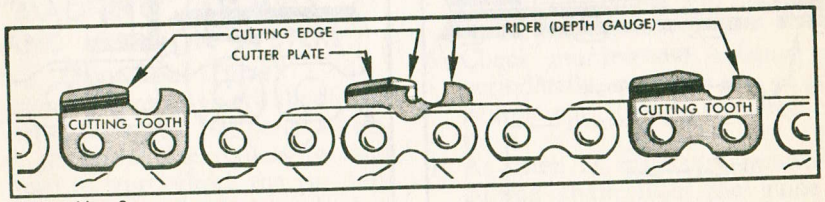


Figure No. 8

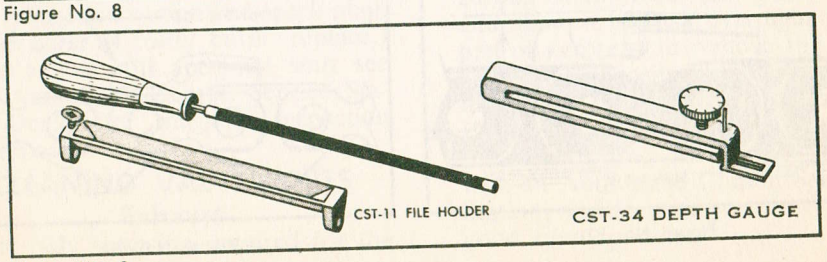


Figure No. 9

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. 10) 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 (.035). 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 (.035). 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. 11)
   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.

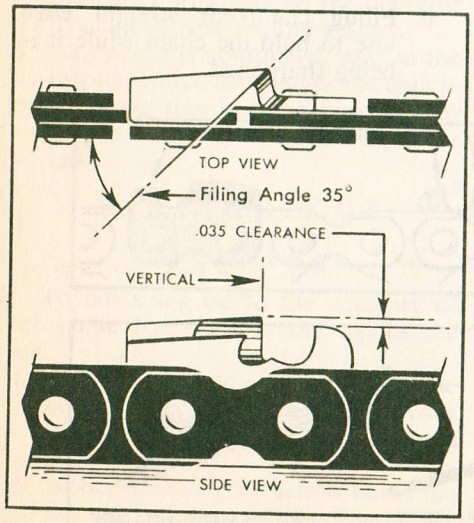


Figure No. 10

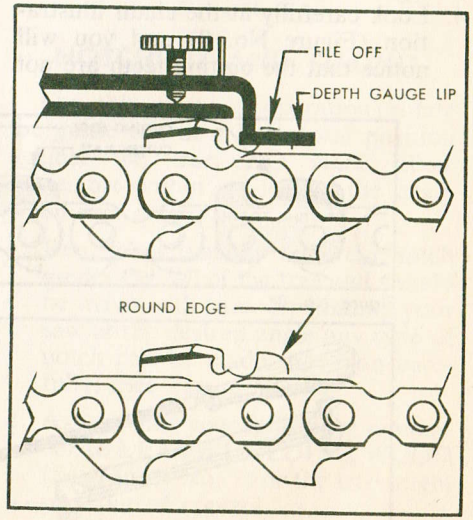


Figure No. 11

SERVICE TIPS

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 your Authorized Clinton Service Station.

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.

GAS CAP AND GASKET

The plastic filler cap differs from most gas caps in that it has no air-hole in it. This is because the Fuel Tank is pressured, and it must be perfectly sealed throughout to hold the pressure. The filler cap is provided with a rubber gasket to insure a good seal with the tank. If the filler cap should become cracked, or the gasket fractured or hardened, discard them.

MAGNETO ASSEMBLY AND IGNITION SYSTEM (Flywheel Type)

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.

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.

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.
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.

BOW SAW INSTALLATION

1. Remove straight guide bar and chain.
2. Mount the Bow Saw blade on the guide bar studs.
3. Place the cover strut over the mounting studs and secure with the two replacement nuts in the Parts Bag.
4. For easy installation of chain
   a. Loosen the tension adjustment.
   b. Place the chain over the drive sprocket and continue to seat it along the blade groove.
   c. Adjust the chain to proper tension by using the adjustment nut.
   d. Start the engine and use the chain oiler freely while the chain is in motion.

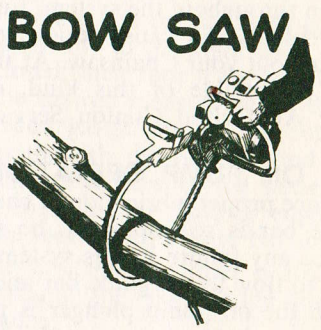


Figure No. 12

HELPERS HANDLE

For specialized sawing operations which require the use of the long guide bar, the Clinton 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 No. 13)

Figure No. 13

CLINTON CHAINSAWS

HOW TO IDENTIFY

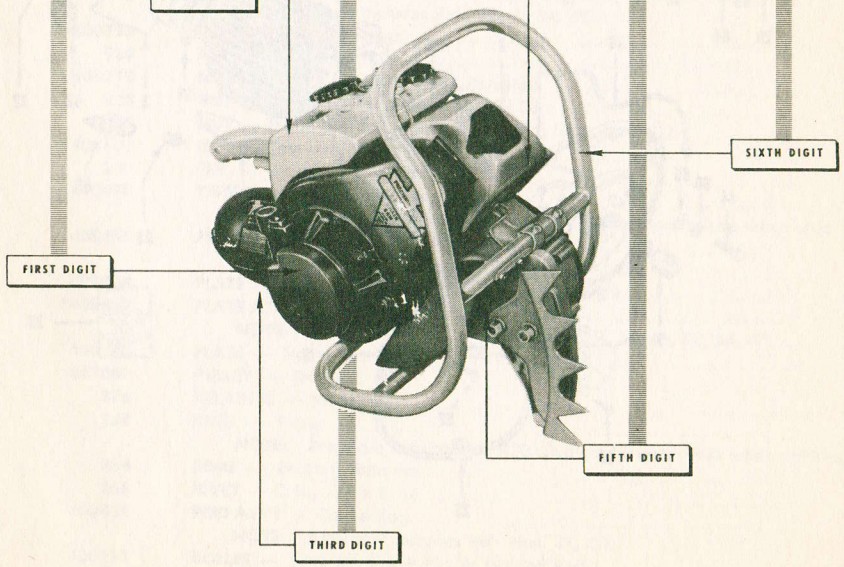
Identification of your Clinton Chainsaw can easily be made by consulting the Name Plate found on the Blower Housing which show both a Model Number and a Six Digit Type Number i.e., **Model 323A Type 16 - 10 - 12 - 5 - 9 - 8.**

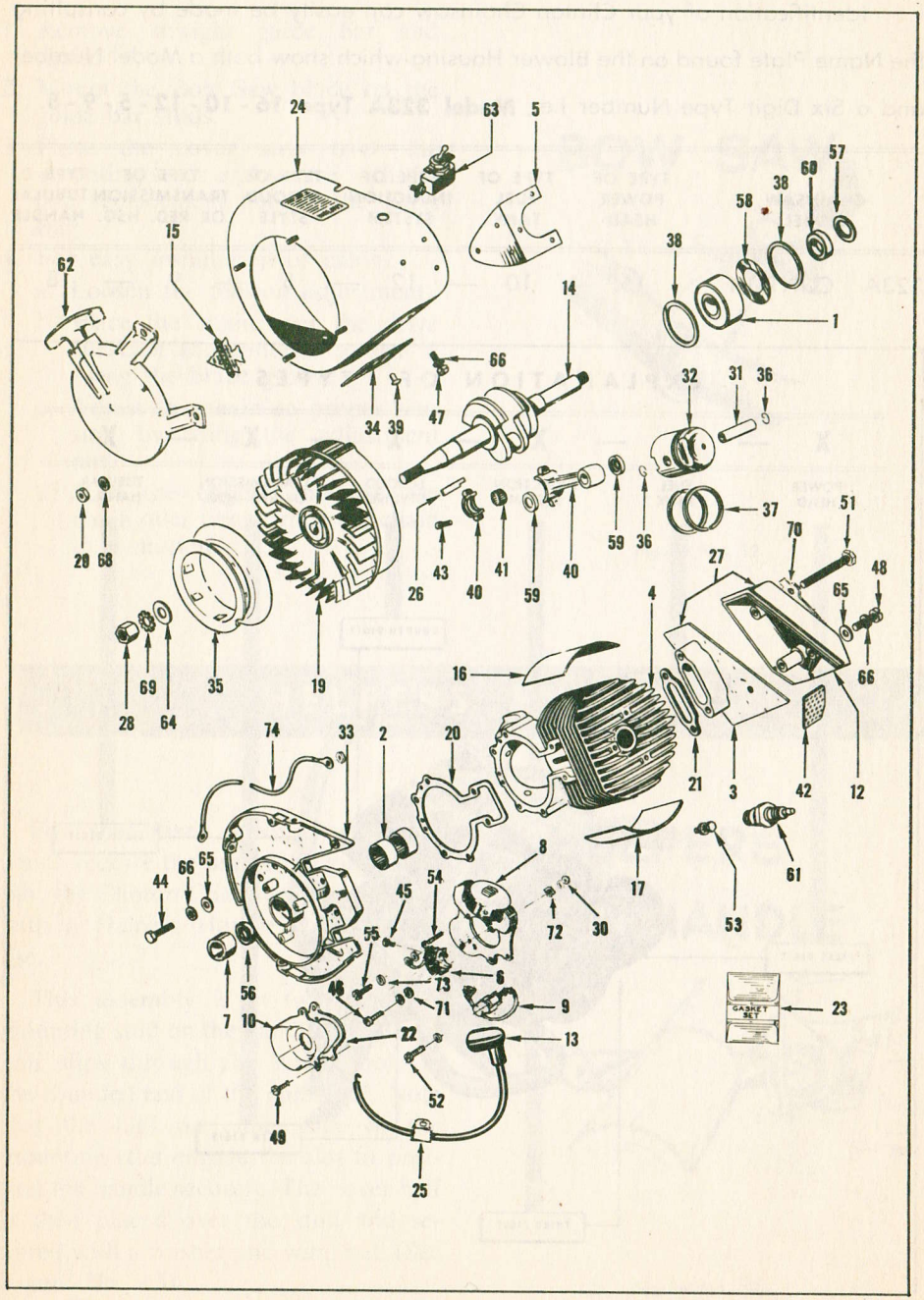
CHAINSAW MODEL	TYPE OF POWER HEAD	TYPE OF FUEL TANK	TYPE OF INDUCTION SYSTEM	TYPE OF SHROUD STYLE	TYPE OF TRANSMISSION OR RED. HSG.	TYPE OF TUBULAR HANDLE
323A CLINTON	16 —	10 —	12 —	5 —	9 —	8

EXPLANATION OF "TYPES"

X — X — X — X — X — X

POWER HEAD | FUEL TANK | INDUCTION SYSTEM | SHROUD STYLING | TRANSMISSION OR RED. HSG. | TUBULAR HANDLE





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 USAGE 16	QTY.
1	233	**BEARING** — Main, Ball (Cylinder Block)	1
2	820	**BEARING** — Needle	2
3	400196	**BASE PLATE** — Muffler	1
4	400144	**BLOCK ASS'Y** — Cylinder (1⅞" Bore)	1
5	500	**BRACKET** — Blower Housing to Cylinder Block	1
6	P400792	**BREAKER POINT ASS'Y**	1
7	400683	**CAM** — Breaker Point	1
8	P400789	**COIL** — Magneto (Without Laminations)	1
8A	P400788	**COIL & LAMINATION ASS'Y** — Magneto (Used W/400054 Flywheel)	1
9	400777	**CONDENSER** — Magneto	1
10	5595	**COVER** — Dust (Breaker Point)	1
12	400195	**BODY** — Muffler	1
13	842	**COVER & LEAD** — Spark Plug	1
14	400075	**CRANKSHAFT**	1
15	896	**DECAL** — Arrowhead (Blower Housing)	1
16	2037	**DEFLECTOR** — Air (Cylinder)	1
17	401079	**DEFLECTOR** — Air	1
19	400954	**FLYWHEEL ASSEMBLY**	1
20	700743	**GASKET** — Bearing Plate to Block	1
21	700038	**GASKET** — Muffler to Block	1
22	400609	**GASKET** — Dust Cover	1
23	401252	**GASKET KIT** — Overhaul	1
24	400438	**HOUSING ASSEMBLY** — Blower	1
		NOTE: Ass'y includes Ref. Nos. 5, 34, 39.	
25	400795	**INSULATOR** — Terminal	1
26	958	**KEY** — Flywheel	1
27	400213	**MUFFLER ASS'Y** — (with Spark Arrester)	1
28	838	**NUT** — Starter Pulley — Hex., 7/16 - 20	1
29	281	**NUT** — Recoil Starter to Blower Housing, Hex., #10 - 32	4
30	400801	**NUT** — Terminal, #6 - 32	1
31	240	**PIN** — Wrist	1
32	400070	**PISTON** — 1⅞" Bore	1
		NOTE: Pistons are available in .020 (Oversize) (Specify size when ordering)	
	400455	**PISTON ASSEMBLY** — (1⅞" W/Guided Rod)	1
		NOTE: Assembly includes Ref. Nos. 31, 32, 36, 37.	
33	401068	**PLATE** — Bearing (W/Air Seal & Needle Bearings)	1
	P400692	**PLATE ASS'Y** — Bearing & Magneto	1
		NOTE: Assembly includes Ref. Nos. 6, 8, 9, 13, 46, 52, 54, 67.	
34	400182	**PLATE** — Name (CMC)	1
35	401080	**PULLEY** — Starter	1
36	376	**RETAINER** — Wrist Pin	2
37	239	**RING** — Piston	2
		NOTE: Rings are available in .020 (Oversize) (Specify size when ordering)	
38	234	**RING** — Bearing Retainer	1
39	366	**RIVET** — O.H., 1/8 x 3/16	5
40	400439	**ROD ASS'Y** — Connecting	1
		NOTE: Assembly includes Ref. Nos. 41, 59.	
41	400211	**ROLLER** — Tapered, Crank Pin W/Guided Rod	25

CLINTON CHAINSAWS

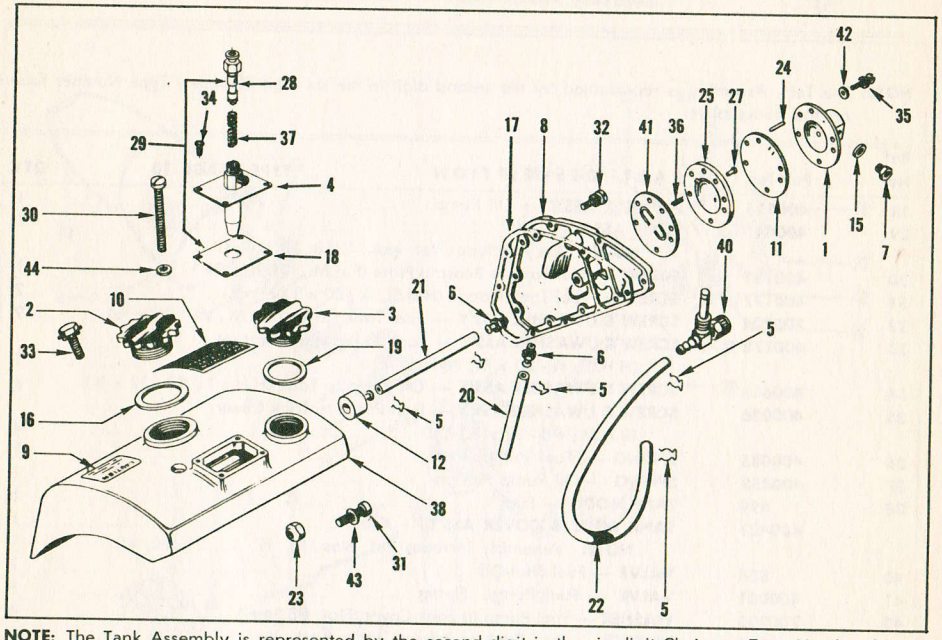
FIRST DIGIT—POWER HEAD

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 USAGE 16	QTY.
42	400314	**SCREEN** — Muffler Spark Arrester	2
43	244	**SCREW** — Connecting Rod Cap (A.H.M., #10-24 x ¾)	6
44	400178	**SCREW** — Bearing Plate to Block (H.H.C., ¼-20 x ¾)	6
45	400802	**SCREW** — Breaker Point Terminal (F.H.M., #6-32 x 7/16)	1
46	400799	**SCREW** — Breaker Point to Bearing Plate (F.H.M., #8-32 x 5/16)	1
47	400246	**SCREW** — Blower Housing to Bearing Plate (F.H.M., ¼ - 20 x ½)	1
48	700117	**SCREW** — Muffler Body to Base Plate (F.H.M., ¼ - 28 x 1¼)	1
49	268	**SCREW** — Dust Cover to Bearing Plate (O.H.S.T., #6 - 32 x ⅜)	4
51	400475	**SCREW** — Muffler to Block (F.H.N., ¼ - 20 x 2½)	2
52	400798	**SCREW & L'WASHER ASS'Y** — Condenser to Bearing Plate (F.H.M., #8 - 32 x ⅝)	1
53	936	**SCREW & L'WASHER ASS'Y** — Bracket to Cylinder Head (H.H.C., #10 - 24 x ⅝)	3
54	5430A	**SCREW & L'WASHER ASS'Y** — Coil to Bearing Plate (P.H.S.T., #10 - 24 x 1)	2
55	400797	**SCREW** — Terminal (F.H., 6 - 32 x ¾)	1
56	257-1	**SEAL** — Oil	1
57	247	**SEAL** — Oil	1
58	400198	**SHIM** — Crankshaft End Play (.002)	as req.
	515	**SHIM** — Crankshaft End Play (.005)	as req.
59	400237	**SPACER** — Piston to Conn. Rod (Use W/Piston 400070)	2
60	296	**SPACER** — Oil Seal Ride	1
61	859	**SPARK PLUG & GASKET ASSEMBLY**	1
62	401017	**STARTER ASSEMBLY** — Recoil (Clinton)	1
63	860	**SWITCH ASS'Y** — Shorting	1
64	402	**WASHER** — Starter Pulley (Flat, 7/16")	1
65	657	**WASHER** — Muffler to Block (Flat, ¼")	2
	657	**WASHER** — Muffler to Body to Muffler Base Plate (Flat, ¼")	1
	657	**WASHER** — Bearing Plate to Block (Flat, ¼")	6
66	114	**WASHER** — Bearing Plate to Block (Lock, ¼")	6
		WASHER — Blower Housing to Bearing Plate (Lock, ¼")	3
		WASHER — Muffler to Block (Lock, ¼")	2
67	400040	**WASHER** — Breaker Point to Bearing Plate (Lock, #8)	1
68	192	**WASHER** — Recoil Starter to Bearing Plate (Lock, #12)	4
69	400874	**WASHER** — Starter Pulley (Lock)	1
70	400474	**WASHER** — Tab, Lock	1
71	400800	**WASHER** — Breaker Spring Screw	1
72	400796	**WASHER** — Terminal Screw	1
73	400803	**WASHER** — Lock #8	1
74	379	**WIRE ASS'Y** — Shorting	1

CLINTON CHAINSAWS

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 USAGE 10	QTY.
1	400318	**BODY** — Fuel Pump	1
2	124	**CAP & GASKET ASS'Y** — Fuel (Includes Ref. No. 16)	1
3	125	**CAP & GASKET ASS'Y** — Oil Tank (Includes Ref. No. 19)	1
4	400516	**CASE** — Oil Pump	1
5	976	**CLIP** — Spring (Flexible Line)	4
6	818	**CONNECTOR** — Fuel Pump (Flexible Line)	2
7	400223	**CONNECTOR** — Fuel Pump (Pressure Line)	1
8	400077	**COVER** — Fuel Tank	1
9	849	**DECAL** — Fuel Tank ("Caution")	1
10	400933	**DECAL** — Fuel Tank ("Instructions")	1
11	400079	**DIAPHRAGM** — Fuel Pump	1
12	130	**FILTER** — Fuel Tank (Internal Pick-Up)	1
	400076	**FUEL PUMP & TANK COVER ASS'Y** (Not Shown)	1
		NOTE: Ass'y includes 400077 and 400458	
	400458	**FUEL PUMP ASS'Y** — (Includes Ref. Nos. 1, 11, 24, 25, 27, 35, 36, 41, 42)	1
15	395	**GASKET** — Connector	1
16	891	**GASKET** — Fuel Cap	1
17	400176	**GASKET** — Fuel Tank Cover	1
18	400477	**GASKET** — Oil Pump Plate	1
19	106	**GASKET** — Oil Tank Cap	1
20	400083	**LINE** — Fuel Discharge (4⅛" Long)	1
21	400304	**LINE** — Fuel Pick-Up (3⅞" Long)	1
22	832	**LINE** — Fuel (Neoprene)	1
23	132	**NUT** — Tank Flange (Lock, Hex., ¼ x 20)	2
24	400082	**PIN** — Fuel Pump, Locating	2
25	400317	**PLATE** — Fuel Pump, Center Transfer	1
27	400084	**PLUNGER** — Fuel Pump — Vent	1

CLINTON CHAINSAWS

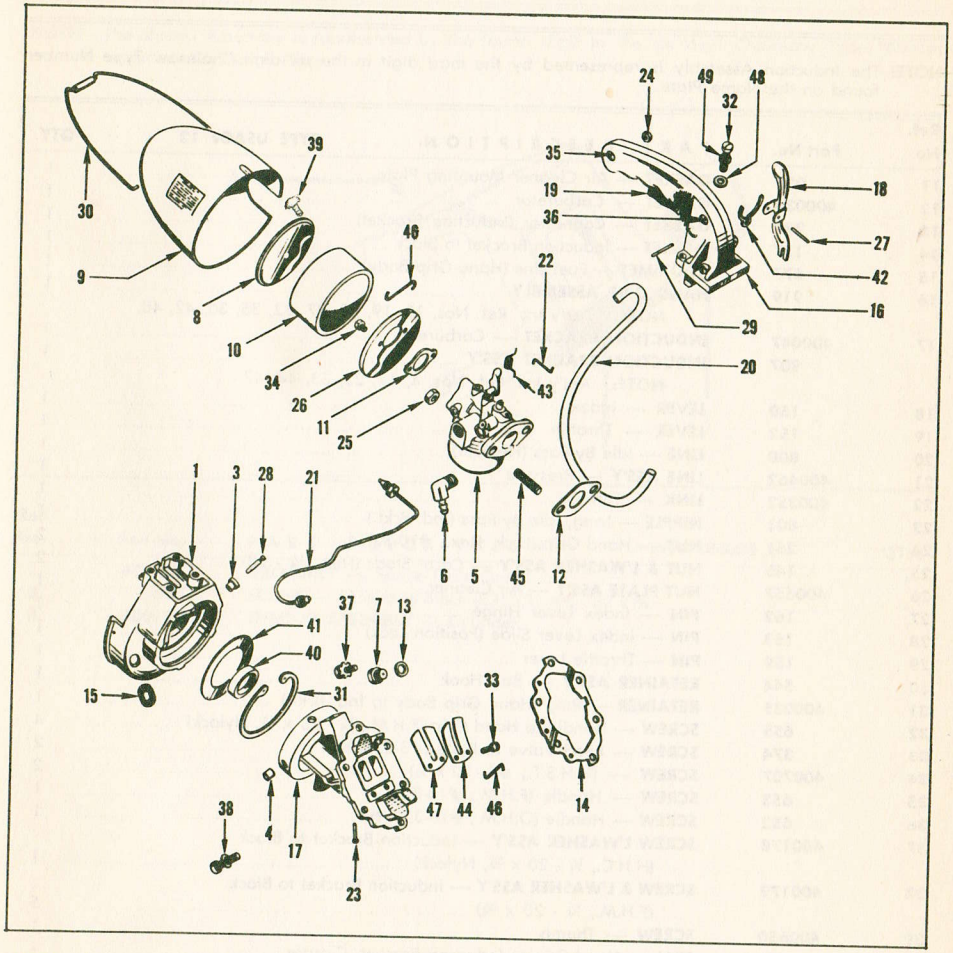
SECOND DIGIT — TANK ASSEMBLY

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 USAGE 10	QTY.
28	400515	**PLUNGER ASS'Y** — Oil Pump	1
29	400441	**PUMP ASS'Y** — Oil	1
		NOTE: Ass'y Includes Ref. Nos. 4, 18, 28, 34, 37.	
30	400127	**SCREW** — Fuel Tank to Bearing Plate (F.H.M., ¼ - 20 x 2¼)	1
31	400177	**SCREW** — Fuel Tank Flange (H.H.S., ¼ - 20 x 1 Nylock)	2
32	700204	**SCREW & L'WASHER ASS'Y** — Fuel Tank Cover (F.H.M., #8 - 32 x ⅝)	9
33	400178	**SCREW & L'WASHER ASS'Y** — Tank to Induction Bracket (H.H.C., ¼ - 20 x ¾, Nylock)	1
34	400613	**SCREW & L'WASHER ASS'Y** — Oil Pump to Tank (H.H.S.T., #8 - 32 x ⅜)	4
35	400086	**SCREW & L'WASHER ASS'Y** — Fuel Pump to Tank Cover (R.H.M., #8 - 32 x ⅝)	4
36	400085	**SPRING** — Fuel Pump, Vent	1
37	400453	**SPRING** — Oil Pump Plunger	1
38	699	**TANK BODY** — Fuel	1
	400421	**TANK BODY & COVER ASS'Y** — Fuel	1
		NOTE: Assembly Includes Ref. Nos. 13, 17, 20, 21, 38, 40.	
40	834	**VALVE** — Fuel Shut-Off	1
41	400081	**VALVE** — Fuel Pump. Flutter	1
42	700205	**WASHER** — Fuel Pump to Tank Cover (Flat, #8 Steel)	4
43	113	**WASHER** — Fuel Tank to Bearing Plate (Lock, ¼)	4
44	657	**WASHER** — Flat, ¼	6

CLINTON CHAINSAWS

THIRD DIGIT — INDUCTION ASSEMBLY



NOTE: The Induction Assembly is represented by the third digit in the six digit Chainsaw Type Number found on the Name Plate.

Ref. No.	Part No.	PART DESCRIPTION — TYPE USAGE 12	QTY.
1	441	**BODY** — Hand Grip (Indexing)	1
	400468	**BODY ASS'Y** — Hand Grip	1
		NOTE: Assembly Inc. Ref. Nos. 1, 15, 40, 45	
3	400026	**BUSHING** — Index Slide Pin	1
4	140	**INSERT** — Index Slide Pin	4
5	400321	**CARBURETOR ASS'Y** — (Clinton) LMG-6	1
6	5052	**CONNECTOR** — Carburetor (Elbow)	1
7	337	**CONNECTOR** — Pressure Line (Induction Bracket)	1
8	400655	**COVER** — Air Cleaner	1
9	400214	**COVER** — Carburetor Bull Nose	1
10	164	**ELEMENT** — Filter (Air Cleaner)	1

CLINTON CHAINSAWS

THIRD DIGIT — INDUCTION ASSEMBLY

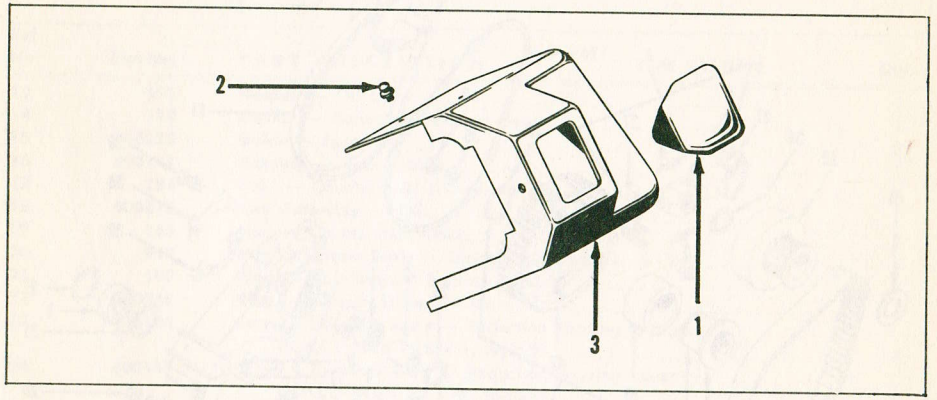
NOTE: The Induction Assembly is represented by the third digit in the six digit Chainsaw Type Number found on the Name Plate.

Ref. No.	Part No.	PART DESCRIPTION — TYPE USAGE 12	QTY.
11	920	**GASKET** — Air Cleaner Mounting Plate	1
12	400034	**GASKET** — Carburetor	1
13	293	**GASKET** — Connector (Induction Bracket)	1
14	137	**GASKET** — Induction Bracket to Block	1
15	677	**GROMMET** — Fuel Line (Hand Grip Body)	1
16	919	**HAND GRIP ASSEMBLY**	1
		NOTE: Ass'y Inc. Ref. Nos. 18, 19, 24, 27, 32, 35, 36, 42, 48.	
17	400047	**INDUCTION BRACKET** — Carburetor	1
	907	**INDUCTION BRACKET ASS'Y**	1
		NOTE: Ass'y Inc. Ref. Nos. 4, 17, 23, 33, 44, 47	
18	160	**LEVER** — Index	1
19	152	**LEVER** — Throttle	1
20	800	**LINE** — Idle By-Pass (Flexible)	1
21	400462	**LINE ASS'Y** — Pressure	1
22	400352	**LINK** — Throttle	1
23	801	**NIPPLE** — Long, Idle By-Pass (Ind. Brkt.)	1
24	281	**NUT** — Hand Grip (Lock, Hex., #10-32)	2
25	145	**NUT & L'WASHER ASS'Y** — Carb. Studs (Hex., ¼ - 28)	2
26	400657	**NUT PLATE ASS'Y** — Air Cleaner	1
27	162	**PIN** — Index Lever Hinge	1
28	163	**PIN** — Index Lever Slide (Position Lock)	1
29	159	**PIN** — Throttle Lever	1
30	544	**RETAINER ASS'Y** — Bail Hook	1
31	400035	**RETAINER** — Ring (Hand Grip Body to Ind. Brkt.)	1
32	655	**SCREW** — Handle to Hand Grip (F.H.M., ¼ - 20 x ¾, Nylock)	4
33	374	**SCREW** — Reed Valve to Plate (#8-32 x ⅜)	2
34	400707	**SCREW** — (H.H.S.T., #8 - 32 x ⅜)	2
35	653	**SCREW** — Handle (F.H.M., #10-32 x 1)	1
36	652	**SCREW** — Handle (O.H.M., #10-32 x ⅝)	1
37	400178	**SCREW L'WASHER ASS'Y** — Induction Bracket to Block (H.H.C., ¼ - 20 x ¾, Nylock)	1
38	400179	**SCREW & L'WASHER ASS'Y** — Induction Bracket to Block (F.H.M., ¼ - 20 x ¾)	5
39	400650	**SCREW** — Thumb	1
40	143	**SEAL** — Hand Grip to Induction Bracket, Closure	1
41	414	**SHIM** — Hand Grip to Induction Bracket (.005)	as req.
	413	**SHIM** — Hand Grip to Induction Bracket (.002)	as req.
42	161	**SPRING** — Index Lever	1
43	354	**SPRING** — Carburetor Throttle	1
44	136	**STOP** — Reed Valve	1
45	144	**STUD** — Carburetor	2
46	400706	**TAB** — Lock	2
47	135	**VALVE** — Reed	1
48	657	**WASHER** — Hand Grip to Body & Induction Bracket to Block (Flat, ¼")	10
49	114	**WASHER** — Hand Grip to Body (Lock, ¼")	6
50	113	**WASHER** — Lock, ¼	6

CLINTON CHAINSAWS

FOURTH DIGIT — SHROUD ASSEMBLY

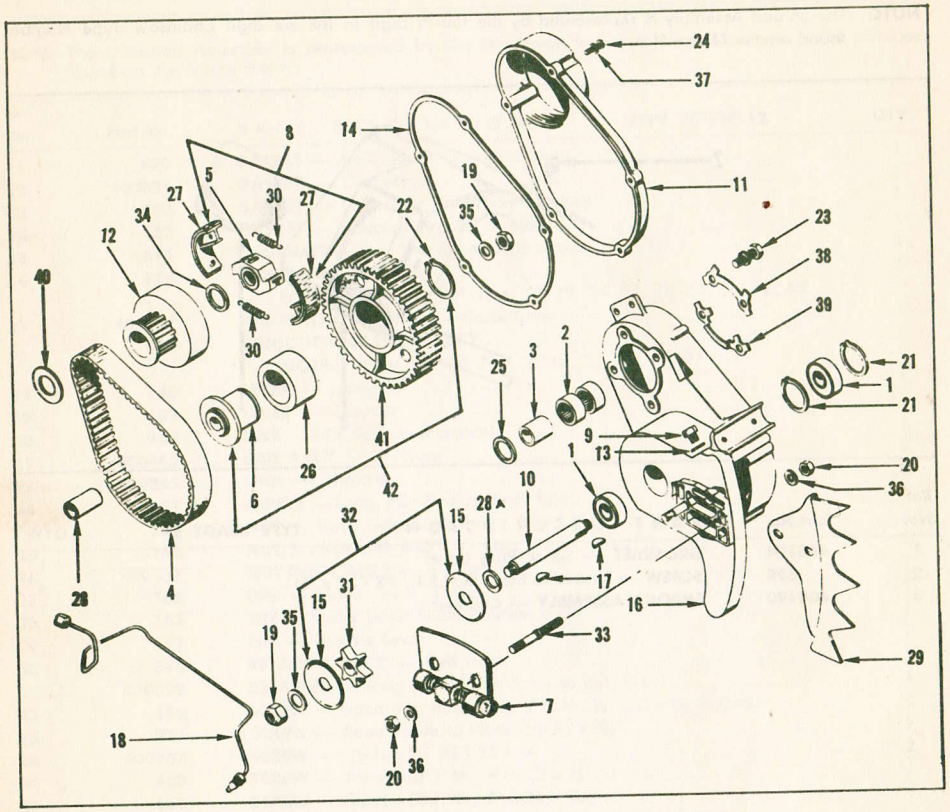
NOTE: The Shroud Assembly is represented by the fourth digit in the six digit Chainsaw Type Number found on the Name Plate.



Ref. No.	Part No.	PART DESCRIPTION — TYPE USAGE 5	QTY.
1	400194	**GROMMET** — Spark Plug Cover	1
2	698	**SCREW** — Shroud to Block (R.H.S.T., #8 - 32 x ⅜)	4
3	400190	**SHROUD ASSEMBLY** — Cylinder	1

CLINTON CHAINSAWS

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 USAGE 9	Qty.
1	196	**Bearing** — Countershaft (Ball)		2
2	400136	**Bearing** — Clutch Drum Needle		2
3	400135	**Bearing Race** — Clutch Drum		1
4	400131	**Belt** — Drive (1" Wide)		1
5	400159	**Body** — Clutch (Elgin)		1
6	400087	**Body** — Torsion Drive		1
7	400986	**Bolt & Plate Ass'y** — Chain Tension		1
8	400166	**Clutch Assembly** — Centrifugal (Elgin)		1
		NOTE: Assembly Includes Ref. Nos. 5, 27, 30.		
9	205	**Connector** — Reduction Housing Oil Line		1
10	173	**Countershaft** — Reduction Housing		1
11	400316	**Cover** — Reduction Housing		1
12	400065	**Drum Ass'y** — Clutch (Inc. Ref. No. 3)		1
	400239	**Drum Assembly** — Clutch		1
		NOTE: Assembly Includes Ref. Nos. 2, 3, 12, 34.		

CLINTON CHAINSAWS

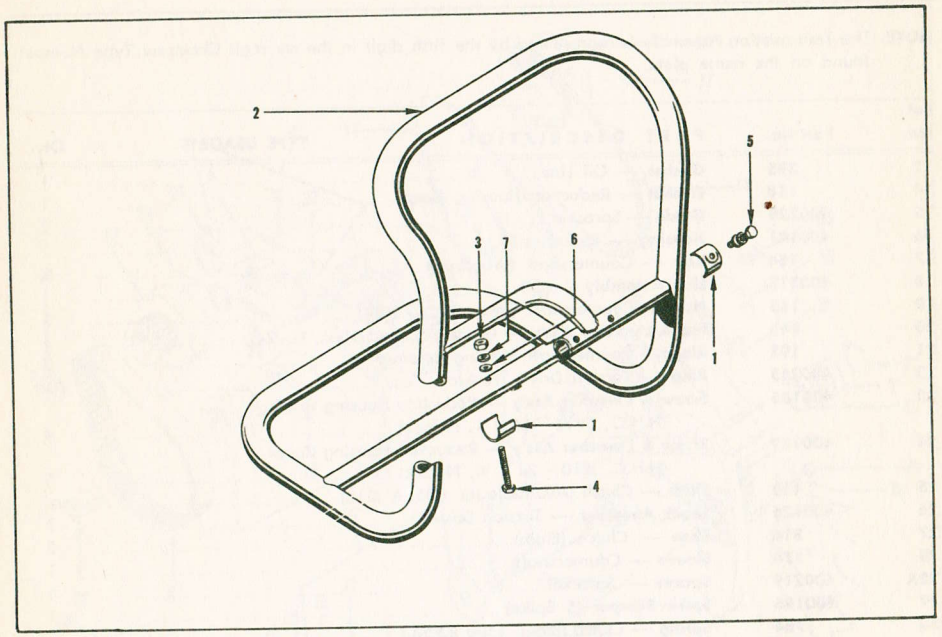
FIFTH DIGIT — TRANSMISSION ASSEMBLY

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 USAGE 9	Qty.
13	395	**Gasket** — Oil Line		1
14	118	**Gasket** — Reduction Housing Gear		1
15	400220	**Guide** — Sprocket		2
16	400141	**Housing** — Reduction		1
17	184	**Key** — Countershaft (Woodruff)		2
18	400313	**Line Assembly** — Oil		1
19	185	**Nut** — Countershaft (Hex., 7/16 - 20)		2
20	949	**Nut & L'washer Ass'y** — Guide Bar Stud (Hex., ⅜ - 24)		4
21	195	**Ring** — Countershaft Bearing Retainer		2
22	400245	**Ring** — Torsion Drive Tru-Arc		1
23	400185	**Screw & L'washer Ass'y** — Reduction Housing to Block (H.H.C., 5/16 - 18 x 1, Nylock)		4
24	400189	**Screw & L'washer Ass'y** — Reduction Housing Cover (H.H.C., #10 - 24 x ⅝, Nylock)		5
25	410	**Shim** — Clutch (Available in: .005, & .010)		as req.
26	400126	**Shock Absorber** — Torsion Drive		1
27	814	**Shoe** — Clutch (Elgin)		2
28	174	**Sleeve** — Countershaft		1
28A	400219	**Spacer** — Sprocket		1
29	400186	**Spike Bumper** (5 Spike)		1
30	784	**Spring** — Clutch (Elgin, 2500 R.P.M.)		2
31	400218	**Sprocket** — Chain, Drive (6 Tooth)		1
32	40217	**Sprocket Assembly** — Chain, Drive (6 Tooth)		1
		NOTE: Assembly Inc. Ref. Nos. 15, 31.		
33	400155	**Stud** — Guide Bar		2
34	692	**Washer** — Cluch Drum Bearing, Felt		2
35	402	**Washer** — Countershaft (Flat, 7/16")		2
36	507	**Washer** — Guide Bar Strut (Flat, 13/32 x 13/16 x 1/16)		4
37	674	**Washer** — Reduction Housing, Cover (Flat #10)		5
38	641	**Tab Lock** — Reduction Housing to Block (Upper Tab)		1
39	642	**Tab Lock** — Reduction Housing to Block (Lower Tab)		1
40	177	**Washer** — Clutch Drum to Block Thrust		1
41	400088	**Wheel** — Torsion Drive Cog		1
42	400089	**Wheel Assembly** — Torsion Drive Cog		1
		NOTE: Assembly Inc. Ref. Nos. 6, 22, 26, 41.		

CLINTON CHAINSAWS

SIXTH DIGIT—TUBULAR HANDLE

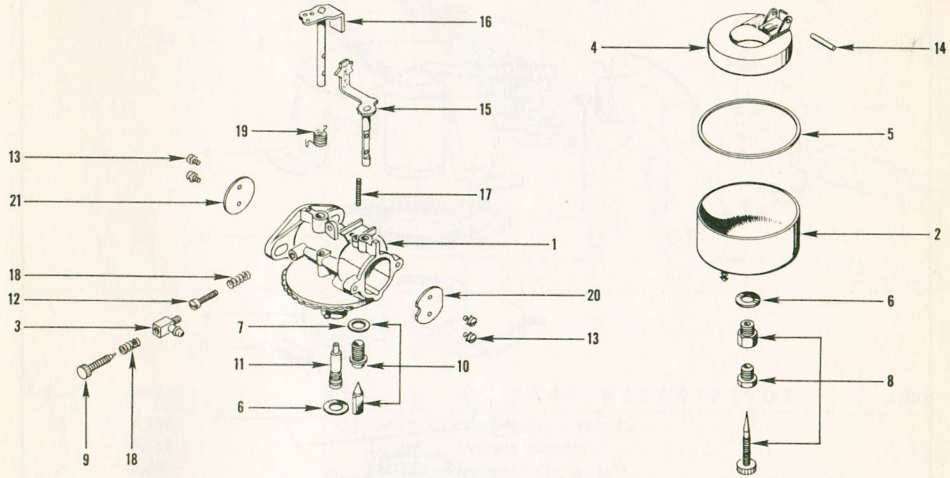


Ref. No.	Part No.	PART DESCRIPTION — TYPE USAGE 11	Qty.
1	201	**Clamp** — Tubular Handle	3
2	400738	**Frame** — Tubular Handle	1
3	132	**Nut** — Lock, Hex., ¼ - 20	1
4	850	**Screw & L'washer Ass'y** — Handle to Reduction Housing (F.H.M., ¼ - 20 x 1½)	1
5	400183	**Screw & L'washer Ass'y** — (H.H.C., ¼ - 20 x 1¼, Nylock)	2
6	657	**Washer** — (Flat, ¼")	1
7	114	**Washer** — Lock, ¼"	3

CLINTON CHAINSAWS

CARBURETOR

CLINTON ASS'Y NO.	REBUILT KIT	IND. ASS'Y USAGE
400321	400371	Type 12



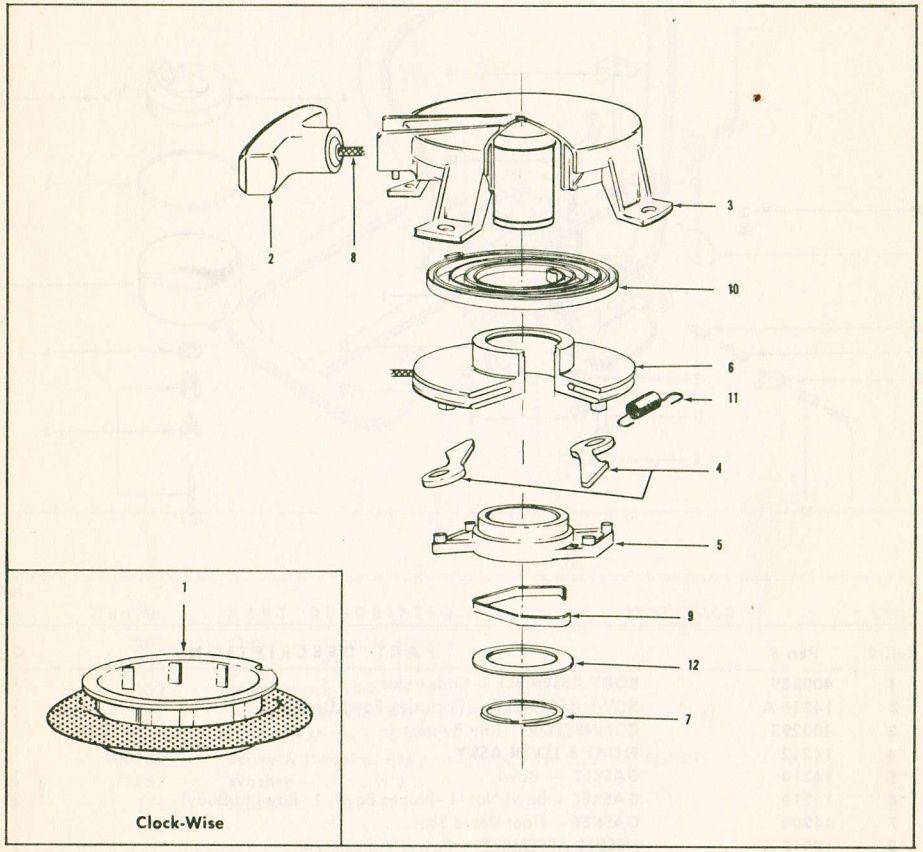
Ref. #	Part #	PART DESCRIPTION	Qty.
1	400289	**BODY ASSEMBLY** — Carburetor	1
2	14216-A	**BOWL ASSEMBLY** — (includes Bowl Drain)	1
3	400293	**CONNECTOR** — Idle By-pass	1
*4	14212	**FLOAT & LEVER ASS'Y**	1
*5	14214	**GASKET** — Bowl	1
*6	14215	**GASKET** — Bowl Nut (1—Nut to Bowl, 1—Bowl to Body)	2
7	14208	**GASKET** — Float Valve Seat	1
*8	14218-A	**NEEDLE ASSEMBLY** — Power Adjustment	1
*9	14228	**NEEDLE** — Idle	1
*10A	400370	**NEEDLE & SEAT ASS'Y** — Float Valve (includes Ref. No. 7)	
11	400291	**NOZZLE** — Power Valve	1
12	5623	**SCREW** — F.H.M., #10-32 x ⅝ (Throttle Stop)	1
13	5624-A	**SCREW & L'WASHER ASS'Y** — Valve Attaching	4
*14	14213	**SHAFT** — Float Hinge	1
15	14232-A	**SHAFT & LEVER ASSEMBLY** — Choke	1
16	400292	**SHAFT & LEVER ASSEMBLY** — Throttle	1
17	14219	**SPRING** — Choke Lever Stop	1
18	14227	**SPRING** — Compression (1—Idle Needle, 1—Throttle Stop)	2
*19	400294	**SPRING** — Throttle Return	1
20	14207	**VALVE** — Choke	1
21	14205	**VALVE** — Throttle	1

NOTE: Parts marked with (*) in the following parts list are included in Overhaul Kit #400371 used w/400321

CLINTON CHAINSAWS

RECOIL STARTER

STARTER ASS'Y NO.	DESCRIPTION	TYPE USAGE
401017	CLINTON TYPE (Clock-Wise)	ALL TORSION DRIVE MODELS

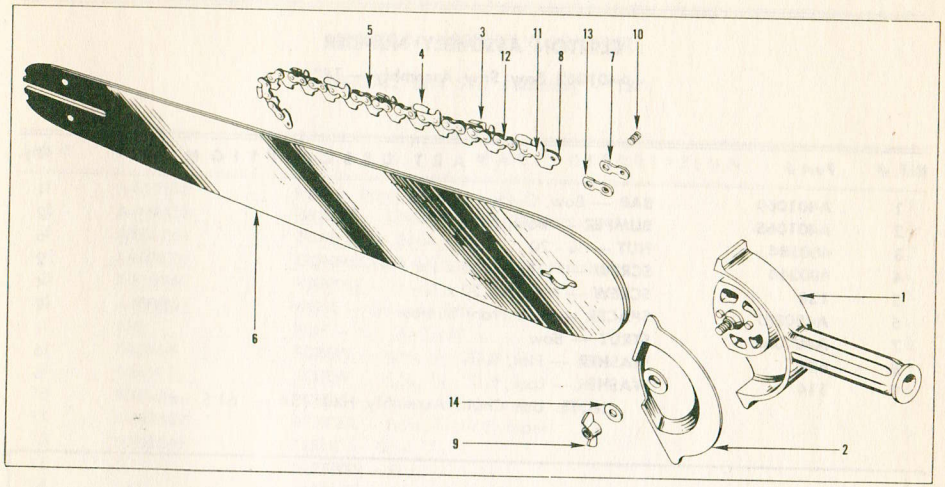


Ref #	Part #	PARTS DESCRIPTION	Quan.
1	401080	**CUP** — Starter (Not Supplied with Assembly)	1
2	400990	**HANDLE** — Recoil Starter	1
3	400978	**HOUSING** — Recoil Starter	1
4	401002	**PAWL** — Starter	2
5	401003	**PLATE** — Pawl Activating	1
6	401013	**PULLEY** — Starter Rope, Recoil	1
7	401007	**RING** — Retaining	1
8	700597	**ROPE** — Pull	1
9	401025	**SPRING** — Pawl Plate, Friction	1
10	401021	**SPRING** — Starter, Recoil	1
11	401040	**SPRING** — Starter Pawl, Tension	1
12	401006	**WASHER** — Flat	1

Div. B

CLINTON CHAINSAWS

GUIDE BARS & CHAINS



Ref. #	Part #	PART DESCRIPTION	Qty.
1	A564	**BODY ASS'Y** — Helpers Handle	1
2	A565	**COVER** — Helpers Handle	1
3	A407	**CUTTER** — Chipper Chain, Left	1
4	A409	**CUTTER** — Chipper Chain, Right	1
	H481	**CUTTING CHAIN** — 16" #9	1
	H216	**CUTTING CHAIN** — 20" #9	1
	H370	**CUTTING CHAIN** — 26" #9	1
	H361	**CUTTING CHAIN** — 30" #9	1
6	A477	**GUIDE BAR** — 16"	1
	A217	**GUIDE BAR** — 20"	1
	A369	**GUIDE BAR** — 26"	1
	A360	**GUIDE BAR** — 30"	1
	A563	**HELPERS HANDLE ASS'Y**	1
		NOTE: Assembly includes Ref. Nos. 1, 2, 9, 14.	
	A250	**KIT** — Master Link Repair	1
		NOTE: Assembly includes Ref. Nos. 7, 10, 13.	
7	A156	**LINK** — Master Chipper Chain	1
8	A406	**LUG** — Chipper Chain Drive	1
9	A567	**NUT** — Wing (Helpers Handle)	1
10	A167	**PIN** — Master Link	1
11	A401	**RIVET** — Chipper Chain Shoulder	1
12	A408	**STRAP** — Chipper Chain Tie	1
13	A157	**STRAP** — Tie, Pre-Set	1
14	A569	**WASHER** — ½ S.A.E. (Helpers Handle)	1

CLINTON CHAINSAWS

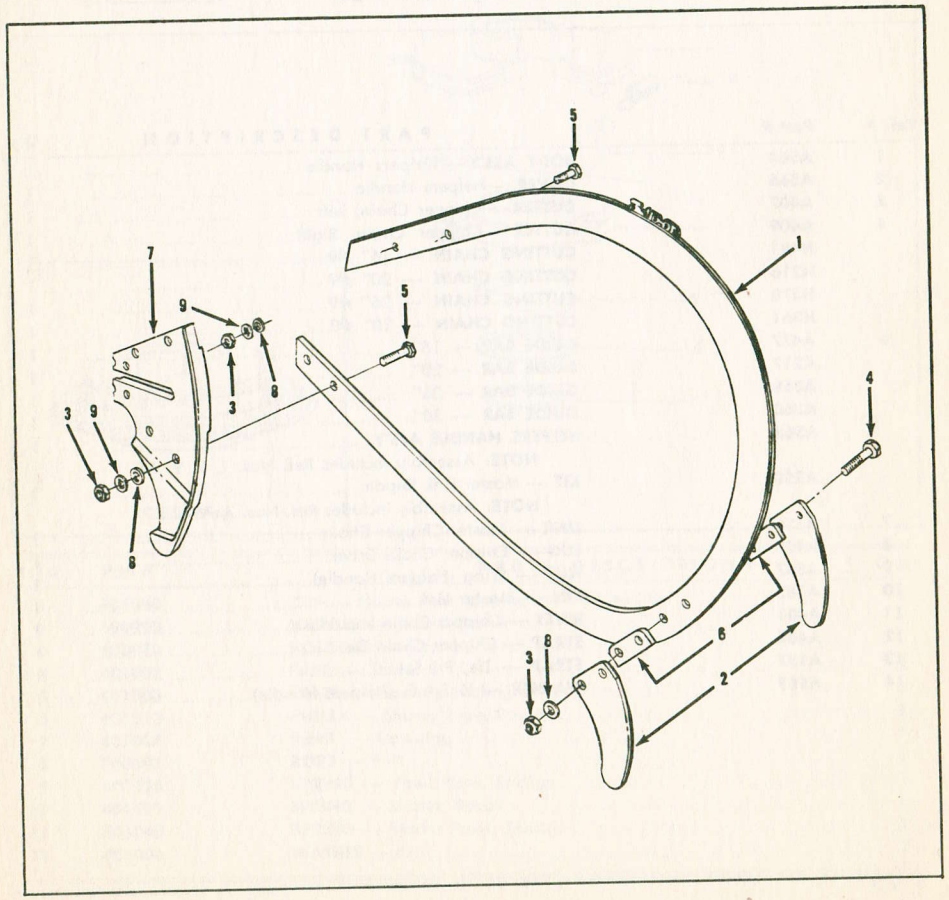
BOW SAW

CLINTON ASSEMBLY NUMBER

A401062 Bow Saw Assembly — 14"

Ref. #	Part #	PART DESCRIPTION	Qty.
1	A401069	**BAR** — Bow, Guide	1
2	A401065	**BUMPER** — Bow, Front	2
3	400584	**NUT** — ¼ - 20	6
4	400264	**SCREW** — H.H., ¼ - 20 x 1¼	2
5	138	**SCREW** — H.H., ¼ - 20 x ¾	4
6	A400887	**SPACER** — Bow Front Bumper	2
7	A401066	**STRUT** — Bow	1
8	657	**WASHER** — Flat, ¼	6
9	114	**WASHER** — Lock, ¼	6

NOTE: Use Chain Assembly H401154 — 61.5 inch



CLINTON CHAINSAWS

BOW SAW

CLINTON ASSEMBLY NUMBER

A400962 Bow Saw Assembly — 18"

Ref. #	Part #	PART DESCRIPTION	Qty.
1	A400963	**BAR** — Bow, Guide	1
2	A400523	**BRIDGE** — Chain, Tension Bracket	1
3	A400888	**BUMPER** — Bow, Front	2
4	A400524	**CONNECTOR** — Chain, Tension Bracket	1
5	A400967	**HANDLE** — Bow	1
6	A400965	**HOSE** — Oil Line Extension	1
7	132	**NUT** — ¼ - 20 (Grip)	8
8	400264	**SCREW** — H.H., ¼ - 20 x 1¼	2
9	400902	**SCREW** — H.H., ¼ - 20 x ⅝	6
10	400548	**SCREW** — Chain, Adjustment	1
11	A400887	**SPACER** — Bow, Front Bumper	2
12	A400969	**STRUT** — Bow	1
13	657	**WASHER** — Flat, ¼	6
14	114	**WASHER** — Lock, ¼	8

NOTE: Use Chain Assembly H400968 — 72 inch