

# OPERATING INSTRUCTIONS



**MODELS "6B-S"—"6B-SF"—"6B-SFB"**

• 6/11/27

## **IMPORTANT!**

**Do not start this engine before reading Section I and Section II of this manual. It takes only a few minutes.**

Guessing how to operate this engine may cause you unnecessary inconvenience, aggravation, or failure to receive the fine performance that is built into it.

Each engine is carefully tested and adjusted at the factory before shipment and, with proper maintenance, will give you many years of satisfactory service.

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**SAVE THIS BOOK FOR FUTURE REFERENCE**

# IMPORTANT SAFETY INFORMATION AND INSTRUCTIONS FOR ENGINE SELECTION ENGINE INSTALLATION ENGINE OPERATION

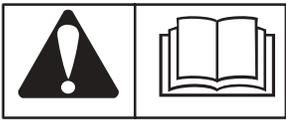
In the USA and Canada,  
our 24 hour hotline is:

18002333723

Briggs & Stratton Corporation  
Milwaukee, Wisconsin 53201

[www.briggsandstratton.com](http://www.briggsandstratton.com)

Keep these instructions for future reference.



**Before installing and operating this engine read and observe all warnings, cautions and instructions on both sides of this sheet, on the engine, and in the operating & maintenance instructions.**

**NOTE:** This sheet of instructions and safety information is not meant to cover all possible conditions and situations that may occur. Read entire Operating & Maintenance Instructions for this engine AND the instructions for the equipment this engine powers. Failure to follow instructions and safety information could result in serious injury or death.

The safety alert symbol () is used to identify safety information about hazards that can result in personal injury.

A signal word (DANGER, WARNING, or CAUTION) is used with the alert symbol to indicate the likelihood and the potential severity of injury. In addition, a hazard symbol may be used to represent the type of hazard.

 **DANGER** indicates a hazard which, if not avoided, will result in death or serious injury.

 **WARNING** indicates a hazard which, if not avoided, could result in death or serious injury.

 **CAUTION** indicates a hazard which, if not avoided, might result in minor or moderate injury.

**CAUTION**, when used **without** the alert symbol, indicates a situation that **could result in damage to the engine.**

## HAZARD SYMBOLS AND MEANINGS



Fire



Explosion



Moving Parts



Toxic Fumes



Hot Surface



Shock



Kickback

(OVER)

FORM MS-6445-01/03

# ENGINE SELECTION

 <b>WARNING</b>

<b>Failure to select the correct engine could result in fire or explosion.</b>

- Some engines are unique and designed for specific applications or types of equipment. If this engine will be used to build new equipment, contact Briggs & Stratton to ensure that the engine is appropriate for the intended use.  
**Note: For all Go-karts use only a model 136200 series engine, which offers improved safety and performance.**
- Replacement engines should be the same model as the original engine, or be the Briggs & Stratton designated replacement engine. Refer to the Operation & Maintenance Instructions for engine identification information.  
**Note: For all Go-karts use only a model 136200 series engine, which offers improved safety and performance.**
- Do not use Briggs & Stratton engines on 3-wheel All-Terrain Vehicles (ATVs), motor bikes, air craft products, or vehicles intended for use in competitive events. Briggs & Stratton does not approve of or authorize such uses.

# ENGINE INSTALLATION

- [1] Do not attempt to install this engine if you do not have the appropriate tools and knowledge of small engine installation procedures. Use only Briggs & Stratton parts. Contact your Authorized Service Dealer for assistance.
- [2] Do not modify the engine in any way without Briggs & Stratton factory approval. Any such modification is at the owner's sole risk.
- [3] If the exhaust system on the old engine was supplied by the equipment manufacturer, you must transfer the exhaust system and related components (original muffler and related pipes, brackets, clamps, and shields) to the new engine. All components must be in good condition.
- [4] 

 <b>WARNING</b>	Install muffler (and muffler deflector if used) so outlet points away from operator, fuel tank, and equipment, and so muffler heat will not damage or deform engine and components.
	
- [5] 

 <b>WARNING</b>	Ensure all fuel lines and fittings are properly assembled and do not leak. Replacement parts must be the same model as the original.
	
- [6] 

 <b>WARNING</b>	Ensure all wiring, including safety switches and engine shut-off components are completely installed and functioning properly.
	
- [7] Set engine speed to equipment manufacturer's specification. Refer to equipment manufacturer's manual. Do not tamper with governor springs, or other parts that will increase engine speed above specification.

- [8] 

 <b>WARNING</b>	All engine parts, including fuel cap, spark plug, muffler, air cleaner, and covers and guards for drive components (gears, belts, shafts, couplings, etc.) must be in place before attempting to start engine.
	
- [9] 

 <b>WARNING</b>	If engine is installed on walk behind lawn mower, all mower components, including cutting blade, must be correctly installed before attempting to start engine.
	
- [10] 

 <b>WARNING</b>	When working on the engine or equipment, remove spark plug wire from spark plug. For electric start, remove negative wire from battery.
	
- [11] 

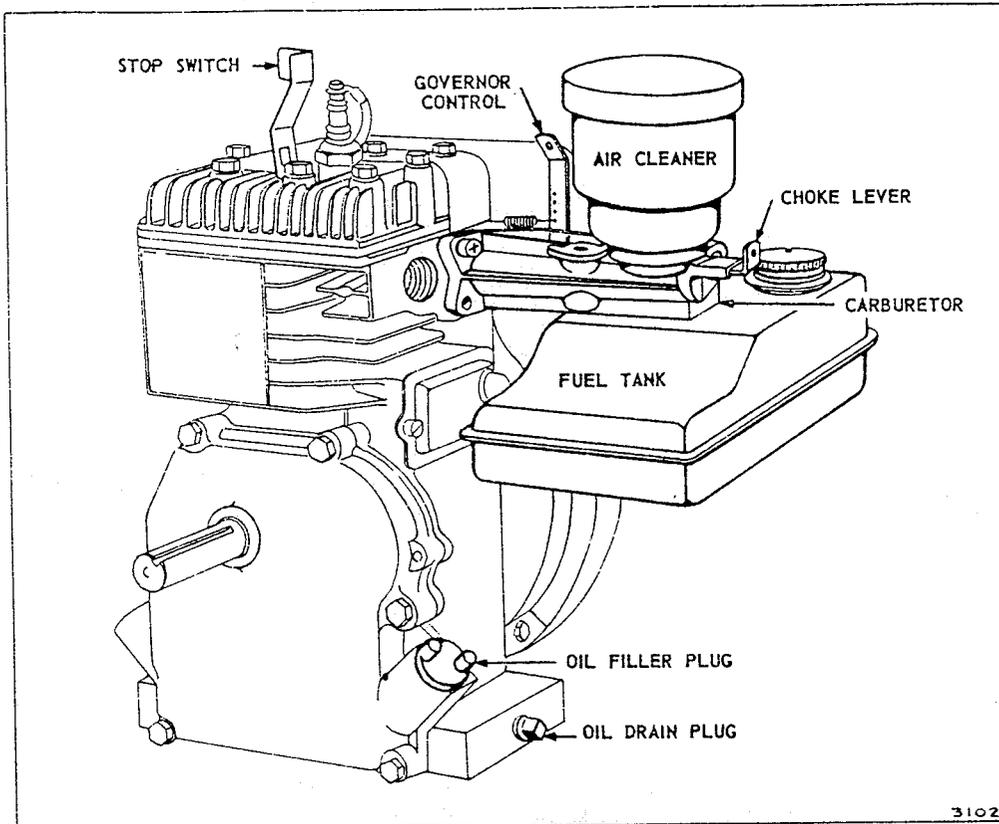
 <b>WARNING</b>	Do not check for spark with spark plug removed. Use Briggs & Stratton spark tester #19368.
	

# ENGINE OPERATION

	 <b>WARNING</b>
	<b>When adding fuel:</b>
Turn engine off and let engine cool at least 2 minutes before removing gas cap. Fill fuel tank outdoors or in well-ventilated area. Fill tank to about 1 inch below lowest portion of neck to allow for fuel expansion. Keep gasoline away from sparks, open flames, pilot lights, heat, and other ignition sources.	
	 <b>WARNING</b>
	<b>When starting engine:</b>
Remove all external equipment/engine loads. Wait until spilled fuel is evaporated. Start engine outdoors. Pull cord slowly until resistance is felt, then pull rapidly. If engine floods, set choke to OPEN/RUN, place throttle in FAST and crank until engine starts.	
	 <b>WARNING</b>
	<b>When operating equipment:</b>
Do not tip engine or equipment at angle which causes gasoline to spill. Run engine outdoors. Do not run in enclosed area, even if doors or windows are open. Do not choke carburetor to stop engine.	

# MODEL 6B-S

Be sure you are familiar with the items illustrated below before operating engine. See Sections I and II of this manual for instructions.



## CONTENTS

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### CAUTION !

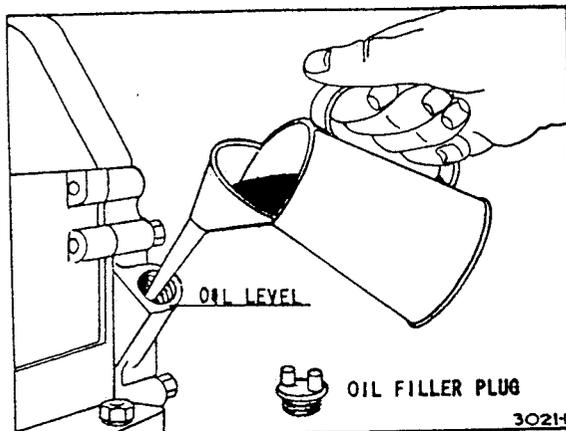
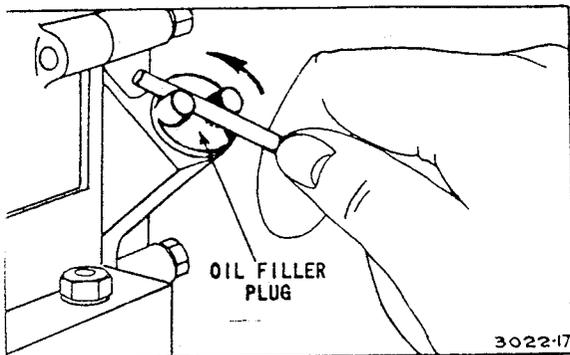
1. **PROVIDE EFFICIENT VENTILATION.** Exhaust gases contain carbon monoxide which is odorless and a deadly poison. Proper care must be taken to provide efficient ventilation.
2. **DO NOT FILL GASOLINE TANK WHILE ENGINE IS RUNNING.** Avoid spilling gasoline on a hot engine — this may cause an explosion and serious injury.
3. **KEEP ENGINE CLEAN.** This engine is air-cooled. If cooling system becomes clogged, serious damage may result. Therefore, keep the blower screen, fins on flywheel, cylinder head and block free from grass or dirt.
4. Be sure nobody is behind you when starting engine with rope starter.

# SECTION I

## BEFORE STARTING

### Fill Crankcase With Oil

Remove the oil filler plug.



Place the engine level. Fill the crankcase to overflowing. (Capacity 1¼ pints.) Replace the filler plug.

High quality engine oils bearing the American Petroleum Institute classification "For Service MS" should be used in your Briggs & Stratton engine.

*Above 32°F*

Mobiloil Arctic SAE 20-20W  
or equivalent

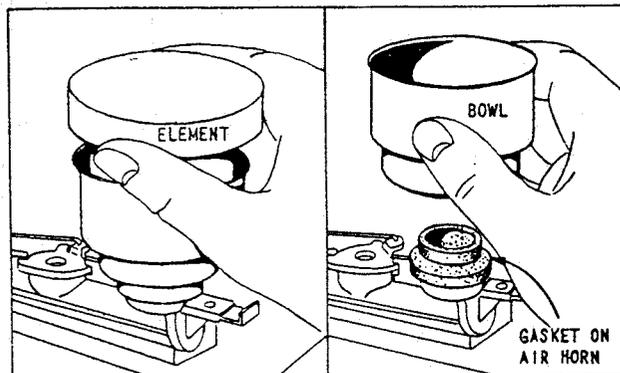
*Below 32°F*

Mobiloil SAE 10W  
or equivalent

The use of special additive compounds or oils not labeled "For Service MS" is not recommended.

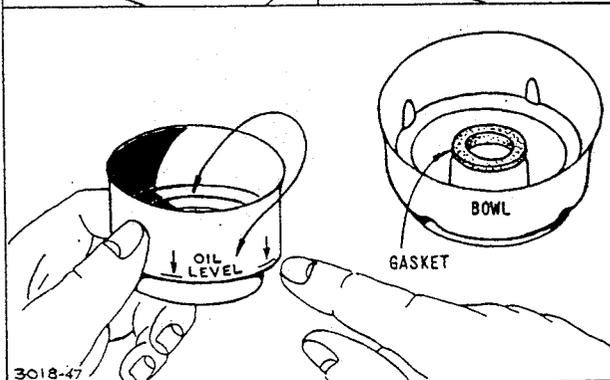
### Put Oil In Air Cleaner

Air cleaner protects engine by removing grit and dirt from air entering carburetor. Use same grade oil as in crankcase. Turn filter element counterclockwise to unscrew. Lift off filter element. Lift off bowl. Pour oil in small bottom part of bowl to "OIL LEVEL" mark at end of arrows. Replace bowl on carburetor. Replace filter element and turn clockwise until snug. Be sure gaskets are in place.



### Fill Fuel Tank

Use a good grade of regular, clean, fresh gasoline such as Mobilgas. *Never use gasoline that has been standing in a can for several months as gum may form under such conditions and may clog the carburetor, fuel tank, etc.* See that vent hole in cap is open. **DO NOT MIX OIL WITH GASOLINE.**

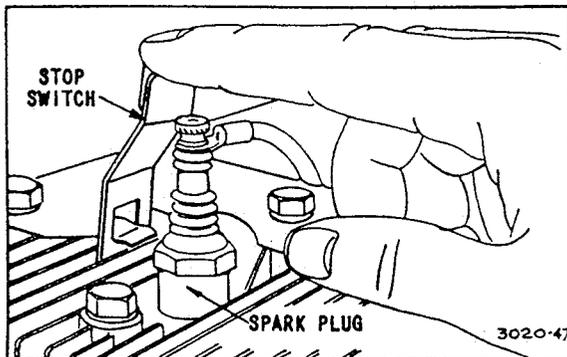


## SECTION II

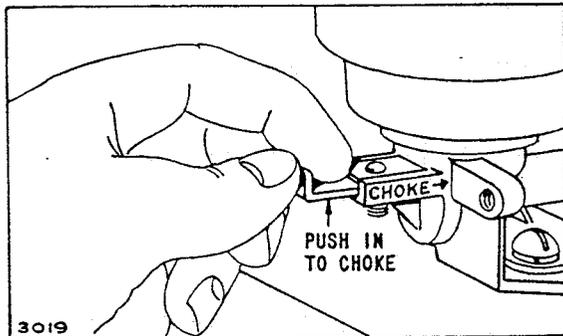
# STARTING AND STOPPING

### To Start Engine

1. *Be Sure the Stop Switch Is Away from Spark Plug*

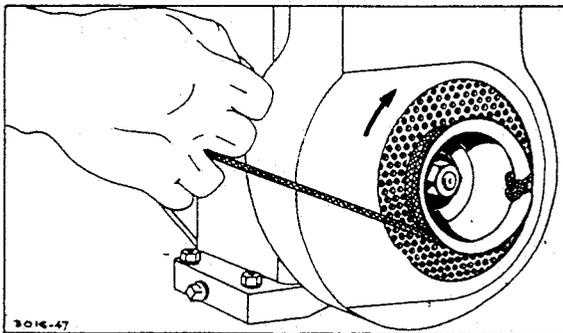


2. *Close the Choke*



Completely close the carburetor choke by pushing the choke lever in.

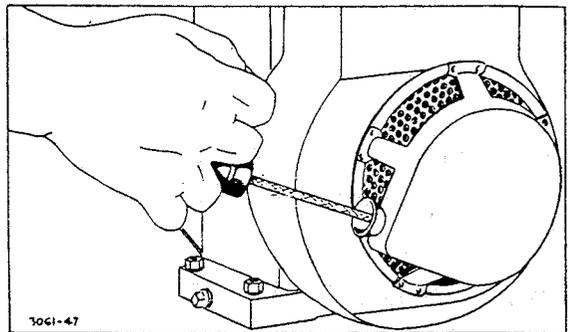
### Rope Starter



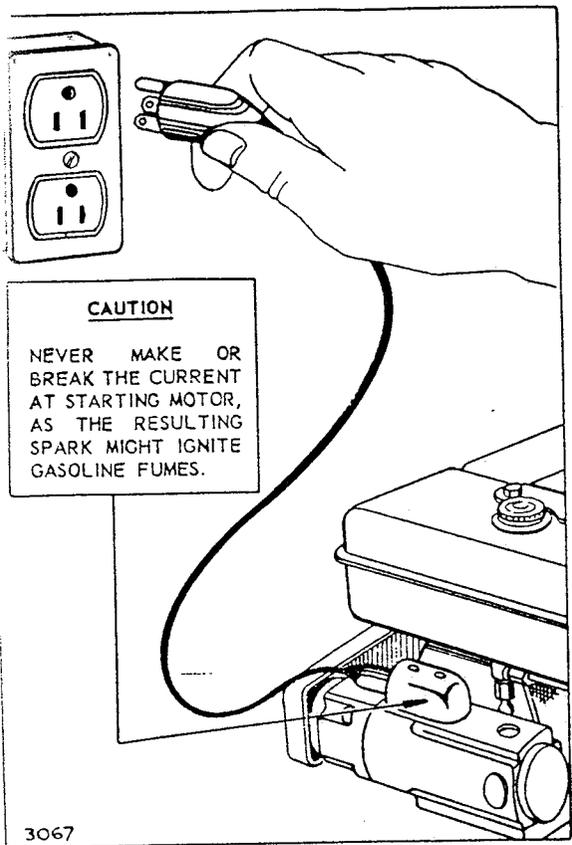
Wind the starter rope around the pulley in direction shown by arrow. Then turn the

pulley in the opposite direction (counterclockwise) until compression is felt. Pull the rope with a quick full arm stroke. Repeat if necessary with choke opened slightly. When engine starts open choke gradually.

### Rewind Starter



Pull rope slowly until starter clutch engages, then pull until the resistance of compression is felt. Continue to pull slowly about 2 or 3 inches until compression ceases. Allow starter rope to recoil and again pull out slowly until starter clutch engages. Then pull with a quick full arm stroke to start engine. Hold starter grip and allow rope to recoil. Repeat if necessary with choke opened slightly. When engine starts open choke gradually.



### Electric Starter

Attach electrical cord to engine starting motor. To start engine, plug starter cord into wall receptacle. When engine starts, remove plug from wall receptacle. Open choke gradually. A warm engine will require little or no choking. Detach cord at engine.

*Note:* Do not run the starter motor continuously for more than sixty seconds at a time. If the engine does not start after two or three attempts, open choke wide, wait a few seconds, then repeat.

### To Stop Engine

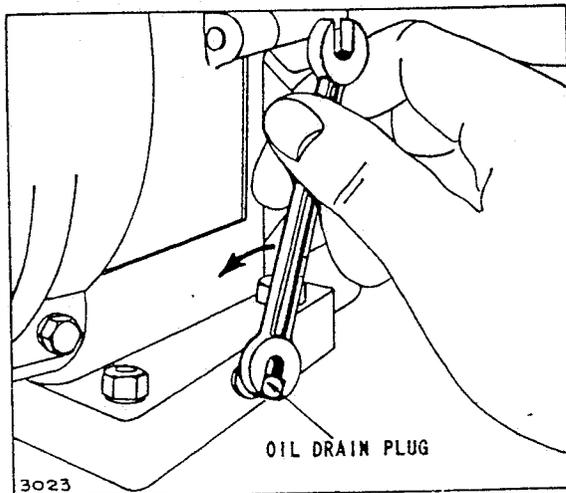
Push the stop switch against end of spark plug.

## SECTION III

# REGULAR MAINTENANCE

### Change Oil (Crankcase)

Change oil after first 5 hours of operation and every 25 hours thereafter. Remove the oil drain plug. Drain oil while engine is warm. Replace drain plug. Remove oil filler plug and refill crankcase with new oil. Replace oil filler plug. Check oil level regularly after each 5 hours of operation.

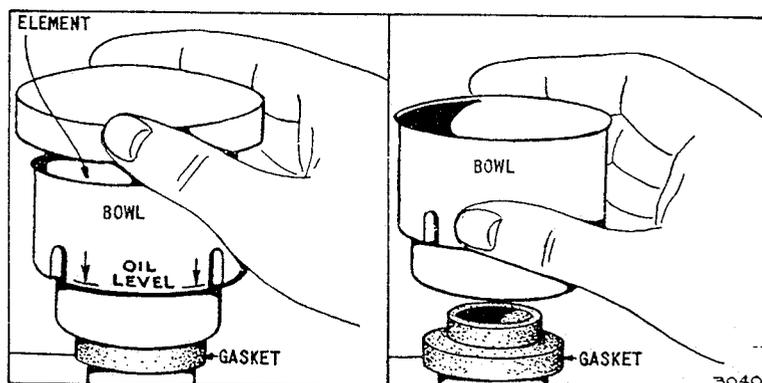


# SECTION III

## REGULAR MAINTENANCE (Cont'd)

### Clean and Refill the Air Cleaner

Clean and refill the air cleaner frequently (every few hours under extremely dusty conditions). Clean and refill at least every 25 hours under normal conditions.



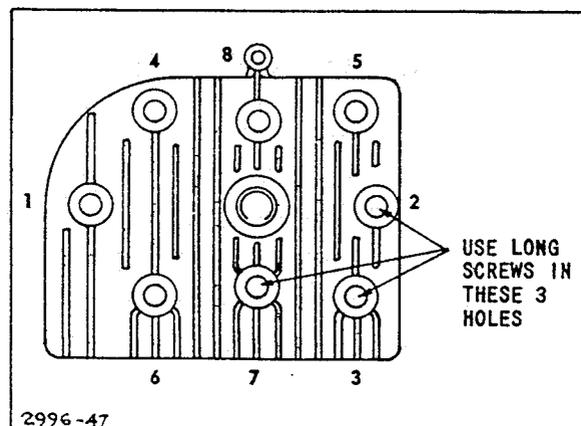
1. Turn filter element counterclockwise to unscrew. Lift off filter element.
2. Lift off bowl. Pour out old oil.
3. Wash the filter element and bowl by swishing in gasoline and shake or wipe dry.
4. Pour oil in small bottom part of bowl to "OIL LEVEL" mark shown at end of arrows. Replace bowl on carburetor.
5. Replace filter element and turn clockwise until snug. Be sure gaskets are in place.

### Cylinder Head — Combustion Chamber Clean-Out

The industrial engine generally operates at constant speed and at relatively constant load. The use of regular automotive fuels under these conditions results in a gradual build-up of Tetra-Ethyl Lead deposits in the combustion chamber. This causes the engine to lose power and prevents the valves from seating properly. Removing the deposits is easy and will pay big dividends in reliability and increased valve life.

#### Clean Combustion Chamber Every 100-300 Hours of Operation

1. Remove cylinder head screws. Be sure to note if screws are of different length and have steel washers as they must be replaced in original position.
2. Turn crankshaft until piston is at top of cylinder bore and both valves are closed. Scrape and wire brush the lead and carbon deposits from cylinder head combustion chamber, top of piston, and around both valves.



Blow off or use soft brush to remove loose deposits.

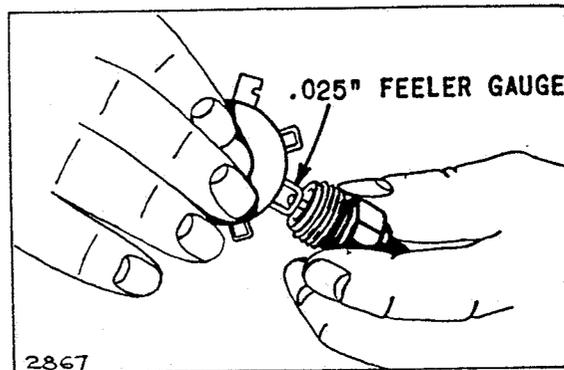
## SECTION III

# REGULAR MAINTENANCE (Cont'd)

3. Re-use cylinder head gasket only if in good condition. Replace cylinder head, gasket, head cover, washers and head screws. Turn each screw in with wrench until screw head is lightly seated.
4. Use socket wrench with 6" handle and turn all screws  $\frac{1}{4}$  turn. Tighten screws in sequence illustrated. Run engine approximately 5 minutes and retighten all screws *snugly* (approximately  $\frac{1}{4}$  turn). Always tighten evenly in sequence shown to avoid warping cylinder head.

### To Check Spark Plug Gap

Spark plug is 14mm (USE CHAMPION J-8 OR EQUIVALENT). Keep a fresh plug on hand. Clean and reset the gap at .025" every 100 hours of operation. Use some graphite grease on threads when replacing spark plug.



### STORAGE INSTRUCTIONS

Engines stored any length of time should be completely drained of fuel to prevent gum deposits forming on essential parts such as the carburetor, fuel lines, and tank.

Such deposits may affect the operation of the engine when again used. Therefore, it is important to follow these instructions before storing the engine:

- a. Remove tank and carburetor from unit and drain completely.
- b. While engine is still warm, drain and clean the oil sump. Refill with fresh oil.
- c. Replace tank and carburetor.
- d. Remove spark plug, pour one ounce of S. A. E. No. 20 oil into cylinder and crank slowly to spread oil. Replace spark plug.
- e. Clean dirt and chaff from cylinder and cylinder head fins, blower housing, etc.

# SECTION IV

## ADJUSTMENTS

### Carburetor Adjustments

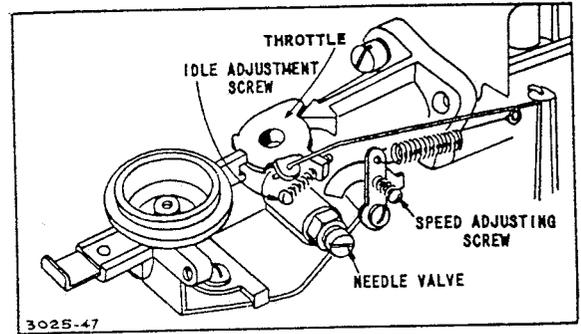
Adjust carburetor with fuel tank *half full* of summer grade "regular" gasoline.

#### Initial Adjustment

Close needle valve (turn clockwise) then open  $1\frac{1}{2}$  turns (turn counterclockwise). This initial adjustment is intended only to enable the engine to be started and run for several minutes to allow engine to warm up before making final adjustment.

#### Final Adjustment

With engine running at normal operating speed (approximately 3000 R.P.M. without load) close the needle valve (turn clockwise) until engine starts to lose speed (lean mixture). Then slowly open needle valve (turn counterclockwise), past the point of smoothest operation, until engine just begins to run unevenly



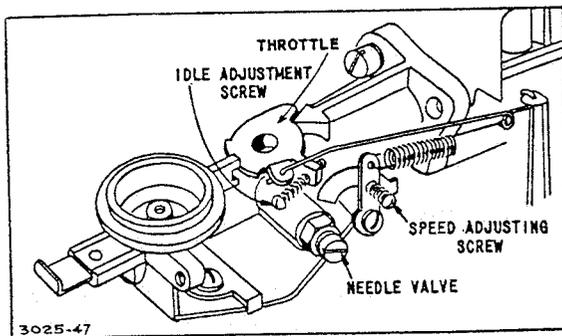
This mixture should be rich enough for best performance under load.

Hold throttle in idling position. Turn idle speed adjusting screw until fast idle is obtained (1750 R.P.M.).

Test the engine under full load. If engine tends to stall or die out, it usually indicates that the mixture is slightly lean and it may be necessary to open the needle valve slightly to provide a richer mixture. This richer mixture may cause a slight unevenness in idling.

### Governor Adjustments

The correct operating speed range is 2200 to 3600 R.P.M. The standard speed-setting (no load) is 3000 R.P.M. Idle speed is 1750 R.P.M.

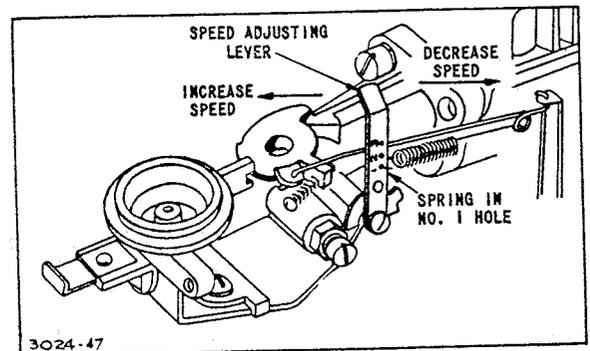


#### STANDARD GOVERNOR CONTROL.

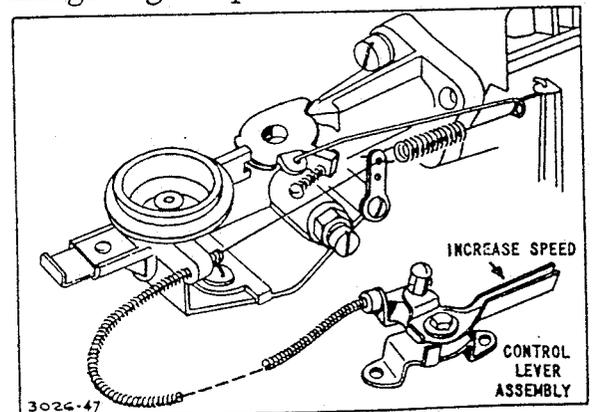
To increase engine speed, turn speed adjusting screw clockwise.

To decrease engine speed, turn speed adjusting screw counterclockwise.

REMOTE GOVERNOR CONTROL. To increase speed move lever on control lever assembly as shown.



MANUAL FRICTION TYPE CONTROL. Move lever as shown above to change engine speed.



# SECTION IV

## ADJUSTMENTS (Cont'd)

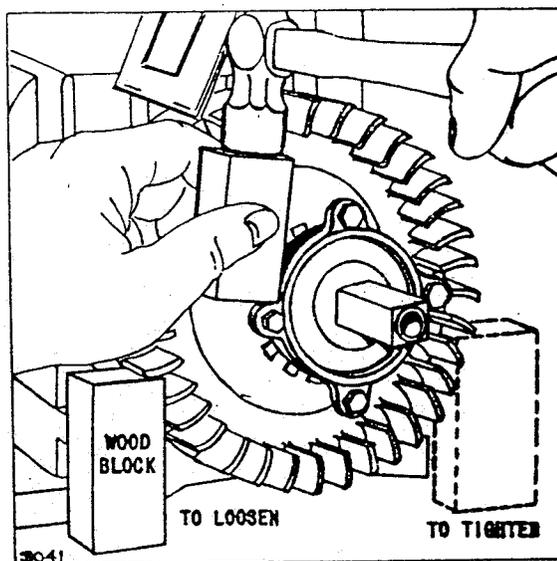
### To Adjust and Clean Contact Points

Blower housing, flywheel, and magneto point dust cover must be removed.

### To Remove Flywheel

#### Rewind Starter

Take off blower housing with starter attached. Remove 4 screws and screen from clutch housing. Replace screws in housing. Place a block of wood under fin on left side of flywheel. Hold a block of wood in close against one of the screw lugs. Use a hammer and drive clutch housing to the LEFT to loosen it.

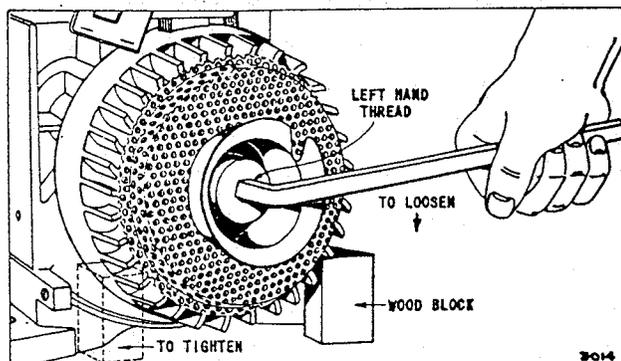


#### Rope Starter

Remove blower housing. Place a block of wood under flywheel fin on the right side, close to the flywheel to hold it solid. Use a large wrench, turn to right to loosen. Crankshaft has LEFT hand thread.

#### Never Try to Pry Off Flywheel

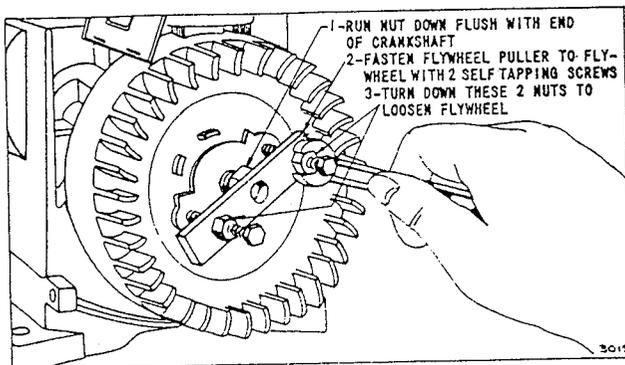
After removing nut, washer and pulley, loosen flywheel by using Flywheel Puller No. 19069.



## SECTION IV

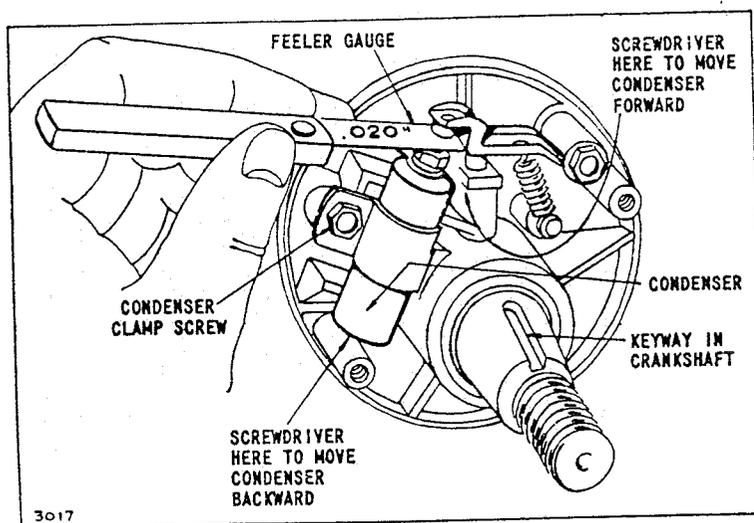
# ADJUSTMENTS (Cont'd)

### To Remove Flywheel With Flywheel Puller



Screw the nut back on shaft until it is flush with threads. Fasten flywheel puller to flywheel by screwing two self-tapping screws into holes provided in flywheel. Turn down the two nuts gradually until flywheel is loosened. Pull off flywheel. Save key.

### To Adjust and Clean Contact Points



Remove dust cover. Points must be clean and line up squarely to make good contact. Do not file points — use fine sandpaper or hone to dress the points. Turn the crankshaft until points open to widest gap, or until keyway on crankshaft lines up with the plunger. Tighten the condenser clamp screw. Move condenser forward or backward with screwdriver until

gap of .020" is obtained. If either or both points become badly pitted or burned, replace with complete new Contact Point Bracket and Condenser. Replace dust cover.

### To Reassemble Flywheel

Clean flywheel hole and tapered end of crankshaft thoroughly. Place keyway of crankshaft up. Put flywheel on shaft and align keyways. Insert the key into keyways and push it securely into place. (If key is partially sheared or damaged, replace with a new key, Part No. 61760. This is a soft metal key. **DO NOT USE STEEL KEY.**)

### Rewind Starter

Put the spring washer on the crankshaft with hollow side against flywheel; then screw on the clutch housing. (Right hand thread.) Place a wood block under fin on right side of flywheel, hold a block in close against one of the screw lugs on clutch housing. Use heavy blows with a hammer or use Starter Clutch Wrench Nos. 19114 or 19161 to tighten clutch housing securely. Replace screen and then blower housing with starter.

### Rope Starter

Assemble pulley and spring washer with hollow side next to pulley. Put on nut. Place the wood block under fin on left side of flywheel. Apply heavy pressure on wrench — seventy pounds at end of 10" wrench handle — to tighten nut. Replace blower housing.

*Note:* Flywheel key may shear if nut or clutch housing are not properly tightened. All Briggs & Stratton Service Organizations are equipped with special tools to tighten nut and clutch housing.

## GENERAL INFORMATION

This engine is a single cylinder, L-Head, air-cooled type; bore  $2\frac{3}{16}$ " and stroke  $1\frac{1}{2}$ ". It is rated at:

1.25 H.P. at 2200 R.P.M.

1.55 H.P. at 2700 R.P.M.

1.75 H.P. at 3200 R.P.M.

The horsepower ratings listed above are established by standard I.C.E.I. procedures. For practical operation, the horsepower loading should not exceed 85 per cent of these ratings. Engine power will decrease  $3\frac{1}{2}$  per cent for each 1,000 feet above sea level, and 1 per cent for each 10 degrees above 60 degrees F.

### IMPORTANT NOTICE

This book includes only necessary information for running your engine. Unless you have a thorough knowledge of internal combustion engines and proper tools, we do not recommend that you attempt to make major engine repairs. This does not mean that you shouldn't make necessary adjustments and simple repairs. For parts and service we advise you to get in touch with the nearest member of our Nation-wide Service Organization.



Find It Fast  
In The  
Yellow Pages

See yellow pages of your classified telephone directory for nearby engine service under heading "Engines — Gasoline" or "Gasoline Engines."

# SECTION V

## PARTS INDEX

	Page
Illustrations of Parts Groups:	
Cylinder, Piston, Connecting Rod, and Crankshaft Parts . . . . .	13
Fuel System, Magneto, Flywheel, and Blower Housing Parts . . . . .	14
Recoil and Electric Starter Parts . . . . .	15
Numerical Parts List . . . . .	16-21



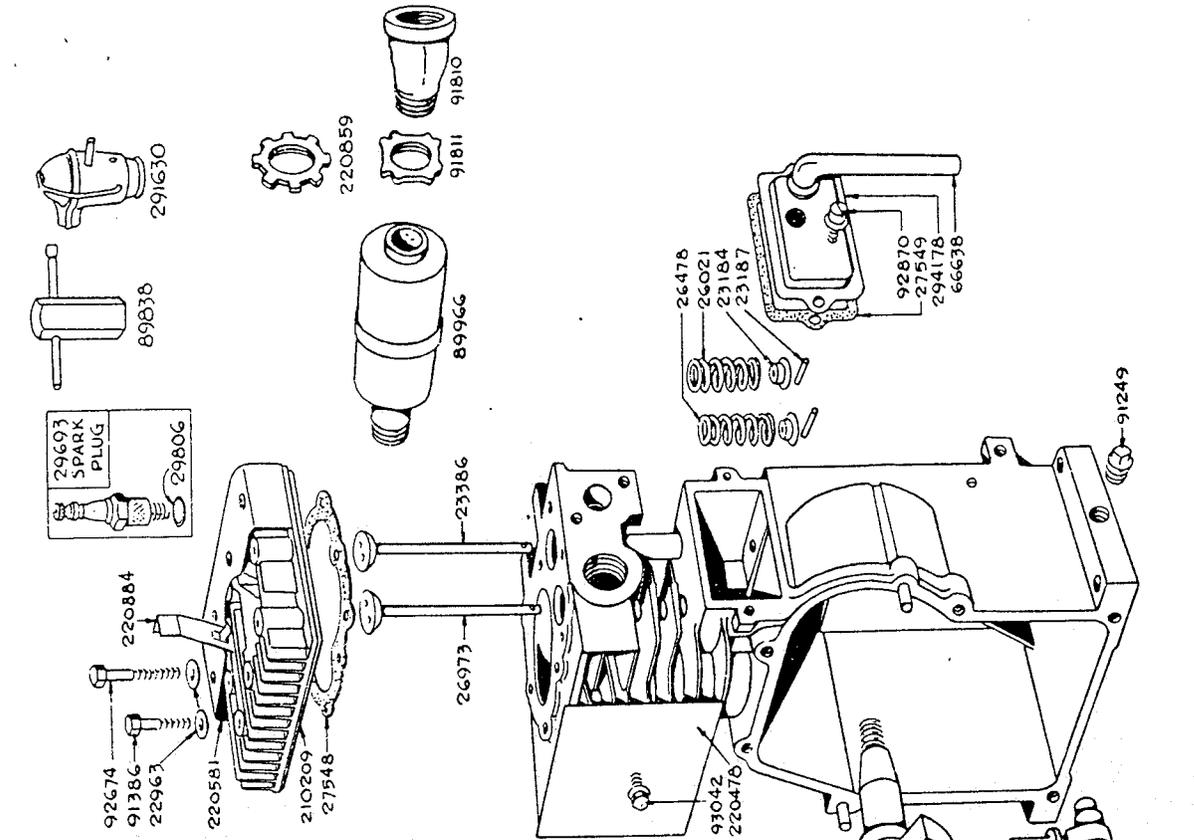
### HOW TO FIND THE CORRECT NUMBER OF THE PART YOU NEED

- A. Refer to Engine Model, Type, and Serial Number that is stamped on the blower housing and record below.

This engine is:

MODEL \_\_\_\_\_ TYPE NO. \_\_\_\_\_ SERIAL NO. \_\_\_\_\_

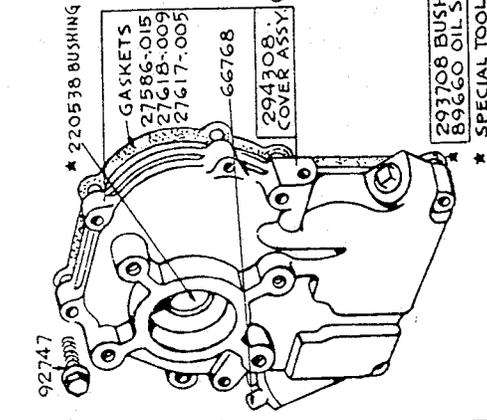
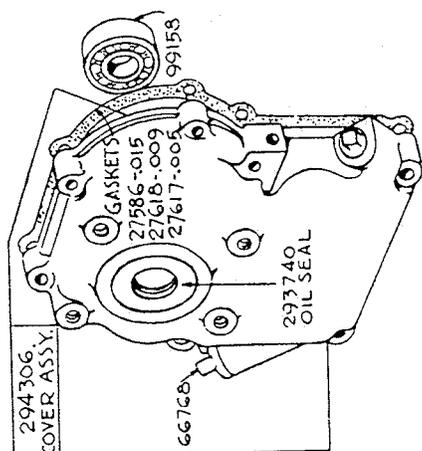
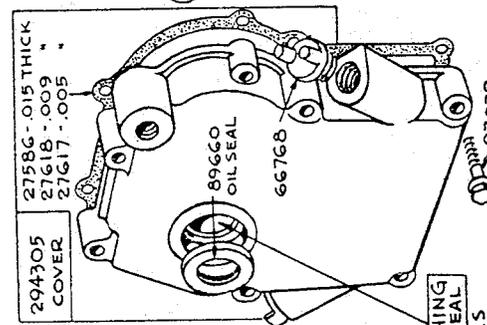
- B. Refer to Illustrated Parts section and compare your old part with illustrations. The number on the illustrations is the Master Part Number. Assemblies include all part numbers shown in frames. All parts shown in assembly frames on which part numbers are given can be purchased separately also.
- C. After the Master Part Number has been identified, refer to the Numerical Parts List, where these Master Parts Numbers are listed. **THE MASTER PART IS USED ON ALL TYPE NUMBERS EXCEPT THOSE TYPE NUMBERS UNDER "NOTE."**
- D. If a "Note" appears below the Master Part Number, this means that this part differs from the Master Part for certain types. If your Type Number is listed under "Note," order the part referred to.
- E. If your Engine Type Number does not appear after any part number listed under "Note," order the Master Part Number.
- F. When ordering parts, or writing for service information, always specify the Model — Type Number — Serial Number of your engine.
- G. All parts should be ordered from the nearest member of our Authorized Service Organization. (See back cover.) When ordering parts by mail, selling prices will be furnished on request or parts will be shipped at prevailing prices.



210222	- RING, PISTON, COMP, TOP, STANDARD
210361	- .010 - OVERSIZE
210364	- .020 - "
210367	- .030 - "
210447	- .040 - "
210223	- RING, PISTON, COMP, CENTER, STANDARD
210362	- .010 - OVERSIZE
210365	- .020 - "
210368	- .030 - "
210446	- .040 - "
210224	- RING, PISTON, OIL, STANDARD
210363	- .010 - OVERSIZE
210366	- .020 - "
210369	- .030 - "
210445	- .040 - "
293400	- PISTON ASSEMBLY, STANDARD
293401	- .010 - OVERSIZE
293402	- .020 - "
293403	- .030 - "
294065	- .040 - "

INCLUDES PISTON RINGS AND PISTON PIN LOCKS

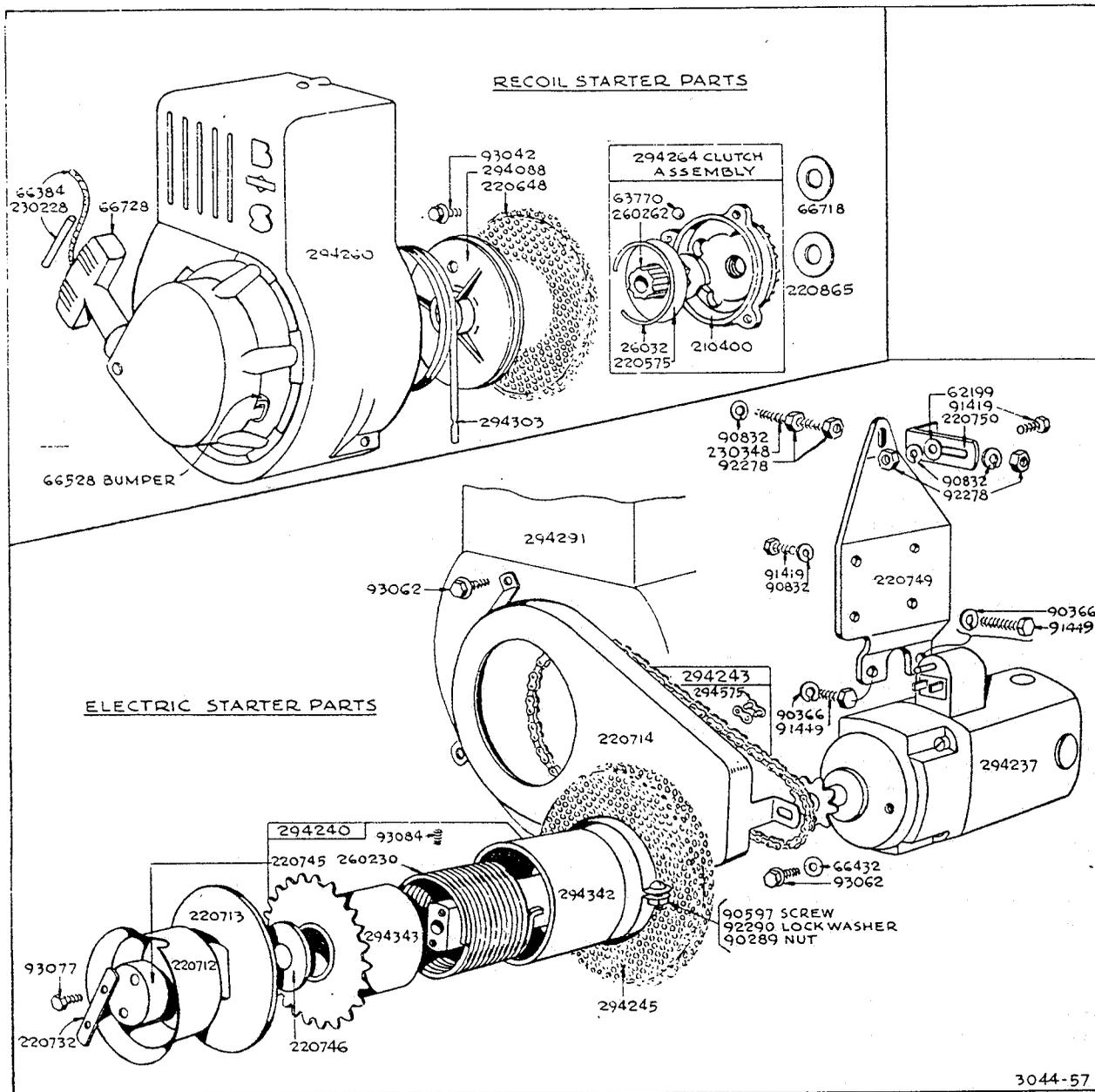
26026	- RING SETS - PISTON
291925	- STD. PISTON PIN
291926	- PISTON PIN .005" O.S.
294300	- CONNECTING ROD ASSEM.
220459	- CONNECTING ROD ASSEM.
220460	- CONNECTING ROD ASSEM.
92296	- CONNECTING ROD ASSEM.



FOR GASKET SET  
ORDER PART NO. 293525

**CYLINDER, PISTON, CONNECTING ROD, AND CRANKSHAFT PARTS**  
Assemblies include all parts shown in frames.





**RECOIL AND ELECTRIC STARTER PARTS**  
 Assemblies include all parts shown in frames.

3044-57

## NUMERICAL PARTS LIST

MASTER PART No.	NAME	SHIPPING WEIGHT Lbs. Oz.
19069	Puller—Flywheel (Optional Accessory) .....	8
22235	Washer—Needle Valve .....	1
22368	Washer—Control Lever .....	1
22398	Washer—Bell Crank .....	1
22725	Washer—Control Lever .....	1
22834	Washer—Spacer .....	1
22963	Washer—Cylinder Head .....	1
23184	Retainer—Valve Spring .....	1
23187	Pin—Valve Spring Retainer .....	2
23386	Valve—Intake .....	1
23431	Nut—Needle Valve .....	1
23432	Seat—Needle Valve .....	1
23433	Valve—Needle .....	1
26018	Spring—Breaker Arm .....	1
26021	Spring—Intake Valve .....	1
26026	Lock—Piston Pin .....	1
26032	Spring—Clutch Retainer .....	2
26099	Wire—Control—54" Long .....	2
<p><i>Note:</i> If longer wire is needed, specify length by inches; if shorter wire is needed order No. 26099 and cut to required length.</p>		
26336	Spring—Needle Valve .....	1
26478	Spring—Exhaust Valve .....	1
26657	Spring—Speed and Throttle Adjustment Screw .....	2
26973	Valve—Exhaust .....	1
*27355	Gasket—Intake Elbow Mounting .....	1
*27404	Gasket—Fuel Tank Mounting .....	1
*27548	Gasket—Cylinder Head .....	1
*27549	Gasket—Valve Cover .....	1
*27586	Gasket—Crankcase—.015" Thick (Standard) .....	1
*27617	Gasket—Crankcase—.005" Thick .....	1
*27618	Gasket—Crankcase—.009" Thick .....	1
27660	Gasket—Air Cleaner Mounting .....	1
27795	Gasket—Air Cleaner .....	1
<p><i>Note:</i> No. 27402 Gasket—Air Cleaner (Cup type) .....</p> <p style="padding-left: 40px;">Used on air cleaners without attached stud.</p>		
29693	Plug—Spark—With Gasket .....	3
29806	Gasket—Spark Plug .....	1
29835	Flywheel—Magneto .....	6
29878	Rope—Starter .....	6
32418	Washer—Chain Guard Mounting .....	1
61760	Key—Flywheel .....	1
62199	Washer—Fuel Tank Bracket .....	1
62577	Washer—Flywheel .....	1
63426	Locknut—Control Wire Casing .....	1
63770	Ball—Clutch .....	1
65704	Plunger—Breaker Point .....	1
65787	Gasket—Needle Valve Nut .....	1
65978	Packing—Needle Valve .....	1
66384	Rope—Starter .....	1
66432	Washer—Control Wire Casing Bracket and Chain Guard .....	1
66528	Bumper—Starter Pulley .....	1
66638	Tube—Breather .....	1
66718	Washer—Starter Clutch, Thrust (Used only in clutch with square shaft ratchet) .....	1

\*Included in Gasket Set — Part No. 293525.

**MASTER  
PART  
No.**

**NAME**

**SHIPPING  
WEIGHT  
Lbs. Oz.**

66728	Grip—Starter Rope .....	2
66768	Plug—Oil Filler .....	1
66986	Casing—Control Wire—48" Long .....	8
	<i>Note:</i> If a longer casing is needed, specify length in inches; if a shorter casing is needed order No. 66986 and cut to required length.	
69221	Cap—Fuel Tank .....	2
89660	Seal—Oil .....	1
89838	Wrench—Spark Plug .....	6
89966	Muffler .....	4
	<i>Note:</i> No. 29807 Muffler .....	6
	Used on type Nos. 901145, 901153, 901162, 901165.	
	Exhaust tubing is not included with muffler; furnished by equipment manufacturer.	
	No. 292054 Muffler .....	4
	Used on type Nos. 901022, 901023, 901029, 901030, 901051, 901052, 901063, 901073, 901085, 901093, 901096, 901112, 901120.	
	No. 294441 Muffler .....	12
	Used on type Nos. 901021, 901026, 901028, 901037, 901040, 901045, 901047, 901048, 901055, 901056, 901057, 901058, 901067, 901071, 901072, 901074, 901076, 901084, 901087, 901088, 901091, 901097, 901107, 901113, 901116, 901118, 901119, 901121, 901123, 901133, 901134, 901135, 901141, 901144, 901154, 901156, 901164, 901166.	
90081	Screw—Machine, Rd. Hd.—10-32x $\frac{1}{2}$ " .....	1
90289	Nut—Square—10-32 .....	1
90366	Washer—Lock— $\frac{1}{4}$ x $\frac{1}{2}$ x $\frac{1}{4}$ " .....	1
90597	Screw—Machine, Rd. Head—10-32x $\frac{1}{2}$ " .....	1
90832	Washer—Lock— $\frac{1}{4}$ x $\frac{3}{4}$ x $\frac{1}{4}$ " .....	1
91237	Washer—Lock— $\frac{1}{4}$ x $\frac{3}{4}$ x $\frac{1}{4}$ " .....	1
91249	Plug—Pipe, $\frac{1}{4}$ ", Square Head .....	1
	<i>Note:</i> No. 93139 Plug—Oil Drain, Hex. Hd. ....	
	Used on type Nos. 901012, 901071, 901084, 901116.	
91386	Screw—Cylinder Head (2" Long) .....	1
91419	Screw—Cap, Hex. Head— $\frac{1}{4}$ -20x $\frac{5}{8}$ " .....	1
91449	Screw—Cap, Hex. Hd.— $\frac{3}{8}$ -18x1 $\frac{1}{8}$ " .....	1
91539	Key— $\frac{3}{8}$ " Square .....	1
91708	Nut—Flywheel .....	3
91810	Elbow—Exhaust, 45°, Street .....	8
	<i>Note:</i> No. 61755 Fitting—Exhaust Hose .....	
	Used on type Nos. 901145, 901162, 901165.	
	Uses: No. 63783 Fitting (To fasten Part No. 61755 to cylinder).	2
	No. 91812 Elbow—Exhaust—90° Street.....	3
	Used on type Nos. 901077, 901132, 901140.	
91811	Locknut—Exhaust Elbow .....	1
	<i>Note:</i> No. 63783 Fitting—Exhaust Elbow .....	2
	Used on type No. 901146.	
92067	Nut—Wing .....	1
92129	Nut—Hex.— $\frac{1}{4}$ -28 .....	1
92278	Nut—Hex.— $\frac{1}{4}$ -20 .....	1
92287	Screw—Machine, Rd. Hd.—10-32x $\frac{1}{4}$ " .....	1
92290	Washer—Lock—No. 10x $\frac{1}{2}$ x $\frac{1}{4}$ " .....	1
92296	Screw—Connecting Rod .....	1
92306	Screw—Cap, Hex. Hd.— $\frac{1}{4}$ -28x $\frac{5}{8}$ " .....	1
92634	Screw—Machine, Rd. Hd.—5-40x $\frac{5}{8}$ " .....	1
92674	Screw—Cylinder Head (2 $\frac{3}{8}$ " Long) .....	1
92696	Screw—Machine, Rd. Hd.—5-40x $\frac{3}{4}$ " .....	1
92747	Screw—Crankcase Cover .....	1
92813	Washer—Lock—Shakeproof .....	1
92870	Screw—Breather Mounting Sem .....	1

**MASTER  
PART  
No.**

**NAME**

**SHIPPING  
WEIGHT  
Lbs. Oz.**

92980	Screw—Blower Housing Mounting Sem .....	1
92984	Screw—Armature Mounting Sem .....	1
92987	Nut—Condenser Terminal .....	1
93014	Screw—Dust Cover Mounting Sem .....	1
93032	Screw—Crankcase Cover Mounting Sem .....	1
93042	Screw—Rotating Screen, Condenser Clamp and Cylinder Shield Mounting Sem .....	1
93062	Screw—Control Bracket and Chain Guard Mounting Sem.....	1
93077	Screw—Clamp Mounting .....	1
93084	Screw—Set, Socket Hd., Cup Point—10-32x¼".....	1
93117	Screw—Contact Post and Coil Lead Mounting Sem.....	1
93124	Screw—Fuel Tank Mounting .....	1
93128	Screw—Carburetor Mounting Sem .....	1
99158	Bearing—Ball .....	8
210209	Head—Cylinder .....	14
210222	Ring—Piston, Compression, Top—Standard .....	1
210223	Ring—Piston, Compression, Center—Standard .....	1
210224	Ring—Piston, Oil—Standard .....	1
210361	Ring—Piston, Compression, Top—.010" O.S. ....	1
210362	Ring—Piston, Compression, Center—.010" O.S. ....	1
210363	Ring—Piston, Oil—.010" O.S. ....	1
210364	Ring—Piston, Compression, Top—.020" O.S. ....	1
210365	Ring—Piston, Compression, Center—.020" O.S. ....	1
210366	Ring—Piston, Oil—.020" O.S. ....	1
210367	Ring—Piston, Compression, Top—.030" O.S. ....	1
210368	Ring—Piston, Compression, Center—.030" O.S. ....	1
210369	Ring—Piston, Oil—.030" O.S. ....	1
210400	Housing—Starter Clutch .....	1
210445	Ring—Piston, Oil—.040" O.S. ....	1
210446	Ring—Piston, Compression, Center—.040" O.S. ....	1
210447	Ring—Piston, Compression, Top—.040" O.S. ....	1
210453	Gear—Cam .....	1 4
210572	Throttle—Carburetor .....	1
	<i>Note: No. 210571 Throttle—Carburetor .....</i>	1
	Used on type No. 901095.	
220107	Cam—Speed Adjuster .....	1
220108	Lever—Speed Adjuster .....	1
220366	Cover—Breaker Point and Condenser .....	1
220459	Dipper—Connecting Rod .....	2
220460	Lock—Connecting Rod Screw .....	1
220477	Clamp—Condenser .....	1
220478	Shield—Cylinder .....	1
220538	Bushing—Crankcase Cover .....	1
	<i>Note: Requires special tools for installation.</i>	
220574	Washer—Starter Clutch, Thrust .....	1
220575	Washer—Clutch Retainer .....	1
220581	Cover—Cylinder Head .....	2
	<i>Note: No. 220354 Cover—Cylinder Head .....</i>	2
	Used on type No. 901107.	
220648	Screen—Recoil Starter .....	1
220675	Shield—Ignition Coil .....	1
220689	Crank—Bell .....	1
220698	Bracket—Control Casing .....	1
220712	Pulley—Rope Starter .....	8
220713	Washer—Pinion Guard .....	4
220714	Guard—Electric Starter Chain .....	8
220732	Lock—Starter Pulley Screw .....	1
220745	Clamp—Starter Clutch .....	2
220746	Washer—Thrust .....	1

MASTER PART No.	NAME	WEIGHT Lbs.	Oz.
220749	Bracket—Starter Support .....		1
220859	Locknut—Muffler and Exhaust Elbow .....		1
220865	Washer—Spring (Used to lock starter clutch) .....		1
220884	Switch—Stop .....		1
230030	Screw—Carburetor Cam and Lever .....		1
230058	Stud—Air Cleaner .....		2
	<i>Note:</i> No. 91225 Screw—Machine, Fill. Hd.—10-32x1" .....		1
	No. 92290 Washer—Lock .....		1
	No. 230412 Spacer .....		1
	Used to mount cover to carburetor air intake on type Nos. 901145, 901146, 901151, 901153, 901162, 901165.		
230173	Tappet—Valve .....		1
230228	Pin—Starter Grip .....		1
230348	Stud—Chain Tension Adjusting .....		1
260035	Crankshaft .....	1	8
	<i>Note:</i> No. 26945 Crankshaft .....	1	8
	Used on type Nos. 901022, 901085, 901150.		
	No. 260036 Crankshaft .....	1	8
	Used on type Nos. 901100, 901103.		
	No. 260038 Crankshaft .....	1	8
	Used on type No. 901158.		
	No. 260048 Crankshaft .....	1	8
	Used on type Nos. 901011, 901012, 901023, 901026, 901028, 901029, 901032, 901035, 901037, 901038, 901040, 901041, 901044, 901045, 901046, 901047, 901049, 901051, 901052, 901054, 901055, 901056, 901059, 901060, 901062, 901065, 901066, 901067, 901070, 901072, 901074, 901076, 901080, 901083, 901087, 901088, 901092, 901093, 901095, 901096, 901097, 901098, 901099, 901102, 901106, 901107, 901111, 901113, 901115, 901116, 901119, 901122, 901126, 901127, 901129, 901130, 901133, 901134, 901135, 901137, 901140, 901141, 901142, 901143, 901145, 901146, 901147, 901148, 901149, 901150, 901151, 901152, 901156, 901162, 901165.		
	No. 260103 Crankshaft .....	1	8
	Used on type No. 901101.		
	No. 260119 Crankshaft .....	1	8
	Used on type Nos. 901021, 901084, 901121, 901153.		
	No. 260228 Crankshaft .....	1	8
	Used on type Nos. 901057, 901071, 901089, 901118, 901123.		
	No. 260229 Crankshaft .....	1	8
	Used on type No. 901058.		
	No. 260239 Crankshaft .....	1	8
	Used on type No. 901081.		
	No. 260242 Crankshaft .....	1	8
	Used on type No. 901073.		
	No. 260247 Crankshaft .....	1	8
	Used on type No. 901027.		
	No. 260248 Crankshaft .....	1	8
	Used on type Nos. 901061, 901090.		
	No. 260266 Crankshaft .....	1	8
	Used on type No. 901109.		
	No. 260271 Crankshaft .....	1	8
	Used on type No. 901105.		
	No. 260272 Crankshaft .....	1	8
	Used on type Nos. 901110, 901155.		
260040	Link—Governor .....		1
	<i>Note:</i> No. 260155 Link—Governor .....		1
	Used on type No. 901095.		
260041	Spring—Governor .....		1
260230	Spring—Clutch .....		2

MASTER PART No.	NAME	SHIPPING WEIGHT	
		Lbs.	Oz.
260262	Ratchet—Rewind Starter		4
	<i>Note:</i> No. 294389 Ratchet—Rewind Starter		4
	Used on type Nos. 901099, 901105, 901129, 901156,		
	Uses: No. 66688 Washer—Sealing		1
290568	Lever Assembly—Control		4
290584	Base—Control Lever		2
290642	Lever—Control		2
291617	Armature—Magneto	1	2
291630	Shield—Spark Plug (with stop switch)		6
291834	Tank Assembly—Fuel	1	4
	<i>Note:</i> No. 29865 Tank Assembly—Fuel	1	8
	Used on type No. 901165.		
	Uses: No. 29863 Outlet Assembly		2
	No. 62007 Clamp—Tank Holding (2)		1
	No. 65294 Gasket—Outlet Assembly		1
	No. 69335 Pipe—Fuel		2
291925	Pin Assembly—Piston—Std.		3
291926	Pin Assembly—Piston—.005" O.S.		3
292037	Cover and Filter—Air Cleaner		8
	<i>Note:</i> No. 220874 Cover—Carburetor Intake		2
	Used on type Nos. 901145, 901146, 901151, 901153, 901162, 901165.		
	Uses: No. 230412 Spacer		1
	No. 92290 Washer—Lock		1
	No. 91225 Screw—Machine, Fill. Hd.—No. 10-32x1"		1
292046	Spring—Starter		5
292149	Cable—Ignition		2
	<i>Note:</i> No. 294577 Cable—Ignition		2
	Used on type Nos. 901078, 901166.		
293400	Piston Assembly—Standard		8
293401	Piston Assembly—.010" O.S.		8
293402	Piston Assembly—.020" O.S.		8
293403	Piston Assembly—.030" O.S.		8
293424	Control—Governor		1
293506	Ring Set—Standard Piston		3
293507	Ring Set—.010" O.S. Piston		3
293508	Ring Set—.020" O.S. Piston		3
293509	Ring Set—.030" O.S. Piston		3
293517	Cleaner Assembly—Air (Used with Stud No. 230058)	1	
293525	Gasket Set		4
293700	Pipe—Fuel		1
293708	Bushing—Cylinder (Requires Special Tools For Installation)		3
293740	Seal—Oil		4
293959	Starter Pulley With Screen		8
293991	Body Assembly—Air Cleaner		6
294064	Ring Set—.040" O.S. Piston		3
294065	Piston Assembly—.040" O.S.		8
294088	Pulley—Recoil Starter	1	
294178	Breather—Valve Chamber		2
294237	Motor—Electric Starting		
294240	Clutch Assembly—Electric Starter		
294243	Chain—Electric Starter Drive		6
294245	Screen—Electric Starter Rotating		3
294260	Housing—Blower (Rewind Starter)	2	
	<i>Note:</i> No. 294282 Housing—Blower (Rewind Starter)	2	
	Used on type No. 901102.		
	No. 294338 Housing—Blower (Rewind Starter)	2	
	Used on type Nos. 901051, 901099, 901126.		

**MASTER  
PART  
No.**

**NAME**

**SHIPPING  
WEIGHT  
Lbs. Oz.**

MASTER PART No.	NAME	Lbs.	Oz.
294263	Housing—Blower (Rope Starter) .....		14
294264	Clutch Assembly—Rewind Starter .....	1	8
	<i>Note:</i> No. 294470 Clutch Assembly—Rewind Starter .....	1	8
	Used on type Nos. 901099, 901105, 901129, 901156.		
	Includes: No. 66688 Washer—Ratchet Sealing .....		1
294291	Housing—Blower (Electric Starter) .....	1	4
294298	Blade—Governor .....		3
294299	Carburetor Assembly .....	1	
	<i>Note:</i> No. 294336 Carburetor Assembly .....	1	
	Used on type Nos. 901057, 901058, 901071, 901073, 901074, 901152.		
	No. 294339 Carburetor Assembly .....	1	
	Used on type Nos. 901023, 901053, 901054, 901059, 901078, 901092, 901107, 901108, 901111, 901117, 901125, 901127, 901132, 901140, 901143, 901148.		
	No. 294768 Carburetor Assembly .....	1	
	Used on type No. 901095.		
294300	Rod Assembly—Connecting .....		12
294301	Cylinder Assembly .....	3	9
294303	Spring—Rewind Starter .....		5
294305	Cover Assembly—Crankcase .....	1	8
294306	Cover Assembly—Crankcase (Used on Model 6B-SFB) .....	2	
294308	Cover Assembly—Crankcase (Used on Model 6B-SF) .....		1
294342	Adapter—Shaft .....		1
294343	Sprocket—Electric Starter .....		1
294502	Bracket—Control Wire Casing .....		2
294575	Link—Starter Chain Master .....		1
294628	Breaker Points and Condenser Set .....		3
	{ No. 293999 Wire—Condenser Ground .....		1
	{ No. 92791 Washer—Lock—Shakeproof (2) .....		1
	<i>Note:</i> { No. 90576 Nut—Hex.—8-32 .....		1
	{ No. 90072 Screw—Machine, Rd. Hd.—8-32x $\frac{5}{8}$ " .....		1
	{ No. 66895 Insulator—Terminal .....		1
	Used on type Nos. 901066, 901112, 901131, 901158, 901160, 901161.		
294861	Cover and Filter—Air Cleaner .....		11
294870	Cleaner Assembly—Air (with mounting stud).....	1	

