

# OPERATING INSTRUCTIONS AND PARTS LIST

## BRIGGS & STRATTON

### MODEL "S" MOTOR

1/2 H.P. - 1800 R.P.M.  
INCLUDING MODEL "SC"

1. **BEFORE STARTING THE MOTOR.** Fill the crankcase with MOBIL-OIL ARCTIC S.A.E. NO. 20, or any other high grade oil having the same characteristics S.A.E. NO. 20. A HEAVIER OIL MUST NOT BE USED. Remove the oil filler cap, painted blue, pour oil in the opening until it rises to the level of the filler opening. Crankcase holds 1 pint. Fill the gas tank, located in base, with a good grade of clean, fresh, regular gasoline. Base holds 2 pints. Do not use a high test gasoline, ordinarily used in lamps and stoves. This vaporizes too quickly, causing motor to stop. Be sure that the small vent hole in gas filler plug is not clogged. Air must enter the base to allow the gasoline to flow freely to the carburetor. Test by blowing through the top of the plug.

2. **DO NOT MIX OIL AND GASOLINE.** This 4 cycle motor is provided with an efficient lubrication system which forces a stream of oil to all moving parts of the motor. There are no external parts which require separate oiling.

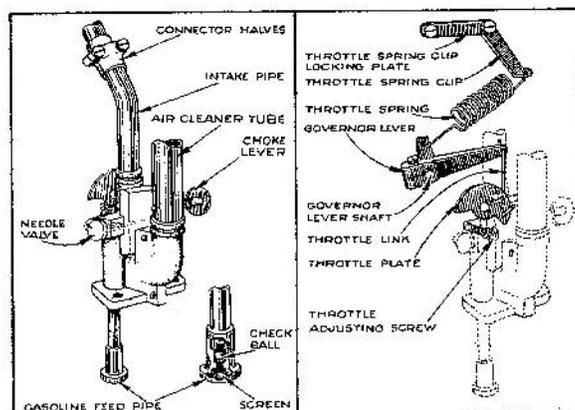
3. **KEEP THE MOTOR CLEAN.** It pays to keep the motor clean, both inside and outside. See that no dirt or water enters motor when filling with oil or gasoline. Always wipe off the gasoline cap and oil filler plug, as well as around them before refilling. Dirt in the tank and motor causes trouble and even serious damage.

4. **AIR CLEANER. EVERY DAY MOTOR IS USED, AIR CLEANER** should be removed and washed in kerosene, then dipped in oil and replaced, to make it efficient in catching dust. **NOTE:** If air cleaner becomes clogged, replace with new one. (Test for clogged condition by noting if motor performs better with air cleaner removed.)

5. **CHANGE OIL FREQUENTLY.** After every twenty-five hours of motor operation, the oil should be completely drained from the crankcase. Always check your oil level after each five hours of motor operation.

6. **AVOID GUMMY GASOLINE.** If you find a gummy substance in the fuel system, it usually comes from stale gasoline. It will clog the gas line, carburetor, etc. and cause trouble. Use fresh gasoline and keep the tank filled. If you use the motor occasionally, drain the tank completely and refill when motor is used again. Use Alcohol or Acetone to clean any gum coated parts.

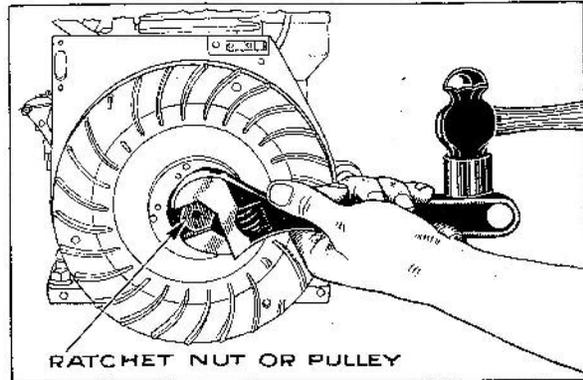
CARBURETOR AND GOVERNOR - PLATE NO. 1



7. **TO ADJUST CARBURETOR,** completely close needle valve by turning to right or clockwise as far as possible. Do not screw up too tight or use force when closing needle valve, or the seat or taper of needle valve may be damaged. From the closed position, open needle valve one to one and half turns. After the motor has been started and warmed up with the choke wide open, make final adjustment by turning the needle valve to the point at which motor operates most smoothly with full load. This setting will also take care of starting with use of choke. When starting cold motor, if it is necessary to keep choke partially closed several minutes before motor runs smoothly, carburetor setting is too lean and needle valve should be opened a notch or two-turn to left.

8. **TO REMOVE AND REPLACE CARBURETOR.** Remove clamp from the choke tube and intake pipe. Pull choke tube out of carburetor. Unscrew carburetor from the base. Remove screws from intake pipe connector halves. Remove intake pipe from carburetor and cylinder head. Lift carburetor from base and at the same time, unhook throttle link from throttle plate of carburetor. Remove throttle spring. Note positions of throttle link and spring, so that they can be properly assembled again. See plate No. 1. To replace, reverse the operations performed above.

REMOVING FLYWHEEL - PLATE NO. 4

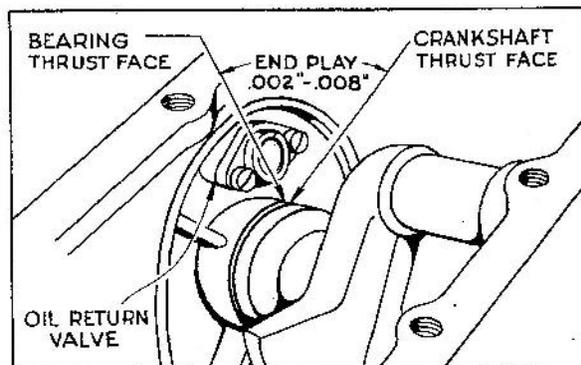


14. To replace, locate flywheel on crankshaft with key. Reverse the operations explained in the previous paragraphs. Draw ratchet nut or starter pulley up very tight by tapping wrench handle or bar with hammer.

15. TO REMOVE AND REPLACE MAGNETO ASSEMBLY. Remove flywheel as explained in previous paragraphs. Detach ignition cable from spark plug and remove three magneto plate mounting screws. To replace, use the same gasket between the plate and crankcase or if damaged a new gasket. See part numbers 13A10, 66037, 66047 of proper thickness to get correct end play of .002" to .008" between magneto bearing and crankshaft thrust faces, as shown in plate No. 5.

16. Magneto is always correctly timed with the motor when the flywheel is assembled to the tapered crankshaft with a key and securely held in place with right hand threaded pulley or ratchet nut. Do not attempt to change the timing by relocating any parts or filing crankshaft timing flat. Always use soft key, part No. 66403 - if steel key is used and flywheel becomes loose, it will damage the keyway in the crankshaft.

CORRECT END PLAY - PLATE NO. 5



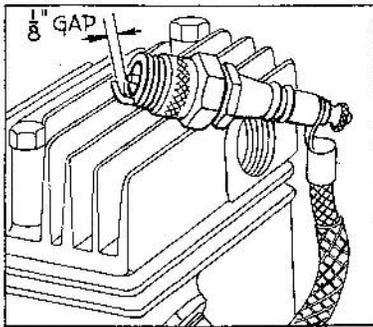
17. TO ADJUST AND CLEAN CONTACT POINTS. Remove blower housing and flywheel. Turn crankshaft by hand to see if contact points open and close properly. Points must be clean and line up squarely to make good electrical contact. Do not file the points - use a fine sandpaper or grit hone to clean points. Adjust gap to .020" by loosening the contact bracket and moving it toward or from breaker arm point. When proper gap is obtained, tighten lock screw securely. If either or both points become badly pitted or burned, they should be replaced, order part Nos. 13ME and 65489.

18. TO REPLACE CONDENSER. A leaky or weak condenser causes motor to start hard, sputter or misfire under load. If motor misfires after checking gasoline line,

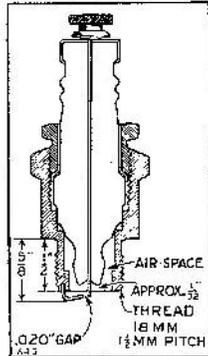
3. RESETTING GOVERNOR LEVER. With carburetor attached to motor and throttle link hooked in governor lever and throttle plate, loosen set screw holding governor lever to governor shaft. Push the upper end of governor lever toward carburetor as far as it will go. Hold in this position and turn governor shaft to right or down, with pliers, until it strikes a stop in crankcase. Release governor shaft but hold governor lever until you tighten the set screw. Be sure that neither governor lever or shaft move while you tighten the screw. See plate No. 1.

10. TO CHECK FOR SPARK. Remove the spark plug. Open the spark gap to about 1/8" and with cable attached, place spark plug on the cylinder head. Turn motor with starter and if spark jumps this gap, the ignition system is O.K. See plate No. 2. If there is no spark, try a new plug in the same way and if still no spark, check ignition cable and magneto adjustments. Be sure to close point gap to .020", before replacing spark plug.

CHECKING SPARK  
PLATE NO. 2



SPARK PLUG  
PLATE NO. 3



11. SPARK PLUG ADJUSTMENT. When spark plug points burn away in normal service, the spark plug should be replaced. The points must be clean and set at .020". Be sure the porcelain is not cracked or broken which prevents the plug firing. Water on the outside of the plug will permit the high voltage current to leak over the surface of the porcelain. Dirt or carbon will do the same thing. Keep a new plug on hand. We recommend the use of a Champion No. 6M or its exact equivalent. See plate No. 3.

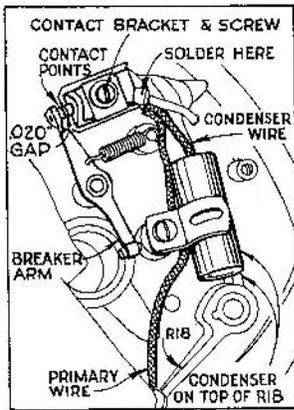
12. IGNITION CABLE. Insulation must not be broken or soaked with oil or water, or grounded in any way where it touches the motor, or it will interfere with good ignition. Ignition cable should be soldered to the secondary terminal (small brass plate coming out of coil). Avoid touching coil with hot soldering iron. See plate No. 7.

13. TO REMOVE AND REPLACE FLYWHEEL.

A. HAND CRANK AND FOOT STARTER MOTORS. Remove starter and blower housing. Place a small wood block under flywheel fin on left side. Use a 1" open end wrench on nut. Tap end of wrench handle lightly with hammer to loosen nut. Tap carefully to prevent bracking flywheel fin. Remove ratchet, pawl and washer. Loosen flywheel by placing a wood block against end of crankshaft and striking with hammer. Pull off flywheel.

B. ROPE STARTER MOTORS. Remove blower housing and place a wood block under flywheel fin on left side. Place a rod or bar through the holes in the starter pulley. Tap on end lightly to remove it. Loosen and remove flywheel, as explained in the previous paragraph.

**CONTACT POINTS  
PLATE NO. 6**



carburetor, spark plug, cable and contact points, install a new condenser.

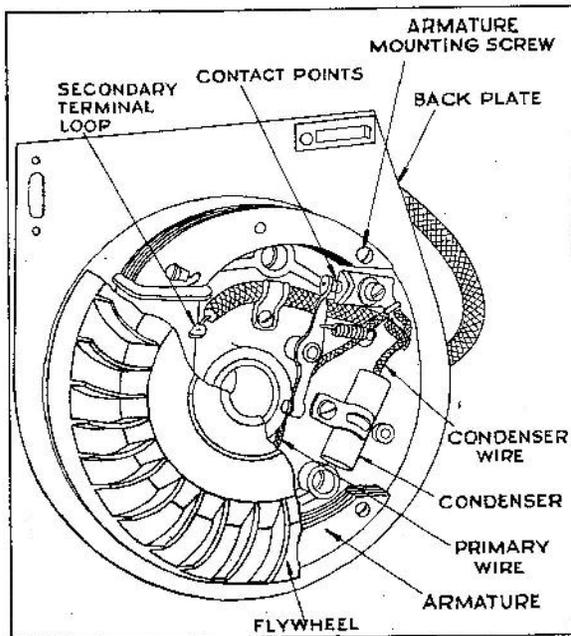
19. If, after new condenser has been installed, the ignition system does not deliver a satisfactory spark, recommend sending the complete magnetic and flywheel to the nearest Briggs & Stratton Central Service Distributor listed on last page, for proper adjustment.

20. **TO REPLACE AND ADJUST ARMATURE.** Remove primary armature and condenser lead wires from contact point

bracket. Remove ignition cable from secondary terminal in coil. Remove four armature mounting screws. Save as much hydrolene as possible, to use for insulating the terminal on the new coil. To install armature, locate on mounting studs. Place loops under the armature mounting screws nearest the coil. Solder ignition cable to terminal. Fill pocket, formed with flap, with melted hydrolene. Slip insulators over armature and condenser lead wires to contact bracket. Tighten armature screws. See plate No. 7.

21. An air gap of .002" to .020" must be maintained between armature shoes and flywheel poles. Gap must be sufficient to prevent rubbing but not over .010" or poor ignition will result. To check armature for rub, chalk edges and mount flywheel in place. Remove spark plug to release compression. Turn flywheel several revolutions. Remove flywheel and examine edges of armature shoe. High spots will have chalk rubbed off. File high spots carefully with fine file until flywheel does not rub. Do not remove too much metal.

**MAGNETO PLATE ASSEMBLY - PLATE NO. 7**



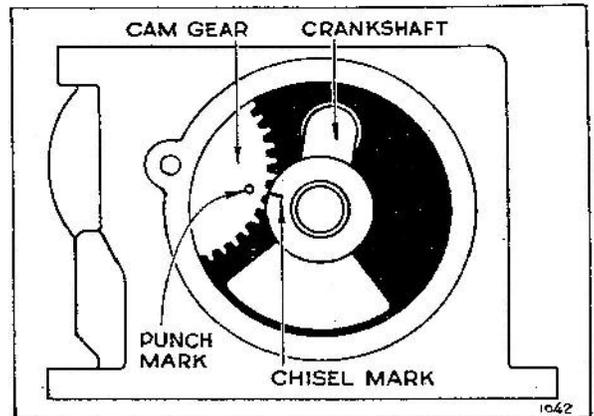
22. **VALVE ADJUSTMENT.** To check valve clearance, remove valve cover plate. The correct clearance on the exhaust valve is .008", and on intake is .006", when motor is cold. Tappet clearance is adjusted by grinding required amount from end of valve stem. End of stem must be square with stem proper.

23. To remove valves, remove cylinder head, and if not dismantled, drain oil from crankcase. Invert cylinder. Compress the spring with spring compressor No. 69189-T3 and with end of screw driver pry out split collars. Release spring compressor. Tilt cylinder back far enough to allow valve to drop, permitting stem to clear.

24. To replace valves and valve springs, compress spring in valve spring compressor. Turn tool to inverted position with collar retainer washer on top. Drop split collar is placed in retainer washer one at a time. When first half of split collar is placed in retainer washer, push it around to the back of valve stem to allow easy placing of second half. Special valve spring compressor tool part No. 69189-T3 is available at the factory at \$1.25 net.

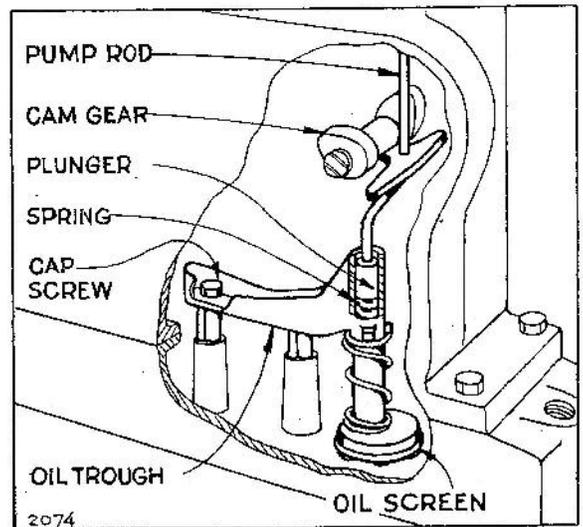
25. To reset valves, grind in the same manner as automobile valves. If valves stick they may be coated with gum or carbon. To remove gum use alcohol or acetone. Clean valve stems thoroughly with wire brush or emery cloth. Also scrape all carbon from valve ports.

**VALVE TIMING - PLATE NO. 8**



26. The timing of the valves is taken care of by the meshing of the cam shaft gear with the gear on the crankshaft. These gears are properly meshed when the mark on the cam shaft gear is in line with the mark on the crankshaft collar. See plate No. 8.

**OIL PUMP - PLATE NO. 9**



27. **OIL PUMP.** The oil pump and trough is assembled to the base and operated with a pump rod by an eccentric cam. See plate No. 9 for proper assembly.

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

1. Refer to page illustrating parts and locate the Master Part Number by comparing your old part with the illustrations.
  2. After the Master Part Number has been identified, refer to the following Parts Lists where these Master Part Numbers are listed in numerical order.
- The Master Part is used on all models of motors except those described and listed under "Note."**
3. If a "Note" appears below the Master Part Number, this means that this part is made different from the Master Part for certain types and if your part is described under "Note," order the part referred to.
  4. If two or more parts are bracketed (---) under "Note," they are used to replace the Master Part on the type numbers shown.
  5. When ordering parts—or writing for service information—always specify the MODEL LETTER and SERIAL NUMBER of your motor.

**PRICES**—All prices in this book are subject to change without notice. In case of change in prices, orders will be filled at current prices.

## Parts List

MODELS "S"—"SC"

MASTER PART NUMBER	NAME	SELLING PRICE EACH	MASTER PART NUMBER	NAME	SELLING PRICE EACH
21202	Center Compression Ring - Standard . . . . .	.40	62000	Connecting Link Washer . . . . . 2 for	.05
21203	Top Compression Ring - Standard. . . . .	.40	62015	Starter Ratchet Guard. . . . .	.25
21219	Top Compression Ring - .040" Oversize. . . . .	.40	62024	Throttle Spring Clip. . . . .	.05
21220	Center Compression Ring - .020" Oversize . . . . .	.40	62026	Throttle Clip Lock Plate . . . . .	.05
21221	Center Compression Ring - .030" Oversize . . . . .	.40	62154	Valve Cover Plate. . . . .	.20
21222	Center Compression Ring - .040" Oversize . . . . .	.40	63146	Upper Intake Pipe. . . . .	.15
21223	Top Compression Ring - .020" Oversize. . . . .	.40	63147	Lower Intake Pipe. . . . .	.45
21224	Top Compression Ring - .030" Oversize. . . . .	.40	63436	Piston Pin - .005" Oversize. . . . .	.30
22354	Valve Cover Plate Washer . . . . . 3 for	.05	64139	Starter Chain Pin. . . . .	.10
22355	Contact Bracket Washer . . . . . 3 for	.05	65075	Stop Wire. . . . .	.10
22371	Connecting Rod Shim. . . . .	.05	65128	Throttle Spring. . . . .	.15
22373	Contact Point Bracket. . . . .	.50	65194	Contact Bracket Washer . . . . .	.25
22374	Contact Bracket Shim. . . . .	.05	65314	Contact Bracket Insulator. . . . .	.05
23591	Ignition Cable Clamp . . . . .	.05	65367	Ratchet Nut Felt . . . . .	.05
25403	Breaker Arm Spring . . . . .	.05	65489	Contact Breaker Arm. . . . .	.75
26413	Oil Pump Plunger Spring. . . . .	.10	65523	Blower Housing Bracket . . . . .	.10
27090	Spark Plug Gasket. . . . .	.05	65534	Oil Filler Cap Gasket. . . . .	.05
27099	Magneto Plate Gasket - .015" Thick . . . . .	.05	65617	Valve Cover Gasket . . . . .	.10
29131	Spark Plug Shield. . . . .	1.25	65725	Armature Lead Insulator. . . . .	.05
29852	Condenser. . . . .	.50	65735	Condenser Lead Insulator . . . . .	.05
29857	Armature . . . . .	5.00	65983	Piston Pin - Standard. . . . .	.30
37348	Rivet - 1/8x1/4" Tabular . . . . . 4 for	.05	65998	Valve Spring . . . . .	.15
46133	Spark Plug Shield Spring . . . . .	.10	66037	Magneto Plate Gasket - .005" Thick . . . . .	.05
61042	Oil Filler Elbow . . . . .	.45	66047	Magneto Plate Gasket - .009" Thick . . . . .	.05
	<b>Note:</b> No. 61006 Oil Filler Elbow used on motors with oil filler elbow mounted on side of crankcase. . . . .	.45	66056	Starter Return Spring. . . . .	.50
61120	Base (Cast Iron) . . . . .	8.00	66057	Base Gasket. . . . .	.25
61122	Governor Lever. . . . .	.40	66159	Air Cleaner Clamp. . . . .	.20
61125	Intake Pipe Connector (Plain Hole) . . . . .	.10	66186	Throttle Adjusting Spring. . . . .	.10
61126	Intake Pipe Connector (Tapped Hole). . . . .	.15	66246	Piston Pin Lock. . . . . 2 for	.05
61136	Oil Filler Cap . . . . .	.25	66403	Flywheel Key . . . . .	.05
61137	Foot Starter Pedal (Straight). . . . .	1.50	66411	Rope Starter Pulley. . . . .	1.00
	<b>Note:</b>		66436	Throttle Link. . . . .	.10
	No. 61139 Starter Pedal-3 1/2" R.H. Offset . . . . .	1.50	66521	Gasoline Filler Plug . . . . .	.10
	No. 61140 Starter Pedal-3 1/2" L.H. Offset . . . . .	1.50	66662	Pulley Half - 2-7/8" Dia. (2). . . . .	.25
	No. 61141 Starter Pedal-3 1/2" L.H. Offset 7-7/8" Lg . . . . .	1.50		<b>Note:</b> No. 67112 Pulley Half - 4-3/8" Dia. (2) . . . . .	.40
	No. 61142 Hand Starter Lever . . . . .	1.50		No. 67882 Pulley Half - 3" Dia. (2). . . . .	.25
	No. 61143 Starter Pedal-4-5/8" L.H. Offset. . . . .	1.50	66679	Magneto Flywheel. . . . .	9.20
	No. 61144 Starter Pedal-Straight 6-3/32" Lg. . . . .	1.50	66733	Starter Ratchet . . . . .	.50
61222	Cylinder Head. . . . .	1.50	66743	Starter Ratchet Nut (Right Hand Thread) . . . . .	.30
61505	Oil Ring - Standard - 3/16" Wide . . . . .	.60	66303	Starter Ratchet Nut (Left Hand Thread). . . . .	.30
	<b>Note:</b> No. 68181 Oil Ring - Std.-1/8" Wide . . . . .	.50		<b>Note:</b> Used with No. 68133 Pulley Stud.	
	Used on earlier model motors.		66979	Starter Rope. . . . .	.50
61747	Oil Ring - .040" Oversize - 3/16" Wide . . . . .	.60	67086	Crankshaft. . . . .	7.00
	<b>Note:</b> No. 61009 Oil Ring - .040 O.S. 1/8" Wide . . . . .	.50		With spur gear-3/16" keyway on take-off end	
	Used on earlier model motors.			<b>Note:</b> No. 65576 Crankshaft . . . . .	7.00
61748	Oil Ring - .020" Oversize - 3/16" Wide . . . . .	.60		With spur gear-flat on take-off end	
	<b>Note:</b> No. 61816 Oil Ring - .020" O.S. 1/8" Wide . . . . .	.50		No. 67198 Crankshaft . . . . .	7.00
	Used on earlier model motors.			With helical gear-3/16" keyway on take-off end	
61749	Oil Ring - .030" Oversize - 3/16" Wide . . . . .	.50		Used on Model "SC" motors.	
	<b>Note:</b> No. 61017 Oil Ring - .030" O.S. 1/8" Wide . . . . .	.50	67072	Contact Bracket Washer. . . . .	.05
	Used on earlier model motors.		67083	Carburetor Needle Valve . . . . .	.25
			67249	Air Cleaner . . . . .	1.50
			67429	Starter Pawl Assembly . . . . .	.70

MASTER PART NUMBER	NAME	SELLING PRICE EACH
87589	Starter Chain Connecting Link . . . . .	.10
87753	Plywheel Washer . . . . .	.06
87802	Governor Gear Washer . . . . .	.10
87829	Carburetor Body . . . . .	2.00
88022	Blower Housing Bracket . . . . .	.10
88122	Cam Shaft Plug . . . . .	.05
88133	Pulley Stud-(Left Hand Thread) . . . . .	.35
88273	Exhaust Valve . . . . .	1.50
88283	Valve Spring Collar . . . . .	.10
88293	Valve Spring Retainer . . . . .	.10
88303	Valve Tappet . . . . .	1.00
	Note: No. 83277 Valve Tappet . . . . .	.35
	Used on Model "SC" motors.	
88333	Cam Gear Shaft . . . . .	.40
88449	Muffler (Mushroom Type) . . . . .	1.25
	Note: No. 88567 Muffler (Cylindrical Type) . . . . .	2.00
	Used on some Model "SC" motors.	
88843	Governor Crank . . . . .	.80
88852	Spark Plug Wrench . . . . .	.20
88853	Governor Crank Bushing . . . . .	.20
88892	Oil Retainer Ring . . . . .	.05
88702	Oil Retainer Ring . . . . .	.05
88791	Cam Gear (Spur Teeth) . . . . .	5.00
	Note: No. 81167 Cam Gear (Helical Teeth) . . . . .	3.00
	Used on Model "SC" Motors.	
88803	Starter Shaft Collar . . . . .	.30
88821	Starter Chain Sprocket . . . . .	.25
88801	Starter Spring Bushing . . . . .	.05
88923	Intake Valve . . . . .	.55
89004	Cylinder Head Gasket . . . . .	.20
89054	Magneto Plate Bearing . . . . .	3.50
89105	Governor Gear Shaft . . . . .	.40
89130	Oil Pump Rod . . . . .	.30
89194	Governor Gear - (Spur Teeth) . . . . .	1.50
	Note: No. 83665 Governor Gear-(Helical Teeth) . . . . .	1.50
	Used on Model "SC" Motors.	
89218	Magneto Air Guide (With stop switch) . . . . .	.60
	Note: No. 83278 Mag. Air Guide (No Stop Switch) . . . . .	.80
89232	Connecting Rod Assembly . . . . .	2.50
89238	V Belt Pulley - 4-3/8" dia. 1" lg. Hub . . . . .	1.00
	Note: For other size V Belt Pulleys specify	
	No. 83137 Pulley-2 1/2" Dia. 61/64" Hub . . . . .	.85
	No. 89245 Pulley-3" Dia. 1" Hub . . . . .	.85
	No. 89368 Pulley-3" Dia. 1 1/4" Hub . . . . .	1.00
	No. 89414 Pulley-3" Dia. 1" Hub . . . . .	1.00
	with washer between halves.	
89258	Breather Tube . . . . .	.75
89282	Magneto Plate Bearing . . . . .	1.25
	Includes: No. 68692 Oil Retainer Ring	
	Note: No. 85793 Magneto Plate Bearing . . . . .	1.25
	Used on early model motors.	
89308	Blower Housing . . . . .	1.35
	(Stop Switch on starter pedal side)	
	Note: No. 64088 Blower Housing . . . . .	1.50
	(Stop Switch on carburetor side)	
	No. 89571 Blower Housing . . . . .	1.35
	(Without stop switch)	
89312	Starter Chain . . . . .	1.25
89333	Starter Shaft and Lever Assembly . . . . .	3.50
89334	Starter Lever and Shaft . . . . .	2.00
89340	Crankshaft Guard . . . . .	.25
89346	Cylinder Bearing . . . . .	1.25
	Includes: No. 68702 Oil Retainer Ring.	
89382	Ignition Cable . . . . .	.40
	Note: No. 69275 Ignition Cable . . . . .	.30
	No. 69847 Ignition Cable Sleeve . . . . .	.10
	Used on earlier model motors.	
	No. 69574 Ignition Cable . . . . .	.60
	(Shielded)	
89388	Gas Pipe . . . . .	.45
89392	Air Cleaner Tube . . . . .	.50
89393	Carburetor Assembly . . . . .	2.75
89398	Oil Trough and Pan Assembly . . . . .	2.00
89464	Cylinder . . . . .	18.50
89469	Magneto Plate Assembly . . . . .	10.50
	(Stop Switch on Starter Pedal Side)	
	Note: No. 69570 Magneto Plate Assembly . . . . .	10.50
	(Without Stop Switch)	
	(Includes No. 62091 Air Guide . . . . .	.40

MASTER PART NUMBER	NAME	SELLING PRICE EACH
	No. 89875 Magneto Plate Assembly . . . . .	10.50
	(Shielded Ignition Cable)	
	Includes No. 65075 Ground Wire . . . . .	.10
89828	Chain Repair Link . . . . .	.35
89859	Sprocket and Chain Assembly . . . . .	1.50
89892	Oil Return Valve . . . . .	.35
89572	Spark Plug with Gasket . . . . .	.65
89578	Oil Pump Plunger . . . . .	.20
90074	Screw - 8-32x3/4" Rd. Hd. . . . .	.05
90077	Screw - 10-32x1/4" Rd. Hd. . . . .	.05
90202	Screw - 8-32x3/4" Rd. Hd. . . . .	.05
90597	Screw - 10-32x1/2" Rd. Hd. . . . .	2 for .05
90680	Screw - 5/16-18x1/2" Sq. Hd. . . . .	.05
90832	Lockwasher - 1/4x3/32x5/64" . . . . .	4 for .05
90878	Drain Plug . . . . .	.10
90886	Oil Filler Plug . . . . .	.10
90887	Screw - 3/8-16x1 1/4" Hex. Hd. . . . .	.05
90891	Screw - 1/4-20x1/2" Hex. Hd. . . . .	.05
90902	Magneto Plate Mounting Screw . . . . .	.05
90918	Blower Case Mounting Screw . . . . .	.05
91083	Gasoline filler Plug . . . . .	.10
91157	Pulley Mounting Nut . . . . .	.05
91162	Cylinder Head Screw . . . . .	.05
91219	Exhaust Street Elbow - 45 Degree . . . . .	.40
	Note: For other exhaust fittings specify:	
	No. 91205 Exhaust Elbow-90 Degree . . . . .	.35
	No. 91245 Exhaust Nipple - 3/4" Lg. . . . .	.15
	No. 91248 Exhaust Elbow - 45 Degree . . . . .	.40
	No. 91289 Exhaust Nipple - 2 1/2" Lg. . . . .	.15
	No. 91376 Exhaust Nipple - 6" Lg. . . . .	.30
91223	Set Screw - 3/8-16x1/2" Sq. Hd. . . . .	.05
91225	Armature Mounting Screw . . . . .	.05
91242	Exhaust Locknut . . . . .	.05
91247	Bolt - 1/2-20x2" Hex. Hd. . . . .	.15
91248	Nut - 1/4-20 Hex. . . . .	.05
91281	Lockwasher - 1/4x3/32x3/32" . . . . .	3 for .05
91282	Screw - 10-32x5/8" Fill. Hd. . . . .	.05
91389	Screw - 1/4-20x1-5/8" Hex. Hd. . . . .	.05
92268	Lockwasher - 13-32x1/8x3/32" . . . . .	4 for .05
92286	Cotter Pin . . . . .	4 for .05
92289	Cotter Pin . . . . .	4 for .05
92290	Lockwasher . . . . .	3 for .05
92293	Cable Clamp Screw . . . . .	2 for .05
92294	Lockwasher . . . . .	4 for .05
92296	Connecting Rod Screw . . . . .	.05
92302	Lockwasher . . . . .	2 for .05
92305	Governor Gear Retainer Washer . . . . .	.05
92307	Condenser Mounting Screw . . . . .	.85
92309	Gas Pipe Nut . . . . .	.10
99920	Piston Assembly - Standard . . . . .	3.85
99963	Piston - Standard . . . . .	2.25
	Note: Early model motors were equipped with	
	piston having a 1/8" oil control ring	
	groove. For replacement order:	
	{ No. 99963 Piston - Standard . . . . .	2.25
	{ No. 61505 Oil Ring - Standard . . . . .	.60
99984	Piston - .040" Oversize . . . . .	2.00
	Note: Early model motors were equipped with	
	piston having a 1/8" oil control ring	
	groove. For replacement order:	
	{ No. 99984 Piston - .040" Oversize . . . . .	3.00
	{ No. 61747 Oil Ring - .040" Oversize . . . . .	.60
99985	Piston - .020" Oversize . . . . .	3.00
	Note: Early model motors were equipped with	
	piston having a 1/8" oil control ring	
	groove. For replacement order:	
	{ No. 99985 Piston - .020" Oversize . . . . .	3.00
	{ No. 61748 Oil Ring - .020" Oversize . . . . .	.60
99986	Piston - .030" Oversize . . . . .	3.00
	Note: Early model motors were equipped with	
	piston having a 1/8" oil control ring	
	groove. For replacement order:	
	{ No. 99986 Piston - .030" Oversize . . . . .	3.00
	{ No. 61749 Oil Ring - .030" Oversize . . . . .	.60
99987	Piston Assembly .040" Oversize . . . . .	4.40
99988	Piston Assembly .020" Oversize . . . . .	4.40
99989	Piston Assembly .030" Oversize . . . . .	4.40

U. S. A. Prices. Prices outside of U. S. A. subject to local import duties, taxes, etc.  
 Before ordering parts, read instructions top page 4.

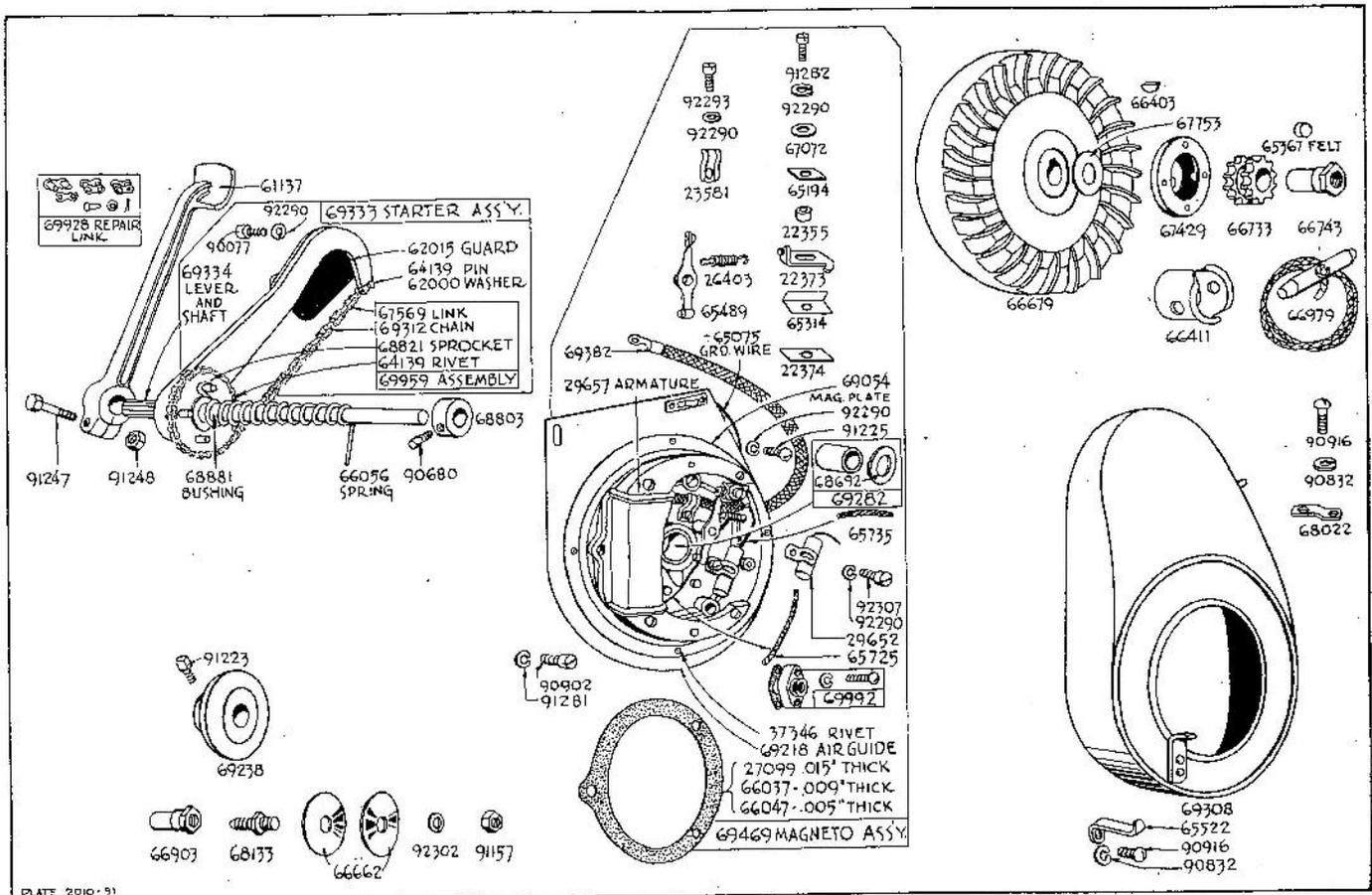


PLATE 2010-91

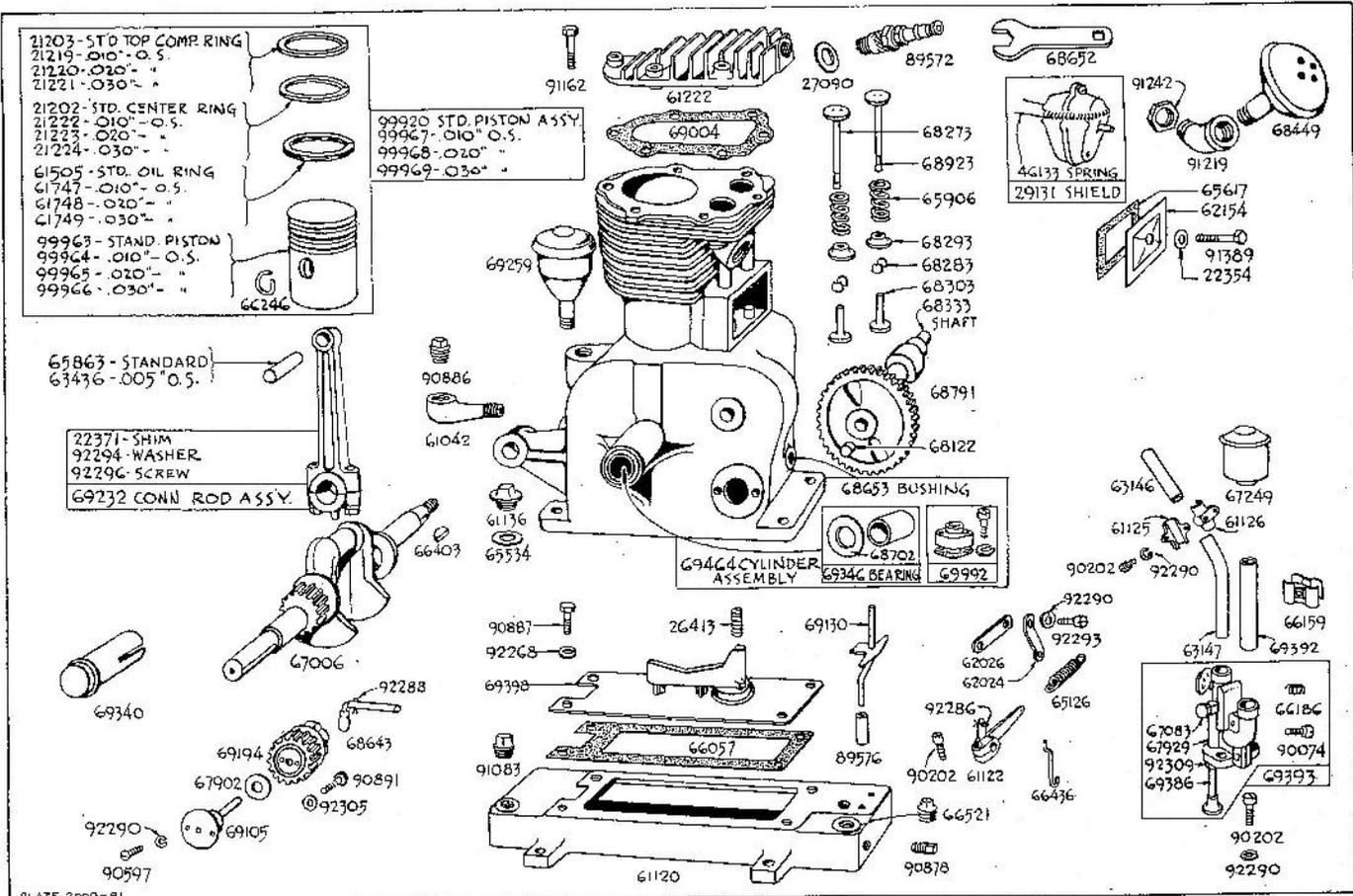


PLATE 2009-91

ASSEMBLIES INCLUDE ALL PARTS SHOWN IN BRACKETS

# NATION-WIDE SERVICE ORGANIZATION

To provide prompt and efficient service on Briggs & Stratton motors, Authorized Central Service Distributors and Motor Service Stations are located in the principal cities of the United States and Canada.

Each Authorized Service Organization carries a complete stock of original Briggs & Stratton repair parts. Each is equipped with special factory service tools and factory-trained mechanics, assuring expert repair service on all Briggs & Stratton motors.

All Authorized Service Organizations are instructed by the factory to replace free of charge all parts found to be defective in either material or workmanship, according to the conditions of the Briggs & Stratton Guarantee.

All gratis work done under the guarantee is the responsibility of the Authorized Service Organization until all the material involved and supporting facts are submitted to and approved by the factory.

In a difference of opinion regarding a Service Organization's decision, their terms should be accepted and, either through them or direct, have all materials and supporting facts submitted to the factory for review.

Genuine Briggs & Stratton service will assure continuous motor satisfaction. Our long experience in motor maintenance prompts us to urge that all service work be done by an Authorized Service Organization or at our factory. Mechanics unfamiliar with Briggs & Stratton products, or without proper tools, should not be permitted to make major repairs.

Parts and repair work are F.O.B. Factory or any Authorized Briggs & Stratton Central Service Distributor, or Motor Service Station. The Central Service Distributor nearest you (see list below) will be glad to give you the name of our Motor Service Station in your locality. Space does not permit listing here.

## Authorized Central Service Distributors

STATE	CITY	NAME	LOCATION
Alabama	Birmingham	Birmingham Electric Battery Co.	Ave. B. at 23rd St.
Arizona	Phoenix	Motor Supply Co.	315 N. Central Ave.
California	Los Angeles	Electric Equipment Company	1611 S. Hope St.
California	San Francisco	Automotive Service Co.	930 Van Ness Ave.
Colorado	Denver	Spitzer Electrical Company	43 W. 9th Ave.
Florida	Jacksonville	Spencer Electric, Inc.	40 W. Beaver St.
Florida	Miami	Electrical Equipment Co.	42-58 N. W. 4th St.
Florida	Tampa	Spencer Auto Electric, Inc.	607-11 E. Cass St.
Georgia	Atlanta	Auto Electric & Magneto Co.	477 Spring St., N. W.
Illinois	Chicago	Mid-States Auto Electric Co.	1905 So. Michigan Ave.
Indiana	Indianapolis	Gulling Auto Electric Co.	450 N. Capitol Ave.
Iowa	Des Moines	Magneto Carburetor & Electric Co., Inc.	1308 Grand Ave.
Kansas	Wichita	The E. S. Cowie Electric Co.	230 S. Topeka Ave.
Kentucky	Lexington	Kentucky Ignition Co., Incorporated	Rose and Vine Sts.
Louisiana	New Orleans	Suhren, Inc.	1319 St. Charles Ave.
Louisiana	Shreveport	Chain Battery & Automotive Supply, Inc.	Marshall at Cotton Sts.
Massachusetts	Boston	Wm. H. Flaherty Co.	48-52 Cummington St.
Michigan	Detroit	Auto Electric & Service Corporation	90 Selden Ave.
Minnesota	Minneapolis	Reinhard Brothers Co., Inc.	11 S. Ninth St.
Missouri	Kansas City	The E. S. Cowie Electric Co.	1819 Wyandotte St.
Missouri	St. Louis	Medart Auto Electric Co., Inc.	3134 Washington Blvd.
Montana	Billings	Pasley & Spitzer Co.	20 No. 33rd St.
Nebraska	Lincoln	Carl A. Anderson, Inc.	1637 P Street
Nebraska	Omaha	Carl A. Anderson, Inc.	16th and Jones St.
New York	Buffalo	The Battery & Starter Co., Inc.	2505 Main St.
New York	New York	The Durham Co., Inc.	17 W. 60th St.
New York	Syracuse	The Durham Co., Inc.	601 W. Genesee St.
North Carolina	Charlotte	Carolina Rim & Wheel Co.	312 N. Graham St.
North Dakota	Fargo	Reinhard Brothers, Inc.	109 Roberts St.
Ohio	Toledo	The Electric Power Maintenance Co.	28-30 Seventeenth St.
Oklahoma	Oklahoma City	American Electric Ignition Co.	725 N. Broadway
Oregon	Portland	Tracey & Co., Inc.	N. W. 10th and Glisan
Pennsylvania	Philadelphia	Auto Equipment & Service Co., Inc.	1522-24 Fairmount Ave.
Pennsylvania	Pittsburgh	Pitt Auto Electric Company	5135 Baum Blvd.
South Dakota	Aberdeen	Reinhard Brothers Co., Inc.	317 S. Lincoln St.
Tennessee	Knoxville	R. T. Clapp Company	401-7 N. Broadway
Tennessee	Memphis	Automotive Electric Service Co.	1095 Union Ave.
Texas	Amarillo	The E. S. Cowie Electric Co.	700 Van Buren St.
Texas	Dallas	Beard & Stone Electric Co., Inc.	2101 Bryan St.
Texas	El Paso	Motor Supply Co.	308 Chihuahua St.
Texas	Houston	Beard & Stone Electric Company, Inc.	Milam at Polk Ave.
Texas	San Antonio	S. X. Callahan	425 N. Flores St.
Utah	Salt Lake	Motor Equipment Company	605-609 So. State St.
Washington	Seattle	Sunset Electric Co.	300 Westlake North
Wisconsin	Milwaukee	Wisconsin Magneto Co.	918 N. Broadway

### DOMINION OF CANADA

Manitoba	Winnipeg	Beattie Auto Electric Limited	176 Fort St.
Ontario	Toronto	Auto Electric Service Company Limited	1009 Bay St.

**BRIGGS & STRATTON CORP.**  
**MILWAUKEE, WIS., U. S. A.**



WHERE BRIGGS AND STRATTON MOTORS  
ARE MADE

**T**HESE large and modern factory buildings, located in Milwaukee, Wisconsin, are complete with all modern equipment and machinery for precision construction, economical production, rigid inspection and thorough testing of Briggs & Stratton 4-cycle gasoline motors.

Briggs & Stratton Corp. produces more small 4-cycle air-cooled gasoline motors than any other manufacturer in the world.

