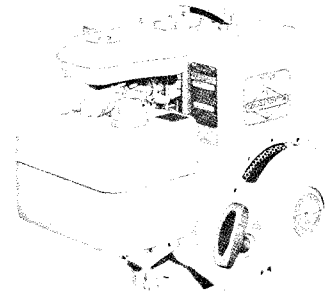
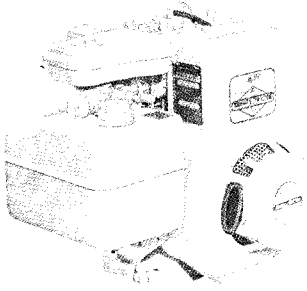


Briggs & Stratton

OPERATING AND MAINTENANCE INSTRUCTIONS

MODELS



100200 to 100292
130200 to 130292

IN THE INTEREST OF SAFETY: DO NOT RUN ENGINE AT EXCESSIVE SPEEDS. Operating an engine at excessive speeds increases the hazard of personal injury. **DO NOT TAMPER WITH PARTS WHICH MAY INCREASE THE GOVERNED SPEED.**

For rotary lawnmower safety, USA Standard Safety Specifications for Power Lawn Mowers specify a maximum blade tip speed of 19,000 feet per minute, primarily to reduce the hazard from thrown objects.

Rotary lawnmower manufacturers select the governed top speed of the engine based on the length and design of the cutter blade and design of other mower parts.

All rotary lawnmowers should be checked for conformance to the USA Standard Safety Specifications for Power Lawn Mowers on blade tip speed, if the engine is repaired or replaced, or if mower parts are changed.

TO PREVENT ACCIDENTAL STARTING always remove the spark plug before working on the engine or equipment driven by the engine or remove cable from spark plug and insert terminal in V-notch in cylinder head cover.

DO NOT RUN THE ENGINE IN AN ENCLOSED AREA. Exhaust gases contain carbon monoxide, an odorless and deadly poison.

DO NOT FILL GASOLINE TANK WHILE ENGINE IS RUNNING. Spilling gasoline on a hot engine may cause a fire or explosion.

IN THE INTEREST OF ENVIRONMENT: A muffler which leaks because of rust or damage can permit an increased exhaust noise level. Therefore, examine the muffler periodically to be sure it is functioning effectively. To purchase a new muffler see Section 6

WARNING: If this engine is to be run in dry forest covered, brush covered or grassy areas which could catch fire from a spark leaving a muffler, we recommend that the engine be equipped with a spark arrester muffler. See your Briggs & Stratton dealer for spark arrester muffler options.

Section 1 BEFORE STARTING

READ THE OPERATING INSTRUCTIONS OF THE EQUIPMENT THIS ENGINE POWERS

- 1 FILL CRANKCASE WITH OIL -- Use a high quality detergent oil classified "For Service SC, SD, SE or MS". Nothing should be added to the recommended oil.

SUMMER- (Above 40° F.) Use SAE 30
If not available, Use SAE 10W-30 or SAE 10W-40

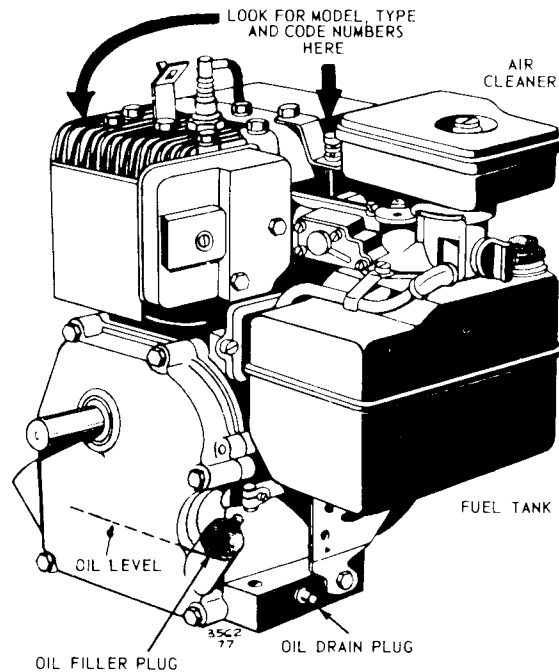
WINTER- (Under 40° F.) Use SAE 5W-20 or SAE 5W-30
If not available, Use SAE 10W or SAE 10W-30
Below 0° F, Use SAE 10W or SAE 10W-30,
Diluted 10% with Kerosene

DIRECTIONS: Place the engine level. Remove oil filler plug or Oil-Minder. FILL THE OIL SUMP TO OVERFLOWING or to the FULL mark on dipstick. POUR SLOWLY. Capacity 1-1 4 pints.

- 2 FILL FUEL TANK -- Use clean, fresh, lead-free, or leaded "regular" grade automotive gasoline. DO NOT MIX OIL WITH GASOLINE.

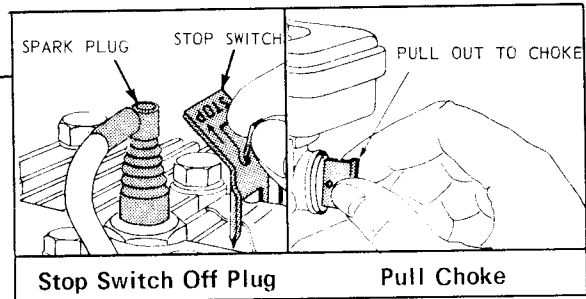
CAUTION: Gasoline is highly combustible. Do not store or use gasoline near an open flame or devices such as a stove, furnace, or water heater. Use gasoline only in well ventilated areas or outdoors.

Fill tank completely. Do not overfill or spill. Wipe up any spills immediately.

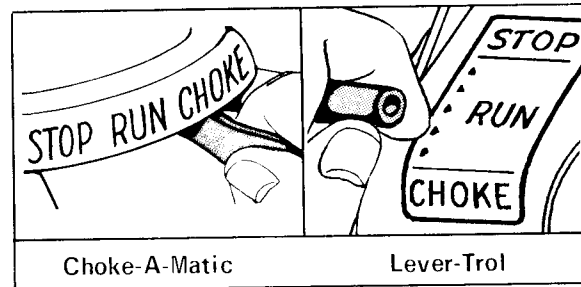


1 **CHOKE ENGINE** — Engine may be equipped with either Manual, Choke-A-Matic or Lever-Trol controls.

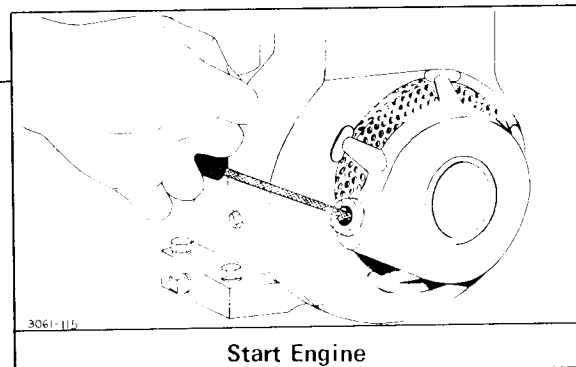
a. **Manual Choke and Stop** — Be sure stop switch is away from spark plug. Pull choke as illustrated.



b. **Choke-A-Matic and Lever-Trol** — Move controls as far as possible toward "Choke" or "Start".



2 **START ENGINE** — Grasp starter handle as illustrated and pull out cord rapidly. Repeat if necessary with choke opened slightly. When engine starts open choke gradually.



NOTE: Engine may not start if controls on powered equipment do not close choke fully. See Choke-A-Matic adjustment instructions in Section 4 of this manual if controls on equipment do not fully close choke as illustrated below.

CAUTION: ALWAYS KEEP HANDS AND FEET CLEAR OF MOWER BLADE OR OTHER ROTATING MACHINERY.

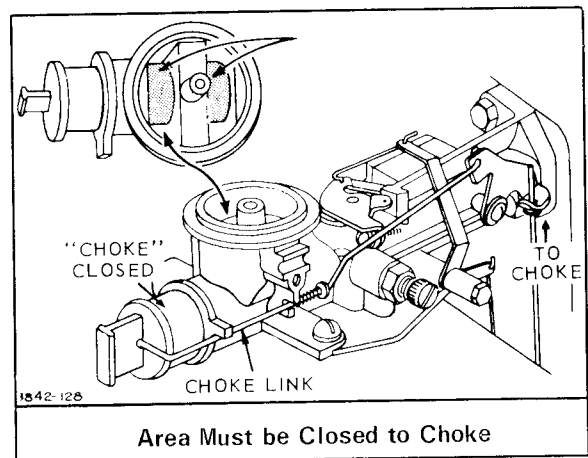
3 **STOP ENGINE**

MANUAL STOP SWITCH

Push the stop switch against end of spark plug.

REMOTE STOP SWITCH

Move control lever to "Stop" position.



- 1 **CHECK OIL LEVEL** regularly — at least after each 5 hours of operation. (Take care to remove dirt around filler plug). Be sure oil level is maintained FULL TO POINT OF OVERFLOWING.

CHECK OIL (6 to 1 Gear Reduction Models Optional) every 100 hours by removing the oil plug in lower half of gear cover. Add SAE 10W-30 oil at upper oil filler plug until oil runs out of lower hole. Replace both plugs.

NOTE: Filler plug has vent hole and must be placed in top opening.

- 2 **CHANGE OIL** after first 5 hours of operation. Thereafter change oil every 25 hours of operation. Remove drain plug and drain oil while engine is warm. Replace drain plug. Remove oil filler cap and refill with new oil of proper grade. Replace filler cap.

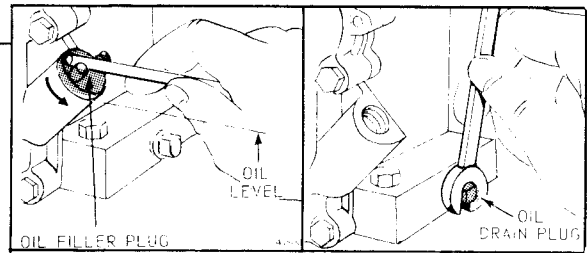
- 3 **CLEAN AIR CLEANER AND RE-OIL ELEMENT** every 25 hours under normal conditions. The capacity of the "Oil-Foam" air cleaner is adequate for a full season's use without cleaning in average homeowner lawn mower service. (Clean every few hours under extremely dusty conditions).

1. Remove screw.
2. Remove air cleaner carefully to prevent dirt from entering carburetor.
3. Take air cleaner apart.
4. A — Wash foam element in kerosene or liquid detergent and water to remove dirt.
- B — Wrap foam in cloth and squeeze dry.
- C — Saturate foam in engine oil. Squeeze to remove excess oil.
- D — Assemble parts - fasten to carburetor with screw.

- 4 **CLEAN COOLING SYSTEM** — Grass or chaff may clog cooling system after prolonged service in cutting tall dry grasses or hay. Continued operation with a clogged cooling system causes severe overheating and possible engine damage. Remove blower housing and clean regularly.

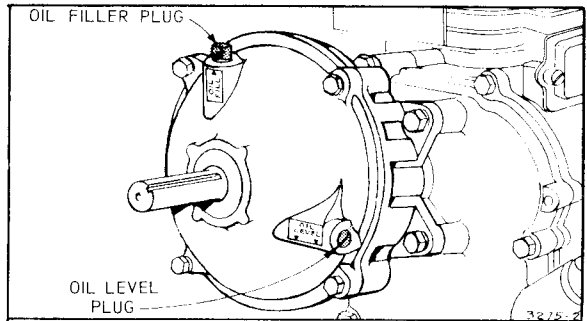
- 5 **SPARK PLUG** — Clean and reset gap at .030" every 100 hours of operation.

- 6 **REMOVE CARBON DEPOSITS** — Clean combustion chamber, top of piston and around both valves every 100-200 hours of operation.

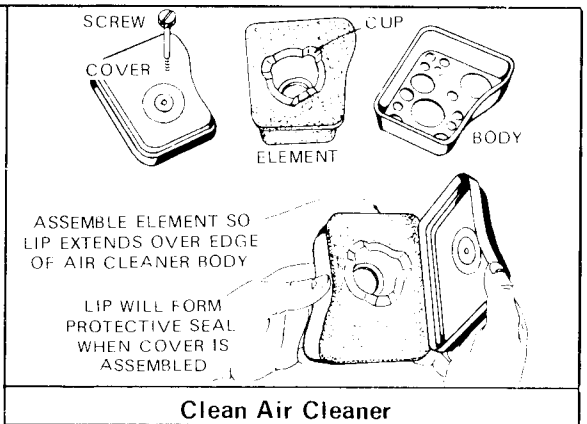


Check Oil Level

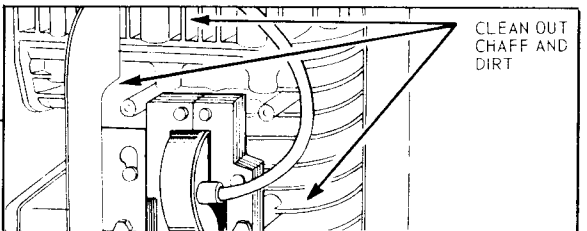
Change Oil



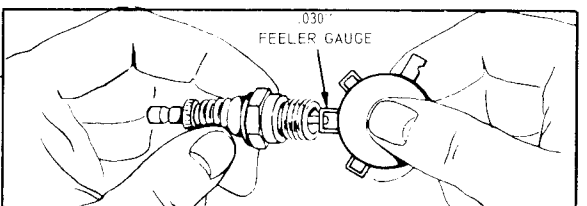
Check Oil (6 to 1 Gear Reduction Models)



Clean Air Cleaner



Clean Cooling System



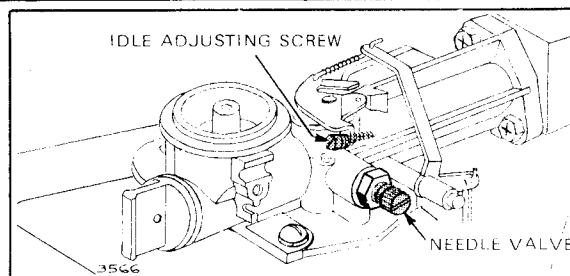
Clean and Reset Spark Plug

CARBURETOR ADJUSTMENTS

Minor carburetor adjustment may be required to compensate for differences in fuel, temperature, altitude and load.

Initial Adjustment: Close needle valve (turn clockwise), then open 1-1/2 turns (turn counterclockwise). This initial adjustment will permit the engine to be started and warmed up before making final adjustment.

Final Adjustment: With engine running at normal operating speed (approximately 3000 RPM 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 RPM). 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.



REMOTE CHOKE AND STOP CONTROL ADJUSTMENTS

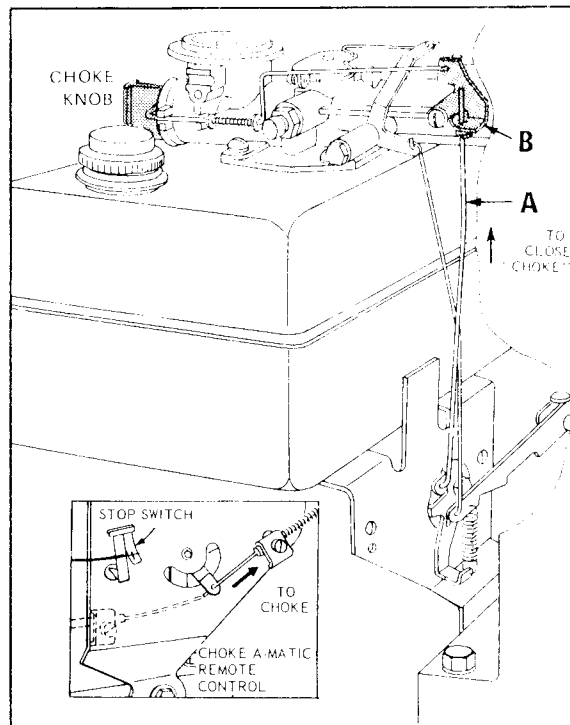
Proper choke and stop switch operation is dependent upon proper adjustment of remote controls on the powered equipment.

To Check Operation:

Remove air cleaner. Move remote control lever to CHOKE POSITION. The choke knob should then be fully extended. Move remote control lever to STOP. Governor control lever on fuel tank bracket should make good contact with stop switch to short out ignition.

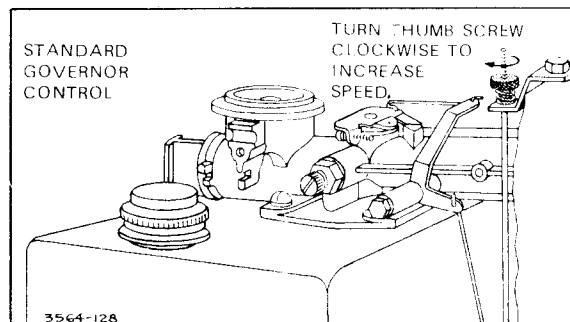
To Adjust:

Place remote control lever on equipment in FAST position. Choke operating link "A" should be just touching bell crank lever at "B". See illustration.



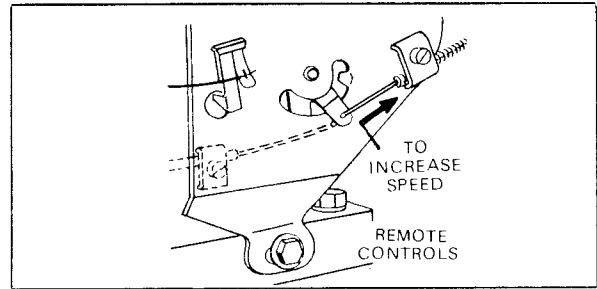
STANDARD SPEED CONTROL ADJUSTMENT

Speed adjusting thumb nut is located on top of engine. To increase speed turn thumb nut clockwise.



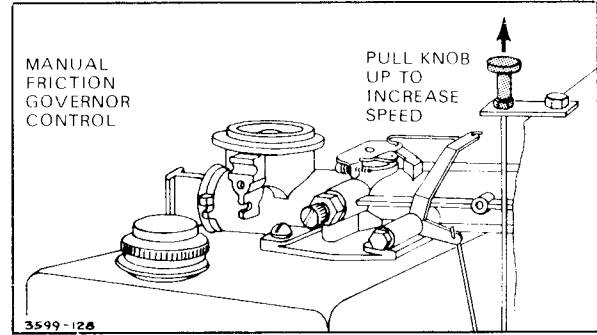
REMOTE SPEED CONTROL

Controls on powered equipment should move speed lever in direction illustrated to increase speed. Remote controls may be connected to engine at points indicated. Wire travel is shown by arrows.



MANUAL SPEED CONTROL

Move knob as shown to change engine speed.



ENGINE DESIGN — Your engine is 4 cycle, single cylinder and L-head. It is air cooled.

MODEL SERIES 100200 to 100292

Bore	2 1/2"
Stroke	2 1/8"
Displacement	10.43 cu. in.
Horsepower	4.0 max. @ 3600 RPM
Torque (Ft. Lbs.)	5.93 max. @ 3050 RPM

MODEL SÉRIES 130200 to 130292

Bore	2 9/16"
Stroke	2 7/16"
Displacement	12.57 cu. in.
Horsepower	5.0 max. @ 3600 RPM
Torque (Ft. Lbs.)	7.66 max. @ 3000 RPM

The horsepower ratings listed above are established in accordance with the Society of Augomotive Engineers Test Code-J607. For practical operation, the horsepower loading should not exceed 85% of these ratings. Engine power will decrease 3½% for each 1,000 feet above sea level and 1% for each 10° above 60° F.

Major engine repairs should not be attempted unless you have the proper tools and a thorough knowledge of internal combustion engines.

TUNE-UP SPECIFICATIONS

Spark Plug Type	A.C.	Autolite	Champion
Short Plug	CS-45	A7N	CJ-8
Long Plug	GC-46	A7Q	J-8
Spark Plug Gap030"		
Ignition Point Gap020"		
Intake Valve Clearance005" - .007"		
Exhaust Valve Clearance009" - .011"		

STORAGE INSTRUCTIONS

Engines to be stored over 30 days should be completely drained of fuel to prevent gum deposits forming on essential carburetor parts, fuel filter, fuel lines and tank.

- a. All fuel should be removed from fuel tank. Run the engine until it stops from lack of fuel. The small amount of fuel that remains in the sump of the tank should then be removed by absorbing it with a clean dry cloth.
- b. While engine is still warm, drain oil from crankcase. Refill with fresh oil.
- c. Remove spark plug, pour one ounce (2 or 3 table-
spoons) of engine oil into cylinder and crank slowly to distribute oil. Replace spark plug.
- d. Clean dirt and chaff from cylinder, cylinder head fins and blower housing.

If service or repair is needed, contact an Authorized Briggs & Stratton Service Center. To serve you promptly and efficiently, the Service Center will need the model, type and code number on your engine. (See Section 7).

Each Authorized Service Center carries a stock of original Briggs & Stratton repair parts and is equipped with special service tools. Trained mechanics assure expert repair service on all Briggs & Stratton engines.

Your nearest service center is listed in the 'Yellow Pages' under 'Engines, Gasoline' or 'Gasoline Engines'. He is one of over 15,000 authorized dealers available to serve you.



This illustrated book includes "Theories of Operation", common specifications, and detailed information covering the adjustment, tune-up and repair procedures for 2 through 16 H.P. models. It is available from any Authorized Briggs & Stratton Service Center. Order as Part Number 270962.

BRIGGS & STRATTON ENGINES ARE MADE UNDER ONE OR MORE OF THE FOLLOWING PATENTS:

2,669,322	2,796,453	3,114,851	3,149,618	3,194,224	3,252,449				
2,693,789	2,999,491	3,118,433	3,165,094	3,236,937	3,276,439	D-191,806	D-196,017	D-197,175	D-213,476
2,693,791	2,999,562	3,144,097	3,168,936	3,242,741	3,378,099	OTHER PATENTS PENDING			
					3,415,237				