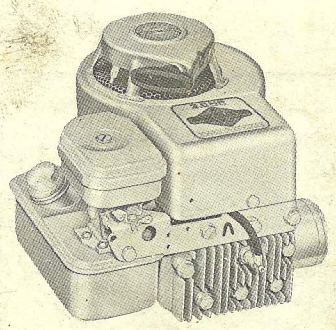
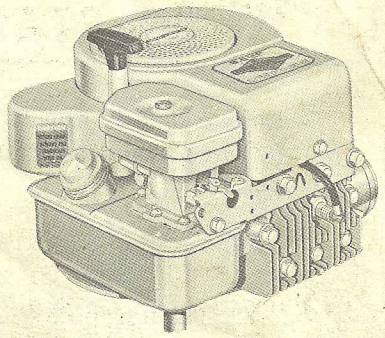


Briggs & Stratton
OPERATING AND MAINTENANCE INSTRUCTIONS
MODELS
92500 to 92598
92900 to 92998



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.

Dirt and grass clippings, or other debris, in cooling fins or governor parts can affect engine speed. See cleaning instructions in Section 3.

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

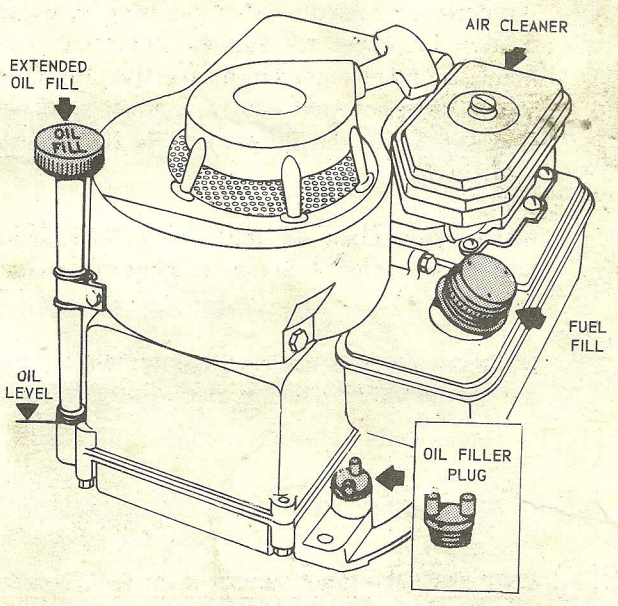
READ THE OPERATING INSTRUCTIONS OF THE EQUIPMENT THIS ENGINE POWERS

(1) **FILL SUMP 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	WINTER
(Above 40° F.) Use SAE 30	(Below 40° F.) Use SAE 5W-20 or SAE 5W-30
If not available, Use SAE 10W-30 or SAE 10W-40	If not available, Use SAE 10W or SAE 10W-30

DIRECTIONS: Place the engine level. Remove oil filler plug or Oil-Minder. FILL THE OIL SUMP TO POINT OF OVERFLOW or to the FULL mark on dipstick. Pour slowly. Capacity 1-1/4 pints.

EXTENDED OIL FILL (Optional) Remove cap and dipstick and fill to full mark on dipstick. Do not overfill. When checking oil level, screw dipstick assembly down until its cap bottoms on tube. When engine is operating, dipstick must be securely assembled to tube.



(2) **FILL FUEL TANK** – Use clean, fresh, lead-free or leaded "regular" grade automotive gasoline. Fill tank completely!

DO NOT MIX OIL WITH GASOLINE.

4 CYCLE BRIGGS & STRATTON MILWAUKEE, WIS. U.S.A. GASOLINE ENGINE MADE IN U.S.A.

FORM NO. 270361-6/75
PRINTED IN U.S.A.

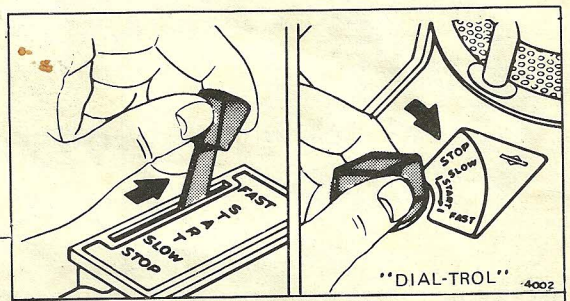
BRIGGS & STRATTON CORP.
Milwaukee, Wisconsin 53201

Section 2 STARTING

When engine is mounted on a tiller, start, store and fuel in a level position or with spark plug end slightly elevated.

(1) Move engine control to "FAST" position.

CAUTION: KEEP HANDS AND FEET CLEAR OF MOWER BLADES AND ROTATING PARTS

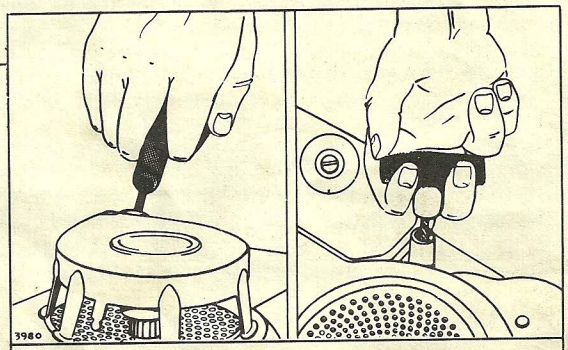


(1) CONTROL TO START POSITION

(2) **REWIND STARTER** – Grasp starter handle as illustrated and pull out cord rapidly. Return it slowly to the engine.

Repeat if necessary.

IMPORTANT: This engine features a unique Automatic Choke. In case of flooding, move control to "STOP" and pull starter six times. Then move control to "FAST" position and start engine. If engine continues to flood, rotate the carburetor needle valve 1/8 turn clockwise to obtain a leaner mixture. (See Carburetor Adjustments, Page 4).

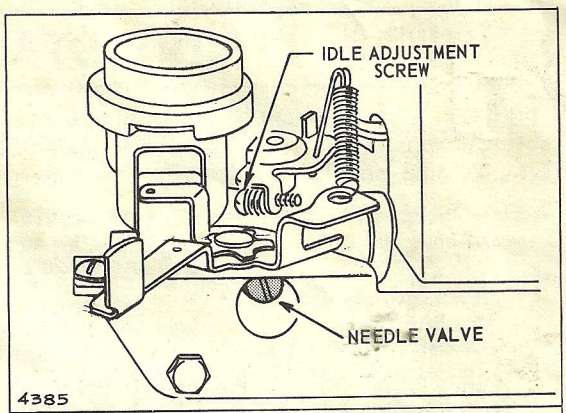


(2) PULL STARTER HANDLE

(3) The carburetor needle valve has been adjusted so the mixture is proper for average operating conditions. Normally, no changes are necessary. However, if the engine does not start easily, a minor adjustment will compensate for the differences in fuel, temperature, or altitude.

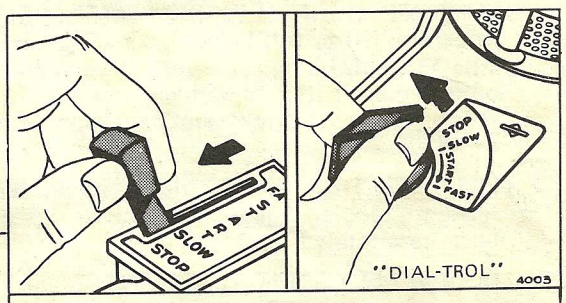
If the engine does not start easily, when cold, rotate the needle valve 1/8 turn counter-clockwise (richer mixture).

If the engine does not start easily, when warm, rotate the needle valve 1/8 turn clockwise (leaner mixture).



(3) CARBURETOR ADJUSTMENT

(4) **STOP ENGINE** – Move control lever to "Stop Position"



(4) CONTROL TO STOP POSITION

Section 3 MAINTENANCE

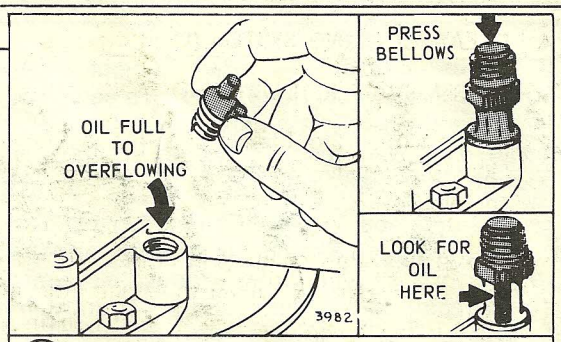
(1) **CHECK OIL LEVEL** before starting engine and after every 5 hours of operation.

ADD oil as necessary to keep level FULL TO POINT OF OVERFLOWING or to FULL mark on dipstick.

Before removing oil fill plug, clean area around plug to prevent dirt from entering oil fill hole.

Engine should be in a level position when checking oil.

OIL MINDER (Optional) - Press and release bellows. If oil fills clear plastic tube, level is OK. If oil does not fill tube, add oil.

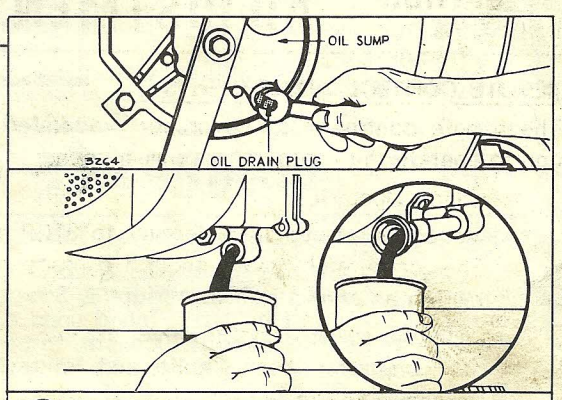


(1) CHECK OIL LEVEL

(2) **CHANGE OIL** after first 5 hours of operation. Thereafter change every 25 hours. Change oil while engine is warm. Oil may be drained thru oil drain on bottom of engine. To drain completely, always place engine level when draining thru the bottom. Oil may also be drained thru oil fill hole or extended oil fill tube as shown.

When tipping, empty fuel tank and keep engine spark plug or muffler side up.

Oil capacity 1¼ pints.

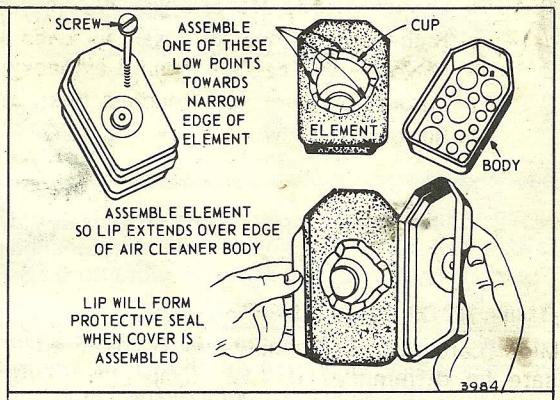


(2) CHANGE OIL

(3) **CLEAN AIR CLEANER** and re-oil element every 25 hours under normal conditions. Clean every few hours under extremely dusty conditions. Poor engine performance and flooding usually indicates that the air cleaner should be serviced.

To Service:

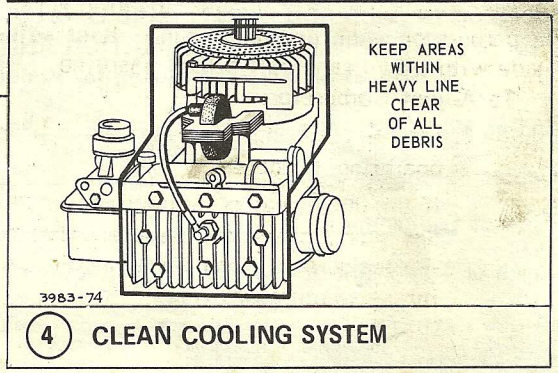
1. Remove screw.
2. Remove air cleaner carefully to prevent dirt from entering carburetor.
3. Take air cleaner apart and clean.
   a. WASH foam element in Kerosene or a liquid detergent and water to remove dirt.
   b. DRY foam completely by wrapping and squeezing in a cloth.
   c. SOAK foam with engine oil. Squeeze to distribute and remove excess oil.
4. Reassemble parts and fasten to carburetor.



(3) CLEAN AIR CLEANER

(4) **CLEAN COOLING SYSTEM** – Grass, chaf or dirt may clog the rotating screen and the air cooling system, especially after prolonged service cutting dry grasses. To avoid overspeeding, overheating and engine damage, remove the blower housing and clean the area shown. This should be a regular maintenance operation.

For engines equipped with "Dial-Trol" control, lift housing and swing large end away from flywheel.



(4) CLEAN COOLING SYSTEM

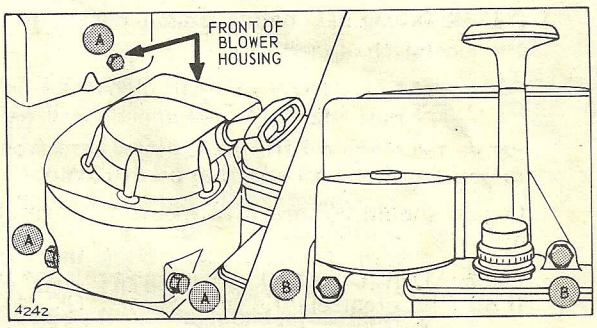
Section 3 MAINTENANCE (cont'd)

(4) CLEAN COOLING SYSTEM (Cont'd.)

TO REMOVE THE BLOWER HOUSING

To remove the blower housing on Rewind Starter Models – remove 3 screws labeled "A". Lift housing to remove.

On Vertical Pull or Electric Starter Models – First remove 2 screws "B" used to attach starter to engine. Then remove 3 screws "A". Lift housing to remove.



Section 4 ADJUSTMENTS

REMOTE CONTROL ADJUSTMENTS

The remote control must be properly adjusted to stop and to operate the engine at maximum speed.

To Check Operation:

Move the remote control lever to STOP position. The carburetor lever should contact the stop switch as shown in Fig. A.

With the remote control lever in FAST position, the carburetor lever should just touch the boss as shown in Fig. B.

To Adjust Remote Control: See Fig. B.

1. Loosen casing clamp screw A.
2. Place remote control lever in FAST position.
3. Move control casing forward or backward until carburetor lever just touches boss as shown.
4. Retighten screw A.

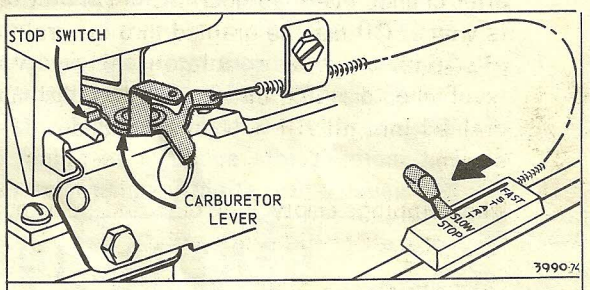


FIG. A Check STOP POSITION with Remote Control

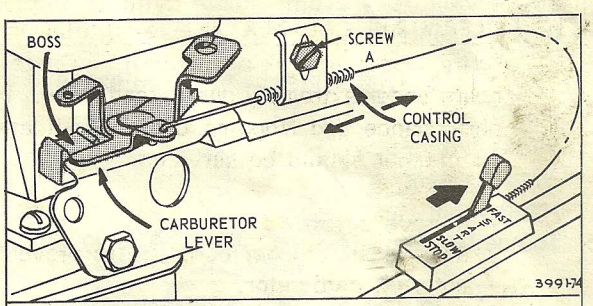


FIG. B Check FAST POSITION and ADJUST Remote Control

CARBURETOR ADJUSTMENTS

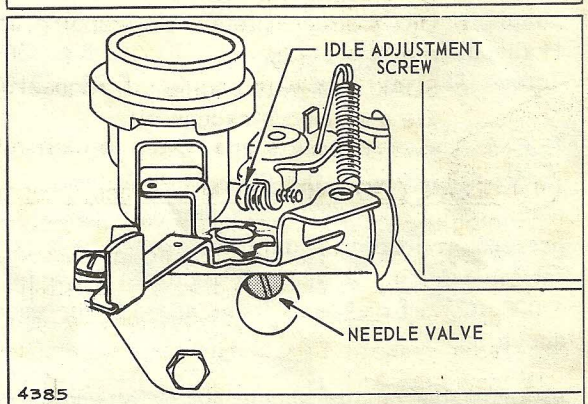
Minor carburetor adjustment may be required to compensate for differences in fuel, temperature, altitude and load.

All carburetor adjustments should be made with the air cleaner on engine. Air cleaner mounting screw MUST be in carburetor when engine is run. Best adjustment is made with a fuel tank half full of gasoline.

To Adjust Carburetor:

1. Start engine and run long enough to warm it to operating temperature.

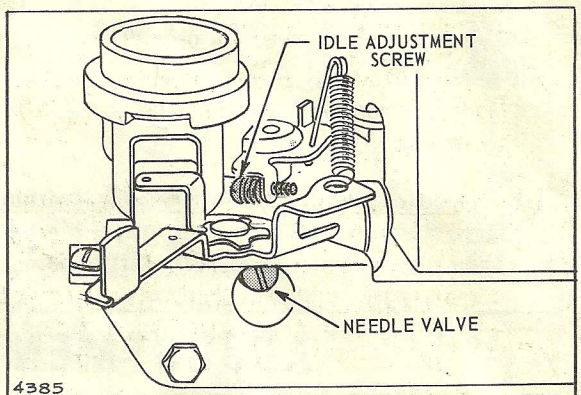
   If engine is out of adjustment so that it will not start, close the needle valve by turning it clockwise. Then open needle valve 1 1/2 turns counterclockwise.



CARBURETOR ADJUSTMENT

Section 4 ADJUSTMENTS (cont'd)

2. Move engine control to run engine at normal operating speed.
   a. turn needle valve in clockwise until engine starts to lose speed (lean mixture).
   b. then slowly turn needle valve out counterclockwise past the point of smoothest operation until engine just begins to run unevenly (rich mixture).
   c. turn needle valve back in clockwise very slowly till engine runs evenly.
   d. final adjustment of the needle valve should be slightly to the rich side (turn counterclockwise) of the mid-point.
3. Move engine control to SLOW. Turn idle adjusting screw until a fast idle speed is obtained (1750 R.P.M.).
4. To check adjustment move engine control from SLOW to FAST speed. Engine should accelerate smoothly. If engine tends to stall or die out increase idle speed or re-adjust carburetor, usually to a slightly richer mixture.



CARBURETOR ADJUSTMENT

Section 5 GENERAL INFORMATION

ENGINE DESIGN

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

MODEL SERIES – 92500 to 92598

Bore	2 9/16"
Stroke	1 3/4"
Displacement	9.02 cu. in.
Horsepower Max.	3.0 @ 3600 RPM
Torque (Ft. Lbs.) Max.	4.77 @ 2900 RPM

MODEL SERIES – 92900 to 92998

Bore	2 9/16"
Stroke	1 3/4"
Displacement	9.02 cu. in.
Horsepower Max.	3.5 @ 3600 RPM
Torque (Ft. Lbs.) Max.	5.26 @ 3100 RPM

The horsepower ratings listed above are established in accordance with the Society of Automotive 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	A71	J-8
Spark Plug Gap			.030"
Ignition Point Gap			.020"
Intake Valve Clearance			.005" - .007"
Exhaust Valve Clearance			.009" - .011"

CAUTION: Blast Cleaning of spark plugs in machines that use abrasive grit is not recommended. Spark plugs should be cleaned by scraping or wire brushing and washing with a commercial solvent.

STORAGE INSTRUCTIONS

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 tablespoons) of engine oil into cylinder and crank slowly to distribute oil. Replace spark plug.

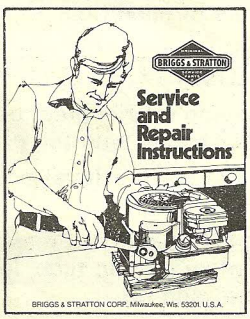
d. Clean dirt and chaff from cylinder, cylinder head fins and blower housing.

Section 6 SERVICE & REPAIR INFORMATION

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.

Section 7 WARRANTY

SAVE THIS SECTION FOR YOUR RECORD

ONE YEAR LIMITED WARRANTY

For one year from purchase, Briggs & Stratton Corporation, will replace for the original purchasers, free of charge, any part or parts, found upon examination by any Factory Authorized Service Center, or by the Factory at Milwaukee, Wisconsin, to be defective in material or workmanship or both. All transportation charges on parts submitted for replacement under this warranty must be borne by purchaser. THERE IS NO OTHER EXPRESS WARRANTY.

IMPLIED WARRANTIES, INCLUDING THOSE OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, ARE LIMITED TO ONE YEAR FROM PURCHASE AND TO THE EXTENT PERMITTED BY LAW ANY AND ALL IMPLIED WARRANTIES ARE EXCLUDED. THIS IS THE EXCLUSIVE REMEDY AND LIABILITY FOR CONSEQUENTIAL DAMAGES UNDER ANY AND ALL WARRANTIES ARE EXCLUDED TO THE EXTENT EXCLUSION IS PERMITTED BY LAW.

BRIGGS & STRATTON CORP.

V. R. Shiely

V. R. SHIELY – PRESIDENT

NOTE: The Briggs & Stratton Engine Warranty does not cover breakage of parts or damage to parts due to abuse or failure to follow the recommended maintenance procedures. The warranty also excludes any accessories, controls or equipment which are not manufactured by Briggs & Stratton Corporation.

If warranty service is needed contact your nearest Authorized Service Center. For Prompt Attention your center will need to know the engine model, type and code number, the trouble experienced and the total number of hours the engine has run. If you differ with the decision of a Service Center on a warranty claim, ask the Service Center to submit all supporting facts to the Factory for review. If the Factory decides that your claim is justified, you will be fully reimbursed for those items accepted as defective.

NO REGISTRATION (WARRANTY) CARD IS NECESSARY TO OBTAIN WARRANTY ON BRIGGS & STRATTON ENGINES

FILL IN THE REQUIRED INFORMATION AND RETAIN FOR YOUR RECORD:

(See Decal on Blower Housing for Model, Type and Code Number)

Engine Model No. _____ Type No. _____ Code No. _____

Dealer Purchased From _____ Date _____

Type of Equipment _____

Name or Trademark of Equipment Manufacturer _____

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	DESIGN
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	