

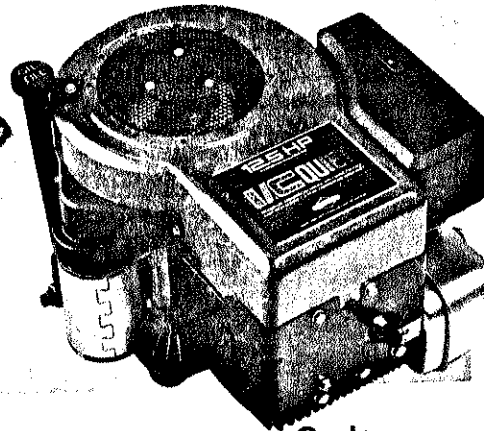
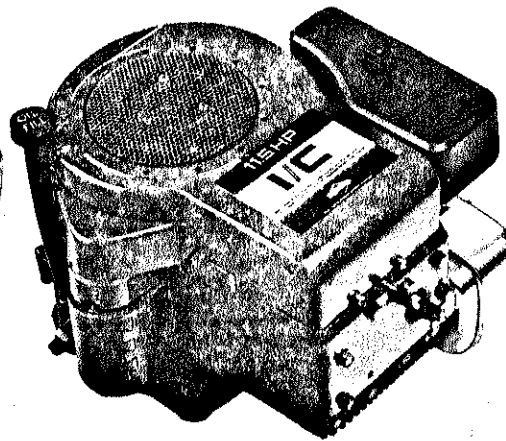
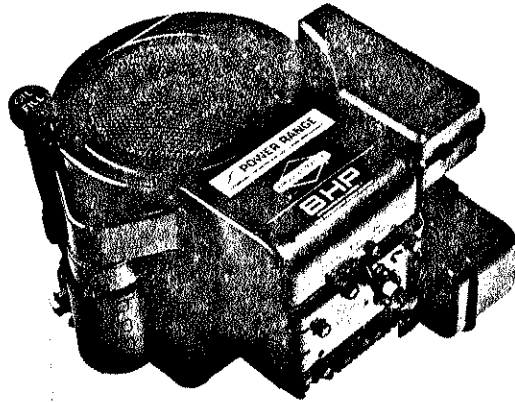


Before starting this engine,
read and understand this *Owner's Manual*.



Owner's Manual

**Model Series 194700, 195700, 254700, 258700, 282700, 284700, 285700, 288700
& I/C Model Series 196700, 257700, 259700, 283700, 286700 & 289700**



For future reference, write your *engine* Model/Type/Code here.
See page 8 for location of your *engine* Model/Type/Code.

Model	Type	Code
<input type="text"/>	<input type="text"/>	<input type="text"/>

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Briggs & Stratton Corporation
Milwaukee, Wisconsin 53201

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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

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

 WARNING

Failure to select the correct engine could result in fire or explosion.

- 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]

 WARNING	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]

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

 WARNING	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]







 WARNING	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]

 WARNING	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]

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

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

ENGINE OPERATION

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

In the Interest of Safety



This symbol means safety alert which indicates that a message involves personal safety. Death, personal injury and/or property damage may occur unless instructions are followed carefully.



DO NOT run engine in an enclosed area. (Exhaust gases contain carbon monoxide, an odorless and deadly poison.)
 DO NOT place hands or feet near moving or rotating parts.
 DO NOT store, spill, or use gasoline near an open flame, nor near an appliance like a stove, furnace, or water heater that uses a pilot light or can create a spark.
 DO NOT refuel indoors or in unventilated area.
 DO NOT remove fuel tank cap nor fill fuel tank while engine is hot or running. (Allow engine to cool 2 minutes before refueling.)
 DO NOT operate engine if gasoline is spilled or when smell of gasoline is present or other explosive conditions exist. (Move equipment away from spill and avoid any ignition until gasoline has evaporated.)
 DO NOT transport engine with fuel in tank.
 DO NOT choke carburetor to stop engine. (Whenever possible, gradually reduce engine speed before stopping.)
 DO NOT tamper with governor springs, links or other parts to increase engine speed. (Run engine at speed set for equipment manufacturer.)

Note: The important safety instructions appearing in this manual are not meant to cover all possible conditions and situations that may occur. It must be understood that common sense, caution and care are factors which are not built into an engine, but are supplied by the person(s) maintaining and operating it.



You are not ready to operate this engine if you have not read and understood the following safety items. Read this entire owner's manual and the operating instructions of the equipment this engine powers.



WARNING

DO NOT check for spark with spark plug removed. (Use an approved tester.)
 DO NOT crank engine with spark plug removed. (If engine is flooded, place throttle in FAST and crank until engine starts.)
 DO NOT strike flywheel with a hammer or hard object as this may cause flywheel to shatter in operation. (Use correct tools to service engine.)
 DO NOT operate engine without a muffler. (Inspect periodically and replace if worn or leaking. If engine is equipped with muffler deflector, inspect periodically and, if necessary, replace with correct deflector.)
 DO NOT operate engine with an accumulation of grass, leaves or other combustible material in muffler area.
 DO NOT use this engine on any forest covered, brush covered, or grass covered unimproved land unless a spark arrester is installed on muffler. (Spark arrester must be maintained in working order by operator.)
 DO NOT touch hot muffler, cylinder, or fins which can cause burns.
 DO NOT start engine with air cleaner or air cleaner cover removed (or cover over carburetor air intake, if Sno/Gard engine).



- ✓ PREVENT ACCIDENTAL STARTING by removing spark plug wire when servicing engine or equipment. Disconnect negative wire from battery terminal if equipped with electric starting system.
- ✓ KEEP cylinder fins and governor parts free of dirt, grass and other debris which can affect engine speed.
- ✓ PULL starter cord slowly until resistance is felt. Then pull cord rapidly to avoid kickback and prevent hand or arm injury.



WARNING

- ✓ USE fresh gasoline. Stale fuel can gum carburetor and cause leakage.
- ✓ CHECK fuel lines and fittings frequently for cracks or leaks. Replace if necessary.
- ✓ Use only Genuine Briggs & Stratton Parts or their equivalent. The use of replacement parts which are not of equivalent quality may damage the engine.

INTERNATIONAL SYMBOLS



... Read Owner's Manual



..... Oil



.... On Off



... Fuel Shutoff



..... Choke



..... Slow



..... Safety-alert Symbol



..... Fuel



..... Stop



... Primer



..... Fast



... Air Cleaner

In the USA and Canada, a 24 hour hot line, 1-800-233-3723, has a menu of pre-recorded messages offering you engine maintenance information.

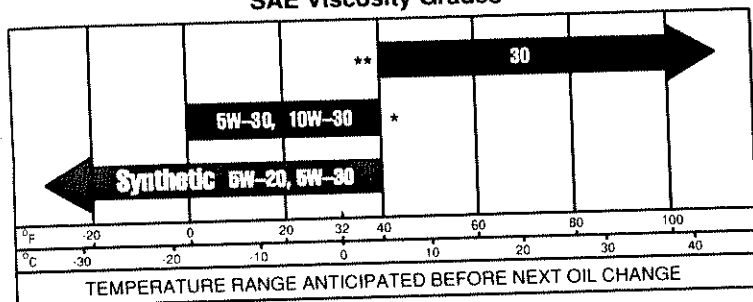
Oil & Fuel Recommendations

OIL

Note: Engine is shipped from Briggs & Stratton without oil. Before starting engine, check as shown below.

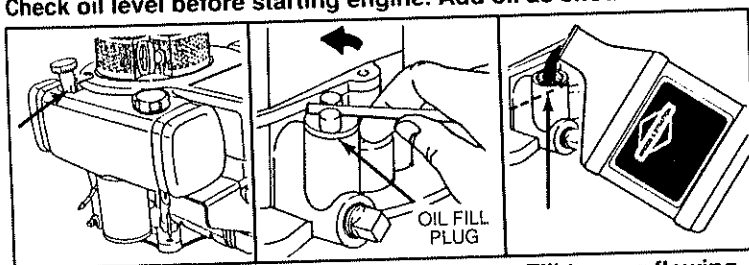
Change and add oil according to chart below. Do not over-fill. Use a high quality detergent oil classified "For Service SC, SD, SE, SF, SG," such as Briggs & Stratton "warranty certified" SAE 30 oil, part no. 100005. Use no special additives with recommended oils. Do not mix oil with gasoline.

SAE Viscosity Grades



- * Air cooled engines run hotter than automotive engines. Use of multi-viscosity oils (10W-30, etc.) above 40° F (4° C) will result in high oil consumption and possible engine damage. Check oil level more frequently if using these types of oils.
- ** SAE 30 oil, if used below 40° F (4° C), will result in hard starting and possible engine bore damage due to inadequate lubrication.

Check oil level before starting engine. Add oil as shown below.



Place engine level
Clean around oil fill

Remove oil filler
plug or dipstick

Fill to overflowing
for oil filler plug

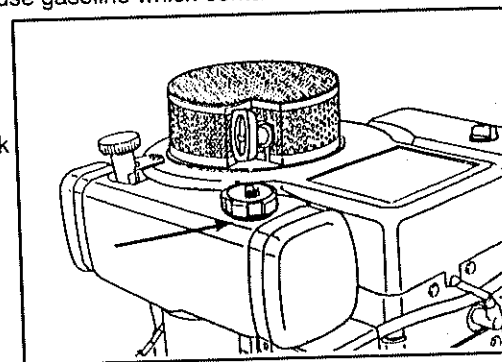
FUEL

This engine will operate satisfactorily using any automobile gasoline. Use clean, fresh, lead-free gasoline with a minimum of 77 octane. (Leaded gasoline may be used if it is commercially available, and if lead-free is not available.) Purchase fuel in quantity that can be used within 30 days. See **STORAGE INSTRUCTIONS**, page 9.

Do not mix oil with gasoline.

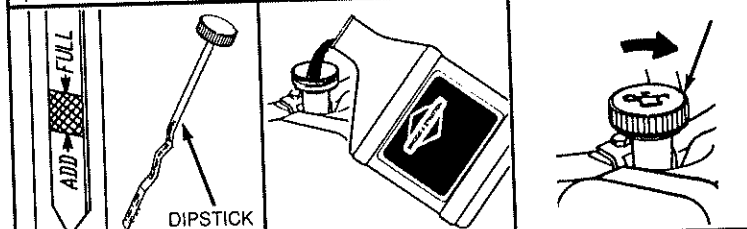
Note: We do not recommend using gasoline which contains alcohol, such as gasohol. If gasoline with alcohol is used, it must contain less than 10% Ethanol and must be removed from engine during storage. Do not use gasoline which contains Methanol.

Do not over-fill.
Allow space in fuel tank
for fuel expansion.



Fuel level

Oil capacity of Model Series 190000 is about 1-1/8 quarts (36 ounces or 1.1 liters).
Oil capacity of Model Series 250000 and 280000 is about 1-1/2 quarts (48 ounces or 1.4 liters).



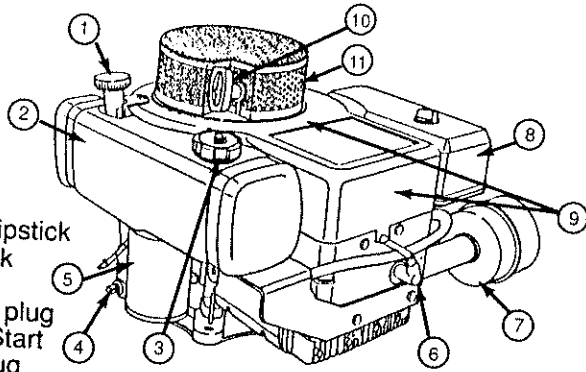
Fill to **FULL** mark if
engine has dipstick

Add oil slowly -
recheck

Tighten plug/ dipstick
firmly before starting

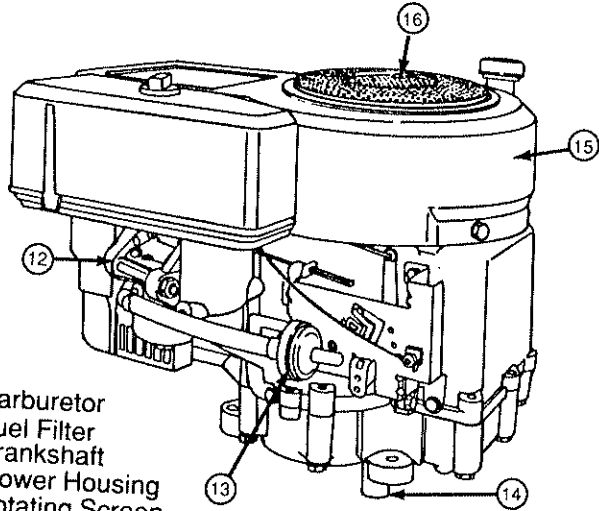
In the USA and Canada, a 24 hour hot line, 1-800-233-3723, has a menu of pre-recorded messages offering you engine maintenance information.

Before Starting



1. Oil Fill/Dipstick
2. Fuel Tank
3. Fuel Fill
4. Oil Drain plug
5. Electric Start
6. Spark Plug
7. Muffler
8. Air cleaner
9. Engine Model
xxxxx
10. Rope Handle
11. Debris Guard

Type	Code
xxxx xx	xxxxxxxx



12. Carburetor
13. Fuel Filter
14. Crankshaft
15. Blower Housing
16. Rotating Screen

TIPS TO OBTAIN BEST STARTING RESULTS

Start lawn mower on hard surface or over previously cut grass. Start, store and fuel lawn mower in level position.

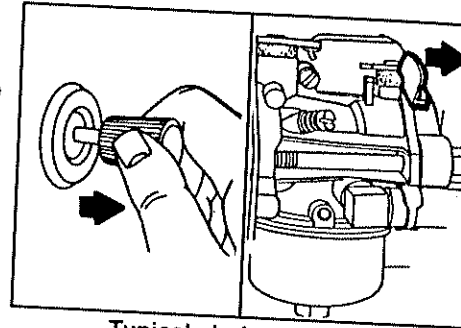
! Do not use a pressurized starting fluid. Starting fluid is flammable. Severe engine damage or fire may occur.

! Periodically remove grass build-up under mower deck. Remove spark plug wire before removing grass. When tipping lawn mower to remove grass, keep spark plug side of engine up.

Slightly richer fuel mixture usually improves cold starting (below 40° F). See **CARBURETOR ADJUSTMENTS**, page 5.

Choke engine:

Move choke control to CHOKE or START position.

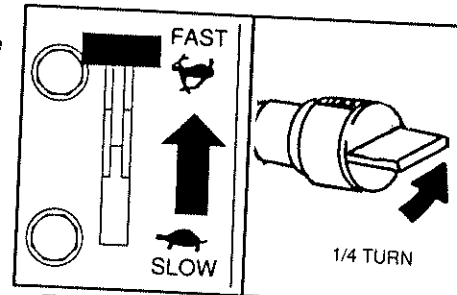


Typical choke controls

Choke must fully close. If engine does not start, see **Adjustments**, page 5.

Throttle control

If equipment has separate choke and throttle controls, move throttle control to FAST position.



Typical throttle

Fuel shut-off

Fuel shut-off valve (optional)

Open fuel shut-off valve, if so equipped.

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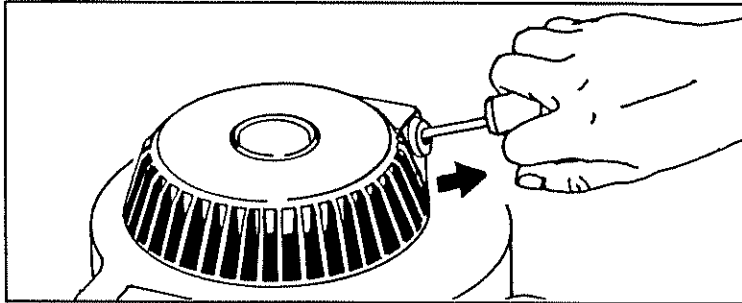
Starting & Stopping

START ENGINE

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

Rewind starter

! Grasp rope handle as illustrated and pull slowly until resistance is felt. THEN PULL CORD RAPIDLY TO OVERCOME COMPRESSION, PREVENT KICKBACK AND START ENGINE. Repeat if necessary with choke off and throttle control in FAST position. When engine starts, operate in FAST position.

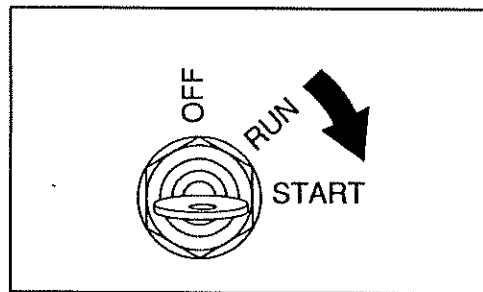


Rewind starter

Electric starter (optional)

Turn key to START. Repeat if necessary with throttle control in FAST position. When engine starts, operate in FAST position.

Note: If equipment manufacturer has supplied battery, charge it before trying to start engine, as equipment manufacturer recommends.



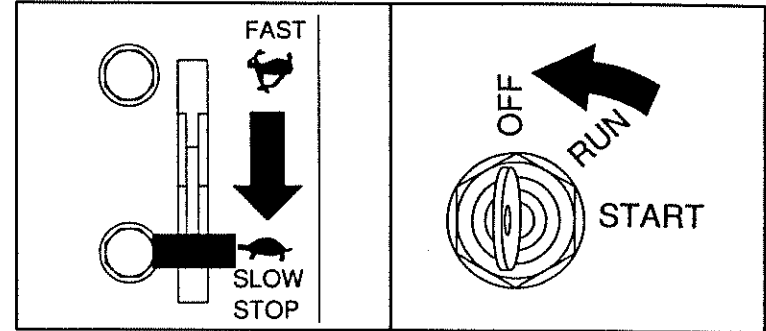
Typical electric starter

Use short starting cycles (15 secs./min.) to prolong starter life. Extended cranking can damage starter motor.

STOP ENGINE

Do not move choke control to CHOKE position to stop engine. Backfire or engine damage may occur.

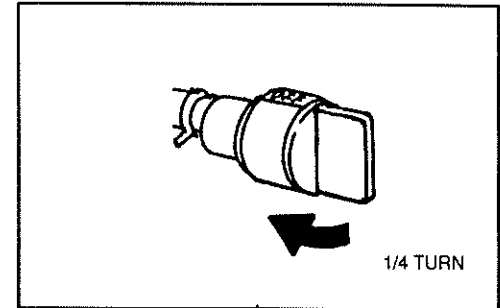
Move throttle control to SLOW position, then to STOP or turn key to OFF, if so equipped. Always remove key from switch when equipment is not in use or left unattended.



Typical stop controls



When engine is transported, close fuel shut-off valve (if engine is so equipped) to prevent fuel leakage.



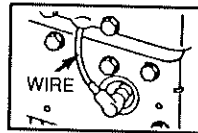
Fuel shut-off valves

In the USA and Canada, a 24 hour hot line, 1-800-233-3723, has a menu of pre-recorded messages offering you engine maintenance information.

Adjustments

CONTROL ADJUSTMENTS

TO PREVENT ACCIDENTAL STARTING

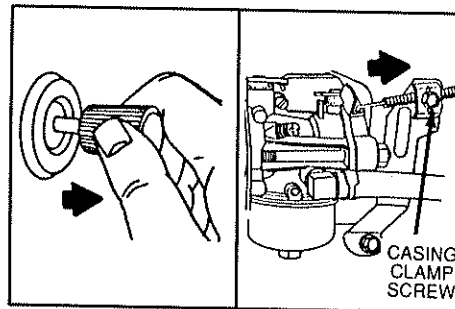


Remove spark plug wire, when adjusting controls.

Disconnect battery at negative terminal, if engine has electric starting system.

Choke control adjustment

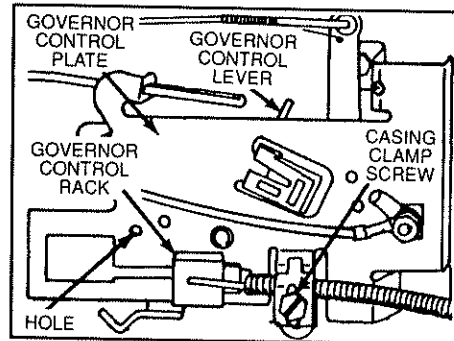
Move choke control to CHOKE or START position. Choke valve should be closed. To assure choke valve is closed, loosen casing clamp screw and pull casing, wire and choke lever to end of travel. With choke control in CHOKE or START position, tighten casing clamp screw.



Choke control adjustment

Throttle control adjustment

With throttle control in FAST position, hole in governor control lever (located just behind governor control plate) must align with hole in governor control plate. If they do not, loosen casing clamp screw and then move governor control rack until they do. Tighten casing clamp screw.



Throttle control adjustment

Check stop switch

Move throttle control to STOP position, if so equipped. Lever on control plate must make good contact with stop switch. Check and readjust if required.

CARBURETOR ADJUSTMENTS



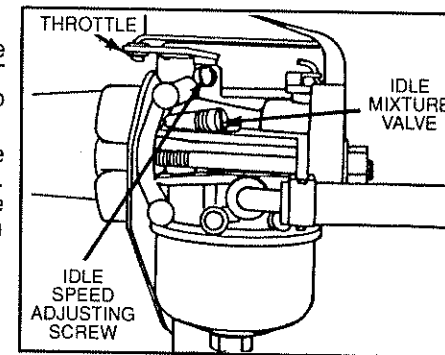
The manufacturer of equipment on which this engine is installed specifies top speed at which engine will be operated. DO NOT EXCEED this speed.

Differences in fuel, temperature, altitude or load may require minor carburetor adjustment. Air cleaner and air cleaner cover must be assembled to carburetor before starting engine.

Initial adjustment

Gently turn idle mixture valve clockwise until it JUST closes. Turning valve in too far may damage it.

Next open idle mixture valve 1 turn counterclockwise. Start and warm up engine (approximately 5 minutes) prior to final adjustment.



Carburetor adjustments

Final adjustment

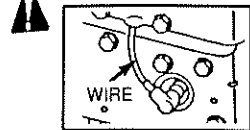
Place throttle control in IDLE or SLOW position. Rotate carburetor throttle lever clockwise and hold against idle speed adjusting screw. Now turn this screw to obtain 1750 RPM. Still holding carburetor throttle lever against idle speed adjusting screw, turn idle mixture valve clockwise (lean) until engine starts to slow. Then turn it counterclockwise (rich) until engine starts to slow again. Now turn it midway between rich and lean. Check idle speed and readjust if necessary. Move throttle control to FAST position. Engine should accelerate smoothly. If it does not, readjust carburetor, usually to a slightly richer mixture by turning idle mixture valve 1/8 turn counterclockwise.

In the USA and Canada, a 24 hour hot line, 1-800-233-3723, has a menu of pre-recorded messages offering you engine maintenance information.

Maintenance

See **Maintenance Schedule**, page 8. Follow the hourly or calendar intervals, whichever occur first. Note that more frequent service is required when operating in adverse conditions.

TO PREVENT ACCIDENTAL STARTING



Remove spark plug wire when servicing engine or equipment.

Disconnect battery at negative terminal, if engine has electric starting system.

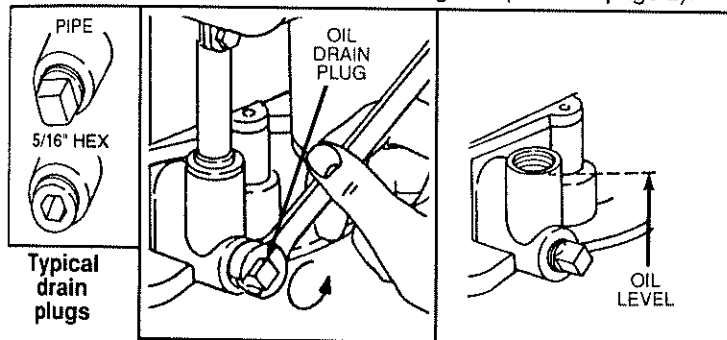
OIL

Check oil level regularly.

Be sure correct oil level is maintained. Check every 5 hours or daily, before starting engine. See **Check oil level** on page 2.

Change oil (Follow **Maintenance Schedule**.)

Change oil after first 5 hours of operation. Change oil while engine is warm. Refill with new oil of recommended grade (chart on page 2).



Typical drain plugs

Oil drain

Oil fill

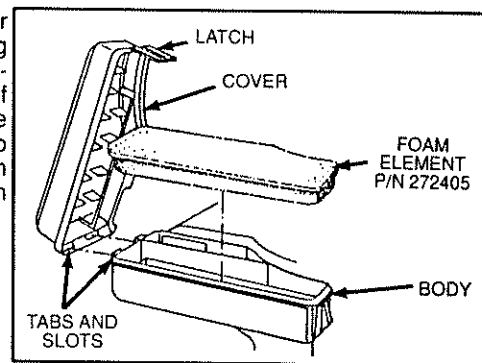
AIR CLEANER

Note: Service according to **Maintenance Schedule**. Service more often under dusty conditions.

Standard oil foam® air cleaner

1. Lift latch on narrow end of air cleaner cover and remove cover.
2. Remove element and wash in kerosene or liquid detergent and water. Squeeze dry in clean cloth. Saturate foam in engine oil. Squeeze in clean absorbent cloth to remove excess oil.

3. Place element into air cleaner body, making sure lip of element extends over edges of body to form protective seal. Insert tabs into slots and press down on cover until latch snaps into place.



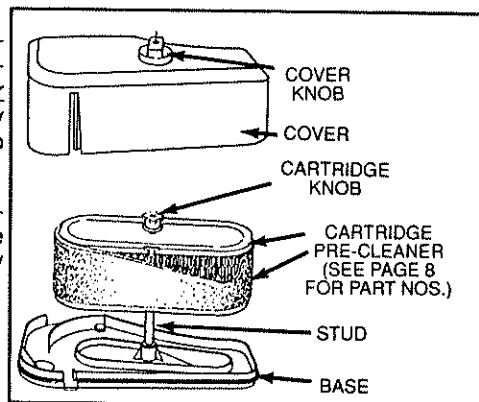
Standard oil foam® air cleaner

Dual element air cleaner

1. Remove knob and cover.
 2. Carefully lift pre-cleaner and cartridge from base over stud. (Depending on Type Number of engine, your engine may have no pre-cleaner.)
 3. Carefully clean base to prevent debris from entering carburetor.
- To service pre-cleaner, wash in liquid detergent and water. Squeeze dry in a clean cloth. Saturate in engine oil. Squeeze in clean, absorbent cloth to remove ALL EXCESS oil. Replace if very dirty or damaged.
- To service cartridge, clean by tapping gently on a flat surface. Do not oil cartridge. Replace if very dirty or damaged.

Note: Do not use petroleum solvents, e.g., kerosene, nor pressurized air to clean cartridge. They will cause cartridge to deteriorate.

4. Reassemble pre-cleaner on cartridge and place assembly over stud on base.
5. Replace cover and tighten knob securely.



Dual element air cleaner

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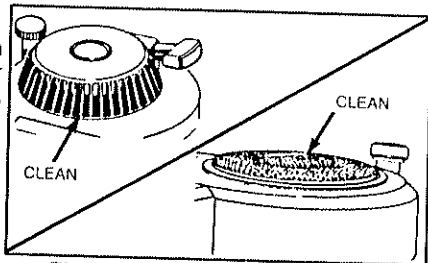
Maintenance

See **Maintenance Schedule**, page 8. Follow the hourly or calendar intervals, whichever occur first. Note that more frequent service is required when operating in adverse conditions.

KEEP ENGINE AND PARTS CLEAN

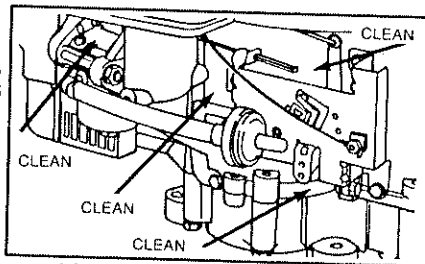
Remove dirt and debris with a cloth or brush. Do not clean with a forceful spray of water because water could contaminate fuel system.

Remove grass and chaff from finger guard, debris guard or rotating screen every 8 hours or daily (more often if needed) to prevent engine damage caused by overheating.



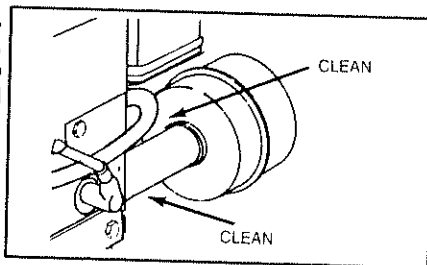
Finger guard/Rotating screen

To assure smooth operation, keep governor linkage, springs and controls free of debris.



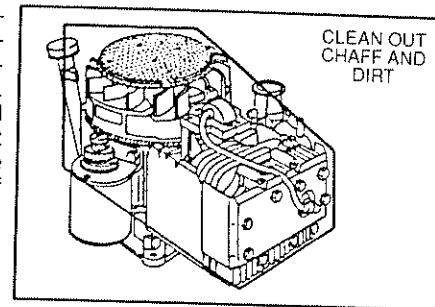
Linkage, springs & controls

⚠ Daily or more often, before running engine, clean muffler area to remove all grass and combustible debris. If engine muffler is equipped with spark arrester screen assembly, remove for cleaning and inspection. Replace if damaged.



Muffler area

Grass or chaff may clog engine's air cooling system, especially after prolonged operation cutting tall, dry grass. Remove blower housing and clean area shown to prevent overheating and engine damage. Clean more often if necessary.



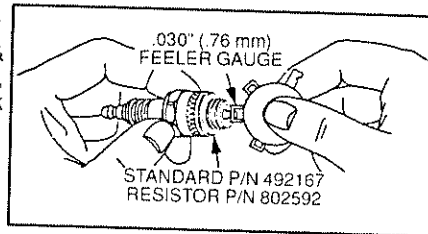
Cooling system

Replace or clean spark plug.



Use only Briggs & Stratton Spark Tester, P.N. 19368, to check for spark.

Arcing can occur if wire terminal does not fit firmly on spark plug. Reform terminal if necessary.



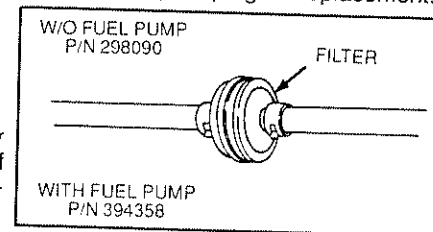
Spark plug

Note: In some areas, local law requires using a resistor spark plug to suppress ignition signals. If this engine was originally equipped with resistor spark plug, use same type of spark plug for replacement.

Replace in-line fuel filter. See any Authorized Briggs & Stratton Dealer for correct replacement.



Drain fuel tank or close fuel shut-off valve before replacing fuel filter.



Fuel filter

Remove combustion deposits

Remove cylinder head every 100-300 hours of operation. Scrape and wire brush the combustion deposits from cylinder, cylinder head, top of piston and around valves. Reassemble gasket and cylinder head. Turn screws down finger tight. Torque cylinder head screws in a staggered sequence to 165 in.-lbs. (19 Nm).

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Maintenance Schedule

Follow the hourly or calendar intervals, whichever occur first.
More frequent service is required when operating in adverse conditions noted below.

Maintenance Operation	Every 5 Hours or Daily	25 Hours or Every Season	50 Hours or Every Season	100 Hours or Every Season	100-300 Hours
Check Oil Level	●				
Change Oil ♦			Note 1		
Service Oil Foam® Air Cleaner or Pre-cleaner, if so equipped		Note 2			
Service Air Cleaner Cartridge, if no pre-cleaner		Note 2			
Service Air Cleaner Cartridge, if pre-cleaner equipped				Note 2	
Inspect Spark Arrester (Optional Accessory)			●		
Clean Cooling System				Note 2	
Replace or Clean Spark Plug & Replace Fuel Filter				●	
Check Valve Clearance					●

See any Authorized Briggs & Stratton Service Dealer and insist on Genuine Briggs & Stratton parts! Non-original copies may not perform as well and may void your warranty.

Briggs & Stratton Part Numbers of some Genuine Briggs & Stratton Parts:

Part	Briggs & Stratton Part No.
Air cleaner oil foam® (Models 19 & 25)	272405
Air cleaner cartridge (Models 19 & 25)	493910
Air cleaner cartridge (Model 28)	493909
Air cleaner pre-cleaner (Mods 19 & 25)	272477
Air cleaner pre-cleaner (Model 28)	272403
Fuel filter (without fuel pump)	298090
Fuel filter (with fuel pump)	394358
Resistor spark plug	802592
Standard spark plug	492167
Spark tester	19368
Oil	100005
Gas additive	5041

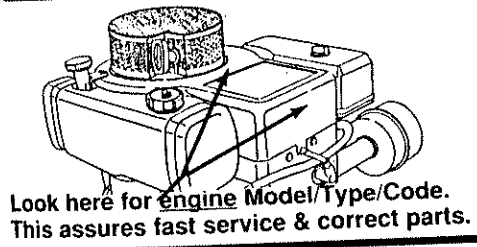
♦ Change oil after first 5 hours, then after every 50 hours or every season.
Note 1: Change oil every 25 hours when operating under heavy load or in high temperatures.
Note 2: Clean more often under dusty conditions or when airborne debris is present. Replace air cleaner parts, if very dirty.

**To obtain a complete Parts List of
 Genuine Briggs & Stratton Parts for your engine,
 fill in your engine Model/Type/Code below and
 print your name and address on the other side.**

We cannot fill your order without the correct Model/Type/Code.
 (Please allow 3 to 4 weeks for delivery.)

Your Engine	Model	Type	Code
	_ _ _ _ _ _ _	_ _ _ _ _ _ _	_ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _

**Cut out and send (with \$2) to: Briggs & Stratton Corporation
 P.O. Box 1144
 Att. Service Division Milwaukee, WI 53201-1144**



In the USA and Canada, a 24 hour hot line, 1-800-233-3723, has a menu of pre-recorded messages offering you engine maintenance information.

Service & Storage

FOR SERVICE

See an Authorized Briggs & Stratton Service Dealer. Each one carries a stock of Genuine Briggs & Stratton Parts and is equipped with special service tools. Trained mechanics assure expert repair service on all Briggs & Stratton engines. Only dealers advertising as "Authorized Briggs & Stratton" are required to meet Briggs & Stratton standards.



You may locate your nearest Authorized Briggs & Stratton Service Dealer in the "Yellow Pages"™ directory under "Engines, Gasoline" or "Gasoline Engines," or "Lawn Mowers" or similar category. There are over 30,000 Authorized Service Dealers worldwide available to serve you.

Note: Walking fingers logo and "Yellow Pages" are registered trademarks in various jurisdictions.

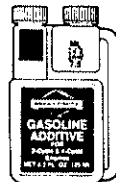
The illustrated shop manual shown here includes "Theories of Operation," common specifications and detailed information covering adjustment, tune-up and repair of Briggs & Stratton L-head, single cylinder, 4 cycle engines. It is available from an Authorized Briggs & Stratton Service Dealer or you can order it from the factory. Write: Briggs & Stratton Corp. P. O. Box 1144, Milwaukee, WI 53201 Attention: Service Division.



Part No. 270962

STORAGE INSTRUCTIONS

Engines stored over 30 days need to be protected or drained of fuel to prevent gum from forming in fuel system or on essential carburetor parts.



1. For engine protection, we recommend use of Briggs & Stratton Gasoline Additive, Part No. 5041, available from any Authorized Briggs & Stratton Service Dealer. Mix Additive with fuel in fuel tank or storage container. Run engine for a short time to circulate Additive through carburetor. Engine and fuel can be stored up to 24 months.

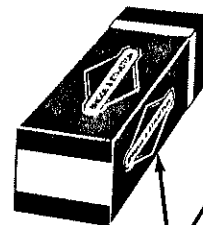
Note: If Additive is not used or if engine is operating on gasoline containing alcohol, such as gasohol, remove all fuel from tank and run engine until it stops from lack of fuel.

2. While engine is still warm, drain oil from crankcase (see page 6). Refill with fresh oil of recommended grade (see chart on page 2).
3. Remove spark plug and pour about 1 oz (30 ml) of engine oil into cylinder. Replace spark plug and crank slowly to distribute oil.
4. Clean dirt and chaff from cylinder, cylinder head fins, blower housing, rotating screen and muffler areas (see page 7).
5. Store in a clean and dry area, but NOT near a stove, furnace or water heater which uses a pilot light or any device that can create a spark.

Name _____
 Address _____
 City, State, Zip _____



**Only Genuine
 Briggs & Stratton Parts
 have the
 Briggs & Stratton logo!**



**Look for Briggs & Stratton logo
 stamped on part and/or package!**

In the USA and Canada, a 24 hour hot line, 1-800-233-3723, has a menu of pre-recorded messages offering you engine maintenance information.

ABOUT YOUR ENGINE WARRANTY: (see back cover for statement of LIMITED WARRANTY.)

Briggs & Stratton welcomes warranty repair and apologizes to you for being inconvenienced. Any Authorized Service Dealer may perform warranty repairs. Most warranty repairs are handled routinely, but sometimes requests for warranty service may not be appropriate. For example, when an engine prematurely fails, if the failure is caused by abuse, neglect, or the equipment on which the engine is applied, the warranty will not apply. Similarly, the warranty is void if the serial number of the engine has been removed or the engine has been altered or modified.

If a customer differs with the decision of the Service Dealer, an investigation will be made to determine whether the warranty applies. Ask the Service Dealer to submit all supporting facts to his Distributor or the Factory for review. If the Distributor or the Factory decides that the claim is justified, the customer will be fully reimbursed for those items that are defective. To avoid misunderstanding which might occur between the customer and the Dealer, listed below are some of the causes of engine failure that the warranty does not cover.

IMPROPER MAINTENANCE:

The life of an engine depends upon the conditions under which it operates, and the care it receives. Some applications, such as tillers, pumps and rotary mowers, are very often used in dusty or dirty conditions, which can cause what appears to be premature wear. Such wear, when caused by dirt, dust, spark plug cleaning grit, or other abrasive material that has entered the engine because of improper maintenance, is not covered by warranty.

THIS WARRANTY COVERS ONLY DEFECTIVE MATERIAL AND/OR WORKMANSHIP. WARRANTY DOES NOT APPLY TO ENGINE ADJUSTMENT OR REPAIR REQUIRED DUE TO:

1. PROBLEMS CAUSED BY PARTS THAT ARE NOT ORIGINAL BRIGGS & STRATTON PARTS.
2. Equipment controls or installations that prevent starting, cause unsatisfactory engine performance, or shorten engine life. (Contact equipment manufacturer.)
3. Leaking carburetors, clogged fuel pipes, sticking valves, or other damage, caused by using contaminated or stale fuel. (Use clean, fresh, lead-free gasoline and Briggs & Stratton gasoline stabilizer, Part No. 5041.)

4. Parts which are scored or broken because an engine was operated with insufficient or contaminated lubricating oil, or an incorrect grade of lubricating oil (4 cycle engines: check oil level daily or after every 8 hours of operation. Refill when necessary and change at recommended intervals.) (2 cycle engines: use correct mixture of gasoline and BIA/NMMA certified oil.) Read "Owner's Manual."
5. Repair or adjustment of associated parts or assemblies such as clutches, transmissions, remote controls, etc., which are not manufactured by Briggs & Stratton.
6. Damage or wear to parts caused by dirt, which entered the engine because of improper air cleaner maintenance, re-assembly, or use of a NONORIGINAL AIR CLEANER ELEMENT OR CARTRIDGE. (At recommended intervals, clean and re-oil the Oil-Foam® element or the foam pre-cleaner, and replace the cartridge.) Read "Owner's Manual."
7. Parts damaged by overspeeding, or overheating caused by grass, debris, or dirt, which plugs or clogs the cooling fins, or flywheel area, or damage caused by operating the engine in a confined area without sufficient ventilation. (Clean fins on the cylinder, cylinder head and flywheel at recommended intervals.) Read "Owner's Manual."
8. Engine or equipment parts broken by excessive vibration caused by a loose engine mounting, loose cutter blades, unbalanced blades or loose or unbalanced impellers, improper attachment of equipment to engine crankshaft, overspeeding or other abuse in operation.
9. A bent or broken crankshaft, caused by striking a solid object with the cutter blade of a rotary lawn mower, or excessive v-belt tightness.
10. Routine tune-up or adjustment of the engine.
11. Engine or engine component failure, i.e., combustion chamber, valves, valve seats, valve guides, or burned starter motor windings, caused by the use of alternate fuels such as, liquified petroleum, natural gas, altered gasolines, etc.

WARRANTY IS AVAILABLE ONLY THROUGH SERVICE DEALERS WHICH HAVE BEEN AUTHORIZED BY BRIGGS & STRATTON CORPORATION. YOUR NEAREST AUTHORIZED SERVICE DEALER IS LISTED IN THE "YELLOW PAGES™" OF YOUR TELEPHONE DIRECTORY UNDER "ENGINES, GASOLINE" OR "GASOLINE ENGINES," "LAWN MOWERS," OR SIMILAR CATEGORY.

Briggs & Stratton Engines Are Made Under One Or More Of The Following Patents: Design D-247,177 (Other Patents Pending)						
5,150,674	5,040,503	4,971,219	4,520,288	4,270,509	3,991,152	DES. 308,872
5,105,331	4,996,956	4,895,119	4,453,507	4,233,534	3,961,724	DES. 308,871
5,086,890	4,995,357	4,819,593	4,430,984	4,168,288	DES. 309,458	
5,040,644	4,977,879	4,694,792	4,355,253	4,068,636	DES. 309,457	

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S.A.

BRIGGS & STRATTON ENGINE OWNER WARRANTY POLICY

effective October 1, 1993

Replaces all undated Warranties and all Warranties

dated before October 1, 1993

LIMITED WARRANTY

"Briggs & Stratton Corporation will repair or replace, free of charge, any part, or parts of the engine that are defective in material or workmanship or both. Transportation charges on parts submitted for repair or replacement under this Warranty must be borne by purchaser. This warranty is effective for the time periods and subject to the conditions provided for in this policy. For warranty service contact your nearest Authorized Service Dealer as listed in the 'Yellow Pages™' under 'Engines, Gasoline,' 'Gasoline Engines,' 'Lawn Mowers' or similar category. 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, OR TO THE EXTENT PERMITTED BY LAW ANY AND ALL IMPLIED WARRANTIES ARE EXCLUDED. LIABILITY FOR CONSEQUENTIAL DAMAGES UNDER ANY AND ALL WARRANTIES ARE EXCLUDED TO THE EXTENT EXCLUSION IS PERMITTED BY LAW. Some states do not allow limitations on how long an implied warranty lasts, and some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation and exclusion may not apply to you. This warranty gives you specific legal rights and you may also have other rights which vary from state to state."

Briggs & Stratton Corporation


 F. P. Stratton, Jr.
 Chairman and Chief Executive Officer

WARRANTY PERIOD

ENGINES	WITHIN U.S.A. AND CANADA		OUTSIDE U.S.A. AND CANADA	
	CONSUMER USE*	COMMERCIAL USE*	CONSUMER USE*	COMMERCIAL USE*
All Vanguard™ engines.	2 year - engine / Lifetime** - Magneton® ignition			
All Diamond Plus, Europa™, Industrial Plus™ and all I/C®.	2 year	1 year	2 year	1 year
Quantum® and Diamond Power	2 year	90 days	2 year	90 days
All standard 2 through 18 HP engines installed on lawn mowers, riders, edgers, tillers, and all Sno/Gard engines.	2 year	90 days	1 year	90 days
All other standard 2 through 18 HP engines.	1 year	90 days	1 year	90 days

* For purposes of this warranty policy, "consumer use" means personal residential household use by the original retail consumer. "Commercial use" means all other uses, including use for commercial, income producing or rental purposes. Once an engine has experienced commercial use, it shall thereafter be considered as a commercial use engine for purposes of this warranty. **Engines used in competitive racing or on commercial or rental tracks are not warrantied.**

** Lifetime limited warranty of the Magneton® ignition covers parts and labor for the first five (5) years from the date of purchase; thereafter only parts. "Lifetime" means lifetime of the engine in the hands of the original purchaser.

**NO WARRANTY REGISTRATION CARD IS NECESSARY TO OBTAIN WARRANTY ON BRIGGS & STRATTON ENGINES.
YOU MUST SAVE THE PURCHASE RECEIPT. A PROOF OF PURCHASE DATE WILL BE REQUIRED TO OBTAIN WARRANTY.**