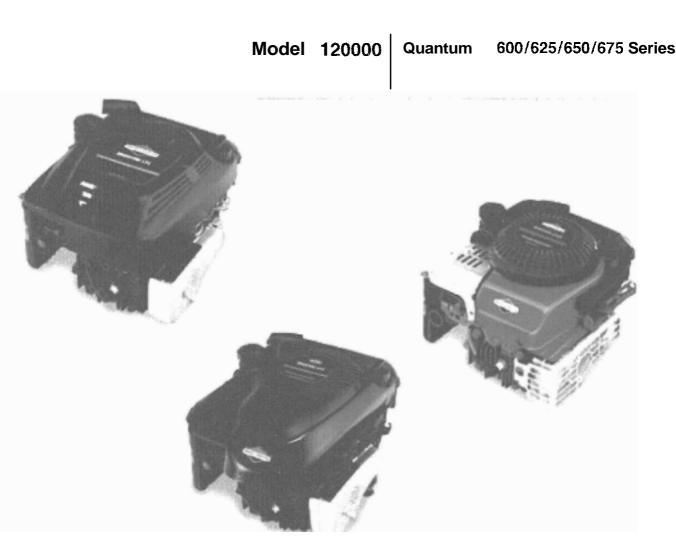
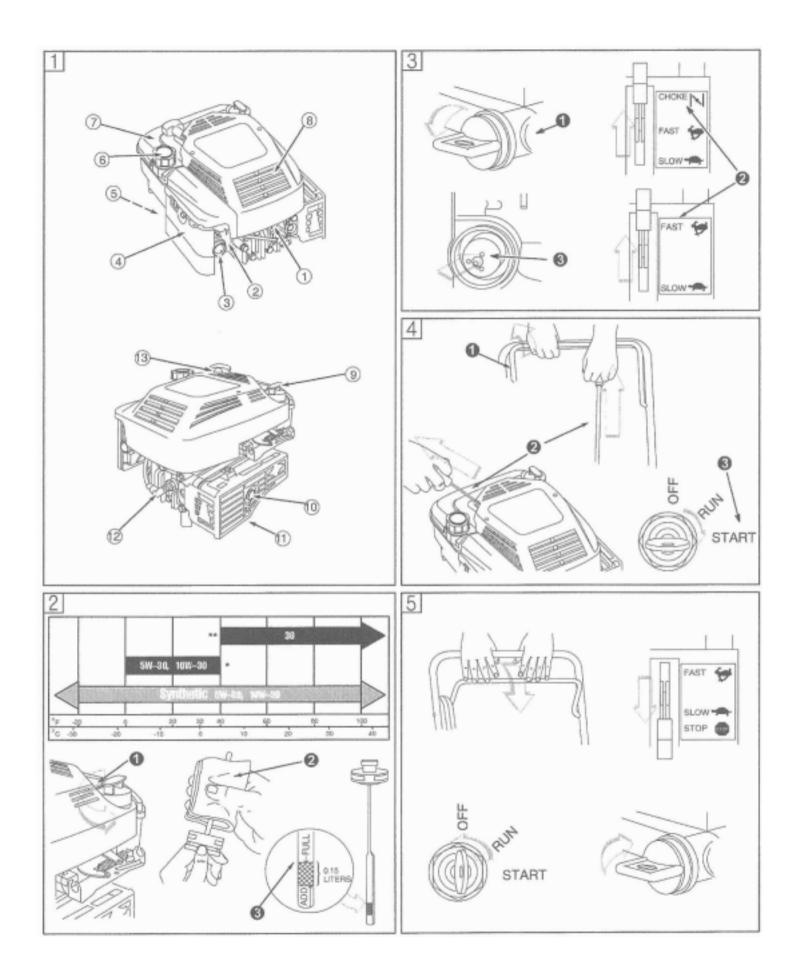


GB Operating & Maintenance Instructions





Copyright Briggs & Stratton Corporation Milwaukee, Wisconsin 53201 U.S.A.



(This note applies onty to engines used in the U.S.A.) Maintenance, replacement a repair of the emission control devices and systems may be performed Note: GB by any nonroad engine repair establishment or individual. However, to obtain no charge repairs under the terms and provisions of the Briggs & Stratton warranty statement, any service or emission control part repair or replacementmust be performed by a factory authorized dealer.

How To Use Manual Figures

refer to figures inside covers. refer to engine components in figure refer to part/action in figures.

Record your engine Model, Type and Code numbers here for future use.

Record your date of purchase here for future use.

Technical Information

Engine Power Rating Information

The gross power rating for individual gas engine models is labeled in accordance with SAE (Society of Automotive Engineers) code J1940 (Small Engine Power & Torque Rating Procedure), and rating performance has been obtained and corrected in accordancewilh SAE J1995 (Revision 2002-05). Torque values are derived at 3060 RPM: horsepower values are derived at 3600 RPM. Actual aross enaine power wiil be lower and is affected by, among other Ihings, ambient operating conditions and engine-toengine variability. Given both the wide array of products on which engines are placed and the variety of environmental issues applicable to operating the equipment, the gas engine will not de /e op the rated gross power when used in a given piece of power equipment (actual on stell or net powery This ofference is due to a variety of factors including, but not imited to, accessories (air cleaner exhaust, charging, cooling, carburetor, fuel pump, etc.), application limitations, ambient operating conditions Itemoerature, humidity, altitude\, and engine-to-engine variability. Due to manufacturing and capacity mitations, Briggs & Stratton may substitute art thigher of nigher rated power for this Series engine.

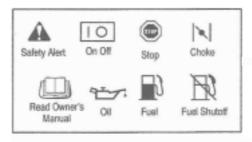
Engine Components (see fig. 1)

(1) Engine Model Code Type XXXXXXXX XXXX XX XXXXXXXX (2) Carburetor 3 Primer bulb (4) Air cleaner (flat) Fuel shut-off, if quipped (6) Fuel fill (7) Fuel tank ٩ Finger guard Oil fill/Dipstick Muffler/spark arrestor, if equipped (1) Muffler guard (12) Resistor spark plug (3) Ropehandle

Hazard Symbols and Meanings

alkin Fire Hot Surface Explosion Toxic Fumes Moving Parts Kickback Shock

International Symbols and Meanings



Safety Precautions



BEFORE OPERATING ENGINE

- Read entire Operating & Maintenance Instructions AND the instructions for the equipment this engine powers.
- · Failure to follow instructions could result in serious injury or death.
 - * Briggs & Stratton does not necessarily know what equipment this engine will power. For that reason. you should carefully read and understand the operating instructions for the equipment on which your engine is placed.

THE OPERATING & MAINTENANCE INSTRUCTIONS CONTAIN SAFETY INFORMATION TO

- Make you aware of hazards associated with englies
- Inform you of the risk of injury associated with those hazards, and
- · Tell you how to avoid or reduce the risk of injury.

The safety alert symbol is used to dentify safety int rightion about hazards itell can result in personal in uny

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

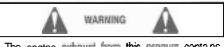
- - DANGER indicates a hazard which, if not avoided, will result in death or serious injury.

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

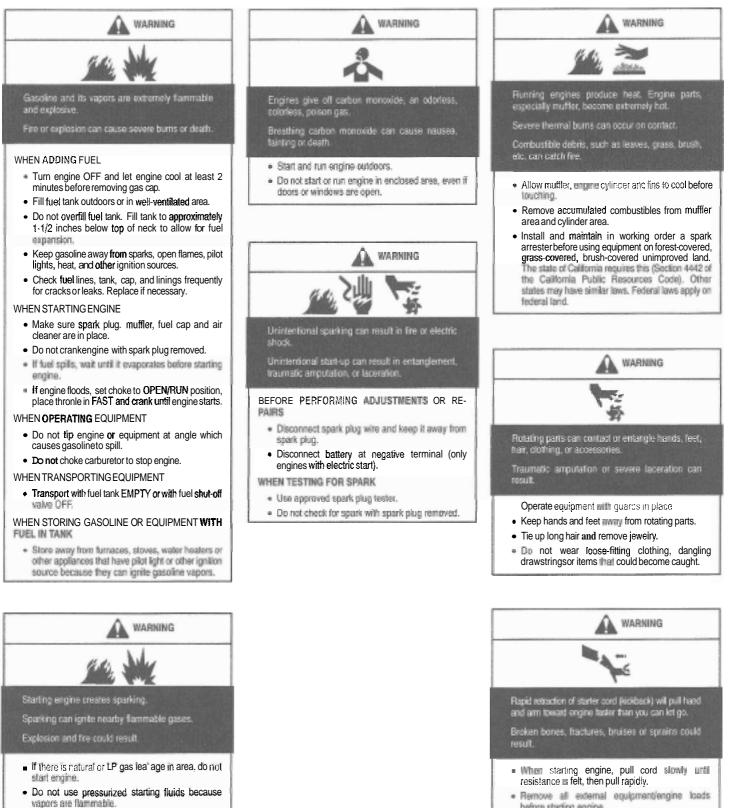


CAUTION indicates a hazard which, if not avoided, might result in minor or moderate injury.

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



The engine exhaust from this product contains chemicals known to the State of California to cause cancer, birth defects, or other reproductive harm.



- - · Direct coupled equipment components such as, but not limited to, blades, impellors, pulleys, sprockets, etc., must be securely attached.

before starting engine.

Oil Recommendations (see Mg [2])

Engine shipped from Briggs & Stratton without oil. Before starting engine, f II with ail. Do not over-fill.

Lse a nigh quality detergent of class feo. For Service SF. SG, SH. SJ ur nigner such as Briggs & Stration 30W, Part Number 100005. Jse no special additives with recommended o s DL not mix oil with gase ine. Choose the SAE viscosity grade of oil from this chart that matches the starting temperature anticipated before the next oil change.



Note: Synthetic oil meeting ILSAC GF-2, API certification mark and API service symbol (shown at left) with "SJ/CF ENERGY CONSERVING" or higher, is an acceptable oil at all temperatures. Use of synthetic oil does not alter required oil change intervals.

Air coded engines run hotter than automotive engines. The use of non-synthetic multi-viscosity oils (5W-30, 10W-30, etc.)in temperatures above 40° F (4° C) will result in higher than normal oil consumption. When using a multi-viscosity oil, check oil level more frequently.

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. [Oil capacity is about 20 oz. or 0.6 liters.) Place enaine level and clean around oil fill **(2**).

Remove dipstick, wipe with clean cloth $\boldsymbol{\Theta}$, insert and tighten down again. Remove dipstick and check oil level. Oil should be at FULL mark $\boldsymbol{\Theta}$.

t o is required, add slowly. Egiten dipstick firmly oetore starting engine

Do not overfill. Overfilling with oil may cause:

- 1 Smoking,
- 2. Hard starting,
- 3. Spark plug fouling,
- 4. Oil saturation of air filter

Fuel Recommendations

Use clean, fresh, lead free regular gasoino with a minimum of 77 octane Leaded gaso ne may be used if it is commercially available and if unleaded is unavailable. Purchase fuel in quantity that can be used wilhin 30 days. See storage instructions.

In U.S.A. leaded gasoline may not be used. Some fuels, called oxygenated or reformulated gasolines, are gasolines blended with alcohols or ethers. Excessive amounts of these blends can damage the fuel system or cause periumiance problems. I any undesirable operating symptoms occur use gasoline and a lower percentage of alcohol or ether.

This engine is certified to operate on gasoline Exhaust Emission Control System EM Engine Modifications]

Do not use aasoline which contains Methanol. Do not mix oil with gasoline.

For engine protection, we recommend using Briggs & Stratton Fuel Stabilizer available from an Authorized Briggs & Stratton Service Dealer.

Check fuel level.



Before refueling, allow engree to cool 2 minutes.

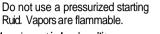
Cean around fuel II before removing cap to refuel F II tank to approximately 1.1.2 incress below top of neck to aloe for fuel expansion. Bc careful not to overfil

Before Starting (see fig. [3])



CLEAR OF EQUIPMENT MOVING PARTS.

ALWAYS KEEP HANDS AND FEET



Start, store and **fuel** equipment in level position.

Open fuel shut-off valve 1/4 turn counterclockwise O, if equipped.

Primer equipped engine

Move throttle control to FAST ② position. Push primer bulb ③ firmly <u>3 times</u> before starting engine.

Note: f engine stopped because if ran out of fue, refuel engine and push primer buib 3 times Priming is usually unnecessary when restarting a harm engine However, cool weather may require priming to berepeated.

Choke equipped engine

Move throttle control to CHOKEQ or START position.

Starting (see fig. 4)

Rewind start



Close safety brake control handle *O*, if equipped. Grasp rope handle and pull slowly **④** until resistance is felt Then pull cord rapidly to overcome

compression, prevent kickback and start engine. Repeat if necessary with choke (if equipped) in RUN position and throttle in FAST. When engine starts, operate in FAST position.

Electric start, If equipped

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

Turn key 🕑 to START. Repeat if necessary with choke (if equipped) in RUN position and throttle in FAST Wnen engine starts, operate in FAST position.

Note: Use short starting cycles (15 seconds/ minute) to prolong starter life. Extended cranking can damage starter motor.

Stopping (see fig. 5)

Reiease safety brake control handle OR move throttle control to STOP.

Turn key OFF and remove. Close fuel shut-off valve, if equipped.

Maintenance (see fig. 7) See Maintenance Schedule

Follow the hourty or calendar intervals, <u>whichever occur</u> **b**. More frequent service is required when operating in adverse conditions.



To prevent accidental starting, move spark plug wire **O** and ground it before servicing,

and disconnectbattery at negative terminal, if equipped.

CAUTION: If engine must be tipped to transport equipment or to inspect or remove arass. keep spark plug side of engine up. @

Transporting or tipping engine spark plug down may cause:

- 1. Smokino.
- 2. Hard starting,
- 3. Spark plug fouling,
- 4. Oil saturation of air filter.

Oil service [see fig. 7]

Check oil level regularly.

Be sure correct oil level is maintained. Check every 5 hours or daily, before starting engine. See oil filling orocedure under Oil Recommendations. Change oil.

Change oil after first 5 hours of operation. Change oil while engine is warm. Refill with new oil of recommended SAE viscosity grade. (see fig. 2)



Before tipping engine or equipment to arean oil, drain luel from tank by running engine until fuel tank is empty.

If draining oil from top of engine, keep air cleaner side up. Oil can be drained with spark plug side up, if necessarv.

By removing drain plug 😢 with a ratchet and square extension @, oil can be drained from engine bottom.

Air cleaner service [see fig. 8])

Replace if very dirty or damaged.

hasn pre-c eaner in liquid detergent and water Allow to ory thoroughly before using Do not cil pre-c carer Clean cartridge by tapping gently on a flat surface. Do not use petroleum solvents. e.g., kerosene. which will cause cartridge to deteriorate, Do not use pressurized air, which can damage cartridge. Do not oil cartridge. Flat Air cleaner

- 1. Loosen screw **O** and tilt cover **O**.
- 2. Carefully remove pre-cleaner S (if equipped) and cartridge assembly S from cover.

Maintenance Cont'd

Oval Air cleaner

- 1. Loosen screws 0 and lift cover 0.
- Carefully remove pre-cleaner
 II equipped) and cartridge assembly
- After servicing pre-cleaner and cartridge, assemble pre-cleaner on cartridge.
- Install cartridge/pre-cleaner assembly in base G.
 Place cover on air cleaner and tighten screws
- securely to base.

Spark plug service (see 🚳 📵)



DO NOT check for spark with spark plug removed. Use only Briggs & Stratton Spark Tester **①**, to check for spark.

DO NOT crank engine with spark plug removed. If engine is flooded, place throttle in FAST and crank until engine starts.

Spark plug gap 2 should be .76 mm or 0.030 in.

Replace spark plug every 100 hours or every season, whichever occurs first. Spark tester and spark plug wench are available from any Authorized Briggs & Stratton Service Dealer.

Note In some areas, local law req. rcs using a resistor scark plug to suppress gnition signals. If this engine was originally epupped win resistor spark plug, use same type of spark plug for replacement

Keep engine clean (see fig. [9])

Periodically remove grass and chaff build up from engine C.ean finger guard. Do not spray engine with water to clean because water could contaminate fue Clean with a brush or compressed air.

Note: On string trimmer applications, clean accumulated debris at each refueling, sooner if needed **B**.



Accumulation of debris around muffler ③ could cause a fire. Inspect and clean before every use.

If **muffler** is equipped with spark arrester screen, remove spark arrester screen for cleaning and inspection. Replace if damaged.

Note: Over time debris may accumulate in cylinder cooling fins and cannot be observed without partial engine disassembly. For this reason, we recommend that , c. 1 tave an autorized Briggs & Stratton Serb ca Dealer clean the ar cooling system per recommencco intervals. (See Maintenance Schedule below.) Equally importantis to keepiop of engine free from debris. (See Keep engine dean above.)

Maintenance Schedule

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

- First 5 Hours
 - Change oii

Every5 hours or daily

- Check oil level
- Clean debris*"
- Clean around muffler
 Every 25 hours or every season
 - Change oil if operating under heavy load or high ambient temperature
 - Service air cleaner*
- Every 50 hours or every season
 - Change oil
 - Inspect spark arrester, if equipped.
- Every 100-300 hours
- Clean combustion chamber***
- Clean more often under dusty conditions, or when airborne debris is present or after prolonged operation cutting tall, dry grass.
- On string trimmer applications: clean debris at each refueling, sooner if needed; have qualified technician clean air cooling system every 30 hours, every season, sooner if needed, especially in high debris conditions.
- *** See an Authorized Briggs & Stratton Service Dealer.

Partial List of Genuine Briggs & Stratton Parts

Bridgs & Stratton (or equivalent)

1310
Oil (20 oz.)
Oil pump kit (uses standard electricdrill 5056
to remove oil from engine quickly)
Fuel stabilizer (1 oz., 30 ml single use pouch) 5058A
Fuel stabilizer (4.2 oz., 125 ml bottle) 5041A
Fuel filter, 298090 (5018)
Flat air deaner cartridge,491588 (5043)
Flat air cleaner pre-deaner
Oval air cleaner cartridge
Oval air cleaner pre-cleaner
Resistor spark plug
Standard spark plug 492167
Long in platinum spark plug
(used on most L-head engines)
Spark tester
Spark plug wrench
Spark arrester

Storaae

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.

For engine protection in elecommend use of Briggs & Stratton Fiel Stabilizer available from a i Authorized Briggs & Stratton Schice Dealer Mixistabilizer with fuel in filei tank or storage container Run engine lor a short time in circulate stabilizer through carouretor Engine and fuel can be stored up to 24 months

Note: I statutizer is not used or if engine is operating on gaso ine containing alcohol, ag. gasonol, remove al fuel from tank and run engine until it stops from lack of fue.

- 1. While engine is still warm, drain oil from crankcase. Refill with fresh oil of recommended SAE viscosity grade. (see fig. [2])
- Remove spark plug and pour about 15 ml (1/2 oz.) of engine oil into cylinder. Replace spark plug and crank slowly to distribute oil.
- Clean grass and chaff from cylinder and cylinder hcao fins under firgrr guard and around muffler.
- 4 Store n a cear and dry area, but NOT near a stove, furnace or water heater which uses a pilot light or any device that can create aspark.

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.

When you purchase equipment powered by a Briggs & Stratton engine, you are assured of highly skilled, reliable service at more than 30,000 Authorized Service Dealers world ide, including more than 6,000 Master Service Technology



cians. Look for these signs wherever Briggs & Stratton service is offered.

You may locale your nearest Authonzed Briggs 8 Stratton Service Dealer in our ceaer locator map on our web stee www.briggsandstralion.com or in the follow

Pages™ directory under "Engines. Gasołine" or "Gasoline Engines," or "Lawn Mowers" or simitar category.

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

An illustrated shop manual **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. Order PIN 270962 from an Authorized Briggs & Stratton Service Dealer.

Insist on Genuine Briggs 8 Stratton replacement pans with our logo on the oox and tit part. [conor gina pans may not perform as well and ma) volo your warranty

Briggs & Stratton Corporation (B&S), the California Air Resources Board (CARE) and the United States Environmental Protection Agency (U.S. EPA) Emissions Control System Warranty Statement (Owner's Defect Warranty Rights and Obligations) The California Air Resources Board (CARB), U.S. EPA and B&S are pleased to explain the emissions control system on your engine for the periods of time listed below, provided there has

Emissions Control System Warranty on your small on-mad engine (SORE). In California, mar small off-mad engines model year 2006 and later must be designed, built and equipped to meet Ihe State's stringent anti-smog standards.

Elsewhere in the United States, new non-road, spark-ignition engines certified for model year 1997 and later must meet similar standards set forth by the U.S. EPA. B&S must warrant the

been no abuse, neglect or improper maintenance of your small off-road engine. Your missions control system includes parts such as the carburetor, air cleaner, ignition system. Ind line. mufiler and catalytic convener Also included may be connectors and other emissions related assemblies.

Whew a warrantable condition exists, B&S will repair your small off-wood engine at no cost to you including diagnosis, parts and fabor.

Briggs 8 Stratton Emissions Control Defects Warranty Coverage

Small off-roadengines are warranted relative to emissions control parts defects Ior a period of two years, subject to provisions set forth below. If any covered part on your engine is defective, Ibe pan will

Owner's Warramy Responsibilities

As the small off-road engine owner. In are responsible for the performance of the required maintenance istemin your Operaling and t/a nienance instructions. B4S recommends that y - (eran all your receipts covering maintenance on your small of read engine but B&S council deny warrante sole / thrune long of recepts or for your fallure is present in electromagnes (1.3 scheduled maintenance.

As the small off-road engine owner, you should however be aware that B&S may deny your warranty coverage it your small off-road engine or a part has failed due to abuse, neglect, improper maintenance or unapproved modifications.

in are responsible for presenting your small off-madengine to an Authorized B&S Service Dealer as soon as a proplem Pa site

The undescued warranty reports should be completed in a reasonable amount of time, not to cubered 30 ca/s

If you have any questions requiring your warranty rights and responsibilities, you should contact rvice Representative at 1-414-259-528

The emissions warranty is a delects warranty. Defects are judged on normal engine performance. The warranty is not related to an in-use emissions test.

Briggs & Stratton Emissions Control Defects Warranty Provisions

The following are specific provisions relative to your Emissions Control Defects Warranty Coverage, It is in addition to the B&S engine warranty for non-regulated engines found in the Operating and MaintenanceInstructions.

1. WarrantedParts

Coverage under the warrant, extends only to the parts i sted be pwi, melemissions control systems pane to the extent mese pane were present on the engine purchased

a F.et **1's.** 49 51616 n

be repaired or replaced by B&S.

- Cold start enrichment system
- Carburetor and internal parts
- Fuel pump
- Fuel line. fuel line fittings, clamps
- Fuellank, cap and tether
- Carbon canister
- b. Air Induction System
 - Air cleaner
 - Intake manifold
 - Purge and vent line
- c. Ignition System
 - Spark plug(a);
 - Magneto ignition system
- d Catalyst System
 - Catalytic converter
 - · Exhaust manifold
 - Air injection system, Pulse valve
- e. Miscellaneous Items
 - · Vacuum, temperature, position, time sensitive valves and switches
 - Connectors and assemblies

2. Length of Coverage

B&S warrants to the initial owner and each subsequent purchaser that the Alamaniad Parts shall be loop into access in materials and workmans) play on caused the failure of the War ranted Parts for a perril to be was from the onte that engine is on vereo to a relait purchaser

3. No Charne

Peper or reptacement of any Warranted Pan A to e performed at no charge to the claim no up ng diagnost clabor which leads to the determined on that a Warranted Part is detec-Lve, The plaphost clwork is performed at an Authorized B&S Service Data en Foriem \$5 ons warranty service contact your nearest Authorized B&S Service Dealer as listed in the "Yel-Iow Pages^e under "Engines. Gasoline: "Gasolne Engines," "Lawn Mowers," or similar category.

4. Claims and Coverage Exclusions

Warranty claims shall be flied m accordance with the provisions of the B&S Engine Warranty Pull, Nament, coverage shall be excluded for tall resion Mananted Parts which are not or a nal Bala parts of because of abuse inequaction in proper maintenance as set forfirm illie. BSS Frights Alemanty Policy BSS since an etc. .c. etc. ures of Alemanted Parts caused by the use of add-on, non-original, or modified pans

5 Maintenance

Any Warranted Part which is not scheduled for tep acement as required marriers the un which is scheduled hirly furring in inspection to the infectiof fruper or replace a number sary shaf be warranted *: ') benecis for the warranty period. An, Warranted Parl wild scheduled for replacement as required maintenance shall be warranted as to detects only for the period diline up to the first scheduled replacement for that part Arx, replacement $p \le t$ and slope, all of the performance and durability may be (-1) in the performance of any $m_{\rm e}$ librance of repairs |1| elements responsible for the performance of a mounted mamme tenance, as defined in the B&S Operating and Maintenance Instructions.

ConsequentialCoverage 6.

> Coverage hereunder shall extend to the failure of any engine components caused by the failure any Warranted Part still under warranty

Look For Relevant Emission **Durability Period and Air Index** Information On Your Engine **Emission Label**

Engines Ihat are certified to meet the California Air Resources Board (CARB) Tier 2 Emission Standards must display information regarding the Emissions Durability Period and the Air Index. Briggs & Stratton makes this information available to the consumer on our emission labels.

The Emission Durability Period describes me number of hours of actual running time for which the engine is certified to be emission complianl, assuming proper maintenance in accordance with the Operating & Maintenance Instructions. The following categories are used

Moderate: Encine is immitted to be mission compliant for 125 🖬 🗥 🖾 actual enți ine running time

Intermediate: Engine is certile a loibe emission compliant list 250 Is of a total engine running time

Extended: Engine is certified to be emission compliant for 500 on actual engine runoing time

BRIGGS & STRATTON ENGINE OWNER WARRANTY POLICY

Effective 12/06

LIMITED WARRANTY

Briggs & Stratton Corporation will repair or replace, free of charge, any part(s) of the engine that is 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 and is subject to the time periods and conditions stated below. For warranty service, find the nearest Authorized Service Dealer in our dealer locator map atwww.briaGsandstratton.com, or by calling 1-800-233-3723, or as listed in the 'Yeilow Pages^{yY}.

THERE IS NO OTHER EXPRESS WARRANTY (LIPLED WARRANTIES INCLUDING THOSE OF MERCHANTABLITY AND FITNESS FOR A PARTICULAR PURPOSE, AREL MITED TO ONE YEAR FROM PURCHASE OR TO THE EXTENT PERMITTED BY LAW ANY AND ALL MPLIED WARRANTIES ARE EXCLUDED. LIABLITY FOR INCIDENTAL OR COMPLEX ENTIAL DAMAGES ARE EXCLUDED TO THE EXTENT EXCLU-SION IS PERMITTED BY LAW. Some states or wuntries do not allow limitations on how long an implied warranty lasts, and somestates or countries 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 and country to country.

WARRANTY TERMS **

Brand/Product Type	Consumer Use	Commercial Use
Vanguard"	2 years	2 years
Extended Life Series", 1/C®, Intek I/C®, Intek Pro"	2 years	1 year
Kerosene Fuel Operated Engines	1 year	90 days
All Other Briggs & Stratton Engines	2 years	90 days

"Engines Lised on Home Stando, Ski erator applications are warranted under consumer use only. This warrant Widoes not apply to engines or equipment used for prime power in place of a utility Engines used in competitive racing on on commercial or rental tracks are not warranted.

The warranty period begins an the date of purchase by the first retail consumer or wmmerciai end user, and continues for the period of time stated in the table above. "Consumer use" means personal residential household use by a retail consumer. "Commercialuse" 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.

NO WARRANTY REGISTRATION IS NECESSARY TO OBTAIN WARRANTY ON **BRIGGS & STRATTON** PRODUCTS. SAVE YOUR PROOF OF PURCHASE RECEIPT. IF YOU DO NOT PROVIDE PROOF OF THE **INITIAL** PURCHASE DATE AT THE **TIME** WARRANTY SERVICE IS REQUESTED, THE MANUFACTURING DATE **OF THE** PRODUCT **WILL BE USED** TO **DETERMINE THE** WARRANTY PERIOD.

ABOUT YOUR ENGINE WARRANTY

Briggs & Bration and proc 5 same in repart and apole zes to you for oesig non-water and Any Authorized Sen 2 Datale may perform v.s.rrancy reparts Most service may not be appropriate. For example, warranty would not apply illengine damage occurred because of misuse, lack of routine maintenance, shipping, handling, warehousing or improper installation. Similarly, warranty is void if the serial number of the engine has been removed or the engine has been altered or medica.

If a customer differs with the decision of the Service Deeler, an investigation will be made to determine whether the warrarry 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 relambursed for those items that are defective. To avoid misunderstanding which might occur between the customer and the Deeler, listed below are some of the causes of engine failure that the warranty does not cover.

Normal wear:

Engines, like all mechanical devices, need periodic parts service and renknowment to renform well. Warranty will not cover renain when normal use has exhausted the <u>the</u> of a part or an engine.

improper maintenance:

The life of an engine depends upon the conditions under which it operates, and the care II receives. Some applications, such as titters, ournes and rotary mowers, are very often used in dusty or of, constant ons which can cause what appears to be promative

ear Such wear, when caused ov our oust sperk plug cleaning

get at other abrasive mater a that it as entered the engine because of improper maintenance is not conversely warranty. This warranty coversieng ne related detective material and/ or workmanship only, and not replacement or refund at the equipment to which the engine may be mounted. Nor does the warranty extend to repairs required because of: 1. BOODE EVISION AND END THAT APE NOT

- PROBLEWS CAUSED BY PARTS THAT ARE NOT ORIGINAL BRIGGS & STRATTON PARTS.
 Equipment controls or installations that prevent starting,
- Equipment controls or installations that prevent starting, cause unsatisfactory engine performance, or shorten en-
- Leaking carbunstors, clogged fuel pipes, sticking valves, or other damage, caused by using contaminated or stale fuel. (Use clean, fresh, lead-free gasoline and Briggs & Stratton Fuel 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 (check oil level daily or after every 8 hours of operation. Roll when necessary and change at recommended intervals.) OIL GARD may not shut down running engine. Engine disrege may occur if oil level is not properly maintained. Read Operating 8 Maintenance Inclusions.

 Repair or adjustment of associated parts or assemblies such as clutches, transmissions, remote controls, etc., which are not manufactured by Briggs & Stratton.

 Darrege or wear to palls caused by dirt, which entered the entire because of improper air cleaner maintenance. re-assumen, to use of a non-origina air oceaner element or climboling in the commended in unusis of the and re-old the Oil-Foam element or the loam pre-cleaner, and replace the cartridge.) Read Operating & Maintenance Instructions.

е

- Pads damaged by over-speeding, or overheating caused by grass, debris, or dill, which plugs or clogs the cooling fins, or flywheel area, or damage caused by operating the engine in a confined area without sufficient ventilation. (Cleanfins on the cylinder, cylinder head and flywheel at recommended intervals.) Read Operating & Maintenance Instructions.
- Engine or equipment parts broken by excessive vibration caused by a toose engine mounting, loose cutter blacks, unbalanced blades or loose or unbalanced impetiers, im proper attachment of equipment to engine crankshaft, overspeedmoor other abuse in operation.
- A bent or broken crankshaft, caused by striking a solid object with the cutter blade of a many law mower, or excessive v-belt tightness.
- 10. Routine tune up or adjustment of the engine.
- 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 Bridgs & Stratton Corporation, your named Authorized Service Dealer stisted in the Yellow Pages"" of your telephonedrectory under "Engines. Gasoline" or "Gasoline Engines," 'Lawn Monern," or s milar reference.

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305 Å Still 1.	English Ar Mind Lind	er One C. More X The	Follow 🔒 dents: Des	on D-247,1 👘 Junea A	stents Peoding					
6,691,683	6,520,141	6,325,036	6,145,487	6,012,420	5,803,035	5,548,955	5,243,878	5,138,996	4,875,448	D 476,629
6,647,942	6,495,267	6,311,663	6,142,257	6,992,367	6,765,713	5,546,901	5,235,943	5,086,890	4,819,593	D 457,891
6.622,683	6.494,175	6,284,123	6,135,426	5.904,124	5,732,555	5,445,014	5,234,038	5,070,829	4,720,638	D 368,187
6,615,787	6,472,790	6,263,852	6,116,212	5,894,715	5,645,025	5,503,125	5,228,487	5,058,644	4,719,682	D 375,963
6.617,725	6,460,502	6,260,529	6,105,548	5,887,678	5,642,701	5,501,203	5,197,428	5,040,644	4,633,556	D 309,457
6.603,227	6,456,515	6,242,828	6,347,614	6.852,951	6.628352	6,497,679	5,197,425	5,009,208	4,630,498	D 372,871
6.595,897	6,382,165	6,239,709	6,062,323	5.843,345	5.619,845	5,320,795	5,197,422	4,996,996	4,522,080	D 361,771
6,595,176	6,389,532	6,237,555	6,077,063	5.823,153	5,606,948	5,301,643	5,191,884	4,977,879	4,520,288	D 356,961
6.584,964	6,356,003	6,230,678	6,064,027	5.819,513	5,606,851	5,271,383	5,188.089	4,977,877	4,512,499	D 309,457
6.557,833	6.349,688	6,213,083	6,040.767	6.813,384	6.606,130	5,269,713	5,186,142	4,971,219	4,453,507	D 308,872
6.542,074	6,347,614	6,202,616	6,014,808	5.809,958	5.497,679	5,265,700	5,150,674	4,895,119	4,430,984	D 308,871