



MODEL SERIES

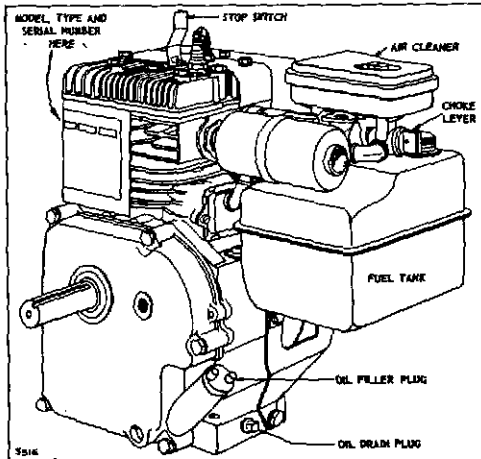
140200 TO 140297

141200 TO 141297

OPERATING AND MAINTENANCE INSTRUCTIONS

IMPORTANT:

Do not start this engine before reading Section I and Section II of this manual. It takes only a few minutes.



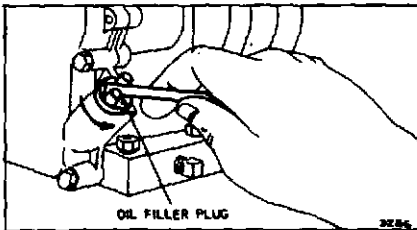
CAUTION

1. PROVIDE EFFICIENT VENTILATION: Exhaust gases contain carbon monoxide which is odorless and a deadly poison. Proper care must be taken to provide efficient ventilation.
2. DO NOT FILL GASOLINE TANK WHILE ENGINE IS RUNNING. Avoid spilling gasoline on a hot engine -- this may cause an explosion and serious injury.
3. KEEP ENGINE CLEAN. This engine is air-cooled. If cooling system becomes clogged, serious damage may result. Therefore, keep the blower screen, fins on flywheel, cylinder head and block free from grass or dirt.
4. Be sure nobody is behind you when starting engine with rope starter.

SECTION I BEFORE STARTING

FILL CRANKCASE WITH OIL

Remove the oil filler plug. Use a screwdriver or bar. Some engines have oil filler cap with dipstick. Use a wrench to remove.



ABOVE 32 F.

Use SAE-30

BELOW 32 F.

Use SAE-10W

Nothing should be added to the recommended oils.

If engine has a gear reduction unit, see page 3. Be sure gear reduction oil is at proper level.

AIR CLEANER

"Oil Foam"* Type

Standard oil foam air cleaners are oiled at the factory and do not require initial service. See SECTION III for regular maintenance instructions.

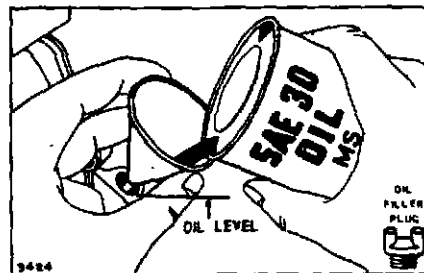
FILL FUEL TANK

Use clean, fresh "regular" grade gasoline.

CAUTION: The use of old or stale gasoline will result in gum deposits clogging the fuel system and carburetor. Make sure that vent hole in the tank cap is open.

LUBRICATION RECOMMENDATIONS

Any high quality detergent oil bearing the American Petroleum Institute classification "For Service MS" can be used in your Briggs & Stratton engine. Detergent oils keep the engine cleaner and retard the formation of gum and varnish deposits.



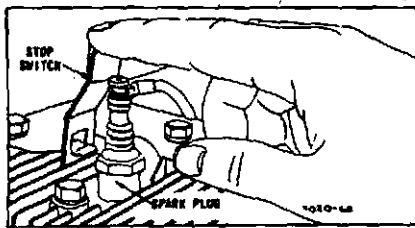
DO NOT MIX OIL WITH GASOLINE.

*TRADEMARK OF BRIGGS & STRATTON CORP.

SECTION II STARTING AND STOPPING

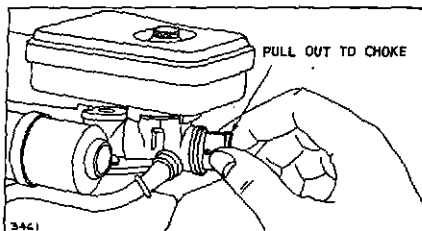
TO START ENGINE

1. Be Sure Stop Switch Is Away From Spark Plug



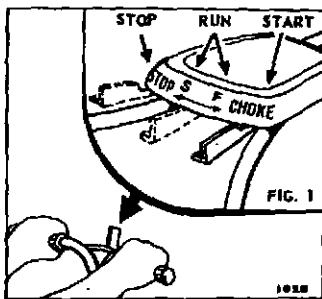
2. Choke the Carburetor

a. Manual Type



Completely close the carburetor choke by pulling out the choke knob.

b. Choke-A-Matic Type



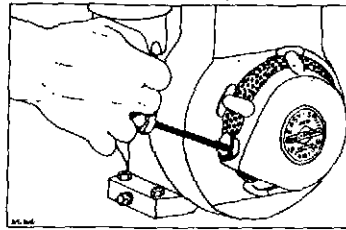
The Choke-A-Matic Carburetor permits choking, varying the engine speed, and stopping the engine by merely moving a single remote control lever to the desired position.

Move lever to "Full Choke" or "Start" position.

NOTE: This should fully close choke on carburetor. If it does not, remote control must be re-adjusted. See "Choke-A-Matic Carburetor" Adjustments, Section IV.

3. Start Engine

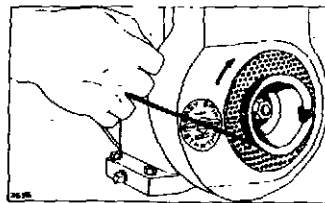
a. "Easy-Spin"® Rewind Starter



Grasp starter grip as illustrated and pull out cord two to three feet. Exclusive Briggs & Stratton development tames the forces of compression during starting so that starting effort is reduced by 50%.

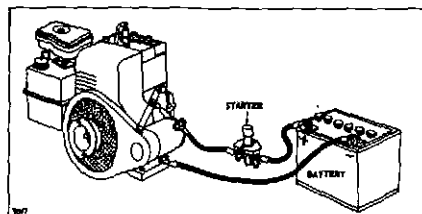
Repeat if necessary with choke opened slightly. When engine starts open choke gradually.

b. "Easy-Spin"® Rope Starter



Wind the starter rope around the pulley in direction shown by arrow. Pull the rope with a quick full arm stroke. Repeat if necessary with choke opened slightly. When engine starts open choke gradually.

c. 12 Volt D.C. Electric Starter



Press starter button on powered equipment. When engine starts open choke gradually.

SPECIAL LOW TEMPERATURE STARTING PROCEDURE

The following technique will make starting easier at temperatures below 40° F.:

Proper Lubrication

- A. Drain summer oil (SAE 30) while engine is hot.
- B. Add SAE 10W if lowest anticipated temperature will be 32° F. or lower. Run engine with 10W oil so as to distribute the oil throughout the working parts of the engine.
- C. Below 10° F. use SAE 5W-20 low temperature oil. If this is not available, use SAE 10W plus 10% kerosene.

Special Starting Procedure

- A. Turn needle valve located on side of carburetor, 1/8 turn counterclockwise from normal summer adjustment.
- B. Pull choke out. Pull starter rope 1 or more times until engine fires at least once. A "pop" at the muffler indicates the engine is firing.
- C. Push choke in slightly.
- D. Pull starter again -- engine should start.
- E. As engine begins to run, push choke in slowly.
- F. If engine begins to die, give more choke.

NOTE: If engine fails to start due to over choking, pull starter several times with choke open (inward).

SPECIAL WINTER RECOMMENDATIONS

- A. Be sure to use the proper weight of oil for the air temperature expected.
- B. Disconnect all external loads. Any V-belt drives must be removed or loosened so that the belts are standing still for satisfactory operation below freezing. Starter, motor and battery are designed to start the engine only.
- C. Keep battery and engine warm if possible. If it is not possible to keep the entire unit warm, there is a big advantage to keeping the battery warm until it is required for starting. A warm battery has much more starting capacity than a cold battery.

NOTE: The electric starter will crank a completely unloaded engine at temperatures as low as 0° F. with SAE 10W oil. Below 0° F. rock starter pulley back and forth to disengage starter motor clutch and use the rope starter.

4. To Stop Engine

a. Manual Choke

Push the stop switch against end of spark plug.

b. Choke-A-Matic

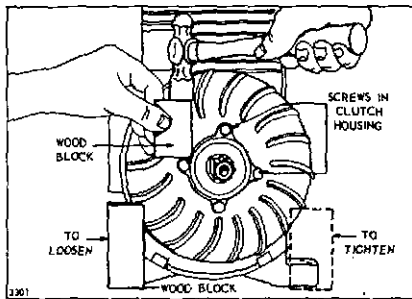
Move control lever to "stop" position.

SECTION IV
ADJUSTMENTS (Cont'd.)

ADJUSTMENT AND CLEANING OF CONTACT POINTS

Blower housing must be removed with the starter assembly attached. Remove 4 screws and pull blower housing off of engine. Remove 4 screws and rotating screen from clutch housing. Replace screws in clutch housing.

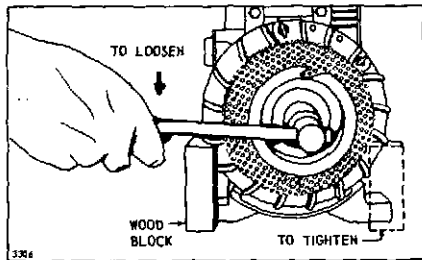
Rewind Starter



Hold a block of wood against one of the screw lugs.

Drive clutch housing to the left with a hammer to loosen it, or use flywheel wrench No. 19114 or No. 19161.

Rope Starter



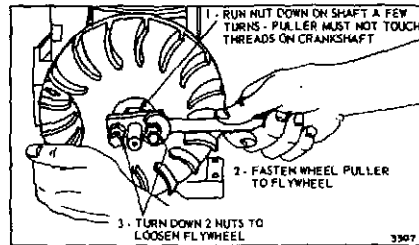
Use a 15/16" wrench. Turn to left to loosen. Crankshaft has right hand thread.

NEVER TRY TO PRY OFF FLYWHEEL

After removing nut, washer and pulley, loosen flywheel by using Flywheel Puller No. 19165.

Removing Flywheel

Fasten puller to flywheel by screwing two screws into holes provided. Turn down the two nuts gradually until flywheel is loosened. Pull off flywheel. Save key.

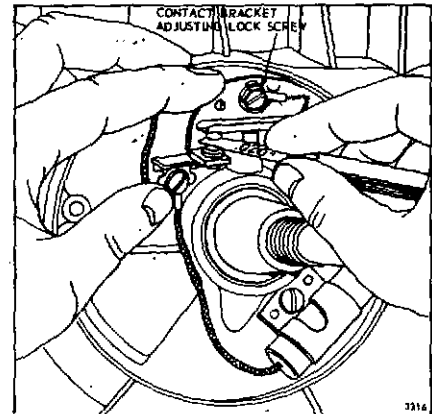


NOTE: If a flywheel puller is not available hold a block of hardwood against the end of the crankshaft or use a soft-faced hammer. Strike the end of the crankshaft a sharp blow to jar the flywheel loose.

AVOID EXCESSIVE POUNDING THAT WILL DAMAGE THE CRANKSHAFT OR OTHER INTERNAL PARTS OF THE ENGINE.

TO ADJUST AND CLEAN CONTACT POINTS

Remove dust cover. Points must be clean and line up squarely. Do not file points -- use fine sandpaper or hone to dress the points. Turn crankshaft until points open to widest gap. Adjust gap to .020" by loosening adjusting lock screw and moving contact bracket up or down. When proper gap is obtained tighten lock screw. If points become badly pitted or burned, replace with complete new Contact Point Assembly. Replace dust cover.



REASSEMBLE FLYWHEEL

Clean flywheel hole and tapered end of crankshaft thoroughly. Turn keyway of crankshaft up. Put flywheel on shaft and align keyways. Place key into keyways and push it securely into place. (If key is partially sheared or damaged, replace with a new key, Part No. 61760. This is a soft metal key.) DO NOT USE STEEL KEY.

Put the spring washer on the crankshaft with hollow side against flywheel. Place a wood block under fin on right side of flywheel, and tighten nut or clutch securely. (Proper torque is obtained by applying 70 lbs. force at the end of a 10" wrench.)

Replace rotating screen. Turn starter clutch until word "Top" is up or toward the spark plug. Replace blower housing

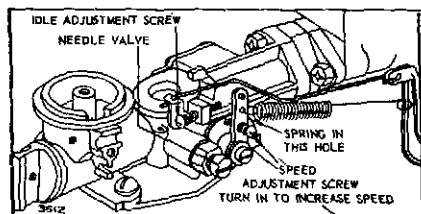
NOTE: Flywheel key may shear if nut or clutch housing are not properly tightened. All Briggs & Stratton Service Organizations are equipped with special tools to tighten nut and clutch housing.

SECTION IV ADJUSTMENTS

CARBURETOR ADJUSTMENTS

Initial Adjustment

Turn needle valve clockwise to close it; then turn counter-clockwise $1\frac{1}{2}$ turns. This initial adjustment will permit the engine to be started and warmed up before making final adjustment.



Final Adjustment

With engine running at normal operating speed (approximately 3000 R.P.M. without load) turn needle valve clockwise until engine starts to lose speed (lean mixture). Then slowly turn needle valve counter-clockwise past the point of smoothest operation, until engine just begins to run unevenly. This mixture will give best performance under load.

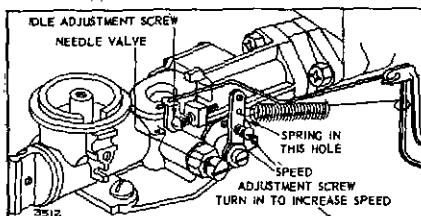
Hold throttle in idling position. Turn idle speed adjusting screw until fast idle is obtained (1750 R.P.M.).

Test the engine under full load. If engine tends to stall or die out, it usually indicates that the mixture is slightly lean and it may be necessary to open the needle valve slightly to provide a richer mixture. This richer mixture may cause a slight unevenness in idling.

GOVERNOR ADJUSTMENTS

There are two different types of governors used on these engines - air vane and mechanical. The recommended operating speed is 2200 to 3600 R.P.M. The Standard speed setting (no load) is 3600 R.P.M. Idle speed is 1750 R.P.M.

I. Air Vane Governor Adjustments



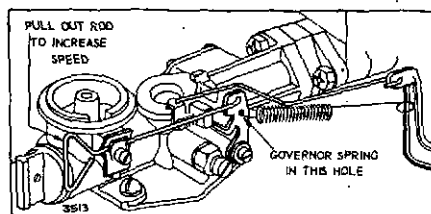
FIXED SPEED GOVERNOR CONTROL

To increase engine speed, turn speed adjusting screw clockwise.

To decrease engine speed, turn speed adjusting screw counterclockwise.

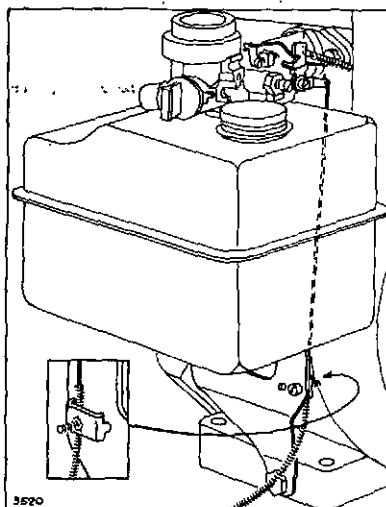
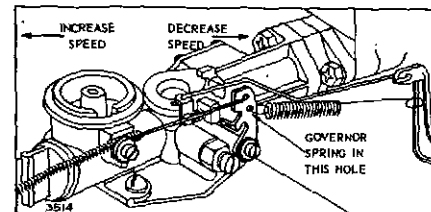
MANUAL FRICTION TYPE CONTROL

Move lever as shown below to change engine speed.



REMOTE GOVERNOR CONTROLS

To increase speed move governor control lever to "Fast" position.



To Check Operation

Remove Air Cleaner. Move remote control lever to CHOKE position. The carburetor choke should then be closed. Move the remote control lever to STOP. Speed lever on carburetor should then make good contact with stop switch to short out ignition.

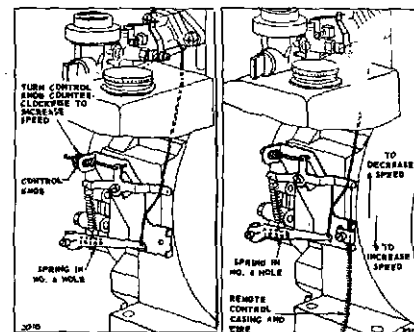
To Adjust

Place remote control lever on equipment in FAST (high speed) position. Loosen control casing clamp screw (B) on carburetor. Move control casing (A) and wire forward or backward until speed lever (D) just touches the choke operating link at (C). Tighten casing clamp screw (B) on carburetor.

Recheck operation of controls after adjustment. Replace air cleaner.

2. Mechanical Governor Adjustments

Standard Speed Control -- Speed adjusting thumb nut is located on the power take-off side of engine. To increase speed turn adjusting nut counterclockwise.



Standard Control Remote Control Remote Governor Control

The mechanical governor remote control is adjusted in the same manner as the air vane governor remote control.

Governor Sensitivity Adjustments

Governor spring is installed in No. 4 hole of governor arm for normal operation at speeds of 3500 to 3800 R.P.M. For operation at other speeds spring should be moved as follows:

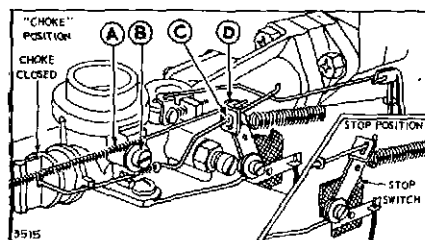
3000 TO 3400 R.P.M.	NO. 3 HOLE
2500 TO 2900 R.P.M.	NO. 2 HOLE
1800 TO 2400 R.P.M.	NO. 1 HOLE

If the speed variation between no load and full load is too great move spring to a lower number.

If the speed of the engine is not steady although the carburetor has been properly adjusted, move the spring to a higher number.

CHOKE-A-MATIC CARBURETOR

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



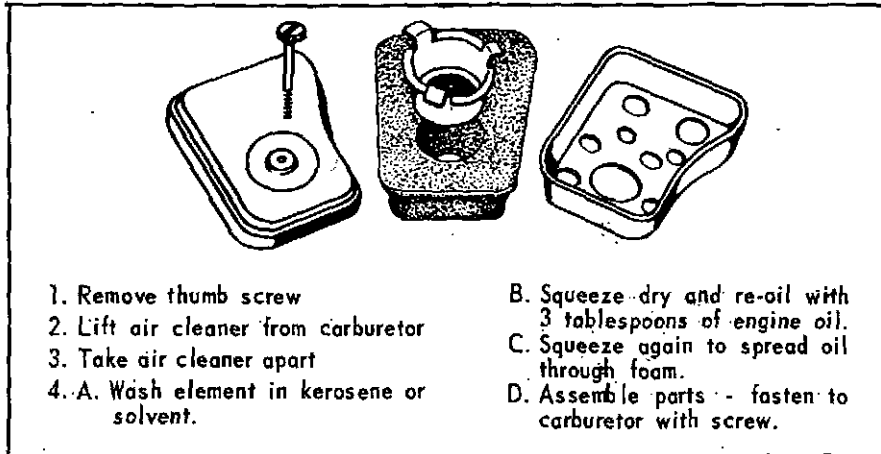
**SECTION III
REGULAR MAINTENANCE**

SERVICE AIR CLEANER REGULARLY

Clean and refill the air cleaner frequently (every few hours under extremely dusty conditions). Clean and re-oil

at least every 25 hours under normal conditions.

"Oil Foam" Type



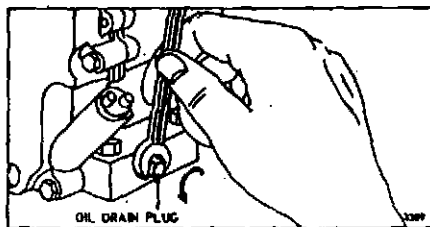
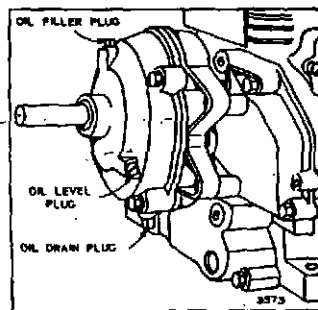
1. Remove thumb screw
2. Lift air cleaner from carburetor
3. Take air cleaner apart
4. A. Wash element in kerosene or solvent.

- B. Squeeze dry and re-oil with 3 tablespoons of engine oil.
- C. Squeeze again to spread oil through foam.
- D. Assemble parts - fasten to carburetor with screw.

CHANGE OIL (CRANKCASE)

Change oil after first 5 hours of operation. Thereafter change oil every 25 hours of operation. Remove oil drain plug and drain oil while engine is warm. Replace drain plug. Remove oil filler plug and refill with new oil of proper grade. Replace filler plug.

Be sure oil level is maintained at "full" mark on dip stick or to point of overflowing on models without dip sticks.



Clean Combustion Chamber Every 100-300 Hours of Operation

This industrial engine generally operates at constant speed and at relatively constant load. The use of regular automotive fuels under these conditions results in a gradual build-up of tetraethyllead deposits in the combustion chamber. This causes the engine to lose power and prevents the valves from seating properly. Removing the deposits is easy and will pay big dividends in reliability and increased valve life.

CYLINDER HEAD - COMBUSTION CHAMBER CLEAN-OUT

1. Remove cylinder head screws. Be sure to note if screws are of different length and have steel washers as they must be replaced in original position.
2. Turn crankshaft until piston is at top of cylinder bore and both valves are closed. Scrape and wire brush the lead and carbon deposits from cylinder head and combustion chamber.
3. Re-use cylinder head gasket only if in good condition. Replace cylinder head. Turn each screw in with wrench until screw head is lightly seated.
4. Use socket wrench with 6" handle and turn all screws 1/4 turn. Tighten screws in sequence illustrated. Run engine approximately 5 minutes and retighten all screws approximately 1/4 turn.

TO CHECK SPARK PLUG GAP

Clean spark plug and reset gap at .025" every 100 hours of operation. When worn out replace with: AC 45 Comm., Autolite A7R or Champion J-8. Size 14 mm.

CAUTION: Blast Cleaning of spark plugs in machines that use abrasive grit is not recommended. Grit which may remain within the spark plug can rapidly wear internal engine parts, voiding engine warranty. Spark plugs should be cleaned by scraping or wire brushing and washing with a commercial solvent or gasoline.

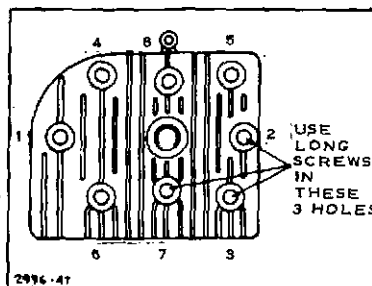
STORAGE INSTRUCTIONS

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

- a. All fuel should be removed from the fuel tank. Run the engine until it stops from lack of fuel.
- b. While engine is still warm, drain oil from crankcase. Refill with fresh oil.
- c. Remove spark plug, pour 1 ounce of SAE-30 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.

CHECK OIL (GEAR REDUCTION)

Remove the drain plug in the bottom of gear case cover and drain oil every 100 hours of operation. Replace drain plug. To refill, remove oil check plug and oil filler plug and pour oil (same grade as used in crankcase) into filler hole until oil runs out of level check hole. Replace oil level check plug and filler plug. **CAUTION:** Filler plug has a vent hole and must be installed on top of gear case cover.



**SECTION V
PARTS AND SERVICE**

GENERAL INFORMATION

This engine is a single-cylinder, L-head, air-cooled type

Model Series 140200, 141200

Bore	2 3/4"
Stroke	2 3/8"
Displacement	14.1 cu. in.
Horsepower	5.0 HP max. at 3600 RPM
Torque (Ft. Lbs.)	7.84 max. at 2700 RPM

The horsepower rating listed is established by standard I.C.E.I. procedures. For practical operation, the horsepower loading should not exceed 85% of this rating. Maximum engine power will decrease 3½% for each 1,000 ft. above sea level and 1% for each 10 degrees above 60 degrees F.

**NATION WIDE
SERVICE ORGANIZATION**

Briggs & Stratton maintains a vast network of Authorized Service Dealers that are prepared to give you prompt and efficient engine service.

Each member of this organization carries a stock of original Briggs & Stratton repair parts and is equipped with special service tools.

An illustrated parts list is available from any Briggs & Stratton Authorized Service Organization.



See yellow pages of your Classified Telephone Directory for nearby engine service under heading "Engines — Gasoline" or "Gasoline Engines".

BRIGGS & STRATTON ENGINE WARRANTY POLICY

Here is a reproduction of the Briggs & Stratton Warranty that is supplied with each engine. (Be sure to fill out and return registration card at time of purchase.)

THE WARRANTY

For ONE YEAR from purchase date, Briggs & Stratton Corp., will replace for the original purchaser **FREE OF CHARGE**, any part, or parts, found upon examination by any Factory Authorized Service Outlet, or by the Factory at Milwaukee, Wisconsin, to be defective in material and/or workmanship.

All transportation charges on parts submitted for replacement under this warranty must be borne by purchaser.

There is no other Warranty express or implied. Briggs & Stratton Corp. shall in no event be liable for consequential damages.

WARRANTY DOES NOT COVER BENT CRANKSHAFTS, FAILURE TO MAINTAIN OIL IN CRANKCASE, USER NEGLIGENCE OR ABUSE

WARRANTY INSTRUCTIONS

When you request engine or parts warranty service, always supply the Briggs & Stratton Authorized Service Dealer the following information:

Model Number, Type Number and Serial Number that are stamped on engine name plate.

Date Purchased

Kind of equipment engine is used on.

Name or trademark of manufacturer.

Name and address of dealer from whom purchased.

Approximate number of hours engine has run since equipment was purchased.

Also, give complete report of trouble experienced and special servicing instructions.

If you differ with the decision of a Service Dealer on a warranty claim, the Dealer's terms should be accepted. The Dealer will submit all supporting facts to the factory for review. If the factory's decision is that your claim is justified, you will be fully reimbursed for those items accepted as defective.