
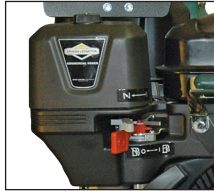


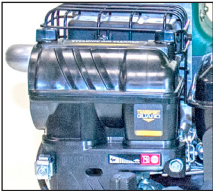
IDENTIFY YOUR ENGINE

Use the chart below to identify your engine type and parts needed.

You can order complete maintenance kits from us or purchase the individual parts locally.

NOTE: In the chart below, CR means Cyclone Rake part number, B&S means Briggs & Stratton part number, if purchasing locally. For spark plugs we list the Bosch number, but your local dealer will have equivalent numbers for other brands. Some alternates are Champion RC12YC, Autolite 3924, or B&S 491055.

Filter Type: Square		Filter Type: Oval			
					
VANGUARD 9 HP VANGUARD 6.5 HP INTEK 6 HP INTEK 7 HP		XR950 9.5 ft lbs torque		VANGUARD 6.5 HP VANGUARD 8 HP VANGUARD 10 HP	
Maintenance Kit Complete - Contains all the parts listed below.					
Kit # 01-02-200		Kit # 213XR		Kit #213	
Individual Maintenance Parts					
Air Filter	CR# 01-01-753 B&S# 491588S	Air Filter	CR# 01-01-2116 B&S# 59601	Air Filter	CR# 01-01-1909 B&S# 797033
Pre-filter	CR# 01-01-756 B&S# 493537S	Oil	1 quart	Oil	1 quart
Oil	1 quart	Spark Plug	Bosch FR8DCX	Spark Plug	Bosch FR8DCX
Spark Plug	Bosch FR8DCX				

Filter Type - Cyclonic	
	
6.5 HP Vanguard Cyclonic	
Maintenance Kit Complete - Contains all the parts listed below.	
Kit # 213VG	
Individual Maintenance Parts	
Air Filter	CR# 01-01-2147 B&S# 596760
Oil	1 quart
Spark Plug	Bosch FR8DCX

MAINTENANCE SCHEDULE PROTECT YOUR INVESTMENT

For homeowner use, we recommend replacing oil every 20 hours of running time. Replace air filter and spark plug annually. For commercial use, or in hot or dusty conditions, inspect air filter monthly and replace as needed.

RECOMMENDED OIL CHART

The oil should be marked A.P.I. service "SF," "SG," "SH," "SJ" or higher.

Air Temperature	Type of Oil
Above 32° F	SAE 30 or SAE 10W30 oil
Below 32° F	SAE 5W30 oil

*If synthetic oil is preferred 5W-30 is good in all temps.
SAE 10W40 is specifically not recommended.*

CHANGING THE ENGINE OIL:

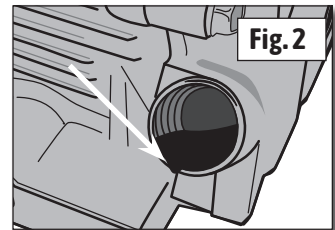
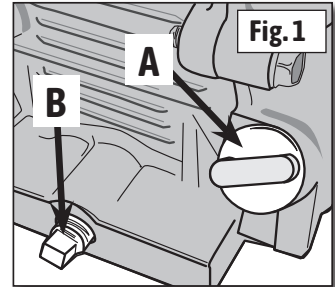
INTEK, XR950 AND VANGUARD PHASE 1 & PHASE 2 ENGINES

Before you begin:

- Make sure the engine is level.
- Clean the oil fill area of any debris.

1. With engine off but still warm, disconnect the spark plug wire and keep it away from the spark plug.
2. **(Fig. 1A)** There are two YELLOW plastic “butterfly” plugs at the base of the engine. Remove either one.
3. **(Fig. 1B)** Place a shallow pan under the engine and remove the square, metal drain plug. Drain until oil flow stops.
4. Replace drain plug and **tighten firmly**.
5. Place a rag or shop towel under the butterfly cap opening to catch any spilled oil.
6. **(Fig. 2)** Using the small funnel, slowly pour oil into the opening **until the oil reaches the bottom edge of the butterfly hole**.
7. Replace the butterfly plug and **tighten firmly by hand**. Wipe up any oil spills.

NOTE: Oil capacity is approximately 18-20 ounces for the 6 HP, 7 HP, 6.5 HP, and XR engines. Oil capacity is 26-28 ounces for the 8 HP, 9HP, and 10 HP engines.



6.5 HP VANGURAD CYCLONIC ENGINE

Drain the Old Oil

1. With engine off but still warm, disconnect the spark plug wire and keep it away from the spark plug.
2. **(Fig. 3)** Locate the **YELLOW dipstick** on the side of the engine and remove it.
3. **(Fig. 4)** There are two drain plugs on either side of the engine's base. Remove either one.
4. Place a shallow pan under the engine and remove the drain plug. Drain until oil flow stops.
5. Place a rag or shop towel under the butterfly cap opening to catch any spilled oil.
6. After the oil has drained, install and tighten the oil drain plug.

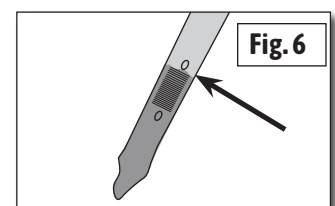
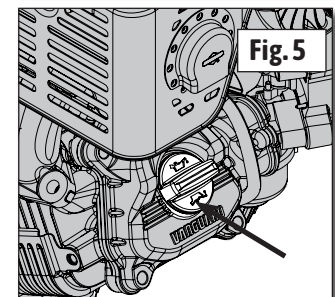
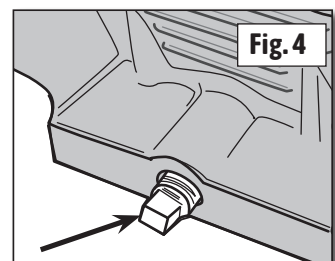
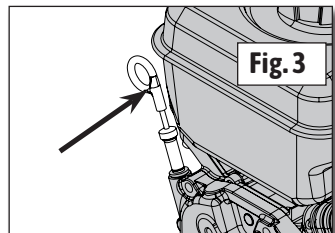
Add New Oil

Before you begin:

- Make sure the engine is level.
- Clean the oil fill area of any debris.

1. **(Fig. 5)** Locate and remove the **LARGE YELLOW plastic “butterfly” cap** on the opposite side of the engine. Place a rag under the opening to catch any spilled oil.
2. Using the small funnel, slowly pour oil into the opening **DO NOT OVER FILL**.
3. **(Fig. 6)** After adding some oil wait one minute remove the dipstick and check oil level. The correct oil level reaches the top of the full indicator dot on the dipstick.
4. Replace the large butterfly plug and **tighten firmly by hand**. Do not use a wrench or pliers as you might break the plug. Wipe up any spilled oil.
5. Reinstall the dipstick and connect the spark plug

NOTE: Oil capacity is approximately 18-20 ounces for the 6.5 HP cyclonic engine.



IMPORTANT

FUEL STABILIZER AND OFF SEASON STORAGE

For storage of your Cyclone Rake for more than 30 days, Briggs & Stratton recommends the use of a Fuel Treatment and Stabilizer. Simply mix the enclosed treatment and stabilizer at a rate of 1 oz. per 5 gallons of unleaded gasoline. Fill your gas tank and run your engine for 2 minutes to allow the stabilizer to circulate. This prepares the engine and gasoline for up to 24 months of storage.

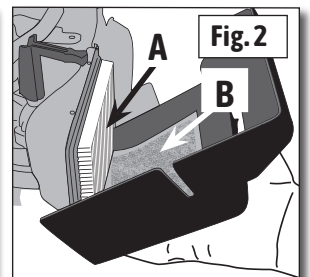
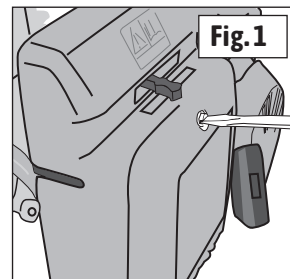
While not specifically required for daily use, Briggs & Stratton does recommend the use of Fuel Treatment and Stabilizer as a regular part of your refueling process. If you choose to use this concentrated formula, mix as described above.

CHANGING THE AIR FILTER:

NOTE: NEVER run your engine without an air filter. This will void your warranty!

THE SQUARE AIR FILTER

1. **(Fig. 1)** Unscrew the air filter housing.
2. **(Fig. 2)** Pivot the housing down to release the molded tabs on the bottom of the housing and remove the old filter (A) and pre-filter (B).
4. Place the new filter (A) into the metal frame, ensuring that the filter's metal screen faces the engine. Then position the new pre-filter in the housing (B).
5. Place molded tabs of the air filter housing into slots at the bottom of the housing.
6. Rotate air filter housing upward to close and retighten the screw to secure the filter.

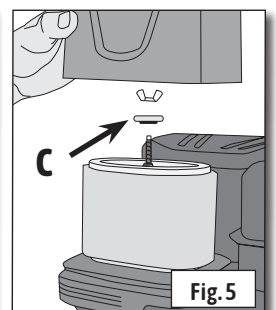
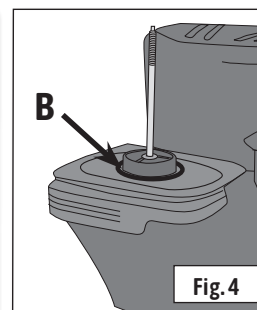
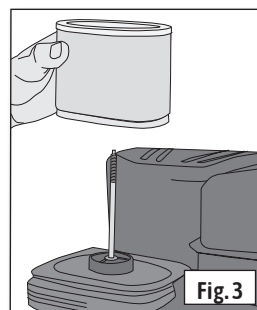
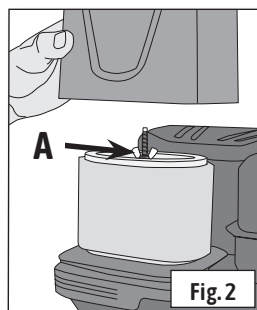
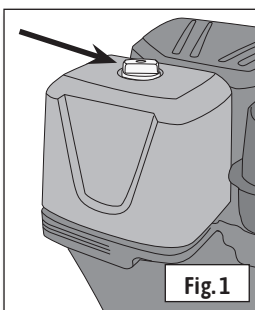
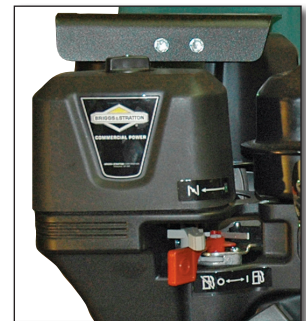


THE OVAL AIR FILTER

1. **(Fig. 1)** Unscrew the knob at the top of the air filter housing.
2. **(Fig. 2)** Lift the housing to expose the air filter and remove the wing nut (A) that secures the filter.
3. **(Fig. 3)** Remove the old filter, pre-filter and rubber gasket. (This is sometimes stuck to the bottom of the filter.) *For XR950 Engines: save the gasket.*
4. **(Fig. 4)** *For Vanguard Engines:* Place the new gasket (B) over the threaded rod then place the new filter with pre-cleaner on top.
For XR950 Engines: Place the original gasket (B) over the threaded rod then place the new filter with pre-cleaner on top.

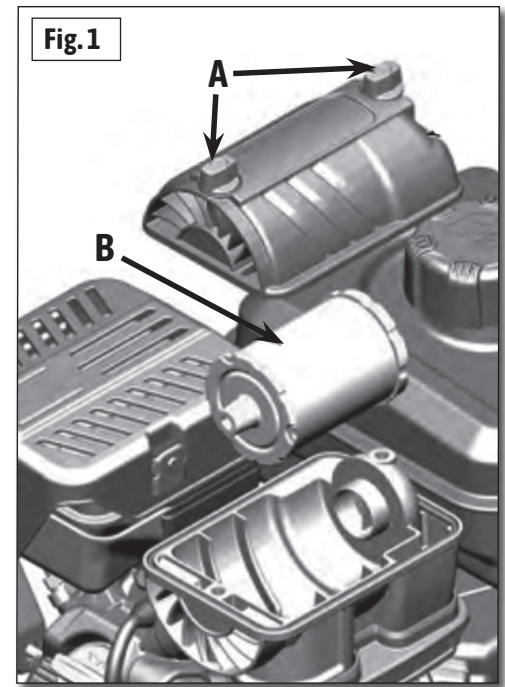
NOTE: For 5.5 HP and 6.5 HP engines, you will need to put the pre-cleaner around the filter before installing.

6. **(Fig. 5)** Place the small silver gasket (C) on top of filter and secure with the wing nut.
7. Replace the filter housing and secure with the knob.



THE CYCLONIC AIR FILTER

1. **(Fig. 1)** Unscrew the two knobs at the top of the air filter housing(A).
2. **(Fig. 1)** Lift the housing to expose the air filter.(B)
3. Remove the old filter.
4. To loosen debris, gently tap the filter on a hard surface. If the filter is excessively dirty, replace with a new filter.
5. Install the air filter.
6. Replace the filter housing and tightly secure both knobs.



CHANGING THE SPARK PLUG

We recommend replacement once a year. The spark plug gap should be 0.030.

NOTE: For engines with oval air filters, remove the air filter plastic cover and the inner air filter for better access to the plug.

1. Remove spark plug using the special spark plug socket, a ratchet handle and a 6-inch extension bar. The spark plug socket contains a rubber washer to grip the plug. Press down firmly over the plug to be sure the socket is seated over the plug before turning.
2. Insert the new spark plug into the special socket, pressing to be sure the plug is firmly gripped by the rubber inside the socket. Install the new plug, being extremely careful not to cross-thread the plug. Tighten firmly.
3. When removing the wrench, you may find that the special socket sticks to the spark plug. If so, remove the extension bar and extract the socket by pulling up with a pair of pliers.



Rubber insert inside