

# KRENDL VACUUM CARE & MAINTENANCE

For Model GV180 & GV230



## SAFETY FIRST

Always follow the instructions included on the engine and in the vacuum manufacturer's manuals. ALWAYS, when working on these vacuums, REMOVE the key to ensure the machine cannot be inadvertently started. When working on this piece of equipment, always wear proper protective wear including gloves and eye protection to protect against cuts and oil/fuel splash.

The Briggs & Stratton engine manual contains service intervals and instructions for properly maintaining your machine's engine. It advises that the engine oil level be checked before each use as well as clearing accumulated debris from the area around the muffler and air intake controls. Since these machines are used in dusty environments, it is also recommended that the air filter be checked weekly and cleaned/replaced as needed.

At a minimum, the spark plugs should be changed annually, and both the oil and oil filter changed every 100 hours or once a year—whichever comes first.

**Note:** The hour meter on the vacuum will also display a reminder message for changing the oil.

## TOOLS:

- Flat blade screwdriver
- American socket wrenches
- 5/8" spark plug socket
- Whisk broom (Access to a high pressure air hose is also recommended)
- Scraper
- Flashlight
- Oil filter wrench.



This flyer outlines critical routine maintenance procedures, including changing the oil and oil filter, replacing the air cleaner, and servicing the fan/impeller.

## OIL & OIL FILTER SERVICE

Before changing the oil, make sure the machine is sitting on level ground.

1. Start with a warm engine to ensure the oil flows freely. The engine may run for a minute or two to warm it slightly. Do NOT run it so long that it is too hot to touch. After the engine is shut down, REMOVE the key!
2. Attach the oil drain extension tube to the oil drain valve with the other end feeding into an approved container.
3. Open the oil drain valve by pressing in on the oil drain collar and rotating it counter clockwise. The oil will begin to flow into the container.
4. Once the flow has stopped, press in on the oil valve and rotate it clockwise to close. **Note:** Some older engines may have only an oil drain plug and will lack a valve or extension tube.
5. Remove the oil filter by rotating the filter body counter clockwise. If it's too tightly attached to remove by hand, use an oil filter wrench.
6. Using a few drops of oil, lubricate the seal on the new oil filter, and screw it back onto the engine.

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7. Install the oil filter by hand until the gasket contacts the oil filter adapter, then tighten the oil filter 1/2 to 3/4 turns.
8. After checking to make sure the oil drain is closed and the oil filter is fastened snugly, fill the crankcase with 5W-30 synthetic motor oil. Oil Capacity is 46 - 48 oz. (1.36 – 1.42 L).
9. Use the dipstick to make sure the unit is full. **Note:** Never overfill the engine as this can cause mechanical problems.
10. Run engine for five minutes to circulate the oil into the crank case and filter. Turn off the motor. Let it sit for five minutes, and recheck the oil level using the dipstick.

## AIR FILTER SERVICE

1. Remove the cover bolts from the air filter housing.
2. Remove the foam pre-cleaner element and air filter to inspect them for excessive dust and dirt accumulation.
3. Excessively dirty filters should be replaced with OEM filters.

When re-using an air filter that is not clogged, debris can be loosened by tapping the filter gently on a hard surface. The foam pre-cleaner may be cleaned with detergent and warm water. Allow it to completely air dry before reusing. Assemble the pre-cleaner and the air filter. Finally, reinstall on the motor.

## SPARK PLUG REPLACEMENT

Engine should be cool before replacement begins.

1. Remove the spark plug boots and unscrew the spark plugs using a spark plug wrench. **Note:** Spark plugs are supplied already adjusted to the proper gap.
2. Screw the plugs in by hand until they seat, and snug them down securely with a wrench not more than 1/4 of a turn. Do not over tighten.
3. Replace spark plug boots.

## COOL AIR INTAKE

A critical maintenance step is keeping the engine's cooling air intake free of dust and debris. Failure to do so can cause overheating and damage the motor. This type of damage is not covered by the manufacturer's warranty. Use an air hose to blow accumulated dust and debris from the cool air intake as well as other exposed areas of the engine, especially the cooling fins.

## IMPELLER CARE

Your vacuum sucks up a lot of dust and debris through the hose—some of which can become lodged in the insulation fan and in the recesses of the fan housing. Too much material accumulation can result in loss of suction, excessive vibration, and a buildup of heat due to friction. For units that are being used on multiple jobs each week, the fan's housing cover should be removed monthly to check for and remove any debris buildup inside the housing. At the same time, the impeller should be examined for cracks, bent blades, or other damage. Machines that are used once a week or less may be checked on a quarterly schedule.

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Disconnect any safety switch plugs from the face plate input feed, and using a 9/16" wrench, remove the bolts that secure the face plate to the housing. If necessary use a flashlight, and inspect the interior crevices and blades for any significant accumulation of dust or debris. Depending on how the dust is caked on the interior surfaces, remove the material with a whisk broom, wire brush, or even scrape it out with a tool such as a screwdriver or putty knife.

If the impeller blades are excessively bent, chipped, or any weld cracks present, the impeller should be replaced. A clear symptom of a blade problem is excessive machine vibration. If this is noticed during an operation, immediately shut down the unit.

**Note:** Failure to do so can result in machine damage including catastrophic motor failure which likely will not be covered by the manufacturer's warranty.

## IMPELLER REPLACEMENT

1. Remove the faceplate of the impeller housing using a 9/16" wrench.
2. Remove the three retention bolts in the center hub of the impeller. Using the same bolts, screw them into the other two holes in the hub at the same time evenly. As they are screwed in, the impeller will be forced off its mounting hub. It may be necessary to lubricate the bolt holes with oil or WD40.
3. Carefully lift the old impeller out of the machine and place the new impeller on the drive shaft hub, making SURE there is a 1/4" gap behind the fan for clearance.
4. Secure the impeller to the shaft by screwing the hub bolts tightly into the retention holes.
5. Re-install the housing cover plate. If necessary, 1/4" weather stripping purchased at your local hardware store can be used in place of a damaged seal when re-installing the cover plate.

Training videos and materials are also available on the Member Site at [www.TAPinsulation.com](http://www.TAPinsulation.com). Pest Control Insulation also provides a complete range of replacement parts, hoses, and accessories you may need for your machine. If you have questions, need parts, or service support, don't hesitate to call us at 770-766-6050, Ext. 2.

Maintenance videos are available using the QR code to the right.

