INSTALLATION INSTRUCTIONS

85-0001
KOHLER
Courage
Single Cylinder: SV470-620

When was the last time you serviced your lawn mower? The benefits of maintaining your lawn mower / small engine will pay dividends in the future. The K&N Lawn Mower Upgrade kit contains all the items necessary to perform required engine maintenance. This upgrade kit is a direct replacement for the OE parts, and no modification will be required. There are special installation instructions, so please follow the procedures outlined below to ensure proper installation.

PARTS LIST:

Description	Qty.	Part #
K&N® High Flow Air Filter	1	33-2421
K&N Wrench-Off Oil Filter™	1	HP-1002
Lucas® 30WT Plus Engine Oil	2	18611
Lucas® Fuel Stabilizer	1	18612
NGK® Spark Plug(s)	1	CS6

Warning: Accidental Starts!

Disable engine. Accidental starting can cause severe injury. Before working on the engine or equipment, disable the engine as follows:
1. Disconnect the spark plug lead(s).
2. Disconnect negative (-) battery cable from battery.

Warning: Hot Parts!

Engine components can get extremely hot from operation. To prevent severe burns, do not touch these areas while the engine is running, or immediately after it is turned off.

THESE INSTRUCTIONS MUST BE FOLLOWED EVERY TIME THE FILTER IS SERVICED, OTHERWISE THE FILTER MAY NOT SEAL, AND DAMAGE TO THE ENGINE COULD RESULT.

NOTE: For any additional details specific to your equipment model or suggested routine maintenance schedule please refer to your owner's manual.

Air Filter Installation

1. Turn off the ignition and disconnect the negative battery cable. Disconnect the spark plug lead(s).

2. Loosen the air cleaner cover knobs and remove the cover.

3. Remove the stock air filter with the integral rubber seal.

4. Install the K&N® air filter. Push down firmly so the rubber seal fits snuggly along the groves of the air box.

5. Reinstall the air box cover and tighten the knobs to secure it.

Servicing the Air Filter

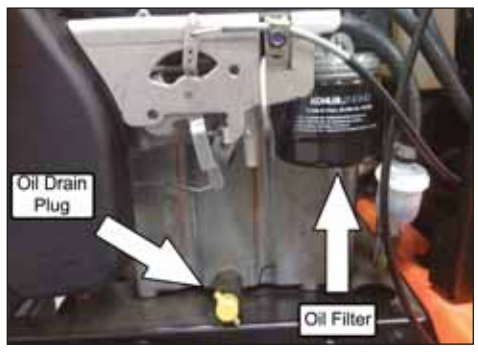
K&N Engineering, Inc., suggests checking the air filter element periodically for excessive dirt build-up. When the element becomes covered in dirt, service it according to the instructions on the Recharger® service kit, part number 99-5050 or 99-5000. For additional information about servicing your K&N® air filter go to http://knfilters.com/cleaning.htm.

Oil Change

1. Turn off the ignition and disconnect the negative battery cable. Disconnect the spark plug lead(s).

2. Make sure the engine is stopped, level and is cool so the oil has had time to drain into the sump. **NOTE: Change the oil while the engine is still warm. The oil will flow more freely and carry away more impurities.**

3. Clean the area around and the underside of the oil fill cap/dipstick before removing it. This will help keep dirt, debris and other foreign matter out of the engine.

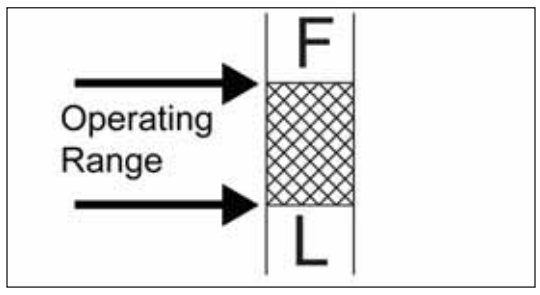


4. Locate the drain plug. Clean the area around the oil drain plug.

5. Remove the oil fill cap/dipstick and drain plug to allow the oil to drain into a used waste oil container. Allow the oil to drain and then reinstall the drain plug; tighten to the toque spec as specified by your owner's manual. Remove the old filter and allow the oil to drain from the oil filter adapter into the used waste oil container. Wipe off the oil filter adapter with a clean cloth.
NOTE: Properly dispose of the old oil and filter. Used oil is highly toxic and must never be disposed of with domestic waste. Visit your local recycling agency for information on how and where to dispose of waste oils. For more information about recycling or to locate oil recycling and disposal facilities in your area, visit http://earth911.com/.

6. Apply a thin film of clean Lucas® 30WT Plus Engine Oil to the rubber gasket on the new K&N Wrench-Off Oil Filter™. Fill the K&N-Wrench Off Oil Filter about ¾ full with Lucas 30WT Plus Engine Oil.

7. Install the new K&N Wrench-Off Oil Filter™. Hand tighten the filter clockwise until the rubber gasket contacts the adapter; then tighten the filter an additional ¾ - 1 turn.



8. Fill the engine with the Lucas® 30WT Plus Engine Oil to the Full or “F” mark on the dipstick. Always check the oil level with the dipstick before adding more oil.
NOTE: To prevent extensive engine wear or damage, always maintain the proper oil level in the crankcase. Never operate the engine with the oil level above the “F” or full mark, or below the “L” or low mark or on the dipstick.

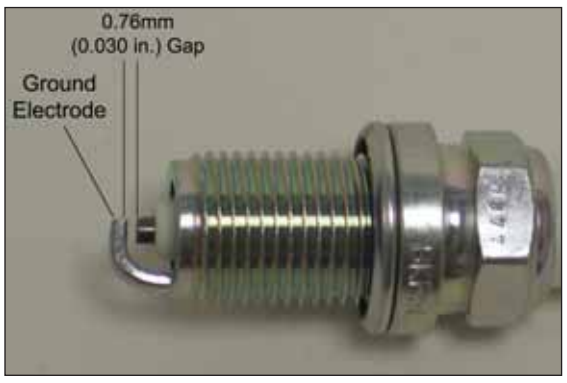
9. Reinstall the oil fill cap/dipstick and tighten securely.

10. Start the engine and check for oil leaks. Recheck the oil level before placing the engine into service. Stop the engine, correct any leaks, allow a minute for the oil to drain down, and then recheck the level on the dipstick. Add more oil if necessary, the oil level should be level with the full or “F” mark on the dipstick.

Spark Plug Change

1. Before removing the spark plug(s), clean the area around the base of the plug(s) to keep dirt and debris out of the engine.

2. Remove the spark plug(s) from the cylinder head.



3. Check the gap of the new NGK® spark plug(s) using a wire feeler gauge. Adjust the gap to 0.76mm (0.030 in) by carefully bending the ground electrode with the wire feeler gauge.

4. Install the NGK® spark plug(s) into the cylinder head and tighten to the toque spec as specified by your owner’s manual.

Lucas Fuel Treatment

1. One ounce of Lucas® fuel stabilizer treats one (1) gallon of gasoline.
NOTE: The included bottle of Lucas® fuel stabilizer is a 2 ounce bottle.

2. Locate the gasoline filler cap. Remove cap and add Lucas® fuel stabilizer. Reinstall the gasoline filler cap.
NOTE: After the gasoline has been treated with Lucas® fuel stabilizer, run the engine until the carburetor is filled with treated fuel.

Equipment Test

1. Start the engine. Listen for air leaks or odd noises. For air leaks secure hoses and connections. For odd noises, find cause and repair before proceeding. This kit will function identically to the factory system.

2. Test run the equipment. Listen for odd noises or rattles and fix as necessary.

3. If equipment/road test is fine, you can now enjoy the added performance from your kit.

* FREE K&N® decal To register your warranty, please see us online at knfilters.com/register. FREE K&N® decal *

• 1455 CITRUS ST., P.O. BOX 1329, RIVERSIDE, CA., U.S.A. 92502 • TECH SERVICE 800-858-3333 • FAX 951-826-4001
• e-mail: tech@knfilters.com® • WWW: http://www.knfilters.com®

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