

## **2-STROKE LOWER END/CRANKCASE FLUSH TIPS**

Following are some helpful tips for attempting to clean out the lower end/crankcase of your 2-Stroke engine out without splitting the cases. These are only tips. If you are not 100% sure of the process, we strongly recommend consulting a professionally trained mechanic.

NOTE: "Flushing Out" the lower end/crank case is not a full proof way to properly clean the lower end of your 2-Stroke engine. It is a more economical option when time and resources are limited. But let's be clear, there is no substitute for a complete teardown/rebuild by a skilled professional.

Why would it be necessary to flush out a lower end. When foreign debris (dirt, grit, sand etc.) have gotten into the engine and made there way into the crankcase where the crankshaft and main bearings reside. A flush may also be helpful if for example a piston skirt broke off and fell into the crankcase.

*\*Reminder-Flushing out the lower end is not a full proof method of cleaning the crankshaft area. It is only an attempt to clean, in some cases it can be beneficial.*

Motor should be removed from chassis. With engine out of the frame it will be much easier to flush.

Once motor is out, remove any loose parts, dowels, case nuts, etc.

With razor blade, small knife, small file etc. clean the base gasket surface thoroughly. It is best to do this prior to lower end clean out in case any debris falls into lower end - it will be washed out when motor is flushed.

Before flushing wipe out as much dirt, grease, grim, oil etc. from cases and crankshaft. Turn crankshaft over slowly and wipe thoroughly and continuously until parts are as clean as possible

It is recommended to flush out with **Contact Cleaner. It is Not recommended** to use gas, kerosene, oil, etc. **DO NOT FLUSH WITH WATER-SERIOUS DAMAGE WILL OCCURE TO CRANKSHAFT AND MAIN BEARINGS.**

### **BE SURE TO WEAR PROPER EYE- EAR-SKIN PROTECTION**

We recommend standing the motor on its nose to flush it. Once motor is stable start spraying contact cleaner into crankcase area while slowly turning crankshaft. Initially the fluid will begin to flow out of case and down the front of engine (it is advisable to have a pan under engine to collect the dirt, fluid etc.). Fluid will be dirty at the beginning of the process, as application is continued and the internal portion of crankcase starts to become clean the fluid will slowly become clear, signaling that the crankcase is being cleaned.

Make sure to spray contact cleaner into the ¼" holes on each side of the crankcase. These holes lubricate the main bearings that support the crankshaft. Crankshaft should be turned over slowly while contact cleaner is sprayed into to the holes. Spray contact cleaner (using the straw) generously

It is recommended to use the entire can of contact cleaner. After the contents have been emptied the fluid should be flowing out clear.

Drying process; turn engine nearly upside down so all contact cleaner will run out. After motor has drained, you can blow compressed air into crankcase. **CAUTION** this should be done at **Very Low** pressure. Do Not just blast away. Contact Cleaner dissipates rapidly and minimal blow drying will be necessary.

After crankcase cavity is cleaned and dried the lower end requires a little lubrication. It is recommended to use a cap full of premix oil. Oil should be applied to lower rod bearing (through slits on rod) 5-6 drops. Also drip 4-5 drops into each main bearing lubrication hole.

COMMENT: The 2-Stroke engine cavity (where crankshaft and main bearings) is a separate sealed cavity from the transmission and clutch. The oil that is put in the transmission/clutch cavity is kept separate from the 2-stroke crankcase cavity with seals. The crankshaft, main bearings, piston etc. are lubricated by the oil that is mixed with the gasoline.