ENGINE BREAK-IN

2-STROKE SNOWMOBILES ENGINES - POLARIS 800

Rev6 highly recommend following this process and reading the service manual before installing the engine! **The most common failure of 2-stroke snowmobile engines is lack of lubrication from failing to purge the air out of the Oil Injection System thoroughly.** For a long, trouble-free machine life, no single action on your part is as important as a proper break-in of a new or rebuilt engine. You will need to run one full tank of fuel through your motor for the break-in period to be completed.

- If your machine has an Electronic Oil Injection System, like a Polaris Axys or a Ski-doo E-tec, refer to the service manual to initiate the break-in procedure. These systems will prime/purge the oil injection system and add additional oil for the first couple hundred miles to ensure proper break-in. If your machine **does not** have an Electronic Oil Injection System, skip to the next step.

- If your machine has a mechanical oil injection system, you will need to bleed the oil pump to ensure the oil is flowing properly with no air pockets. Rev6 recommends you **premix the first tank of fuel 40:1 ratio.** Use 16oz of 2-stroke injection oil for each 5 gallons of fuel. This, in addition to the lubrication supplied by the injection system, will assure proper engine break-in. If your machine **does not** have a mechanical oil injection system, skip to next step.

- If your machine does not use an oil injection system and is pre-mix only, Rev6 recommends a premix ratio of 20:1 for the first tank of fuel. Mix 32oz of 2-stroke injection oil for each 5 gallons of fuel. An oil rich premix will keep the top end lubricated and ensure a proper engine break in.

ENGINE BREAK-IN

2-STROKE SNOWMOBILES ENGINES - POLARIS 800 (CONTINUED)

Polaris 800 PRO-RMK / Dragon – Oil Injection Bleed Procedure

- Fill the Oil Tank
- Locate the Bleed Screw
  - The oil pump is mounted on the MAG (left) side of the crankcase, just below the throttle bodies. The bleed screw is a small brass or silver screw located on the pump body near the large oil feed line from the tank.
- Bleed the Pump Body
  - Loosen the bleed screw one or two turns. Allow oil to gravity-feed until you see a steady stream of oil with no air bubbles. Tighten the screw securely but do not over-torque it. Wipe up any spilled oil to prevent belt contamination.
- Prime the Feed Lines
  - Disconnect the small clear oil lines at the intake fittings or case check-valves. Use a syringe or squeeze bottle to push oil through each line until solid oil comes out the other end. Reconnect the lines tightly and confirm they're seated correctly.
- Manually Open the Oil Pump
  - Locate the pump lever where the throttle cable attaches (it has a spring return). Pull the lever fully open by hand—this simulates full throttle and opens the oil flow.
- Start and Run the Engine
  - Start the engine and hold the pump lever fully open for 30–60 seconds while idling. You should see increased exhaust smoke, confirming oil flow. Continue until all small oil lines show no air bubbles.
- Check Oil Line Routing
  - Make sure all oil lines are routed cleanly and not rubbing on the throttle bodies, frame, or wiring harness. Friction or pinching can cause leaks or allow air into the system later on.
- Initial Run Precaution
  - Run the first tank of fuel at a 40:1 premix to protect the new top end while the injection system stabilizes. Monitor the oil lines during the first rides; small bubbles may appear at first but should clear quickly.
- Final Inspection
- After the first heat cycle, recheck the oil level and verify that all connections are tight and leak-free. Ensure the pump lever returns smoothly to its resting position.

ENGINE BREAK-IN

2-STROKE SNOWMOBILES ENGINES - POLARIS 800 (CONTINUED)

Do not mix oil brands. Stick with whichever high quality oil brand you select. Rev6 recommends OEM manufacturer oils (Polaris, Yamalube, XPS, Etc.) or reputable oil manufactures, such as Amsoil, Royal Purple, Lucas, etc.

You will need to bleed the coolant system thoroughly before starting the engine.

- Fill your coolant tank with the recommended coolant in your owners manual. Leave the cap off.
- Start the engine and continue to bleed coolant until a steady stream of coolant is flowing from the bleeder screw and there is no air left in the system.
- Operate the motor until it is fully warmed up and the thermostat has been activated. Double check the bleeder at least one more time for any residual air in the system.
- Top off the coolant and replace the cap.

Excessive heat build-up during the first three hours of operation will damage close-fitted engine parts. Do not operate at full throttle or high speeds for extended periods during the first three hours of use. Vary the throttle openings and machine speeds to reduce friction on all close-fitting machined parts, allowing them to break in slowly without damage.

Warning!: Do not idle your engine for warm up. Drive the sled slowly until it reaches operating temperature. You will need to heat-cycle your engine several times.

ENGINE BREAK-IN
2 STROKE ENGINES SNOWMOBILES - POLARIS 800 (CONTINUED)

Drive the sled slowly, varying the throttle until the engine reaches operating temperature. Stop the motor and allow to cool to ambient temperature. Repeat several times to allow engine parts to acclimate to each other. Keep RPMs low until the motor reaches operating temperature.

Do not idle engine for longer than 1 minute. Vary throttle position and operation. Do not hold throttle wide open for longer than 7 seconds. This process must be followed for the life of the engine.

Drive with extra caution during the break-in period. Perform regular checks on fluid levels, lines, and all other important areas of the machine.

Serious engine damage can occur without the proper lubrication. Check the oil level often during the first tank of fuel. If the oil level doesn't go down, shut the machine down immediately and check the oil injection system.

If you have any questions or concerns, feel free to call customer service. We are happy to answer or assist in any way possible. A successful engine build doesn’t end at assembly—it continues through break-in. Taking the time to properly break in your engine ensures that every component functions as intended, resulting in better performance, greater reliability, and longer service life.