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HOW TO

# Snow Bikes Destroy Most Motor Oils



by **DAVID HILGENDORF**  
February 27, 2023

If you are new to snow bikes, welcome to the club! A snow bike is technically a dual-sport or dirt bike that has had the rear end converted to a track and the front end to a ski, so that it can be ridden in snow, which is a severe challenge for most motor oils.



## **Year-Round Fun**

Paul Novack has been involved with dirt-bike-powered snow bikes since 2016. Over the last few years, he's converted more than a dozen others, and their bikes, to a one-ski life. Snow bikes typically start life as a big-bore four-stroke dirt bike.



## Get Converted

To convert a large dirt bike for winter use, Paul starts with a Timbersled\* snow bike kit, then installs an aftermarket thermostat assembly and engine blanket to increase the engine temperature, which helps reduce condensation and keeps the motor from over-fueling due to low ambient temperatures. Electric heated grips require a lot of electricity to operate, which dirt bikes lack, so the handlebars are liquid heated by running the engine's high-temperature coolant through them.



## Extreme Stress

Paul adds that the choice of engine oil is very crucial, as a lower viscosity is needed to help the engine turn over in cold conditions. The engines are also stressed well beyond the manufacturers original design, and frequently pushed to their limits for extended periods of time climbing mountains and pushing the bike through heavy snow. The snow bike kit also adds substantial weight that stresses the engine even further in such extreme conditions.



## Watch for Wear

“Dirt bikes were never intended to be ridden under the conditions we put them through, with the added strain of a heavy track assembly.” Paul said. “I ran a 500cc KTM\* for a couple years and when it

added strain of a heavy track assembly," Paul said. "I ran a 500cc KTM™ for a couple years and when it was time to do a top end rebuild, I installed a 570 big-bore kit, then put another 120 hours of hard use on before rebuilding it. When the piston came out it showed almost no wear at all, due to superior lubrication."

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## **Push it Harder**

After that success, Paul also built a 450cc bike with an aftermarket ECU that increases rpm, fueling and timing to cope with the harsh conditions, and a Rekluse\* automatic clutch that freewheels at low rpm, increasing friction and the associated risk of oil breakdown.

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**An Ounce of Prevention**

## AN Ounce of Prevention

Due to the extreme conditions and elevated exposure to moisture, heat and friction, Paul recommends snow bike riders change the oil and filter after only a few rides, totaling about 10 hours of operation. Paul spares no expense on engine protection and repeatedly emphasized the importance of high-quality lubricants that don't break down under extreme conditions.

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Paul recommends AMSOIL Formula 4-Stroke® Powersports 0W-40 Synthetic Motor Oil to protect engines under extreme operation and in tough environments, adding that it is the preferred oil for many snow bike enthusiasts.

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