

# Oil Accumulators

*Experts weigh in on their value in oval-track racing.*

By **Mike Adaskaveg**

**P**roponents of oil accumulators, such as Ohio Crankshaft's Stan Ray, cite two key advantages to them.

"I love them," Ray says. "The two main reasons are that they pre-lube an engine every time you start it and that they maintain oil pressure."

The oil accumulator rises to the occasion when you face oil starvation issues.

"If the engine's oil pressure should suddenly drop because of hard acceleration, severe cornering, or hard braking, [the oil accumulator] immediately sends oil to the main galleries," says Moroso's Thor Schroeder. "When the danger is over and the oil pump is once again primed with oil, the oil pressure forces oil back into the accumulator, where it is ready for the next emergency."

Maintaining oil pressure is particularly challenging in oval-track racing.

"Picture a bucket of water on the deck of a boat," Canton Racing Products' Bob Vaughn says. "Make a sharp turn and the water walls up onto one side of the bucket. That's what is happening in your engine. The bottom of that wall exposes your oil pickup. It causes it to draw air."

However, despite the advantages, many racers wince at the use of oil accumulators due to the additional cost and weight. Some say that preventing an engine failure makes oil accumulators well worth it.



Crewman Mike Lynch shows a Moroso oil accumulator used in the modifieds owned by Jimmy Reid and driven by California engine builder Shawn DeForest. Accumulators offer advantages for oval-track engines.

"They are not a crutch to rely on, but they can definitely save your engine," says T.J. Grimes, of Baker engineering. "You shouldn't rely on an oil accumulator to totally prevent you from having engine problems. It is insurance to get you by."

Karl Performance's Dan Nikkel worries about the oil accumulator over-oiling, which negatively affects the bearings.

"The oil has to get away from the crankshaft," Nikkel says. "If there is too much oil, the crankshaft starts grabbing it—the effect is called roping—[and the oil] stays all the way around the crankshaft, which is spinning it, holding it until the rpm slows down."

Your choice of a racing oil pan may negate the need for an oil accumulator.

"Our company's goal is to build an oil pan so efficient that there is no need for an oil accumulator," says Josh Ruby, of Kevko Racing Oil Pans & Components. "Power pouch options, recommended for higher rpm engines, collect the oil and gets it away from the crankshaft, reducing

## Facts and Tips

- You have to add additional oil to what you normally use to fill the oil accumulator.
- You don't need a large accumulator. To save weight, choose the appropriate accumulator for your application.
- When doing an oil change in your shop, drain the oil from the oil pan, and then turn the oil accumulator on to drain its oil.
- If your car rolls over, an oil accumulator can save an engine.
- If you want to know when your oil accumulator turns on, you can install an indicator light in your cockpit.
- Some oval-track racers run one quart short in a shallow pan to increase horsepower. When the crankshaft rotates, windage drives oil across the bottom of the pan to the passenger side. The oil accumulator then makes up the difference.
- If you use an oil accumulator with a non-racing pan, it may activate all the time, forcing too much oil into the engine. The accumulator with a good oil pan activates far less often.





A Canton Racing Products oil accumulator is tucked under the deck of another modified owned by Jimmy Reid. DeForest feels the accumulator provides an extra level of insurance on his engines.

windage. Our new pickup tube reaches the right-side kickout and grabs the oil. The kickout, which is efficiently designed, eliminates the need for an oil accumulator in most cases.”

Schroeder recommends that racers take the following approach.

“Install a top-notch oil pan first, and see if oil pressure fluctuations are still a problem,” Schroeder says. “If they are, then follow up with an oil accumulator. Or, if your rules limit which oil pans you can use, the rules may still allow you to run an accumulator with a less-than-desirable pan.”

Vaughn sees the oil accumulator fitting specific needs.

“You can have the best oil pan in the world, but it won’t change the laws of physics,” says Vaughn. “Our accumulator is for drivers whose cars stick well and/or they brake hard in the turns. Cornering G-Forces of today’s oval-track race cars are higher than ever. We’ve out-drove the laws of physics and that’s why oil accumulators are needed.”

## SOURCES

**Canton Racing Products**  
North Branford, Connecticut  
203-481-9460

**Karl Performance**  
Des Moines, Iowa  
888-771-5574

**Kevko Racing Oil Pans & Components**  
Fairmont, Minnesota  
800-770-3557

**Moroso**  
Guilford, Connecticut  
203-453-6571

**Ohio Crankshaft**  
Greenville, Ohio  
800-333-7113