

Premium Oil For Premium Engines

***Merch Performance Recommends AMSOIL Synthetic
Motorcycle Oil for its V-Twin Engines***

Merch Performance of Red Deer, Alberta, Canada is world renowned for their award-winning V-twin engine development. In fact, they won 2002 Performance Product of the Year and have a rock solid reputation in the business for aesthetics and reliability.

Owner Gerry Merchant takes great pride in the quality engines his company produces. Every shop station has a specification check sheet, and each machine and part is carefully and regularly checked for proper calibration and tolerances. "We build a Canadian V-twin engine here," says Merchant. "In house we manufacture the crankcases, flywheels, connecting rods, cylinders, cylinder heads, rocker covers, and pushrod tubes and we assemble the engines for shipping worldwide."

A number of patented innovations make Merch engines the best of the best. "The reason why the engines we build stand out is because of a long list of features that make Merch engines almost indestructible," explains Merchant. "But what we call bullets are the main feature of our crankcases."

Before assembly, from the inside of the crankcase halves, eight holes are drilled in the crankcase at a 90-degree angle to cylinder stud placement. Eight round stainless steel "bullets," which are larger than the holes at normal temperatures, are cooled with liquid nitrogen, pressed into the heated crankcase, machined smooth and drilled and tapped for cylinder stud placement.

"We've never had a stud pull out of a case," says Merchant. "It's impossible for them to move. The case would have to self-destruct before a cylinder stud would move."

In addition to bullets, Merchant has developed a 37-point list of other innovative ideas for engine design, including small diameter flywheels which allow for a thicker crankcase, huge steel cylinder liners and dowel pins placed throughout the engine to allow true alignment of all components.



A patented oil cooling system significantly decreases oil temperatures. The oil cooler and filter are combined in a small unit, described by Merchant as "a jar within a jar." Oil continually moves through a 40-micron sintered bronze filter as it flows through the inner jar. When extra cooling is required, a manual valve is turned, moving the oil through the filter to the outer jar and by the large cooling fins. Cooling area is increased, decreasing lubricant temperature by over 10 degrees F in stop-and-go traffic and 30 degrees F on the highway.

Merch engines are available in a number of sizes and power ratings, starting at the 100 c.i. Stage I "Fatso" that offers 90 hp and 98 ft/lbs at the rear wheel, to the enormous 131 c.i. Stage III that pumps out 140 hp and 150 ft/lbs at the rear wheel.

Merchant recently stepped down as CEO of Merch Performance to concentrate on building a complete motorcycle, the Merch RT Cruiser. "Building the RT Cruiser came about from customers having their motorcycles modified in our shop," explains Merchant. "We would install our Merch engines in Evo and Twin Cam frames and then beef up everything to accommodate the increased horsepower and torque.

"As we went through this process we addressed all the OEM deficiencies, found out what was marginal and fixed the problems. In learning all of the possible and impossible problems, we created the RT Cruiser."

The carefully crafted high performance V-twin engines manufactured by Merch Performance require a premium high performance lubricant. The company recommends AMSOIL 20W-50 Synthetic Motorcycle Oil. AMSOIL Synthetic Motorcycle Oils offer unparalleled protection and performance, keeping wear to an absolute minimum, reducing operating temperatures and keeping engines clean and deposit-free.