



**Oronite**

video transcript

## dedicated motorcycle/scooter lubricant additives for a smooth ride

### **Narrator**

This is Tommy. He's been riding a motorcycle for many years as a means of transport and also for leisure. His motorcycle is an important part of his daily routine, and so he maintains it well and uses good-quality automotive engine oil. Tommy has just bought a new motorcycle powered by an engine incorporating the latest technology that provides better performance while meeting the latest emissions standards.

Tommy is considering using automotive engine oils like he did previously. However, he realizes that there are many differences between his new motorcycle and a typical car. For example, his motorcycle engine includes the transmission system in one unit. This means that the engine oil he uses will have to lubricate the engine as well as the transmission system. In the case of cars, the transmission is separate from the engine. So typical engine oils for cars are designed only to meet the lubrication requirements of an engine, not the transmission.

While older automotive oils can meet the requirements of motorcycles, modern automotive engine oils are not suitable, as they are formulated with low-viscosity and low-friction properties to improve fuel economy performance. Low-viscosity automotive oils do not perform well for motorcycles, because motorcycles typically operate at a much higher engine speed than cars. And the transmission requires wear performance. In short, automotive oils do not have the capability to cope with the high-temperature, high-shear environment of the motorcycle engine and transmission system.

In addition, low friction does not work well in motorcycles, as the transmission system requires high-friction performance without which clutch slippage will result. Recognizing all these factors, Tommy now understands that modern lubricants designed for cars are no longer ideal for motorcycles. What he needs is a dedicated motorcycle lubricant that takes into account the unique characteristics of motorcycle engines and how they operate.

To blend the right oil for Tommy, Chevron Oronite has launched a new series of dedicated additive packages for motorcycles. These additives address those areas which automotive engines are lacking to provide the ideal solution for optimum motorcycle oil performance. The OLOA<sup>®</sup> 22000 series was developed at the Chevron Oronite R&D technology center in Japan. Fully equipped with engine test beds and a wide range of bench test instruments, the center has been developing Chevron Oronite oil additives for over 20 years.

A large part of their work involves working with OEMs in the development of additives for OEM-approved lubricants. The latest motorcycle oil products comprise four different additive packages designed to meet JASO T903 specifications. JASO T903 is the industry standard relating to four-stroke motorcycle engine performance. In practice, MA, MA1, and MA2 classification applies to motorcycles where the transmission system operates with a wet clutch, while JASO MB is the specification for scooter application, where a dry clutch system is used.

The JASO specifications also include standards that specify physical and chemical properties to ensure adequate wear protection for the transmission gears. Low-viscosity and low-friction automotive engine oils may not meet all these JASO specifications. The four new Oronite motorcycle additives comprise two MA2-category products and 2 MB products.

The MA2 products for motorcycles are OLOA 22021 for premium motorcycle oils that also meet API SN specifications. OLOA 22025, for dedicated motorcycle oil formulations that also meet API SL, SJ, and SG

specifications. Oils classified as MA2 are preferred by motorcycle OEMs for superior friction performance and smooth riding experience.

The MB products are primarily for scooters using dry clutch and automatic transmission. They are OLOA 22020 for premium scooter oils that meet API SN specifications. OLOA 22038 for dedicated scooter oils that meet API SL, SJ, and SG specifications. Besides meeting JASO requirements, the OLOA 22000 series was also designed to meet performance requirements relating to high-temperature operation.

OLOA 22000-series products were put through the Komatsu Hot Tube and the Panel Coker Test at the technology center in Japan. Both tests are designed to determine oil performance at high temperature, and all four new Oronite motorcycle additives registered high ratings, indicating strong oxidation resistance and good deposit control.

Besides distinguished performance credentials, the OLOA 22000 series offer other benefits, including compatibility with Group II or better base stocks. In addition, the finished oil can be blended to a wide range of viscosity grades at competitive treat rates. To sum up, the OLOA 22000 series additive is your winning solution for dedicated motorcycle lubricants. And Tommy will enjoy smooth rides on his new bike.