



BOLDLY EXCEEDING EXPECTATIONS.

**DYNAMO
LUBRICANTS**

DYNA CHALLENGER, API SL / JASO MA2 SEMI SYNTHETIC FOUR STROKE ENGINE OIL

Dyna Challenger Motorcycle Oils are advanced performance semi synthetic motorcycle oils. The unique, semi synthetic structure formulations enable them to offer advantages beyond conventional motorcycle oils of similar viscosities. Semi synthetic fluids do not require as much thickener to achieve a multigrade viscosity rating and, in some cases, do not require any thickener. As a result, the formulations tend to be very shear stable and thus, provide a solid, protective oil film for engine bearings, piston rings, transmission gears and other critical engine parts.

Dyna Challenger 20W50 has been approved to meet and exceed JASO MA2 oil specifications. The JASO Engine Oil Standards Implementation Panel consists of six organizations: Petroleum Association of Japan (PAJ), Japan Automobile

Manufacturers Association, Inc. (JAMA), Society of Automotive Engineers of Japan, Inc. (JSAE), Land Engine Manufacturers Association (LEMA), Japan Lubricating Oil Society (JALOS), and Japan Boating Industry Association (JBIA) as well as other concerned companies (lubricant additive manufacturers). Dyna Challenger Motorcycle Oil formulations offer excellent flow characteristics at low temperatures to help reduce engine wear at start-up and provide outstanding resistance to oxidation and/or volatilization at high temperatures, both of which degrade the oil. Each of the Dyna Challenger Motorcycle Oil formulations have been optimized to help meet the unique performance characteristics demanded by motorcycle engines and thus, provide an extremely high level of performance and protection for motorcycle engines.

FEATURES AND BENEFITS

FEATURES	ACTION	BENEFITS
High Oxidation Stability	Resist breakdown of oil molecules under variable operating conditions	Fewer deposits on engine parts and cleaner running engines
Ideal Friction Characteristics	Advanced additive molecules provide optimized friction characteristics to the oil	Smooth and flawless operation
Excellent Low temperature flowability	Synthetic oil technology gives easy flow of oil during low temperatures	Easier start up during cold weathers
Excellent wear protection	Provides the extra layer of protection to the critical engine parts	Longer engine component life.

MANUFACTURED BY
D.K. LUBRICANTS (M) SDN BHD
SELANGOR D.E., MALAYSIA

INTERNATIONALLY MARKETING BY
KISMAT PETROLEUM TRADING PTE LTD,
SINGAPORE



DYNAMOLUBRICANTS.COM



BOLDLY EXCEEDING EXPECTATIONS.

DYNAMO
LUBRICANTS

PERFORMANCE SPECIFICATIONS AND APPROVALS

Dyna Challenger meets and exceeds the following specification requirements:

- API SL
- JASO MA2
- Available in two SAE grades: 10W40 and 20W50

- JASO MA2 approved (for SAE 20W50) with the following oil code



JASO T 903: 2016 PERFORMANCE IS GUARANTEED

APPLICATION

Dyna Challenger Motorcycle Oil is designed for engine oils where JASO MA or MA-2 (T903: 2016) is required, as well as API SJ or SL. The oil is engineered primarily for on-road, high-performance, 4-stroke sport bikes, however, it may be used in other types of on and off-road 4-stroke motorcycles. Dyna Challenger Motorcycle Oil is formulated to help offer outstanding protection in 4-stroke, V-Twin type engines, particularly those which are air cooled

and tend to run hotter than other types of engines. These products will help provide excellent performance in motorcycle engines that are designed with a common engine/transmission lubrication system or where the engine lubrication system is separate from the transmission system. In the case of the latter, follow the manufacturer's recommendation for the type of fluid to be used in the transmission.

TYPICAL CHARACTERISTICS

PARAMETERS	METHOD	UNITS	TYPICAL PROPERTIES	
SAE GRADE	-	-	20W50	10W40
Viscosity @ 40 Deg C	ASTM D445	cSt	142.5	99
Viscosity @ 100 Deg C	ASTM D445	cSt	18.49	14.3
Viscosity Index,	ASTM D2270	-	146	148
Pour Point	ASTM D97	Deg C	-27	-27
Flash Point	ASTM D93	Deg C	220	220
Density @ 30 Deg C	ASTM D4052	Kg/L	0.8654	0.8654

These characteristics are typical of current production. Whilst future production will conform to Dynamo specification, variations in these characteristics may

MANUFACTURED BY
D.K. LUBRICANTS (M) SDN BHD
SELANGOR D.E., MALAYSIA

INTERNATIONALLY MARKETING BY
KISMAT PETROLEUM TRADING PTE LTD,
SINGAPORE



DYNAMOLUBRICANTS.COM