

JASO T 903 Engine Oil Standard

What is JASO T 903?

JASO T 903 is a standard for motorcycle 4-stroke engine oil. It was established by the Japan Automobile Standards Organization (JASO) in 1998.

Other 4-stroke engine oil standards were established prior to this standard. These include:

- ❖ API (American Petroleum Institute)
- ❖ ILSAC (International Lubricant Standardization and Approval Committee)
- ❖ ACEA (European Automobile Manufacturers' Association).

However, these three standards are primarily intended to be applied to automobile oil where the oil performance and quality requirements have tended toward lower viscosity and lower friction to achieve better fuel economy. When low viscosity and low friction oil is used in a motorcycle or ATV, clutch slippage and transmission tooth face damage can be a concern since the same oil lubricates the engine, clutch and transmission. Because of these issues, JASO T 903 was created as a "motorcycle-specific" oil standard.

The JASO T 903 standard specifies that in addition to the general properties of 4-stroke engine oil, the oil must pass a specified standard for the following two properties:

- ❖ A specified minimum friction characteristic that is vital in preventing clutch slippage.
- ❖ A specified maximum amount of viscosity degradation caused by extreme high shear forces between transmission gears.

During improvements to oil performance and quality in terms of wear protection and fuel economy, the API has newly established SH, SJ, SL, SM, SN category oils. For motorcycle and ATV engine oil that was not tested to meet JASO T 903 standards, Suzuki specifies API SF or SG category oil (viscosity SAE 10W-40). With the establishment of JASO T 903, JASO classification MA is specified in addition to the API category to enable customers to choose a suitable oil for motorcycle use among the higher quality oil products that have an API category of SH or higher (viscosity SAE 10W-40).

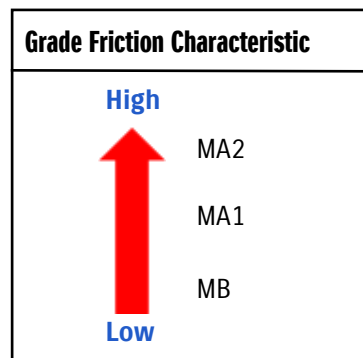
JASO Oil Performance Classification

There are two JASO oil classifications (MA and MB) which were included in the original standard established in 1998. These standards are based on the friction characteristic of the oil. In a revision of the standard in 2006, the MA classification was divided into MA1 and MA2. The 4-stroke engine oil quality requirements in the API standard was also revised to SJ, SL, SM and SN, eliminating the earlier categories, and a requirement of phosphorus content (adverse effect to catalyst) was added.

MB classification oil has low-friction characteristics. If MB oil is used in an engine for which MA oil is specified, there is a possibility that clutch slippage may occur. MB oil can be used only for models specified by motorcycle manufacturers. As of July 2011, MB oil is not specified for any Suzuki motorcycle or ATV model. MA oil is specified for all Suzuki motorcycle and ATV models.

Classification by Friction Characteristic Index			
Friction Characteristic Evaluation Index	Standard Index		
	MA		MB
	MA2	MA1	
DFI	$1.85 \leq \text{DFI} < 2.50$	$1.30 \leq \text{DFI} < 1.85$	$0.50 \leq \text{DFI} < 1.30$
SFI	$1.70 \leq \text{SFI} < 2.50$	$1.25 \leq \text{SFI} < 1.70$	$0.50 \leq \text{SFI} < 1.25$
STI	$1.85 \leq \text{STI} < 2.50$	$1.45 \leq \text{STI} < 1.85$	$0.50 \leq \text{STI} < 1.45$

DFI: Dynamic Friction Characteristic Index
 SFI: Static Friction Characteristic Index
 STI: Stop Time Friction Index



Oil Container Markings

It is the responsibility of oil product suppliers to conduct self tests in accordance with the JASO standard and to submit test reports to JASO.

The engine oil classification reported to JASO must be indicated on oil containers in accordance with the specified format shown to the right.

Although the 2006 revisions divided the MA grade into MA1 and MA2, suppliers can choose whether to indicate MA or the sub-classification MA1 or MA2.

The diagram shows a portion of an oil container label with red lines pointing to specific parts of the product reference number 'MOB1SMC047'. The callouts are:

- Product Reference Number (3 Digits) - points to '047'
- Supplier Code (3 Digits) - points to 'SMC'
- Country Code (International Phone Code Based) - points to 'MOB1'

The label itself contains the following text:

ECSTAR R5000 MINERAL ENGINE OIL
HUILE MOTEUR MINÉRALE R5000 ECSTAR 10W/40

ECSTAR R5000 Mineral Engine Oil uses high-quality base oils in a specific formulation that keeps your Suzuki's engine and transmission clean and efficient. Its stable anti-friction properties make it a durable, performance-sustaining engine lubricant. Approved for use in all Suzuki motorcycles, scooters and ATVs. L'huile moteur minérale R5000 ECSTAR utilise des huiles de base de qualité supérieure dans une préparation particulière qui garde le moteur et la boîte de vitesses de votre appareil Suzuki propres et efficaces. Ses propriétés anti-frottement stables en font un lubrifiant à moteur durable qui maintient le rendement. Son utilisation est approuvée avec l'ensemble des motocyclettes, scooters et VTT Suzuki.

Custom Formulated for Suzuki Vehicles

- Exceeds All JASO MA2 Requirements
- Lower Volatility for Reduced Oil Consumption
- Helps Prolong Engine Life
- Préparation sur mesure pour les véhicules Suzuki
- Surpasse l'ensemble des exigences MA2 de JASO
- Faible volatilité pour une consommation réduite d'huile
- Aide à prolonger la durée de vie du moteur

WARNING: Continuous contact with used gasoline engine oils has caused skin cancer in animal tests. Avoid prolonged or repeated contact with eyes, skin and clothing. Wash skin with soap and water after handling.

KEEP OUT OF REACH OF CHILDREN.

MISE EN GARDE: Le contact continu avec des huiles moteur usées a provoqué le cancer lors de l'expérimentation animale. Veuillez éviter un contact prolongé ou répété avec les yeux, la peau et les vêtements. Il faut laver avec du savon et de l'eau après la manipulation.

GARDER LOIN DE PORTÉE DES ENFANTS.

SUZUKI, the SUZUKI "S" and ECSTAR are registered trademarks. SUZUKI, le "S" de SUZUKI et ECSTAR sont des marques de commerce.

Approved by
SUZUKI MOTOR CORPORATION

DISTRIBUTION:
Suzuki Canada Inc.
360, Saunders Road
Barrie, (Ontario) L4N 9Y2

JASO T 903.2016
PERFORMANCE IS GUARANTEED by
SUZUKI MOTOR CORPORATION
ECSTAR R5000 MINERAL ENGINE
OIL 10W/40
HUILE MOTEUR MINÉRALE
R5000 ECSTAR 10W/40
1Gal. (3.785L)

990A0-10W/40-E4L

