
2003 MOTORCYCLE MANUFACTURER FUEL RECOMMENDATIONS

BMW

- *F650 GS*

FUEL REFUELING

△ Caution

Leaded fuel will destroy the catalytic converter.
Do not run the fuel tank dry. If you do so, you may damage the engine or catalytic converter.

- Place the motorcycle on the center stand.
- Make sure the ground is level and firm.
- Open the fuel filler cap.
- Refuel.
- Use only unleaded premium grade fuel, minimum octane rating 95 (RON), 85 (MON), AKI 91 Premium.

DUCATI

- *M-S4 Ducati*

TYPE OF FUEL

Gasoline 95-98 RON

Important

Additives to fuel or lubricants are not allowed.

HARLEY DAVIDSON

- *Dyna Glide*

GASOLINE BLENDS

Your motorcycle was designed to get the best performance and efficiency using unleaded gasoline. Most gasoline sold in the United States is blended with alcohol and/or ether, to create "oxygenated" blends. The type and amount of alcohol and/or ether is important.

CAUTION

Do not use gasoline that contains methanol. Doing so may result in fuel system component failure, engine damage and/or equipment malfunction.

- Gasoline containing METHYL TERTIARY BUTYL ETHER (MTBE). Gasoline/MTBE blends are a mixture of gasoline and as much as 15% MTBE. Gasoline/MTBE blends can be used in your motorcycle.
- ETHANOL is a mixture of 10% ethanol (Grain alcohol) and 90% unleaded gasoline. Gasoline/ethanol blends can be used in your motorcycle if the ethanol content does not exceed 10%.
- REFORMULATED OR OXYGENATED GASOLINES (RFG). Reformulated gasoline is a term used to describe gasoline blends that are specifically designed to burn cleaner than other types of gasoline, leaving fewer "tailpipe" emissions. They are also formulated to evaporate less when you are filling your tank. Reformulated gasolines use additives to "oxygenate" the gas. Your motorcycle will run normally using this type of gas and Harley-Davidson recommends you use it when possible, as an aid to cleaner air in the environment.

You may find that some gasoline blends adversely affect the starting, driveability, or fuel efficiency of your motorcycle. If you experience one or more of these problems, it is recommended you operate your motorcycle on straight unleaded gasoline.

HONDA

- *Metropolitan II CHF50P*

FUEL RECOMMENDATIONS

Type	Unleaded
Pump octane number	86 (or higher)

2003 Motorcycle Manufacturer Fuel Recommendations

We recommend unleaded gasoline because it produces fewer engine and spark plug deposits and extends the life of the exhaust system. Never use stale or contaminated gasoline or an oil/gasoline mixture. Avoid getting dirt or water in the fuel tank.

Your engine is designed to use any gasoline that has a pump octane number of 86 or higher. Gasoline pumps at service stations normally display the pump octane number.

Use of a lower octane gasoline can cause persistent "pinging" or "spark knock" (a loud rapping noise) which, if severe can lead to engine damage. Light pinging experienced while operating under a heavy load, such as climbing a hill, is no cause for concern.

If pinging or spark knock occurs at a steady engine speed, under normal load, change brands of gasoline. If spark knock or pinging persists, consult your Honda dealer.

Oxygenated Fuels

Some conventional gasolines are being blended with alcohol or an ether compound. These gasolines are collectively referred to as oxygenated fuels. To meet clean air standards, some areas of the United States and Canada use oxygenated fuels to help reduce emissions. If you use an oxygenated fuel, be sure it is unleaded and meets the minimum octane rating requirements.

Before using an oxygenated fuel, try to confirm the fuel's contents. Some states/provinces require this information to be posted on the pump.

The following are the EPA approved percentages of oxygenates.

ETHANOL (ethyl or grain alcohol) 10% by Volume

You may use gasoline containing up to 10% ethanol by volume. Gasoline containing ethanol may be marketed under the name "Gasohol".

MTBE (Methyl Tertiary Butyl Ether) 15% by Volume

You may use gasoline containing up to 15% MTBE by volume.

METHANOL (methyl or wood alcohol) 5% by Volume

You may use gasoline containing up to 5% methanol by volume as long as it also contains cosolvents and corrosion inhibitors to protect the fuel system. Gasoline containing more than 5% methanol by volume may cause starting and/or performance problems. It may also damage metal, rubber, and plastic parts of your fuel system.

If you notice any undesirable operating symptoms, try another service station or switch to another brand of gasoline. Fuel system damage or performance problems resulting from the use of an oxygenated fuel containing more than the percentages of oxygenates mentioned above are not covered under warranty.

Oxygenated fuels can damage paint and plastic. Be careful not to spill fuel when filling the fuel tank. Wipe up any spills immediately.

NOTICE

Oxygenated fuels can damage paint and plastic. Damage caused by spilled fuel is not covered by warranty.

KAWASAKI

- *Mean Streak VN1500P2*

FUEL REQUIREMENTS:

Fuel Type

Use clean, fresh unleaded gasoline with a minimum Antiknock Index of 90. The Antiknock Index is posted on service station pumps in the U.S.A. The octane rating of a gasoline is a measure of its resistance to detonation or "knocking." The Antiknock Index is an average of the Research Octane Number (RON) and the Motor Octane Number (MON) as shown in the table below.

2003 Motorcycle Manufacturer Fuel Recommendations

Using gasoline/methanol blends can result in poor starting and driveability, and may damage critical fuel system components.

Gasoline containing up to 15% Methyl Tertiary Butyl Ether (MTBE) can be used.

Gasoline containing up to 10% Ethanol can be used.

Gasoline that has been Reformulated or Oxygenated can be used.

may be used in your vehicle if the ethanol content is not greater than 10%.

Gasoline/Methanol

Fuel containing 5% or less methanol (wood alcohol) may be suitable for use in your motorcycle if they contain co-solvents and corrosion inhibitors.

DO NOT USE fuels containing more than 5% methanol under any circumstances. Fuel system damage or motorcycle performance problems resulting from the use of such fuels are not the responsibility of Suzuki and may not be covered under the New Vehicle Limited Warranty or the Emission Control System Warranty.

SUZUKI

- *Super Sport TL 1000R*

FUEL, ENGINE OIL AND COOLANT RECOMMENDATIONS

FUEL

Your motorcycle requires premium unleaded gasoline with a minimum pump octane rating of 90 ((R+M)/2 method). In some areas, the only fuels that are available are oxygenated fuels. Oxygenated fuels which meet the minimum octane rating requirement and the requirements described below may be used in your motorcycle without jeopardizing the New Vehicle Limited Warranty or the Emission Control System Warranty.

NOTE: TL100R engine is designed to use premium unleaded gasoline only. Use premium unleaded gasoline under all riding conditions.

NOTE: Oxygenated fuels are fuels which contain oxygen-carrying additives such as MTBE or alcohol.

Gasoline containing MTBE

Unleaded gasoline containing MTBE. (Methyl Tertiary Butyl Ether) may be used in your motorcycle if the MTBE content is not greater than 15%. This oxygenated fuel does not contain alcohol.

Gasoline/Ethanol Blends

Blends of unleaded gasoline and ethanol (grain alcohol), also known as GASOHOL,

Fuel Pump Labeling

In some states, pumps that dispense oxygenated fuels are required to be labeled for the type and percentage of oxygen, and whether important additives are present. Such labels may provide enough information for you to determine if a particular blend of fuel meets the requirements listed above. In other states, pumps may not be clearly be labeled as to the content or type of oxygen and additives. If you are not sure that the fuel you intend to use meets these requirements, check with the service station operator or the fuel suppliers.

NOTE:

- *To help clean the air, Suzuki recommends that you use the oxygenated fuels.*
- *Be sure any oxygenated fuel you use has octane ratings of at least 90 pump octane ((R+M)/2 method).*
- *If you are not satisfied with the driveability or fuel economy of your motorcycle when you are using an oxygenated fuel, you should switch back to regular unleaded gasoline.*
- *If you are not satisfied with the driveability of your motorcycle when you are using an oxygenated fuel, or if engine pinging is experienced, substitute another brand as there are differences between brands.*

2003 Motorcycle Manufacturer Fuel Recommendations

CAUTION

Spilled gasoline containing alcohol can harm your motorcycle. Alcohol can damage painted surfaces.

Be careful not to spill any fluid when filling the fuel tank. Wipe spilled gasoline up immediately.

URAL CLASSIC

- *Adirondac, Patrol & Tourist*

FUEL

91 octane premium unleaded gasoline.

YAMAHA

- *XV1600 MOTORCYCLE*

FUEL

Recommended fuel UNLEADED GASOLINE ONLY
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CAUTION

Use only unleaded gasoline. The use of leaded gasoline will cause severe damage to the engine internal parts such as valves, piston rings, exhaust system, etc.

Your Yamaha engine has been designed to use regular unleaded gasoline that with a pump octane number (R+M/2) of 86 or higher, or research octane number of 91 or higher. If knocking (or pinging) occurs, use a gasoline of a different brand or premium unleaded fuel. Use of unleaded fuel will extend spark plug life and reduce maintenance costs.

Gasohol

There are two types of gasohol; gasohol containing ethanol and that containing methanol. Gasohol containing ethanol can be used if ethanol content does not exceed 10%. Gasohol containing methanol is not recommended by Yamaha because it may cause fuel system damage or vehicle performance problems.