



**WHEN 6 GEARS
AREN'T ENOUGH™**

Specifications for Two Stroke Oil

NMMA TC-W3 – two cycle water-cooled, third generation. TC-W3 obsoletes TC-W & TC-WII. Oils with this spec do not use metal based additives, and are ashless. *This is an outboard specific spec.*

API TC – only API spec established for two cycle engines. It regulates lubricity, detergency, ash content & pre-ignition. Oils with this spec are typically using metal based, ash producing additives.

JASO FA – original spec established regulating lubricity, detergency, initial torque, exhaust smoke and exhaust system blocking.

JASO FB – increased lubricity, detergency, exhaust smoke and exhaust system blocking requirements over FA.

JASO FC – lubricity and initial torque requirements same as FB, however far higher detergency, exhaust smoke and exhaust system blocking requirements over FB.

JASO FD – same as FC with far higher detergency requirement.

ISO-L-EGB – same tests and requirements as JASO FB.

ISO-L-EGC – same tests and slightly higher detergency requirements (piston varnish) as JASO FC.

ISO-L-EGD – same tests and requirements as JASO FD.

- National Marine Manufacturers Association (NMMA) is based in the USA.
- American Petroleum Institute (API) is based in the USA.
- Japanese Automobile Standards Organization (JASO) is based in Japan.
- International Standards Organization (ISO) is based in Europe.

	API	JASO	ISO
		FA	
Good		FB	EGB
Better	TC	FC	EGC
Best		FD	EGD

These specs are established by different governing bodies located in various parts of the world.

They all serve the same purpose; to give consumers a quantifiable way to measure the quality of 2 stroke oil.

What does all this mean for your snowmobile, dirt bike or PWC?

Most OEM 2 stroke oils fall in either the JASO FB/ISO-L-EGB (Good) or JASO FC/ISO-L-EGC/API TC (Better) category, although the container and the owners manual will never actually list an oil spec. OEM's prefer just to recommend their private label product and tell you there is no known equivalent. It is easy not to have a "known" equivalent if you do not look for one.

The toughest spec currently obtainable for two stroke oil is JASO FD/ISO-L-EGD. Any oil listing an JASO FD/ISO-L-EGD rating is preferred for a snowmobile, dirt bike or PWC. Common sense should tell you, using an oil (including OEM oil) that does not list a rating usually means it does not obtain these ratings, otherwise why would they not want to list on their product.

Moss-Magnuson Warranty Act

It is illegal for any manufacturer to require the exclusive in the United States use of their private label product to keep their warranty valid. If a manufacturer indicates only their private label brand will satisfy warranty requirements, they must due one of two things. Obtain written approval from the Federal Trade Commission that no other product except their brand will work (currently, no manufacturer has done so) or they must make the product available to you at no cost.