

**LIAISON REPORT TO API LUBRICANTS COMMITTEE MEETING NOVEMBER 11-12,**  
**2002**  
**TWO-STROKE CYCLE & SMALL ENGINE LUBRICATION**

The NMMA Oil Certification Committee and its Sub-committees met in Seattle, WA August 6-7, 2002 to review programs related to NMMA TC-W3 and the increasing use of 4-cycle engines in the outboard motor application. The meeting was well attended with representation from the major OEMs plus many other interested parties. The 4-Cycle Task Force met again on November 7<sup>th</sup> at Southwest Research in San Antonio to follow up on tests and progress toward setting an NMMA Standard for 4-Cycle Motor Oils. NMMA has tentatively set a designation of NMMA FC-W for these motor oils

On TC-W3 the following issues were addressed:

1. The Tests and engine parts to run a certification test were declared as available and meeting the standards of the qualification protocol. This includes the 40HP and 70HP Bombardier Engines and the Mercury 15HP engine.
2. The Yamaha 50cc engine tests remain statistically on track.
3. More than 300 licenses remain current worldwide for TC-W3.

On 4-cycle engine lubricants the following occurred:

1. The test methods and results being employed for corrosion protection were reviewed and determined to have good repeatability. Pass/Fail criteria is to be determined but not yet ready. Work is continuing because the consensus was that most of the engine oils in the marketplace are deficient in corrosion protection for marine applications.
2. Viscosity test, ASTM D4683 is being considered with a minimum HTHS of 3.3 or 3.5 cP. Field tests and lab tests are continuing to determine the viscosity level.
3. Oxidation resistance, detergency, dispersancy, resistance to foaming and water tolerance appear to be satisfactory in current API "S" and "C" category oils.
4. A Wear test based on Sequence IV-A is being studied but any decision has been tabled until additional data is collected.
5. The goal appears to be the adoption of a standard based on API "SL" or subsequent category plus additional requirements for corrosion protection, viscosity retention and wear.

The next meeting of the NMMA Oil Certification Committee and its subcommittees is scheduled for February 11-12, 2003 14<sup>th</sup> in Key West, FL in conjunction with Miami International Boat Show that begins on February 13, 2003.

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