



LUBRICANTS

September 15, 2010

Re: Update from **BRAD PENN**® Technical Services Department

Dear **BRAD PENN**® Distributor:

Our commitment to notify our **BRAD PENN**® Distributors with industry related technical information led to this mailing. Recently the American Refining Group, Inc. Technical Services Dept. received word from a major OEM (Original Equipment Manufacturer) regarding 2-cycle engine oil and its suitability with ethanol containing fuels. The aforementioned OEM has notified us that they will not in any way authorize the use of E85 (85% ethanol) fuel in their 2-cycle equipment. It is this OEM's belief that the E85 fuel will cause catastrophic damage to the engine(s).

This specific information complements data already compiled/collected by **BRAD PENN**® representatives. Since the advent of E85, Technical Services has received reports (albeit sporadic) of issues from end users/customers utilizing E85 in their 2-cycle equipment. These issues involved gumming and/or deposit build up within the carburetor. Because ethanol containing fuels/engine oil compatibility was basically unknown at the time, Technical Services did not have a great deal to offer. Additionally, the industry maintained a "status quo" on the subject, as very little testing was actually performed on E85/engine oil compatibility. It should be noted that the aforementioned issues even confined themselves in and around larger metropolitan areas where ethanol containing fuels are more prevalent to an end user, mainly due to the effort placed on controlling emissions. As most of you are aware, E85 has now become available to the smaller (rural) populace as well.

To date, the majority of field and customer use has been with conventional 2-cycle engine oil and 10% ethanol pump gas, with no reports of gumming and or deposit build-up. Use of ethanol concentrations greater than 10% will likely equate to unfavorable (and harmful) issues previously mentioned. It is our recommendation that the use of E85 (85% ethanol) fuel with our conventional #7253 be avoided and considered a misapplication. We will keep you informed with any additional information.

Should you have any questions regarding this information, please contact your Regional Sales Manager or **BRAD PENN**® Technical Services Department.

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