




## Test Monitoring Center

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**MEMORANDUM:** 06-026

**DATE:** April 14, 2006

**TO:** Ed Callis, Chairman, ASTM Section D02.B0.06

**FROM:** Richard E. Grundza 

**SUBJECT:** Two-Stroke Cycle Reference Test Status from October 1, 2005 through March 31, 2006

### Status

#### **RING STICKING (D 4857)**

One reference and one non-reference oil results were reported from one laboratory during the period ending March 31, 2006. Figures 1 and 2 plot the summation delta/s for Second Ring Sticking and Piston Skirt Varnish of both the calibration attempts and the reference oil results obtained with reference oil 606, run to evaluate the performance of non-reference oils. Figure 1 shows severity on or near target for the period. The target values used for plotting purposes are the mean values used to generate the correction factor to be applied to reference oil 606, when run for non-reference oil evaluation. Figure 2 plots the summation delta/s for Piston Skirt Varnish for the period ending March 31, 2006. Figure 2 shows Piston Skirt Varnish to be on or near target.

#### **LUBRICITY TEST (D 4863)**

There were three reference oil and one non reference oil tests reported during the period ending March 31, 2006. One non-reference oil result was deemed unacceptable when the results with the passing oil were not equal to or better than that of the borderline oil. Figure 3 plots the summation delta/s from target for the delta torque drops for the performance of reference oil 604-1 versus reference oil 600. Figure 4 plots the summation delta/s from target for the delta torque drops for the performance of reference oil 602 versus reference oil 600. Figure 3 shows on or near target results for the period. Figure 4 shows severity for reference oil 602 tended to be more severe this period.

#### **PREIGNITION TEST (D 4858)**

There were no tests were reported to the Test Monitoring Center during the period ending March 31, 2006.

**Summary**

Results with Test Method D 4857 showed Second Ring Sticking and Piston Skirt Varnish on or near target. Results with Test Method D4863 showed reference oil 604 performing on or near target, while reference oil 602 trended severe of target.

REG/reg

Attachments

c: F. M. Farber, TMC

J. L. Zalar, TMC

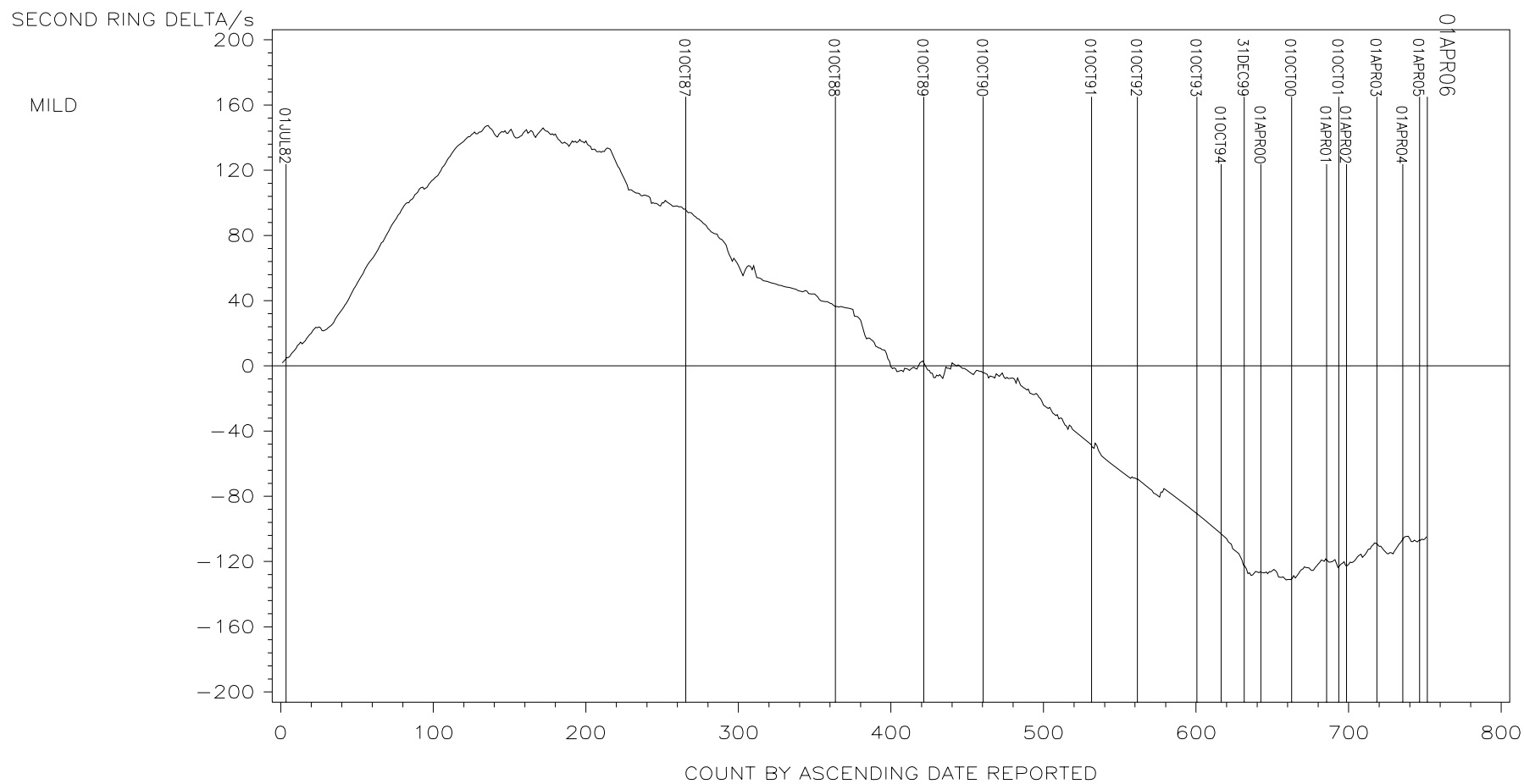
Two-Stroke Cycle Mailing List

<ftp://ftp.astmtmc.cmu.edu/docs/gas/tc/semiannualreports/tc-04-2006.pdf>

Distribution: Email

FIGURE 1

TWO-STROKE-CYCLE  
RING STICKING TEST (D 4857)  
CUSUM PLOT OF SECOND RING STICKING  
Using Updated Targets after 4/1/00

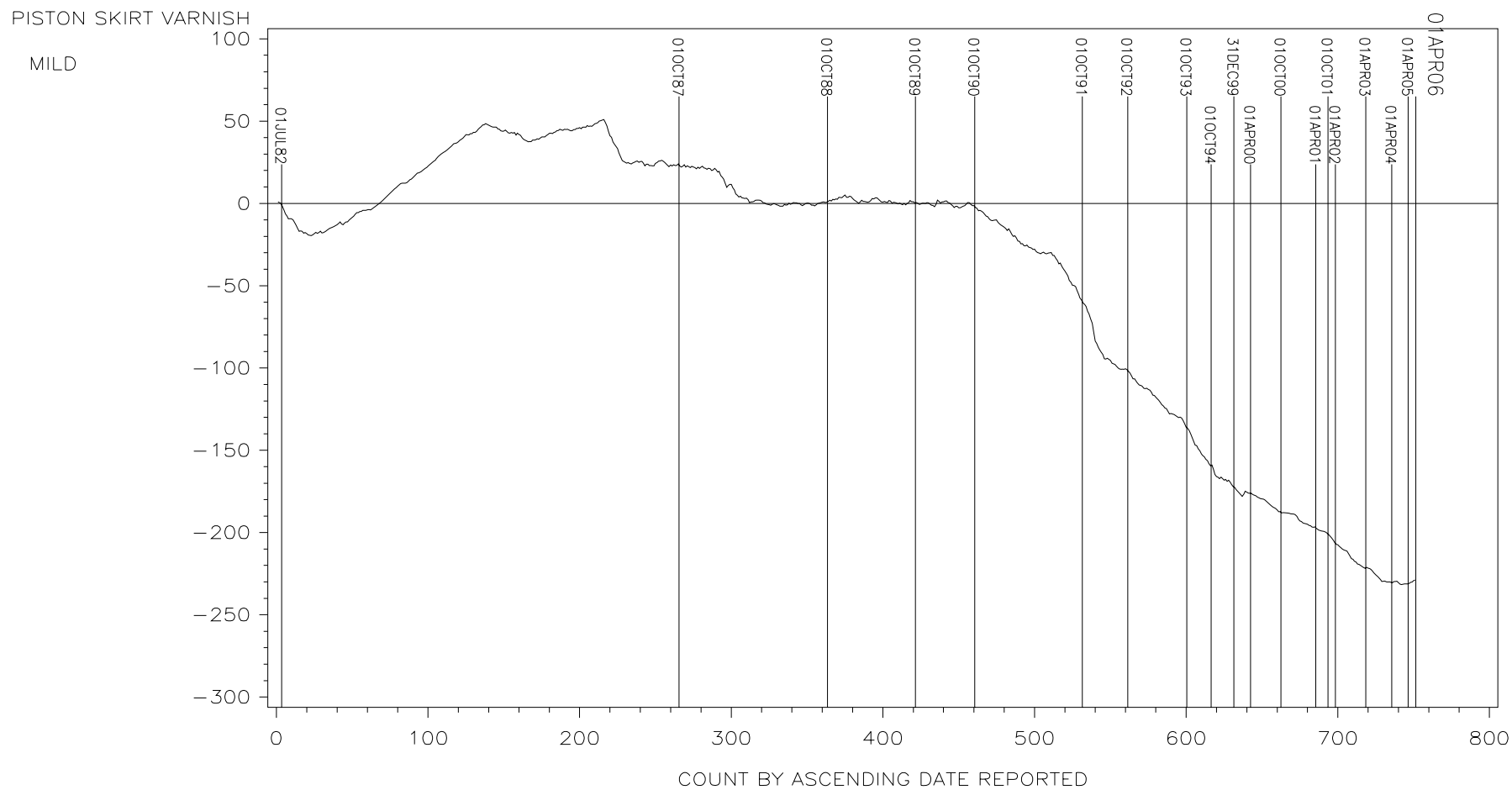


Test Targets Based on Data Reported Prior to 10/16/90 for Reference Oil 600  
Tests Targets for Reference Oil 606 is the Mean of the Data Used to Develop the Correction Factor

SFVFRF

FIGURE 2

TWO-STROKE-CYCLE  
RING STICKING TEST (D 4857)  
CUSUM PLOT OF PISTON SKIRT VARNISH  
Using Updated Targets After 4/1/00

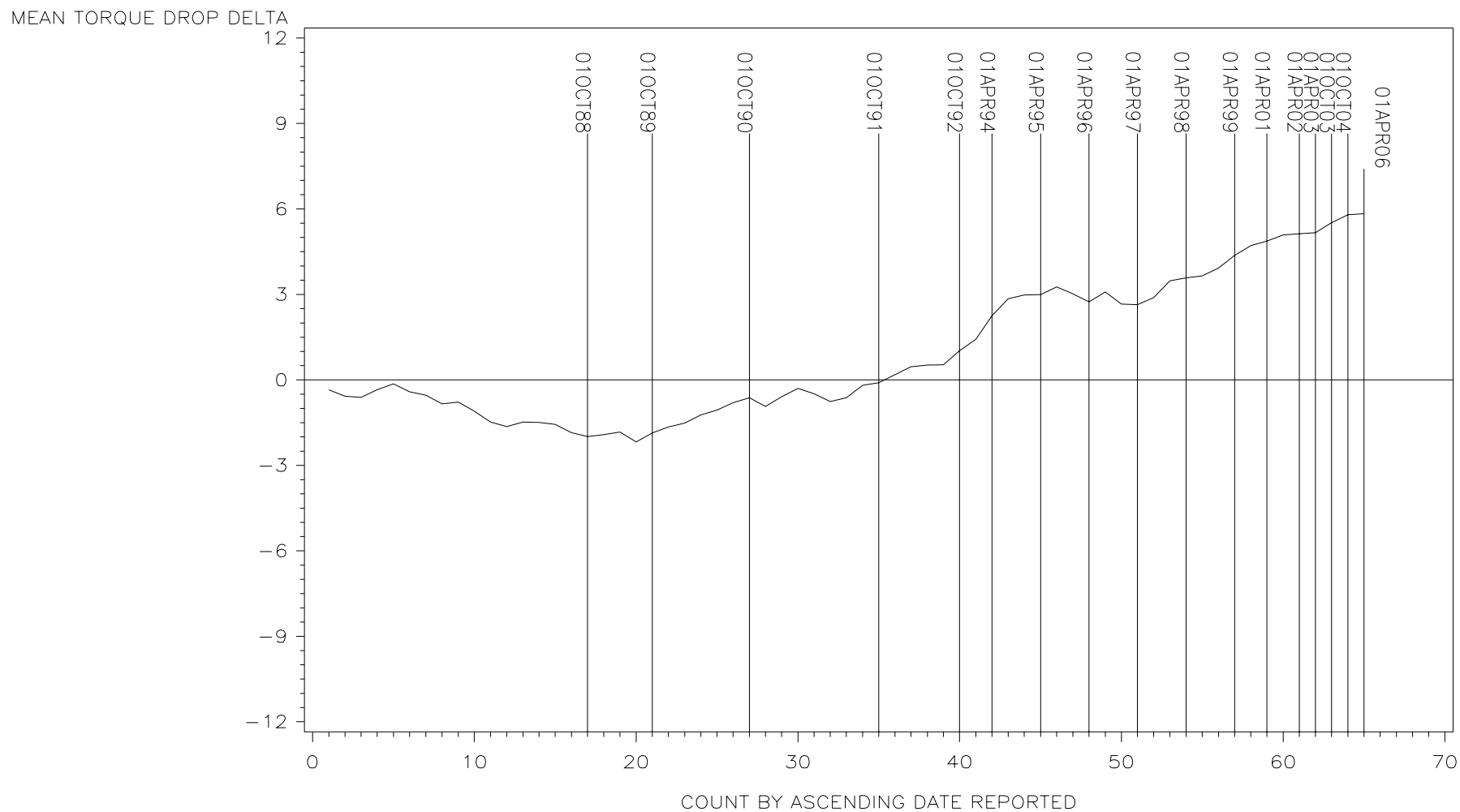


TEST TARGETS BASED ON DATA REPORTED PRIOR TO 10/16/90 for Reference Oil 600  
Tests Targets for Reference Oil 606 is the Mean of the Data Used to Develop the Correction Factor

SFVFRF

FIGURE 3

TWO-STROKE-CYCLE  
STANDARD TEST METHOD FOR DETERMINATION OF LUBRICITY  
OF TWO STROKE CYCLE GASOLINE ENGINE LUBRICANTS (D 4863)  
MEAN TORQUE DROP OF OIL VI-EE, (TMC 604) RELATIVE TO VID (TMC 600)



TEST TARGETS BASED ON ALL TESTS REPORTED PRIOR TO 10/31/91

FIGURE 4

TWO-STROKE-CYCLE  
STANDARD TEST METHOD FOR DETERMINATION OF LUBRICITY  
OF TWO STROKE CYCLE GASOLINE ENGINE LUBRICANTS (D 4863)  
MEAN TORQUE DROP OF OIL VI-G, (TMC 602) RELATIVE TO VI-D (TMC 600)

