Two-Stroke-Cycle Gasoline Engine Lubricant Evaluation
D4857 (Y350M2) ASTM TC Sequence I Test Procedure
Title / Validity Declaration Page

Form 1

Version TC1 VERSION 20020830

Conducted

CCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCC
CCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCC

C	I = Invalid
	V =Valid

CC	RO = Reference Oil Test
	NR = All Other Test

Test Number			
Engine No.: CCCCCCCCCCCCCC		**Engine Run** CCC	
EOT Time: HH:MM		**EOT Date:** YYYYMMDD	
Reference Oil CCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCC			**CYLINDER:** S1
Non Reference Oil CCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCC			**CYLINDER:** S1
Formulation/Stand CC-CCCCCCCCCC-C-C-CCCCCC-CC-CC-CCCCC			
Alternate Codes:	CCCCCCCCCCCCCC	CCCCCCCCCCCCCC	CCCCCCCCCCCCCC

In my opinion this test CCCCCCCC been conducted in accordance with the Test Method D4857 and the appropriate amendments through information letter system. The remarks included in this report describe the anomalies with this test.

Submitted By: **CCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCC**

Testing Laboratory

Signature Image

Signature

CCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCC

Typed Name

CCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCC

Title

Two-Stroke-Cycle Gasoline Engine Lubricant Evaluation
D4857 (Y350M2) ASTM TC Sequence I Test Procedure
Table of Contents
Form 2

Lab: CC	**EOT Date:** YYYYMMDD	**End Time:** HH:MM
Engine No.: CCCCCCCCCCCCCCC	**Run Number:** CCC	
Reference Oil CCCCCCCCCCCCCC

Two-Stroke-Cycle Gasoline Engine Lubricant Evaluation
D4857 (Y350M2) ASTM TC Sequence I Test Procedure
Test Result Summary
Form 4

Lab: CC	**EOT Date:** YYYYMMDD	**End Time:** HH:MM
Engine No.: CCCCCCCCCCCCCC	**Run Number:** CCC	
Reference Oil : CCCCCCCCCCCCC

Two-Stroke-Cycle Gasoline Engine Lubricant Evaluation
D4857 (Y350M2) ASTM TC Sequence I Test Procedure
Ring Land Ratings
Form 5

Lab: CC	**EOT Date:** YYYYMMDD	**End Time:** HH:MM
Engine No.: CCCCCCCCCCCCCCC	**Run Number:** CCC	
Reference Oil : CCCCCCCCCCCCCC

Two-Stroke-Cycle Gasoline Engine Lubricant Evaluation
D4857 (Y350M2) ASTM TC Sequence I Test Procedure
Ring Ratings
Form 6

Lab: CC	**EOT Date:** YYYYMMDD	**End Time:** HH:MM
Engine No.: CCCCCCCCCCCCCC	**Run Number:** CCC	
Reference Oil : CCCCCCCCCCCCC

Two-Stroke-Cycle Gasoline Engine Lubricant Evaluation
D4857 (Y350M2) ASTM TC Sequence I Test Procedure
Operational Summary
Form 7

Lab: CC	**EOT Date:** YYYYMMDD	**End Time:** HH:MM
Engine No.: CCCCCCCCCCCCCC	**Run Number:** CCC	
Reference Oil : CCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCC	**Industry Oil Code:** CCCCCC	**Cylinder:** S1
Non Reference Oil: CCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCC		**Cylinder:** S1
Formulation / Stand Code: CC-CCCCCCCCCC-C-C-CCCCCC-CC-CC-CCCCC		

Parameters	Phase I			Phase II		
	Maximum	Minimum	Average	Maximum	Minimum	Average
Engine Speed, r/min	S1234	S1234	S1234	S1234	S1234	S1234
Dynamometer Speed, r/min	S1234	S1234	S1234	S1234	S1234	S1234
Observed Load, hp	S12.12	S12.12	S12.12	S12.12	S12.12	S12.12
Corrected Load, hp	S12.12	S12.12	S12.12	S12.12	S12.12	S12.12
Air / Fuel Ratio - Baseline	S12.12	S12.12	S12.12	S12.12	S12.12	S12.12
Air / Fuel Ratio - Test Oil	S12.12	S12.12	S12.12	S12.12	S12.12	S12.12
Air Flow lb / h - Baseline	S12.12	S12.12	S12.12	S12.12	S12.12	S12.12
Air Flow lb / h - Test Oil	S12.12	S12.12	S12.12	S12.12	S12.12	S12.12
Fuel Flow lb / h - Baseline	S1.12	S1.12	S1.12	S1.12	S1.12	S1.12
Fuel Flow lb / h - Test Oil	S1.12	S1.12	S1.12	S1.12	S1.12	S1.12
Pressures						
Fuel Pressure, psi - Baseline	S1.12	S.12	S1.12	S1.12	S1.12	S1.12
Fuel Pressure, psi - Test Oil	S1.12	S1.12	S1.12	S1.12	S1.12	S1.12
Intake Air Pressure, in. H_2O	S1.123	S1.123	S1.123	S1.123	S1.123	S1.123
Barometric Pressure, in. Hg	S12.12	S12.12	S12.12	S12.12	S12.12	S12.12
Temperatures,° F						
Spark Plug - Baseline	S123	S123	S123	S123	S123	S123
Spark Plug - Test Oil	S123	S123	S123	S123	S123	S123
Cylinder Liner - Baseline	S123	S123	S123	S123	S123	S123
Cylinder Liner- Test Oil	S123	S123	S123	S123	S123	S123
Exhaust - Baseline	S1234	S1234	S1234	S1234	S1234	S1234
Exhaust - Test Oil	S1234	S1234	S1234	S1234	S1234	S1234
Fuel - Baseline	S12	S12	S12	S12	S12	S12
Fuel - Test Oil	S12	S12	S12	S12	S12	S12
Intake Air, Carburetor	S12	S12	S12	S12	S12	S12
Intake Air Dew Point	S12	S12	S12	S12	S12	S12
Ambient	S12	S12	S12	S12	S12	S12

Two-Stroke-Cycle Gasoline Engine Lubricant Evaluation
D4857 (Y350M2) ASTM TC Sequence I Test Procedure
Remarks and Deviations
Form 8

Lab: CC	**EOT Date:** YYYYMMDD	**End Time:** HH:MM
Engine No.: CCCCCCCCCC	**Run Number:** CCC	
Reference Oil : CCCCCCCCC

Two-Stroke-Cycle Gasoline Engine Lubricant Evaluation
D4857 (Y350M2) ASTM TC Sequence I Test Procedure
Phase II Air Fuel Ratio Plots
Form 9

Lab: CC	**EOT Date:** YYYYMMDD	**End Time:** HH:MM
Engine No.: CCCCCCCCCC	**Run Number:** CCC	
Reference Oil : CCCCCCCCC

Two-Stroke-Cycle Gasoline Engine Lubricant Evaluation
D4857 (Y350M2) ASTM TC Sequence I Test Procedure
Phase II Spark Plug Plots

Form 10

Lab: CC	**EOT Date:** YYYYMMDD	**End Time:** HH:MM
Engine No.: CCCCCCCCCC	**Run Number:** CCC	
Reference Oil : CCCCCCCCC

Two-Stroke-Cycle Gasoline Engine Lubricant Evaluation
D4857 (Y350M2) ASTM TC Sequence I Test Procedure
Test Fuel Analysis (Last Batch)

Form 11

Lab: CC	**EOT Date:** YYYYMMDD	**End Time:** HH:MM
Engine No.: CCCCCCCCCC	**Run Number:** CCC	
Reference Oil : CCCCCCCCCCCCCCCC	**Industry Oil Code:** CCCCCC	**Cylinder:** S1
Non Reference Oil: CCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCC		**Cylinder:** S1
Formulation / Stand Code: CC-CCCCCCCCCC-C-C-CCCCCC-CC-CC-CCCCC		
Supplier : CCCCCCCCCCCCCCCCCCC	**Batch Identifier:** CCCCCCCCCCCCCCC	

Measurement	Specs.	Analysis	Test Method
Gravity, ˚API		S12.1	
Color		CCCCCCCC	
Doctor Test		CCCCCCCC	
Copper Corrosion, 3h @ 212 ˚F	1 Maximum	S123	D 130
Reid Vapor Pressure, psig		S1.1	
Research Octane Number		S12.1	
Motor Octane Number		S12.1	
(Research + Motor) / 2		S12.1	
Total Sulfur, % Weight	0.04 - 0.05	S1.1234	D 2622
Gum, mg/100 mL		S1.1	
Oxidation Stability, min		S1234	
Lead, g/gal		S1.123	
Distillation, ˚C			
IBP	Report	S1234	D 86
10%	Report	S1234	D 86
50%	Report	S1234	D 86
90%	282 - 338	S1234	D 86
EP	Report	S1234	D 86
Recovery, %		S12.1	
Pona, % vol			
Paraffins + Napthenes		S12.1	
Olefin	Report	S12.1	D 1319
Aromatics % Vol.	28 - 33	S12.1	D 1319