

Does Brand Matter for Motor Oil?

Western Weights and Measures Association
September 2011

Why Motor Oil Brand Matters in Handbook 130

- Not all motor oil the same
 - Performance varies despite some oils' claims
 - Some way off mark and could hurt consumers
- Chain of custody easier with packaged oils
 - Brand, marketer and API performance normally on label
 - API has recourse if audit finds problem
- Need similar information and protections in place so API can effectively audit bulk motor oils

Conforming Motor Oil Results

Oil A SAE 10W-30 API SM			
<u>Performance Property</u>	<u>Limit</u>	<u>Reported</u>	<u>Lab Result</u>
Viscosity	9.3 – 12.5	10.5	10.64
Cold Cranking	≤ 7000	5960	6180
Pumping	≤ 60000	15134	15100
High Temp/High Shear	≥ 2.9	No report required	3.14
NOACK Volatility	≤ 15	No report required	12.8

Minor Nonconformance

Oil B SAE 10W-30 API SM

<u>Performance Property</u>	<u>Limit</u>	<u>Reported</u>	<u>Lab Result</u>
Viscosity	9.3 – 12.5	11.13	9.73
Cold Cranking	≤ 7000	6179	3710
Pumping	≤ 60000	21000	54400
High Temp/High Shear	≥ 2.9	No report required	2.87
NOACK Volatility	≤ 15	No report required	16.6

Red = nonconformance

Significant Nonconformances

Oil C SAE 10W-30 API SM

<u>Performance Property</u>	<u>Limit</u>	<u>Reported</u>	<u>Lab Result</u>
Viscosity	9.3 – 12.5	10.7	8.29
Cold Cranking	≤ 7000	5400	5320
Pumping	≤ 60000	49000	17800
High Temp/High Shear	≥ 2.9	2.9	2.65
NOACK Volatility	≤ 15	8.05	30.4

Red = nonconformance

Results

- Three 10W-30 oils claiming same API performance
- Oil C's results particularly bad and oil's use in engine could cause harm
- Reported values represent API-licensed formulations
 - API audits licensed oils in marketplace to confirm oil sold matches oil licensed
 - API also audits unlicensed oils to confirm oil sold matches API performance claimed
- Brand critical for API audit process
 - Allows API to confirm oil licensed same as oil sold to consumers
 - Also allows API to confirm performance claimed and provides information for enforcement action

How API Protects Consumers

- Maintaining current motor oil standards and developing new ones to meet demands of OEMs
- Maintaining on-line Directory of Licensees that lists oils licensed against API 1509 performance standard
- Expanding audit program to ensure licensed oils meet API performance
- Adding cancellation list to on-line Directory of Licensees
- Educating consumers through Motor Oil Matters program
- Developing licensing program for distributors and installers based on chain-of-custody standard

Distributor Licensing

- Distributor Licensing based on new motor oil handling standard—API 1525A
 - Chain of custody
 - Brand name, viscosity grade, performance level disclosure required
- Distributors subject to on-site audit to verify conformance to API standard
- Intended to recognize quality-minded distributors
- Expansion of aftermarket audit to cover certified distributors

Installer Licensing

- Installers self-certify and API follows with on-site audit
 - Subject to API 1525A
 - Required to complete on-line checklist as condition of licensing and to provide documentation showing compliance with standard
- Once licensed, subject to expanded aftermarket audit targeted at licensed installers

MOM Marks



Cancel-for-Cause List

- New to Motor Oil, but not API—other API quality programs list nonconforming companies
- Products and/or marketers listed for several reasons:
 - Expired license
 - Unlicensed
 - Failure to comply with API 1509
- Licensed marketers given opportunity to address API findings before being listed
- Unlicensed companies listed immediately so consumers know which products to avoid

Changing HB 130

- Motor oil quality varies
 - API experienced with monitoring quality of motor oils
 - Making improvements
 - Good grip on packaged oils and cancellation list will improve program
- Need NCWM to approve revision to HB 130 with proposed July 1, 2013 effective date for invoices or receipts
- Viscosity grade, API performance standard, and brand will improve API's ability to enforce its standards when sampling bulk motor oils
 - API already sampling packaged and bulk oils, but need revised HB 130 language to more effectively enforce findings on bulk
 - Consumers deserve to know what they are buying and only real way to do this is by knowing brand, viscosity and API performance



Method of Sale (232-3)

2.33.1. Labeling of Vehicle Motor Oil.

2.33.1.1. Viscosity – The label on a vehicle motor oil container, receptacle, dispenser, or storage tank and the invoice from service on an engine that includes the installation of vehicle motor oil dispensed from a receptacle, dispenser, or storage tank shall contain the viscosity grade classification preceded by the letters “SAE” in accordance with the SAE International’s latest version of SAE J300.

2.33.1.2. Intended Use – The label on a vehicle motor oil container shall contain a statement of its intended use in accordance with the latest version of SAE J183.

2.33.1.3. Brand – The label on a vehicle motor oil container and the invoice from service on an engine that includes the installation of vehicle motor oil dispensed from a receptacle, dispenser, or storage tank shall contain the name, brand, trademark, or trade name of the vehicle motor oil.

2.33.1.4. Engine Service Category – The label on a vehicle motor oil container, receptacle, dispenser, or storage tank and the invoice from service on an engine that includes the installation of vehicle motor oil dispensed from a receptacle, dispenser, or storage tank shall contain the engine service category, or categories, met in letters not less than 3.18 mm ($\frac{1}{8}$ in) in height, as defined by the latest version of SAE J183 or API Publication 1509, “Engine Oil Licensing and Certification System.”

2.33.1.4.1. Inactive or Obsolete Service Categories – The label on a vehicle motor oil container, receptacle, dispenser, or storage tank and the invoice from service on an engine that includes the installation of vehicle motor oil dispensed from a receptacle, dispenser, or storage tank shall bear a plainly visible cautionary statement in compliance with SAE J183, Appendix A, whenever the vehicle motor oil in the container or in bulk does not meet an active API service category as defined by the latest version of SAE J183.

2.33.1.4.2. Tank Trucks or Rail Cars – Tank trucks, rail cars, or other types of delivery trucks that are used to deliver vehicle motor oil are not required to display the SAE viscosity grade and service category or categories as long as the bill of lading or other documentation provides that information.

All references to invoice or receipt will be enforceable effective on July 1, 2013.



Engine Fuels and Automotive Lubricants Regulation (237-6)

3.13.1. Labeling of Vehicle Motor Oil.

3.13.1.1. Viscosity – The label on ~~each container of a~~ vehicle motor oil container, receptacle, dispenser, or storage tank and the invoice from service on an engine that includes the installation of vehicle motor oil dispensed from a receptacle, dispenser, or storage tank shall contain the viscosity grade classification preceded by the letters “SAE” in accordance with the SAE International’s latest version of SAE J300.

3.13.1.2. Intended Use – The label on ~~each container of a~~ vehicle motor oil container shall contain a statement of its intended use in accordance with the latest version of SAE ~~J300~~ J183.

3.13.1.3. Brand – The label on a vehicle motor oil container and the invoice from service on an engine that includes the installation of vehicle motor oil dispensed from a receptacle, dispenser, or storage tank shall contain the name, brand, trademark, or trade name of the vehicle motor oil.

3.13.1.3.1. Exception for Quantities of One Gallon (3.785 L) or Less.— A container of engine vehicle motor oil with a volume of 1 gal (3.785 L) or less that does not meet an active service category, as defined by the latest version of SAE J183, shall bear a plainly visible cautionary statement in compliance with SAE J183, Appendix A, for obsolete API oil categories.

3.13.1.3.4. Engine Service Category— The label on ~~each container of a~~ vehicle motor oil container, receptacle, dispenser, or storage tank and the invoice from service on an engine that includes the installation of vehicle motor oil dispensed from a receptacle, dispenser, or storage tank shall contain the engine service category, or categories, met in letters not less than 3.18 mm (1/8 in) in height, as defined by the latest version of SAE J183 or API Publication 1509, “Engine Oil Licensing and Certification System.”

3.13.1.4.1. Inactive or Obsolete Service Categories – The label on a vehicle motor oil container, receptacle, dispenser, or storage tank and the invoice from service on an engine that includes the installation of vehicle motor oil dispensed from a receptacle, dispenser, or storage tank shall bear a plainly visible cautionary statement in compliance with SAE J183, Appendix A, whenever the vehicle motor oil in the container or in bulk does not meet an active API service category as defined by the latest version of SAE J183.

3.13.1.4.2. Tank Trucks or Rail Cars – Tank trucks, rail cars, or other types of delivery trucks that are used to deliver vehicle motor oil are not required to display the SAE viscosity grade and service category or categories as long as the bill of lading or other documentation provides that information.