Protecting European engine lubricant quality standards

The role of the European Engine Lubricant Quality Management System (EELQMS) and the ATIEL Code of Practice.

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Speaker introduction

- Peter Tjan
  - President of ATIEL since 2011
  - 25-year career in the oil industry
  - Experience in refining, lubricants marketing and sales
What we will cover

• ATIEL’s role in the lubricants industry.

• The European Engine Lubricant Quality Management System (EELQMS)
  o How it helps marketers of engine lubricants claiming to meet European OEM quality requirements support their performance claims.

• The ATIEL Code of Practice
  o How it supports a cost-effective approach to lubricant development while giving reassurance to OEMs and end-users of the quality and consistency of lubricants.

• ATIEL Quality Surveys
  o Work ATIEL undertakes to assess compliance with quality requirements among products in the marketplace.
About ATIEL

“ATIEL is a representative body for manufacturers and marketers in the European lubricants industry. ATIEL, in cooperation with other industry stakeholders*, seeks to enhance the reputation of the lubricants industry by providing expert advice to regulators, industry partners and end-consumers, and by promoting superior standards of technology and lubricants performance.”
ATIEL members

20 member companies - European and global representation
ATIEL: key activities (1)

For its members -

• Provides a forum for debate on topical non-competitive industry issues and a platform for sharing resources and expertise.

• Through the work of technical committees and working groups:
  • Monitors technical trends and regulatory programmes.
  • Facilitates the development of scientifically sound responses to changes in market needs.
  • Promotes European quality standards and best practices globally.
  • Delivers training to members.
  • Carries out quality surveys to assess levels of compliance.
ATIEL: key activities (2)

For regulators, industry partners and end-consumers

• ATIEL contributes to the development of best practices and standards that promote superior quality products in the marketplace.

• Through the collective expertise of its members ATIEL:
  • Sets clear and consistent guidelines and best practices that address the needs of vehicle manufacturers and consumers.
  • Acts as a focal point for technical issues relating to the performance and environmental demands of engine oils.
  • Delivers training to industry partners and national associations.
  • Acts as a respected partner and advisor on lubricants matters to all external stakeholders.
Role of quality standards

- Example of an engine lubricant with an ACEA (European Automobile Manufacturers Association) performance claim (ACEA A5/B5).

- The ACEA European Oil Sequences are quality standards for engine lubricants used in light duty passenger cars & heavy duty trucks.

- The ACEA Oil Sequences are updated regularly to address:
  - Changes in legislation
  - Changes in engine technology
  - Changes in fuel composition
ACEA performance claims

- Lubricant marketers are responsible for all aspects of product liability!

- Lubricant marketers claiming ACEA performance can include claims for specific engine categories on their product labelling.

- For these claims to be valid ACEA requires these engine lubricants to be developed in accordance with the European Engine Lubricant Quality Management System (EELQMS).
About the EELQMS

- The European Engine Lubricant Quality Management System (EELQMS) is a voluntary quality management system for automotive engine lubricants.

- Developed out of a shared interest amongst industry stakeholders for a quality management system to assist in the development of improved, fit-for-purpose engine lubricants that meet the increasing technical requirements of the automotive industry.

- Designed to assist lubricant marketers in assuring the quality of their lubricants and ACEA performance claims being made for them in the marketplace.
EELQMS stakeholders

- **Vehicle OEMs:** ACEA (Oil Sequences & Specifications)
- **Lubricant companies:** ATIEL (Formulation guidelines & best practices)
- **Additive suppliers:** ATC (Additive packages)
- **Test methods:** CEC/ASTM (Engine and bench testing)
EELQMS contribution to quality

- EELQMS provides a detailed process and structure for lubricant development, production and performance validation.
- Provides assurance of the quality of engine lubricants on the market that claim to meet the performance requirements of ACEA.
- A voluntary system but the **ONLY** system that can be used to qualify engine lubricants against ACEA Oil Sequences.
- The ATIEL Code of Practice is a key element of the EELQMS.
The ATIEL Code of Practice

• Has provided guidelines to help formulators and marketers in the development of lubricants that meet ACEA performance requirements since 1996.

• Has evolved in line with ACEA Oil Sequences and is currently on Issue 19.

• Available from the ATIEL website: www.atiel.org
Code of Practice - best practice guidelines

Provides guidelines that:

- Enable lubricant companies to comply with the requirements of the ACEA Oil Sequences.
- Represent accepted industry best practices.
- Offer a common approach and standards for the whole industry to follow.
- Give reassurance to OEMs and end-users of the quality and consistency of Lubricants making ACEA performance claims.
Marketing

Compliance with the Code of Practice includes signing a Lubricant Marketers’ Letter of Conformance:

- Required for ACEA performance claims
- Confirms compliance with EELQMS
- Signed Letters held by ATIEL
- List of signatories on ATIEL website
- Renewed every two years
- Membership of ATIEL is not required to be a signatory
- Letter of Conformance template available from ATIEL website: www.atiel.org
Summary of stakeholder benefits

**OEMs**
- Controlled and consistent quality of engine lubricants
- Wide availability of lubricants meeting ACEA requirements
- Protection against warranty claims

**End user**
- Trouble-free operation
- Confidence in lubricant performance claims
- Wide availability of lubricants of appropriate quality

**Lubricant and additive industry**
- Timely, cost-effective engine lubricant development
- Common approach & standards (level playing field)
- Formulation optimisation and controlled flexibility
ATIEL Quality Survey

- In July 2013 ATIEL conducted its first engine lubricants quality survey.

- Surveys are one of the most effective ways to demonstrate compliance.

- As a result has become a regular activity and a core part of overall quality management initiatives.
Independent quality survey

- Paid for by ATIEL members but conducted by independent body.
- Over 200 engine lubricant samples from ATIEL members purchased from outlets across Europe.
- All ATIEL members represented in the sample.
- Covered a range of common viscosity grades and quality levels.
Purpose of the quality survey?

- To establish a base line for compliance with ACEA requirements in Europe.
- To replicate to some extent best practice from other markets (e.g., API programme in North America).
- Test validity of anecdotal evidence of inaccurate performance claims of some lubricants on the market.
- Visible demonstration of the benefits of full adoption and application of the EELQMS.
- To enhance the overall robustness of quality management system activity.
Quality survey methodology

- All samples sourced completely independently, coded and ‘blind’ tested.
- Tested against most appropriate standards - ACEA European Oil Sequences 2008.
- Testing covered key performance parameters including:
  - Viscosity (high and low temp)
  - Noack volatility
  - SAPS (Sulphated Ash, Phosphorous & Sulphur)
  - TBN (Total Base Number)
- Testing and statistical analysis conducted by independent expert laboratory.
1\textsuperscript{st} quality survey results

- Not a totally scientific study but a way to ‘test the water’ and gain learnings.
- Overall level of compliance encouraging but some issues raised.
- No serious quality issues identified.
- Individual results shared only with respective marketer and appropriate follow-up actions taken.
Quality surveys: ongoing activity

- Quality survey will become a regular, annual ATIEL activity.
- Second survey conducted in 2014 covering broader range of products.
- Extended to cover Letter of Conformance signatories (ie beyond ATIEL membership).
- Baseline and methodology will develop and results become more meaningful over time as more data gathered.
Conclusion

• The EELQMS and ATIEL’s Code of Practice benefit all stakeholders:
  • OEMs
  • Lubricant companies
  • Additive companies
  • Workshops
  • Consumers
  • Base oil suppliers
Thank you!

For more information and to download a copy of our Code of Practice visit: www.atiel.org

Contact us at: info@atiel.eu