

European  
Automobile  
Manufacturers  
Association

# **The Importance of CEC Tests to the ACEA Oil Sequences and a look ahead for the next 10 years**

**Extended CEC Board Meeting**

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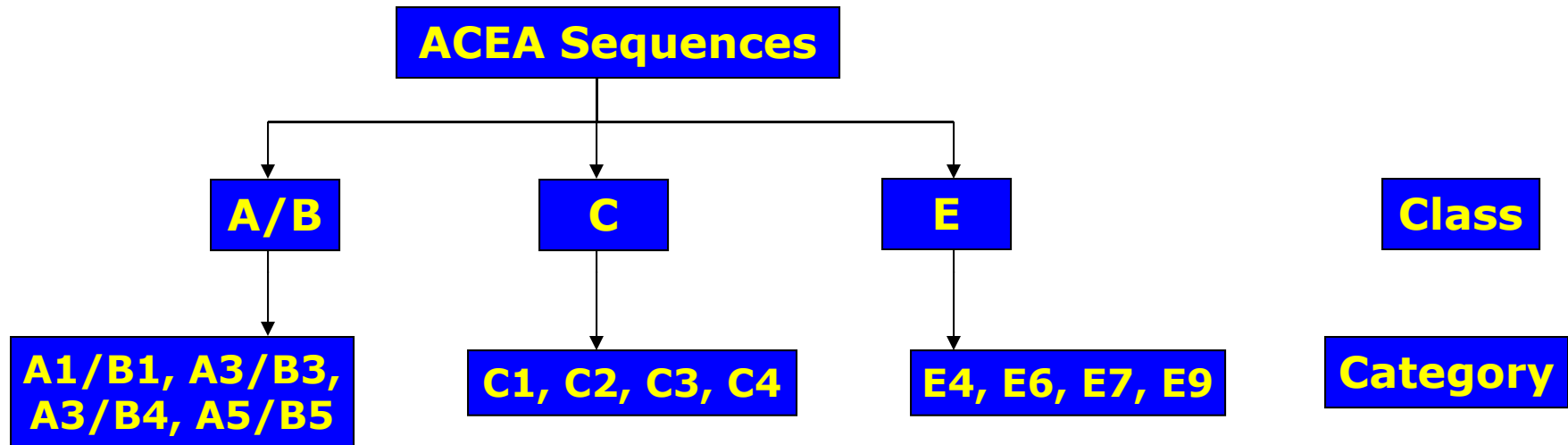


## Topics

- ACEA E category
- CEC tests in the different ACEA E classes
- Current CEC from ACEA perspective
- Future outlook



## ACEA E class



- E class is for Heavy Duty engine oils
- Currently there are 4 different categories for slightly different applications
- E4 and E7 for "normal SAPS" oils
- E6 and E9 for "low SAPS" oils



## CEC tests in ACEA E categories

- **Lab tests**

- CEC L-014-93, shear stability (E4 only)
- CEC L-036-90, HTHS viscosity
- CEC L-040-93, Noack volatility
- CEC L-039-96, seal compatibility
- CEC L-085-99, hot surface oxidation

- **Engine tests**

- CEC L-099-08, OM646LA cam wear
- CEC L-101-08, OM501LA, piston cleanliness

- **ACEA E categories also include several ASTM tests**



## **CEC from ACEA HD perspective**

- **Reorganization in 2001 was a very positive and important move**
- **Many quality improving steps:**
  - "Golden Lab" approach
  - Lab audits
  - Test Monitoring System (TMS)
  - European Registration Center (ERC)
  - Active support groups
- **Daimler support for CEC is highly appreciated**
- **We regret to admit that other ACEA members are less active within CEC**



## Future outlook - 1

- **Ongoing test developments applicable to the E class**
  - TDG L-104, effect of biodiesel fuel
  - TDG L-105, Low temperature operability
- **Possible new test developments**
  - Fuel economy
  - Oil oxidation



## Future outlook - 2

- **How can we increase OEM involvement in CEC?**
  - Membership restricted to contributing companies (direct funding or in-kind contributions)
  - Typically only HW supplying OEM's are members
  - Unless there is a serious field problem funding for participation is very difficult to raise
- **Can we find alternative membership criteria?**



## Future outlook - 3

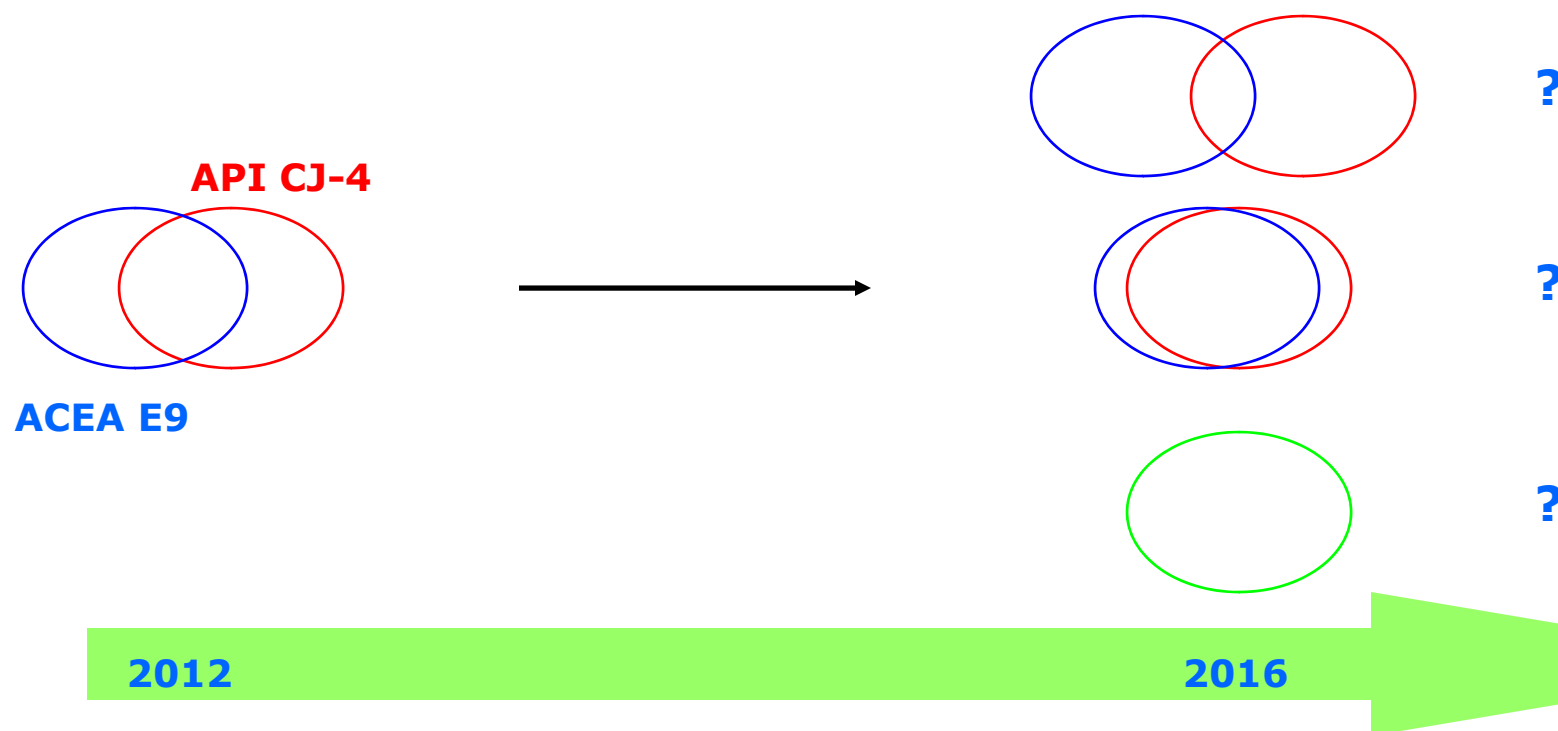
- **Can we improve further?**
  - Stricter installation audits?
  - Stricter hard ware control?
  - Stricter control of engine running conditions?
- **Do we need an independent body for the above?**
  - Stock and control of HW
  - Responsible for installation audits (with relevant OEM)
  - “Policing” reference data generation





## Future outlook - 4

- **“Globalization” keeps creeping closer**
  - More extensive OEM relations across the world
  - Global hardware harmonization
  - Will engine oil specifications follow?





## Future outlook - 5

- **ACEA HD future requirements**

- Biofuel compatibility
- Fuel economy
- Oxidation stability
- Corrosion
- .....

- **EMA future requirements**

- Biofuel compatibility
- Fuel economy
- Oxidation stability
- Corrosion
- .....



## Future outlook - 6

- **What factors influence a “globalization” of engine oil specifications?**
  - Different processes in EU and US
  - Acceptance level of CEC tests - Why are CEC tests not accepted in the US category development process?
  - Japanese input?
- **What to do?**
  - Benchmark processes including test development
  - Improve efforts to “sell” CEC in North America
  - Increase transparency of reference data and quality monitoring process to enhance understanding of CEC test quality
  - What can CEC do facilitate the globalization?



**End of presentation – Questions?**

**THANK YOU!**

