



**The Coordinating European Council**

for the Development of Performance Tests for Fuel, Lubricants and other Fluids

## **Engine Test Life Plan & New Test Developments**

CEC Special Planning Event, 22<sup>nd</sup> November 2011

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transportation fuels, lubricants and other  
fluids**

# Engine Life Plan

| Engine        | Test Method | 2005                         | 2006                         | 2007                         | 2008      | 2009      | 2010                         | 2011                         | 2012      | 2013      | 2014      | 2015      | 2016      | 2017 | 2018 |
|---------------|-------------|------------------------------|------------------------------|------------------------------|-----------|-----------|------------------------------|------------------------------|-----------|-----------|-----------|-----------|-----------|------|------|
| DV4TD         | L-93-04     | Available                    | Available                    | Available                    | Available | Available | Available                    | Available                    | Available |           |           |           |           |      |      |
| OM646         | L-99-08     |                              | New Dev required/in progress | New Dev required/in progress | Available | Available | Available                    | Available                    | Available | Available |           |           |           |      |      |
| OM501LA       | L-101-09    | New Dev required/in progress | New Dev required/in progress | New Dev required/in progress | Available | Available | Available                    | Available                    | Available |           |           |           |           |      |      |
| DW10          | F-98-08     |                              | New Dev required/in progress | New Dev required/in progress | Available | Available | Available                    | Available                    | Available | Available | Available | Available | Available |      |      |
| M102E         | F-05-93     | Available                    | Available                    | Available                    | Available | Available | Available                    | Available                    | Available | Available | Available | Available |           |      |      |
| VW WaterBoxer | F-16-96     | Available                    | Available                    | Available                    | Available | Available | Available                    | Available                    | Available | Available | Available |           |           |      |      |
| M111 EVO      | F-20-98     | Available                    | Available                    | Available                    | Available | Available | Available                    | Available                    | Available | Available | Available | Available |           |      |      |
| XUD9          | F-23-01     | Available                    | Available                    | Available                    | Available | Available | Available                    | Available                    | Available | Available | Available | Available | Available |      |      |
| TU3           | L-38-94     | Available                    | Available                    | Available                    | Available | Available | Available                    | Available                    |           |           |           |           |           |      |      |
| M111 FE       | L-54-96     | Available                    | Available                    | Available                    | Available | Available | Available                    | Available                    | Available | Available | Available |           |           |      |      |
| VW Tdi        | L-78-99     | Available                    | Available                    | Available                    | Available | Available | Available                    | Available                    | Available | Available | Available | Available | Available |      |      |
| TU5           | L-88-02     | Available                    | Available                    | Available                    | Available | Available | Available                    | Available                    | Available |           |           |           |           |      |      |
| OM646 DE 22LA | (L-104-??)  |                              |                              |                              |           |           | New Dev required/in progress | New Dev required/in progress |           |           |           |           |           |      |      |
| DV6           | (L-106-??)  |                              |                              |                              |           |           |                              | New Dev required/in progress |           |           |           |           |           |      |      |

Available in Member's section of the CEC website:  
[http://www.cectests.org/extranet/info\\_g001/lifeplan.pdf](http://www.cectests.org/extranet/info_g001/lifeplan.pdf)

|                              |                              |
|------------------------------|------------------------------|
| Available                    | Available                    |
| To be Replaced               | To be Replaced               |
| Eliminated                   | Eliminated                   |
| New Dev required/in progress | New Dev required/in progress |
| Temporarily unavailable test | Temporarily unavailable test |

# Thank you!

- ACEA members supply these key engine tests
- Long history of support from several OEMs
  - Daimler
  - PSA
  - VW



# Tests with Limited Lifetimes



**2012**

- TU3 (L-38-94)
  - Lifetime extended by new camshaft batch

**2013**

- DV4TD (L-93-04)
  - DV6 replacement under development (L-106)
- OM501LA (L-101-09)
  - Lifetime could be extended, but action needed
- TU5 (L-88-02)
  - Action needed



# Engine Tests Under Discussion

## Lubricant Tests

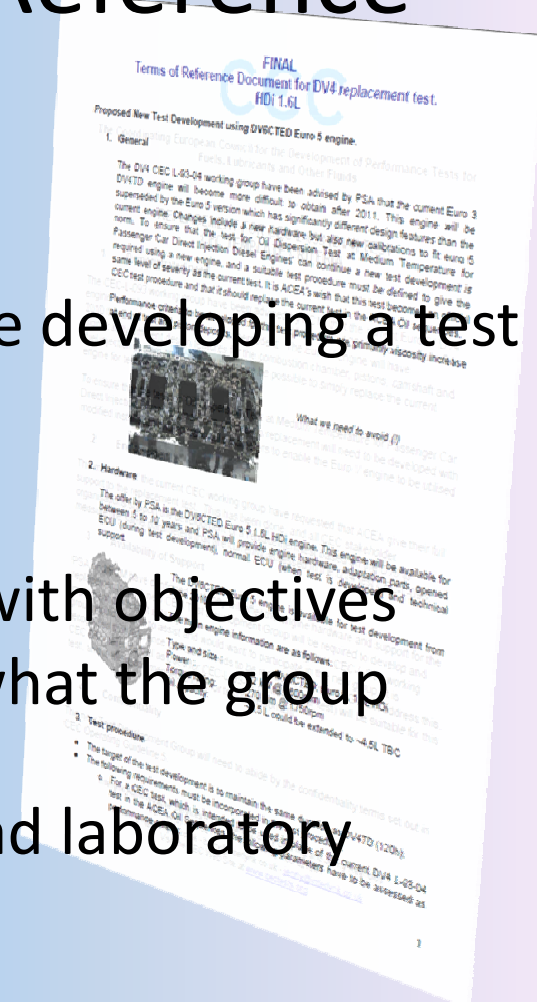
- M111 Sludge Test replacement
  - Daimler have offered the M271 EVO engine
- TU3S wear test, TU5 oxidation test and OM501LA
  - Tests nearing the end of their life, initial discussion on replacements

## Fuels Tests

- IDID Test
  - Proposal based on PSA DW10C engine
  - Template and Terms of reference in development
- Cold startability
  - Discussion only

# Test Proposal Development Template and Terms of Reference

- CEC Template
  - Covers need, OEM support etc.
  - Ensures CEC checks that it should be developing a test
- CEC Terms of Reference
  - Outline plan for test development with objectives
  - Clarifies what is already fixed and what the group needs to investigate
  - Used as basis for tenders for the lead laboratory



# Test Proposal Development

## Role of AAA/AAC

- AAA and AAC are fora for technical discussions between Industry Associations
- Facilitate discussions on new test development requirements
- Formalise proposals to CEC MB for test development
- Source of experts to develop Template and Terms of Reference

# Challenges

- 
- Significant number of new tests, including bench tests
  - Impact on industry resources
    - Financial
    - People
    - Test laboratory capacity
  - US industry also needs to develop new tests for GF-6/PC-11
    - Increases the impact of resource issues
    - Opportunity for coordination of test development?
  - Need to identify suitable engines and OEMs willing to support these engines





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