



10th ICIS Middle Eastern Base Oils & Lubricants Conference

7 October 2013, Dubai

Dr Ian Field – Vice-Chairman, CEC Management Board



Who Needs Lubricant Tests?

Need to define lubricants that will protect their engines

Want to market high quality lubricants with no risk of field problems

ALL NEED

Well designed, reliable and cost effective engine tests that cover all engine parameters and match real field performance

Want to market lubricant additions with no risk of field problems. New formulations that add value and meet future demands

Who Manages CEC?



What is the CEC?

The Co-ordinating European Council for the development of performance tests for transportation fuels, lubricants and other fluids

- CEC is an Industry-based organisation for the development of Test Procedures and Methods:
 - Automotive Fuels, Engine Oils & Transmission Fluids
 - Marine & Large Engine Oils

CEC Mission Statement

CEC Mission

Managed by
industry
stakeholders

Quality
processes for
test labs

TMS for
bench tests

Rating
workshops

Use of lead
lab to
develop new
tests

**All CEC processes combine
to provide high quality tests
that will reliably assess the
true performance of a
lubricant or fuel**

Support of
statistics
group

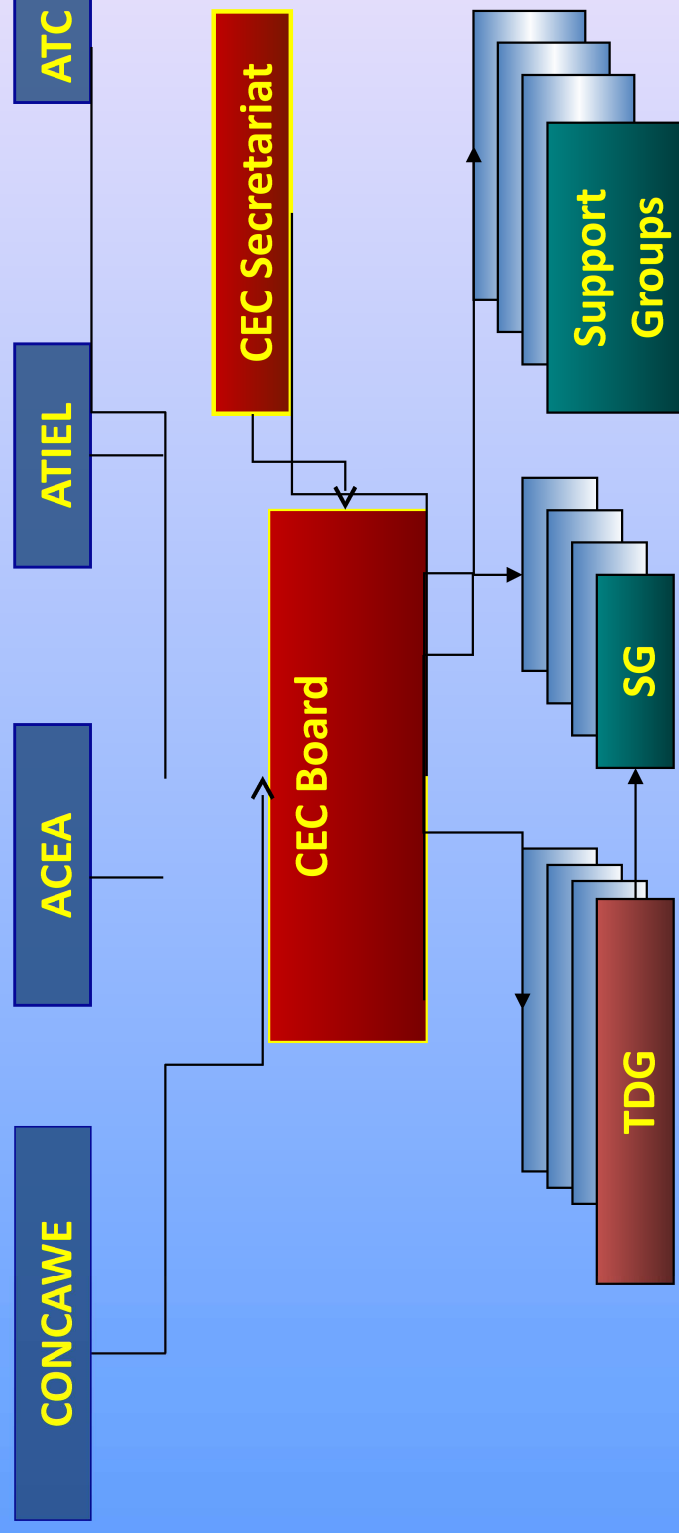
Terms of
reference for
new test
development

Expert fuels
and lubes
advisors

Monitoring
and
referencing of
test engines

CEC organisation

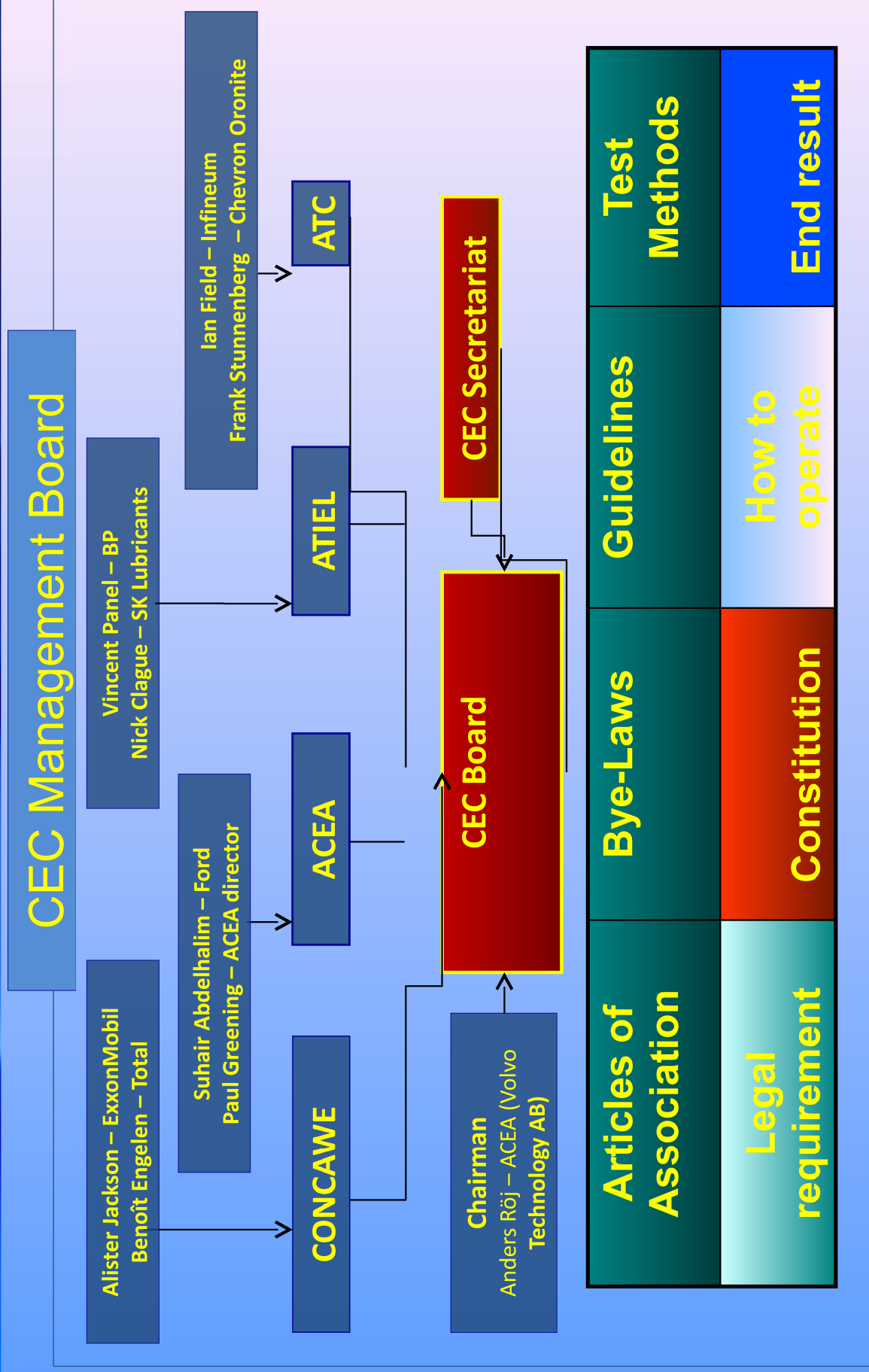
CEC Organisation





The Coordinating European Council

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



Test development process

CEC Test development process – TDG's

- CEC tests are often introduced through the AAA (ACEA, ATIEL, ATC) group
 - Usually initiated by an OEM
- The CEC Secretariat produces tender document for one lead laboratory to develop the test
 - Tenders are evaluated by a small CEC MB team
- The Lead lab is chosen and Sponsors are invited to join the Test development group

Quality Requirements & Support Groups

Test Laboratory Quality Requirements

- All laboratories running CEC tests must have an ISO 9001 equivalent system for the general quality definition and procedures
- For engine/rig tests an ISO 17025 equivalent system is required
- Laboratories must actively participate in CEC

CEC Web-based Test Monitoring

- Simple process for uploading Reference data and Graphical software for analysis of data
- Location: www.cec-tms.net



CEC TMS
ONLINE TEST MONITORING

The Coordinating European Council
for the Development of Performance Tests for Fuels, Lubricants and Other Fluids

Online Test Monitoring

An online system has been adapted for monitoring all major CEC tests. In addition to the provision of new test data, real-time reference test data, will be compiled by 2008 and is key to maintaining test quality.

Reference test results are recorded on a continuous basis rather than the traditional annual 'round robin' approach. Members can display, analyse and compare reference test results in graphic format across all key test parameters, making this a powerful tool for monitoring test quality and spotting data trends.

Enter your login details on the left to sign in the CEC Online Test Monitoring System



About CEC

CEC is an industry-based organisation for the development of new Test Procedures for the performance testing of Automotive Engine Oil, Fuels & Transmission Fluids (using gasoline & diesel) and Large Engine Oils, Two-Stroke Engine Oils & Associated Bench Tests.

It maintains existing tests on an ongoing basis, concentrating on quality assurance (if forms part of EECQMS - European Engine Lubricants Quality Control) and the development of new test procedures. It also manages the provision of Reference Fluids (lubricants and fuels) for its tests. CEC is based in Brussels and maintains a Secretariat in Leicestershire UK.

For more information on CEC [click here](http://www.cec-tms.net)

CEC Performance Tests

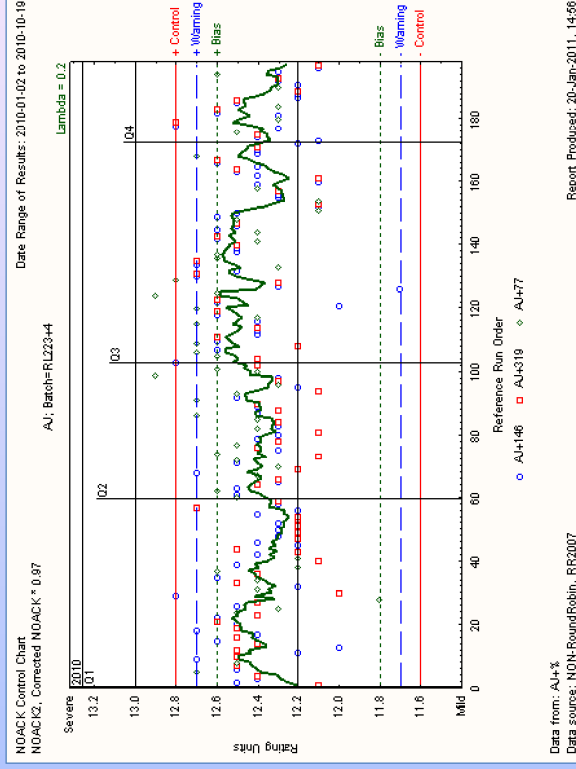
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Username:

Password:



CEC Secretariat Services are provided by Interdyn Administrative Services Ltd. Tel: +44 (0)1452 821993. Fax: +44 (0)1452 822594. Email: cec@interdyn.co.uk Interdyn Administrative Services, PO Box 8475, Earl Shilton, Leicestershire, LE19 8ZB, UK. Copyright © CEC 2006. Site designed and hosted in Palmshire, with POC-LS



ERC – ATC's European Registration Centre

<https://atc-erc.org>

- Candidate test registration database
- Reference test registration database and charting

European Registration Centre

6555 Penn Avenue, Pittsburgh, PA 15206, USA <https://atc-erc.org>

Services Provided By:

A Program of ASTM International

- ATC Code of Practice
- Data Dictionaries
- ERC Memos
- QMWG Items ▶
- TDG ▶
- Reference Test ▶
- Sponsor Tools ▶
- Lab Tools ▶

Welcome to the ATC European Registration Centre. This page provides information related to engine testing conducted in accordance with the ATC Code of Practice.

The Technical Committee of Petroleum Additive Manufacturers in Europe (ATC) is a part of EELQMS, the European Engine Lubricants Quality Management System. EELQMS is a set of standards in the field of engine lubricants in service and is built on ISO quality management standards. The whole process of testing and reporting for ACEA claims, when marketing lubricants, is put forth in the ATC Code of Practice.

Please contact [Jeff Clark](mailto:jeff.clark@atc-erc.org) at the ATC-European Registration Centre with any questions.

ERC Web Alerts:

*** Updated ATC Code of Practice is available

*** See ERC Memo 2010-01

*** Letter of Intent Due April 1, 2011

*** See ERC Memo 2010-02

European Registration Centre

6555 Avenue, Pittsburgh, PA 15206, USA <https://atc-erc.org>

Services Provided By:

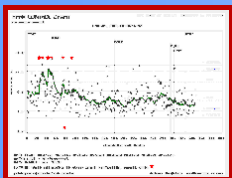
A Program of ASTM International

Reference Test Discrimination Chart

Test Area - MHPF Lab#(s) - A1, B1, C2, G1, H1, K1, M1, N1, Q1, S1, T1, W1, X1
Parameter - PCSDR_R

Date Range of Results - 19960701-20100221

Support Groups



- Statistical Development Group – SDG

- A designated Statistical Development Liaison Officer allocated to each Group
- Assuring Quality of Test Results



- Rating Group – RG

- Regular Workshops for Raters
- Ensure Rating is consistent across the industry



New and Potential Test Developments



New Developments - In progress

- CEC L-39-96 Seals Special Project Group to look for new elastomers
- TDG L-104 OM646LA, Effects of Biodiesel Fuel
- TDG L-106 DV6 Euro 5, Soot Handling Test
- TDG-L-107 M271EVO Sludge Test



The Coordinating European Council

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

New Test Development Group (TDG): CEC TDG-L-104 – Effects of Biodiesel Test (OM646LA)

Terms of Reference for TDG-L-104

- 1st meeting : 12th March 2010
- New Biodiesel test to determine the effects on Piston deposits, Engine Sludge and Oil degradation.
- Using the same Daimler AG OM 646 DE 22 LA engine as used in CEC L-099.
- Test Fuel - B15 = 85% Diesel Fuel + 15% FAME
- Test Oil will be diluted with \approx 7% B100



OM 646 LA - Euro V

- Engine type: R4 CDI
- Capacity: 2.2 l
- Power max: 110 kW
- Torque max: 340 Nm



New Test Development Group (TDG): (CEC TDG-L-105) Low Temperature Pumpability for Used Oils

Terms of Reference for TDG-L-105

- Development of an bench test which simulates low temperature pumpability problems observed in the field during the cold Winter of 2008/2009
- ISP selected by tender as the Lead Laboratory
- TDG will evaluate low temperature pumpability (as measured by MRV) of engine oil dosed with biofuel and aged in laboratory glassware. The initial phase of the test development will include an investigation phase.
 - Test hardware and type: GFC or Daimler
 - Modifications to current GFC oxidation and Daimler oxidation methods
 - Fuel type (B15 or B100)
- First meeting 15th December 2010



New Test Development Group (TDG):

TDG L-106 – DV6 Euro 5, Oil Dispersion Test at Medium Temperature for

Passenger Car Direct Injection Diesel Engines - Replacement of DV4

Terms of Reference for TDG L-106

Performance criteria

- Viscosity increase at 6% soot
- Piston deposits
- The target of the test development is to maintain the same duration as DV4 -120hrs

Hardware

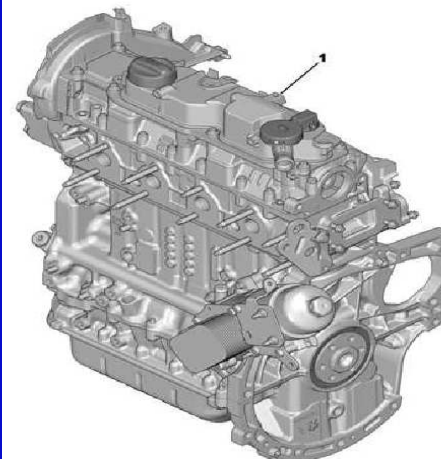
- PSA's DV6CTED Euro 5 1.6L HDi engine. This engine will be available for between 5 to 10 years and PSA will provide engine hardware, adaptation parts, opened ECU (during test development), normal ECU (when test is developed) and technical support.

Fuel

- CEC DF-98-07 (B5 used in the OM646 wear test)

First meeting:

- 6th June 2011



Type and size: DV6CTED, Euro 5, 1.6L HDi

Power : 82 kW @ 3600rpm

Torque rating: 270 Nm @ 1750rpm

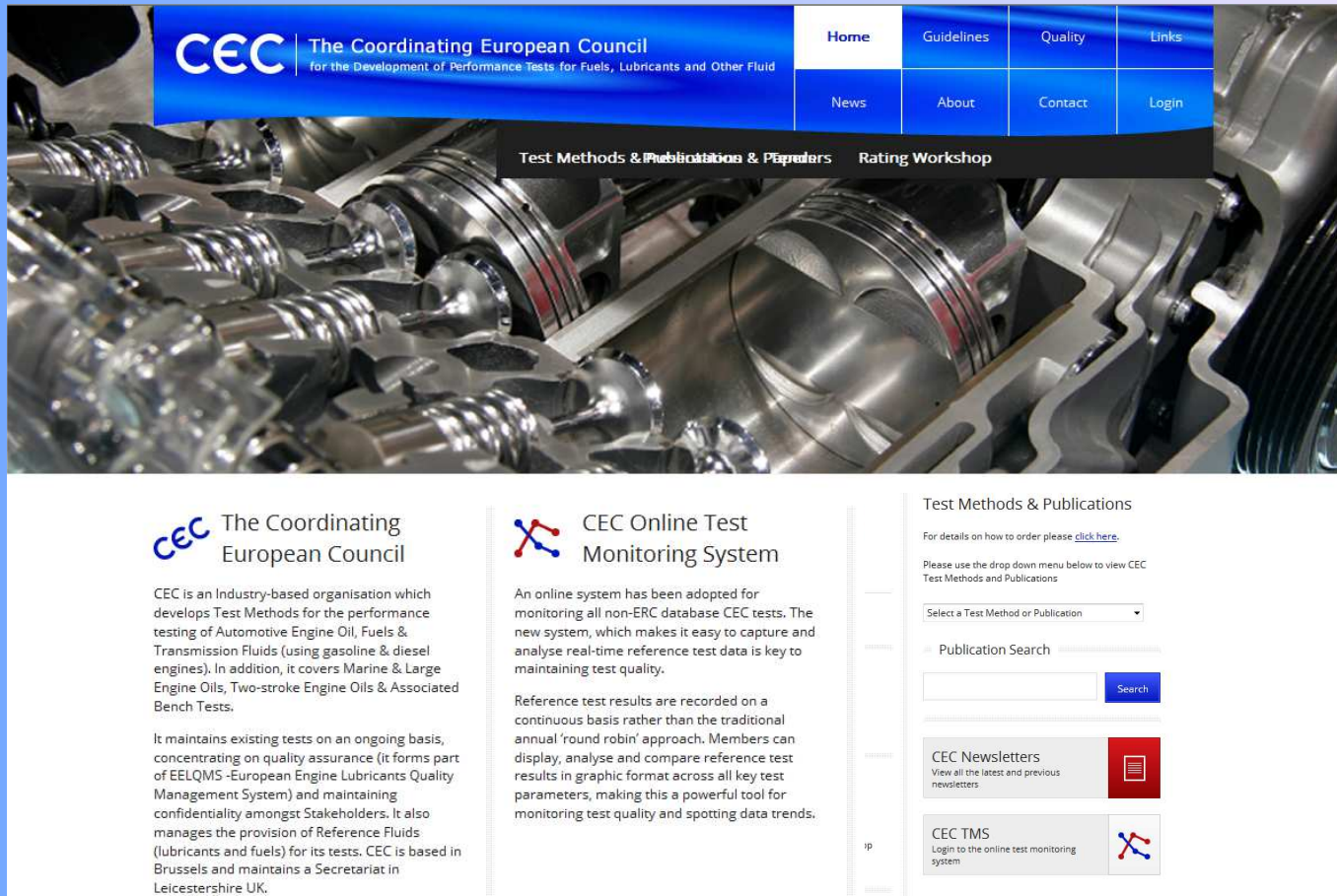
Oil capacity: ~3,5 L can be extended to ~4,5L TBC

Summary

The CEC is a key organisation supporting the lubricant industry and its stakeholders by –

- Developing new tests to meet industry needs
- Ensuring the tests are meaningful and reliable
- Monitoring the running of the tests to ensure

CEC - Website: www.CECtests.org



The screenshot shows the CEC website homepage. At the top, there is a blue navigation bar with the CEC logo and the text "The Coordinating European Council for the Development of Performance Tests for Fuels, Lubricants and Other Fluid". Below this is a grid of navigation links: Home, Guidelines, Quality, Links, News, About, Contact, and Login. A dark banner below the navigation links contains the text "Test Methods & Publications & Papers" and "Rating Workshop". The main content area is divided into three columns. The left column features the CEC logo and a description of the organization. The middle column features the CEC Online Test Monitoring System logo and a description of the system. The right column features the Test Methods & Publications section, which includes a link to "click here" for details on how to order, a drop-down menu to "Select a Test Method or Publication", a "Publication Search" box with a "Search" button, and two promotional boxes for "CEC Newsletters" and "CEC TMS".

CEC The Coordinating European Council
for the Development of Performance Tests for Fuels, Lubricants and Other Fluid

Home Guidelines Quality Links
News About Contact Login

Test Methods & Publications & Papers Rating Workshop

CEC The Coordinating European Council

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Test Methods & Publications

For details on how to order please [click here](#).

Please use the drop down menu below to view CEC Test Methods and Publications

Select a Test Method or Publication

Publication Search

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View all the latest and previous newsletters

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