



**ISO/TC 28 Petroleum products and lubricants  
Advisory Group**

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**ISO/TC 28 AG N 245**

**2003-06-10**

**To: Members of the ISO/TC 28 AG**

**Possible new work item proposal: Shear stability by four ball tester**

Tom Feuerhelm of DIN-FAM has requested that a possible new work item proposal (see attachments) be discussed at the forthcoming ISO/TC 28/AG meeting.

The proposal consists of the following documents:

Attachment 1: Purpose and justification the for new work item proposal;

Attachment 2: Proposed ISO Form 4;

Attachment 3: Proposed working draft (WD) of the test method (circulated as a separate file).

Yours sincerely

*Paula Watkins*

Paula Watkins  
Secretary to ISO/TC 28/AG

## **Attachment 1 to NWIP "Shear Stability":**

### **Testing of Lubricants – Determination of shear stability of lubricating oils containing polymers – Testing in the four ball tester**

Modern component designs require fluids with high shear stability. There is so far no internationally standardised test method with adequate severity for the testing of shear stability of polymer-containing fluids.

The only existing international (draft) test method, ISO 20844, "*Petroleum and related products – Determination of the shear stability of polymer-containing oils using a diesel injector nozzle*", does not exhibit sufficient severity for testing the compliance to current existing requirements, e.g. for transmission lubricating oils and hydraulic fluids.

According to partners concerned with the use of lubricants (e.g. lubricant and additive manufacturers, automobile industry, users and manufacturers of hydraulic equipment), such an international test method is urgently needed, and support for this proposed project and readiness to participate in the editing work has been expressed.

The proposed tapered roller bearing rig test method is already specified and available in several other standards, which can form the basis for an international standard:

DIN 51350-6	<i>Testing of Lubricants – Determination of shear stability of lubricating oils containing polymers – Testing in the four ball tester (1996)</i>
CETOP RP 122 H	<i>Viscosity shear stability of hydraulic oils (Tapered Roller Bearing Rig)</i>
CEC L-45-A-99	<i>Viscosity Shear Stability Of Transmission Lubricants (Taper Roller Bearing Rig)</i>

All the above test methods are run in the widely used and accepted four ball test rig, using the same tapered roller bearing in a special adapter, and also the same testing procedures. They have found high global acceptance and are used throughout the world. In addition, this test method has also been included in several national, regional and international specifications.

DIN-FAM therefore proposes to establish this test method as an NWI in ISO/TC 28.

High interest and support has been expressed by experts not only from different nations, but also from the different industries, so a corresponding letter ballot is expected to guarantee the necessary support for this project. It is also expected that such international test method will subsequently be adopted by CEN/TC 19 member countries.

DIN-FAM also proposes *Mr. Simon Peal, Lubrizol, Hamburg, Germany*, as a candidate for the convenorship, subject, of course, to approval in the NWIP letter ballot.



**Comments of the TC or SC Secretariat**

**Supplementary information relating to the proposal**

This proposal relates to a new ISO document;

This proposal relates to the amendment/revision of an existing ISO document;

This proposal relates to the adoption as an active project of an item currently registered as a Preliminary Work Item;

This proposal relates to the re-establishment of a cancelled project as an active project.

Other:

**Voting information**

The ballot associated with this proposal comprises a vote on:

Adoption of the proposal as a new project

Adoption of the associated draft as a committee draft (CD)  
(see ISO Form 5, question 3.3.1)

Adoption of the associated draft for submission for the enquiry vote (DIS or equivalent)  
(see ISO Form 5, question 3.3.2)

Other:

**Annex(es) are included with this proposal** (give details)

Date of circulation	Closing date for voting	Signature of the TC or SC Secretary
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**Use this form to propose:**

- a) a new ISO document (including a new part to an existing document), or the amendment/revision of an existing ISO document;
  - b) the establishment as an active project of a preliminary work item, or the re-establishment of a cancelled project;
  - c) the change in the type of an existing document, e.g. conversion of a Technical Specification into an International Standard.
- This form is not intended for use to propose an action following a systematic review - use ISO Form 21 for that purpose.  
Proposals for correction (i.e. proposals for a Technical Corrigendum) should be submitted in writing directly to the secretariat concerned.

**Guidelines on the completion of a proposal for a new work item**

(see also the ISO/IEC Directives Part 1)

- a) **Title:** Indicate the subject of the proposed new work item.
- b) **Scope:** Give a clear indication of the coverage of the proposed new work item. Indicate, for example, if this is a proposal for a new document, or a proposed change (amendment/revision). It is often helpful to indicate what is not covered (exclusions).
- c) **Envisaged publication type:** Details of the types of ISO deliverable available are given in the ISO/IEC Directives, Part 1 and/or the associated ISO Supplement.
- d) **Purpose and justification:** Give details based on a critical study of the following elements wherever practicable. *Wherever possible reference should be made to information contained in the related TC Business Plan.*
  - 1) The specific aims and reason for the standardization activity, with particular emphasis on the aspects of standardization to be covered, the problems it is expected to solve or the difficulties it is intended to overcome.
  - 2) The main interests that might benefit from or be affected by the activity, such as industry, consumers, trade, governments, distributors.
  - 3) Feasibility of the activity: Are there factors that could hinder the successful establishment or general application of the standard?
  - 4) Timeliness of the standard to be produced: Is the technology reasonably stabilized? If not, how much time is likely to be available before advances in technology may render the proposed standard outdated? Is the proposed standard required as a basis for the future development of the technology in question?
  - 5) Urgency of the activity, considering the needs of other fields or organizations. Indicate target date and, when a series of standards is proposed, suggest priorities.
  - 6) The benefits to be gained by the implementation of the proposed standard; alternatively, the loss or disadvantage(s) if no standard is established within a reasonable time. Data such as product volume or value of trade should be included and quantified.
  - 7) If the standardization activity is, or is likely to be, the subject of regulations or to require the harmonization of existing regulations, this should be indicated.

If a series of new work items is proposed having a common purpose and justification, a common proposal may be drafted including all elements to be clarified and enumerating the titles and scopes of each individual item.

- e) **Relevant documents:** List any known relevant documents (such as standards and regulations), regardless of their source. When the proposer considers that an existing well-established document may be acceptable as a standard (with or without amendment), indicate this with appropriate justification and attach a copy to the proposal.
- f) **Cooperation and liaison:** List relevant organizations or bodies with which cooperation and liaison should exist.