

Petroleum and related products

Determination of EP properties and wear characteristics of liquids

Procedure with the 4 ball apparatus

Scope

This International standard specifies a procedure for determining the welding force [EP behaviour] and wear characteristics of lubricating oils and liquids using the four-ball tester. The test conditions are designed so that the test procedure in Europe and other areas with comparable power supplies (200 V to 250 V, 50 Hz) can be used directly. In North America, there are slightly different requirements for the examination, which, however, still require a similar classification of the lubricant properties of the fluids investigated. It is not intended to simulate a particular operating behaviour by the test conditions, but rather to provide information on a range of standard conditions for research purposes, for the purpose of lubricant development, quality control and classification of fluids. The results will be used to specify lubricants.

Brief description

A single test ball (running ball) rotates in contact with three other stationary balls, whereby the test liquid is used to lubricate the test balls. The loads are applied via a lever device and the corresponding abrasion, friction and welding results are obtained.



DMT GmbH & Co. KG

Tremoniastraße 13

44137 Dortmund

Tel +49 231-5333-240

Fax +49 231-5333-299

www.dmt-group.com · aps@dm-group.com

