

Evaluating particulate contamination of hydraulic fluids —

Part 8: Method of determining the level of contamination (by the counting method using a microscope)

Committees responsible for this British Standard

The preparation of this British Standard was entrusted by the Machinery and Components Standards Policy Committee (MCE/-) to Technical Committee MCE/18, upon which the following bodies were represented:

- Advanced Manufacturing Technology Research Institute
- Association of British Mining Equipment Companies
- Bath University Library
- British Compressed Air Society
- British Fluid Power Association
- British Steel Industry
- Department of Trade and Industry (National Engineering Laboratory)
- Institution of Mechanical Engineers
- Ministry of Defence

The following bodies were also represented in the drafting of the standard, through subcommittees and panels:

- British Hydromechanics Research Association
- British Railways Board
- Society of Motor Manufacturers and Traders Ltd.

This British Standard, having been prepared under the direction of the Machinery and Components Standards Policy Committee, was published under the authority of the Standards Board and comes into effect on 20 December 1991

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The following BSI references relate to the work on this standard:
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National foreword

This Part of BS 5540 has been prepared under the direction of the Machinery and Components Standards Policy Committee and is identical with ISO 4407:1991 “*Hydraulic fluid power — Fluid contamination — Determination of particulate contamination by the counting method using a microscope*”, published by the International Organization for Standardization (ISO). It is one of a series relating to the evaluation of particulate contamination in hydraulic fluids.

This Part of BS 5540 describes a method of determining the level of contamination in a fluid using a microscope. The method employs membrane filters, which are used to separate insoluble particles from the fluid, and then illuminated filtered particles are counted under a microscope.

Other Parts in the series are as follows.

- *Part 1: Qualifying and controlling of cleaning methods for sample containers;*
- *Part 2: Method of calibrating liquid automatic particle-count instruments (using AC Fine Test Dust contaminant);*
- *Part 3: Methods of bottling fluid samples;*
- *Part 4: Method of defining levels of contamination (solid contaminant code);*
- *Part 5: Method of reporting contamination analysis data;*
- *Part 6: Method of calibrating liquid automatic particle-count instruments (using mono-sized latex spheres);*
- *Part 7: Method of determining the level of contamination (by the gravimetric method).*

Cross-references

The Technical Committee has reviewed the provisions of ISO 4021 and ISO 5598:1985 to which reference is made in the text and has decided that they are acceptable for use in conjunction with this standard. A related British Standard to ISO 4021:1978 is BS 5540-3:1978. ISO 5598 is referred to only for information.

A British Standard does not purport to include all the necessary provisions of a contract. Users of British Standards are responsible for their correct application.

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Summary of pages

This document comprises a front cover, an inside front cover, pages i and ii, pages 1 to 6, an inside back cover and a back cover.

This standard has been updated (see copyright date) and may have had amendments incorporated. This will be indicated in the amendment table on the inside front cover.