

Hydraulic fluid power — Electrically controlled hydraulic pumps — Test methods to determine performance characteristics

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National foreword

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The UK participation in its preparation was entrusted by Technical Committee MCE/18, Fluid power systems, to Subcommittee MCE/18/-/8, Product testing, which has the responsibility to:

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- present to the responsible international/European committee any enquiries on the interpretation, or proposals for change, and keep the UK interests informed;
- monitor related international and European developments and promulgate them in the UK.

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Summary of pages

This document comprises a front cover, an inside front cover, the ISO title page, pages ii to v, a blank page, pages 1 to 20, an inside back cover and a back cover.

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Hydraulic fluid power — Electrically controlled hydraulic pumps — Test methods to determine performance characteristics

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fonctionnement*



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Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 2.

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ISO 17559 was prepared by Technical Committee ISO/TC 131, *Fluid power systems*, Subcommittee SC 8, *Product testing*.

Introduction

This International Standard is intended to unify testing methods of positive-displacement electrically and electronically controlled hydraulic pumps so as to allow comparison of the performance of different components.

Requirements for test installations, procedures and expression of results are described.

Hydraulic fluid power — Electrically controlled hydraulic pumps — Test methods to determine performance characteristics

1 Scope

This International Standard specifies methods for determining the steady-state performance characteristics and dynamic performance characteristics of positive-displacement electrically and electronically controlled hydraulic pumps (hereafter referred to as “pump” or “pumps”), so as to allow comparison of the performance of different components.

Pumps covered by this International Standard have the capacity to affect changes in the output flow or pressure in proportion to the electrical or electronic input signals. These pumps can be of the load-sensing control type, servo-control type, or electrical variable displacement mechanism type, which control output flow and output pressure by feedback using electrical signals.

The accuracy of measurement is divided into three classes, A, B and C, which are explained in Annex A.

2 Normative references

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO 3448, *Industrial liquid lubricants — ISO viscosity classification*

ISO 4391, *Hydraulic fluid power — Pumps, motors and integral transmissions — Parameter definitions and letter symbols*

ISO 4406, *Hydraulic fluid power — Fluids — Method for coding the level of contamination by solid particles*

ISO 4409, *Hydraulic fluid power — Positive displacement pumps, motors and integral transmissions — Determination of steady-state performance*

ISO 5598, *Fluid power systems and components — Vocabulary*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO 5598 and the following apply.

3.1

electrically controlled hydraulic pump

variable displacement pump which is capable of controlling the pressure or flow rate, or the pressure and flow rate corresponding to an input signal

3.2

minimum flow command

minimum input flow command signal needed to maintain the maximum working pressure