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МЕЖДУНАРОДНАЯ ОРГАНИЗАЦИЯ ПО СТАНДАРТИЗАЦИИ

Hydraulic fluid power — Positive displacement pumps and motors — Determination of derived capacity

*Transmissions hydrauliques — Pompes et moteurs volumétriques — Détermination de la
cylindrée mesurée*

Reference number
ISO 8426:1988 (E)

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.

Draft International Standards adopted by the technical committees are circulated to the member bodies for approval before their acceptance as International Standards by the ISO Council. They are approved in accordance with ISO procedures requiring at least 75 % approval by the member bodies voting.

International Standard ISO 8426 was prepared by Technical Committee ISO/TC 131, *Fluid power systems*.

Users should note that all International Standards undergo revision from time to time and that any reference made herein to any other International Standard implies its latest edition, unless otherwise stated.

Hydraulic fluid power — Positive displacement pumps and motors — Determination of derived capacity

0 Introduction

This International Standard is intended to unify testing methods for fluid power positive displacement hydraulic pumps and motors so as to enable the performance of different components to be compared.

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

1 Scope and field of application

This International Standard specifies the methods for determining the derived capacity of fluid power positive displacement hydraulic pumps and motors under steady-state conditions and at defined, continuously rotating shaft speeds.

The unit may be tested as a pump, with mechanical energy applied to the shaft and hydraulic energy obtained at the fluid connections, or as a motor, with the hydraulic energy supplied to the fluid connections and mechanical energy obtained at the shaft.

Accuracy of measurement is divided into three classes (A, B and C) which are explained in annex A.

2 References

ISO 1219, *Fluid power systems and components — Graphic symbols*.

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

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

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

ISO 6743-4, *Lubricants, industrial oils and related products (class L) — Classification — Part 4: Family H (Hydraulic systems)*.

3 Definitions

For the purposes of this International Standard, the definitions given in ISO 5598 and the following definitions apply.

NOTE — Some of the following definitions have been taken from ISO 5598 and are included, for convenience, in this International Standard.

3.1 direction of rotation: Direction of rotation as viewed looking at the shaft end.

NOTE — In dubious cases, a sketch should be provided.

3.2 hydrostatic power unit: Device for the transmission of energy by means of a pressurized fluid.

3.3 volume flow rate: The volume of a fluid crossing the transverse plane of a flow path per unit of time.

3.4 derived capacity: The volume of fluid displaced by a pump or motor per shaft revolution, calculated from measurements at different speeds under test conditions.

3.5 fluid temperature: Temperature of the fluid at a stated point.