INTERNATIONAL STANDARD

ISO 9632

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Hydraulic fluid power — Fixed displacement pumps — Flow degradation due to classified AC Fine Test Dust contaminant — Test method

Transmissions hydrauliques — Pompes à cylindrée fixe — Dégradation de l'écoulement due à la pollution par ACFTD

Reference number
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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.

Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

International Standard ISO 9632 was prepared by Technical Committee ISO/TC 131, *Fluid power systems*, Sub-Committee SC 8, *Product testing and contamination control*.

Annex A of this International Standard is for information only.

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Introduction

The life of a hydraulic fluid power pump is terminated when it can no longer deliver a specified flow rate at a given shaft speed, discharge pressure and fluid condition. The rate of wear in hydraulic pumps is related to the contamination level of the hydraulic fluid exposed to the internal surfaces of the pump. Wear forms critical clearance spaces (leakage paths) and is accompanied by a degradation in flow rate. The construction materials, together with the characteristic size and shape of critical clearance spaces, uniquely establishes the pump's sensitivity to contamination for given operating conditions.

Based on the above considerations, a contamination tolerance for the comparison of hydraulic pumps under the same operating conditions can be determined.

The test specified in this International Standard uses silica dust as a test medium to determine contaminant sensitivity (flow degradation due to contaminant wear) and is not intended to be representative of all types and rates of wear experienced in long-term field applications. It should be realized that many other parameters besides contaminant sensitivity must be considered when selecting a pump for a given duty.