

First edition
1999-10-01

Hydraulic fluid power — Determination of pressure ripple levels generated in systems and components —

Part 2: Simplified method for pumps

Transmissions hydrauliques — Détermination des niveaux d'onde de pression engendrés dans les circuits et composants —

Partie 2: Méthode simplifiée pour les pompes



Reference number
ISO 10767-2:1999(E)

This is a preview of "ISO 10767-2:1999". [Click here to purchase the full version from the ANSI store.](#)

Contents

1 Scope	1
2 Normative references	1
3 Terms and definitions	1
4 Symbols and units	2
5 Instrumentation	3
6 General provisions	3
7 Determination of geometric parameters and speed of sound in the test fluid	3
8 Valid frequency and pressure range	4
9 Test circuit	4
10 Test procedure	6
11 Data presentation	6
12 Identification statement (Reference to this part of ISO 10767)	7
Annex A (normative) Test report forms	8
Annex B (informative) Tutorial explanation of the basis for the test procedure given in this part of ISO 10767 for measuring pump pressure ripple	10
Bibliography	20

© ISO 1999

All rights reserved. Unless otherwise specified, no part of this publication may be reproduced or utilized in any form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from the publisher.

International Organization for Standardization
Case postale 56 • CH-1211 Genève 20 • Switzerland
Internet iso@iso.ch

Printed in Switzerland

This is a preview of "ISO 10767-2:1999". [Click here to purchase the full version from the ANSI store.](#)

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 3.

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 10767-2 was prepared by Technical Committee ISO/TC 131, *Fluid power systems*, Subcommittee SC 8, *Product testing*.

ISO 10767 consists of the following parts, under the general title *Hydraulic fluid power — Determination of pressure ripple levels generated in systems and components*:

- *Part 1: Precision method for pumps*
- *Part 2: Simplified method for pumps*
- *Part 3: Method for motors*

Annex A forms a normative part of this part of ISO 10767. Annexes B and C are for information only.

This is a preview of "ISO 10767-2:1999". [Click here to purchase the full version from the ANSI store.](#)

Introduction

In hydraulic fluid power systems, power is transmitted and controlled through a liquid under pressure within an enclosed circuit. Hydraulic pumps are devices which convert rotary mechanical power into fluid power. Pump flow has a large, steady component and a smaller, cyclical component superimposed upon it. It is this smaller, cyclical component of the pump flow that reacts with the fluid system of the pump and its circuit, that results in pressure ripple or fluid-borne noise. This fluid-borne noise can be transmitted through the liquid under pressure to other attached components and structures, and can result in unwanted noise and vibrations.

While the flow ripple is the cause of the pressure ripple, it is more difficult to measure. Therefore pressure ripple will be used in this procedure to characterize the fluid-borne noise generation potential of hydraulic fluid power pumps. Pressure ripple is a function of the pump design and the circuit in which it is measured. It is important, therefore, that the test circuit be controlled so as to provide uniform results when comparing the fluid-borne noise generation potential of different types of pumps. Pressure ripple determined in accordance with this part of ISO 10767 may be different to that measured in fluid power systems because of the high impedance of the test line.