Second edition
1997-07-15

Rubber and plastics hose assemblies — Flexing combined with hydraulic impulse test (half-omega test)

Flexibles hydrauliques en caoutchouc et en plastique — Essai de flexion combiné avec des impulsions de pression (essai demi-oméga)

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 8032 was prepared by Technical Committee ISO/TC 45, *Rubber and rubber products*, Subcommittee SC 1, *Hoses (rubber and plastics)*.

This second edition cancels and replaces the first edition (ISO 8032:1987), which has been technically revised.

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Introduction

Hydraulic hose assemblies are frequently flexed in service, especially when used on mobile equipment. This test is designed to accelerate the same type of failure of the test pieces as that which may occur in service.

This International Standard is an alternative method to ISO 6802, which also specifies a method of flexing during impulse testing. ISO 8032 provides a method including more severe bending and higher impulse pressures to accelerate failure results.

NOTE - It shall be clearly understood that this test method uses pressure and bend radius conditions considerably more severe than those specified in the hose product specifications and does not imply that the assemblies may be used in service under these conditions.

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WARNING — Persons using this International Standard should be familiar with normal laboratory practice. This standard does not purport to address all of the safety problems, if any, associated with its use. It is the responsibility of the user to establish appropriate safety and health practices and to ensure compliance with any national regulatory conditions.

1 Scope

This International Standard specifies a method of flexing, in an arrangement known as a 'half-omega", hydraulic hose assemblies during impulse testing.

2 Normative references

The following standards contain provisions which, through reference in this text, constitute provisions of this International Standard. At the time of publication, the editions indicated were valid. All standards are subject to revision, and parties to agreements based on this International Standard are encouraged to investigate the possibility of applying the most recent editions of the standards indicated below. Members of IEC and ISO maintain registers of currently valid International Standards.

ISO 6802 : 1991, Rubber and plastics hose and hose assemblies with wire reinforcements - Hydraulic impulse test with flexing.

ISO 6803 : 1994, Rubber or plastics hoses and hose assemblies - Hydraulic-pressure impulse test without flexing.

3 Apparatus and materials

3.1 **Flex test rig**, on which the test pieces can be installed, capable of producing flexing as shown in figure 1, according to the test parameters specified in clause 5.

The test rig comprises a manifold mounted on a revolving arm, and a stationary manifold.

The manifold on the revolving arm is geared so that it stays perpendicular to the stationary manifold at all times (see figure 1).