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Ships and marine technology — Floating pneumatic rubber fenders —

Part 1: High pressure

Navires et technologie maritime — Éperons pneumatiques flottants —

Partie 1: Haute pression

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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.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see www.iso.org/directives).

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For an explanation on the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the WTO principles in the Technical Barriers to Trade (TBT) see the following URL: Foreword - Supplementary information

The committee responsible for this document is ISO/TC 8, *Ships and marine technology*, Subcommittee SC 4, *Outfitting and deck machinery*.

ISO 17357-1 together with ISO 17357-2 cancels and replaces ISO 17357:2002.

ISO 17357 consists of the following parts, under the general title *Ships and marine technology — Floating pneumatic rubber fenders*:

— *Part 1: High pressure*

— *Part 2: Low pressure*

Introduction

This International Standards has been developed to provide guidelines on the quality and performance of all floating pneumatic rubber fenders. Floating pneumatic rubber fenders can play an important role in a ships safe berthing operation and this International Standard is seen as a technical reference to ensure necessary product standards.

Essentially there are two main types of floating pneumatic rubber fender, defined as either high or low pressure fenders. Although manufactured using different techniques, both high and low pressure fenders work by the same principle. The resistance to berthing vessel momentum is provided by a reaction pressure due to compression of the air inside the fender when deformed by the vessels hull. The kinetic energy of the berthing vessel is absorbed during the work done to compress the air inside the fender. Fenders are sized according to the expected duty of the fender in terms of the energy absorption (EA) requirements which will be at the most basic level, a function of the vessel mass and velocity.

Throughout this International Standard, the minimum essential criteria are identified by the use of the keyword “shall”. Recommended criteria are identified by the use of the keyword “should”, and while not mandatory are considered to be of primary importance in providing serviceable, economical, and practical connectors. Deviation from the recommended criteria should occur only after careful consideration, extensive testing, and thorough service evaluation have shown alternative methods to be satisfactory.

The documents in the Bibliography provide information on the usage of the fenders.