BS ISO 12482:2014

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Cranes — Monitoring for crane design working period

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National foreword

This British Standard is the UK implementation of ISO 12482:2014.

The UK participation in its preparation was entrusted to Technical Committee MHE/3/11, Crane safety and testing.

A list of organizations represented on this committee can be obtained on request to its secretary.

This publication does not purport to include all the necessary provisions of a contract. Users are responsible for its correct application.

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ISBN 978 0 580 79513 8

ICS 53.020.20

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This British Standard was published under the authority of the Standards Policy and Strategy Committee on 30 September 2014.

Amendments issued since publication

Date	Text affected

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INTERNATIONAL STANDARD

ISO 12482

First edition
2014-09-01

Cranes — Monitoring for crane design working period

Appareils de levage à charge suspendue — Surveillance continue de la période d'activité de conception

Reference number
ISO 12482:2014(E)

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Published in Switzerland

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Foreword

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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 96, *Cranes*, SC 5, *Use, operation and maintenance*.

ISO 12482 cancels and replaces ISO 12482-1:1995, which has been technically revised.

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Introduction

Cranes are designed for a finite lifetime duty, which is specified in load cycles and load spectrum and is not principally related to calendar working time. Classification of crane duty provides the crane owner a means to specify the intended duty in order to achieve the intended useful operational lifetime of the crane.

Typically the operational period for industrial cranes is from 10 to 20 years. However, a specified crane classification may be related to any calendar time depending on the application, e.g. 5 to 10 years for a special limited use or 40 years for a long-term investment.

Monitoring of crane use does not in any way change requirements for periodic inspections of the cranes, independent of whatever type of instruments are used for the monitoring. Neither does it remove the requirement for regular maintenance of cranes. Inspections and monitoring of use are methods, which complete each other, giving different information of the condition.

The design working period (DWP) introduced in this standard is derived from the design classification of cranes and is not to be considered as a guaranteed operational period in any respect. Due to the probabilistic nature of metal fatigue and other influencing factors, premature failures during the DWP cannot be ruled out. However, the DWP represents a reliable estimate of a safe operational period of the crane, with due consideration to specified design regulations and standardized design safety factors.

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