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Cranes — Wire ropes — Care and maintenance, inspection and discard

*Appareils de levage à charge suspendue — Câbles en acier —
Entretien et maintenance, inspection et dépose*



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Contents

	Page
Foreword	v
Introduction	vi
1 Scope	1
2 Normative references	2
3 Terms and definitions	2
4 Care and maintenance	4
4.1 General.....	4
4.2 Rope replacement.....	4
4.3 Offloading and storing the rope.....	6
4.4 Condition of the rope prior to installation.....	6
4.5 Installing the rope.....	7
4.6 Running-in the new rope.....	10
4.7 Maintaining the rope.....	11
4.8 Maintenance of rope-related parts of the crane.....	11
5 Inspection	12
5.1 General.....	12
5.2 Daily visual inspections.....	12
5.3 Periodic inspections.....	12
5.3.1 General.....	12
5.3.2 Frequency.....	13
5.3.3 Extent of inspection.....	13
5.3.4 Inspection at, or in the vicinity of, a termination.....	14
5.3.5 Inspection record.....	14
5.4 Inspection following an incident.....	15
5.5 Inspection following period with crane out of operation.....	15
5.6 Inspection by magnetic rope test method.....	15
6 Discard criteria	15
6.1 General.....	15
6.2 Visible broken wires.....	16
6.2.1 Criteria for visible broken wires.....	16
6.2.2 Use of Tables 3 and 4 and rope category number.....	16
6.2.3 Wire breaks other than those resulting from service.....	16
6.2.4 Single-layer and parallel-closed ropes.....	17
6.2.5 Rotation-resistant ropes.....	19
6.3 Magnetic rope test (MRT).....	19
6.4 Decrease in rope diameter.....	20
6.4.1 Uniform decrease along the rope.....	20
6.4.2 Calculation to determine actual uniform decrease in diameter and expression as percentage of nominal rope diameter.....	21
6.4.3 Local decrease.....	21
6.5 Fracture of strands.....	21
6.6 Corrosion.....	21
6.7 Deformation and damage.....	22
6.7.1 General.....	22
6.7.2 Waviness.....	22
6.7.3 Basket deformation.....	23
6.7.4 Core or strand protrusion or distortion.....	23
6.7.5 Protruding wires in loops.....	23
6.7.6 Local increase in rope diameter.....	23
6.7.7 Flattened portion.....	23
6.7.8 Kink or tightened loop.....	24
6.7.9 Bend in rope.....	24

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6.7.10	Damage due to heat or electric arcing.....	24
Annex A	(normative) Key areas requiring particularly close inspection.....	25
Annex B	(informative) Typical modes of deterioration.....	27
Annex C	(informative) Discard criteria for MRT.....	37
Annex D	(informative) Internal examination of rope by use of clamps	39
Annex E	(informative) Typical examples of inspection records.....	42
Annex F	(informative) Useful information on rope deterioration and discard criteria.....	45
Annex G	(informative) Combined effect assessment of rope condition and severity rating — One method.....	48
Annex H	(informative) Examples of cross-sections of ropes and corresponding rope category number (RCN).....	51
Annex I	(informative) External corrosion.....	57
Bibliography	59

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Foreword

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This document was prepared by Technical Committee ISO/TC 96, *Cranes*, Subcommittee SC 3, *Ropes*.

This fifth edition cancels and replaces the fourth edition (ISO 4309:2010), which has been technically revised and contains the following changes:

- magnetic rope test (MRT) methodology and discard criteria are introduced, as an aid to the internal inspection of wire ropes;
- guidance is given on when to use magnetic rope testing and how to combine its results with other inspection results;
- an example of an MRT report is provided.

Introduction

A wire rope on a crane is regarded as an expendable component, requiring replacement when the results of inspection indicate that its condition has diminished to the point where further use might be unsafe.

By following well-established principles such as those detailed in this document, along with any additional specific instructions provided by the manufacturer of the crane or hoist and/or by the manufacturer of the rope, this point should never be exceeded.

When correctly applied, the discard criteria given in this document are aimed at retaining an adequate safety margin. Failure to recognize them can be extremely harmful, dangerous and damaging.

To assist those who are responsible for “care and maintenance” as distinct from those who are responsible for “inspection and discard”, the procedures are conveniently separated.