

ISO 4309:2010-08 (E)

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

Contents	Page
Foreword	iv
Introduction	v
1 Scope	1
2 Normative references	2
3 Terms and definitions	2
4 Care and maintenance	3
4.1 General	3
4.2 Rope replacement	3
4.3 Offloading and storing the rope	5
4.4 Condition of the rope prior to installation	5
4.5 Installing the rope	5
4.6 Running-in the new rope	8
4.7 Maintaining the rope	9
4.8 Maintenance of rope-related parts of the crane	9
5 Inspection	10
5.1 General	10
5.2 Daily visual inspection	10
5.3 Periodic inspection	10
5.4 Inspection following an incident	13
5.5 Inspection following period with crane out of operation	13
5.6 Non-destructive testing	13
6 Discard criteria	14
6.1 General	14
6.2 Visible broken wires	14
6.3 Decrease in rope diameter	17
6.4 Fracture of strands	19
6.5 Corrosion	19
6.6 Deformation and damage	20
Annex A (informative) Key areas requiring particular close inspection	23
Annex B (informative) Typical modes of deterioration	25
Annex C (informative) Internal examination of rope	34
Annex D (informative) Typical examples of inspection record	37
Annex E (informative) Useful information on rope deterioration and discard criteria	39
Annex F (informative) Combined effect assessment of rope condition and severity rating -- One method	42
Annex G (informative) Examples of cross-sections of ropes and corresponding rope category number (RCN)	45
Annex H (informative) Guidance on assessment and rating of external corrosion	51
Bibliography	53