ISO 2408:2017-06 (E)

Steel wire ropes - Requirements

Contents

Page

Foreword v

Introduction vii

1 Scope 1

2 Normative references 1

3 Termsanddefinitions 1

4 Requirements 2
4.1 Material 2
4.1.1 Wire 2
4.1.2 Core 2
4.1.3 Lubricant 2
4.2 Rope manufacture 2
4.2.1 General 2
4.2.2 Wire joints 3
4.2.3 Lubrication 3
4.2.4 Preformation and postformation 3
4.2.5 Construction 3
4.2.6 Grade 3
4.2.7 Wire finish 3
4.2.8 Direction and type of lay 4
4.3 Designation and classification 4
4.4 Dimensions 4
4.4.1 Diameter 4
4.4.2 Lay length 5
4.4.3 Rope length 6
4.5 Breaking force 6
4.5.1 General 6
4.5.2 Ropes produced in series 6

5 Verificationofrequirementsandtestmethods 7
5.1 Materials 7
5.2 Rope manufacture 7
5.3 Test on rope for diameter 7
5.4 Test on rope for breaking force 8
5.4.1 Method 1: Measured breaking force, Fm 8
5.4.2 Method 2: Calculated measured (post-spin) breaking force 8
5.4.3 Method 3: Calculated measured (pre-spin) breaking force 9
5.4.4 Method 4: Measured aggregate breaking force, Fe.m 9

6 Information for use 9
6.1 Certificate 9
6.1.1 General 9
6.1.2 Test results 10
6.2 Packaging and marking 10
6.2.1 Packaging 10
6.2.2 Marking 10

Annex A (normative)Dimensionalandmechanicalpropertiesofroundwires(before rope making) 12

Annex B (normative) Sampling and acceptance criteria for type testing of ropes produced in series 15

Annex C (normative)Calculationofminimumbreakingforceforropesinthetablesof Annex D and Annex H 17

Annex D (normative)Tablesofminimumbreakingforcesformorecommonropeclasses, sizes and grades 20

Annex E (informative)Testsonwirestakenfromtherope 43

Annex F (informative)Comparisonbetweenmetricandimperialropesizes 45

Annex G (informative) Rope grade approximations 47

Annex H (informative) Large diameter wire ropes 48

Bibliography 50