

ISO 16877:2015-01 (E)

Round steel short link chains for lifting purposes - Fine tolerance hoist chains for hand operated chain hoists - Grade TH

| Contents | | Page |
|-----------------|--|-------------|
| Foreword | | v |
| 1 | Scope | 1 |
| 2 | Normative references | 1 |
| 3 | Terms and definitions | 1 |
| 4 | General conditions of acceptance | 1 |
| 5 | Dimensions | 2 |
| 5.1 | Nominal size, dn | 2 |
| 5.2 | Diameter tolerance | 4 |
| 5.3 | Pitch | 4 |
| 5.4 | Width | 4 |
| 5.5 | Standard gauge length | 4 |
| 5.6 | Weld diameter | 4 |
| 5.7 | Length dimensionally affected by welding | 5 |
| 6 | Material and manufacture | 5 |
| 6.1 | Quality of material | 5 |
| 6.1.1 | General | 5 |
| 6.1.2 | Type of steel | 5 |
| 6.1.3 | Deoxidation | 5 |
| 6.1.4 | Weldability | 5 |
| 6.1.5 | Chemical composition | 5 |
| 6.1.6 | Finished condition | 5 |
| 6.2 | Heat treatment | 6 |
| 6.3 | Working load limits (WLL) | 6 |
| 6.4 | Mechanical properties | 6 |
| 6.4.1 | Manufacturing proof force (MPF) | 6 |
| 6.4.2 | Breaking force (BF) | 7 |
| 6.4.3 | Total ultimate elongation, A | 7 |
| 6.4.4 | Bend deflection, f | 7 |
| 6.4.5 | Surface hardness | 7 |
| 6.4.6 | Toughness | 7 |
| 7 | Verification of safety requirements | 11 |
| 7.1 | Size of lot and selection of samples | 11 |
| 7.2 | Manufacturing proof force (MPF) -- Acceptance criteria | 11 |
| 7.3 | Breaking force (BF) and total ultimate elongation -- Acceptance criteria | 11 |
| 7.4 | Bend deflection | 11 |
| 7.4.1 | Bend test | 11 |
| 7.4.2 | Bend deflection -- Acceptance criteria | 12 |
| 7.5 | Hardness test -- Acceptance criteria | 12 |
| 7.6 | Toughness of chain test material | 13 |
| 7.6.1 | Toughness test | 13 |
| 7.6.2 | Toughness test -- Acceptance criteria | 13 |
| 8 | Marking | 13 |
| 8.1 | Grade marking | 13 |

| | | |
|------|---|----|
| 8.2 | Manufacturer's marking | 13 |
| 9 | Manufacturer's certificate | 13 |
| 10 | Information for assembly into the chain hoist and for use | 13 |
| 10.1 | General | 13 |
| 10.2 | Assembly of hoist chain into the chain hoist | 13 |
| 10.3 | Hoist chain use | 14 |
| 10.4 | Inspection | 14 |
| | Annex A (normative) Bases for calculation | 15 |
| | Bibliography | 18 |