

DIN EN 13852-3:2022-04 (E)

Cranes - Offshore cranes - Part 3: Light offshore cranes

| Contents | | Page |
|--|--|-------------|
| European foreword | | 4 |
| Introduction | | 5 |
| 1 Scope | | 6 |
| 2 Normative references | | 6 |
| 3 Terms and definitions | | 12 |
| 4 List of significant hazards | | 16 |
| 5 Safety requirements and/or protective measures | | 23 |
| 5.1 General | | 23 |
| 5.2 Strength and stability | | 25 |
| 5.3 Electrical systems | | 29 |
| 5.4 Mechanical equipment | | 33 |
| 5.5 Limiting and indicating devices | | 36 |
| 5.6 Protection and emergency systems | | 38 |
| 5.7 User interface | | 41 |
| 5.8 Fabrication | | 45 |
| 5.9 Surface preparation and protective coating | | 45 |
| 5.10 Lifting of persons | | 46 |
| 6 Verification of the safety requirements and/or protective measures | | 49 |
| 6.1 General | | 49 |
| 6.2 Testing | | 54 |
| 7 Information for use | | 58 |
| 7.1 General | | 58 |
| 7.2 Operation | | 59 |
| 7.3 Maintenance | | 62 |
| 7.4 Marking | | 63 |
| Annex A (informative) Selection of a suitable set of crane standards for a given application 64 | | |
| Annex B (normative) Determination of factors | | 66 |
| B.1 Calculation of the dynamic coefficient | | 66 |
| B.2 Offlead and sidelead | | 68 |
| B.3 Hook velocity | | 69 |
| Annex C (normative) Environmental influences | | 76 |
| C.1 General | | 76 |
| C.2 Atmosphere | | 76 |
| C.3 Temperature | | 76 |
| C.4 Wind | | 77 |
| C.5 Installation motions | | 77 |
| C.6 Ice and snow loads | | 79 |
| Annex D (normative) Failure mode analyses | | 80 |

| | | |
|---|--|-----|
| D.1 | General | 80 |
| D.2 | Failure mode charts | 80 |
| Annex E (normative) Arrangement of controls | | 82 |
| E.1 | Control station (permanent location) | 82 |
| E.2 | Control console (permanent location or remote) | 82 |
| Annex F (normative) Requirements for brakes | | 83 |
| Annex G (normative) Ranking of safety functions | | 85 |
| Annex H (normative) Safety functions and required performance levels | | 86 |
| Annex I (informative) Typical light offshore cranes and their terminology | | 87 |
| Annex J (normative) Excursion envelopes | | 91 |
| Annex K (normative) Equipment for use in a hazardous area | | 92 |
| K.1 | General | 92 |
| K.2 | Avoidance or reduction of ignition sources | 92 |
| K.3 | Electrical equipment | 92 |
| K.4 | Non-electrical equipment | 93 |
| K.5 | Electrostatic discharge | 93 |
| Annex L (informative) Light offshore crane data sheet | | 94 |
| Annex ZA (informative) Relationship between this European Standard and the essential requirements of Directive 2006/42/EC aimed to be covered | | 102 |
| Annex ZB (informative) Relationship between this European Standard and the Essential requirements of EU Directive 2014/34/EU | | 106 |
| Bibliography | | 110 |