

ISO 8686-5:2017-05 (E)

Cranes - Design principles for loads and load combinations - Part 5: Overhead travelling and portal bridge cranes

| Contents | | Page |
|--|---|-------------|
| Foreword | | iv |
| 1 | Scope | 1 |
| 2 | Normative references | 1 |
| 3 | Terms and definitions | 1 |
| 4 | Symbols | 1 |
| 5 | Loads and applicable factors | 3 |
| 5.1 | Regular loads | 3 |
| 5.1.1 | General | 3 |
| 5.1.2 | Hoisting and gravity effects acting on the mass of the crane | 3 |
| 5.1.3 | Hoisting an unrestrained grounded load | 3 |
| 5.1.4 | Loads caused by travelling on an uneven surfaces | 5 |
| 5.1.5 | Loads caused by acceleration of drives | 5 |
| 5.1.6 | Positioning of loads | 6 |
| 5.1.7 | Loads induced by displacements | 7 |
| 5.2 | Occasional loads | 8 |
| 5.2.1 | General | 8 |
| 5.2.2 | Loads caused by skewing | 8 |
| 5.3 | Exceptional loads | 12 |
| 5.3.1 | General | 12 |
| 5.3.2 | Test loads | 13 |
| 5.3.3 | Loads due to buffer forces | 13 |
| 5.3.4 | Loads caused by emergency cut-out | 13 |
| 5.3.5 | Loads caused by apprehended failure of mechanism or components | 13 |
| 5.3.6 | Loads due to dynamic cut-off of hoisting movement by lifting force limiters | 14 |
| 5.4 | Miscellaneous loads | 16 |
| 6 | Applicable loads, load combinations and factors | 16 |
| 7 | Combination of acceleration effects | 19 |
| Annex A (informative) Skewing loads: Assumptions for simplified calculating methods | | 21 |
| Bibliography | | 28 |