

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