

ISO 16454:2024-03 (E)

Space systems - Structural design - Stress analysis requirements

Contents		Page
Foreword		iv
Introduction		v
1	Scope	1
2	Normative references	1
3	Terms and definitions	1
4	Requirements	5
4.1	General	5
4.2	Basic data	5
4.2.1	General	5
4.2.2	Structural configuration, geometry and gauges	5
4.2.3	Structural materials and their properties	6
4.2.4	Loading data	7
4.3	Analysis methodology and software	7
4.3.1	Analysis methodology	7
4.3.2	Software verification	7
4.4	Structural mathematical model	8
4.4.1	General	8
4.4.2	Boundary conditions	8
4.5	Structure mathematical model check	8
4.6	Failure modes	8
4.6.1	General	8
4.6.2	Detrimental yielding	8
4.6.3	Rupture	9
4.6.4	Collapse	9
4.6.5	Local buckling	9
4.7	Critical location analysis	9
4.8	Determination margins of safety	9
4.9	Report	10
Annex A (informative) Structural mathematical model check		11
Bibliography		14