

ISO/TR 10657:2021-11 (E)

Explanatory notes on ISO 76

Contents		Page
Foreword.....		iv
Introduction.....		v
1	Scope	1
2	Normative references	1
3	Terms, definitions and symbols	1
3.1	Terms and definitions.....	1
3.2	Symbols.....	1
4	Basic static load ratings	3
4.1	General.....	3
4.1.1	Basic formula for point contact.....	3
4.1.2	Basic formula for line contact.....	5
4.2	Basic static radial load rating C_{0r} for radial ball bearings.....	6
4.2.1	Radial and angular contact groove ball bearings.....	6
4.2.2	Self-aligning ball bearings.....	8
4.3	Basic static axial load rating C_{0a} for thrust ball bearings.....	8
4.4	Basic static radial load rating C_{0r} for radial roller bearings.....	10
4.5	Basic static axial load rating C_{0a} for thrust roller bearings.....	10
5	Static equivalent load	11
5.1	Theoretical static equivalent radial load P_{0r} for radial bearings.....	11
5.1.1	Single-row radial bearings and radial contact groove ball bearings (nominal contact angle $\alpha = 0^\circ$).....	11
5.1.2	Double-row radial bearings.....	17
5.2	Theoretical static equivalent axial load P_{0a} for thrust bearings.....	18
5.2.1	Single-direction thrust bearings.....	18
5.2.2	Double-direction thrust bearings.....	21
5.3	Approximate formulae for theoretical static equivalent load.....	23
5.3.1	Radial bearings.....	23
5.3.2	Thrust bearings.....	24
5.4	Practical formulae of static equivalent load.....	24
5.4.1	Radial bearings.....	24
5.4.2	Thrust bearings.....	28
5.5	Static radial load factor X_0 and static axial load factor Y_0	29
5.5.1	Radial bearings.....	29
5.5.2	Thrust bearings.....	33
Annex A (normative) Values for γ, κ and $E(\kappa)$		35
Bibliography		38