

ISO 6070:2019-09 (E)

Auxiliary tables for vibration generators - Methods of describing equipment characteristics

Contents		Page
Foreword		v
1 Scope	1	1
2 Normative references		1
3 Terms and definitions		1
4 Symbols		2
5 Vibration values		3
6 Auxiliary table configurations		3
6.1 General		3
6.2 Typical designs of the head expander		4
6.2.1 General		4
6.2.2 Expander with linear bearing guidance and air spring support		5
6.2.3 Expander with hydrostatic bearing guidance and air spring supports		5
6.2.4 Bare head expander		5
6.3 Typical designs of the slip table		5
6.3.1 General		5
6.3.2 Hydrostatic bearing table		5
6.3.3 Flat spring table		6
6.3.4 Oil or air cushion table		6
6.3.5 Mechanical slide table		6
6.3.6 Ball, roller or needle bearing table		6
6.3.7 Hydraulic slide table		6
6.3.8 Magnetic bearing table		6
6.3.9 Dry bearing table with hydrostatic compensation		6
6.4 Axis systems		7
6.4.1 Moving table reference axis system		7
6.4.2 Other moving table reference axis systems		8
7 Auxiliary table characteristics		8
7.1 General		8
7.2 Characteristics		8
7.2.1 Effective travel		8
7.2.2 Rated frequency range		8
7.2.3 Rated RMS velocity v_z		8
7.2.4 Static load (limit) F_s		8
7.2.5 Static load (limit) per unit area F_p		8
7.2.6 Limiting axial forces		8
7.2.7 Limiting pitching torque C		8
7.2.8 Limiting rolling torque C		9
7.2.9 Limiting yawing torque C		9
7.2.10 Transmissibility		9
7.2.11 Total harmonic distortion of acceleration		9
7.2.12 Environmental limits		9
7.2.13 Load mounting insert pattern		9
8 Test loads		10

9	Characteristics to be supplied by the manufacturer	10
10	Measurement of common dynamic characteristics	15
10.1	Plotting of the acceleration transmissibility function	15
10.2	Measurement of transverse accelerations	15
10.2.1	No-load condition	15
10.2.2	Loaded condition	15
10.3	Measurement of test table acceleration field uniformity	16
10.4	Measurement of acceleration distortion	16
	10.5 Measurement of parasitic rotations	16
11	Operating instructions	16
	Bibliography	18