

ISO 10846-3:2002-06 (E)

Acoustics and vibration - Laboratory measurement of vibro-acoustic transfer properties of resilient elements - Part 3: Indirect method for determination of the dynamic stiffness of resilient supports for translatory motion

Contents		Page
Foreword		iv
Introduction		v
1	Scope	1
2	Normative references	2
3	Terms and definitions	3
4	Principles	5
5	Requirements for apparatus	6
5.1	Normal translations	6
5.2	Transverse translations	10
5.3	Suppression of unwanted vibrations	11
6	Criteria for adequacy of the test arrangement	15
6.1	Frequency range	15
6.2	Determination of upper frequency limit f_3	16
6.3	Flanking transmission	19
6.4	Unwanted input vibrations	20
6.5	Accelerometers	21
6.6	Force transducers	21
6.7	Summation of signals	21
6.8	Analysers	21
7	Test procedures	21
7.1	Installation of the test elements	21
7.2	Mounting and connection of accelerometers	22
7.3	Mounting and connections of the vibration exciter	22
7.4	Source signal	22
7.5	Measurements	22
7.6	Test for linearity	23
8	Evaluation of test results	24
8.1	Evaluation of dynamic transfer stiffness	24
8.2	One-third-octave-band values of the frequency averaged dynamic transfer stiffness	24
8.3	Presentation of one-third-octave-band results	25
8.4	Presentation of narrow-band data	25
9	Information to be recorded	26
10	Test report	26
Annex A (informative) Transfer stiffness related to rotatory vibration components		28
Annex B (informative) Effect of symmetry on the transfer stiffness matrix		36
Annex C (informative) Static load-deflection curve		37
Bibliography		38