

Calibration of vibration and shock pick-ups —

Part 2: Method for primary shock calibration by light cutting

UDC 534.1:681.327.7:53.089.6

NO COPYING WITHOUT BSI PERMISSION EXCEPT AS PERMITTED BY COPYRIGHT LAW

BSI
Documents

AVA

Document Sharing Hub

Committees responsible for this British Standard

The preparation of this British Standard was entrusted by the General Mechanical Engineering Standards Policy Committee (GME/-) to Technical Committee GME/21, upon which the following bodies were represented:

- Electricity Association
- Federation of Civil Engineering Contractors
- Imperial College of Science and Technology
- Institute of Sound and Vibration Research
- Institution of Mechanical Engineers
- Lloyd’s Register of Shipping
- Ministry of Defence
- Open University
- Power Generation Contractors Association [PGCA (BEAMA Ltd.)]
- Railway Industry Association of Great Britain
- Sira Test and Certification Ltd.
- Society of British Aerospace Companies Limited

The following bodies were also represented in the drafting of the standard, through subcommittees and panels:

- British Coal Corporation
- Health and Safety Executive
- Society of Environmental Engineers
- University of Cranfield

This British Standard, having been prepared under the direction of the General Mechanical Engineering Standards Policy Committee, was published under the authority of the Standards Board and comes into effect on 15 March 1994

© BSI 10-1999

The following BSI references relate to the work on this standard:
Committee reference GME/21
Draft for comment 87/72304 DC

ISBN 0 580 23092 9

Amendments issued since publication

Amd. No.	Date	Comments

Contents

	Page
Committees responsible	Inside front cover
National foreword	ii
1 Scope	1
2 Normative references	1
3 Apparatus	1
4 Preferred pulse durations and accelerations	2
5 Method	2
Annex A (normative) Calculation of uncertainty	4
Figure 1 — Shock machine	1
List of references	Inside back cover

National foreword

This Part of BS 6955 has been prepared under the direction of the General Mechanical Engineering Standards Policy Committee. It is identical with ISO 5347-2:1993 *Methods for the calibration of vibration and shock pick-ups — Part 2: Primary shock calibration by light cutting*, published by the International Organization for Standardization (ISO).

ISO 5347-2 was prepared by Technical Committee ISO/TC 108, Mechanical vibration and shock, in which the UK played an active part.

BS 6955 consists of the following Parts, which are identical with the corresponding Parts of ISO 5347:

- *Part 0: Guide to basic principles;*
- *Part 1: Methods for primary vibration calibration by laser interferometry;*
- *Part 2: Method for primary shock calibration by light cutting;*
- *Part 3: Method for secondary vibration calibration;*
- *Part 4: Method for secondary shock calibration;*
- *Part 5: Method for calibration by Earth's gravitation;*
- *Part 6: Method for primary vibration calibration at low frequencies;*
- *Part 7: Methods for primary calibration by centrifuge;*
- *Part 8: Method for primary calibration by dual centrifuge;*
- *Part 9: Method for secondary vibration calibration by comparison of phase angles;*
- *Part 10: Method for primary calibration by high impact shocks;*
- *Part 11: Method of test for transverse vibration sensitivity;*
- *Part 12: Method of test for transverse shock sensitivity;*
- *Part 13: Method of test for base strain sensitivity;*
- *Part 14: Method of test for resonance frequency of undamped accelerometers on a steel block;*
- *Part 15: Method of test for acoustic sensitivity;*
- *Part 16: Method of test for mounting torque sensitivity;*
- *Part 17: Method of test for fixed temperature sensitivity;*
- *Part 18: Method of test for transient temperature sensitivity;*
- *Part 19: Method of test for magnetic field sensitivity.*

Part 20 of ISO 5347 is in preparation. It is envisaged that when it is published it will be implemented as Part 20 of BS 6955.

Cross-references

International Standard	Corresponding British Standard
ISO 5347-1:1993	BS 6955 <i>Calibration of vibration and shock pick-ups</i> Part 1:1994 <i>Methods for primary vibration calibration by laser interferometry</i> (Identical)
ISO 5347-5:1993	Part 5:1994 <i>Method for calibration by Earth's gravitation</i> (Identical)

A British Standard does not purport to include all the necessary provisions of a contract. Users of British Standards are responsible for their correct application.

Compliance with a British Standard does not of itself confer immunity from legal obligations.

Summary of pages

This document comprises a front cover, an inside front cover, pages i to iv, pages 1 to 6, an inside back cover and a back cover.

This standard has been updated (see copyright date) and may have had amendments incorporated. This will be indicated in the amendment table on the inside front cover.