

Methods for notched bar tests —

Part 4: Calibration of Izod pendulum impact testing machines for metals

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Foreword

This British Standard has been published under the authority of the Mechanical Engineering Industry Standards Committee as part of the further revision of BS 131, other parts of which deal with the Izod impact test (Part 1) and determination of crystallinity (Part 5). In preparing this revision due account has been taken of latest international agreements concerning the SI unit to be used in relation to impact testing.

The standard, which covers the inspection of machines as installed and gives detailed methods for the calibration and subsequent verification of the constructional elements of the machine, generally conforms with the requirements of ISO Recommendation No. 442, "Verification of pendulum impact testing machines for testing steels". However, whereas ISO/R 442 admits the possibility of direct verification by tests of un-notched test pieces, the methods given in this standard are essentially static in nature and take into account only the energy absorbed in fracturing a test piece.

In the interest of continuity, the requirement for the scale graduations of Izod machines is also expressed in the SI unit. However, it is not intended to revise Part 1 of the standard as the Izod test is for the most part being superseded by the Charpy test for material specification purposes. Thus, if an Izod machine is converted to record energy absorbed in joules, the value in ft lbf can be obtained by using the conversion factor $1 \text{ J} = 0.737 \text{ 562 ft lbf}$; alternatively $1 \text{ ft lbf} = 1.355 \text{ 82 J}$.

Whilst testing machines manufactured subsequent to the 1962 edition of this part of the standard should comply with all its requirements, it is recognized that some of the machines still in service may not comply with all requirements and guidance for the verification of such machines is included. As in the previous edition, an appendix gives the accuracy requirements for gauges used in checking machine components.

All references to the verification of Charpy testing machines have been deleted from this Part of BS 131 and the verification of Charpy testing machines should now be carried out in accordance with BS EN 10045-2.

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Summary of pages

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