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Accuracy of machine tools and methods of test —

Part 18: Specification for broaching machines, horizontal internal type

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The organizations marked with an asterisk in the above list, together with the following, were directly represented on the Technical Committee entrusted with the preparation of this British Standard:

Ball and Roller Bearing Manufacturers' Association	University of Aston in Birmingham
Department of the Environment (PSA)	University of Manchester (Institute of Science and Technology)
Federation of British Engineers' Tool Manufacturers	Individual experts

This British Standard, having been prepared under the direction of the Mechanical Engineering Standards Committee, was published under the authority of the Executive Board and comes into effect on 31 August 1981

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5808	October 1988	Indicated by a sideline in the margin

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Foreword

This Part of this British Standard has been prepared under the direction of the Mechanical Engineering Standards Committee and implements agreements of the International Organization for Standardization (ISO). It is a revision of the 1973 edition which is therefore withdrawn.

Because of the diversity of shape of test pieces, practical tests have not been included.

This Part of this standard is generally in accordance with ISO 6480:1983 “*Conditions of acceptance for horizontal internal broaching machines — Testing of the accuracy*”. It differs from ISO 6480 in the following respects.

Clauses. Clauses 1, 3 and 4 contain the same information as is given in ISO 6480 but they are expressed in accordance with an accepted format that has been adopted for the BS 4656 series of standards. Clause 5 has been added.

Inch dimensions. In accordance with the United Kingdom policy of metrication, inch dimensions given in ISO 6480 have not been included in this British Standard.

Tables and tests. In column 6 of Table 1, reference to ISO/R 230 “*Machine tool test code*” has been replaced by reference to BS 3800.

In test G0, in column 6 the note is different from that in ISO 6480 which was rather vague.

In test G2, the permissible deviation is the same as that given in Part 18:1973 which the United Kingdom wishes to maintain. ISO 6480 gives a wider tolerance than this.

In test G3, the diagram from Part 18:1973 has been retained because it illustrates a more sensible way of carrying out the test. The permissible deviation is also the same as that in the 1973 edition of this standard. ISO 6480 gives a wider tolerance and thus reduces the quality of machine.

In test G5, the method of expressing the permissible deviation has been clarified but the numerical value is effectively the same as ISO 6480. In the observations column, reference to the dial gauge being turned through 360° around the centre hole has been deleted to avoid confusion.

In test G6, the method shown in Part 18:1973 has been added as an alternative test as this is equally acceptable technically. The method of expressing the permissible deviation is more correct than that used in ISO 6480. The designation and description of types 1 and 2 have been added for clarification. This test has been divided into G6.1 and G6.2.

Appendix. In term no. 5, the English language version has been amended to read “Mounting for face plate”. In UK practice this is not normally a separate feature but is part of the bed casting.

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.

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Summary of pages

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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.