

Acceptance tests for oxygen cutting machines — Reproducible accuracy — Operational characteristics

The European Standard EN 28206:1992 has the status of a
British Standard

UDC 621.791.945.001.4:62-187

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This British Standard, having been prepared under the direction of the Welding Standards Policy Committee, was published under the authority of the Standards Board and comes into effect on 15 October 1992

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The following BSI references relate to the work on this standard:
Committee reference WEE/18
Draft for comment 90/76247 DC

ISBN 0 580 21243 2

Amendments issued since publication

Amd. No.	Date	Comments

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National foreword

This British Standard has been prepared under the direction of the Welding Standards Policy Committee and is the English language version of EN 28206:1992 *Acceptance tests for oxygen cutting machines — Reproducible accuracy — Operational characteristics*, published by the European Committee for Standardization (CEN).

EN 28206:1992 is identical with ISO 8206:1991 published by the International Organization for Standardization (ISO). EN 28206:1992 was produced as a result of international discussion in which the UK took an active part.

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Summary of pages

This document comprises a front cover, an inside front cover, pages i and ii, the EN title page, pages 2 to 16, 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.

UDC 621.791.945.001.4:62-187

Descriptors: Oxygen cutting, cutting machine, acceptance testing, reproducibility, fidelity, performance evaluation, tests, delivery condition

English version

Acceptance tests for oxygen cutting machines — Reproducible accuracy — Operational characteristics

(ISO 8206:1991)

Contrôle de réception des machines
d'oxycoupage — Précision de production —
Caractéristiques de fonctionnement
(ISO 8206:1991)

Abnahmeprüfungen für
Brennschneidmaschinen —
Nachführgenauigkeit —
Funktionseigenschaften
(ISO 8206:1991)

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Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the Central Secretariat or to any CEN member.

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CEN

European Committee for Standardization
Comité Européen de Normalisation
Europäisches Komitee für Normung

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Foreword

IN 1991 CEN Technical Committee CEN/TC 121 “Welding” decided to submit ISO 8206:1991 “*Acceptance tests for oxygen cutting machines — Reproducible accuracy — Operational characteristics*” to the Unique Acceptance Procedure. The result was positive.

National standards identical to this European Standard shall be published at the latest by 1993-01-31 and conflicting national standards shall be withdrawn at the latest by 1993-01-31.

According to the CEN/CENELEC Common Rules, the following countries are bound to implement this European Standard:

Austria, Belgium, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and United Kingdom.

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1 Scope

This International Standard applies to stationary cross-carriage oxygen cutting machines for shape cutting and/or parallel trimming.

It also applies to machines for cutting by other thermal processes.

2 Purpose of acceptance tests

The purpose of acceptance tests is the final inspection of the completed oxygen cutting machine on the premises of the user. Acceptance tests are used solely to demonstrate the reproducible accuracy and operational characteristics of the oxygen cutting machine, eliminating influences caused by the process. This International Standard is intended to be a basis for technical provisions of delivery.

3 Preconditions for acceptance tests

3.1 Setting up the oxygen cutting machine

Oxygen cutting machines are machine tools. At the place of installation, therefore, the same requirements as regards sensitivity to external influences shall be established as in the case of other machine tools.

Installation of the oxygen cutting machine outdoors, laying out the machine foundations in the vicinity of vibrating plant, and effects from electric or electromagnetic fields are to be avoided. Displacement or subsidence of the machine foundations shall be excluded. Exceptions shall be stipulated in agreement with the manufacturer.

3.2 Time of acceptance tests

The machine parts shall be properly stored on the user's premises. The oxygen cutting machine shall be properly installed immediately on delivery and tested in accordance with clause 5.

4 Principles of acceptance tests

4.1 Operating instructions

The operating instructions for the oxygen cutting machine shall be complied with.

Before commencing the acceptance tests the controls, electronics, motors and gear mechanisms shall be operated at no-load to bring them to a temperature corresponding to working conditions and the manufacturer's instructions.

4.2 Measuring instruments

The tests are to be carried out with calibrated measuring instruments in accordance with the measuring instructions given in this International Standard.

The limit of error of the measuring instruments shall not be more than 20 % of the permissible variation. The errors in the measuring instruments and the tolerances for the measuring devices, e.g. set pins, steel wire and prism blocks are to be taken into account.

4.3 Measurements

The measuring instruments, measuring devices and oxygen cutting machine, with the exception of the parts referred to in 4.1, are to be brought to the same temperature — generally room temperature. They shall therefore, be protected against sunlight and external thermal influences.

Should there be any discrepancy, a control measurement is to be carried out after testing the measuring instruments and the measuring devices.

4.4 Test report

The test results are to be recorded in a report (see Annex A).

Additional tests of the manufacturing or working accuracy can be agreed at the time of ordering.

5 Extent of acceptance tests

5.1 Testing of the running track

The accuracy of manufacture and installation of the running track is tested with the cross-carriage positioned on it in accordance with Table 1.

5.2 Testing of the manufacturing accuracy of the oxygen cutting machine

The criteria for this are given in Table 2.

5.3 Testing of the working accuracy of automatically controlled oxygen cutting machines

The working accuracy of automatically controlled oxygen cutting machines is tested in accordance with Table 3.

5.4 Testing of the working accuracy of planing machines

The working accuracy of planing machines is tested in accordance with Table 4.

5.5 Electrical equipment

The electrical operations are tested in accordance with the operating instructions. The relevant IEC publications shall be complied with.

5.6 Gas engineering equipment

Pressure measurements are taken to test whether the pipes have a large enough cross-section to ensure that the gas supply equipment can operate efficiently.