

INTERNATIONAL STANDARD

ISO
683-10

Second edition
1987-04-01



INTERNATIONAL ORGANIZATION FOR STANDARDIZATION
ORGANISATION INTERNATIONALE DE NORMALISATION
МЕЖДУНАРОДНАЯ ОРГАНИЗАЦИЯ ПО СТАНДАРТИЗАЦИИ

Heat-treatable steels, alloy steels and free-cutting steels —

Part 10: Wrought nitriding steels

Aciers pour traitement thermique, aciers alliés et aciers pour décolletage —

Partie 10: Aciers corroyés pour nitruration

Reference number
ISO 683-10: 1987 (E)

Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work.

Draft International Standards adopted by the technical committees are circulated to the member bodies for approval before their acceptance as International Standards by the ISO Council. They are approved in accordance with ISO procedures requiring at least 75 % approval by the member bodies voting.

International Standard ISO 683-10 was prepared by Technical Committee ISO/TC 17, *Steel*.

This second edition cancels and replaces the first edition (ISO 683-10 : 1975), of which it constitutes a technical revision.

Users should note that all International Standards undergo revision from time to time and that any reference made herein to any other International Standard implies its latest edition, unless otherwise stated.

Heat-treatable steels, alloy steels and free-cutting steels —

Part 10: Wrought nitriding steels

1 Scope and field of application

1.1 This part of ISO 683 gives the technical delivery requirements for

- semi-finished products, for example blooms, billets, slabs (see note 3);
- bars (see note 3);
- wire rod;
- hot-rolled plates (see note 2);
- hammer or drop forgings (see note 3).

manufactured from the nitriding steels listed in table 3 and supplied in one of the heat-treatment conditions given for the different types of products in table 1, line 2 to 5 and in one of the surface conditions given in table 2.

The steels are in general intended for the fabrication of quenched and tempered and subsequently nitrided machine parts.

The requirements for mechanical properties given in this part of ISO 683 are restricted to the sizes given in table 6.

NOTES

- 1 Related International Standards are given in annex C.
- 2 The term "plate" includes in the following, unless otherwise stated, also wide flats.
- 3 Hammer-forged semi-finished products (blooms, billets, slabs etc.) and hammer-forged bars are in the following covered under semi-finished products or bars and not under the term "hammer and drop forgings".

1.2 In special cases variations in these technical delivery requirements or additions to them may form the subject of an agreement at the time of enquiry and order (see annex B).

1.3 In addition to this part of ISO 683 the general technical delivery requirements of ISO 404 are applicable.

2 References

- ISO 83, *Steel — Charpy impact test (U-notch)*.
- ISO 148, *Steel — Charpy impact test (V-notch)*.
- ISO 377, *Wrought steel — Selection and preparation of samples and test pieces*.
- ISO 404, *Steel and steel products — General technical delivery requirements*.
- ISO/R 1024, *Rockwell superficial hardness test (N and T scales) for steel*.
- ISO 1035, *Hot-rolled steel bars*
- *Part 1: Dimensions of round bars*.
 - *Part 2: Dimensions of square bars*.
 - *Part 3: Dimensions of flat bars*.
 - *Part 4: Tolerances*.
- ISO 3887, *Steel, non-alloy and low-alloy — Determination of depth of decarburization*.
- ISO 6506, *Metallic materials — Hardness test — Brinell test*.
- ISO 6507/1, *Metallic materials — Hardness test — Vickers test — Part 1: HV 5 to HV 100*.
- ISO 6892, *Metallic materials — Tensile testing*.
- ISO 6929, *Definition of steel products by shape and dimensions*.¹⁾
- ISO 7452, *Hot-rolled structural steel plates — Tolerances on dimensions and shape*.
- ISO 7788, *Steel — Surface finish of hot-rolled plates and wide flats — Delivery conditions*.

3 Definitions

For deviations from normal definitions, see notes 2 and 3 to 1.1.

1) At present at the stage of draft.