TC 29

INTERNATIONAL STANDARD ISO 2936

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

Assembly tools for screws and nuts — Hexagon socket screw keys — Metric series

Outils de manœuvre pour vis et écrous — Clés mâles coudées pour vis à six pans creux — Série métrique

Second edition — 1977-12-15

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Price based on 2 pages

FOREWORD

ISO (the International Organization for Standardization) is a worldwide federation of national standards institutes (ISO member bodies). The work of developing International Standards is carried out through ISO technical committees. Every member body interested in a subject for which a technical committee has been set up 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 committee are circulated to the member bodies for approval before their acceptance as International Standards by the ISO Council.

International Standard ISO 2936 was developed by Technical Committee ISO/TC 29, *Small tools*. This second edition incorporates the modifications contained in the draft Addendum circulated to the member bodies in August 1976.

This Addendum was approved by the member bodies of the following countries :

Australia	Israel	Spain
Belgium	Italy	Sweden
Brazil	Japan	Turkey
Czechoslovakia	Korea, Rep. of	U.S.A.
France	Mexico	U.S.S.R.
Germany	Poland	Yugoslavia
Hungary	Romania	
India	South Africa, Rep. of	

The member bodies of the following countries expressed disapproval of the document on technical grounds :

Switzerland
United Kingdom

This second edition cancels and replaces the first edition (i.e. ISO 2936-1973), which had been approved by the member bodies of the following countries :

Belgium	Ireland	Sweden
Czechoslovakia	Israel	Thailand
Egypt, Arab Rep. of	Italy	Turkey
France	Netherlands	United Kingdom
Germany	New Zealand	U.S.S.R.
Hungary	Romania	
India	South Africa, Rep. of	

The member bodies of the following countries had expressed disapproval of the document on technical grounds :

Australia
Japan
Switzerland

Printed in Switzerland

Assembly tools for screws and nuts — Hexagon socket screw keys — Metric series

1 SCOPE AND FIELD OF APPLICATION

This International Standard, relating to assembly tools for screws and nuts, deals with hexagon socket screw keys registered under number 112 in ISO 1703.

It includes a table of dimensions of these keys and a method of test.

The values of the test torques given in this International Standard are only valid for tightening of screws of property class less than or equal to 8.8, as defined in ISO/R 898/I.

NOTE — Studies are being undertaken to extend the application of this standard to screws up to property class 12.9.

In addition it specifies the minimum value for hardness which must be satisfied by this tool.

2 REFERENCES

ISO/R 898/I, *Mechanical properties of fasteners — Part I : Bolts, screws and studs.*

ISO 1703, *Assembly tools for screws and nuts — Nomenclature.*

3 MINIMUM HARDNESS

For sizes with width across flats up to and including 6 mm : 50 HRC

For sizes with width across flats greater than 6 mm : 45 HRC

4 METHOD OF TEST

Insert the short arm of the key in a female hexagon socket adapter and apply the corresponding torque. Do not jerk or strike the key when testing. Apply the load gradually on the long arm of the key as near as possible to the end of the arm until the minimum testing torque is reached. The torque is calculated as the product of the magnitude of the load by the distance measured between the point of application of the load and the centre of the socket adapter.

The opening of the socket adapter shall be equal to the nominal across flats key dimension s with a tolerance of D10. The depth of key engagement shall correspond to the value t, with a tolerance of h13. The socket adapter shall be hardened to a Rockwell hardness of not less than 60 HRC.

Following the application of the minimum test torque, the hexagon socket screw shall not show permanent deformation or other damage which could influence usability.