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SANS 3189-3:1985
Edition 1 and nat. amdts 1, 2

ISO 3189-3:1985
Edition 1

Any reference to SABS ISO 3189-3 is deemed
to be a reference to this standard
(Government Notice No. 1373 of 8 November 2002)

SOUTH AFRICAN NATIONAL STANDARD

Sockets for wire ropes for general purposes

Part 3: Special requirements for sockets produced by casting

This national standard is the identical implementation of ISO 3189-3:1985, and is adopted with the permission of the International Organization for Standardization.

Published by SABS Standards Division
1 Dr Lategan Road Groenkloof ✉ Private Bag X191 Pretoria 0001
Tel: +27 12 428 7911 fax: +27 12 344 1568
www.sabs.co.za

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ISO 3189-3:1985
Edition 1

Table of changes

Change No.	Date	Scope
Nat. amdt 1	2002	Amended to change the mark to include the safety mark[a].
Nat. amdt 2	2005	Amended to change the designation from SABS to SANS, with no technical changes.
[a] In the current edition, the certification mark has been removed.		

National foreword

This South African standard was approved by National Committee SABS TC 1020, *Lifting equipment*, in accordance with procedures of the SABS Standards Division, in compliance with annex 3 of the WTO/TBT agreement.

This SANS edition is technically identical to the first SABS edition (SABS ISO 3189-3:1985), with the addition of national amendments 1 and 2.

Reaffirmed and reprinted in December 2010.
This standard will be reviewed every five years and either be reaffirmed, amended, revised or withdrawn.

International Standard 3189/3

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Sockets for wire ropes for general purposes — Part 3: Special requirements for sockets produced by casting

Douilles pour câbles en acier d'usages courants — Partie 3: Exigences particulières concernant les douilles moulées

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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 3189/3 was prepared by Technical Committee ISO/TC 111, *Round steel link chains, lifting hooks and accessories.*

Printed in Switzerland

Sockets for wire ropes for general purposes — Part 3: Special requirements for sockets produced by casting

1 Scope and field of application

This part of ISO 3189 specifies the special requirements for materials, method of manufacture and quality control of sockets produced by casting. The general characteristics, critical dimensions, prototype test requirements, general quality control and conditions of acceptance are dealt with in ISO 3189/1.

2 References

ISO 261, *ISO general purpose metric screw thread — General plan.*

ISO 643, *Steels — Micrographic determination of the ferritic or austenitic grain size.*

ISO 965, *ISO general purpose metric screw thread — Tolerances.*

ISO 3189/1, *Sockets for wire ropes for general purposes — Part 1: General characteristics and conditions of acceptance.*

ISO 3189/2, *Sockets for wire ropes for general purposes — Part 2: Special requirements for sockets produced by forging or machined from the solid.*

ISO 4986, *Magnetic particle inspection of steel castings.* [1)]

3 General conditions of acceptance

Sockets shall comply with the requirements of ISO 3189/1 as well as with those in this part of ISO 3189.

4 Materials and heat treatment

4.1 Quality of materials

The steel used shall be produced by the open hearth or electric process, or by oxygen blown process or by any other equivalent process.

Sockets of this type shall be cast from non-alloy or alloy steel which shall meet the following requirements, as determined by a check analysis on a finished socket:

Sulfur, max.	0,050 %
Phosphorus, max.	0,050 %
Combined sulfur and phosphorus content, max.	0,080 %

Non-alloy steels shall have a maximum tensile strength of 600 MPa and an elongation of not less than 14 %. Alloy steels shall have a maximum tensile strength of 750 MPa and an elongation of not less than 15 %.

Within the above limitations, it is the responsibility of the socket-maker to select the steel so that, after any necessary heat treatment (see 4.2), the finished socket meets the performance requirements specified in this part of ISO 3189.

4.2 Heat treatment

Socket bodies and pins shall, if necessary, be heat-treated to ensure that, as quenched, martensitic structures are avoided in the finished socket.

5 Socket manufacture

Sockets complying with this part of ISO 3189 shall be (open) type I or (closed) type II, and shall conform to the critical dimensions specified in ISO 3189/1 (see table 1 and figures 1 and 2). The sockets shall be neatly and cleanly made.

5.1 Bodies

Surfaces of cast steel bodies shall be in a clean, descaled condition and all sharp edges shall be suitably radiused. All flashes or fins produced in manufacture shall be removed.

Minor surface defects may be removed by grinding, provided that the wall thickness at this point is not reduced below the socket-maker's declared minimum wall thickness.

Other small casting defects occurring during manufacture may be rectified by grinding and subsequent welding, provided that the thickness of sound material remaining at the defective point immediately before welding is at least 50 % of the original thickness. Furthermore, the extent of the welded repair, measured in any direction, shall not exceed 1,5 times the thickness of the metal at that point. The recognized method of repair shall comprise the following:

a) thorough and adequate technical control of all stages of the repair;

b) removal of defective metal by chipping or grinding;

1) At present at the stage of draft.