

ISBN 978-0-626-28552-4

SANS 1594:2007

Edition 2.1

SOUTH AFRICAN NATIONAL STANDARD

Manually operated chain blocks

SANS 1594:2007

Edition 2.1

Table of changes

Change No.	Date	Scope
Amdt 1	2007	Amended to change performance requirements of the hook (4.6.2), to add test apparatus to the subclause on test apparatus (5.2), to add a requirement to the size of sample (5.4.2), to delete a step in the proof load and braking test (5.4.4), to add a step to the endurance test (5.4.5), to add requirements in the clause on test certificate (clause 6), and to delete the clause on documentation (clause 8) and to replace it with a clause on documentation.

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 document was published in November 2007. This document supersedes SANS 1594:2003 (edition 2).

A vertical line in the margin shows where the text has been technically modified by amendment No. 1.

Annex A forms an integral part of this document. Annex B is for information only.

**Reaffirmed and reprinted in May 2013.
This document will be reviewed every five years
and be reaffirmed, amended, revised or withdrawn.**

Contents

	Page
Foreword	
1 Scope	3
2 Normative references	3
3 Definitions.....	3
4 General requirements.....	5
5 Performance requirements and testing	8
6 Test certificate	11
7 Marking	11
8 Documentation	11
Annex A (normative) Notes to purchasers	12
Annex B (informative) Quality verification of manually operated chain blocks.....	12
Bibliography	12

SANS 1594:2007
Edition 2.1

This page is intentionally left blank

Manually operated chain blocks

1 Scope

This standard specifies requirements for chain blocks that require the use of a hand chain for hoisting and lowering.

2 Normative references

The following standards contain provisions which, through reference in this text, constitute provisions of this standard. All standards are subject to revision and, since any reference to a standard is deemed to be a reference to the latest edition of that standard, parties to agreements based on this standard are encouraged to take steps to ensure the use of the most recent editions of the standards indicated below. Information on currently valid national and international standards can be obtained from the SABS Standards Division.

SANS 1592, *Short-link steel chain (close-tolerance) for lifting appliances.*

SANS 7500-1/ISO 7500-1, *Metallic materials – Verification of static uniaxial testing machines – Part 1: Tension/compression testing machines – Verification and calibration of the force-measuring system.*

3 Definitions

For the purposes of this document, the following definitions apply:

3.1

factor of safety

specified break force divided by the specified working load limit (WLL) (see 3.8)

3.2

manually operated chain block

block reeved with close-tolerance short-link chain and operated by a hand chain to give a mechanical advantage (see figure 1)

3.3

operating level

level at which the operator stands

3.4

range of lift

vertical distance that the bottom hook travels between the lowest (extended) and the highest (drawn up) positions (see figure 1)

3.5

representative sample chain block

chain block that is representative of a production run or batch of blocks of the same type, i.e. with the same gears, brake, casing, chain, hooks, etc., but not necessarily the same range of lift