
International Standard



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Socketing procedures for wire ropes — Molten metal socketing

Procédés de terminaison des câbles métalliques — Manchonnage à l'aide de métal fondu

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Foreword

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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 7595 was prepared by Technical Committee ISO/TC 111, *Round steel link chains, lifting hooks and accessories*.

Socketing procedures for wire ropes — Molten metal socketing

1 Scope and field of application

This International Standard provides guidance on recommended practices for the metal socketing of wire ropes produced in accordance with ISO 2408. The recommendations are also generally applicable to the socketing of other wire ropes.

When socketing ropes which have wire tensile grades greater than 1 960 MPa (N/mm²), special precautions may be necessary and the rope supplier should be consulted.

Rope terminations made by socketing in accordance with this International Standard may be used for determining the breaking load of wire ropes in accordance with ISO 3108.

2 References

ISO 2408, *Steel wire ropes for general purposes — Characteristics*.¹⁾

ISO 3108, *Steel wire ropes for general purposes — Determination of actual breaking load*.

ISO 3189/1, *Sockets for wire ropes — Part 1: General conditions of acceptance*.²⁾

ISO 4381, *Plain bearings — Lead and tin casting alloys for multilayer plain bearings*.

3 General

ISO 3189/1 specifies the dimensions of the sockets for general purpose ropes. The sockets and socketed assemblies shall pass the prototype tests in that International Standard.

Sockets for spiral strands, locked coil ropes, and for breaking load tests may have special requirements.

4 Preparation of the rope end

A sufficient length of the rope should be externally cleaned on both sides of the designated point of cut by wiping with a clean dry cloth or a cloth dipped in solvent. This cleaning should be confined to the length of rope to be threaded through the socket.

4.1 Seizing of the rope

Two types of seizing are recognized.

- Temporary seizing is used when cutting non-preformed ropes, multistrand ropes, spiral strands, etc. A temporary seizing may be applied to the rope on each side of the cut. These seizings should be such as to hold the strands and wires reasonably well in position during the cutting operation.
- Permanent seizing is used to hold the wires and strands during the socketing operation. A permanent seizing is applied to that part of the rope which is partly within or adjacent to the mouth of the socket when the operation is completed. Permanent seizing should be in position before cutting the rope.

The permanent seizing should

- ensure that the wires and strands are undisturbed during socketing operations;
- permit the passage of the seized rope through the mouth of the socket.

4.2 Seizing material

The seizing material should be tinned or galvanized soft wire or strand for galvanized rope, and bright or galvanized soft wire or strand for bright rope.

Alternative materials may be used but care should be taken that they do not cause electrolytic action in service, and that they are capable of withstanding the temperatures involved.

Copper and brass wires should not be used for seizings. Plastic seizings of proven suitability may be allowed.

4.3 Cutting the rope

The rope should be cut by any suitable method which does not disturb the position of the wires below the permanent seizing. Cutting with an abrasive wheel is to be preferred. When cutting by percussive or shearing methods special care is required. Oxy-acetylene cutting should not be employed owing to the risk of heat damage to the wires and lubrication, and to the difficulties of separating the wires during subsequent socketing operations.

1) At present at the stage of draft. (Revision of ISO 2408-1973.)

2) At present at the stage of draft.