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# International Standard



# 8794

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

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## Steel wire ropes — Spliced eye terminations for slings

*Câbles en acier — Œils épissés pour élingues*

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**Descriptors** : metal products, wire rope, hoisting slings, loops, specifications, tests.

## 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 8794 was prepared by Technical Committee ISO/TC 105, *Steel wire ropes*.

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.

# Steel wire ropes — Spliced eye terminations for slings

## 1 Scope and field of application

This International Standard specifies minimum requirements for spliced eye terminations for wire rope slings.

Prototype tests covering the type acceptance of splice methods are also specified in this International Standard.

## 2 References

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

ISO 7531, *Wire rope slings for general purposes — Characteristics and specifications*.<sup>1)</sup>

## 3 Definitions

**3.1 spliced eye terminations (hand-spliced):** Loop or eye at the end of a rope made by tucking the ends of the strands back into the main body of the rope.

**3.2 tuck:** Single reeving of a strand to be spliced under a specified number of strands in the wire rope.

## 4 Types of wire ropes

All ropes specified in ISO 7531 are suitable for provision of spliced eye terminations.

## 5 Splicing operation

The splice shall have at least five tucks for each strand, at least three of them with the whole strand. The splicing method is specified in the annex.

### NOTES

1 Depending on the rope size, rope construction and the splicing method, more tucks per strand than given above may be necessary.

2 To get a smooth run-out of the splice, it may be advantageous to make the last tuck or the last two tucks with the half of the wires cut out of the strands.

3 Certain national and international conventions exist for regulating the types of spliced eye terminations to be used in specific applications, e.g. dock works. Account should be taken of such regulations when this International Standard is applied.

The hand-splicing operation shall only be carried out by qualified splicers. The supplier shall be responsible for ensuring that splicers are properly trained and qualified.

The wire ends of the spliced strands should be covered with a suitable serving at the option of the purchaser.

## 6 Design requirements of the spliced eye termination

The design breaking strength of a spliced eye termination shall be at least 70 % of the minimum breaking force of the respective wire rope.

If a steel core is spliced with at least three tucks with the strands, it may be considered as a load-bearing part of the rope.

## 7 Prototype tests

Samples of splices for each rope size shall have passed the tests described in 7.1 and 7.2.

### 7.1 Tensile test to destruction

Two tests shall be carried out on each size of fibre-cored and steel-cored wire rope for which the splicing method is recommended.

The rope constructions used for test shall be 6 × 19 and 6 × 36 up to and including a nominal rope diameter of 14 mm and 6 × 36 for nominal rope diameters above 14 mm.

A spliced eye termination shall be formed without a thimble at each end of each test piece. The minimum distance between the tails of the splices shall be 30 times the nominal rope diameter. The force shall be applied by means of round pins having a suitable diameter, threaded through the eye termination. Not more than 60 % of the minimum breaking force of the

1) At present at the stage of draft.