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**Forged shackles for general lifting  
purposes — Dee shackles and bow  
shackles**

*Manilles forgées pour levage — Manilles droites et manilles lyres*



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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. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 2.

The main task of technical committees is to prepare International Standards. Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights.

ISO 2415 was prepared by Technical Committee ISO/TC 111, *Round steel link chains, chain slings, components and accessories*, Subcommittee SC 3, *Components and accessories*.

This third edition cancels and replaces the second edition (ISO 2415:1987), which has been technically revised.

# Forged shackles for general lifting purposes — Dee shackles and bow shackles

## 1 Scope

This International Standard specifies the general characteristics of forged dee and bow shackles in a range of sizes having working load limits of from 0,32 t to 100 t and in Grades 4, 6 and 8, and presents their performance and critical dimensions necessary for their interchangeability and compatibility with other components.

In the case of dee shackles for use with forged steel lifting hooks in conformance with ISO 4779 and ISO 7597, an intermediate component could be necessary for making the connection.

## 2 Normative references

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO 261, *ISO general purpose metric screw threads — General plan*

ISO 263, *ISO inch screw threads — General plan and selection for screws, bolts and nuts — Diameter range 0,06 to 6 in*

ISO 643, *Steels — Micrographic determination of the apparent grain size*

ISO 4779, *Forged steel lifting hooks with point and eye for use with steel chains of grade M(4)*

ISO 4948-1, *Steel — Classification — Part 1: Classification of steels into unalloyed and alloy steel based on chemical composition*

ISO 6506-1, *Metallic materials — Brinell hardness test — Part 1: Test method*

ISO 6508-1, *Metallic materials — Rockwell hardness test — Part 1: Test method (scales A, B, C, D, E, F, G, H, K, N, T)*

ISO 7597, *Forged steel lifting hooks with point and eye for use with steel chains of grade T(8)*

## 3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

### 3.1

#### **shackle**

component consisting of two readily separable parts, the body and the pin