
**Steel wire for mechanical springs —
Part 3:
Oil-hardened and tempered wire**

Fils en acier pour ressorts mécaniques —

Partie 3: Fils trempés à l'huile et revenus

Sample Document

get full document from standards.iteh.ai



Reference number
ISO 8458-3:2002(E)

© ISO 2002

PDF disclaimer

This PDF file may contain embedded typefaces. In accordance with Adobe's licensing policy, this file may be printed or viewed but shall not be edited unless the typefaces which are embedded are licensed to and installed on the computer performing the editing. In downloading this file, parties accept therein the responsibility of not infringing Adobe's licensing policy. The ISO Central Secretariat accepts no liability in this area.

Adobe is a trademark of Adobe Systems Incorporated.

Details of the software products used to create this PDF file can be found in the General Info relative to the file; the PDF-creation parameters were optimized for printing. Every care has been taken to ensure that the file is suitable for use by ISO member bodies. In the unlikely event that a problem relating to it is found, please inform the Central Secretariat at the address given below.

Sample Document

get full document from standards.iteh.ai

© ISO 2002

All rights reserved. Unless otherwise specified, no part of this publication may be reproduced or utilized in any form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from either ISO at the address below or ISO's member body in the country of the requester.

ISO copyright office
Case postale 56 • CH-1211 Geneva 20
Tel. + 41 22 749 01 11
Fax + 41 22 749 09 47
E-mail copyright@iso.ch
Web www.iso.ch

Printed in Switzerland

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 3.

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 part of ISO 8458 may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights.

ISO 8458-3 was prepared by Technical Committee ISO/TC 17, *Steel*, Subcommittee SC 17, *Steel wire rod and wire products*.

This second edition cancels and replaces the first edition (ISO 8458-3:1992), which has been technically revised.

ISO 8458 consists of the following parts, under the general title *Steel wire for mechanical springs*:

- *Part 1: General requirements*
- *Part 2: Patented cold-drawn non-alloy steel wire*
- *Part 3: Oil-hardened and tempered wire*

This corrected version of ISO 8458-3 has been necessitated by the omission of paragraph 6 above.

Steel wire for mechanical springs —

Part 3: Oil-hardened and tempered wire

1 Scope

This part of ISO 8458 specifies requirements for oil-hardened and tempered carbon and low alloy steel wire, for the manufacture of mechanical springs for static duty and dynamic duty applications, complying with the general requirements of ISO 8458-1.

2 Normative references

The following normative documents contain provisions which, through reference in this text, constitute provisions of this part of ISO 8458. For dated references, subsequent amendments to, or revisions of, any of these publications do not apply. However, parties to agreements based on this part of ISO 8458 are encouraged to investigate the possibility of applying the most recent editions of the normative documents indicated below. For undated references, the latest edition of the normative document referred to applies. Members of ISO and IEC maintain registers of currently valid International Standards.

ISO 4967:1998, *Steel — Determination of content of non-metallic inclusions — Micrographic method using standard diagrams*

ISO 8458-1, *Steel wire for mechanical springs — Part 1: General requirements*

3 Classification and designation

The various spring wire grades and the relevant diameters are shown in Table 1.

Table 1 — Spring wire grades and diameter ranges

Tensile strength	Static	Medium fatigue	High fatigue
Low tensile strength	FDC	TDC	VDC
Medium tensile strength	FDCrV(A.B)	TDCrV(A.B)	VDCrV(A.B)
High tensile strength	FDSiCr	TDSiCr	VDSiCr
Diameter range (mm)	0,50 to 17,00	0,50 to 10,00	0,50 to 10,00
FD grade is intended for static applications, required for normal springs.			
TD grade is intended for medium fatigue levels.			
VD grade is intended for use under severe dynamic duty such as for valve springs.			