AS 2266—1990

Australian Standard®

Carbon steel spring wire for bedding and seating

This Australian Standard was prepared by Committee MT/1, Iron and Steel. It was approved on behalf of the Council of Standards Australia on 21 May 1990 and published on 10 December 1990.

The following interests are represented on Committee MT/1:

Australian Foundry Institute

Australian Institute of Steel Construction

Bureau of Steel Manufacturers of Australia

Confederation of Australian Industry

Department of Defence

Metal Trades Industry Association of Australia

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PREFACE

This Standard was prepared by the Standards Australia Committee on Iron and Steel under the direction of the Metals Standards Board, to supersede AS 2266 — 1979. In this edition, a test to measure the helix dimension has been included, and ovality tolerances have been reduced.

CONTENTS

STANDARDS AUSTRALIA

Australian Standard
Carbon steel spring wire for bedding and seating

1 SCOPE This Standard specifies requirements for uncoated carbon steel spring wire of round cross-section, supplied in the hard-drawn condition in the form of coils and intended for the manufacture of coil springs, square-formed springs and sinuous springs for bedding and seating used in the automotive, transport and furniture manufacturing industries.

NOTES:
1 Advice and recommendations on information to be supplied by the purchaser at the time of enquiry and order are contained in the purchasing guidelines set out in Appendix A.
2 Alternative means for determining compliance with this Standard are given in Appendix B.

2 REFERENCED DOCUMENTS The documents below are referred to in this Standard:

AS
1050 Methods for the analysis of iron and steel
1199 Sampling procedures and tables for inspection by attributes
1213 Iron and steel — Methods of sampling
1391 Methods for tensile testing of metals
1399 Guide to AS 1199, Sampling procedures and tables for inspection by attributes
1442 Carbon steels and carbon-manganese steels — Hot-rolled bars and semi-finished products
2003 Methods for the measurement of decarburization in carbon and low alloy steels
2706 Numerical values — Rounding and interpretation of limiting values
3900 Quality systems — Guide to selection and use
3904 Quality systems — Guide to quality management and quality system elements
K1 Methods for the sampling and analysis of iron and steel
ISO
Guide 44 General rules for ISO or IEC international third-party certification scheme for products

3 DEFINITIONS For the purpose of this Standard, the definitions below apply.

3.1 Batch — a quantity of some commodity produced under conditions which are considered to be uniform.

NOTE: Each batch is assumed, as far as practicable, to consist of materials or items of a single type, grade, class, size, and composition, and to have been manufactured under essentially the same conditions at essentially the same time.

3.2 Cast — the form taken by the individual waps (turns or circles) of a wire in a coil.

3.3 Hard-drawn wire — carbon steel wire drawn, with a relatively high reduction of cross-sectional area, from a heat-treated (patented or similar process) base.

4 MATERIALS

4.1 Materials source The wire may be drawn from rods complying with the requirements of AS 1442 or other appropriate Standards, providing the chemical composition of the rod material meets the requirements of Clause 4.2.

4.2 Chemical composition

4.2.1 *General* The method of sampling for chemical analysis shall be in accordance with AS 1213. The chemical composition of the steel shall be determined by procedures which are not less accurate than procedures specified in AS 1050 or AS K1.

4.2.2 *Cast analysis* The chemical composition of steel shall be based on the cast analysis, and shall be within the limits given in Table 1.

TABLE 1
CHEMICAL COMPOSITION REQUIREMENTS

Element	Cast analysis, percent	
	Min.	Max.
Carbon	0.45	0.85
Silicon	0.10	0.35
Manganese	0.40	1.10
Phosphorus	—	0.040
Sulfur	—	0.040