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Wire ropes for structure

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Descriptors : steel-wire ropes, wires, structural steels, structures

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Foreword

This translation has been made based on the original Japanese Industrial Standard established by the Minister of International Trade and Industry through deliberations at the Japanese Industrial Standards Committee as proposed for this Standard to be established from Japan Society of Steel Construction (JSSC) with preparing a draft industrial standard based on the association standards of JSS II 03 : 1994, JSS II 04 : 1994 and JSS II 05 : 1994, in accordance with the provision of Clause 1, Article 12 in the Industrial Standardization Law.

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Wire ropes for structure

1 Scope This Japanese Industrial Standard specifies wire ropes, composed of galvanized steel wires spun together, to be used for a component of bridges, buildings, steel towers, etc. (hereafter referred to as “ropes”).

Remarks : Other standards of wire ropes not covered by this Standard are listed as follows:

JIS G 3525 *Wire ropes*

JIS G 3535 *Wire ropes for aircraft control*

JIS G 3540 *Wire ropes for mechanical control*

JIS G 3546 *Wire ropes with profile wires*

JIS G 7301 *Steel wire ropes for general purposes—Characteristics*

2 Normative references The following standards contain provisions which, through reference in this Standard, constitute provisions of this Standard. The most recent editions of the standards (including amendments) indicated below shall be applied.

JIS G 3502 *Piano wire rods*

JIS G 3506 *High carbon steel wire rods*

JIS H 0401 *Methods of test for hot dip galvanized coatings*

JIS H 2107 *Zinc ingots*

3 Definitions For the purposes of this Standard the following definitions apply.

- a) **wire** Galvanized steel wires composing the rope.
- b) **shaped wire** A generic term for Z-shaped and trapezoidal (T) wires to be applied to the outer layer of locked coil ropes.
- c) **strand** An element of rope consisting of several wires spun helically.
- d) **core** A generic term of rope core and strand core.
 - 1) **rope core** A centre-fitting wire rope centering the rope. To be constructed in 7×7 , and symbolized as CFRC.
 - 2) **strand core** A strand centering the rope. To be of the same construction as the outer strands. If necessary, it may be symbolized as IWSC.

Ropes with a strand core are referred to as identical core strand ropes.

- e) **rope** Wire ropes composed of an assembly wound strands around a strand core (identical core strand rope) or around a rope core, or those composed of an assembly wound outer wires around a king wire (spiral rope and locked coil rope).
- f) **rope diameter** Diameter of the circle circumscribed the rope at an optional cross-section. It is parted into the nominal diameter and the measured (actual) diameter.