

STEEL WIRE ROPE DESIGN METHODS

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Abstract

Wire ropes are made out of high tensile steel wire, are widely used for lifting loads because of flexibility, smooth operation, higher reliability and long life. This is manufactured out of thin high strength wires in twisted form with central steel fibre core. This paper focuses on the various wire rope design methods. It provides critical comparison & wire rope design methods proposed by different authors. It tabulates various design methodology adopted by different authors. Based on the suitability of different methods are discussed in detail.

Keywords: wire rope design, factor of safety, breaking load of rope, lift & cranes, wire rope selection.

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