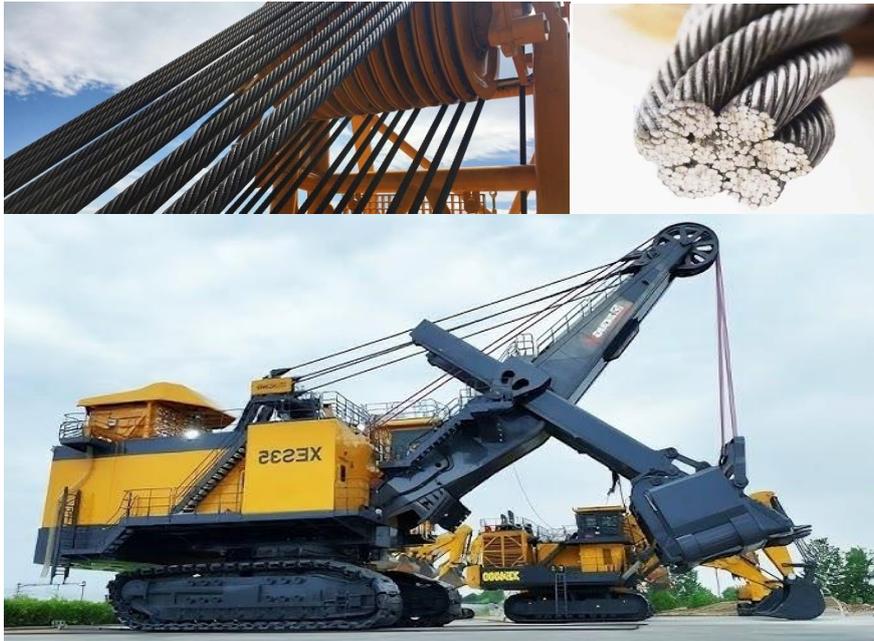


Summary for IS 2266 - Steel Wire Ropes for General Engineering Purposes



Title and Standard Number:

IS 2266 - Steel Wire Ropes for General Engineering Purposes

Scope:

This standard covers general requirements for steel wire ropes used in cranes, excavators and other engineering applications.

Applications:

Steel wire ropes as per IS 2266 are primarily used in engineering tasks such as lifting, towing, and load-bearing, where high tensile strength and flexibility are essential. These ropes are also utilized in cranes, elevators, and hoisting machinery.

Key Specifications:

The standard specifies the following:

- *Construction: Ropes are constructed of multiple strands twisted around a central core, with varying strand and core types based on the intended application.*
- *Material: Ropes must be made of high-quality carbon steel to meet strength and durability needs.*
- *Tensile Strength: Different grades are specified to meet varying load requirements, generally ranging from 1,570 N/mm² to 1,960 N/mm².*
- *Diameter and Weight: The standard prescribes specific tolerances for diameter and weight, ensuring consistency and load performance.*

Physical and Technical Specifications:

IS 2266 mandates various technical characteristics, such as:

- *Breaking Force: The rope's minimum breaking force must align with the load capacity stipulated for different diameter ranges.*
- *Coating: Galvanization is recommended to enhance longevity and performance, particularly in heavy-duty applications.*
- *Testing: Ropes undergo rigorous testing, including tensile strength, diameter consistency, and elongation under load to verify compliance.*

Safety and Handling:

The standard emphasizes the importance of safe handling and installation practices, as well as regular inspection of ropes to detect signs of wear or fatigue that could compromise safety.

Marking and Packaging:

Steel wire ropes are required to be clearly marked with the manufacturer's details, rope specifications, and compliance to IS 2266. Packaging is designed to prevent damage and corrosion during transport and storage.

Example of a Steel Wire Rope Specification

For instance, a 12 mm diameter rope with a 6x36 construction (six strands, each with 36 wires) made of carbon steel and lubricated for durability would meet IS 2266 standards for general engineering applications. It would have a minimum breaking force tailored to its diameter and intended load capacity.

This summary reflects the core requirements and physical properties outlined in IS 2266, highlighting the standard's importance in ensuring the quality and safety of steel wire ropes in engineering applications.