

Wire Rope and Steel Wire

Wire Rope

As the only domestic enterprise engaged in the manufacture of oil wire rope, the sole domestic institution in formulating the standard for oil wire rope, and the provincial-level unit for wire rope inspection, the company is able to manufacture such products as wire ropes for various important purposes, which cover the markets of domestic petroleum, marine port, coal, engineering machinery, etc., and are exported to dozens of foreign countries and regions.

Relying on the introduced international advanced manufacturing and inspecting equipment for wire rope from countries like Japan, Germany and Italy, the company has developed domestic advanced production lines of wire rope and wire rope rigging, whose technology and quality have achieved the leading level domestically.

In recent years, CNPC has taken the lead in the country in developing the production technologies of IPS-level wire rope, EIPS-level oil wire rope, forged wire rope, facial contacted wire rope produced by using compaction method, filled wire rope, and drilling wire rope applied in the 12,000m extra deep well drilling rig.

Mark of Wire Rope

The mark of wire rope is used in accordance with the provisions specified in Terminology, Mark and Classification of Wire Rope ISO17893.

- Dimension;
- Structure of wire rope;
- Core structure;
- Level of wire rope, where applicable;
- State of wire rope surface;
- Laying method and direction.



| | | | | | |
|--------------------------------------|----|-------------|------|---|----|
| | 22 | 6×36WS-IWRC | 1770 | B | sZ |
| | 32 | 18×19S-WSC | 1960 | U | sZ |
| | 95 | 1×127 | 1570 | B | Z |
| Dimension | | | | | |
| Structure of wire rope | | | | | |
| Core structure | | | | | |
| Level of wire rope, where applicable | | | | | |
| State of wire rope surface | | | | | |
| Laying method and direction | | | | | |

Required in Wire Rope JISG 3525-1998, the wire rope shall have nominal or structural mark, whether there is galvanized grease category, laying method, class or breaking force, nominal diameter and length.

Main Series and Specifications of Wire Ropes

| Number | Industry | Working Type | Main Specifications |
|--------|---|---|---|
| 1 | Wire rope used in oil field operation | Drilling | 6 × 19S-IWRC 6 × 26SW-IWRC 6 × 31SW-IWRC 6 × K19S-IWRC 6 × K26SW-IWRC 6 × 49SWS-IWRC 6 × 76WSNS-IWRC(6 × 84WSNS-IWRC 6 × K26WS-IWRC 6 × K31WS-IWRC |
| | | Oil pumping | 6 × 19-FC 6 × 26WS-IWRC 6 × 37-FC 18 × 7 |
| | | Oil (sand) bailing | 6 × 7-FC 5 × 7-FC K5 × 7-FC K5 × 19S-FC |
| | | Mooring rope for shoal use | 6 × 36WS-IWRC 6 × K49SWS-IWRC |
| 2 | Wire rope for loading/unloading at port | Loading/unloading of containers by using yard container crane or quayside container crane | 6 × 36WS-IWR 6 × 29Fi-IWRC 6 × K36WS-IWRC 6 × K26Fi-IWRC 8 × K26Fi-IWRC 6 × 36WS-IWRC (Trolley) |
| | | Bulk loading/unloading | 6 × 36WS-IWRC 6 × 29Fi-IWRC 8 × K36SW-IWRC 6 × 36WS-IWRC (Grab bucket) 6 × 29Fi-IWRC (Grab bucket) 8 × 49SWS-IWRC (Grab bucket) |
| | | Portal loading/unloading | 6 × 29Fi-IWRC 6 × 36WS-IWRC 18 × 7 K4 × 39S-5FC K4 × 48S-5FC |
| 3 | Wire rope for coal mining | Shaft hoisting | 6 × 36WS-IWRC 6V × 34-FC 6V × 37-FC |
| | | Slant well hoisting | 6 × 7-FC K6 × 7-FC 6 × K7-FC |
| | | Belt conveyer | 6 × 26WS-FC 6 × 31WS-FC |
| | | Electric shovel | 6 × 36WS-IWRC 8 × 36WS-IWRC EP6 × K49SWS-IWRC EP6 × K36SWS-IWRC |
| | | Cableway transportation of mine | 6 × 7-FC |
| 4 | Wire rope for machinery of project construction | Automobile crane | 35 (W) × 7 6 × 29Fi-IWRC K4 × 39S-5FC 27 (W) × K7 35 (W) × K7 8 × K19S-PWRC (Telescopic boom) 8 × 26WS-PWRC (Telescopic boom) |
| | | ower crane | 18 × 7 35 (W) × 7 K4 × 39S-5FC 27 (W) × K7 35 (W) × K7 6 × 29Fi-IWRC (Trolley) |
| | | Crawler crane | 35 (W) × 7 27 (W) × K7 35 (W) × K7 15 × K7-IWRC 8 × K19S-PWRC (Luff) 8 × 26WS-PWRC (Luff) |
| | | Rotary drilling rig | 6 × 36WS-IWRC 6 × 29Fi-IWRC 35 (W) × 7 27 (W) × K7 35 (W) × K7 |