

2022-QC/AJ-001

## Service Life Standard for Wire Rope (岳中机械--钢丝绳使用寿命规定)

## **1**、 Service Life Standard

Service life standard for wire rope when using the winch system:

- 1) If the using is frequently, recommend change every 6 months.
- 2) If the suing is unfrequently, recommend change every 9 months.
- 3) The maximum service life should be 18 months, if service life is longer than 18 months, any project should change the wire rope or stop using the winch system weather the outside of wire rope is intact or not.

## 2、 Checking period and method for wire rope

Checking period for client: everyday before using.

Checking method: Please change the wire rope immediately with the below phenomena.

1) Strand breakage: If the entire rope strand breaks, it should be replaced immediately



2) Broken wires: When the wire rope has more than six broken wires within the length range of 6 times the diameter or more than 13 broken wires within the length range of 30 times the diameter, the wire should be replaced immediately.



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- Corrosion: When the wire rope is seriously corrupted, the wire should be replaced immediately.
- Partial Depression: The rope diameter reduction caused by a broken steel core, damaged fiber rope core, and internal wear should be replaced immediately, mainly manifested as partial depression.
- 5) Wear: When the wire rope is seriously worn, it should be replaced immediately.
- 6) Mechanical Damage: When the wire rope has mechanical damage, it should be replaced immediately.

## **3**、 Consequence may occur by below if the service life is overrun:

As the picture bellow, since the service life is overrun, the wire rope suffer about mechanical damage, corrosion and reciprocating impact, it's hard to retain the original strong even the outside is normal. And the service life is hard to estimate and leave large hidden danger for winch system safety.

