# Application, Care, and Use of Wire Rope for Oil Field Service

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# Application, Care, and Use of Wire Rope for Oil Field Service

## 1 Scope

This recommended practice (RP) covers typical wire rope applications for the oil and gas industry.

Typical practices in the application of wire rope to oil field service are indicated in Table 1, which shows the sizes and constructions commonly used. Because of the variety of equipment designs, the selection of constructions other than those shown is justifiable.

In oilfield service, wire rope is often referred to as wire line or cable. For the purpose of clarity, these various expressions are incorporated in this recommended practice.

## 2 Field Care and use of Wire Rope

### 2.1 Handling on Reel

#### 2.1.1 Use of Binding or Lifting Chain

When handling wire rope on a reel with a binding or lifting chain, wooden blocks should always be used between the rope and the chain to prevent damage to the wire or distortion of the strands in the rope.

#### 2.1.2 Use of Bars

Bars for moving the reel should be used against the reel flange, and not against the rope.

#### 2.1.3 Sharp Objects

The reel should not be rolled over or dropped on any hard, sharp object in such a manner that the rope will be damaged.

#### 2.1.4 Dropping

The reel should not be dropped. This may cause damage to the rope as well as break the reel.

#### 2.1.5 Mud, Dirt, or Cinders

Rolling the reel in or allowing it to stand in any medium harmful to steel such as mud, dirt, or cinders should be avoided. Planking or cribbing will be of assistance in handling the reel as well as in protecting the rope against damage.

#### 2.1.6 Lifting the Reel

The preferred method for lifting a reel with slings is to use a spreader bar that is of sufficient length to keep the sling legs from contacting the reel. This will prevent the flanges of the reel from being bent, distorted, broken, or damaged in any way by the slings.

#### 2.1.7 Shaft through Arbor Holes

When lifting reels of wire rope, care must be taken that the shaft through the reel is of adequate length for the task, plus its wall thickness and diameter are of sufficient strength and size respectively to safely support the weight without damaging the center holes of the two flanges of the reel.