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

API RECOMMENDED PRACTICE 9B
FOURTEENTH EDITION, OCTOBER 2015

ADDENDUM 1, SEPTEMBER 2020

Special Notes

API publications necessarily address problems of a general nature. With respect to particular circumstances, local, state, and federal laws and regulations should be reviewed.

Neither API nor any of API's employees, subcontractors, consultants, committees, or other assignees make any warranty or representation, either express or implied, with respect to the accuracy, completeness, or usefulness of the information contained herein, or assume any liability or responsibility for any use, or the results of such use, of any information or process disclosed in this publication. Neither API nor any of API's employees, subcontractors, consultants, or other assignees represent that use of this publication would not infringe upon privately owned rights.

API publications may be used by anyone desiring to do so. Every effort has been made by the Institute to assure the accuracy and reliability of the data contained in them; however, the Institute makes no representation, warranty, or guarantee in connection with this publication and hereby expressly disclaims any liability or responsibility for loss or damage resulting from its use or for the violation of any authorities having jurisdiction with which this publication may conflict.

API publications are published to facilitate the broad availability of proven, sound engineering and operating practices. These publications are not intended to obviate the need for applying sound engineering judgment regarding when and where these publications should be utilized. The formulation and publication of API publications is not intended in any way to inhibit anyone from using any other practices.

Any manufacturer marking equipment or materials in conformance with the marking requirements of an API standard is solely responsible for complying with all the applicable requirements of that standard. API does not represent, warrant, or guarantee that such products do in fact conform to the applicable API standard.

Foreword

Nothing contained in any API publication is to be construed as granting any right, by implication or otherwise, for the manufacture, sale, or use of any method, apparatus, or product covered by letters patent. Neither should anything contained in the publication be construed as insuring anyone against liability for infringement of letters patent.

Shall: As used in a standard, “shall” denotes a minimum requirement in order to conform to the specification.

Should: As used in a standard, “should” denotes a recommendation or that which is advised but not required in order to conform to the specification.

This document was produced under API standardization procedures that ensure appropriate notification and participation in the developmental process and is designated as an API standard. Questions concerning the interpretation of the content of this publication or comments and questions concerning the procedures under which this publication was developed should be directed in writing to the Director of Standards, American Petroleum Institute, 200 Massachusetts Avenue, NW, Suite 1100, Washington, DC 20001. Requests for permission to reproduce or translate all or any part of the material published herein should also be addressed to the director.

Generally, API standards are reviewed and revised, reaffirmed, or withdrawn at least every five years. A one-time extension of up to two years may be added to this review cycle. Status of the publication can be ascertained from the API Standards Department, telephone (202) 682-8000. A catalog of API publications and materials is published annually by API, 200 Massachusetts Avenue, NW, Suite 1100, Washington, DC 20001.

Suggested revisions are invited and should be submitted to the Standards Department, API, 200 Massachusetts Avenue, NW, Suite 1100, Washington, DC 20001, standards@api.org.

Contents

Contents

Contents

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.