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**NATIONAL STANDARD OF THE
PEOPLE'S REPUBLIC OF CHINA**

GB/T 17388-2010

Replacing GB/T 17388-1998

Electric submersible pump installations

潜油电泵装置的安装

(English Translation)

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Foreword

This revised standard adopts APIRP11S3.1999 "installation of electric submersible pump installations" (third edition) (English).

This standard is based on APIRP11S3. redrafting of 1999, taking into account China's national conditions, the use APIRP11S3.1999, the present standard Made some changes, the main technical differences are as follows.

- In terms of the use of units, an increase of metric units, easy to use;
- APIRP11S3. foreign standards referenced in 1999, has been used instead of using the corresponding foreign standards for China's national standards;
- Removed APIRP11S3.1999 "special statement", "Introduction" and "Directory";
- According to APIRP11S3.1999 were applied to the content of the normative references were deleted;
- Delete "ASTM" and "IEEE" standard abbreviations explained (the provisions of notes);
- 3.2.3 modify the terms of content;
- Modify the terms of the content of 10.7;
- Deleted 4.1 Overview of comments;

--- Increase the informative appendix "The main Glossary" (see Appendix A).

For ease of use, this standard APIRP11S3.1999 also made the following editorial changes.

The term --- the "recommended practices" to "this standard";

--- According to Chinese customary for some formatting has been modified.

This standard replaces GB/T 17388-1998 "installation of electric submersible pump unit" (MOD APIRP11S3.1992), and GB/T 17388-1998 compared to the main changes are as follows.

--- Modify the content and electric submersible pump unit schematic composition;

--- Remove the motor control cabinet diagrams and corresponding text notes;

--- Deleted General;

--- Modify the cable and the outer cable drum flange gap size requirements;

--- Revised Notice forklift loading and unloading of the cable;

--- Remove the submersible pump to reinstall;

--- Increased from out of the submersible pump unit on-site analysis;

--- Increased used submersible pump device evaluation.

Appendix A of this standard is an informative annex.

This standard by the national oil drilling equipment and tools for Standardization Technical Committee (SAC/TC96) and focal points.

This standard was drafted. Daqing Oilfield Lishen Pump Co., Ltd., Shengli pump limited liability company, Dagang oil Tian Zhongcheng Machine Mechanical Manufacturing Co., Ltd.

1 Scope

1.1

standard defines the conventional electric submersible pump means the transport, handling, storage, on-site installation, startup, since well, live and play well after analysis Evaluation.

This standard applies to the installation and replacement of conventional electric submersible pump means that all major components (see Figure 1), especially for oil, gas latent Oil pump means and pipeline installation.

This standard does not involve the selection and application of electric submersible pump apparatus.

1.2

As long as the good submersible pump unit operation is not the same installation program can accept. However, all programs are required to install a Good engineering experience, sound judgment and proper maintenance.

2 Normative references

The following documents contain provisions which, through reference in this standard and become the standard terms. For dated references, subsequent Amendments (not including errata content) or revisions do not apply to this standard, however, encourage the parties to the agreement are based on research Whether the latest versions of these documents. For undated reference documents, the latest versions apply to this standard.

GB/T 17387 operating submersible pump apparatus, maintenance and troubleshooting
Preparation of GB/T 17390 submersible pump disassembly report GB/T 18050 submersible pump cables test methods GB/T 18051 submersible pump vibration test method SY/T 6598 submersible pump protection and use of recommended practice test SY/T 6599 centrifugal submersible pump test Recommended Practice ASTM D-887 application disk electrode measurements insulating liquid dielectric breakdown voltage of the standard method

3.1.1 Power Cable

The recommended method 3.1.1.1 lifting cable tray are. selection of a suitable size steel cable tray is inserted as a center axis, use ropes or hanging After the chain is connected to the shaft, using a power winch and lifting frame lifting. Not allowed to use the lifting frame lifting sling hanging chain or cable tray to prevent hanging Chain or cable sling damage or cable tray.

3.1.1.2

cables and cable tray should take the necessary protective measures to prevent damage during storage, transport or installation of equipment.

3.1.1.3

cable reel should roll to avoid collision with other objects or cable drum and causing other damage.

3.1.1.4

cable tray from the rim and the outermost layer of the cable should not be less than 0.1m (4in). See Figure 2.

3.1.1.5

cable tray during transportation and handling, the centerline of cable tray should remain parallel to the ground.

3.1.1.6

When conventional methods of transport, on both sides of the cable drum flange should be stuck (block), while using the cable through the center of the disc fixed chains.

3.1.1.7

chain should not be fixed through the cable tray or in contact with the top of the cable.

3.1.1.8

with the forklift loading cable tray should be noted.

- a) fork arm must be long enough to support two flange cable tray;
- b) the width of the fork arm must be appropriate to ensure safe lifting cable tray;
- c) wishbones position should be fixed;
- d) when the lift truck from the cable drum flange end is inserted, and try to be the root of the truck;