

ICS 75.180.10

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

GB/T 21412.9-2009

**Petroleum and natural gas industries -- Design and operation of
subsea production systems -- Part 9: Remotely operated tool
(ROT) intervention systems**

石油天然气工业 水下生产系统的设计与操作 第9部分：遥控操作工具（ROT）维
修系统

(English Translation)

Issued on: April 8, 2009

Implemented on: November 1, 2009

Issued by: Standardization Administration of China

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Foreword

GB/T 21412 "oil and gas industry of subsea production systems design and operation" is divided into nine sections.

- Part 1. General requirements and recommended practices;
- Part 2. Underwater and Marine use a flexible tube system;
- Part 3. Through flowline (TFL) systems;
- Part 4. subsea wellhead and Christmas tree equipment;
- Part 5. underwater umbilical;
- Part 6. Subsea production control systems;
- Part 7. Completion/Maintenance riser system;
- Part 8. subsea production systems underwater robot (ROV) interfaces;
- Part 9. remotely operated tool (ROT) Maintenance System.

This section GB/T 21412 Part 9, corresponds to the ISO 13628-9:2000 "oil and gas industry of subsea production systems Design and operation - Part 9. remotely operated tool (ROT) Maintenance System "(in English).

This section is equivalent to using ISO 13628-9:2000 "oil and gas industry of subsea production systems design and operation of Part 9. remote Manually operated tool (ROT) Maintenance System "(in English).

This section is equivalent translation ISO 13628-9:2000.

For ease of use, this section made the following editorial changes.

--- "ISO 13628 this part" to "GB/T 21412 this part" or "this part";

--- Delete international standards foreword.

This part is proposed by the China National Petroleum Corporation.

This part of the National Oil and Gas Standardization Technical Committee centralized.

This section drafted by. CNOOC (China) Co., Ltd. Research Center.

1 Scope

GB/T 21412 in the provisions of this part of the oil and gas industry for underwater production systems ROT maintenance system and the interface device Functional requirements and recommended practices.

This part was not involved in the operation and maintenance to ROV based system (such as subsea pipeline connections and component replacement), also it does not involve vertical wellhead maintenance, detect internal flowlines, oil into the trees and their associated equipment.

2 Terms, definitions and abbreviations

The following terms, definitions and abbreviations apply GB/T 21412 in this section.

2.1 Terms and Definitions

2.1.1

Underwater completed all maintenance work.

2.1.2

In schedule maintenance tasks to complete all the work within.

2.1.3

Special, unmanned underwater tools. These tools are used beyond the lifting capacity floating type ROV system capacity when the remote installation and set Parts replacement task.

NOTE: ROT is a water control and support systems have cable tools for the completion of specialized underwater maintenance tasks. They are usually by the lifting cable or lifting ropes and Umbilical cable combination be retractable by the guide cable, a special thrust to achieve ROT or ROV traverse.

2.1.4

All ROT launching and recovery systems associated with the equipment.

2.1.5

The system is used to compensate for the ship's vertical motion of the ROT system retractable impact.

2.1.6

For storage, transportation, loading and testing framework to facilitate the movement ROT system modules and components as well as the replacement or installation.

NOTE: skid systems are generally used in conjunction with a slide.

2.1.7

In the underwater installation of all piping, oil and gas pipelines, umbilical and cable.

GB/T 21412.9-2009/ISO 13628-9:2000