

ICS 47.020.50
CCS U 60



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

GB/T 43381-2023

Marine structures - Crude oil offloading systems - Hose reels

海上结构物 原油外输系统 软管绞车

(English Translation)

Issued on: November 27, 2023

Implemented on: March 1, 2024

**Issued by: State Administration for Market Regulation, China National
Standardization Administration**

Table of Contents

Foreword

1 Scope

2 Normative reference documents

3 Terms and definitions

Foreword

This document complies with the provisions of GB/T 1.1-2020 "Standardization Work Guidelines Part 1: Structure and Drafting Rules of Standardization Documents" Drafting:

This document is modified to adopt ISO 24043:2020 "Hose Winch for Crude Oil Output System of Offshore Structures":

The technical differences between this document and ISO 24043:2020 and their reasons are as follows:

---Added explosion-proof requirements for electrical parts (see 4.3:1:2) to meet the safety requirements of electrical equipment;

---Added the brake device switch setting requirements and expanded hydraulic control braking to overall braking requirements (see 4.3:6) to comply with domestic General practices for winch braking devices;

---Change the "maximum working pressure" to "1.5 times the maximum external pressure" (see 5.5) to clarify the pressure and increase operability;

--- Added provisions for packaging, transportation and storage (see Chapter 7):

The following editorial changes have been made to this document:

---Change the title of Chapter 4 of ISO 24043:2020 "Type" to "Design":

Please note that some content in this document may be subject to patents: The publisher of this document assumes no responsibility for identifying patents:

1 Scope

This document specifies the design, acceptance test, marking system, packaging, transportation and storage of hose winches for crude oil export systems:

This document is applicable to hoses for crude oil export systems used in floating production storage and handling units (FPSO), mobile platforms and other offshore

structures:

Vehicle design, manufacturing and acceptance:

2 Normative reference documents

The contents of the following documents constitute essential provisions of this document through normative references in the text: Among them, the dated quotations for undated referenced documents, only the version corresponding to that date applies to this document; for undated referenced documents, the latest version (including all amendments) applies to this document:

Note: GB/T 3893-2008 Deck machinery terms and symbols for shipbuilding and offshore structures (ISO/FDIS3828.2007, IDT)

3 Terms and definitions

The terms and definitions defined in ISO 3828 and below apply to this document:

rated load when the reel is wound with a single layer of hose and the reel is retracted at the rated speed (3:4), the reel can withstand the maximum tensile force of the hose:

maximum sustained load maximum sustained load the hose winch is in a braking state, and the drum can withstand the maximum pulling force of the first layer of hose:

emergency release load emergency release load During the export of crude oil, in order to prevent the drum from being damaged due to excessive tension on the hose, an emergency release device for the hose is installed: The emergency release device releases the hose:

The tension of the hose when releasing:

rated speed the maximum pipe retracting speed that the hose winch can maintain when it bears the rated load (3:1):

external pressure working pressure the maximum working pressure of the crude oil medium in the hose winch through-flow pipeline:

Capacity reel capacity the hose winch drum has the ability to store outbound hose:

Note: Pipe capacity refers to the total length that can store a certain external diameter of external hose: