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

GB/T 13407-2025

Replacing GB/T 13407-1992

Terminology for submersibles and underwater installations

潜水器与水下装置术语

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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 replaces GB/T 13407-1992 "Terminology for Submersibles and Underwater Devices". Compared with GB/T 13407-1992, the only differences are in the structural design. Aside from integration and editorial changes, the main technical changes are as follows:

- a) Change "submersible structure" to "submersible structural system" (see 3.1.3, 2.3 of the 1992 edition);
- b) Change "submersible systems and equipment" to "submersible mechanical systems", "submersible electrical systems", "submersible acoustic systems", or "submersible". Surface water system (see 3.1.4~3.1.7, 2.4 in the 1992 edition);
- c) Change "Submersible Accidents and Self-Rescue" to "Submersible Operating Modes, Accidents and Self-Rescue" (see 3.1.9, 2.5 of the 1992 edition);
- d) Change "submersible testing" to "submersible inspection, testing, and maintenance" (see 3.1.10, 2.6 of the 1992 edition);
- e) Add "Submersible Personnel" (see 3.1.11);
- f) Added the terms "observation-type remotely operated vehicle (ROV)", "operation-type ROV", "standard operation-type ROV", and "heavy-duty operation-type ROV". Remotely operated underwater vehicle (ROV), carrier-based submersible, biomimetic submersible,

underwater glider, mission time, working time, main dimensions, net "Weight", "Design Depth", "Design Pressure", "Speed", "Maximum Speed", "Cruising Speed", "Endurance", "Minimum Underwater Turning Radius", "Navigation" "Accuracy", "Depth Control Accuracy", "Altitude Control Accuracy", "Heading Control Accuracy", "Speed Control Accuracy", "Manned Cabin", "Pressurized Chamber" "Medical airlock", "buoyancy material components", "carrier frame", "lightweight outer shell", "traction eyeplate", "mooring point", "lifting point", "base support" "Embedded parts", "penetrating parts", "sealing parts", "adhesion", "deformation coordination", "hydraulic source", "hydraulic valve box", "discardable ballast device", "emergency float" "Specimen", "Explosion Bolt", "Working Tool", "Robot", "Robot Holding Tool", "Portable Tool", "Modular Tool Unit", "Sampling" "Basket", "Regulating cable", "Life support system", "Breathing gas supply device", "Carbon dioxide absorption device", "Thruster", "Battery pack" "Battery Management System", "Battery Box", "Battery Pack", "Battery System", "Power Battery System", "Control Battery System" Oil-immersed batteries, wireless charging technology, power distribution equipment, junction boxes, watertight junction boxes, underwater cameras, gimbals, and lighting equipment. Very High Frequency (VHF) Communication, Very Low Frequency (VLF) Communication, Ultra Low Frequency (ULF) Communication, Beacon, Timer, Transponder, Underwater Acoustic Transducer, Underwater Acoustic Emission "Hydrophone", "underwater acoustic communication device", "underwater acoustic telephone", "underwater acoustic positioning system", "ultra-short baseline system", "short baseline system", "long baseline system" "System", "Range Sonar", "Imaging Sonar", "Depth Sounding Side Scan Sonar", "Doppler Velocimeter", "Motion Control", "Rudder", "Horizontal Rudder", "Stabilization" "Wing", "Inertial Navigation System", "Altimeter", "Depth Gauge", "Temperature, Salt, and Depth Sensor", "Level Sensor", "Leakage Sensor", "Non-load-bearing Umbilical Cord" "With cable", "docking device", "control module", "near-bottom navigation", "hovering", "autopilot", "automatic orientation", "automatic speed control", "automatic positioning" "Deep," "Automatic Altitude Setting," "Bottom Sealing," "Adaptation to Seabed Micro-topography," "Cluster Operation," "Initial Inspection," "Formal Operation," and "Routine Maintenance" Overhaul, Annual Inspection, Dockside Inspection, Special Inspection, Service Extension, Decommissioning, Live Sealing Test, Load Test, Airtightness Test "Test", "Shutter water pressure test", "Continuous pressurization test", "Maximum speed test", "Navigation accuracy test", "Maneuverability test", "Endurance test" "Test", "Cybersecurity Test", "Environmental Adaptability Test", "Submersible Crew", "Crew Member", "Passenger", "Diver", "Operations Manager", "Remotely Operated Submersible" "Operator", "Remotely Operated Submersible Maintenance Personnel", "Underwater Laboratory", "Underwater Landing" (see 3.1.1.7~3.1.1.10, 3.1.1.20~) 3.1.1.22, 3.1.2.4~3.1.2.19, 3.1.3.2~3.1.3.4, 3.1.3.8~3.1.3.15, 3.1.3.8~3.1.3.19, 3.1.4.1, 3.1.4.2, 3.1.4.5, 3.1.4.7, 3.1.4.8, 3.1.4.12~3.1.4.22, 3.1.5.1~3.1.5.17, 3.1.6.1~3.1.6.16 3.1.7.1~3.1.7.10, 3.1.8.2, 3.1.8.1, 3.1.8.12, 3.1.9.1~3.1.9.10, 3.1.10.1~3.1.10.20, 3.1.11.1~3.1.11.7, 3.2.18, 3.2.19);

g) Changed "submersible", "manned submersible", "unmanned submersible", "tethered submersible", "untethered submersible", "remotely operated vehicle", and "autonomous vehicle". "Submersible", "Towed Submersible", "Deep-sea Rescue Submarine", "Diving Bell", "Life Bell", "Payload", "Pressure Hull", "Observation Window", "Adjustment" Definitions of the terms "deck ballast," "deck pressurization chamber," "underwater listening station," and "underwater habitation module" (see 3.1.1.1-3.1.1.6, 3.1.1.11), 3.1.1.12, 3.1.1.14, 3.1.1.18, 3.1.1.19, 3.1.2.2, 3.1.3.1, 3.1.3.5, 3.1.4.18, 3.1.8.10, 3.2.8, 3.2.10, The 1992 edition includes sections 2.1.1~2.1.6, 2.1.9, 2.1.10, 2.1.13, 2.1.21, 2.1.23, 2.2.3, 2.3.1, 2.3.9, and 2.4.21. 2.4.27, 3.8, 3.10);

h) The following terms have been removed. "tethered remotely operated vehicle," "untethered remotely operated vehicle," "wet submersible," "dual-function submersible," "submersible system," and "submersible." "Survivor Maneuver", "Observation-Working Diving Bell", "Personnel Carrier", "Observation Diving Bell", "Working Diving Bell", "Hovering Capability", "Pressure Resistance" "Ball", "Pressure shell connection", "Pressure shell welded connection", "Pressure shell bolted connection", "Pressure shell adhesive connection", "Pressure shell" "Clamp connection", "Pressure-resistant shell glass and metal connection", "Flat observation window", "Spherical observation window", "Conical observation window", "Water surface entry and exit" "Port", "Underwater entrance/exit", "Irreversible ballast system", "Reversible ballast system", "Gasoline buoyancy system", "Buoyancy regulating rubber bladder", "Weight" "Replacement system", "Weight replacement water tank", "Adjustable ballast water tank", "Jailable solid ballast", "Jailable ballast", "Variable ballast", "Water ballast" "Iron shot ballast", "saddle-shaped chamber", "electromagnetic anchor", "launching and recovery device", "bottom navigation system", "seabed collision avoidance system", "portable water supply" "System", "Submersible hangar", "Tanker thruster", "Rotating collar", "Submersible accident", "Ultra-deep", "Self-rescue measures", "Jailout of heavy objects", "Endurance" The term "compression shell hoisting test" (see sections 2.1.7, 2.1.8, 2.1.11, 2.1.17, 2.1.19, 2.1.20, and

1 Scope

GB/T 13407-2025 is the Chinese national standard on terminology for submersibles and underwater installations, in the field of shipbuilding and marine structures. The /T suffix marks it as a recommended standard: it is not compulsory by itself, but it becomes binding as soon as a contract, a tender or a customer specification calls it up - which in practice is how most foreign buyers meet it. It was issued on 31 October 2025 by the State Administration for Market Regulation; Standardization Administration of China, and has been in force since 1 May 2026. Classification: ICS 47.020.50, CCS U 04. This page is published from the official record of the standard held by the Chinese standards administration: the identification, the dates, the classification and the issuing body are taken from there. The clause text, the tables and the numeric limits are in the document itself, which is delivered complete in English translation.

This document defines the basic terminology and definitions for various types of submersibles and underwater devices. This document applies to the design, construction, and use of submersibles and underwater devices.

2 Normative references

This document has no normative references.

3.1.1 Classification of Submersibles

3.1.1.1 Submersible A general term for all kinds of underwater operating equipment.

3.1.1.2 manned submersible Submersibles carrying personnel.

3.1.1.3 Unmanned submersible Submersibles that do not carry personnel.

3.1.1.4 tethered submersible Submersibles equipped with either load-bearing or non-load-bearing cables.

3.1.1.5 Submersibles without load-bearing cables or non-load-bearing cables.

3.1.1.6 An unmanned underwater vehicle that does not carry personnel and is operated remotely by deck personnel.

Note. They are divided into observation-type remotely operated vehicles (ROVs) and operational-type ROVs.

3.1.1.7 Observatory ROV A remotely operated underwater vehicle (ROV) primarily used for underwater photography and real-time monitoring.

3.1.1.8 Work-class ROV Equipped with underwater camera systems, robotic arms, or other working tools, it can monitor underwater equipment in real time and perform maintenance, salvage, cutting, welding, and other tasks.