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

GB/T 30507-2014

**Ships and marine technology -- Lubricating and hydraulic oil
systems -- Guidance for sampling to determine cleanliness and
particle contamination**

船舶和海上技术 润滑油系统和液压油系统 颗粒污染物取样和清洁度判定导则
(English Translation)

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Table of Contents

- Foreword
- 1 Scope
- 2 Normative references
- 3 Dynamic Sampling
 - 3.1 Sampling device assembly
 - 3.2 Sampling

Foreword

This standard was drafted in accordance with GB/T 1.1-2009 given rules.

This standard uses the translation method identical with ISO 28523:2009 "Ships and marine technology lubricating oil and hydraulic oil system particles Emissions sampling and cleanliness determination Guidelines "(in English).

Correspondence between the consistency of the standards of international documents and normative references of the following documents.

GB/T 17484-1998 Hydraulic fluid sampling container cleaning methods to identify and control (idt ISO 3722. 1976) GB/T 17489-1998 Hydraulic Particulate contamination analysis extracted from the working fluid-like system piping (idt ISO 4021:1992) GB/T 14039-2002 Hydraulic fluid level of contamination by solid particles (ISO 4406:1999, MOD) GB/T 30508-2014 Ships and marine technology hydraulic oil system cleanliness level and flushing guidelines (ISO 28521:2009, IDT) this standard made the following editorial changes.

--- The pressure unit "bar" in terms of "MPa" (see Figure 5).

The standard proposed by China State Shipbuilding Corporation.

This standard by the National Marine Machinery Standardization Technical Committee (SAC/TC137) centralized.

This standard was drafted. China Shipbuilding Technology and Economy Research Institute, Ltd. auxiliary ocean-going vessels Sheyang, Jiangsu Huayang Heavy Industries Co., Ltd., Chongqing Hua Yu Electrical Instrument Factory, Shanghai Maritime Equipment Co., Ltd., Shanghai Mechanical & Electrical Engineering Motion Limited.

1 Scope

This standard specifies the method of dynamic or static extracting oil from the lubricating oil system and hydraulic system fluid sample.

When the need for lubricating oil and hydraulic oil systems fluid analysis, the need for proper sampling operation.

In order to obtain reliable and comparable results of the analysis, sampling should be carried out under specified conditions and operating environment.

When the system reaches operating temperature, from the turbulent state of the fluid samples, a process known as dynamic sampling. If not dynamic sampling can Samples were taken from the tank to the system, this method is called static sampling.

Note: Static sampling process, a size larger than 20µm rapidly precipitated particles.

This standard specifies the dynamic and static methods of sampling and sample bottling.

Extracting a sample through the filter with the "standard slide" in comparison, provide reference for device manufacturers to develop manual.

2 Normative references

The following documents for the application of this document is essential. For dated references, only the dated version suitable for use herein Member. For undated references, the latest edition (including any amendments) applies to this document.

ISO 3722 Hydraulic fluid sampling container cleaning methods to identify and control (Hydraulicfluidpower-Fluidsample containers-Qualifyingandcontrollingcleaningmethods) ISO 4021 Hydraulic particle contamination analysis - Extraction of fluid samples from the pipeline system (Hydraulicfluidpower-Particulate contaminationanalysis-Extractionoffluidsamplesfromlinesofanoperatingsystem) ISO 4406 Hydraulic fluid level of contamination by solid particles (Hydraulicfluidpower-Fluids-Method forcodingthelevelofcontaminationbysolidparticles) ISO 28521 Ships and marine technology hydraulic oil system cleanliness level and flushing guidelines (Shipsandmarinetechology-Hydraulicoilsystems-Guidanceforgradesofcleanlinessandflushing)

3.1 Sampling device assembly

3.1.1

If the sampling device can be installed in the system piping turbulent state, the sampling device is installed in Figure 1.

3.1.2

If sampling can not be installed directly in the pipeline means, you can install a T-fitting in the turbulent state of the pipeline system, and the taking Like device is mounted on a T-joint (see Figures 1 and 2).

3.1.3

sampling means comprises a thin flexible catheter. In order to obtain a proper flow rate at the time of sampling, the inner diameter and the total length of the catheter should meet Fit certain requirements. According to the provisions of ISO 4021, the diameter of the catheter should not be less than 1.25mm.

3.2 Sampling

3.2.1

Sampling should comply with the following steps.

a) extracting a sample from a running system;