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

GB/T 42087-2022

**Hydraulic fluid power - System - Clean-up procedures and
verification of cleanliness method**

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foreword

This document is in accordance with the provisions of GB/T 1.1-2020 "Guidelines for Standardization Work Part 1. Structure and Drafting Rules for Standardization Documents" drafting.

This document is equivalent to ISO 16431:2012 "Cleaning Procedures for Hydraulic Transmission System and Inspection of System Assembly Cleanliness".

The following minimal editorial changes have been made to this document.

--- In order to coordinate with existing standards, change the name of the standard to "Cleaning Procedures and Cleanliness Inspection Methods for Hydraulic Transmission Systems".

Please note that some contents of this document may refer to patents. The issuing agency of this document assumes no responsibility for identifying patents.

Introduction

In a hydraulic system, power is transmitted and controlled by means of pressurized fluid in a closed circuit.

The initial cleanliness of a hydraulic system can affect its performance and service life. Contaminants introduced by manufacturing and assembly can be

Circulate in the system and cause damage. In order to avoid this damage, the hydraulic system oil and inner surface must be filtered and cleaned to achieve the required cleanliness.

Spend. This document describes the use of filters to clean hydraulic systems after assembly, but this method does not replace

Prior to assembly, use other methods that better enable the system to achieve and maintain the target cleanliness.

hydraulic transmission system

Cleaning procedures and cleanliness inspection methods

1 Scope

The methods described in this document apply to.

- a) Inspection of oil pollution degree of hydraulic system assembly;
- b) Verification of the target cleanliness of the hydraulic system before leaving the factory;
- c) If necessary, purging the hydraulic system to target cleanliness.

The cleaning steps specified in this document are not intended to replace a suitable system cleaning procedure, see ISO 23309 for system cleaning procedures. hydraulic

Parts and components used in the system should be cleaned before assembly, see ISO 18413 for guidelines.

2 Normative references

The contents of the following documents constitute the essential provisions of this document through normative references in the text. Among them, dated references

For documents, only the version corresponding to the date is applicable to this document; for undated reference documents, the latest version (including all amendments) is applicable to

this document.

Note. GB/T 17484-1998 Identification and Control of Purification Methods for Hydraulic Oil Sampling Containers (idt ISO 3722.1976)

Note. GB/T 17489-1998 Hydraulic Particle Contamination Analysis Extract liquid samples from working system pipelines (idt ISO 4021.1992)

ISO 4407 Method for determination of degree of particle contamination by optical microscope for contamination of hydraulic transmission fluids (Hydraulic fluid pow-optical microscope)

Note. GB/T 20082-2006 hydraulic transmission liquid pollution using optical microscope to determine the method of particle pollution (ISO 4407.2002, IDT)

Note. GB/T 17446-2012 Fluid Power System and Component Vocabulary (ISO 5598.2008, IDT)

ISO 11500 Hydraulic transmission uses the automatic particle counting method of the shading principle to determine the particle pollution degree of liquid samples (Hydraulic fluid

Note. GB/T 37163-2018 hydraulic transmission adopts the automatic particle counting method of the shading principle to determine the particle pollution degree of liquid samples (ISO 11500.2008,

MOD)

Note. GB/T 37162.1-2018 Monitoring of Particle Pollution Degree of Hydraulic Transmission Liquid Part 1. General Rules (ISO 21018-1.2008, MOD)

3 Terms and Definitions

The terms and definitions defined in ISO 5598 and the following apply to this document.