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NATIONAL STANDARD OF THE PEOPLE'S REPUBLIC OF CHINA

GB/T 13854-2025

Replacing GB/T 13854-2008

Jet-pipe electro-hydraulic servo valve

射流管电液伺服阀

Issued on: August 29, 2025 **Implemented on: March 1, 2026**

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Standardization Administration of China

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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 13854-2008 "Electro-hydraulic Servo Valves for Jet Tubes". Compared with GB/T 13854-2008, the main differences are structural adjustments and... Aside from editorial changes, the main technical changes are as follows:

a) The resolution terminology has been changed (see 3.1.5,.2008 version 3.1.5);

b) Forward and reverse resolutions have been removed (see versions

3.1.7 from.2008);

c) The amplitude ratio has been removed (see

3.1.24 in the.2008 edition);

d) Added the terms zero-point flow fluctuation and valve spool drive force (see

3.1.24 and 3.1.25);

e) An additional 35 MPa rated pressure has been added (see 4.2.2);

f) A zero-point flow fluctuation performance index has been added (see Table 8);

g) The low-temperature start-up requirements have been changed (see 5.4.1,.2008 version 5.4.1);

h) The high and low temperature requirements have been changed (see 5.4.2,.2008 version

5.4.2);

i) Electromagnetic compatibility requirements have been added (see 5.4.10);

1 Scope

GB/T 13854-2025 is the Chinese national standard on jet-pipe electro-hydraulic servo valve, 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 29 August 2025 by the State Administration for Market Regulation; Standardization Administration of China, and has been in force since 1 March 2026. Classification: ICS 47.020.30, CCS U 57. 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 specifies the classification, requirements, inspection rules, marking, packaging, transportation, and storage of jet tube electro-hydraulic servo valves (hereinafter referred to as servo valves). The document describes the corresponding experimental methods. This document applies to the design, manufacture, and inspection of various types of jet-tube flow control electro-hydraulic servo valves that use hydraulic oil as the medium. Other types Refer to the usage guidelines for the jet tube electro-hydraulic servo valve.

2 Normative references

The contents of the following documents, through normative references within the text, constitute essential provisions of this document. Dated citations are not included. For references to this document, only the version corresponding to that date applies. For undated references, the latest version (including all amendments) applies. This document.

GB/T 2423.4-2008 Environmental testing of electrical and electronic products - Part

3.1 Terms and Definitions The terms and definitions defined in

GB/T 17446-2024, as well as the following terms and definitions, apply to this document.

3.1.1 The preamplifier stage is an electro-hydraulic servo valve with a jet tube.

3.1.2 pressure gain The rate of change of load voltage drop with respect to input current when the control flow is zero.

4 Emissions in industrial environments

GB/T 20082-2006 Method for determining particulate contamination levels in hydraulic transmission fluids using optical microscopy