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ICS 47.020.20
CCS U48

CB

INDUSTRY STANDARD OF THE PEOPLE'S REPUBLIC OF CHINA

CB/T 4530-2023

Calculation of Longitudinal Vibration of Marine Diesel Engine Shafting

船舶柴油机轴系纵振计算

(English Translation)

Issued on: April 21, 2023 **Implemented on: November 1, 2023**

Issued by: Ministry of Industry and Information Technology of the People's Republic of China

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1 Foreword

CB/T 4530-2023 was issued by Ministry of Industry and Information Technology of the People's Republic of China on 21 April 2023 and has been in force since 1 November 2023.

The CB/T prefix marks a recommended standard. It is not law in itself: it becomes binding when a contract names it, when a regulation or a mandatory standard refers to it, or when a producer declares conformity with it.

The document runs to 15 pages in English translation.

2 Scope Preview

This standard specifies the calculation method for longitudinal vibration of ship diesel engine direct drive and gear drive propulsion shafting, mainly including the basic principles of longitudinal vibration, conversion of longitudinal vibration equivalent system, calculation of natural vibration frequency and mode shape of longitudinal vibration, and excitation force of longitudinal vibration. Calculation, damping of longitudinal vibration, forced response of longitudinal vibration, allowable amplitude of longitudinal vibration, etc. This standard is

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applicable to the theoretical calculation of longitudinal vibration of ship diesel engine propulsion shafting. The calculation of longitudinal vibration of shaft systems of gas turbines, electric propulsion and other types can be carried out by reference.

CB/T 4530-2023 falls under ICS 47.020.20, in the field of shipbuilding and marine structures.

This catalogue holds 52 other CB/T standards in that field.

In this catalogue, CB/T standards carry edition years from 1991 to 2025.

3 About this standard

Sector: Shipping Industry Standard (Recommended)

Issued by: Ministry of Industry and Information Technology of the People's Republic of China

English translation: about 15 pages (approximate)

4 Related standards

Standards on related subjects:

GB/T 37452-2019 - Wire rope selection methods for offshore cranes

CB/T 4197-2011 - The technical specifications of turbochargers used for marine diesel engines

GB/T 11865-2008 - Marine centrifugal fans

CB/T 4529-2023 - Calculation method of whirling vibration of ship propulsion shafting

CB/T 3892-2019 - Chinese standard

CB/T 4458-2016 - Airborne volatile organic compounds online gas chromatograph

5 Classification and status

International classification (ICS): 47.020.20

Chinese Standard Classification (CCS): U 48

Prefix CB/T: recommended standard.

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