

CCS U 18



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

GB/T 19322.1-2021

**Small craft - Airborne sound emitted by powered recreational
craft - Part 1: Pass-by measurement procedures**

Issued on: October 11, 2021

Implemented on: May 1, 2022

**Issued by: State Administration for Market Regulation, China National
Standardization Administration**

Table of Contents

Foreword

7.1 in.2008);

Introduction

1 Scope

2 Normative references

3 Terms and definitions

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 of Standardization Documents"

Drafting.

This document is the first part of GB/T 19322 "Air Noise of Small Boat Motor Yacht". GB/T 19322 has released the following

part.

---Part 1. Pass the measurement procedure;

---Part 2. Use standard boats for noise assessment;

---Part 3. Use calculation and measurement procedures for noise assessment.

This document replaces GB/T 19322-2008 "Determination of Air Noise from Small Boat Motor Yachts", compared with GB/T 19322-2008,

In addition to structural adjustments and editorial changes, the main technical changes are as follows.

a) "The source of each uncertainty" is changed to "Individual uncertainty", and the requirement is changed from 8 to 5 (see Table 1, .2008 version of Table 1);

b) The requirements for the engine tachometer have been revised from "Accuracy within $\pm 50\text{r/min}$ " to "Uncertainty within $\pm 2\%$ " (see 7.1,

7.1 in.2008);

c) The relevant requirements for environmental conditions have been revised (see 8.2, 8.2 in the.2008 edition);

d) The recording requirements for fuel quantity have been added (see Chapter 12);

e) The classification of the propulsion power of outboard motors has been increased from 55 to 115, the requirements for length and weight of the boat have been modified, and the requirements for boat width have been deleted (see

Table 4, Table 3 of the.2008 edition);

f) The source and standard deviation value of the standard deviation for reproducibility have been modified (see Table A.1, Table A.1 in the.2008 edition).

The translation method used in this document is equivalent to ISO 14509-1.2008 "Airborne Noise of Small Boat Motor Yachts Part 1.Passing Measurements"

program".

The Chinese documents that have consistent correspondence with the normatively cited international documents in this document are as follows.

---GB/T 3785.1-2010 Electroacoustic Sound Level Meter Part 1.Specification (IEC 61672-1.2002, IDT);

---GB/T 15173-2010 Electroacoustic Sound Calibrator (IEC 60942.2003, IDT);

---GB/T 11700-2009 Measurement and calibration of power of propulsion reciprocating internal combustion engine for small craft (ISO 8665.2006, IDT);

---GB/T 16696-2008 small boat hull identification code (ISO 10087.2006, IDT).

Introduction

Noise can cause irritability and even endanger human health.

It is necessary for shore personnel to evaluate the noise of motor yachts to monitor their noise emission indicators, and then provide research for noise control of boats.

Study the basics.

GB/T 19322-2003 is equivalent to ISO 14509.2000.ISO 14509.2000 was revised in.2003.

This standard was revised into three parts, and Part 2, Part 1, and Part 3 were released in.2006,.2008, and.2009 respectively. Therefore,

GB/T 19322 is correspondingly changed to three parts.

---Part 1.Pass the measurement procedure;

---Part 2.Use standard boats for noise assessment;

---Part 3.Use calculation and measurement procedures for noise assessment.

Air noise of small boat motor yacht

Part 1. Pass the measurement procedure

1 Scope

This document stipulates that when measuring the maximum sound pressure level of air noise in a motor yacht with a hull length not greater than 24m, the acquisition can be repeated

And the conditions under which the measurement results can be compared. These boats include inboard motor boats, stern-drive boats, personal boats (PWC) and outboard motor boats. This document

It also stipulates the type test of the stern-drive boat with integrated exhaust system based on the standard boat and the type test of the outboard motor boat. In addition, this document also

In addition to the maximum sound pressure level, the procedures to be followed for the determination of the sound exposure level are specified.

Note. For boats other than those specified above, ISO 2922 is used for radiated noise measurement.

The accuracy level of the acoustic test procedure specified in this document is the engineering level (level 2).

2 Normative references

The content of the following documents constitutes an indispensable clause of this document through normative references in the text. Among them, dated quotations

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.

GB/T 19916-2005 Main data of small craft (ISO 8666.2002, IDT)

ISO 8665. Measurement and calibration of power of propulsion reciprocating internal combustion engine for small boats and ships (Smallcraft-Marinepropulsion

reciprocatinginternalcombustionengines-Powermeasurementsanddeclarations)

ISO 10087 Small craft hull identification code (Smallcraft-Craft identification-Codingsystem)

IEC 60942 Electroacoustics-Soundcalibrators

IEC 61672-1 Electroacoustic Sound Level Meter Part 1. Specification
(Electroacoustics-Soundlevelmeters-Part 1.

Specifications)

3 Terms and definitions

The following terms and definitions apply to this document.

3.1

Type test for yachts typetestforrecreationalcraft

In order to verify the noise of the boat in motion, the noise of the standard outboard motor or the noise of the tail drive of the standard boat with an integrated exhaust system, comply with

Measurements performed on noise technical requirements or specified limits.

Note. See also the definition of ISO 2922 "Acceptance Test".

3.2

Yacht's monitoring test monitoringtestforrecreationalcraft

In order to check the noise of the boat in motion, the noise of the standard boat's outboard engine or the noise of the standard boat's tail engine drive with an integrated exhaust system, the noise is still

Within the stated limits, and since the initial delivery or after the modification (if applicable) after no significant changes in the measurement.

Note 1. In the event of major changes, a type test may be required.

Note 2. See also the definition of "monitoring test" in ISO 2922.