FINAL
DRAFT

AMENDMENT

ISO 11591:2020 FDAM 1

ISO/TC **188**

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Small craft — Field of vision from the steering position

AMENDMENT 1

Petits navires — Champ de vision depuis le poste de pilotage

AMENDEMENT 1

ISO/CEN PARALLEL PROCESSING

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This document was prepared by Technical Committee ISO/TC 188, *Small craft*, in collaboration with the European Committee for Standardization (CEN) Technical Committee CEN/TC 464, *Small Craft*, in accordance with the Agreement on technical cooperation between ISO and CEN (Vienna Agreement).

Any feedback or questions on this document should be directed to the user's national standards body. A complete listing of these bodies can be found at www.iso.org/members.html.

Small craft — Field of vision from the steering position

AMENDMENT 1

Clause 2

Remove the following normative references:

ISO 8666:2016, *Small craft — Principal data*

ISO 10240:2019, *Small craft — Owner's manual*

4.2

Add after 4.2.2.2 the following text:

4.2.2.3 Annex A sets the procedure and methods to determine the level reference line and to verify the field of vision in the vertical field for power-driven craft with steering wheel or equivalent fixed installed direct control, which shall be followed.

8.1

Remove the following text:

The owner's manual shall be in accordance with ISO 10240:2019 and shall include the following information.

In place of the removed text, add the following text:

An owner's manual shall be provided with the craft and shall include the following information.

8.2

Remove the following text:

The owner's manual shall be in accordance with ISO 10240:2019 and shall include the following information.

In place of the removed text, add the following text:

An owner's manual shall be provided with the craft and shall include the following information.

8.3

Remove the following text:

The owner's manual shall be in accordance with ISO 10240:2019 and shall include the following information.

In place of the removed text, add the following text:

An owner's manual shall be provided with the craft and shall include the following information.

After 8.3

Add the following new subclause:

8.4 General information

NOTE Requirements for the owner's manual are provided in ISO 10240.

Annex A

Add the following annex.

Annex A
(normative)

Procedure and methods to determine the level reference line and to verify the field of vision in the vertical field for power-driven craft with steering wheel or equivalent fixed installed direct control

A.1 General

Table A.1 describes the procedure and methods to determine the level reference line and to verify the field of vision

Table A.1 — Procedure to determine the level reference line

Procedure	Method
Step 1: Determine level reference line	Either: — practical method A.2.2; or — a computer aided design (CAD) method.
Step 2: Verify field of vision	Either: — practical method A.4; or — CAD method A.5.
NOTE In general, a CAD method is the use of a computer to design a device or a system, display it on a computer monitor or printer, simulate its operation and provide statistics on its performance. The computer is provided with data concerning the item to be designed, how it is to function and the rules for the way in which the different components can be joined.	

A.2 Procedure to determine the level reference line

A.2.1 Methods available

One of the following methods shall be used to determine the level reference line:

a) the practical method described in A.2.2; or

b) a CAD method.

A.2.2 Practical method to determine the level reference line

A.2.2.1 The craft shall be tested in the performance test mass condition (m_P), see ISO 8666:2020, 6.4.

A.2.2.2 Testing shall be conducted on calm water with the wind speed below 18 km/h (10 knots) and maximum wave height of $L_H/75$ m or 0,2 m, whichever is the highest.

NOTE Wave height is the vertical distance between the lowest point of a wave to the highest point.

A.2.2.3 The craft shall be tested from idle up to the maximum full throttle craft speed in two opposite directions.

A.2.2.4 During the test, the following parameters shall be recorded:

a) speed (knots);

b) trim angle related to speed (knots);

c) trim tab usage related to speed (knots).

A.2.2.5 The maximum running trim angle value recorded during the two test runs shall be used as level reference line. Any high trim angles resulting from the transition between displacement and planing mode may be excluded and shall not be used as level reference line.

For planing boats, the transition between displacement and planing mode can be dependent on the installed propulsion system. Therefore, care shall be taken in the evaluation of the field of vision in cases where different power rated propulsion systems are recommended.

A.2.3 Computer aided design (CAD) method to determine the level reference line

The simulation of the craft shall be assessed in the performance test mass condition (m_P).

A.3 Procedure to verify the field of vision in the vertical field

One of the following methods shall be used to verify the field of vision in the vertical field:

a) the practical method described in A.4; or

b) the CAD method described in A.5.

A.4 Practical method to verify the field of vision in the vertical field

A.4.1 Set the boat on a cradle (or some other support) on a level surface with at least four boat lengths or 50 m, whichever is less, of unobstructed level space forward of the boat.

A.4.2 Support the hull at the level reference line consistent with the highest running trim angle recorded in A.2.2.5.

A.4.3 Determine the waterline at the level reference line established in A.2.2.5. Measure the distance from the waterline to the ground.

A.4.4 Set up a 0,15 m ± 0,005 m diameter target at the height above ground as determined in A.4.3.

A.4.5 Any part of the target shall not exceed the vertical vision distance specified in 4.2.2.2.

A.5 Computer aided design method

A.5.1 Simulate the craft established in the level reference waterline determined by procedure in Step 1 of Table A.1. This shall be the hull at a trim angle consistent with the highest running trim angle recorded in A.2.2.5 or by A.2.3 for the CAD method.

A.5.2 Simulate compliance for the field of vision in the vertical field as specified in 4.2.2.2.

A.6 Information to be included in the owner's manual

If the use of trim tabs and/or power trim is necessary to meet the visibility requirements, instructions for the proper use of this equipment shall be included in the owner's manual(s).

Bibliography

Add the following entries:

[1] ISO 10240, *Small craft — Owner's manual*

[2] ISO 8666, *Small craft — Principal data*

Annex ZA
(informative)

Relationship between this European Standard and the essential requirements of Directive 2013/53/EU aimed to be covered

This European Standard has been prepared under a Commission's standardization request M/542/C(2015) 8736 final to provide one voluntary means of conforming to essential requirements of Directive 2013/53/EU.

Once this standard is cited in the Official Journal of the European Union under that Directive, compliance with the normative clauses of this standard given in Table ZA.1 confers, within the limits of the scope of this standard, a presumption of conformity with the corresponding essential requirements of that Directive, and associated EFTA regulations.

Table ZA.1 — Correspondence between this European Standard and Annex I and Annex II of Directive 2013/53/EU

Essential Requirements of Directive 2013/53/EU	Clause(s)/sub-clause(s) of this EN	Remarks/Notes
I.A.2.4 — Visibility from the main steering position	1, 2, 3, 4, 5, 6, 7, Annex A	This Standard specifies the field of vision requirements from the main steering position, both forward and astern, in the horizontal and vertical planes for recreational craft as specified in Article 3(2) of Directive 2013/53/EU that fall within its scope.
I.A.2.5 - Owner's manual	8	

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WARNING 2 — Other Union legislation may be applicable to the product(s) falling within the scope of this standard.