

Meeting Report  
ISO Technical Committee 188, Subcommittee 2, Work Group 3  
Amsterdam, The Netherlands  
November 15, 2018

Technical Committee 188, Subcommittee 2, Work Group 3 – Steering Gear

In attendance were experts from Italy, Belgium, Sweden, Finland, Netherlands, United States, SIS/Sweden (ISO TC188 secretariat) and the HAS consultant.

New project leader is now Tom Ward, Sea Star Solutions.

The WG reviewed the RCD safety requirements on steering systems and emergency arrangements.

ISO 23411 – Steering Wheels

1. Defined steering helm: operator input device for control of steering.
2. Changed the axial load test force from 667 N to 670 N.
3. For the axial load test, permanent deformation greater than 25mm (for wheels less than 610mm diameter) and 50mm (for wheels greater than 610mm diameter) is failure.
4. Changed the tangential load test from 445 N to 450 N.
5. The WG will look to provide tolerances to all test requirements.
6. Next action: Send the CD to the WG for a two-week comment period and to the HAS consultant for development of the Annex ZA, then submit to the ISO secretariat as a DIS.

ISO 8848 – Remote Steering Systems

7. Modified the scope to eliminate the redundant statement concerning steering systems for single outboard engines of 15kW to 40kW. The standard covers steering systems up to the point of connection to the outboard or stern drive. It does not cover means for emergency steering.
8. Defined light duty (for 15 kW to 40kW engines) and standard duty mechanical remote steering systems.
9. Added the impact test, similar to that in ISO 23411, Steering wheels, for steering systems defined in this standard.
10. Will reference ISO 8665, Marine propulsion RICE power measurements and determinations, for power definitions.
11. Added that steering systems are capable of withstanding a storage temperature of -40C to 85C for 1 week. Changed the maximum operating temperature from 100C to 80C.

12. Installed cables shall be not be smaller than the manufacturer's recommended minimum.
13. All systems shall comply with the 65mm clearance between the control lever and steering wheel under all possible wheel and lever positions.
14. Next Action: Convener to complete all edits and send to WG for a review of all revisions. Then send the document to ISO secretariat for a DIS ballot.

#### ISO 10592 – Hydraulic steering systems

15. This standard addresses manual hydraulic systems and the hydraulic portions of hybrid steering systems.
16. The standard covers craft with multiple (4) engine configurations.
17. Redefined burst pressure as a release of hydraulic pressure.
18. The WG will need to write the requirements for multiple (4+) engine configurations. Volvo to lead the project.
19. For system peak design pressure, added a tolerance of +/- 5N.
20. Next Action: Convener to complete all edits and homework, then send the CD to the WG for another review.

#### ISO 8847 – Cable and pulley systems

21. No comments were received from WD review.
22. Next Action: Submit to ISO secretariat for a CD review.

Next Meeting: No WG meetings will be scheduled for boot Dusseldorf. The next meeting is tentatively scheduled for ISO Standards Week, June 2019 in Toronto, Canada.

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