

MSC Guidelines for Review of Stability for Sail Passenger Vessels (T)

Procedure Number: H1-06

Revision Date: 11/19/99

References

- a. 46 CFR Subchapter S, Parts 170, 171
 - b. 46 CFR Subchapter T, Parts 178, 179
 - c. COMDTINST M16000.9, Marine Safety Manual, Vol. IV, Section 6.E.3, Section 6.E.12.c and d
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Disclaimer

These guidelines were developed by the Marine Safety Center staff as an aid in the preparation and review of vessel plans and submissions. They were developed to supplement existing guidance. They are not intended to substitute or replace laws, regulations, or other official Coast Guard policy documents. The responsibility to demonstrate compliance with all applicable laws and regulations still rests with the plan submitter. The Coast Guard and the U. S. Department of Homeland Security expressly disclaim liability resulting from the use of this document.

Contact Information

If you have any questions or comments concerning this document, please contact the Marine Safety Center by e-mail or phone. Please refer to the Procedure Number: **H1-06**.

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General Review Guidance

If the vessel's stability is being reviewed under Navigation and Vessel Inspection Circular (NVIC) No. 3-97, "Stability Related Review Performed by the American Bureau of Shipping for U.S. Flag Vessels" (<http://www.uscg.mil/hq/g-m/nvic/index90.htm#1997>), then MSC review of stability items is not required.

Check that the following items are included in the submittal package:

General Arrangement, and profiles (with compartmentation)

Lines plan or model on computer disc (GHS is preferred)

Hydrostatics or Curves of Form

Tank Capacity Tables

Sail Plan

- Ensure that sail areas used in stability analysis match sail areas shown on sail plan.

Fixed Ballast Plan or Listing (if applicable)

- Ensure that fixed ballast shown on ballast plan or listing matches fixed ballast used in light ship calculation.

Calculation of light ship values from stability test data

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Intact Stability

Check that the following items are included in the submittal package:

- ❑ Calculations demonstrating compliance with 46 CFR 170.170 (Weather Criteria) (Bare Poles for vessels with auxiliary engines and storm sail arrangement for vessels with no auxiliary power)
- ❑ Calculations demonstrating compliance with 46 CFR 170.173 (Righting Energy Criteria) (only if vessel has auxiliary power)
- ❑ Calculations demonstrating compliance with 46 CFR 171.050 (Passenger Heel Criteria) (only if vessel has auxiliary power)
- ❑ Calculations demonstrating compliance with 46 CFR 171.055 (Intact Stability) (Only if vessel is a monohull sail vessel)
- ❑ Calculations demonstrating compliance with 46 CFR 171.057 (Intact Stability) (Only if vessel is a catamaran sail vessel)
- ❑ Location of downflooding points

Ensure drainage of weather decks in accordance with 46 CFR 178 Subpart D

Damage Stability/ Subdivision

Check that the following items are included in the submittal package:

- ❑ Calculations demonstrating compliance with 46 CFR 171.070 (Subdivision) (Only if vessel is a monohull greater than 65 feet or monohull carrying more than 49 passengers)
- ❑ Calculations demonstrating compliance with 46 CFR 171.080 (Damage Stability) (Only if vessel is a monohull greater than 65 feet or carries more than 49 passengers)
- ❑ Calculations demonstrating catamaran equivalence to subdivision (Only if vessel is a catamaran greater than 65 feet or carries more than 49 passengers)
- ❑ Calculations demonstrating compliance with catamaran one-compartment damage stability (Only if vessel is a catamaran greater than 65 feet or carries more than 49 passengers)

Ensure that the correct compartments have been damaged for one-compartment damage in the damage stability analysis.

Ensure watertight bulkhead spacing is in compliance with 46 CFR 179.212.

Hull Model

The MSC will generate a hull model from the lines, offsets or provided computer disk using GHS to verify the stability of the vessel.
