

Commanding Officer United States Coast Guard Marine Safety Center US Coast Guard Stop 7430 2703 Martin Luther King Jr. Ave SE Washington, DC 20593-7430 Staff Symbol: MSC-1 Phone: (202) 795-6729 Email: msc@uscg.mil

STABILITY LETTER

16710/P005654 Serial: H1-2304439 January 3, 2024

Master, EAST WIND, O.N. 1089463 Gold Coast Yachts Hull No. GCY62CDC01199 62.0' x 30.0' x 8.0' Auxiliary Sailing Catamaran Small Passenger Vessel (T)

You are responsible for maintaining this vessel in a satisfactory stability condition at all times and for following the instructions and precautions listed below. You are reminded that 46 CFR 185.315 requires you to verify your compliance with these instructions and precautions after loading and prior to departure on each voyage.

A deadweight survey, witnessed by the U.S. Coast Guard, was conducted on the EAST WIND, O.N. 1089463, at St. Croix, US Virgin Islands, on November 24, 1999. On the basis of that survey, and a conservative estimate of the vessel's lightship vertical center of gravity, stability calculations have been performed. Results indicate that the stability of EAST WIND, as presently outfitted and equipped, is satisfactory for operation on Partially Protected Waters, provided that the following restrictions are observed.

DAMAGE SURVIVAL

When operated as indicated below, calculations indicate this vessel will stay upright (no more than 15 degrees of list under ideal conditions) after side or bottom damage, when the damage is limited to any one major compartment in either hull and not more than 2 feet 0 inches inboard from the side of either hull or 2 feet 6 inches upward from the bottom of either hull. A major compartment is the total space between any two adjacent Main Transverse Watertight Bulkheads (MTWBs). For this vessel, the MTWBs are located at the following longitudinal locations aft of the bow in each hull: 6 feet 0 inches, 24 feet 0 inches, 36 feet 0 inches (in the starboard hull), 40 feet 0 inches (in the port hull), 50 feet 0 inches, and 56 feet 0 inches.

Calculations further indicate this vessel will remain afloat and upright when damage is limited to both hulls (concurrently) forward of the collision bulkheads, which are located 6 feet 9 inches aft of the bow. To maintain the vessel upright after flooding (damage), the heeling forces imposed by wind, wave, and passenger movements must be minimized. The calculations do not specifically account for high winds, heavy seas, or the movement of passengers to one side.

OPERATING RESTRICTIONS

1. <u>ROUTE</u>: Operation on Partially Protected Waters may be permitted. Since the vessel's route is based upon other considerations in addition to stability, you are cautioned the route may be further limited to that specified on the Certificate of Inspection (COI).

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- 2. <u>PERSONNEL</u>: A maximum of 85 persons may be carried on this vessel, of which 80 may be passengers. These numbers are based on an average weight of 185 pounds per person. Since the personnel capacity is based upon other considerations in addition to stability, you are cautioned the number of persons carried and their distribution may be further limited to that specified on the COI.
- 3. <u>FREEBOARD AND DRAFT</u>: A minimum freeboard of 5 feet 0-1/8 inches to the main deck at amidships must be maintained. This corresponds to a maximum baseline (mean) draft of 2 feet 3-5/8 inches. Amidships is located 30 feet 9 inches aft of the bow. Trim and list should be minimized.
- 4. <u>WATERTIGHT DOORS AND BULKHEADS</u>: There are no doors located in any MTWBs. No watertight doors or bulkheads shall be added, removed, or altered without the authorization and supervision of the cognizant Officer in Charge, Marine Inspection (OCMI).
- 5. <u>COLLISION BULKHEAD</u>: The collision bulkheads located 6 feet 9 inches aft of the bow in each hull shall not be removed or altered without the authorization and supervision of the cognizant OCMI.
- 6. <u>HULL OPENINGS</u>: Any openings that could allow water to enter the hull should be kept closed when rough weather or sea conditions exist or are anticipated.
- 7. <u>WEIGHT CHANGES</u>: This stability letter has been issued based upon the following lightship parameters:

Displacement	11.72	Long Tons (LT)
VCG (Conservative Estimate)	6.70	Feet Above the Design Waterline
LCG	32.00	Feet Aft of the Bow
TCG	0.00	Feet off Centerline

Any alteration resulting in a change in these parameters may invalidate this stability letter. The vessel is not fitted with fixed ballast. No fixed ballast or other such weights shall be added, removed, altered, and/or relocated without the authorization and supervision of the OCMI.

- 8. <u>TANKS</u>: Any cross-connections between port and starboard tank pairs shall be kept closed at all times when underway.
- 9. <u>SAILS</u>: The sails which may be set are limited to those shown on the sail plan, dated December 14, 1999, bearing the U. S. Coast Guard Marine Safety Center approval stamp dated December 29, 1999. That plan must be maintained onboard the vessel, in a suitable location, at all times.
- 10. <u>BILGES</u>: The vessel's bilges and voids shall be kept pumped to minimum content at all times consistent with pollution prevention requirements.

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- 11. <u>LIST</u>: You should make every effort to determine the cause of any list of the vessel before taking corrective action.
- 12. <u>FREEING PORTS</u>: Deck freeing ports and drains shall be maintained operable and completely unobstructed at all times.

This stability letter shall be posted under glass or other suitable transparent material at the operating station so all pages are visible. It supersedes any stability guidance previously issued to the vessel.

Z. B. ROBERTSON

Lieutenant Commander, U. S. Coast Guard

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By direction



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Walworth Yacht Designs P.C. Attn: Mr. David Walworth, P.E. PO Box 3792 Kingshill, VI 00851 david@walworthdesigns.com

Subj: EAST WIND, O.N. 1089463

Gold Coast Yachts Hull No. GCY62CDC01199

62.0' x 30.0' x 8.0' Auxiliary Sailing Catamaran Small Passenger Vessel (T) Stability and Lightship Characteristics – Weight Changes

Stability and Lightship Characteristics – weight Changes

Ref: (a) Walworth Yacht Designs (WYD) Doc., "S/V Eastwind, project #P005654,
 O.N. 1089463 repower weight change," 2 pages, dated December 12, 2023

- (b) East Island Excursions Doc., "Engine sled weight change statement," 2 pages, received December 12, 2023
- (c) WYD Doc., "Weight Change Calculations S/V Eastwind," 1 sheet, received December 12, 2023
- (d) Marine Safety Center Technical Note 04-95, CH-2 "Lightship Change Determination; Weight-Moment Calculation vs. Deadweight Survey vs. Full Stability Test," dated January 11, 2016
- (e) Our letter Serial No. H1-1103963 dated November 30, 2011
- (f) Email from Mr. D. Walworth to LCDR J. Hinton (MSC) received December 28, 2023

Dear Mr. Walworth:

We reviewed references (a) through (c), submitted by your electronic correspondence dated December 12, 2023 (MSC Document Nos. 2319117 and 2319118), for compliance with 46 CFR Subchapters T and S. References (a) through (c) are **Examined** and forwarded to the cognizant Officer in Charge, Marine Inspection (OCMI) for final approval. As these documents detail a proposed alteration to a certificated vessel, it requires judgement/OCMI authority for final approval in accordance with 46 CFR 176.700. As with all calculations, the responsibility for their accuracy rests with the submitter. The following comments apply:

1. In accordance with the guidance of reference (d), deadweight surveys are generally required when the total aggregate weight change (sum of weights added, weights relocated, and weights removed) exceeds 2% of the lightship displacement last determined by test or when the longitudinal center of gravity (LCG) shifts by more than 1% of the vessel's length between perpendiculars (LBP). As the weights and centers of gravity of the items replaced on the subject

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vessel are known, they are not included in the aggregate weight calculations, and the changes fall below the limits outlined in reference (d). Therefore, a new stability test is not required at this time.

2. Any future weight changes evaluated must include the total aggregate weight changes from the lightship values of the last stability test, not from the revised lightship characteristics determined by our independent calculations. The following table identifies the lightship values of the last stability test, all weight changes since the date of the last stability test, and the revised lightship values incorporating the weight changes.

Known/ Unknown	Date	Description	Displacement / Weight	LCG (Aft of the Bow)	TCG (Off Centerline)	VCG (Above the Baseline)
Known	11/30/11	Lightship Values - Last Stability Test	26,250 lbs	32.00 ft	0.0 ft	6.70 ft*
Known	01/03/24	Remove Old Sled & 85 HP Yamaha Engines (2)	-945 lbs	50.79 ft	0.0 ft	5.00 ft
Known	01/03/24	Add New Sled	-590 lbs	47.13 ft	0.0 ft	5.00 ft
Known	01/03/24	Add New 115 HP Yamaha Engines (2)	790 lbs	53.00 ft	0.0 ft	5.50 ft
Known	01/03/24	Revised Lightship Values – Weight Moment Calcs	26,685 lbs	32.29 ft	0.0 ft	6.70 ft*

^{*}Conservative Estimate

- 3. While the net change to the vessel's lightship characteristics was within the limits of reference (d) and a new stability test is not required, our review of the vessel's latest stability calculations indicated that the changes described above cause the vessel to no longer comply with the stability requirements of 46 CFR Subchapter S for an Exposed Waters route and 82 persons/77 passengers. The vessel does, however, still meet the applicable stability requirements for a Partially Protected Waters route with 85 persons/80 passengers as allowed by the vessel's current stability letter, reference (e). As per reference (f), in order to bring the vessel back into compliance with the applicable stability requirements you have requested the removal of the Exposed Waters route from the vessel's stability letter. Accordingly, we are issuing a revised stability letter, enclosure (1), that reflects these changes.
- 4. We note the Hull Identification Number (HIN) listed above has 13 digits which is not typical for commercial vessels that typically have 12 digits. We have confirmed with Gold Coast Yachts that the HIN in the above is indeed the correct HIN assigned to the vessel.

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Stability and Lightship Characteristics – Weight Changes

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Enclosure (1) is the revised stability letter for the subject vessel. It is applicable to the vessel as presently outfitted. The vessel's owner is responsible for ensuring the stability letter is posted under glass or other suitable transparent material at the operating station of the vessel so all pages are visible. It supersedes any stability information previously issued to the vessel.

As an agreed-upon condition of your participation in the Marine Safety Center's electronic commerce program, you must provide the OCMI with a copy of this letter and references (a) through (c).

Our Project Number for this vessel is P005654. Please ensure all future correspondence includes the Project Number and the Official Number that appears in the subject line.

Please contact LCDR Jarred Hinton at (207) 814-8845 with questions concerning our review.

Sincerely,

K. T. GRELL

Lieutenant, U.S. Coast Guard Chief, Small Vessel Branch

By direction

Enclosure: (1) Stability Letter for EAST WIND, O.N. 1089463, dated January 3, 2024

Copy: Commander, Coast Guard Sector San Juan, Prevention Department