



**Stability Letter**

29 June 2011

Person-in-Charge, "WHITTIER PROVIDER", U.S. ON 1112117  
 Gunderson Marine, Hull 57  
 420.0' x 100.0' x 24.0' Unmanned Freight Barge (I)

You are responsible for maintaining this barge in a satisfactory stability condition at all times and for following the instructions and precautions listed below. All log entries required by 46 CFR 42.07-20 shall be made prior to getting underway for each voyage.

A stability test witnessed by ABS Americas on behalf of the U.S. Coast Guard, was conducted on the "ANCHORAGE PROVIDER" U.S. ON 1104942, a sister barge to the subject barge, at Victoria, British Columbia, Canada, on 28 January 2006. On the basis of that test, stability calculations have been performed. Results indicate that the stability of the barge "WHITTIER PROVIDER", as presently outfitted and equipped, is satisfactory for operation on Exposed Waters, provided that the following restrictions are observed.

**OPERATING RESTRICTIONS**

1. **ROUTE**: Operation on Exposed Waters is permitted for unmanned operations only.
2. **FREEBOARD AND DRAFT**: A maximum mean keel draft of 18 feet 1-13/16 inches is permitted. This corresponds to a minimum freeboard of 5 feet 11-5/8 inches from the main deck measured at amidships. Trim shall be minimized and shall not exceed 4 feet by the bow or the stern, as measured on the draft marks.
3. **DECK CARGO WITHOUT CONTAINERS**: When containers are not carried in the racks, frames 15-47, the height of cargo above the deck in any loading condition shall not exceed the following values:

	<u>Extreme Draft</u>	<u>Maximum Allowable Cargo VCG abv Deck</u>	<u>Maximum Allowable Cargo Height abv Deck</u>	<u>Cargo + Ballast Weight</u>
Up to	6.09	139'-5"	278'-10"	170.91 LT
	7.09	121'-9"	243'-7"	1140.26 LT
	8.09	105'-7"	211'-2"	2128.40 LT
	9.09	92'-8"	185'-4"	3128.59 LT
	10.09	82'-9"	165'-6"	4146.91 LT
	11.09	72'-10"	145'-8"	5179.50 LT
	12.09	65'-5"	130'-11"	6225.35 LT
	13.09	59'-9"	119'-6"	7290.31 LT
	14.09	53'-5"	106'-10"	8366.37 LT
	15.09	49'-2"	98'-5"	9458.51 LT
	16.09	40'-9"	81'-7"	10565.94 LT
	17.09	31'-8"	63'-4"	11682.18 LT
	18.15	22'-3"	44'-7"	12913.77 LT

**AMERICAS DIVISION**

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The maximum VCG's for intermediate draft values may be interpolated, or use the maximum VCG for the higher draft.

4. DECK CARGO WITH CONTAINERS: When any amount of containers are carried in the racks, frames 15-47, the amount, height and VCG of additional deck cargo and water ballast in any loading condition shall not exceed the following values:

<u>Extreme Draft</u>	<u>Maximum Allowable Cargo VCG abv Deck</u>	<u>Maximum Allowable Cargo Height abv Deck</u>	<u>Cargo + Ballast Weight</u>
11.09	72'-10"	145'-8"	911.64 LT
12.09	65'-5"	130'-11"	1957.49 LT
13.09	59'-9"	119'-6"	3022.45 LT
14.09	53'-5"	106'-10"	4098.51 LT
15.09	49'-2"	98'-5"	5190.65 LT
16.09	40'-9"	81'-7"	6298.08 LT
17.09	28'-3"	56'-6"	7414.32 LT
18.15	15'-6"	31'-1"	8645.91 LT

The maximum VCG's for intermediate draft values may be interpolated, or use the maximum VCG for the higher draft.

- a. Containers shall be loaded with heavier containers on the bottom, so that the VCG of the stack does not exceed one-half the stack height.
  - b. When containers in the rack are stacked 4 tiers high (maximum of 41.50' high above the rack including an 18" platform), the weight of each stack may not exceed 131,000 lbs. in positions 1-26 (Fr. 15-41) and 119,000 lbs. in positions 27-32 (Fr. 41-47). Additionally the top container must always be an empty container weighing not more than 14,400 lbs. and the maximum weight of the platform between the top two containers and the bottom two shall not exceed 12,140 lbs.
  - c. When containers are stacked 3 tiers high (maximum of 30' high above the rack), the weight of each stack may not exceed 142,000 lbs in positions 1-26 (fr. 15-41) and 129,000 lbs in positions 27-32 (fr. 41-47).
  - d. When containers are stacked 2 tiers high, the weight of each stack may not exceed 152,000 lbs in positions 1-26 (fr. 15-41) and 138,000 lbs in positions 27-32 (fr. 41-47).
5. HULL OPENINGS: Any openings that could allow water to enter into the hull shall be kept closed when underway.

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6. TANKS: The six (6) P&S ballast tanks and the aft center rake may be simultaneously loaded at any level. Any cross connections between port and starboard tank pairs shall be kept closed at all times while underway.
7. WATERTIGHT BULKHEADS: No watertight bulkheads may be removed or altered without the authorization and supervision of the cognizant Officer in Charge, Marine Inspection (OCMI).
8. WEIGHT CHANGES: This stability letter has been issued based upon the following light ship parameters:

Displacement:	4496.54	Long Tons
VCG:	19.50	Feet Above the Baseline
LCG:	216.20	Feet Aft of Frame 0

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

9. BILGES: The vessel's bilges and voids shall be kept pumped to minimum content at all times consistent with pollution prevention requirements.
10. LIST: You should make every effort to determine the cause of any list of the vessel before taking corrective action.

This stability letter, along with the Load Line Certificate, shall be maintained in a suitable location onboard the barge. It supersedes any stability information previously issued to the barge.

Mahmood Billah  
Sr. Managing Principal Engineer  
Stability & Load Line Group, SED  
ABS Americas

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