



STABILITY LETTER

29 July 2016

Person in Charge: "SKAGWAY PROVIDER" ON: 1268891
GUNDERSON MARINE LLC., Hull 112
360'-0" (LOA) x 100'-0" x 22'-0" [I]
Unmanned Deck Cargo Barge

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 deadweight survey, witnessed by American Bureau of Shipping (ABS) on behalf of the U.S. Coast Guard was conducted on the "SKAGWAY PROVIDER" U.S. ON: 1268891, on 18 July 2016 at AML Dock, in Seattle, WA. On the basis of that survey and conservatively estimated VCG, stability calculations have been performed. Results indicate that the stability of the barge "SKAGWAY PROVIDER" U.S. ON: 1268891, 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 keel draft of 17 feet 2-3/8 inches is permitted. This corresponds to a minimum freeboard measured from the top of the main deck edge at amidships of 4 feet 11-1/8 inches. Trim shall be minimized and shall not exceed 4 feet forward or aft.
3. **TANKS:**
 - a) The Aft Rake Ballast P/S and Aft Rake Runoff Center tank may be carried slack at any time.
 - b) All other tanks/voids shall be empty at all times.
 - c) Any cross connections between port and starboard tank pairs shall be kept closed at all times when underway.

4. **WEIGHT CHANGES:** This stability letter has been issued based upon the following lightship characteristics:

Displacement:	3,517.20	Long Tons
VGG:	15.28	Feet Above Baseline*
LCG:	178.42	Feet Aft of Frame 0

*VCG has been conservatively calculated from detailed weight-moment calculations.

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

5. **LIFTING:** Lifting operations are not permitted.



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6. **DECK CARGO:** Deck Cargo is to be loaded in accordance with the attached loading charts bearing the ABS America’s Approval Stamp dated 29 July 2016. Cargo must be positively secured against shifting prior to leaving protected waters.
7. **HULL OPENINGS:** Any openings that could allow water to enter into the hull should be kept closed when rough weather or sea conditions exist or are anticipated.
8. **BILGES:** The vessel’s bilges and voids shall be kept pumped to minimum contents at all times consistent with pollution prevention requirements.
9. **WATERTIGHT BULKHEADS:** No watertight bulkheads shall be removed or altered without the authorization and supervision of the cognizant Officer in Charge, Marine Inspection (OCMI).
10. **LIST:** You should make every effort to determine the cause of any list before taking corrective action.

This stability letter shall be maintained in a suitable location with the Load Line Certificate on board the subject barge at all times.

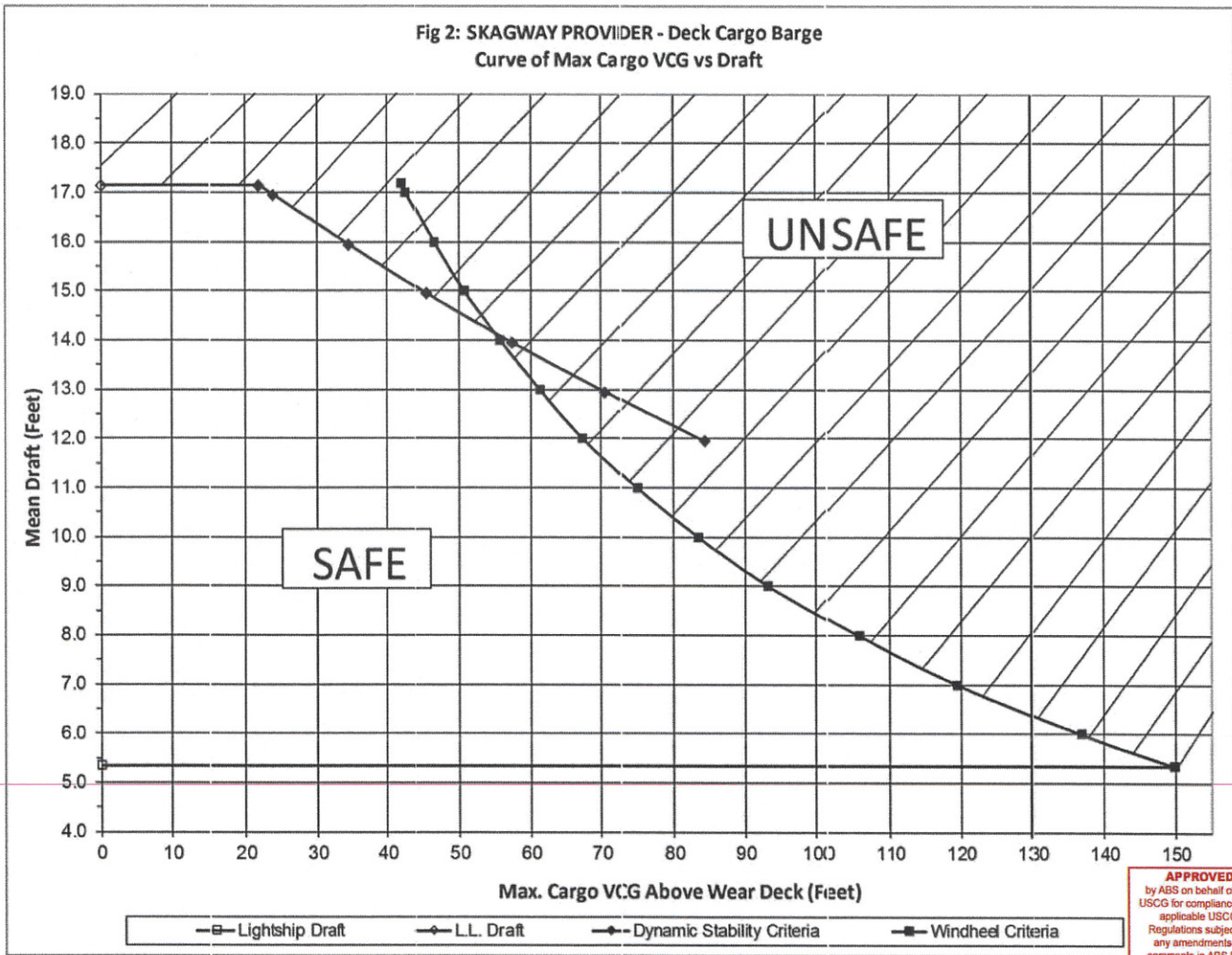
Very truly yours,

Roy H. Bleiberg
Vice President of Engineering
ABS Americas

By: Carly McCormick
William (Bill) Leyrer
for Managing Principal Engineer
Ship Engineering Department

Attachments: (1) “SKAGWAY PROVIDER-Deck Cargo Barge Curve of Max Cargo Height vs Draft,” bearing the ABS Americas Approval stamp, dated 29 July 2016
(2) “SKAGWAY PROVIDER-Deck Cargo Barge Curve of Max Cargo VCG vs Draft,” bearing the ABS Americas Approval stamp, dated 29 July 2016

Fig 2: SKAGWAY PROVIDER - Deck Cargo Barge
Curve of Max Cargo VCG vs Draft



G. Loading Curves: Figure 2 - Curve of Maximum Cargo VCG Above Wear Deck

