Initial Inspection Dated 1977

Stability Test

Fiberglass Analysis

Fifty (50) pages total including this cover

FUEL TANK FOR HULL #357207

CAPACITY 150 GAL.

$\frac{1}{4}$" ALUMINUM 3203 ALLOY 5086

MAKE 2 IN PAIRS

STBD TANK SHOWN

C.G. APPROVAL REQUIRED

APPROVED
U. S. COAST GUARD
MARINE INSPECTION SEATTLE, WASH.
DATE 7 DEC 1976
Subject to comments in letter 7 DEC 1976 dated
file
Officer in Charge, Marine Inspection

CERTIFIED TO BE TRUE COPY

BENNETTS CHEMICAL LABORATORY, INC.
ANALYTICAL CHEMISTS & ASSAYERS
901 SOUTH 9th STREET TACOMA, WASHINGTON 98405
(206) 272-4507 or 272-7969

REPORT OF ANALYSIS

Feb. 3, 1977

Our analysis of the sample of Fiberglass

From Modutech Marine Inc.
Received 8 samples on Feb. 1, 1977

Marked: Modutech Hill 35-707
Port Transom

Resin Content - 57.8%

Glass Content - 42.2%

Laminate Construction:
M = Mat or chop
R = Woven roving
V = Veil

Paint
M
R
V
M
R
R
M
V
M
R
R
V
M
R
R
M
R
R
M
R
R

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To Modutech Marine, Inc.
401 Alexander
Tacoma, Wa 98421

BENNETTS CHEMICAL LABORATORY, Inc.

By Galen B Gunn

Samples held for 90 days

BENNETTS CHEMICAL LABORATORY, INC.
ANALYTICAL CHEMISTS & ASSAYERS
901 SOUTH 9th STREET TACOMA, WASHINGTON 98405
(206) 272-4507 or 272-7969

REPORT OF ANALYSIS

Feb. 3, 1977

Our analysis of the sample of Fiberglass

From Modutech Marine, Inc.
Received 8 samples on Feb. 1, 1977

Marked: Through Hull at Keel

Resin Content - 51/8%

Glass Content - 48.2%

Laminate Construction:

M = Mat or Chop

R = Woven Roving

V = Veil

Paint
M
R
R
M
R
R
M
R
R
M
R
R
M
K
R
R
M
R

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To Modutech Marine Inc.
401 Alexander
Tacoma, Wa. 98421

BENNETTS CHEMICAL LABORATORY, Inc.

By [signature]
Samples held for 90 days

BENNETTS CHEMICAL LABORATORY, INC.
ANALYTICAL CHEMISTS & ASSAYERS
901 SOUTH 9th STREET TACOMA, WASHINGTON 98405
(206) 272-4507 or 272-7969

REPORT OF ANALYSIS

Feb. 3 1977

Our analysis of the sample of Fiberglass

From Modutech Marine Inc.
Received 8 samples on Feb. 1, 1977

Marked: Starboard Scupper

Resin Content - 53.7%

Glass Content - 46.3%

Laminate Construction:
M = Mat or chop
R = Woven roving
V = Veil

Paint
M
R
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R
R
M
R
R
V
M
R
M
R
M

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To Modutech Marine, Inc.
401 Alexander
Tacoma, Wa. 98421

BENNETTS CHEMICAL LABORATORY, Inc.

By Helen B Pure

Samples held for 90 days

Officer in Charge
Marine Safety Office
U. S. Coast Guard

3767 North Basin Avenue
Portland, Oregon 97217-3992
Phone: 503-240-9335

16711/TAKI-TOOO
24 April 1990

FILE COPY

Person in Charge: M/V TAKI-TOOO
c/o Douglas Davis
21040 S. E. Clay Court
Gresham, Oregon 97030

Subj: STABILITY OF M/V TAKI-TOOO, O. N. 579 874

Dear Sir:

A stability test, supervised by the Coast Guard in accordance with 46 CFR 171.030, was performed on the M/V TAKI-TOOO, at Garibaldi, Oregon, on 24 April 1990. On the basis of this test, stability calculations have been performed. Results indicate that the M/V TAKI-TOOO, as presently outfitted and equipped, subject to the restrictions specified below, and has satisfactory stability for the carriage of thirty-three (33) passengers on exposed waters, under all reasonable operating conditions. Since the passenger capacity and route are based on other criteria as well as stability and may be further limited thereby, you are cautioned that:

THE MAXIMUM PASSENGERS ALLOWED AND TOTAL PERSONS ALLOWED SHALL BE AS SPECIFIED ON THE CERTIFICATE OF INSPECTION.

The following restrictions apply:

a. The superstructure shall not be altered without authorization and supervision of the cognizant Officer in Charge, Marine Inspection.

b. Bulkheads and structure shall not be removed or altered without authorization and supervision of the cognizant Officer in Charge, Marine Inspection.

c. No permanent ballast or other weights shall be added, removed, altered and/or relocated without authorization and supervision of the cognizant Officer in Charge, Marine Inspection.

d. Bilges shall be kept pumped to a minimum content.

e. It shall be the responsibility of the licensed master to maintain the vessel in a satisfactory stable condition at all times.

This stability letter shall be posted under glass or other suitable transparent material in the pilot house of the subject vessel.

MAILED
MAY 18 1990

Sincerely,

J. W. CALHOUN
Captain, U. S. Coast Guard
Officer in Charge, Marine Inspection

Randall (Corp) 5-9-90

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DEPARTMENT OF TRANSPORTATION
U. S. COAST GUARD
CG-4006 (REV. 8-79)

FILE COPY

SMALL PASSENGER VESSEL STABILITY TEST PROCEDURE

(In accordance with 46 CFR 179.10-1)

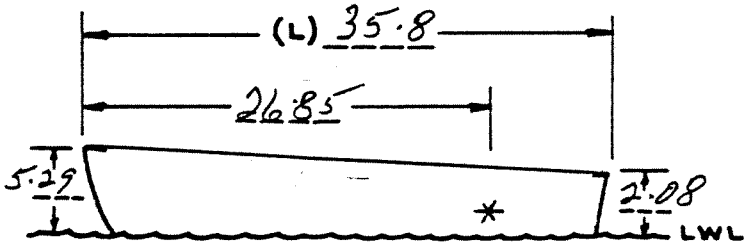
Name of Vessel TAKI TOOO Official No. 579 874 Date 24 APRIL 1990

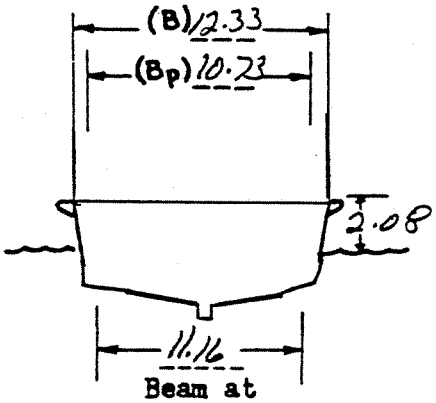
Representing Owner Doug DAVIS Inspector W.B. Randall

Location CALIBALDI, OREGON Wind: Relative Direction — Velocity CALM mph

Mooring arrangement, describe SINGLE LINE FWD & AFT moored Portside TO PIER

Route COASTWISE. Check One ☒ Exposed ☐ Partially Protected ☐ Protected





Beam at Ref. Station

Indicate on above sketch

1) Profile of sheer line
2) Length over all (L)
3) Station for measuring Reference Freeboard (f)...located in way of least freeboard or at a point 3/4 (L) from the stem if the least freeboard is aft of this point
4) Freeboard to main deck at stem
5) Freeboard to main deck at stern

Indicate on above sketch

1) Round or vee bottom
2) Maximum beam to outside of shell (B)
3) Max. beam accessible to passengers (B_p)
4) Max. beam on deck in way of Freeboard Reference Station.
5) Height of sheer line above load water line in way of Freeboard Ref. Station
6) Height of each deck (including cockpit deck, if any) above load waterline.

All above measurements are to be taken in the loaded condition without list
If cockpit type - show same by dotted line and indicate length ( )

TANKAGE (all tanks are to be 3/4 full at the time of the test)

TANK	CAPACITY	Approx. Location of C.G.	
		Aft of Stem	Above top of keel
Fuel	150	28.3	1.66
Fuel	150	28.3	1.66
WATER	35	12.5	1.42

BALLAST (if provided, ballast must be on board and in place at time of test)

WEIGHT	MATERIAL	Approx. Location of C.G.	
		Aft of Stem	Above top of keel
N/A			

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(1) TOTAL TEST WEIGHT REQUIRED:

33 (Total No. Passengers) X 160 (Wt./Pass.) = 5280 (Total Test Weight (W)) Lbs.

NOTES: (A) THE MAXIMUM NUMBER OF PASSENGERS SHALL EQUAL THE MINIMUM NUMBER COMPUTED IN ACCORDANCE WITH 46 CFR 176.01-25.

(B) WEIGHT PER PASSENGER EQUALS 160 POUNDS, EXCEPT THAT ON "PROTECTED WATERS" WHEN PASSENGER LOAD CONSISTS OF MEN, WOMEN AND CHILDREN; A WEIGHT OF 140 POUNDS PER PASSENGER MAY BE USED.

(C) IF NECESSARY, SHORE OR BRACE THE DECK STRUCTURE TO PROPERLY SUPPORT THE TEST WEIGHTS.

(2) DISTRIBUTION OF TEST WEIGHT:

(a) Distribute the test weight fore and aft so as to obtain the normal operating trim.

(b) Arrange test weight so that its C.G. is approximately 2.5 feet above deck.

(c) The vertical distribution of the test weight shall be such as to simulate the most unfavorable vertical C.G. likely to occur in service. On vessels having one upper deck above the main deck available to passengers, the distribution shall not be less severe than the following —

Total Test Weight (W)..... = _____

Pass. Capacity of Upper Deck per 46 CFR 176.01-25 _____ (No. Pass.) X _____ (Wt./Pass.) X 1.33 = _____ Weight on Upper Deck

_____ Weight on Main Deck

(3) LOCATION OF MARK FOR MAXIMUM ALLOWABLE IMMERSION ABOVE UPRIGHT LOAD WATERLINE

(h) = 1.04 Ft.

The freeboard measurement (h) shall be taken with the weight required in step (1) on board, apply (a), (b) or (c) according to type of vessel -or- (d) if that gives a lesser value for the height of the mark

(a) Flush Deck Type Vessel (including well deck vessels where freeboard is measured to the weather deck) Freeboard (h) to lowest deck exposed to weather, must equal or exceed 10 inches. If less than 10 inches use 3(c), open-boat formula.

2.08 (Reference Freeboard (f)) ÷ 2 = 1.04 (Height of Mark (h) above L.W.L.)

(b) Cockpit Type Vessels
Freeboard to cockpit deck must equal or exceed 10 inches. If less than 10 inches use 3(c), open-boat formula.
Length over all.....(L) ----------
Length of cockpit...(l) ----------
Ref. Freeboard.....(f) ----------
(meas'd to gunwale)
Height of Mark.....(h) ----------
above L.W.L.
As per applicable formula →→→→→→→→→→→→

On Exposed Waters

$$h = \frac{f(2L - 1.5l)}{4L}$$

On Protected or Partially-protected Waters

$$h = \frac{f(2L - l)}{4L}$$

(c) Open-boat Type Vessels

_____ (Reference Freeboard (f)) ÷ 4 = _____ (Height of Mark (h) above L.W.L.)

(d) For All Types of Vessels

To limit the final angle of list to 14°, as required by 46 CFR 179.10-1(g), the height of the Mark (h) shall, in no case, exceed the following --

11.16 (Beam at Ref. Station) ÷ 8 = 1.39 (Max. (h) for any type vessel)

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(4) REQUIRED HEELING MOMENT:
(Apply (a) or (b), whichever is greater

(a) Passenger Heeling Moment (M_p)

10.73 (Maximum Beam Accessible to Pass. (B_p)) X 5280 (Total Test Weight (W)) ÷ 6 = 9442.4 Ft.Lbs.

(b) Wind Heeling Moment (M_w)

See sheet 4.....12,844.35 Ft. Lbs.

(5) WEIGHT MOVEMENT:

(A) THE HEELING MOMENT REQUIRED BY ITEM (4) SHALL BE OBTAINED BY A TRANSVERSE MOVEMENT OF THE TEST WEIGHTS.
(B) THE TEST SHALL BE CONDUCTED WITH ALL PORTLIGHTS SECURED BUT WITH ANY NON-RETURN VALVES OR FLAPS ON SCUPPERS OR DECK DRAINS RESTRAINED IN THE OPEN POSITION.
(C) THE VESSEL IS TO BE FULLY AFLOAT AND ALL MOORING LINES ARE TO BE SLACK DURING THE TEST.
(D) DURING LOADING AND MOVING OF TEST WEIGHTS, CARE SHOULD BE TAKEN IF THERE IS EVIDENCE OF LOW STABILITY. THIS MAY BE TAKEN TO BE THE CASE WHENEVER THE EFFECT OF ANY ADDED OR SHIFTED WEIGHT INCREMENT IS NOTED TO BE MORE THAN THAT OF A PRECEDING INCREMENT OF THE SAME SIZE, OR WHEN THE CHINE OR BILGE AMIDSHIPS COMES APPRECIABLY OUT OF THE WATER AS A RESULT OF THE HEEL.
(E) CARE IS TO BE EXERCISED THAT THE VESSEL IS NOT LISTED EXCESSIVELY EITHER DUE TO WEIGHT MOVEMENT OR SUPERIMPOSED ROLL WHICH COULD CAUSE THE TEST WEIGHTS TO TOPPLE OR SHIP'S GEAR TO COME ADRIFT.
(F) WHILE THE VESSEL IS LISTED, CHECK FOR OPEN SEAMS, LOOSE HULL FITTINGS, ETC., WHICH ARE NOT NORMALLY IMMERSED AND WHICH COULD CAUSE FLOODING OF THE VESSEL.

QUANTITY	WEIGHT PER UNIT-LBS.	DISTANCE MOVED-FT.	MOMENT - FT. LBS.
5	480 = 2400		
2	509 = 1018		
3	312 - 936		
3	125 = 375		
2	250 = 500		
1	266 = 266		
TOTAL on Board.	5495		
2	509	9	9162
1	480	9	4320
		TOTAL HEELING MOMENT	13,482

(6) HEIGHT OF REFERENCE MARK ABOVE WATERLINE AFTER WEIGHT MOVEMENT:

Height of Mark (h) Above Waterline = .125 Ft. (1.57)

(a) If the vessel lists to the reference mark (h) before the full heeling moment is applied, the test shall be stopped and the vessel fails the test.
(b) If any portlights are found to be at or near the waterline at the final angle of list, such portlights on each side shall be permanently closed.
(c) If any scuppers or drains are found to be below the waterline at the final angle of list so as to permit the entry of water into the hull or onto the deck, such openings on each side shall be provided with automatic non-return valves.

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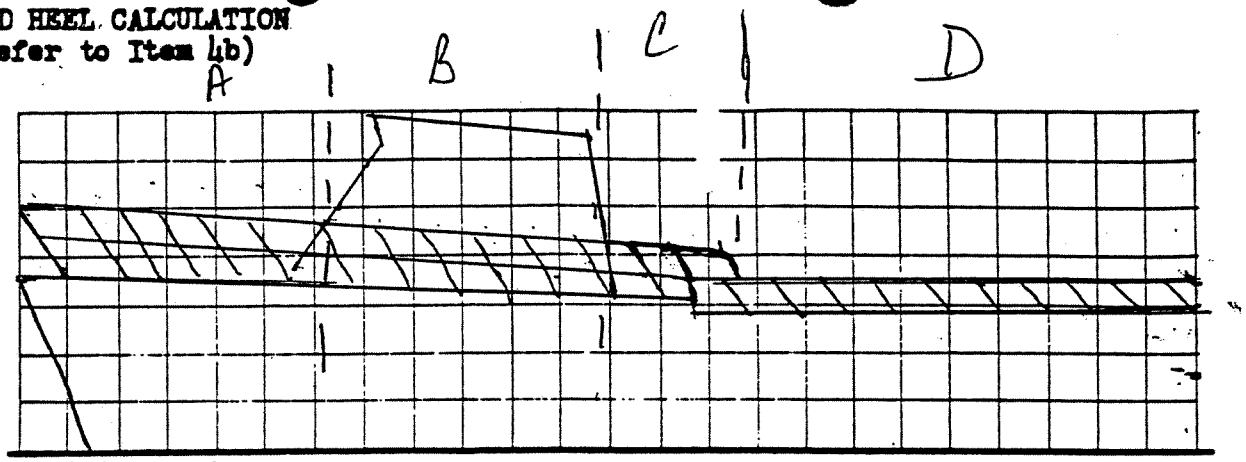
WIND HEEL CALCULATION
(Refer to Item 4b)



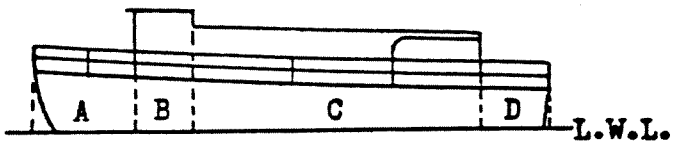
-PROFILE-
(SKETCH PROFILE IN ACCORDANCE WITH INSTRUCTIONS BELOW)

SECTION	L	V	A (L x V)	H (½ V)	A x H
A	9.5	7.87	74.76	3.93	293.81
B	7.3	8.58	62.63	4.29	268.68
C	4	7.08	28.32	3.54	100.25
D	15	5.08	76.20	2.54	193.55
				Sum (A x H)	856.29

Wind Heel (M_W): 856.29 (Sum (A x H)) X 15 (P) = 12 844.35 Ft. Lbs.

INSTRUCTIONS

(1) Block off the profile of the vessel into rectangles, as shown below. Include passenger railings and structural canopies.



(2) Measure, on the vessel, the length (L) and the height (V) of each rectangle and enter in Table.
(3) Complete the Table as indicated, add the products in the last column and multiply this sum by the appropriate "P" value to obtain the Wind Heeling Moment (M_W). Check results on sheet 5.

Values of "P"	
Exposed Waters	15.0
Partially Protected Waters	10.0
Protected Waters	7.5

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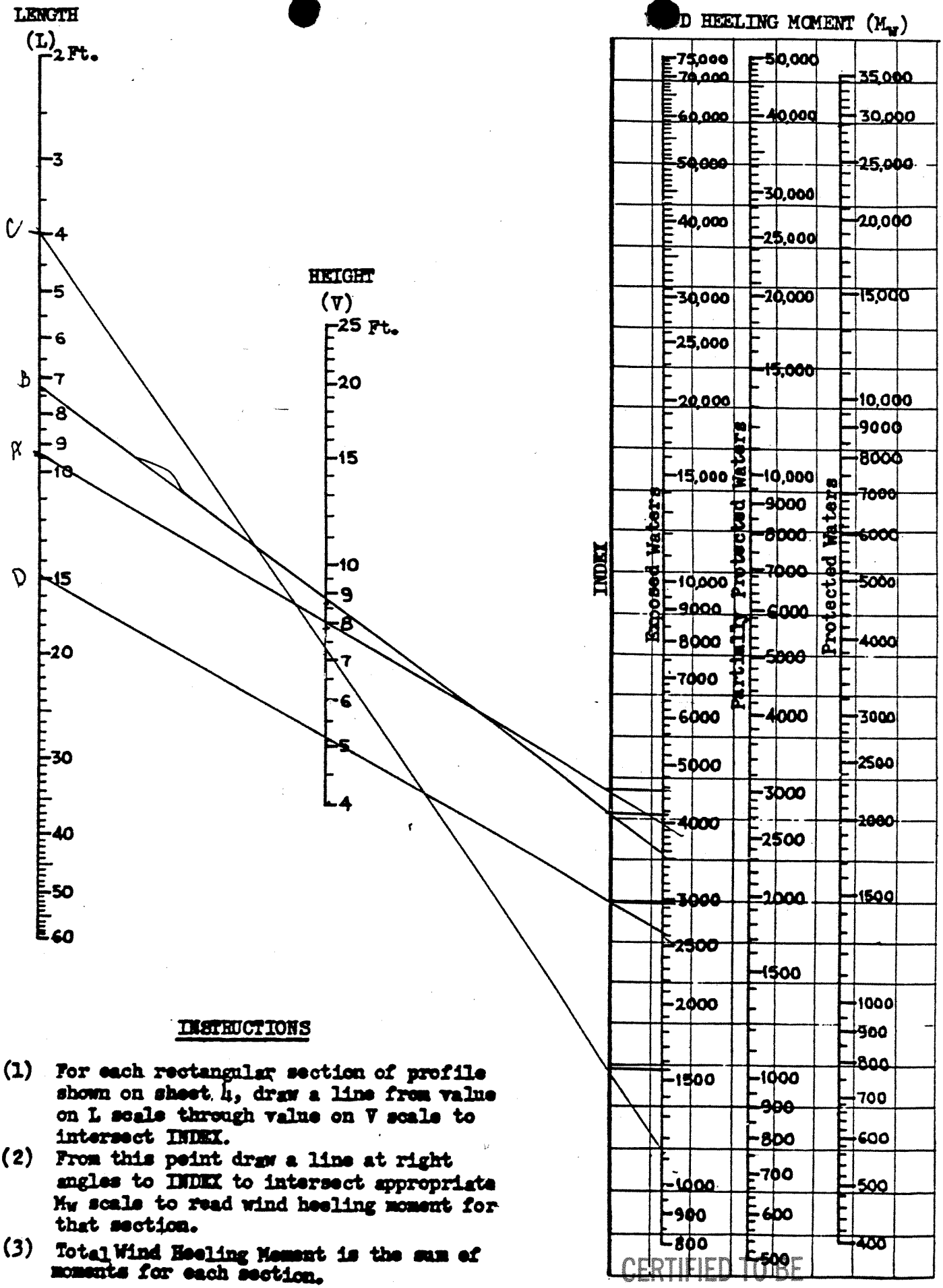

INSTRUCTIONS

(1) For each rectangular section of profile shown on sheet 4, draw a line from value on L scale through value on V scale to intersect INDEX.

(2) From this point draw a line at right angles to INDEX to intersect appropriate M_W scale to read wind heeling moment for that section.

(3) Total Wind Heeling Moment is the sum of moments for each section.

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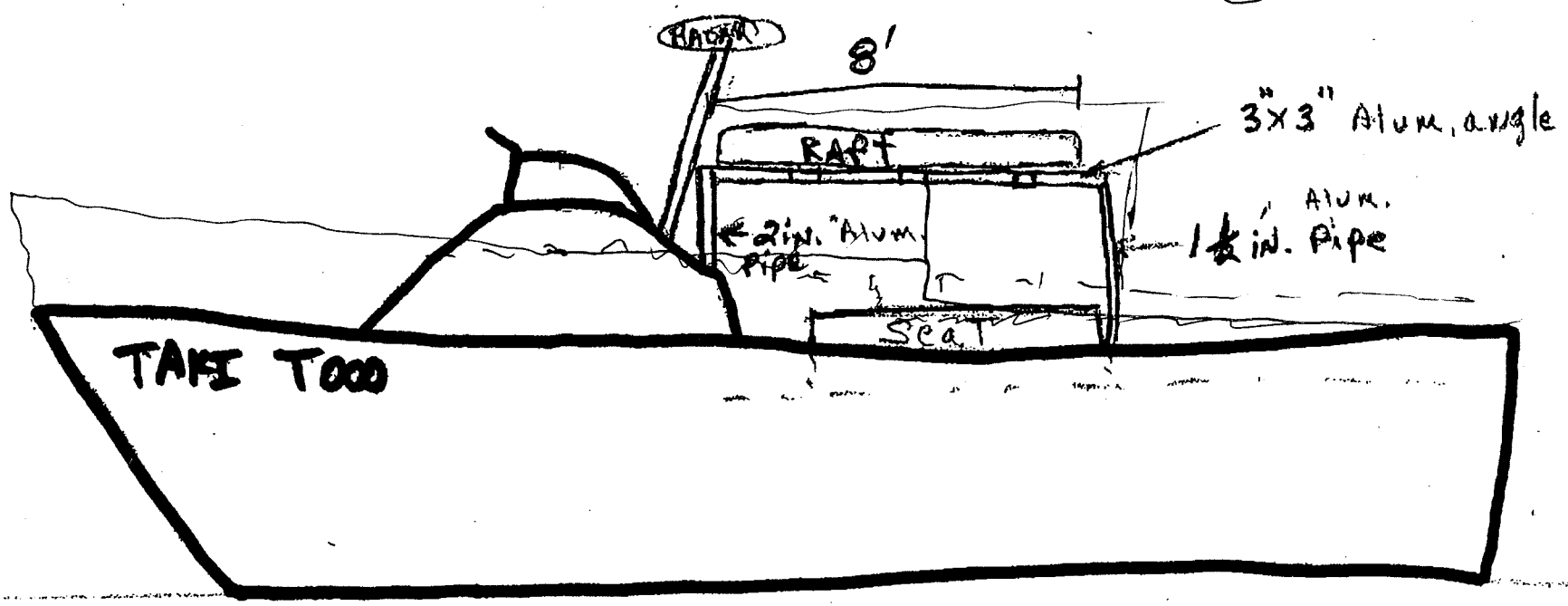
ATTN. TRAVIS

80 inches high foam deck
40 inches wide

50"x38"
50"x44.5"
343.75 sq f



GARIBALDI CHARTERS
P.O. BOX 556, 607 HWY. 101
GARIBALDI, OR 97118

5-31-01

Doug Davis

Mick Buell
503 322 0007
812-2543

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DEPARTMENT OF TRANSPORTATION
U. S. COAST GUARD
CG-4005 (REV. 8-79)

SMALL PASSENGER VESSEL SIMPLIFIED SUBDIVISION CALCULATION

(In accordance with 46 CFR 178.20-1)

Name of Vessel TAKI-TOOO Official No. D579874 Route OCEANS

Owner or Representative Present at Measurement MR. Inspector CWO T.J. NOLEN Date 05MAR01

Location of Vessel at Time of Measurement GARIBALDI, OREGON No. of W.T. Bhds. 4 No. of Passengers 14 + 2 CREW

INSTRUCTIONS

1. The vessel is to be in maximum load condition except that the fuel and water tanks are to be three-quarters full. Ballast, if required, is to be on board and in place. A capacity load of passengers, crew, cargo, vehicles, stores, etc., is to be on board (or weight equivalent thereto) in proper location.

2. The vessel is to be afloat in water of a density not greater than that of the route for which she is to be certificated, i.e., salt water or fresh water.

3. The vessel is to be in her normal trim, i.e., at a waterline established by the normal distribution of the weight on board. If there is a slight list it is to be corrected by a transverse movement of some of the weight on board so that the vessel is upright in the water.

4. The measurements specified on sheet 4 are to be carefully taken and recorded as indicated in steps (5) or (6) as applicable to the type of vessel. The length (L) is the length of the hull proper, measured over the bulkhead deck, and shall not include fishing platforms, bowsprits, guards, etc. The depth (D) is especially important and should be double-checked. If this particular dimension cannot be measured amidships, as required, due to obstructions, etc., it is to be made at points fore and aft of, and equidistant from amidships and the mean thereof shall be recorded as (D). The beam (B) shall be measured amidships to the outside of the hull and shall not include the guards. The freeboards (f) shall be measured at the bulkheads from the load waterline to the top of the bulkhead deck at the side. The distance from the stem to each bulkhead shall be indicated on the plan in the same manner as bulkhead "A".

5. If the vessel has no portlights which can be opened and is flush decked with normal sheer or no sheer, record the dimensions on sheet 4 and proceed as indicated in step (7).

6. If the vessel has portlights which can be opened, or if it is flush decked with reverse sheer, or if it has a raised deck forward (as in the case of the typical cockpit boat), do not use the sketch on sheet 4. Instead, prepare to accurate scale a profile of the hull above the load waterline, locate the bulkheads, and the portlights, if any, draw in the "corrected bulkhead deck line" as shown on sheets 2 or 3, and then proceed as indicated in step (7).

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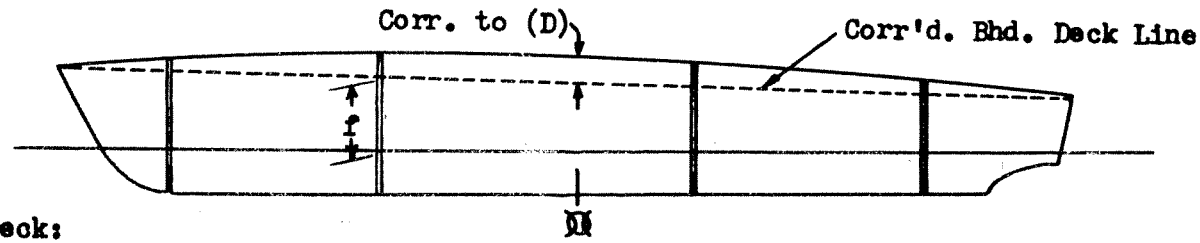
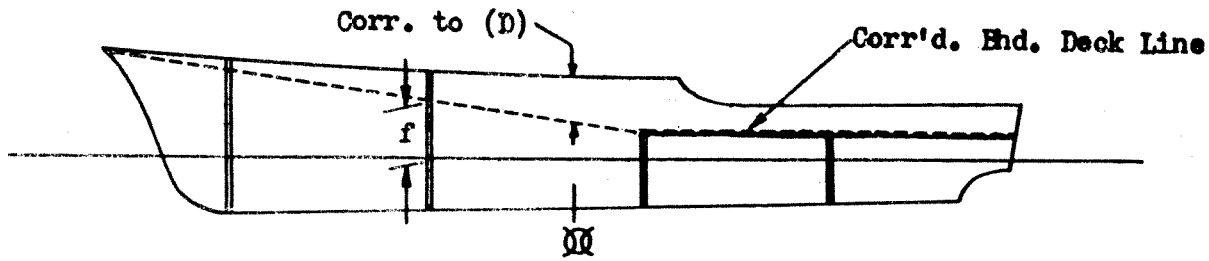
(a) For Reverse Sheer:

Draw a straight line from the stem (at the top of the bulkhead deck) to the stern (at the top of the bulkhead deck at the side) to establish the "corrected bulkhead deck line".



(b) For Raised Deck:

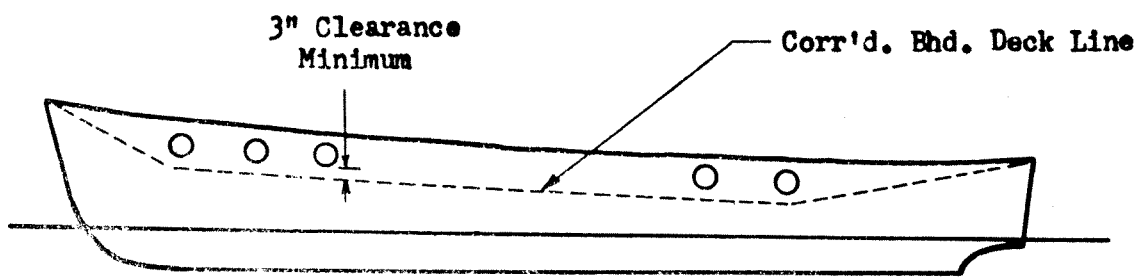
Draw a straight line from the bulkhead deck at the stem to the top of the foremost of the bulkheads which extend to the lower bulkhead deck, to establish the "corrected bulkhead deck line".



(c) For Vessels of Any Type Having Portlights Which Open:

The "corrected bulkhead deck line" shall be a line which extends from the stem at the actual bulkhead deck, passes not less than 3 inches below the portlights and thence to the stern at the actual bulkhead deck. This line shall not be, at any point, above the corrected bulkhead deck line which would be indicated for the same hull if portlights were not installed.

FLUSH DECK TYPE:



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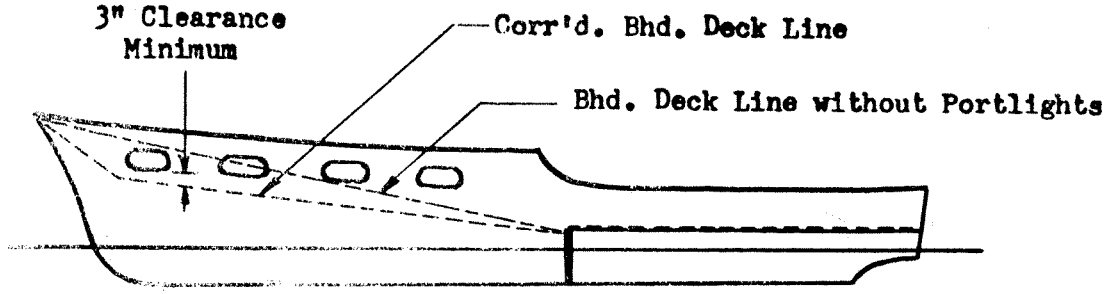
RAISED DECK TYPE:



The freeboards at each bulkhead are to be scaled, on the drawing, to this corrected bulkhead deck line. Also, the distance amidships measured from this line upward to the top of the actual bulkhead deck at the side shall be deducted from the depth (D), which was measured as shown on sheet 4, to obtain the correct (D) to be used with these types of hulls.

7. From the dimensions recorded on sheet 4 (or on the specially prepared profile) and the factors listed below, complete the table on sheet 5. The actual compartment lengths should not exceed the calculated permissible compartment lengths -OR- L/3 whichever is the least. The nomograph on sheet 6 may be used to check results.

MIDPOINT OF COMPARTMENT IN PERCENT (L) FROM BOW	FLOODABLE LENGTH FACTOR
0-15%	.33
20	.34
25	.36
30	.38
35	.43
40	.48
45	.54
50	.61
55	.63
60	.58
65	.53
70	.48
75	.44
80	.40
85	.37
90-100	.34

305 GALS

2 AA 70 GAL = 1162 LBS

3 AA 55 GALS 1369.5 LBS

+ 3 PEOPLE (INSPECTORS) = 525 LBS

+ CONTAINERS TOTAL 60 LBS

FUEL WAS (-) 50 GALS = 350 LBS

TOTAL WEIGHT WAS: 2766 LB.

>> TOTAL PEOPLE = 2560 LB

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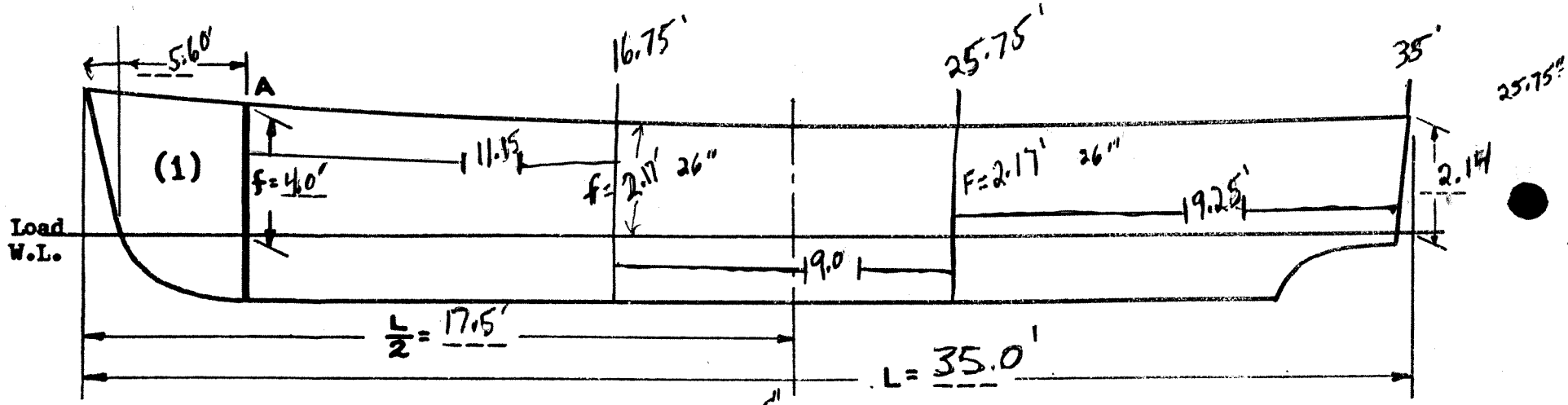
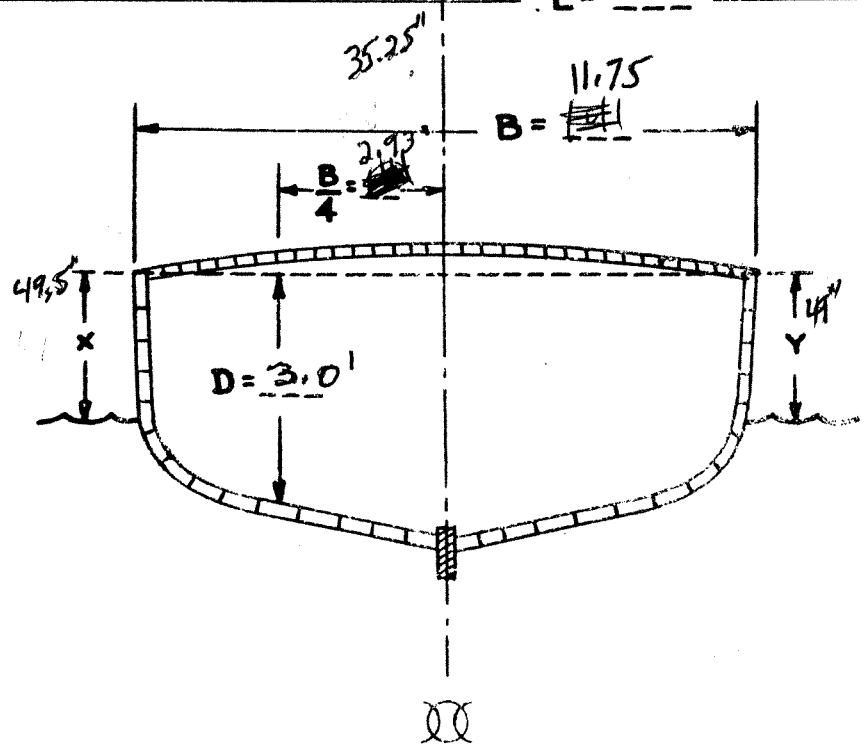
Name of Vessel Tiki Tooo Official No. 579874

PERP. ~~30'6"~~ LBP = 30.5'





1. Draw in other W.T. bulkheads. Indicate distance from stem and freeboard for each as shown for Bulkhead "A".
2. Freeboards "x" and "y" Amidships must be equal.
3. Record all dimensions in feet and tenths.
4. Indicate water density at time of measurement.

☑ Salt ☐ Brackish ☐ Fresh

$$\frac{L}{D} = \frac{35}{3} = 11.66'$$

Maximum Length of Any Compartment
$\frac{L}{3} = \frac{35}{3} = 11.66$

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Name of Vessel Taki Tooo Official No. 579874

1	2	3	4	5	6	7	8	9	10	11
Compt. No.	Boundary Bhds.	Dist. Stem/Bhd sheet 4	Dist. Stem/Bhd (as % L) Col.3x100 / L	Freeboard (f) sheet 4	Midpoint of Compt. (as % L) Avrg. of 2 in Col. 4	Floodable Length Factor sheet 3	Effective Freeboard Avrg. of 2 in Col. 5	L/D sheet 4	Permissible Compt. Length Cols. 7 x 8 x 9 NOT to exceed L/3 = 11.66 ft.	Actual Compt. Length Diff. of 2 in Col. 3
1	Stem	0	0						*	
	A	5.6	16	4	8	.33	2	11.66	7.69	5.6
2	A	5.6	16	4	31.92	.40	3.08	11.66	14.36 = L/3 = 11.66	11.15
	B	16.75	47.85	2.17						
3	B	16.75	47.85	2.17	60.71	.58	2.17	11.66	14.67 = L/3 = 11.66	9.0
	C	25.75	73.57	2.17						
4	C	25.75	73.57	2.17	86.78	.37	2.15	11.66	9.27	9.25
	D	35	100	2.14						

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~~Tested~~ and ~~Proven~~ Watertight VISUAL (NO TESTS)

[signature], IRIO, USCGR
Marine Inspector

*-OR- as required by 46 CFR 178.15-1, whichever is least.

Measured and Computed by

[signature], CWO, USCG
Marine Inspector

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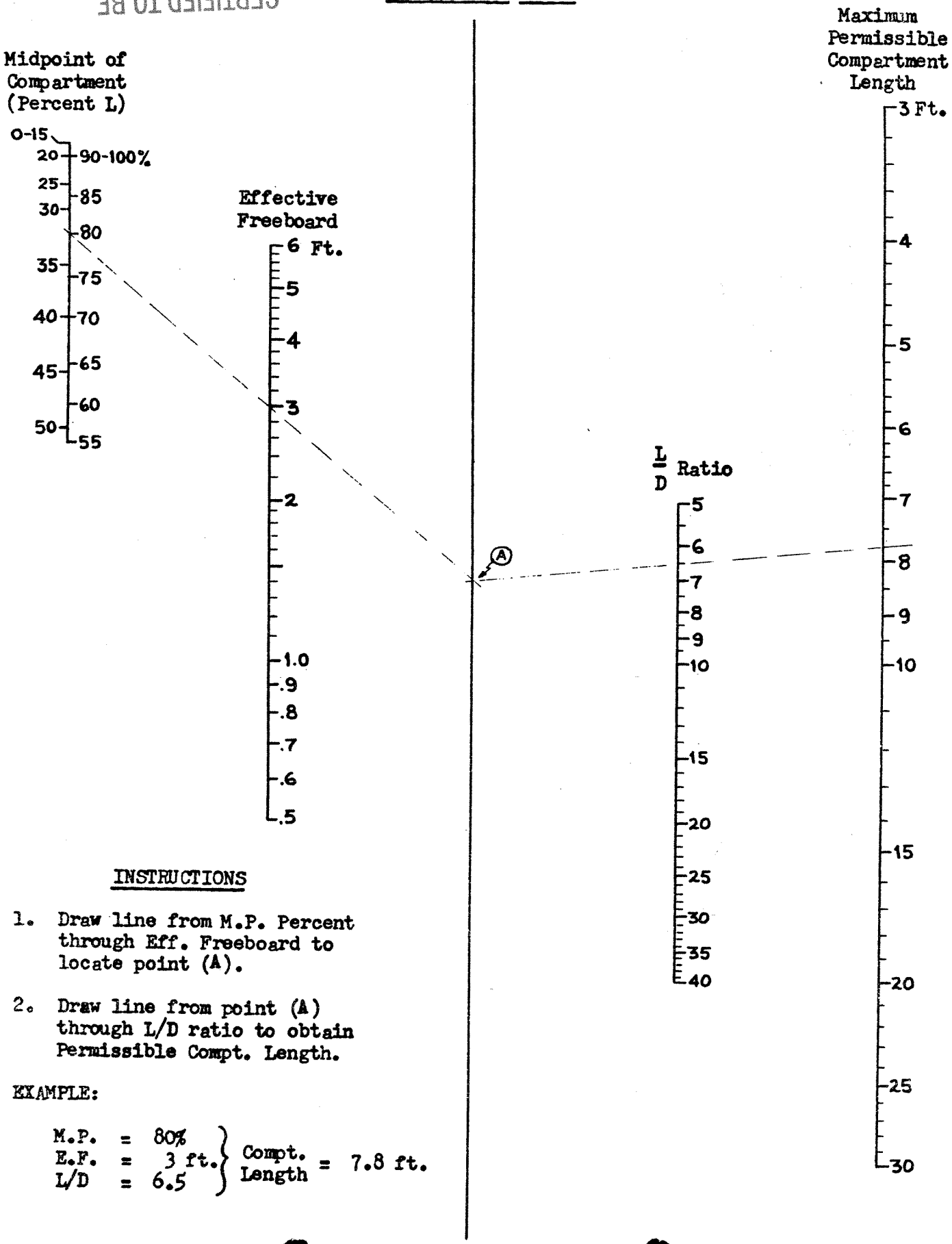
SUBDIVISION CHART



INSTRUCTIONS

1. Draw line from M.P. Percent through Eff. Freeboard to locate point (A).

2. Draw line from point (A) through L/D ratio to obtain Permissible Compt. Length.

EXAMPLE:

M.P. = 80%
E.F. = 3 ft.
L/D = 6.5

} Compt. Length = 7.8 ft.

DEPARTMENT OF TRANSPORTATION
U.S. COAST GUARD
CG-4006 (Rev. 7-94)

- SMALL PASSENGER VESSELS - SIMPLIFIED STABILITY TEST PROCEDURE

(In accordance with 46 CFR 171.030)

Recalculated windheel moment to account for new lifefloat installation. Compared to windheel moment for sister vessel DOD ON. 582181

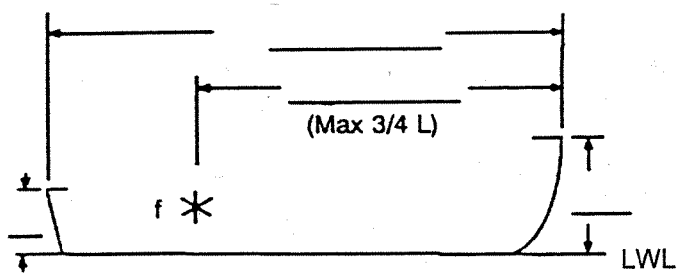
Name of Vessel Taki Too Documentation No. 579874 Date 31 MAY01

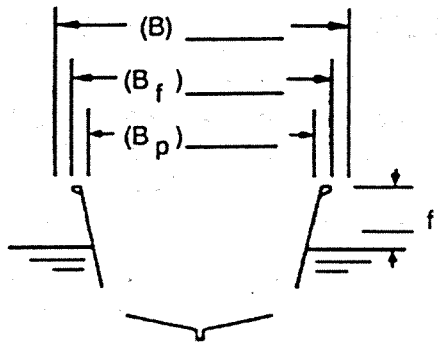
Owner/Representative _____ Inspector CWO2 Shane Laws

Location _____ Wind: Relative Direction _____ Vel ____ mph

Mooring Arrangement _____

Route _____ Check One: ☐ Exposed ☐ Partially Protected ☐ Protected





Indicate on above Sketch

1) Profile of sheer line.
2) Length overall (L).
3) Station for measuring Reference Freeboard (f) above load waterline (LWL), located in way of least freeboard or at a point 3/4 (L) from the stem if the least freeboard is aft of this point.
4) Freeboard at bow.
5) Freeboard at stern. *

Indicate on above Sketch

1) Round or vee bottom.
2) Maximum beam (B) to outside of shell; greater or equal to (B_f).
3) Maximum beam (B_p) accessible to passengers.
4) Maximum beam (B_f) on deck in way of Reference Station.
5) Reference Freeboard (f), height of sheer line above the LWL, in way of Reference Station. *
6) Height of weather deck (including cockpit deck, if any) above load waterline in way of Reference Station.

All of the above measurements are to be taken in the loaded condition without list. Measurements for (L), (B), and (B_f) are to exclude rub rails. If the vessel carries passengers on diving excursions, the total weight of the diving gear must be included in the loaded condition. If the vessel has a cockpit or well deck, show same by dotted line on the above sketches and indicate length (/).

* Freeboard shall be the distance from the sheer line to the load waterline. The sheer line shall be taken as the intersection of the side shell with the weather deck. Where calculations require "gunwale top" to be used, the following applies:
For a cockpit vessel, the gunwale top shall be measured along an imaginary extension of the sheer line in way of the cockpit. For an open boat, the gunwale top shall be considered the sheer line.

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(1) TOTAL TEST WEIGHT REQUIRED:

_____ X _____ = _____
# of Pass Wt/Pass Total Test Wt. (W)

Notes:
a) "Test Weight" defines only the weight to be moved during the test. Weights used to represent missing equipment or stores shall be considered part of the "loaded condition."
b) The maximum number of passengers shall not exceed the number computed in accordance with 46 CFR 176.01-25.
c) Weight per passenger equals 72.6 kg (160 lbs), except that on "protected waters" when passenger loads consists of men, women, and children; a weight per passenger of 63.5 kg (140 lbs) may be used.

(2) DISTRIBUTION OF TEST WEIGHT:

a) Distribute the test weight fore and aft so as to obtain the normal operating trim.
b) Arrange the test weight so that its vertical center of gravity (CG) is approximately 76.2 centimeters (30 inches) above deck.
c) The vertical distribution of the test weight shall be such as to simulate the most unfavorable vertical CG likely to occur in service. On vessels having one upper deck above the main deck available to passengers, the distribution shall not be less severe than the following:

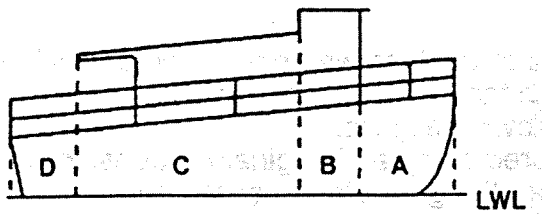
Total test weight (W) . . . . . = _____

Passenger capacity of upper deck:
_____ X _____ X 1.33 = - _____ Weight on Upper Deck
# of Pass Wt/Pass

_____ Weight on Main Deck

(3) WIND HEEL CALCULATION:

a) With the vessel in the loaded condition, block off the profile of the vessel into rectangles using vertical lines starting at the load waterline, as shown below. Include passenger railings, canopies, and spotting towers.
b) Measure, on the vessel, the length (L) and height (V) of each rectangle and enter into the table below.
c) Complete the calculations in the table, add the products in the last column and enter the sum in Section (4)(b). Multiply this sum by the appropriate (P) value to obtain the Wind Heeling Moment (M_W) in Section (4) (b) on page 3.



Values of (P)	2	2
Exposed	73.2	15.0
Partially Protected	48.8	10.0
Protected	36.6	7.5

(continued on page 3)

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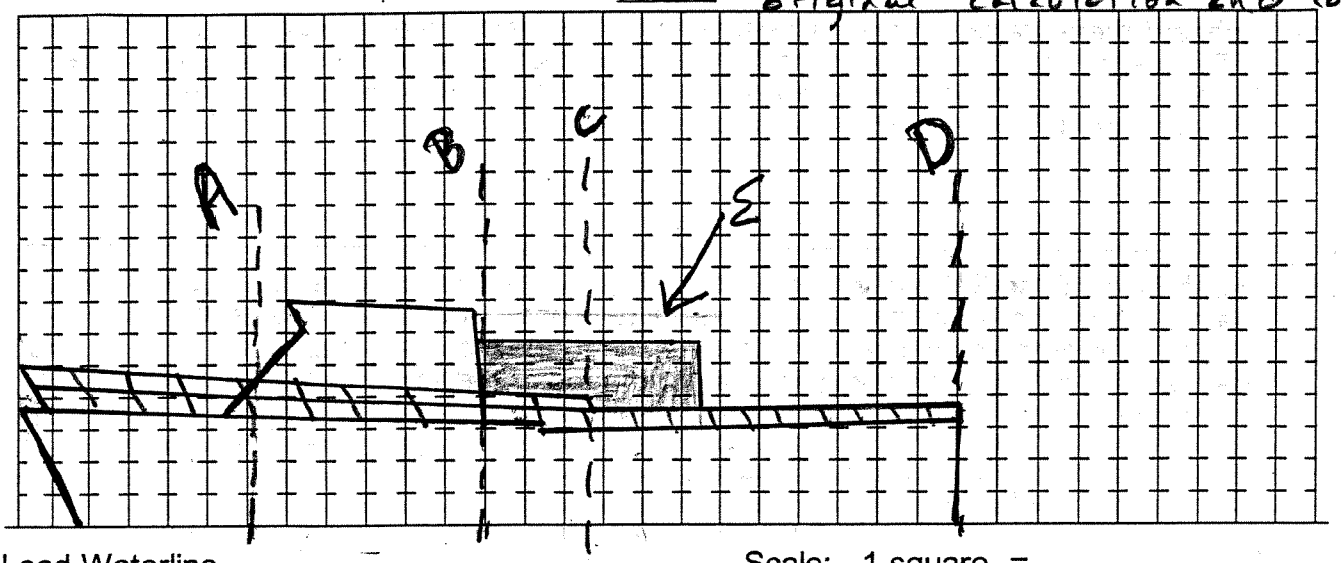
Section E represents additional sail area of vessel created by installation of New lifefloat and lifefloat support framing. Added area to Taki Too original calculation and compared to D&D

(3) continued:

- Profile -



Load Waterline

Scale: 1 square =_____

- Calculations -

Section	L	V	A (L x V)	H (0.5V)	A x H
A	9.5	7.87	74.76	3.93	293.81
B	7.3	8.58	62.63	4.29	268.68
C	4	7.08	28.32	3.54	100.25
D	15	5.08	76.20	2.54	193.55
E	8.3	3.44	28.55	1.72	49.11
F					
G					
				Sum (A x H)	905.4

(4) REQUIRED HEELING MOMENT:

Apply (a) or (b), whichever is greater:

(a) Passenger Heeling Moment (M_p) = (W x Bp)/6 =

(5280 x 10.73)/6 = 9442.4 ← Fm 24Apr90 stability test

Total Test Wt. (W) — Max Beam Open to Passengers (B_p)

(b) Wind Heeling Moment (M_w) =

15 x 905.4 = 13,581

Wind Pressure (P) — Sum (A x H)

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(5) LOCATION OF IMMERSION MARK (i) ABOVE LOADED WATERLINE PRIOR TO APPLICATION OF HEELING MOMENT:

The freeboard measurement (f) shall be taken with the weight required in Step (1) on board. The height of the immersion mark (i) shall be the lesser of the two values provided by (a), (b), (c), or (d) according to vessel type, or (e) for all vessels. The mark (i) shall be placed on the hull above the LWL at the reference station.

i = _____

a) **Flush Deck Type Sailing Vessels** (or well deck vessels that operate on protected waters, have non-return scuppers, and the reference freeboard is not more than one-quarter of the distance from the waterline to the top of the gunwale).
Reference freeboard (f) is measured to the top of the weather deck at the side of the vessel.

_____ = _____
Reference Freeboard (f) — Height of (i) above LWL

b) **Flush Deck Type Vessels** (including all well deck vessels except those noted in (a) above)
For well deck vessels, freeboard (f) to the lowest deck exposed to the weather must equal or exceed 25.4 centimeters (10 inches).
If less than 25.4 centimeters, use 5 (d) Open-boat Type formula.

_____/2 = _____
Reference Freeboard (f) — Height of (i) above LWL

c) **Cockpit Type Vessels**
Freeboard to cockpit deck must equal or exceed 25.4 centimeters (10 inches)
If less than 25.4 centimeters, use 5 (d) Open-boat Type formula.

Length overall . . . . . (L)
Length of cockpit . . . . . (/)
Reference freeboard . . . . . (f)
(measured to top of gunwale)
Height of immersion mark above LWL . . . . . (i)
all measurements shall be meters (feet)

Exposed Waters

$$(i) = \frac{f (2L - 1.5 /)}{4L}$$

Partially Protected or Protected Waters

$$(i) = \frac{f (2L - /)}{4L}$$

d) **Open-boat Type Vessels**
Reference freeboard (f) is measured to top of gunwale.

_____/4 = _____
Reference Freeboard (f) — Height of (i) above LWL

e) **All Vessel Types**
To limit the final angle of list to 14° for any type of vessel as required by 46 CFR 171.030 (e) (4), the height of the immersion mark (i) shall in no case exceed the value below. If this value is less than that produced by (a), (b), (c), or (d) above, whichever applicable, then this value shall be used for (i).

_____/8 = _____
Beam at Ref. Station (B_f) — Max Height of (i) above LWL for any type of vessel

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(6) WEIGHT MOVEMENT:

a) The heeling moment required by Section (4) shall be obtained by a transverse movement of the test weights.
b) The test shall be conducted with all tanks 3/4 full, ballast aboard in place, all portlights secured, and any non-return valves or flaps on scuppers or deck drains restrained in the open position.
c) The vessel shall be fully afloat and all mooring are to be slack during the test.
d) During the loading and moving of test weights, care should be taken if there is evidence of low stability. This may be assumed to be the case whenever the effect of any added or shifted weight increment is noted to be more than that of the preceding increment of the same size, or when the chine or bilge amidships comes out of the water as a result of the heel.
e) Care is to be exercised that the vessel is not heeled excessively either due to weight movement or superimposed roll which could cause the test weights to topple or ship's gear to become adrift.
f) While the vessel is heeled, check for open seams, loose hull fittings, etc., which are not normally immersed and which could cause flooding of the vessel.

Quantity	Weight per Unit	Distance Moved	Moment
		Total Heeling Moment	

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(7) HEIGHT OF IMMERSION MARK (i) ABOVE WATERLINE AFTER WEIGHT MOVEMENT:

i = _____

a) If the vessel lists to the immersion mark (i) before the full heeling moment is applied, the test shall be stopped and the vessel fails the test.
b) When the moment required in Section (4) has been developed, measure the resulting height of the immersion mark (i) above the waterline.
c) If any portlights are found to be near the waterline at the final angle of the list, such portlights on each side shall be permanently closed.
d) If any scuppers or drains are found to be below the waterline at the final angle of list so as to permit entry of water into the or onto the deck, such openings on each side shall be fitted with automatic non-return valves.

(8) GENERAL STABILITY INFORMATION (for documentation purposes only)

Tankage:

Tank	Capacity	Approximate Location of CG @ 100% Cap.	
		Aft of Stem	Above Top of Keel

Ballast:

Material	Weight	Approximate Location of CG	
		Aft of Stem	Above Top of Keel

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TWENTY-FIVE PERCENT TEST

(This test is not a necessary part of the Simplified Stability Test Procedure but may be used as a preliminary check when the stability is believed to be marginal.)

1. After the Total Test Weight (W) has been placed on board and the Reference Freeboard (f) has been measured, rig a pendulum free to swing athwartships at any convenient location on the vessel. Arrange it so that the bob is approximately 3 millimeters (1/8 inch) above the deck. Place a chalk mark on the deck directly beneath the bob. Measure the pendulum length (pend. 1.) as the distance from pivot to deck.

2. Move the test weight to obtain a heeling moment equal to one-quarter of the Required Heeling Moment in Section (4) on page 3. It is suggested that the weights having the longest levers be moved as to minimize the amount of weight handled.

One-quarter Heeling Moment: _____ /4 = _____
Req'd H.M. (4)

3. After the weight has been moved, place a chalk mark on the deck directly beneath the pendulum bob. Measure the pendulum deflection (pend. d.) as the distance between chalk marks.

4. Before proceeding with the Simplified Stability Test Procedure, the following calculations may be carried out to anticipate the results:

Approximate Maximum allowable Heeling Moment:

$$\frac{2 \times \underset{\text{1/4 H.M.}}{\_\_\_\_} \times \underset{\text{pend. 1.}}{\_\_\_\_} \times \underset{\text{Height of (i)}}{\_\_\_\_}}{\underset{\text{pend. d.}}{\_\_\_\_} \times \underset{\text{Beam at Ref. Station } (B_f)}{\_\_\_\_}} = \_\_\_\_$$

If the Maximum Allowable Heeling Moment is LESS than the Required Heeling Moment in Section (4) on page 3, the vessel will probably fail the test by the difference indicated below:

Required Heeling Moment = _____

Allowable Heeling Moment = - _____

Difference = _____

If Passenger Heel (4a) applies:
Approximate Number of Passengers in Excess

$$\frac{6 \times \underset{\text{Difference}}{\_\_\_\_}}{\underset{\text{Wt/Pass}}{\_\_\_\_} \times \underset{(B_p)}{\_\_\_\_}} = \underset{\text{\# of Pass}}{\_\_\_\_}$$

If Wind Heel (4b) applies:
Approximate Excess Wind Moment (Sum A x H)

$$\underset{\text{Difference}}{\_\_\_\_} / \underset{(P)}{\_\_\_\_} = \underset{\text{Moment}}{\_\_\_\_}$$

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STABILITY TEST PROCEDURE FOR VESSELS CARRYING PASSENGERS AND CARGO

(1) For vessels carrying cargo as well as passengers, follow the same test procedure as for vessels carrying passengers alone except that, in addition to the passenger test weight, the maximum deadweight of cargo permitted shall be on board, in place and so arranged as to simulate the most unfavorable vertical center of gravity likely to occur in service.

(2) Specify the maximum cargo deadweight permitted to be carried:

Weight of Cargo	Approximate Location of CG	
	Aft of Stem	Above Top of Keel

(3) Complete the Twenty-Five Percent Test based on the Passenger Heeling Moment or the Wind Heeling Moment, whichever is applicable, and note the anticipated test results.

(4) If the anticipated results of the test indicates that the vessel will fail, the entire test must be repeated with a reduced number of passengers and/or a reduced amount of cargo, or by utilizing any other corrective measures available.

(5) If the anticipated results of the test indicates that the vessel will pass, then with the vessel in the heeled condition and being cautious not to disturb any of the test weights which were shifted in order to heel the vessel; remove approximately one-quarter of the cargo from the vessel exercising great care to remove it symmetrically about the centerline.

(a) If the pendulum deflection DECREASES or remains unchanged
-- replace the cargo which was removed and complete the stability test procedure.

(b) If the pendulum deflection INCREASES
-- the cargo may be improving the stability of the vessel. Therefore, remove all of the cargo from the vessel, replace the test weights in their original positions so as to remove all list, remeasure the Reference Freeboard (f), and repeat the Twenty-Five Percent Test in its entirety for the new condition of loading. If the second Twenty-Five Percent Test indicates that the vessel will pass, complete the stability test procedure.

(6) If the vessel passes the stability test procedure under these conditions, it is deemed to have adequate stability for the safe carriage of passengers allowed regardless of whether or not cargo, not in excess of the amount specified in Item (2) above, is carried.

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Officer in Charge
Marine Safety Office
U. S. Coast Guard

5767 North Basin Avenue
Portland, Oregon 97217-3992
Phone: 503-240-9335

16711/TAKI-TOOO
24 April 1990

FILE COPY

Person in Charge: M/V TAKI-TOOO
c/o Douglas Davis
21040 S. E. Clay Court
Gresham, Oregon 97030

Subj: STABILITY OF M/V TAKI-TOOO, O. N. 579 874

Dear Sir:

A stability test, supervised by the Coast Guard in accordance with 46 CFR 171.030, was performed on the M/V TAKI-TOOO, at Garibaldi, Oregon, on 24 April 1990. On the basis of this test, stability calculations have been performed. Results indicate that the M/V TAKI-TOOO, as presently outfitted and equipped, subject to the restrictions specified below, and has satisfactory stability for the carriage of thirty-three (33) passengers on exposed waters, under all reasonable operating conditions. Since the passenger capacity and route are based on other criteria as well as stability and may be further limited thereby, you are cautioned that:

THE MAXIMUM PASSENGERS ALLOWED AND TOTAL PERSONS ALLOWED SHALL BE AS SPECIFIED ON THE CERTIFICATE OF INSPECTION.

The following restrictions apply:

a. The superstructure shall not be altered without authorization and supervision of the cognizant Officer in Charge, Marine Inspection.

b. Bulkheads and structure shall not be removed or altered without authorization and supervision of the cognizant Officer in Charge, Marine Inspection.

c. No permanent ballast or other weights shall be added, removed, altered and/or relocated without authorization and supervision of the cognizant Officer in Charge, Marine Inspection.

d. Bilges shall be kept pumped to a minimum content.

e. It shall be the responsibility of the licensed master to maintain the vessel in a satisfactory stable condition at all times.

This stability letter shall be posted under glass or other suitable transparent material in the pilot house of the subject vessel.

MAILED
MAY 18 1990

Sincerely,

J. W. CALHOUN
Captain, U. S. Coast Guard
Officer in Charge, Marine Inspection

Randall (Corp) 5-9-90

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TRUE COPY

DEPARTMENT OF TRANSPORTATION
U. S. COAST GUARD
CG-4006 (REV. 8-79)

FILE COPY

SMALL PASSENGER VESSEL STABILITY TEST PROCEDURE

(In accordance with 46 CFR 179.10-1)

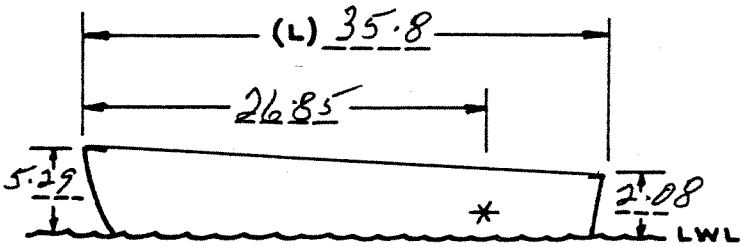
Name of Vessel TAKI TOOO Official No. 579 874 Date 24 APRIL 1980

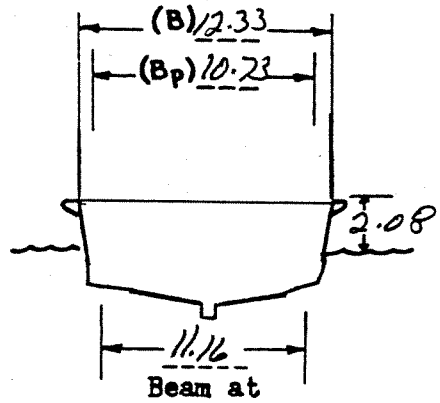
Representing Owner Doug DAVIS Inspector W.B. Randall

Location GARIBALDI, Oregon Wind: Relative Direction — Velocity CALM mph

Mooring arrangement, describe SINGLE LINE FWD & AFT moored Port side TO PIER

Route COASTWISE. Check One ☒ Exposed ☐ Partially Protected ☐ Protected





Beam at Ref. Station

Indicate on above sketch

1) Profile of sheer line
2) Length over all (L)
3) Station for measuring Reference Freeboard (f)...located in way of least freeboard or at a point 3/4 (L) from the stem if the least freeboard is aft of this point
4) Freeboard to main deck at stem
5) Freeboard to main deck at stern

Indicate on above sketch

1) Round or vee bottom
2) Maximum beam to outside of shell (B)
3) Max. beam accessible to passengers (B_p)
4) Max. beam on deck in way of Freeboard Reference Station.
5) Height of sheer line above load water line in way of Freeboard Ref. Station
6) Height of each deck (including cockpit deck, if any) above load waterline.

All above measurements are to be taken in the loaded condition without list
If cockpit type - show same by dotted line and indicate length ( )

TANKAGE (all tanks are to be 3/4 full at the time of the test)

TANK	CAPACITY	Approx. Location of C.G.	
		Aft of Stem	Above top of keel
Fuel	150	28.3	1.66
Fuel	150	28.3	1.66
WATER	35	12.5	1.42

BALLAST (if provided, ballast must be on board and in place at time of test)

WEIGHT	MATERIAL	Approx. Location of C.G.	
		Aft of Stem	Above top of keel
N/A			

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(1) TOTAL TEST WEIGHT REQUIRED:

33 (Total No. Passengers) X 160 (Wt./Pass.) = 5280 (Total Test Weight (W)) Lbs.

NOTES: (A) THE MAXIMUM NUMBER OF PASSENGERS SHALL EQUAL THE MINIMUM NUMBER COMPUTED IN ACCORDANCE WITH 46 CFR 176.01-25.

(B) WEIGHT PER PASSENGER EQUALS 160 POUNDS, EXCEPT THAT ON "PROTECTED WATERS" WHEN PASSENGER LOAD CONSISTS OF MEN, WOMEN AND CHILDREN; A WEIGHT OF 140 POUNDS PER PASSENGER MAY BE USED.

(C) IF NECESSARY, SHORE OR BRACE THE DECK STRUCTURE TO PROPERLY SUPPORT THE TEST WEIGHTS.

(2) DISTRIBUTION OF TEST WEIGHT:

(a) Distribute the test weight fore and aft so as to obtain the normal operating trim.

(b) Arrange test weight so that its C.G. is approximately 2.5 feet above deck.

(c) The vertical distribution of the test weight shall be such as to simulate the most unfavorable vertical C.G. likely to occur in service. On vessels having one upper deck above the main deck available to passengers, the distribution shall not be less severe than the following --

Total Test Weight (W)..... = _____

Pass. Capacity of Upper Deck per 46 CFR 176.01-25 _____ (No. Pass.) X _____ (Wt./Pass.) X 1.33 = _____ Weight on Upper Deck

_____ Weight on Main Deck

(3) LOCATION OF MARK FOR MAXIMUM ALLOWABLE IMMERSION ABOVE UPRIGHT LOAD WATERLINE

(h) = 1.04 Ft.

The freeboard measurement (h) shall be taken with the weight required in step (1) on board, apply (a), (b) or (c) according to type of vessel -or- (d) if that gives a lesser value for the height of the mark

(a) Flush Deck Type Vessel (including well deck vessels where freeboard is measured to the weather deck) Freeboard (h) to lowest deck exposed to weather, must equal or exceed 10 inches. If less than 10 inches use 3(c), open-boat formula.

2.08 (Reference Freeboard (f)) ÷ 2 = 1.04 (Height of Mark (h) above L.W.L.)

(b) Cockpit Type Vessels

Freeboard to cockpit deck must equal or exceed 10 inches. If less than 10 inches use 3(c), open-boat formula.

Length over all.....(L) ----------

Length of cockpit...(l) ----------

Ref. Freeboard.....(f) ---------- (meas'd to gunwale)

Height of Mark.....(h) ---------- above L.W.L.

As per applicable formula →→→→→→→→→→→→

On Exposed Waters

$$h = \frac{f(2L - 1.5\ell)}{4L}$$

On Protected or Partially-protected Waters

$$h = \frac{f(2L - \ell)}{4L}$$

(c) Open-boat Type Vessels

_____ (Reference Freeboard (f)) ÷ 4 = _____ (Height of Mark (h) above L.W.L.)

(d) For All Types of Vessels

To limit the final angle of list to 14°, as required by 46 CFR 179.10-1(g), the height of the Mark (h) shall, in no case, exceed the following --

11.16 (Beam at Ref. Station) ÷ 8 = 1.39 (Max. (h) for any type vessel)

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(4) REQUIRED HEELING MOMENT:
(Apply (a) or (b), whichever is greater

(a) Passenger Heeling Moment (M_p)

10.73 (Maximum Beam Accessible to Pass. (B_p)) X 5280 (Total Test Weight (W)) ÷ 6 = 9442.4 Ft.Lbs.

(b) Wind Heeling Moment (M_w)

See sheet 4.....12,844.35 Ft. Lbs.

(5) WEIGHT MOVEMENT:

(A) THE HEELING MOMENT REQUIRED BY ITEM (4) SHALL BE OBTAINED BY A TRANSVERSE MOVEMENT OF THE TEST WEIGHTS.
(B) THE TEST SHALL BE CONDUCTED WITH ALL PORTLIGHTS SECURED BUT WITH ANY NON-RETURN VALVES OR FLAPS ON SCUPPERS OR DECK DRAINS RESTRAINED IN THE OPEN POSITION.
(C) THE VESSEL IS TO BE FULLY AFLOAT AND ALL MOORING LINES ARE TO BE SLACK DURING THE TEST.
(D) DURING LOADING AND MOVING OF TEST WEIGHTS, CARE SHOULD BE TAKEN IF THERE IS EVIDENCE OF LOW STABILITY. THIS MAY BE TAKEN TO BE THE CASE WHENEVER THE EFFECT OF ANY ADDED OR SHIFTED WEIGHT INCREMENT IS NOTED TO BE MORE THAN THAT OF A PRECEDING INCREMENT OF THE SAME SIZE, OR WHEN THE CHINE OR BILGE AMIDSHIPS COMES APPRECIABLY OUT OF THE WATER AS A RESULT OF THE HEEL.
(E) CARE IS TO BE EXERCISED THAT THE VESSEL IS NOT LISTED EXCESSIVELY EITHER DUE TO WEIGHT MOVEMENT OR SUPERIMPOSED ROLL WHICH COULD CAUSE THE TEST WEIGHTS TO TOPPLE OR SHIP'S GEAR TO COME ADRIFT.
(F) WHILE THE VESSEL IS LISTED, CHECK FOR OPEN SEAMS, LOOSE HULL FITTINGS, ETC., WHICH ARE NOT NORMALLY IMMERSED AND WHICH COULD CAUSE FLOODING OF THE VESSEL.

QUANTITY	WEIGHT PER UNIT-LBS.	DISTANCE MOVED-FT.	MOMENT - FT. LBS.
5	480 = 2400		
2	509 = 1018		
3	312 = 936		
3	125 = 375		
2	250 = 500		
1	266 = 266		
TOTAL on Board.	5495		
2	509	9	9162
1	480	9	4320
		TOTAL HEELING MOMENT	13,482

(6) HEIGHT OF REFERENCE MARK ABOVE WATERLINE AFTER WEIGHT MOVEMENT:

Height of Mark (h) (1.57) Above Waterline = .125 Ft.

(a) If the vessel lists to the reference mark (h) before the full heeling moment is applied, the test shall be stopped and the vessel fails the test.
(b) If any portlights are found to be at or near the waterline at the final angle of list, such portlights on each side shall be permanently closed.
(c) If any scuppers or drains are found to be below the waterline at the final angle of list so as to permit the entry of water into the hull or onto the deck, such openings on each side shall be provided with automatic non-return valves.

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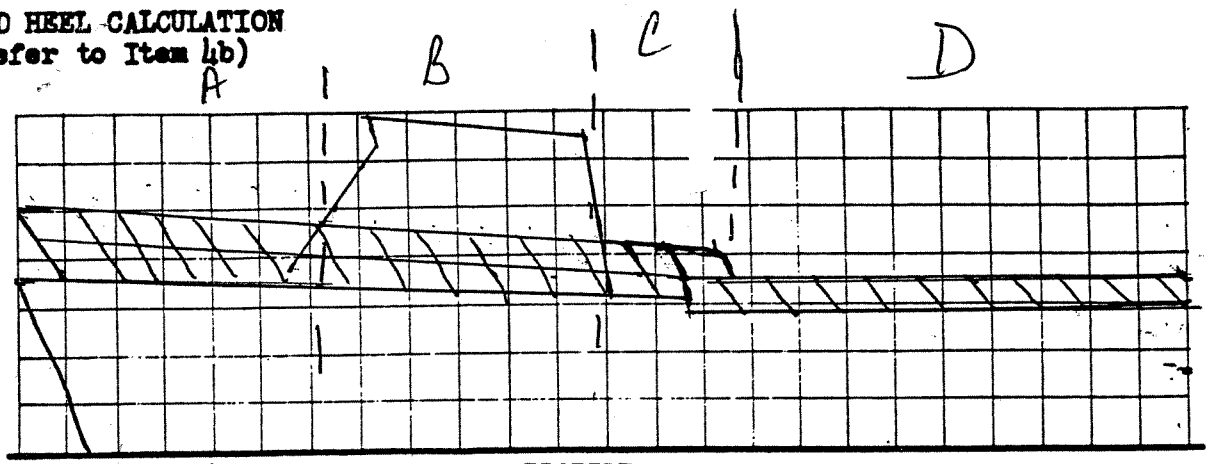
WIND HEEL CALCULATION
(Refer to Item 4b)



Load Water Line

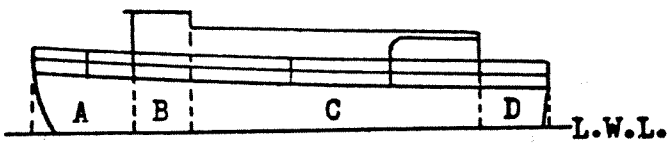
-PROFILE-
(SKETCH PROFILE IN ACCORDANCE WITH INSTRUCTIONS BELOW)

SECTION	L	V	A (L x V)	H (½ V)	A x H
A	9.5	7.87	74.76	3.93	293.81
B	7.3	8.58	62.63	4.29	268.68
C	4	7.08	28.32	3.54	100.25
D	15	5.08	76.20	2.54	193.55
				Sum (A x H)	856.29

Wind Heel (M_W): $\frac{856.29}{\text{Sum (A x H)}}$ X $\frac{15}{P}$ = 12 842.35 Ft. Lbs.

INSTRUCTIONS

(1) Block off the profile of the vessel into rectangles, as shown below. Include passenger railings and structural canopies.



(2) Measure, on the vessel, the length (L) and the height (V) of each rectangle and enter in Table.

(3) Complete the Table as indicated, add the products in the last column and multiply this sum by the appropriate "P" value to obtain the Wind Heeling Moment (M_W). Check results on sheet 5.

Values of "P"	
Exposed Waters	15.0
Partially Protected Waters	10.0
Protected Waters	7.5

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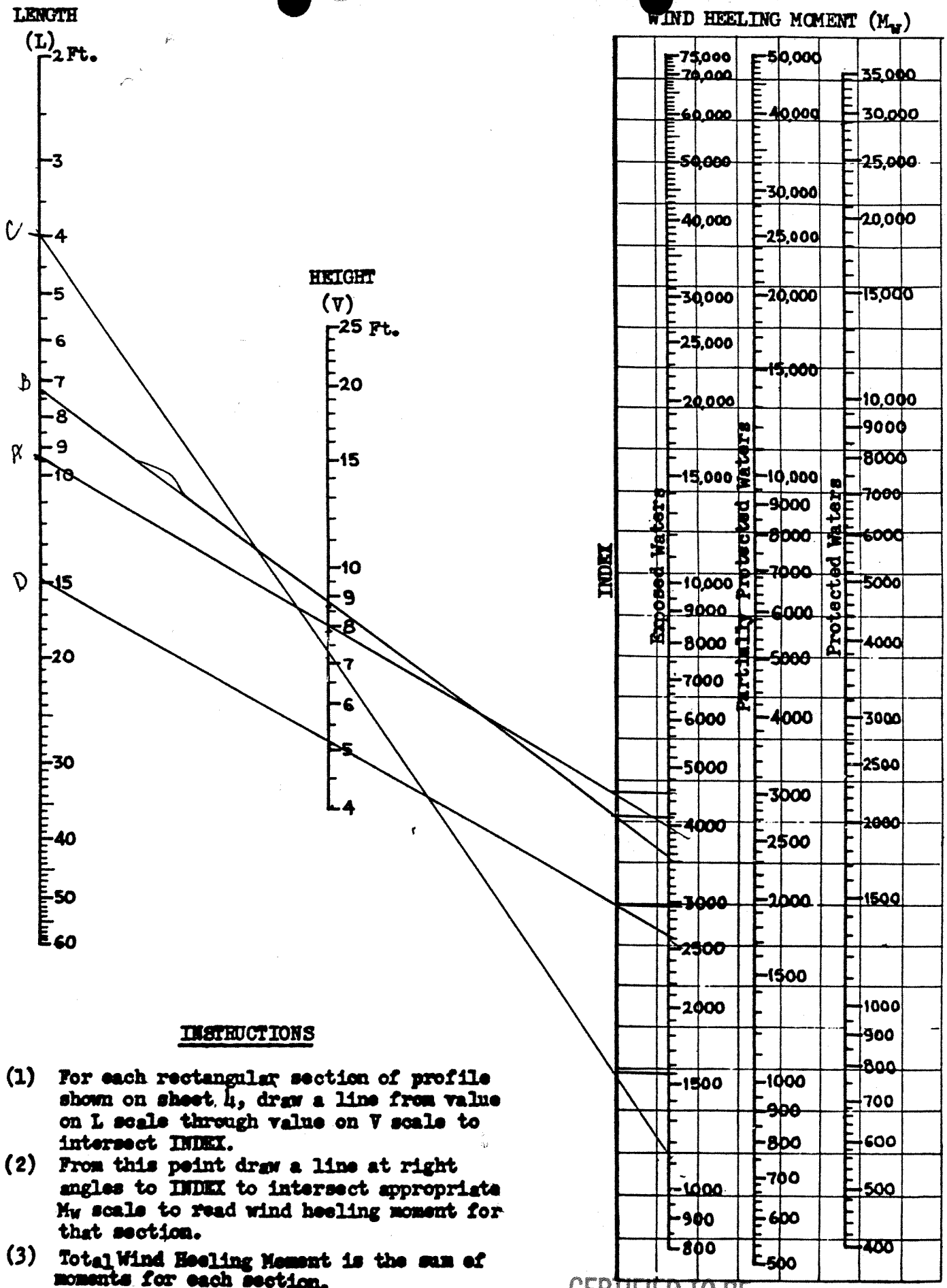

INSTRUCTIONS

(1) For each rectangular section of profile shown on sheet 4, draw a line from value on L scale through value on V scale to intersect INDEX.

(2) From this point draw a line at right angles to INDEX to intersect appropriate M_W scale to read wind heeling moment for that section.

(3) Total Wind Heeling Moment is the sum of moments for each section.

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XX 35' FRP MODUTECH HULL 35-707

SMALL PASSENGER VESSEL INSPECTION BOOK

V-2930
V-856X

NAME OF VESSEL	TAKI TOOO
OFFICIAL OR AWARD NUMBER	579 874
HOME PORT	Astoria, Oregon ~~Warrenton, Ore.~~
ZONE OF THIS INSPECTION	SEATTLE, WA.
APPLICATION RECEIVED	☑ YES ☐ NO

X	INITIAL INSPECTION	DATE COMPLETED 2/25/77
	INSPECTION FOR CERTIFICATION	DATE COMPLETED
X	FIRST REINSPECTION	DATE COMPLETED 27 MAR 1978
X	SECOND REINSPECTION	DATE COMPLETED 19 APR 1979

Use One Book for a Three-Year Period, Including Triennial and Two Reinspections.

Dept. of Transp., USCG, CG-840T (Rev. 2-69)

VESSEL INFORMATION

SERVICE (USE): PASSENGER

NAME AND ADDRESS OF OWNER: AL DEMMEL, RT 1, BOX 452, WARRENTON, ORE. 97146

NAME AND ADDRESS OF CHARTERER: ~~SAME~~ TIKI SALMON CHARTERS, HAMMOND, OR.

LENGTH IN FEET: 35	CONSTRUCTION: FRP
GROSS TONS: 14.92	NET TONS: 10

PROPULSION	FUEL	HORSEPOWER
MOTOR	DIESEL	250

DATE BUILT: 2/77	PLACE BUILT: TACOMA, WA.
DATE STABILITY LTR. ISSUED: 2/77	DATE OF LAST DRYDOCK EXAM.
DATE PRESSURE VESSELS EXAMINED: N/A	F.C.C. CERTIFICATE (CHECK): ☒ ☒ EXP 2/22/79 ☒ EXP 3/21/81
PASSENGERS ALLOWED: 14	TOTAL PERSONS ALLOWED: 16

REQUIRED CREW:
1 OPERATOR
1 DECK HAND

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Change of Ownership Data, Etc.

Total number of passengers computed as follows (rule and method):

14 PASSENGERS

RAIL SPACE

Route: PACIFIC OCEAN, COASTWISE BETWEEN POINT GRENVILLE, WA. ~~& TILLAMOOK HEAD ORE.~~ PT. ST. GEORGE, CA. NMT 20 MILES FROM A HARBOR OF SAFE REFUGE.

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CONDITION OF VESSEL

A. Stability

1. Stability t

☐ Conventional

☒ Simplified

2. Number of persons allowed as determined by test .....

3 N/A ☐ Solid ballast

AMOUNT	TYPE

Location (if not given in vessel plans)

1. TEST CONDUCTED ON SISTER VESSEL WINDSONG 7/18/75 FOR 18 PERSONS ON EXPOSED WATERS. NO STABILITY REQUIRED BY 5 1 M.

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C. Lifesaving Equipment

1. ☒ ☐ ☐ Lifeboats, life floats, life rafts, and buoyant apparatus

ITEM	NUMBER	CAPACITY (PERSONS)
BA	1	12

2. ☒ ☐ ☐ ~~Launching apparatus and~~ stowage

3. ☒ ☐ ☐ Life preservers

NUMBER ADULTS PASSED	NUMBER CHILDREN PASSED	NUMBER REJECTED
16	2	Ø
16	2	Ø
16	2	Ø

4. ☒ ☐ ☐ Ring buoys

RING BUOYS REQUIRED	
NUMBER WITH LIGHTS	NUMBER WITH LINES
1	1
NUMBER OF OTHERS	TOTAL
Ø	1

5. ☒ ☐ ☐ Stowage of life preservers and ring buoys

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D. Fire Protection Equipment

1. Hand portable and semiportable fire extinguishers

REQUIRED		ON HAND	
NUMBER	CLASS	NUMBER	CLASS
2	BII	2	BII
2	BI	2	BI

- Discharged
- Weighed
- Hydro test
- Refilled

2. Fixed fire extinguishing systems

SPACES PROTECTED	GROSS VOLUME (LARGEST COMPARTMENT)	CO_2 POUNDS

- Cylinders weighed (date) .....
- Cylinders hydro-tested (date) .....
- Sprinklers tested
- Alarms tested
- Closure of openings
- Sprinkler heads
- Piping
- Controls

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3. Fire and bilge systems

	NUMBER	DRIVE
FIRE PUMPS	1	HAND
BILGE PUMPS	1	ELECTRIC
	1	HAND

- Piping
- Gauges
- Controls
- Manifold and valves
- Strainers
- Tested

4. Fire main system and stations

NO. HOSES REQUIRED	NO. HOSES ON BOARD	DIAMETER	LENGTH OF EACH HOSE

- Number hose stations required .....
- Material
- Nozzles and spanners
- Mains and hydrants
- Tested

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E. Machinery Installation

1. ☒ Propulsion engines

NUMBER	TYPE
1	VOLVO PENTA DIESEL

- Foundations
- Controls
- Tested
- Safety devices
- Carburetor drip collector
- Backfire flame arrestor
- Lubrication system

2. ☒ Cooling system

TYPE ENGINE COOLING SYSTEM
HEAT EXCHANGER
TYPE EXHAUST COOLING SYSTEM
WET

- Gauges
- Installation

3. ☒ Fuel system

TANK CAP. (GALLONS)	TANK MAT.	TANK WALL THICKNESS
300	ALUM.	.250
FUEL LINE MATERIAL	**FUEL LINE WALL THICKNESS (NEW CONSTRUCTION)**	
COPPER	.035	
FILL PIPE DIAMETER	**VENT PIPE DIAMETER**	
2"	5/8"	

- Tanks independent of hull

  ☒ Yes ☐ No

- Termination of filling, sounding or vent pipes outside vessel
- Shut-off valves (tank and engines)
- Pumps and piping
- Controls
- Gauges
- Safety devices and alarms
- Strainers

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N/A

6. ☐☐☐ Unfired pressure vessels required to be periodically tested or examined

SERVICE	WORKING PRESSURE	RELIEF VALVE SETTING	DATE TESTED OR EXAMINED

7. ☐☐☐ Deck machinery

- Windlass
- Winches
- Capstans
- Controls
- Guards

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4. ☐ Ventilation of machinery installations

VENTILATORS	NUMBER	TYPE
FOR MACHINERY SPACE	1	NATURAL
FOR FUEL TANK SPACE	2	NATURAL

- Switch for exhaust blower (gasoline vessel)
  - —outside of space protected
  - —interlocked with ignition
  - —warning sign posted

5. ☐ Auxiliaries

- Generators
- Motors
- Pumps
- Controls
- Guards

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F. Electrical Equipment

1. ☒ ☐ ☐ Primary power and light system
   - Volts 12
   - Electrical source:
     - ☒ ~~Generator~~ ALTERNATOR
     - ☐ Battery
   - Grounding

2. ☒ ☐ ☐ Main engine generators
   - Number 1
   - Type BELT DRIVEN
   - KW

3. ☐ ☐ ☒ Independent generators
   - Number
   - Type
   - KW
   - Overcurrent protection
   - Proper location

4. ☒ ☐ ☐ Batteries

USE	NUMBER	VOLTS (EACH BATTERY)	LOCATION
START & LIGHTING	2	12	UNDER CABIN DECK

   - Overload protection
   - Ventilation
   - Enclosure or shielding
   - Tray or mounting

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5. ☐ ☐ ☒ Switchboards and panelboards
- Overcurrent devices
- Ventilation
- Protection

6. ☐ ☐ ☒ Wiring, receptacles, outlets, accessories
- Installation
- Grounding
- Protection
- Connections

7. ☐ ☐ ☒ Emergency lighting
- Tested
- Type (describe):

2 LANTERN

8. ☐ ☒ ☐ Battery chargers

9. ☐ ☒ ☐ Miscellaneous motors and controllers
- Proper location
- Grounding

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G. Steering Apparatus

1. ☒ Main system
   - Type (describe):

HYDRAULIC

2. ☒ Auxiliary system
   - Type (describe):

HAND TILLER

H. Mooring Equipment and Rigging

1. ☒ Ground tackle

NUMBER ANCHORS	WEIGHT (LBS)	
1	DANFORTH 22	
NUMBER CABLES	**LENGTH**	**SIZE**
1	150'	1/2" POLY.

2. ☐ Cargo gear
3. ☐ Sails and rigging

I. Communications

1. Type of internal communications (describe on opposite page):
2. ☒ Pilot house control

1. VOICE

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J. Navigation

1. ☒ Signaling devices
   - Sound
   - Visual
   - Distress
2. ☒ Compasses
   - Number 2
3. ☒ Electronic equipment
   - Type (describe):

CB RADIO
VHF RADIO

K. Miscellaneous

1. ☒ Accommodations (passenger and crew)
   - Seating
   - Ventilation
   - Sanitation

	MALE	FEMALE
WASH BASINS	1	
TOILETS	1 FOR BOTH	

2. ☒ Ventilation of closed spaces
3. ☒ Heating and cooking equipment
   - Type (describe):

OIL STOVE

4. ☒ Emergency check-off list posted
5. ☒ Markings, name plates, notices
6. ☒ Licenses examined

J.3. ROSS T-240B DEPTH SOUNDER
MODAR MO3000 TRITON VHF
PACE 40 CHAN CB

K-1 THETFORD ELECTRA MAGIC
MODEL 80 MSD

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REMARKS (Including Diary)

12/9/76

AT MODUTECH MARINE TO EXAMINE LAYUP OF VESSEL & TAKE HARDNESS TEST BEFORE VESSEL IS REMOVED FROM MOLD. LAY-UP SATISFACTORY. HARDNESS TEST SAT. TO CONTINUE.

L J Buckman

12/14/76

AT CHASIS COMPONENTS. WITNESSED HYDRO OF FUEL TANKS. HAD PREVIOUSLY EXAMINED FIT-UP & TEST SAT. STAMPED TANKS AT

FILL OPENING WITH "USCG BUG".

L J Buckman

1/19/77

AT BUILDERS. WITNESSED CUT OUTS FOR BURN OUT TEST. EXAMINED PROGRESS OF WORK. ENGINE & FUEL TANKS ARE MOUNTED. MAIN DECK INSTALLED. CABIN PARTIALLY IN PLACE. WORK SATISFACTORY.

L J Buckman

2/4/77

AT BUILDERS. EXAMINED VESSEL EXTERNALLY & INTERNALLY BEFORE

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VESSEL WAS PLACED IN WATER. EXAMINED MACHINERY INSTALLATION. ALL ABOVE SAT. TO CONTINUE.

L G Bickmore

2/25/77

AT HYLEBOS MARINA. COMPLETED OUTFITTING INSPECTION. TESTED MACHINERY, STEERING. INSPECTED LIFESAVING, FIREFIGHTING & EMERGENCY EQUIPMENT. FOUND ALL ABOVE SAT. INSPECTION COMPLETE. NO OUTSTANDING DEFICIENCIES.

L G Bickmore

Inspection Complete
No deficiencies

Type COI

CFE

INDEXED
INDEXED

27 March 1978

Boarded vessel afloat at Skippanon Basin, Warrenton, Oregon to conduct 1ST R.I. Examined vessel document and papers. Entered all accessible spaces. Inspected/stamped life preservers. Tested/insp all lifesaving and fire fighting equipment. Witnessed operational test

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27 MARCH 78 (CONT)

of engine, steering, electronic equip, and navigation lights. All items found satisfactory as noted on pages 1 thru 26. Inspection completed with no outstanding discrepancies. Endorsed C.O.I.

MUI [redacted] JCSteve

19 April 1979

Boarded vessel afloat at Hammond Mooring Basin, Or to conduct 2ND R/I. Sighted document and papers. Entered all accessible spaces. Inspected/tested all lifesaving and fire fighting equipment. Witnessed testing of engine, steering, and nav-lights.

19 April 79 (CONT)

All items found satisfactory as initialed on pages 1 thru 26. No discrepancies outstanding. Endorsed C.O.I.. Inspection completed this date.

JCSteve

MUI [redacted]

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Record of Inspection

DATE	PLACE	HOUR ARRIVED	HOUR DEPARTED	INSPECTOR
12/9/76	MODUTECH TACOMA	1010	1105	L. BICKMORE
12/14/76	CHASIS COMPONENTS	1000	1035	L. BICKMORE
1/19/77	MODUTECH	1045	1200	L. BICKMORE
2/4/77	"	0930	1140	L. BICKMORE
2/25/77	"	0915	1105	L. BICKMORE
27 MAR 78	WARRENTON, OR.	1115	1230	J. Steve
19 APR 79	HAMMOND, OR.	0830	1000	J. Steve

Record of Inspection

DATE	PLACE	HOUR ARRIVED	HOUR DEPARTED	INSPECTOR

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Record of Inspection

Name and title of representatives of the vessel assisting in the inspection:

BUILDER / CARL SWINDAL

" / JOHN POHLMAN

AL DEMMEL - OWNER

AL DEMMEZ - OWNER/OPR

In my opinion the vessel

Triennial	1st Reinsp.	2d Reinsp.
☒ is	☒ is	☒ is
☐ is not	☐ is not	☐ is not

fit for the service and route specified.

(1) Signature of U. S. C. G. Inspector

(2) Signature of U. S. C. G. Inspector

(3) Signature of U. S. C. G. Inspector

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