

**NATIONAL CARGO BUREAU, INC.**

**ADDENDUM #2 TO GRAIN STABILITY CALCULATION FORM**

TO BE COMPLETED WHEN A VESSEL, CARRYING GRAIN IN BULK AND ENGAGED ON A VOYAGE ON THE INLAND OR COASTAL WATERS OF THE UNITED STATES, **ELECTS** AND IS **ENTITLED** TO UTILIZE THE PROVISIONS OF 46 CFR 172.030.

M.V./S.S. \_\_\_\_\_ PORT \_\_\_\_\_

COLUMN #	1	2	3	4	5	6	7	8	9
SLACK HOLD #	L (WITHOUT C.L.)	L (WITH C.L.)	COLUMN # 2 DIVIDED BY 4	COLUMN # 1 PLUS COLUMN # 3	B	B <sup>3</sup>	COLUMN # 4 x COLUMN # 6 x 0.0661	S.F.	COLUMN # 7 DIVIDED BY COLUMN # 8
<b>SUM OF COLUMN 9</b>									

**KEY**

- L = LENGTH OF HOLD
- B = BREADTH OF GRAIN SURFACE
- C.L. = CENTERLINE DIVISION
- S.F. = STOWAGE FACTOR

**NOTES**

1. ALL DIMENSIONS MUST BE IN METERS (M), METRIC TONS (MT), AND M<sup>3</sup>/MT OR, ALTERNATIVELY, IN FEET (FT), LONG TONS (LT), AND FT<sup>3</sup>/LT.
2. WHERE A C.L. DIVISION HALVES THE BREADTH, COLUMNS # 2 AND # 3 ADJUST THE CALCULATION FOR THIS REDUCTION.

**DEPARTURE FROM:**

DISPLACEMENT = _____	$r = \frac{\text{FREEBOARD}}{\text{BEAM}}$	REQUIRED GM = $\frac{\text{SUM x F}}{\text{DISPLACEMENT}}$
GM = _____	$r = \text{_____} = \text{-----}$	= _____
MEAN DRAFT = _____	IF $r < 0.268$ THEN	REQUIRED GM = _____
FREEBOARD = _____	F = 0.268 DIVIDED BY r	AVAILABLE GM = _____
BEAM = _____	OTHERWISE F = 1	
	F = _____	

**ARRIVAL AT:**

DISPLACEMENT = _____	$r = \frac{\text{FREEBOARD}}{\text{BEAM}}$	REQUIRED GM = $\frac{\text{SUM x F}}{\text{DISPLACEMENT}}$
GM = _____	$r = \text{_____} = \text{-----}$	= _____
MEAN DRAFT = _____	IF $r < 0.268$ THEN	REQUIRED GM = _____
FREEBOARD = _____	F = 0.268 DIVIDED BY r	AVAILABLE GM = _____
BEAM = _____	OTHERWISE F = 1	
	F = _____	

\_\_\_\_\_  
MASTER

EXAMINED: \_\_\_\_\_

\_\_\_\_\_  
N.C.B. SURVEYOR