

Subject

2008 IS Code

ClassNK

Technical Information

No. TEC-0821
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To whom it may concern

The International Code on Intact Stability, 2008 (2008 IS Code) was adopted at IMO MSC 85 in December 2008. In addition, amendments to the International Convention for the Safety of Life at Sea (SOLAS), 1974 and the International Convention on Load Lines, 1966 were adopted at IMO MSC.269(85) and IMO MSC.270(85), respectively, in order to mandate the 2008 IS Code. The 2008 IS Code as established based on IMO Resolution A.749(18) consists of Part A (Mandatory) and Part B (Non-Mandatory) including relevant interpretations. The 2008 IS Code is to be applied to ships 24m in length and above, with keels that have been laid on or after 1 July 2010.

1. The main contents of the amendments from IMO Resolution A.749(18) are as follows.
 - (1) Trim
 - (i) The change of trim is to be considered during calculation of the stability curve. (Free-trimming)
 - (ii) The following items are to be included into the Stability Booklet.
 - (a) Curve or table of Minimum G_0M or Maximum KG_0 covered in the trim range of operating loading condition
 - (b) Cross curve with trim covered in the trim range of operating loading condition, taking into consideration changes in trim during inclining
 - (c) Displacement table or curve with trim covered in the trim range of operating loading condition
 - (2) Full cargo tanks are to be corrected for free surface effects at 98% filling level. In doing so, the correction to the initial metacentric height is to be based on the inertia moment of the liquid surface at 5 degrees of the heeling angle divided by displacement. In addition, the correction to the righting lever is suggested to be based on the real shifting moment of the cargo liquids.
2. Examples of the revisions made to the Stability Booklet to which IMO Resolution A.749(18) applies are attached for your information.
3. It is to be noted that the 2008 IS Code may effect the accuracy deviation between the Stability Booklet and Stability Computer due to changes in the method to calculate Stability Booklet, in cases where the Stability Computer uses a different calculation method without taking Free-trimming into consideration.

(To be continued)

NOTES:

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4. The Design-IPCA program developed by ClassNK has already been updated corresponding to the 2008 IS Code.

For any questions about the above, please contact:

NIPPON KAIJI KYOKAI (ClassNK)
Hull Department, Administration Center, Head Office
Address: 4-7 Kioi-cho, Chiyoda-ku, Tokyo 102-8567, Japan
Tel.: +81-3-5226-2017 / 2018
Fax: +81-3-5226-2019
E-mail: hld@classnk.or.jp

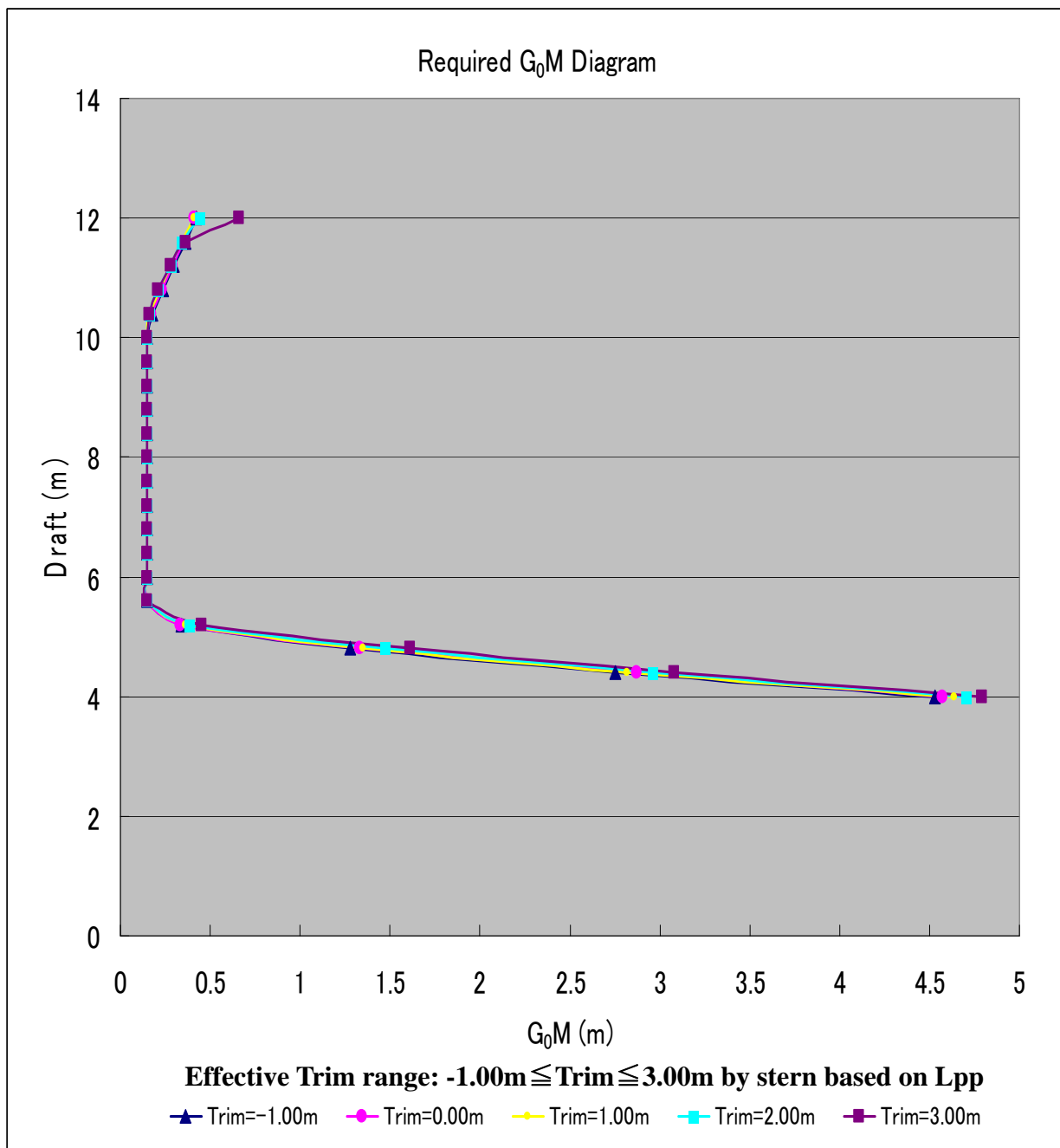
Attachment:

1. Example of Stability Booklet
2. [2008 IS Code \(IMO Resolution MSC.267\(85\)\)](#)
(URL: [http://www.imo.org/includes/blastData.asp/doc_id=11081/267\(85\).pdf](http://www.imo.org/includes/blastData.asp/doc_id=11081/267(85).pdf))
3. [MSC/Circ.920](#)
(URL: http://www.imo.org/includes/blastData.asp/doc_id=841/920.PDF)

Data newly added to Stability Booklet

Example 1: Allowable G_0M curve in cases where the vessel has an operation trim ranging from -1.00 m to +3.00 m

- (a) Operational trim range is to be covered in the Allowable G_0M curve.
- (b) The interval of trim is to be at least 1% of ship's length in order to be used in stability calculations.
- (c) It is suggested that the interval of trim not be greater than 1.00 m.



Example 2: Cross curve with trim

- (a) Free-trimming is to be considered at time of calculation of cross curve.
- (b) The interval of trim is to be at least 1% of ship's length in order to be used in stability calculations.
- (c) It is suggested that the interval of trim not be greater than 1.0 m.

TABLE OF CROSS CURVES

HEIGHT OF ASSUMED KG ABOVE BASE LINE = 0.001 M

TRIM = 1.000 M (TRIM FREE GZ calc. Side : S-Side)

.... HEEL ANGLE (DEG.)

DRAFT		0.00	5.00	10.00	20.00	30.00	40.00	50.00
EXT	DISP. FULL							
(M)	(MT)			 GZ VALUES (M)			
5.00	16774.09	0.000	1.234	2.483	5.009	7.133	8.654	9.650
.10	17134.16	0.000	1.220	2.454	4.959	7.099	8.630	9.645
.20	17494.75	0.000	1.206	2.427	4.910	7.066	8.617	9.641
.30	17855.86	0.000	1.194	2.401	4.864	7.034	8.599	9.637

Example 3: Displacement table with trim

- (a) The value of displacement and TKM is to be included in the displacement table with trim.
- (b) The interval of trim is to be at least 1% of ship's length in order to be used in stability calculations.
- (c) It is suggested that the interval of trim not be greater than 1.00 m.

HYDROSTATIC TABLE WITH TRIM = -1.00 (M)

THICKNESS OF KEEL = 16.0 (mm)

DRAFT		TPC	LCB	LCF	MTC	TKM	VCB	LKM
(EXT)	DISP. FULL	(MT)	(M)	(M)	(MT*M)	(M)	(M)	(M)
(M)	(MT)							
8.00	27846.25	38.13	-5.92	-1.89	383.62	11.59	4.15	222.78
.10	28227.95	38.22	-5.87	-1.76	386.24	11.56	4.20	221.34
.20	28610.45	38.30	-5.81	-1.62	388.82	11.53	4.25	219.90
.30	28993.7	38.38	-5.75	-1.49	391.37	11.51	4.30	218.48
.40	29377.95	38.46	-5.70	-1.36	393.90	11.49	4.36	217.08