MSC/Circ.363

STRINGTH OF GRAIN DIVISIONS LOADED ON ONE SIDE

1. The Maritime Safety Committee's attention was earlier drawn to deficiencies in the loadings given in Tables I and II of Section 1 of Part C in Chapter VI of the 1974 SOLAS Convention, and authorized the issue of MSC/Circ.310 which circular indicated that Table I and II where only suitable for divisions where the height of grain did not exceed 3 metres and gave guidance for grain heights in excess of 3 metres.

2. Subsequent discussion has indicated however that Tables I and II may be used for determining the load on grain divisions for grain heights of up to 6 metres. The tables, in Si units, anr attached.

3. For heights of grain in excess of 6 metres the tables of is given hereunder:

Togind force (p) for a transverse division where h = 9.00m, l = 18.00m

5. MSC/Circ.310 and Corr.1 is hereby revoked.

A. Longitudinal divisions

The load in kN per metre length of the divisions shall be taken to be as follows:

Table I

h = height of grain in metres from bottom of the division [1])

1) Where the distance from a division to a feeder of hatchway is 1 metre of less, the height h shall be taken to the level of the grain within that hatchway or feeder. In all other cases the height shall be taken to the overhead dick in way of the division.

B = transverse extent of the bulkgrain in metres.

a. For values of h equal of less than 6.00 metres the force shall be determined by linear interpolation of extrapolation as necessary.

b. For values of h exceeding 6.00 metres the force shall be determined using the

				B (m)				
h(m)	2	3	4	5	6	7	8	10
1.50	8336	8826	9905	12013	14710	17358	20202	25939
2.00	13631	14759	16769	19466	22506	25546	28733	35206
2.50	19466	21182	23830	26870	30303	33686	37265	44473
3.00	25644	2790	30891	34323	38099	41874	45797	53740
3.50	31823	34568	37952	41727	45895	50014	54329	63008
4.00	38148	41286	45013	49180	53691	58202	62861	72275
4.50	44473	47955	52073	56584	61488	66342	71392	81542
5.00	51847	54623	59134	64037	69284	74531	79924	90810
6.00	63498	68009	17256	78894	84877	90859	96988	109344

values of given in Table I.1

B. Transverse Divisions

The load in kN per metre length of the division shall be taken to be as follows:

Table

h = height of grain in metres from the bottom of the divisions [1])

1) where the distance from a division to a feeder of hatchway is 1 metre or less, the height h shall be taken to the level of the grain within that hatchway or feeder. In all other cases the height shall be taken to the overhead deck in way of the division.

L = longitudinal extent of the bulkgrain in metres.

a. For values of h equal of less than 6.00 metres the force shall be determined by linear interpolation of extrapolation as necessary.

b. For values of h exceeding 6.00 metres the force shall be determined using the values of given in Table II.1

	L(m)										
h(m)	2	3	4	5	6	7	8	10	12	14	16
1.5	6570	6767	7159	7649	8189	8728	9196	9807	10199	10297	10297
2	10199	10787	11474	12209	12994	13729	14416	15445	16083	16279	16279
2.5	14318	15347	16426	17456	18437	19417	20349	21673	22408	22604	22604
3	18878	20251	21624	22948	24222	25399	26429	27900	28684	28930	28930
3.5	23781	25546	27164	28733	30155	31430	32558	34127	35010	25255	35255
4	28930	30989	32901	34667	36187	37559	38736	40403	41286	41531	41580
4.5	34274	36530	38638	40501	42120	43542	44767	46582	47562	47856	47905
5	39717	42218	44473	46434	48151	49622	50897	52809	53839	54182	54231
6	50749	53593	56094	58301	60164	61782	63204	65263	66440	66832	66930

Values of □

Table I.1.		Table II.1	
□	□	□	□
0.2	1687	0.2	1334
0.3	1742	0.3	1395
0.4	1809	0.4	1444
0.5	1889	0.5	1489
0.6	1976	0.6	1532
0.7	2064	0.7	1571
0.8	2159	0.8	1606
1.0	2358	1.0	1671
1.2	2556	1.2	1725
1.4	2762	1.4	1769
1.6	2968	1.6	1803

1.8	3174	1.8	1829
2.0	3380	2.0	1846
2.2	3586	2.2	1853
2.4	3792	2.4	1857
2.6	3998	2.6	1859
2.8	4204	2.8	1859
3.0	4410	3.0	1859
3.5	4925	3.5	1859
4.0	5440	4.0	1859
5.0	6469	5.0	1859
6.0	7499	6.0	1859
8.0	9559	8.0	1859