

Amended Other Rules and Guidance

Steel Barges



Present	Amendment	Remark
<p style="text-align: center;">CHAPTER 1 GENERAL</p> <p style="text-align: center;">Section 2 General</p> <p>201. ~ 202. <same as the present Rules></p> <p>203. Equivalency</p> <p><u>Alternative hull construction, equipment and machinery will be accepted by the Society, provided that the Society is satisfied that such construction, equipment, machinery are equivalent to those required in this rule.</u></p> <p><hereafter, same as the present Rules></p>	<p style="text-align: center;">CHAPTER 1 GENERAL</p> <p style="text-align: center;">Section 2 General</p> <p>201. ~ 202. <same as the present Rules></p> <p>203. Equivalency</p> <p><u>The equivalence of alternative and novel features which deviate from or are not directly applicable to the Rules is to be in accordance with Pt 1, Ch 1 of the Rules for the Classification of Steel Ships. (2020)</u></p> <p><hereafter, same as the present Rules></p>	<p>* amended to match phrases related to equivalency</p>

Present	Amendment	Remark
<p align="center">CHAPTER 19 EQUIPMENT NUMBER AND EQUIPMENT</p> <p align="center">Section 1 General</p> <p>101. General</p> <p>1. All barges, according to their equipment numbers, are to be provided with anchors, chain cables, ropes, etc. which are not less than given in Table 19.1.</p> <p>2. Anchors, chain cables, ropes, etc. for barges having equipment numbers not more than 50 and more than 3210 are to be in accordance with the discretion of the Society.</p> <p>3. The tests and inspections for anchors, chain cables, wire ropes and fibre ropes, etc. are to be in compliance with the requirements in Pt 4, Ch 8 of the Rules.</p> <p>102. Unmanned barges</p> <p>Notwithstanding the requirements in 101., for the unmanned barges the following requirements are applied:</p> <p>(1) The number of anchors may be one of the unit mass in Table 19.1.</p> <p>(2) The length of anchor chains may be half of length in Table 19.1.</p> <p>(3) Except where specified in (1) and (2), the Table 19.1 is applied.</p>	<p align="center">CHAPTER 19 EQUIPMENT NUMBER AND EQUIPMENT</p> <p align="center">Section 1 General</p> <p>101. General (2020)</p> <p>1. <u>Equipment number and Equipment are to be in accordance with the Pt 4, Ch 8 of the rules.</u></p> <p>2. <u>For barges having 205 or below in equipment number, the wire ropes may be used in lieu of chain cables.</u></p> <p>102. Unmanned barges (2020)</p> <p>Notwithstanding the requirements in 101., for the unmanned barges the following requirements are applied:</p> <p>(1) The number of anchors may be one of the unit mass in Pt 4, Table 4.8.1 of the rules.</p> <p>(2) The length of anchor chains may be half of length in Pt 4, Table 4.8.1 of the rules.</p> <p>(3) Except where specified in (1) and (2), the Pt 4, Table 4.8.1 of the rules is applied.</p> <p align="center">Section 2 Equipment Number</p> <p>201. Equipment number (2020)</p> <p><u>As specified in Pt 4, Ch 8, Sec 2 of the rules.</u></p> <p>202. Mass of anchors (2020)</p> <p><u>As specified in Pt 4, Ch 8, Sec 2 of the rules.</u> ↓</p>	<p>* Since the regulations related to the Equipment number and Equipment overlap with Pt 4, Ch 8, we have removed the regulations and follow Pt 4, Ch 8.</p>

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<p style="text-align: center;">Section 2 Equipment Number</p> <p>201. Equipment number</p> <p>Equipment number is the value obtained from the following formula :</p> $E = \Delta^{\frac{2}{3}} + 2.0Bh + 0.1A$ <p>— where :</p> <p>— Δ = Full load displacement (t)</p> <p>— h and A = Values specified in the following (1), (2) and (3)</p> <p>(1) h is the value obtained from the following formula :</p> $h = f + h' \text{ (m)}$ <p>where :</p> <p>f = Vertical distance, at the midship, from the load line to the top of freeboard deck beam at side (m)</p> <p>h' = Height from the freeboard deck to the top of uppermost superstructures or deckhouses having a breadth greater than $B/4$ (m). In the calculation of h', sheer and trim may be ignored. Where a deckhouse having a breadth greater than $B/4$ is located above a deckhouse with a breadth of $B/4$ or less, the narrow deckhouse may be ignored.</p> <p>(2) A is the value obtained from the following formula :</p> $A = fL + \sum h''l \text{ (m}^2\text{)}$		<p>* Since the regulations related to the Equipment number and Equipment overlap with Pt 4, Ch 8, we have removed the regulations and follow Pt 4, Ch 8.</p>

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<p>where:- f = Value specified in (1) $\sum h''l$ = Summing up of the products of the height h'' (m) and length l (m) of superstructures, deckhouses or trunks which are located above the freeboard deck within the length of barge and also have a breadth greater than $B/4$ and a height greater than 1.5 m.</p> <p>(3) In the application of (1) and (2), screens and bulwarks more than 1.5 m in height are to be regarded as parts of superstructures or deckhouses.</p> <p>202. Mass of anchors (2017)</p> <p>1. The mass of individual bower anchors may vary by $\pm 7\%$ of the mass given in Table 19.1 provided that the total mass of stipulated number of bower anchors is not less than obtained from multiplying the mass per anchor by the number given in Table 19.1 Where, however, an approval by the Society is obtained, the anchors which are increased in mass by more than 7% may be used.</p> <p>2. Where stocked anchors are used, the mass, excluding the stock, is not be less than 0.8 times the mass specified in Table 19.1 for ordinary stockless bower anchors.</p> <p>3. Where high holding power anchors are used, the mass of each anchor may be 0.75 times the mass specified in Table 19.1 for ordinary stockless bower anchors.</p> <p>4. Where super high holding power anchors are used, the mass of each anchor may be 0.5 times the mass specified in Table 19.1. However, super high holding power anchor mass is not to exceed 1,500 kg. \downarrow</p>		<p>* Since the regulations related to the Equipment number and Equipment overlap with Pt 4, Ch 8, we have removed the regulations and follow Pt 4, Ch 8.</p>

Present

Amendment

Reason

Table 19.1 Bower anchors, chain cables and ropes

Equipment letter	Equipment		Stockless-bower-anchors		Stud-link-chain-cables-for-bower-anchors			Tow-line			Mooring-line				
	Exceeding	Not-exceeding	Number	Weight-per-anchor-(kg)	Total-length-(m)	Diameter-(mm)			Length-(m)	Breaking-load		Number	Length-of-each-line-(m)	Breaking-load	
						Grade-1	Grade-2	Grade-3		(kg)	(kN)			(kg)	(kN)
A1	50	70	2	180	220	14	12.5		180	↑ 10000	98	3	80	↑ 3500	34
A2	70	90	2	240	220	16	14		180	10000	98	3	100	3750	37
A3	90	110	2	300	247.5	17.5	16		180	10000	98	3	110	4000	39
A4	110	130	2	360	247.5	19	17.5		180	10000	98	3	110	4500	44
A5	130	150	2	420	275	20.5	17.5		180	10000	98	3	120	5000	49
B1	150	175	2	480	275	22	19		180	10000	98	3	120	5500	54
B2	175	205	2	570	302.5	24	20		180	11400	112	3	120	6000	59
B3	205	240	2	660	302.5	26	22	20.5	180	13200	129	4	120	6500	64
B4	240	280	2	780	330	28	24	22	180	15300	150	4	120	7000	69
B5	280	320	2	900	357.5	30	26	24	180	17700	174	4	120	7500	74
C1	320	360	2	1020	357.5	32	28	24	180	21100	207	4	140	8000	78
C2	360	400	2	1140	385	34	30	26	180	22800	224	4	140	9000	88
C3	400	450	2	1290	385	36	32	28	180	25500	250	4	140	10000	98
C4	450	500	2	1440	412.5	38	34	30	180	28200	277	4	140	11000	108
C5	500	550	2	1590	412.5	40	34	30	190	31200	306	4	160	12500	123
D1	550	600	2	1740	440	42	36	32	190	34500	338	4	160	13500	132
D2	600	660	2	1920	440	44	38	34	190	38700	371	4	160	15000	147
D3	660	720	2	2100	440	46	40	36	190	41400	406	4	160	16000	157
D4	720	780	2	2280	467.5	48	42	36	190	45000	441	4	170	17500	172
D5	780	840	2	2460	467.5	50	44	38	190	48900	480	4	170	19000	186

* Since the regulations related to the Equipment number and Equipment overlap with Pt 4, Ch 8, we have removed the regulations and follow Pt 4, Ch 8.

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Table 19.1 – Bower anchors, chain cables and ropes																
Equip- ment letter	Equipment		Stockless- bower anchors		Stud-link-chain-cables-for- bower anchors			Tow-line			Mooring-line					
	Exce- eding	Not- exce- eding	Nu- mbe- r	Weight- per- anchor- (kg)	Total- length (m)	Diameter (mm)			Len- gth (m)	Breaking load		Nu- mber	Leng- th-of each- line (m)	Breaking load		
						Grade 1	Grade 2	Grade 3		(kg)	(kN)			(kg)	(kN)	
<i>E1</i>	840	910	2	2640	467.5	52	46	40	190	52800	518	4	170	20500	201	
<i>E2</i>	910	980	2	2850	495	54	48	42	190	57000	559	4	170	22000	216	
<i>E3</i>	980	1060	2	3060	495	56	50	44	200	61500	603	4	180	23500	230	
<i>E4</i>	1060	1140	2	3300	495	58	50	46	200	66000	647	4	180	25500	250	
<i>E5</i>	1140	1220	2	3540	522.5	60	52	46	200	70600	691	4	180	27500	270	
<i>F1</i>	1220	1300	2	3780	522.5	62	54	48	200	75300	738	4	180	29000	284	
<i>F2</i>	1300	1390	2	4050	522.5	64	56	50	200	80100	786	4	180	31500	309	
<i>F3</i>	1390	1480	2	4320	550	66	58	50	200	85200	836	4	180	33000	324	
<i>F4</i>	1480	1570	2	4590	550	68	60	52	200	90600	888	5	190	33000	324	
<i>F5</i>	1570	1670	2	4890	550	70	62	54	200	96000	941	5	190	34000	333	
<i>G1</i>	1670	1790	2	5250	577.5	73	64	56	220	104400	1023	5	190	36000	353	
<i>G2</i>	1790	1930	2	5610	577.5	76	66	58	220	113100	1109	5	190	38500	377	
<i>G3</i>	1930	2080	2	6000	577.5	78	68	60	220	119100	1168	5	190	41000	402	
<i>G4</i>	2080	2230	2	6450	605	81	70	62	240	128400	1259	5	200	43000	422	
<i>G5</i>	2230	2380	2	6900	605	84	73	64	240	138300	1356	5	200	46000	451	
<i>H1</i>	2380	2530	2	7350	605	87	76	66	240	148200	1453	5	200	49000	451	
<i>H2</i>	2530	2700	2	7800	632.5	90	78	68	260	150000	1471	6	200	49000	451	
<i>H3</i>	2700	2870	2	8300	632.5	92	81	70	260	150000	1471	6	200	50000	490	
<i>H4</i>	2870	3040	2	8700	632.5	95	84	73	260	150000	1471	6	200	51000	500	
<i>H5</i>	3040	3210	2	9300	660	97	84	76	280	150000	1471	6	200	53000	520	
NOTE:																
1. Where steel wire ropes are used, the following wire ropes corresponding to the marks shown in the Table, ●(6×12), ⊕(6×24), ⊙(6×37), are to be provided.																
2. Length of chain cables may be that including shackles for connection																
3. For barges having equipment number of 205. and below, wire rope may be used instead of cable.																

* Since the regulations related to the Equipment number and Equipment overlap with Pt 4, Ch 8, we have removed the regulations and follow Pt 4, Ch 8.