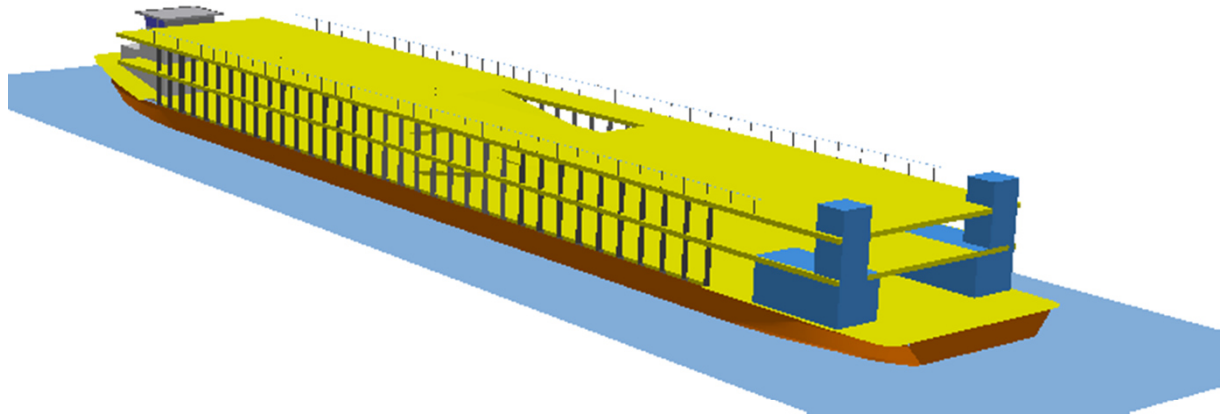
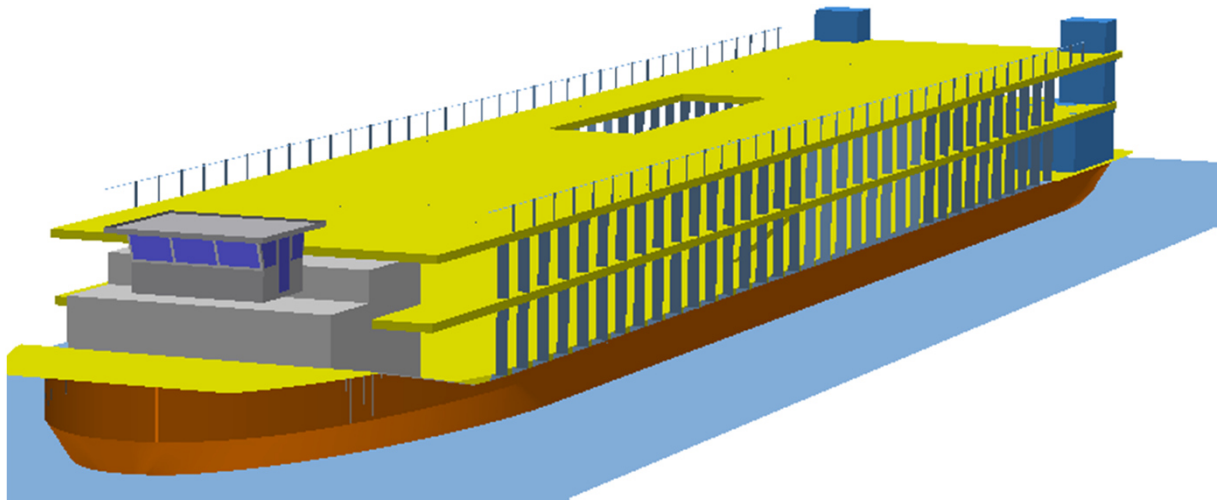


Car Carrier



Main dimensions

Cargo type		Car Carrier
Hull type		CC
Length o.A.	L	90,00 m
Breadth moulded	B	14,50 m
Depth Main Deck	D	3,10 m
Draught max.	T	1,80 m
Lightweight estimate		950 t
Payload at Tmax		847 t

Applicable regulations

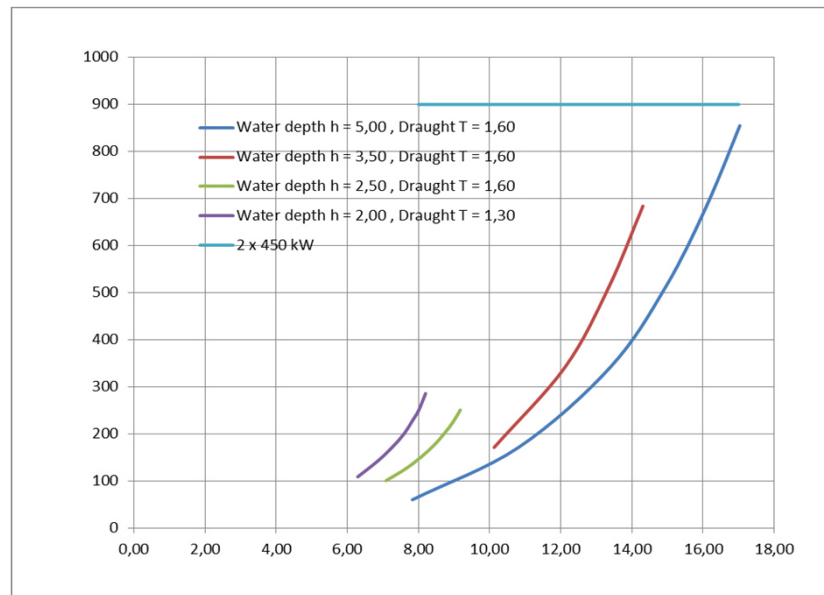
- Vessel built according to Rules and Regulations for the Construction and Classification of Inland Waterways Ships by the Indian Register of Shipping.
- Applicable rules of IWAI for navigation on NW-1, all reaches from Haldia (West Bengal) to Allahabad (Uttar Pradesh).

Powering

Number of Propellers (in nozzles)		2
Propeller diameter	D_p	1,45 m
Del. total power	P_d	900 kW
Rate of rev.	n [1/min]	390

Reversible gear box

Diesel marine engine 500 kW in rating A (heavy, uninterrupted duty)



Capacity	Hold	Main deck	3. Deck	4. Deck
Car capacity	78 Cars	78 Cars	85 Cars	110 Cars
Total	351 Cars			

Cars on four decks, access by land ramp on starboard side.

Small car stowing dimension typically 4.0 m in length, 1.70 in breadth and 1.70 m in height.

Small car weight 1000 kg.

SUV car stowing dimension typically 4.8 m in length, 2.0 in breadth and 1.80 m in height.

SUV weight 1800 kg.

Fixed ramps between decks with 10° slope.

Car decks in light weight steel construction.

Allowed only for cars and SUV, wheel load 10 kN.

Deck plating 8 mm, stiffeners L or Bulb profile

(Access ramp to be adopted to available landsite facilities)

Provisions

Diesel Oil	24 t
Fresh Water	10 t
Lub Oil	2 t
Sludge	5 t
Ballast Water	200 t
Black Water	9 t

Equipment

- Twin rudder blades with high efficiency profiles behind each propeller.
- Bow thruster with vertical propeller shaft, propeller diameter 0.80 m. Diesel engine drive, 150 kW.
- Two bow rudder flaps in dimension of b x h = 2.0 x 1.0 m
- Two bow anchors, each 1230 kg
- One stern anchor 615 kg

Accommodation

- Accommodation on two decks for crew of max 12 persons

Weight calculation results for major components

Steel weight, longt. Framing	490 t
Accommodation	65 t
Machinery & outfitting	65 t
Car deck construction	330 t
Sum	950 t

Electric load requirements

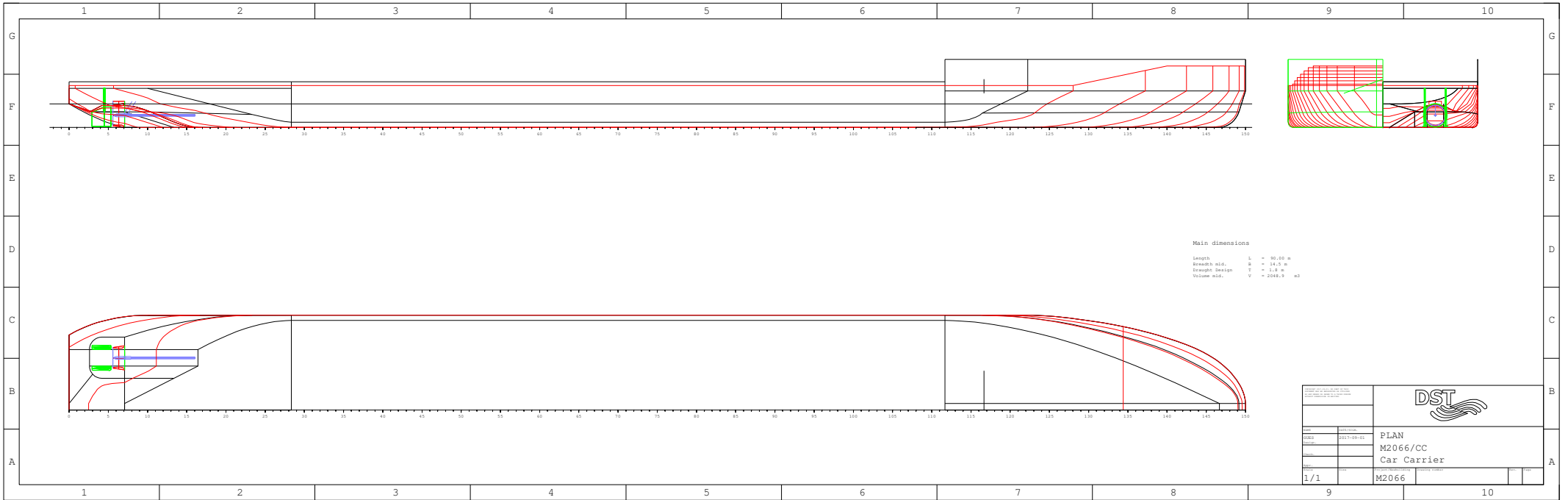
Diesel driven genset, 60 kW output

Three-phase AC supply to anchor winches


220 V supply to accommodation

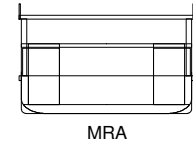
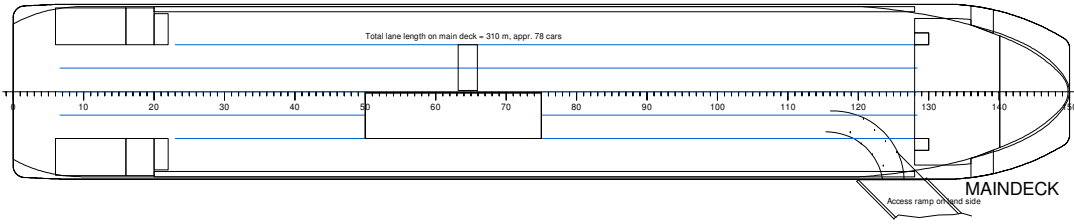
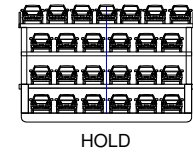
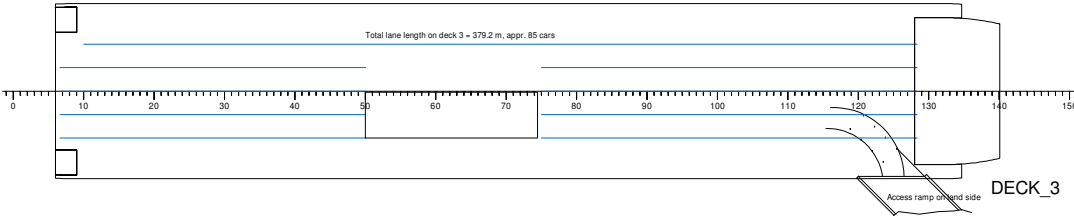
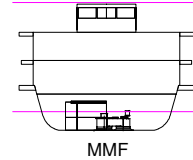
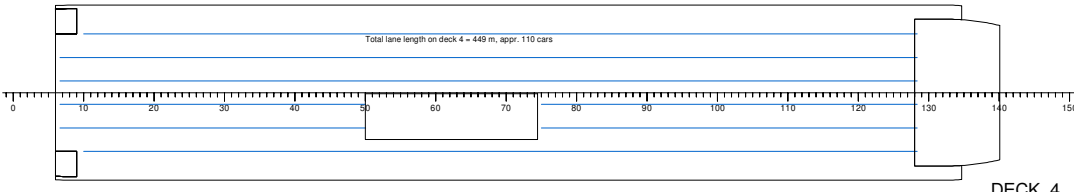
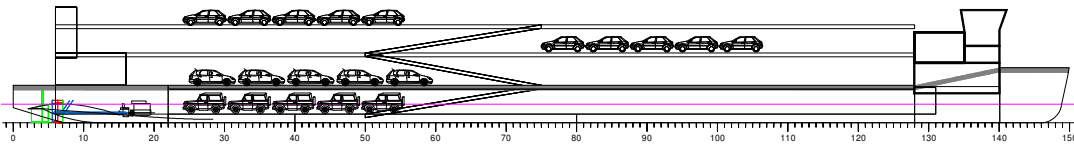
220 V supply to AC accommodation

24 V emergency circuit

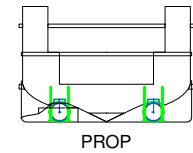
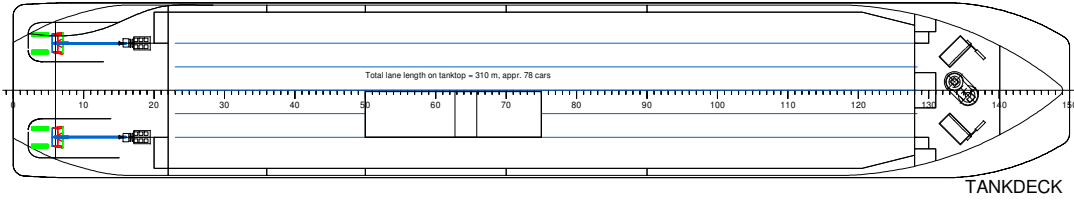


Main dimensions
 Length L = 90,00 m
 Breadth afd. B = 14,0 m
 Draught Design T = 1,8 m
 Volume afd. V = 2048,4 m³

<small>DESIGN OF SHIP AND YACHTS CONSULTING ENGINEERS LTD. 100, 101, 102, 103, 104, 105, 106, 107, 108, 109, 110, 111, 112, 113, 114, 115, 116, 117, 118, 119, 120, 121, 122, 123, 124, 125, 126, 127, 128, 129, 130, 131, 132, 133, 134, 135, 136, 137, 138, 139, 140, 141, 142, 143, 144, 145, 146, 147, 148, 149, 150, 151, 152, 153, 154, 155, 156, 157, 158, 159, 160, 161, 162, 163, 164, 165, 166, 167, 168, 169, 170, 171, 172, 173, 174, 175, 176, 177, 178, 179, 180, 181, 182, 183, 184, 185, 186, 187, 188, 189, 190, 191, 192, 193, 194, 195, 196, 197, 198, 199, 200, 201, 202, 203, 204, 205, 206, 207, 208, 209, 210, 211, 212, 213, 214, 215, 216, 217, 218, 219, 220, 221, 222, 223, 224, 225, 226, 227, 228, 229, 230, 231, 232, 233, 234, 235, 236, 237, 238, 239, 240, 241, 242, 243, 244, 245, 246, 247, 248, 249, 250, 251, 252, 253, 254, 255, 256, 257, 258, 259, 260, 261, 262, 263, 264, 265, 266, 267, 268, 269, 270, 271, 272, 273, 274, 275, 276, 277, 278, 279, 280, 281, 282, 283, 284, 285, 286, 287, 288, 289, 290, 291, 292, 293, 294, 295, 296, 297, 298, 299, 300, 301, 302, 303, 304, 305, 306, 307, 308, 309, 310, 311, 312, 313, 314, 315, 316, 317, 318, 319, 320, 321, 322, 323, 324, 325, 326, 327, 328, 329, 330, 331, 332, 333, 334, 335, 336, 337, 338, 339, 340, 341, 342, 343, 344, 345, 346, 347, 348, 349, 350, 351, 352, 353, 354, 355, 356, 357, 358, 359, 360, 361, 362, 363, 364, 365, 366, 367, 368, 369, 370, 371, 372, 373, 374, 375, 376, 377, 378, 379, 380, 381, 382, 383, 384, 385, 386, 387, 388, 389, 390, 391, 392, 393, 394, 395, 396, 397, 398, 399, 400, 401, 402, 403, 404, 405, 406, 407, 408, 409, 410, 411, 412, 413, 414, 415, 416, 417, 418, 419, 420, 421, 422, 423, 424, 425, 426, 427, 428, 429, 430, 431, 432, 433, 434, 435, 436, 437, 438, 439, 440, 441, 442, 443, 444, 445, 446, 447, 448, 449, 450, 451, 452, 453, 454, 455, 456, 457, 458, 459, 460, 461, 462, 463, 464, 465, 466, 467, 468, 469, 470, 471, 472, 473, 474, 475, 476, 477, 478, 479, 480, 481, 482, 483, 484, 485, 486, 487, 488, 489, 490, 491, 492, 493, 494, 495, 496, 497, 498, 499, 500, 501, 502, 503, 504, 505, 506, 507, 508, 509, 510, 511, 512, 513, 514, 515, 516, 517, 518, 519, 520, 521, 522, 523, 524, 525, 526, 527, 528, 529, 530, 531, 532, 533, 534, 535, 536, 537, 538, 539, 540, 541, 542, 543, 544, 545, 546, 547, 548, 549, 550, 551, 552, 553, 554, 555, 556, 557, 558, 559, 560, 561, 562, 563, 564, 565, 566, 567, 568, 569, 570, 571, 572, 573, 574, 575, 576, 577, 578, 579, 580, 581, 582, 583, 584, 585, 586, 587, 588, 589, 590, 591, 592, 593, 594, 595, 596, 597, 598, 599, 600, 601, 602, 603, 604, 605, 606, 607, 608, 609, 610, 611, 612, 613, 614, 615, 616, 617, 618, 619, 620, 621, 622, 623, 624, 625, 626, 627, 628, 629, 630, 631, 632, 633, 634, 635, 636, 637, 638, 639, 640, 641, 642, 643, 644, 645, 646, 647, 648, 649, 650, 651, 652, 653, 654, 655, 656, 657, 658, 659, 660, 661, 662, 663, 664, 665, 666, 667, 668, 669, 670, 671, 672, 673, 674, 675, 676, 677, 678, 679, 680, 681, 682, 683, 684, 685, 686, 687, 688, 689, 690, 691, 692, 693, 694, 695, 696, 697, 698, 699, 700, 701, 702, 703, 704, 705, 706, 707, 708, 709, 710, 711, 712, 713, 714, 715, 716, 717, 718, 719, 720, 721, 722, 723, 724, 725, 726, 727, 728, 729, 730, 731, 732, 733, 734, 735, 736, 737, 738, 739, 740, 741, 742, 743, 744, 745, 746, 747, 748, 749, 750, 751, 752, 753, 754, 755, 756, 757, 758, 759, 760, 761, 762, 763, 764, 765, 766, 767, 768, 769, 770, 771, 772, 773, 774, 775, 776, 777, 778, 779, 780, 781, 782, 783, 784, 785, 786, 787, 788, 789, 790, 791, 792, 793, 794, 795, 796, 797, 798, 799, 800, 801, 802, 803, 804, 805, 806, 807, 808, 809, 810, 811, 812, 813, 814, 815, 816, 817, 818, 819, 820, 821, 822, 823, 824, 825, 826, 827, 828, 829, 830, 831, 832, 833, 834, 835, 836, 837, 838, 839, 840, 841, 842, 843, 844, 845, 846, 847, 848, 849, 850, 851, 852, 853, 854, 855, 856, 857, 858, 859, 860, 861, 862, 863, 864, 865, 866, 867, 868, 869, 870, 871, 872, 873, 874, 875, 876, 877, 878, 879, 880, 881, 882, 883, 884, 885, 886, 887, 888, 889, 890, 891, 892, 893, 894, 895, 896, 897, 898, 899, 900, 901, 902, 903, 904, 905, 906, 907, 908, 909, 910, 911, 912, 913, 914, 915, 916, 917, 918, 919, 920, 921, 922, 923, 924, 925, 926, 927, 928, 929, 930, 931, 932, 933, 934, 935, 936, 937, 938, 939, 940, 941, 942, 943, 944, 945, 946, 947, 948, 949, 950, 951, 952, 953, 954, 955, 956, 957, 958, 959, 960, 961, 962, 963, 964, 965, 966, 967, 968, 969, 970, 971, 972, 973, 974, 975, 976, 977, 978, 979, 980, 981, 982, 983, 984, 985, 986, 987, 988, 989, 990, 991, 992, 993, 994, 995, 996, 997, 998, 999, 1000</small>			
DATE	2017-09-01	PLAN	
NO.		M2066/CC	
NAME		Car Carrier	
SCALE	1/1	PROJECT NUMBER	M2066



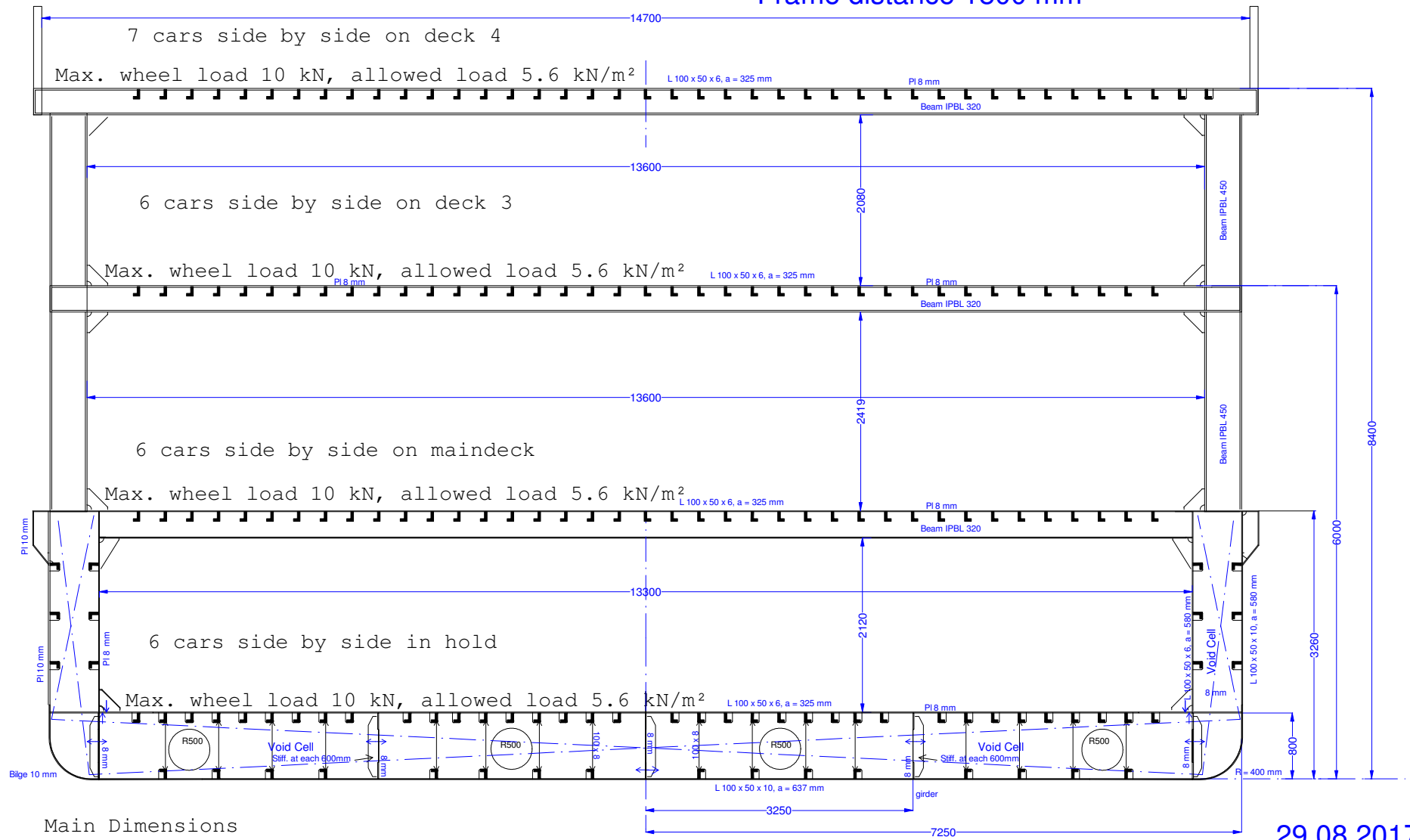
Main dimensions
 Length L = 90.0 m
 Breadth moulded B = 14.5 m
 Breadth oA BoA = 15.0 m
 Draught max T = 1.8 m
 Car capacity 351 cars on 4 decks



		GENERAL ARRANGEMENT CC	

Car Carrier CC - Main Frame and Scantling

Frame distance 1800 mm



Main Dimensions

Lenght PP	:	90.000 m
Breadth moulded	:	14.500 m
Breadth o.A.	:	15.000 m
Draught design	:	1.800 m
Navigation Zone 1		

29.08.2017

<p>Car Carrier CC Main Section</p>																	
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Scale																	
Rev																	
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M2066/CC

PROJECT INFO

L x B = 90.00 x 14.5 m

Project M2066/CC, 2017-09-11

LOADING CASES

NAME	TEXT	DISP t	MASS t	MASS t	T m	TR m
1-LIGHTSHIP		982.00	0.00	0.00	0.903	-0.093
2-MIN_BAL	Minimum Ballast	1082.00	0.00	0.00	1.033	-0.484
3-CARS	Full car load at 900.	1297.90	315.90	0.00	1.186	-0.160
4-T180	Full break load	1982.00	0.00	0.00	1.750	-0.059

M2066/CC

LOADING CONDITION 1-LIGHTSHIP

LOADING COMPONENTS

Name		Max. weight	Mass	Center of gravity cgx cgy cgz			Free s. moment

Diesel Oil, RHO=0.860							

DOA1	Diesel oil E.	28.4	20.00	10.80	0.00	3.98	144.13
DOF	Diesel Oil f.	9.7	6.00	77.70	0.00	1.41	0.00

Total of DO		38.2	26.00	26.24	0.00	3.39	144.13

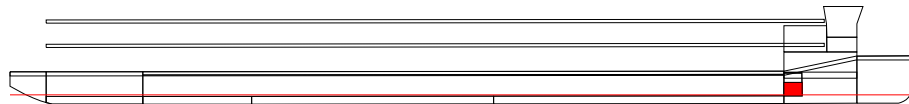
Fresh Water, RHO=1.000							

FW	Fresh water	14.3	6.00	77.66	0.00	1.38	40.57

Deadweight			32.0	35.88	0.00	3.01	184.7
Lightweight			950.0	44.98	0.00	4.38	
Displacement (rho=1.000)			982.0	44.69	0.00	4.34	184.7

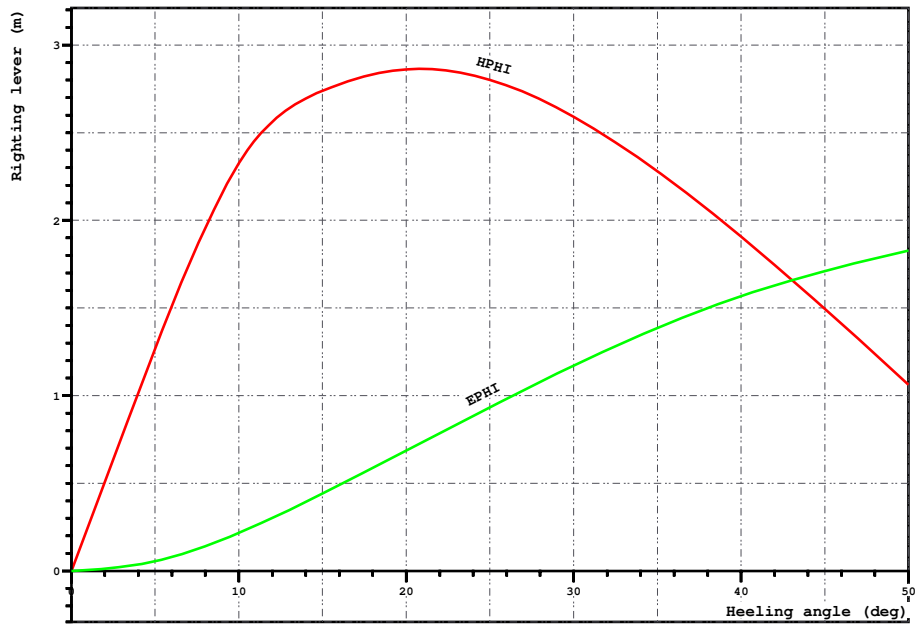
FLOATING POSITION

Draught moulded	0.903 m	KM	19.03 m
Trim	-0.093 m	KG	4.34 m
Heel, PS=+	0.0 deg		
TA	0.939 m	GM0	14.70 m
TF	0.846 m	GMCORR	-0.19 m
Trimming moment	-616 tonm	GM	14.51 m



Height of the wheelhouse top above waterline: 8.8 m

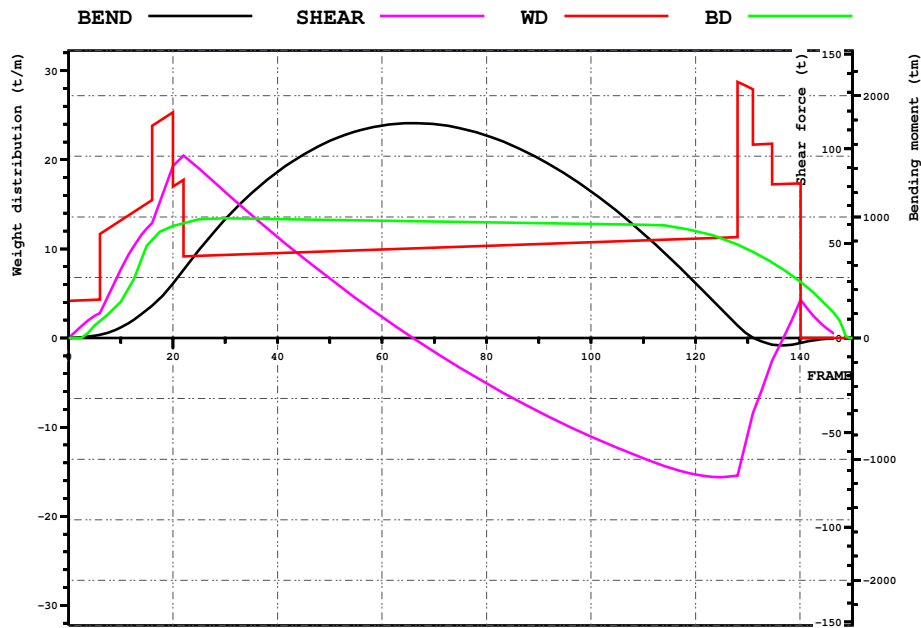
Loading case1 1-LIGHTSHIP,



LOADING CONDITION 1-LIGHTSHIP

HEEL deg	MS m	HPI m	EPI mrad	FSMOM tm	DGZ m
0.0	0.000	0.00	0.000	0.0	0.000
5.0	0.005	1.27	0.056	16.2	0.016
10.0	-0.192	2.33	0.216	32.4	0.033
15.0	-1.022	2.74	0.441	40.8	0.042
20.0	-2.120	2.86	0.687	43.4	0.044
30.0	-4.713	2.59	1.171	43.5	0.044
40.0	-7.497	1.91	1.567	40.7	0.041
50.0	-10.159	1.06	1.828	36.3	0.037

Loading case1 1-LIGHTSHIP,



LOADING CONDITION 1-LIGHTSHIP

X m	FR #	BEND tm	SHEAR t	WD t/m	BD t/m
0.000	0.00	0	0	4.18	0.00
6.000	10.00	87	36	13.20	4.05
12.000	20.00	449	91	25.31	12.56
18.000	30.00	980	77	9.31	13.42
24.000	40.00	1372	53	9.52	13.33
30.000	50.00	1626	31	9.72	13.24
36.000	60.00	1754	11	9.92	13.15
42.000	70.00	1766	-7	10.12	13.06
48.000	80.00	1672	-24	10.33	12.97
54.000	90.00	1483	-39	10.53	12.88
60.000	100.00	1210	-52	10.73	12.79
66.000	110.00	863	-64	10.94	12.69
72.000	120.00	454	-72	11.14	12.00
78.000	130.00	32	-51	28.21	9.94
84.000	140.00	-42	20	17.35	6.35

M2066/CC

LOADING CONDITION 2-MIN_BAL, Minimum Ballast

LOADING COMPONENTS

Name		Max. weight	Mass	Center of gravity cgx cgy cgz			Free s. moment

Void							

BWA	Ballast wate.	113.0	100.00	18.63	0.00	0.32	0.00
Diesel Oil, RHO=0.860							

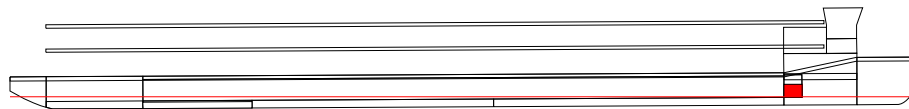
DOA1	Diesel oil E.	28.4	20.00	10.80	0.00	3.98	144.13
DOF	Diesel Oil f.	9.7	6.00	77.70	0.00	1.41	0.00

Total of DO		38.2	26.00	26.24	0.00	3.39	144.13
Fresh Water, RHO=1.000							

FW	Fresh water	14.3	6.00	77.66	0.00	1.38	40.57
Deadweight			132.0	22.81	0.00	0.97	184.7
Lightweight			950.0	44.98	0.00	4.38	
Displacement (rho=1.000)			1082.0	42.28	0.00	3.97	184.7

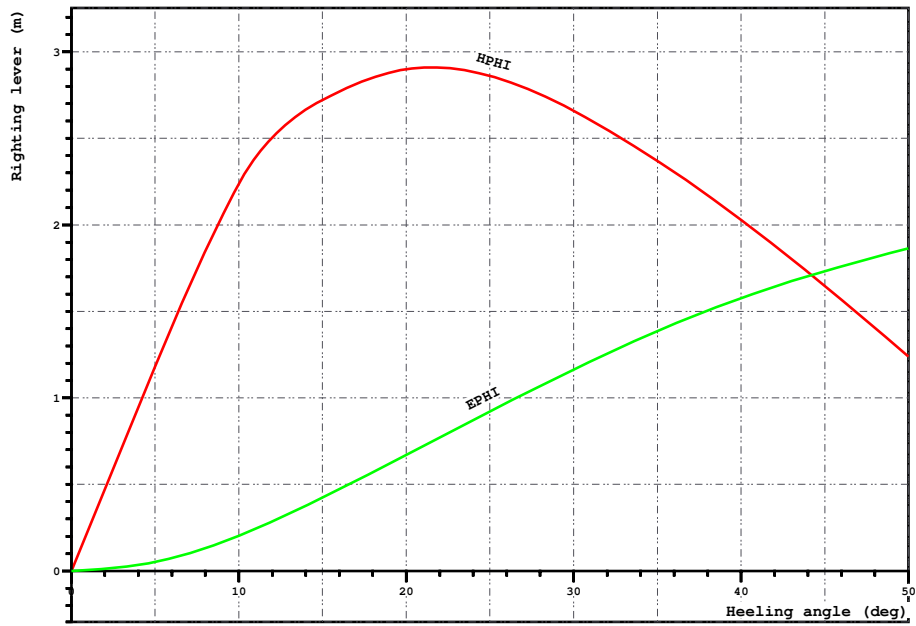
FLOATING POSITION

Draught moulded	1.033 m	KM	17.55 m
Trim	-0.484 m	KG	3.97 m
Heel, PS=+	0.0 deg		
TA	1.221 m	GM0	13.58 m
TF	0.737 m	GMCORR	-0.17 m
Trimming moment	-3282 tonm	GM	13.41 m



Height of the wheelhouse top above waterline: 8.88 m

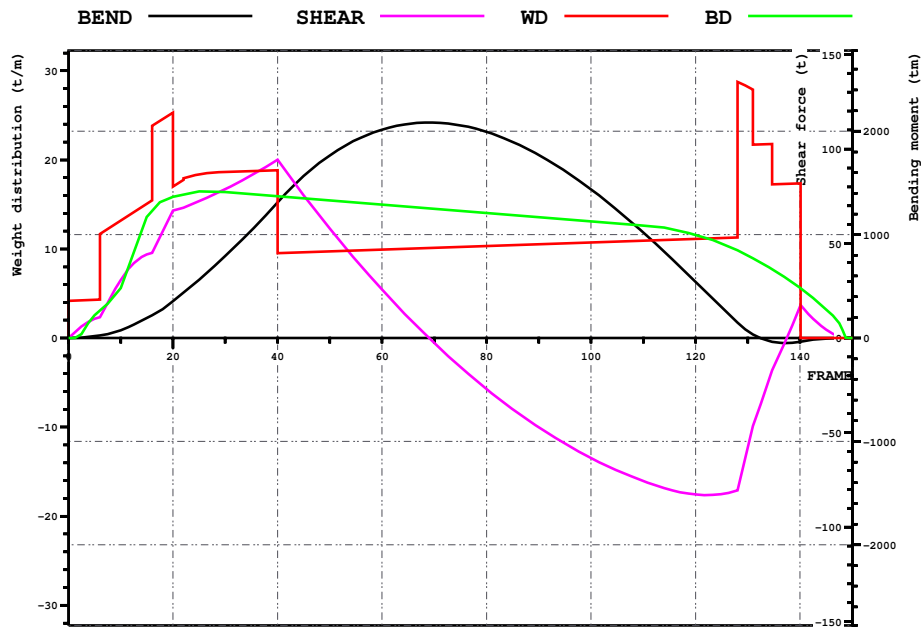
Loading case1 2-MIN_BAL, Minimum Ballast



LOADING CONDITION 2-MIN_BAL, Minimum Ballast

HEEL deg	MS m	HPHI m	EPhi mrad	FSMOM tm	DGZ m
0.0	0.000	0.00	0.000	0.0	0.000
5.0	0.011	1.18	0.052	16.2	0.015
10.0	-0.092	2.24	0.203	32.4	0.030
15.0	-0.755	2.72	0.423	40.8	0.038
20.0	-1.706	2.90	0.670	43.4	0.040
30.0	-4.092	2.66	1.165	43.5	0.040
40.0	-6.665	2.03	1.577	40.7	0.038
50.0	-9.133	1.24	1.863	36.3	0.034

Loading case1 2-MIN_BAL, Minimum Ballast



LOADING CONDITION 2-MIN_BAL, Minimum Ballast

X m	FR #	BEND tm	SHEAR t	WD t/m	BD t/m
0.000	0.00	0	0	4.18	0.00
6.000	10.00	75	31	13.20	5.62
12.000	20.00	355	67	25.29	15.86
18.000	30.00	792	79	18.63	16.38
24.000	40.00	1311	94	18.84	15.91
30.000	50.00	1767	58	9.72	15.45
36.000	60.00	2017	26	9.92	14.98
42.000	70.00	2084	-3	10.12	14.51
48.000	80.00	1995	-27	10.33	14.04
54.000	90.00	1771	-47	10.53	13.57
60.000	100.00	1438	-64	10.73	13.10
66.000	110.00	1020	-76	10.94	12.63
72.000	120.00	543	-83	11.14	11.57
78.000	130.00	67	-58	28.20	9.24
84.000	140.00	-37	17	17.35	5.65

M2066/CC

LOADING CONDITION 3-CARS, Full car load at 900 kg/car

LOADING COMPONENTS

Name		Max. weight	Mass	Center of gravity			Free s. moment
				cgx	cgy	cgz	

Diesel Oil, RHO=0.860							

DOA1	Diesel oil E.	28.4	20.00	10.80	0.00	3.98	144.13
DOF	Diesel Oil f.	9.7	6.00	77.70	0.00	1.41	0.00

Total of DO		38.2	26.00	26.24	0.00	3.39	144.13

Fresh Water, RHO=1.000							

FW	Fresh water	14.3	6.00	77.66	0.00	1.38	40.57

CAR1							

(CAR1)		0.0	70.20	44.97	0.00	1.80	0.00

CAR2							

(CAR2)		0.0	70.20	44.97	0.00	4.10	0.00

CAR3							

(CAR3)		0.0	76.50	42.22	0.00	6.50	0.00

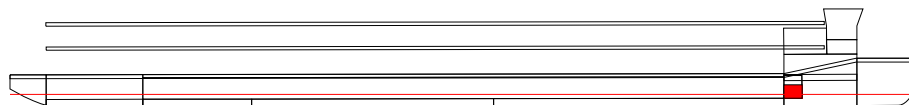
CAR4							

(CAR4)		0.0	99.00	42.22	0.00	6.50	0.00

Deadweight			347.9	42.74	0.00	4.75	184.7
Lightweight			950.0	44.98	0.00	4.38	
Displacement (rho=1.000)			1297.9	44.38	0.00	4.48	184.7

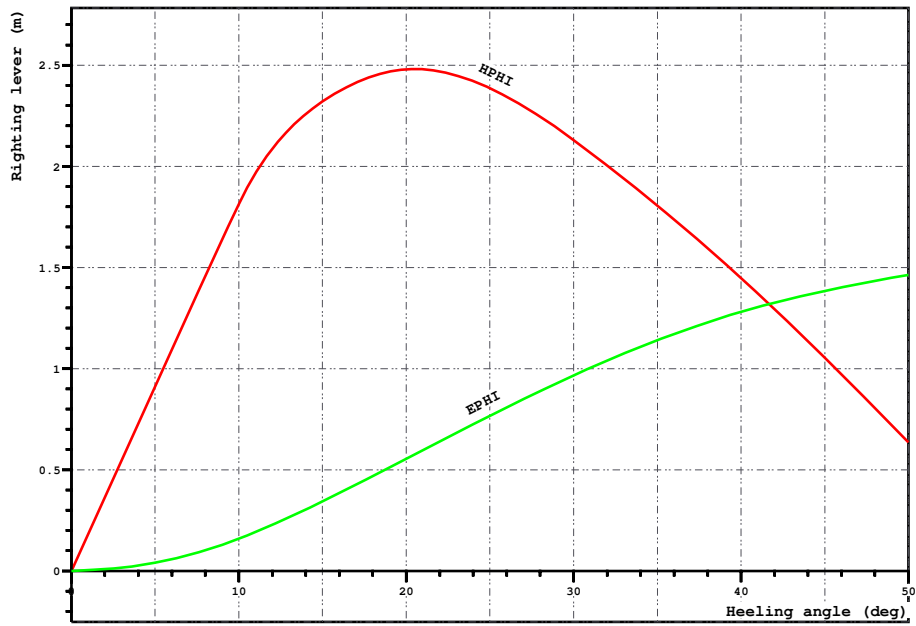
FLOATING POSITION

Draught moulded	1.186	m	KM	15.05	m
Trim	-0.160	m	KG	4.48	m
Heel, PS=+	0.0	deg			
TA	1.248	m	GM0	10.57	m
TF	1.088	m	GMCORR	-0.14	m
Trimming moment	-1121	tonm	GM	10.43	m



Height of the wheelhouse top above waterline: 8.55 m

Loading case1 3-CARS, Full car load at 900 kg/car

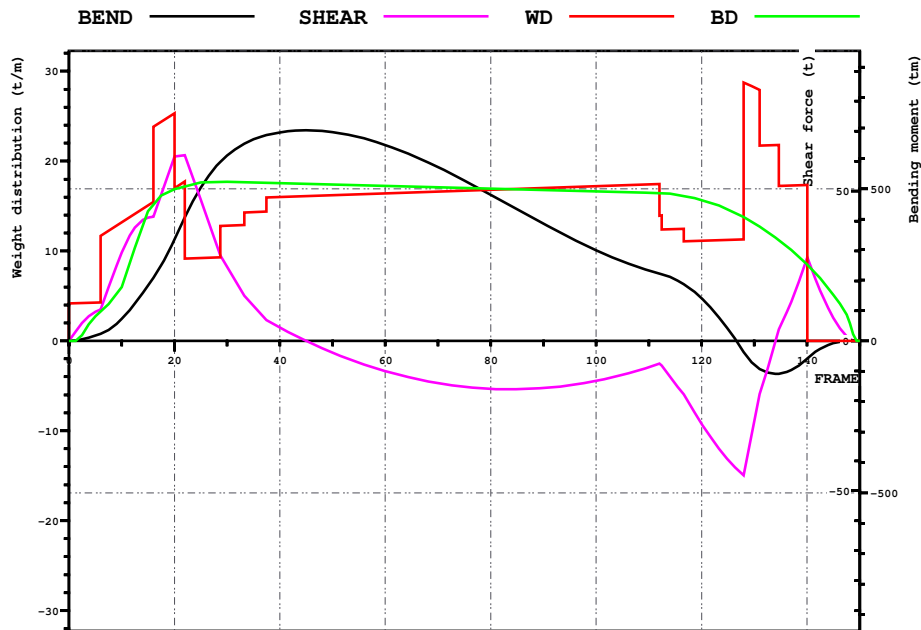


LOADING CONDITION 3-CARS, Full car load at 900 kg/car

HEEL deg	MS m	HPHI m	EPHI mrad	FSMOM tm	DGZ m
0.0	0.000	0.00	0.000	0.0	0.000
5.0	0.005	0.91	0.040	16.2	0.012
10.0	0.003	1.81	0.159	32.4	0.025
15.0	-0.383	2.32	0.344	40.8	0.031
20.0	-1.101	2.48	0.555	43.4	0.033
30.0	-3.121	2.13	0.967	43.5	0.033
40.0	-5.314	1.45	1.281	40.7	0.031
50.0	-7.432	0.64	1.464	36.3	0.028

M2066/CC

Loading case 3-CARS, Full car load at 900 kg/car



LOADING CONDITION 3-CARS, Full car load at 900 kg/car

X m	FR #	BEND tm	SHEAR t	WD t/m	BD t/m
0.000	0.00	0	0	4.18	0.00
6.000	10.00	72	30	13.20	5.97
12.000	20.00	332	62	25.31	16.87
18.000	30.00	610	25	12.82	17.71
24.000	40.00	686	4	15.99	17.56
30.000	50.00	687	-4	16.19	17.40
36.000	60.00	645	-10	16.40	17.25
42.000	70.00	572	-14	16.60	17.09
48.000	80.00	481	-16	16.80	16.94
54.000	90.00	385	-16	17.00	16.78
60.000	100.00	298	-13	17.21	16.63
66.000	110.00	231	-9	17.41	16.47
72.000	120.00	141	-28	11.14	15.65
78.000	130.00	-78	-27	28.21	13.06
84.000	140.00	-60	27	17.35	8.52

M2066/CC

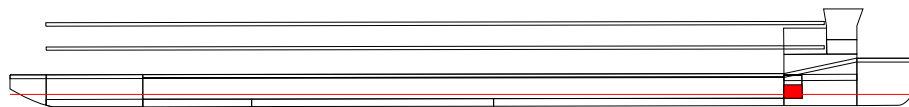
LOADING CONDITION 3-CARS, Full car load at 900 kg/car

LOADING COMPONENTS

Name		Max. weight	Mass	Center of gravity			Free s. moment
				cgx	cgy	cgz	
Diesel Oil, RHO=0.860							
DOA1	Diesel oil E.	28.4	20.00	10.80	0.00	3.98	144.13
DOF	Diesel Oil f.	9.7	6.00	77.70	0.00	1.41	0.00
Total of DO		38.2	26.00	26.24	0.00	3.39	144.13
Fresh Water, RHO=1.000							
FW	Fresh water	14.3	6.00	77.66	0.00	1.38	40.57
CAR1							
(CAR1)		0.0	70.20	44.97	0.00	1.80	0.00
CAR2							
(CAR2)		0.0	70.20	44.97	0.00	4.10	0.00
CAR3							
(CAR3)		0.0	76.50	42.22	0.00	6.50	0.00
CAR4							
(CAR4)		0.0	99.00	42.22	0.00	6.50	0.00
Deadweight			347.9	42.74	0.00	4.75	184.7
Lightweight			950.0	44.98	0.00	4.38	
Displacement (rho=1.000)			1297.9	44.38	0.00	4.48	184.7

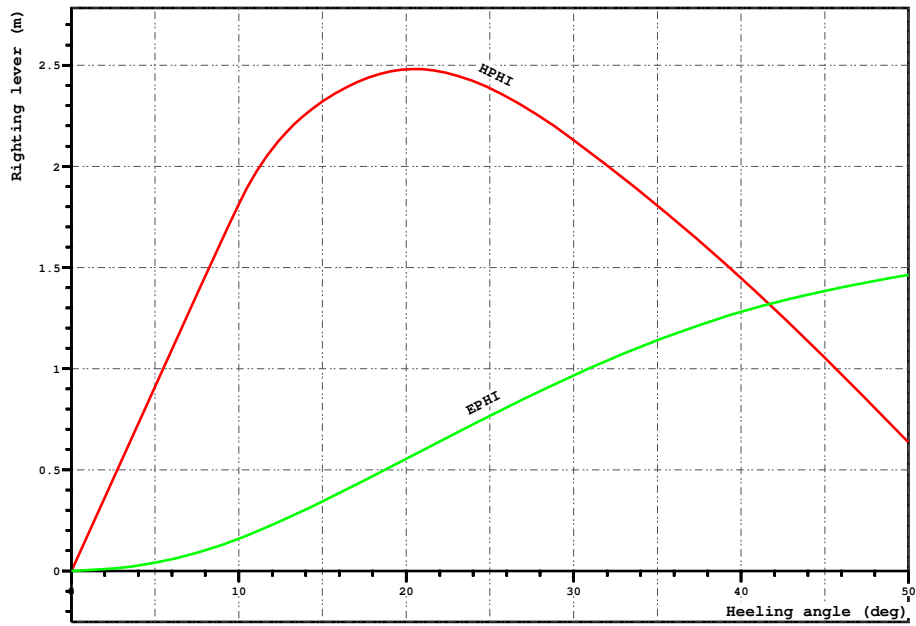
FLOATING POSITION

Draught moulded	1.186	m	KM	15.05	m
Trim	-0.160	m	KG	4.48	m
Heel, PS=+	0.0	deg			
TA	1.248	m	GM0	10.57	m
TF	1.088	m	GMCORR	-0.14	m
Trimming moment	-1121	tonm	GM	10.43	m



Height of the wheelhouse top above waterline: 8.55 m

Loading case 4, Full car load at 900 kg/car

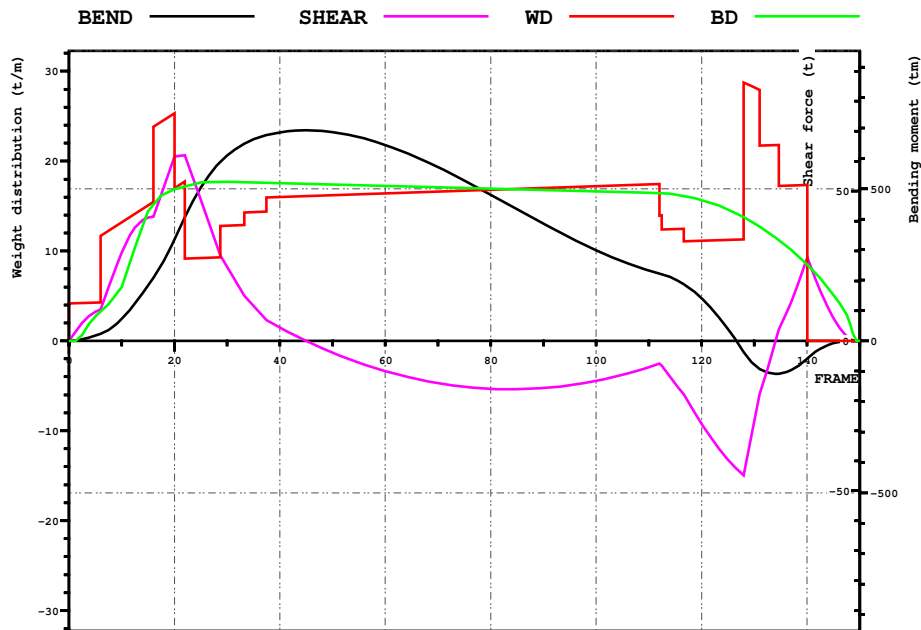


LOADING CONDITION 3-CARS, Full car load at 900 kg/car

HEEL deg	MS m	HPHI m	EPII mrad	FSMOM tm	DGZ m
0.0	0.000	0.00	0.000	0.0	0.000
5.0	0.005	0.91	0.040	16.2	0.012
10.0	0.003	1.81	0.159	32.4	0.025
15.0	-0.383	2.32	0.344	40.8	0.031
20.0	-1.101	2.48	0.555	43.4	0.033
30.0	-3.121	2.13	0.967	43.5	0.033
40.0	-5.314	1.45	1.281	40.7	0.031
50.0	-7.432	0.64	1.464	36.3	0.028

M2066/CC

Loading case 4, Full car load at 900 kg/car



LOADING CONDITION 3-CARS, Full car load at 900 kg/car

X m	FR #	BEND tm	SHEAR t	WD t/m	BD t/m
0.000	0.00	0	0	4.18	0.00
6.000	10.00	72	30	13.20	5.97
12.000	20.00	332	62	25.31	16.87
18.000	30.00	610	25	12.82	17.71
24.000	40.00	686	4	15.99	17.56
30.000	50.00	687	-4	16.19	17.40
36.000	60.00	645	-10	16.40	17.25
42.000	70.00	572	-14	16.60	17.09
48.000	80.00	481	-16	16.80	16.94
54.000	90.00	385	-16	17.00	16.78
60.000	100.00	298	-13	17.21	16.63
66.000	110.00	231	-9	17.41	16.47
72.000	120.00	141	-28	11.14	15.65
78.000	130.00	-78	-27	28.21	13.06
84.000	140.00	-60	27	17.35	8.52

M2066/CC

LOADING CONDITION 3-CARS, Full car load at 900 kg/car

LOADING COMPONENTS

Name		Max. weight	Mass	Center of gravity cgx cgy cgz			Free s. moment

Diesel Oil, RHO=0.860							

DOA1	Diesel oil E.	28.4	20.00	10.80	0.00	3.98	144.13
DOF	Diesel Oil f.	9.7	6.00	77.70	0.00	1.41	0.00

Total of DO		38.2	26.00	26.24	0.00	3.39	144.13

Fresh Water, RHO=1.000							

FW	Fresh water	14.3	6.00	77.66	0.00	1.38	40.57

CAR1							

(CAR1)		0.0	70.20	44.97	0.00	1.80	0.00

CAR2							

(CAR2)		0.0	70.20	44.97	0.00	4.10	0.00

CAR3							

(CAR3)		0.0	76.50	42.22	0.00	6.50	0.00

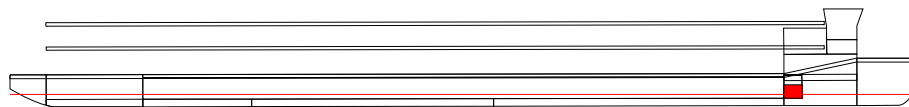
CAR4							

(CAR4)		0.0	99.00	42.22	0.00	6.50	0.00

Deadweight			347.9	42.74	0.00	4.75	184.7
Lightweight			950.0	44.98	0.00	4.38	
Displacement (rho=1.000)			1297.9	44.38	0.00	4.48	184.7

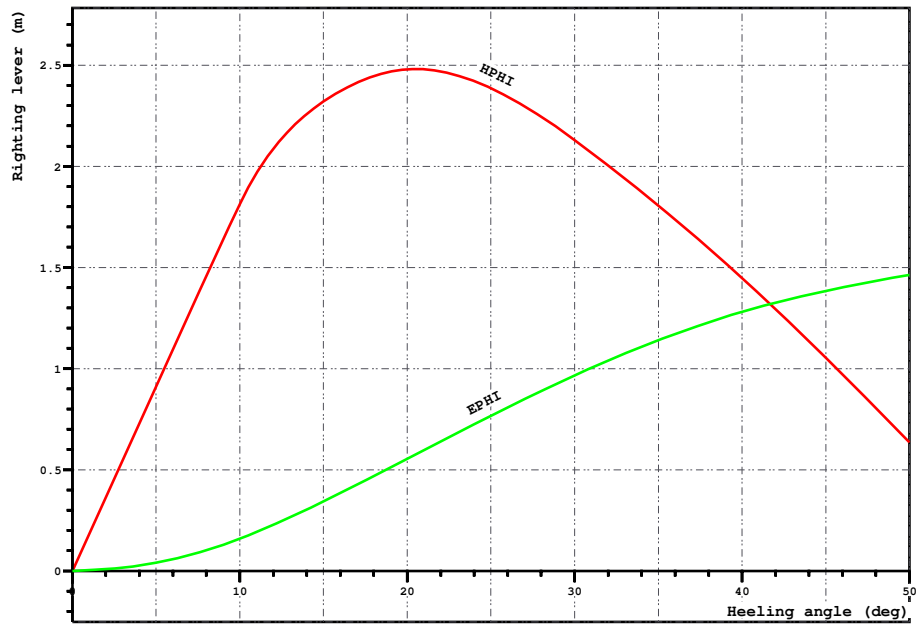
FLOATING POSITION

Draught moulded	1.186	m	KM	15.05	m
Trim	-0.160	m	KG	4.48	m
Heel, PS=+	0.0	deg			
TA	1.248	m	GM0	10.57	m
TF	1.088	m	GMCORR	-0.14	m
Trimming moment	-1121	tonm	GM	10.43	m



Height of the wheelhouse top above waterline: 8.55 m

Loading case1 T180, Full car load at 900 kg/car

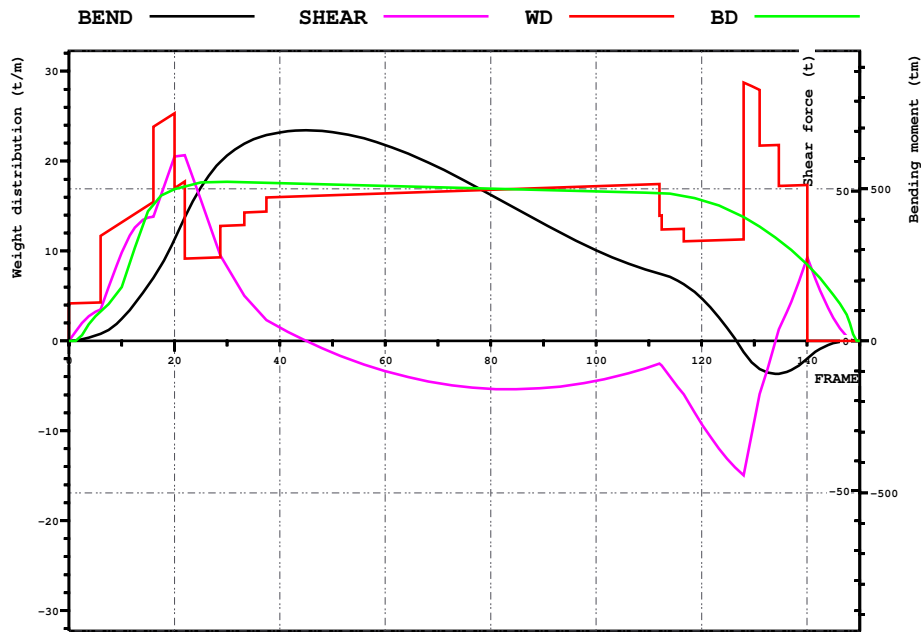


LOADING CONDITION 3-CARS, Full car load at 900 kg/car

HEEL deg	MS m	HPHI m	EPII mrad	FSMOM tm	DGZ m
0.0	0.000	0.00	0.000	0.0	0.000
5.0	0.005	0.91	0.040	16.2	0.012
10.0	0.003	1.81	0.159	32.4	0.025
15.0	-0.383	2.32	0.344	40.8	0.031
20.0	-1.101	2.48	0.555	43.4	0.033
30.0	-3.121	2.13	0.967	43.5	0.033
40.0	-5.314	1.45	1.281	40.7	0.031
50.0	-7.432	0.64	1.464	36.3	0.028

M2066/CC

Loading case1 T180, Full car load at 900 kg/car



LOADING CONDITION 3-CARS, Full car load at 900 kg/car

X m	FR #	BEND tm	SHEAR t	WD t/m	BD t/m
0.000	0.00	0	0	4.18	0.00
6.000	10.00	72	30	13.20	5.97
12.000	20.00	332	62	25.31	16.87
18.000	30.00	610	25	12.82	17.71
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72.000	120.00	141	-28	11.14	15.65
78.000	130.00	-78	-27	28.21	13.06
84.000	140.00	-60	27	17.35	8.52