Example Loading/~~Unloading~~ Plan

The loading or unloading plan should be prepared in a form such as shown below. Worked examples of this form are shown overleaf. A different form may be used provided it contains the essential information enclosed in the heavy line box.

LOADING~~/DISCHARGING~~ PLAN Version No 1	Date 96-03-24	Vessel BARBICAN			Voyage No. 044
Load~~/discharge~~ Port BOCA GRANDE	Cargo(es) IRON ORE	Assumed stowage factor of cargo(es) FINES 14 c/mt LUMP 14 c/mt	Ballast pumping rate 4,000 t/hr	Dock water density 1.025	Max draught available (HW) 17.88m	Max air draught in berth N/A
To/from Port JAPAN F.O.	Last cargo IRON ORE & COAL	No. of loaders/~~dischargers~~ 1	Load discharge rate 4,500 t/hr		Min draught available (LW) 9.42m	Max sailing/ arrival draught 17.88m

Tonnes / Grade	11	10	9	8	7	6	5	4	3	2	1
			14,756 FINES	17,000 LUMP	17,382 LUMP	16,382 LUMP	16,382 LUMP	16,900 FINES	15,382 LUMP	15,766 LUMP	13,050 FINES

Totals: Grade FINES = 44,706 Tonnes Grade: LUMP = 98,294 Tonnes Grade. Tonnes Total: 143,000 Tonnes

Pour No.	Cargo Hold No	Cargo Tonnes	Ballast operations	Time required (hours)	Comments	Calculated values Draught Fwd	Draught Aft	Maximum BM*	Maximum SF*	Calculated values Air draught	Draught mid	Trim	Observed values Draught Fwd	Draught Aft	Draught Mid
1	4	10,000	GO 1&3 UWT'S	2.22	Fines	9.99	10.77	73	49		10.38	0.78			
2	1	7,000	GO Upper Fore Peak PO 2hold	1.56	Fines Changeover 2Hold	10.14	10.48	66	53		10.31	0.34			
3	9	8,000	GO SUWTS PO Aft Pack	1.78	Fines	9.42	12.15	63	59		10.79	2.73			
4	4	6,900	PO 1DB'S	1.53	Fines	10.12	12.50	80	43		11.31	2.38			
5	9	6,756	PO 5DB's	1.50	Fines	9.56	13.74	80	45		11.65	4.18			
6	1	6,050	PO Lower FP GO 2UWTS	1.34	Fines	9.61	13.57	75	49		11.59	3.96			
					Change grade to Lump										
7	7	10,000	GO 6Hold to 50%	2.22	Lump	8.94	14.38	-58	55		11.66	5.43			
8	5	10,000	PO 6Hold	2.22	Lump	9.63	13.63	-67	49		11.63	4.00			
9	7	7,382	Educt 6Hold	1.64	Lump. Changeover 6 Hold	9.57	15.24	-64	47		12.41	5.67			
10	3	10,000	PO 2&3 DB's	2.22	Lump	10.41	14.65	-49	38		12.53	4.24			
11	8	10,000	GO 4UWT's	2.22	Lump	9.58	16.66	-50	43		13.12	7.08			
12	5	6,382	PO 4DB's	1.42	Lump	10.28	16.24	58	37		13.26	5.96			
13	8	6,000	Educt as required	1.33	Lump	9.90	17.88	53	38		13.89	7.98			
14	2	8,000	Educt as required	1.78	Lump	12.51	16.68	-65	46		14.60	4.17			
15	6	9,000	Educt as required	2.00	Lump	13.14	17.80	42	-21		15.47	4.66			
16	2	6,000	Educt as required	1.33	Lump	15.06	16.98	33	-14		16.02	1.92			
17	6	7,382	Educt ballast lines	1.64	Lump	15.59	17.88	48	-30		16.74	2.29			
18	3	5,382	Shut down ballast	1.20	Lump	16.95	17.54	44	-27		17.02	0.59			
					Trim check										
19	8	1,000		0.22	Lump	16.94	17.72	49	-30		17.33	0.79			
20	2	1,766		0.39	Lump	17.51	17.51	46	-27		17.51	0.00			
			DRAUGHT SURVEY		SEAGOING CONDITION	17.51	17.51	62	-36		17.51	0.00			
	TOTAL	143,000													

NO DEVIATION FROM ABOVE PLAN WITHOUT PRIOR APPROVAL OF CHIEF MATE

Pours to numbered 1A, 1B, 2A, 2B, etc. when using two loaders.
Abbreviations: PI=Pump In GI=Gravitate In F=Full PO=Pump Out GO=Gravitate Out MT=Empty
All entries within the box must be completed as far as possible. The entries outside the box are optional.

Signed Terminal _____

Signed Ship _____

*Bending moments (BM) & shear forces (SF) are to be expressed as a %age of maximum permitted in-port values for intermediate stages, and of maximum permitted at-sea values for the final stage. Every step in the loading/unloading plan must remain within the allowable limits for hull girder shear forces, bending moments and tonnage per hold, where applicable. Loading/unloading operations may have to be paused to allow for ballasting/deballasting in order to keep actual values within limits.

Example ~~Loading~~/Unloading Plan

The loading or unloading plan should be prepared in a form such as shown below. Worked examples of this form are shown overleaf. A different form may be used provided it contains the essential information enclosed in the heavy line box.

~~LOADING OR~~ UNLOADING PLAN Version No 1	Date 96-05-15	Vessel BARBICAN				Voyage No 044
~~Load~~/Unload Port CHIBA	Cargo(es) IRON ORE	Assumed stowage factor of cargo(es) ~~Fines 14 cf/mt~~ Lump ~~M cf/mt~~	Ballast pumping rate 6,000 t/hr	Dock water density 1.025	Max draught available (HW) 17.35m	Max air draught in berth 60m
~~Re~~from Port BOCA GRANDE	Last cargo IRON ORE & COAL	No. of ~~loaders~~/dischargers 2	~~Load~~ discharge rate 1,250 t/hr per grab		Min draught available (LW) 7.59m	Max ~~sailing~~/arrival draught 17m

Tonnes / Grade	11	10	9	8	7	6	5	4	3	2	1
			14,765 FINES	16,910 LUMP	17,382 LUMP	16,382 LUMP	16,382 LUMP	16,900 FINES	15,382 LUMP	15,470 LUMP	13,050 FINES

Totals: Grade: FINES = 44,706 Tonnes Grade: LUMP 97,908 Tonnes Grade: Tonnes Total: 142,614 Tonnes

Pour No.	Cargo Hold No.	Cargo Tonnes	Ballast operations	Time required (hours)	Comments	Calculated values Draught Fwd	Calculated values Draught Aft	Calculated values Maximum BM*	Calculated values Maximum SF*	Calculated values Air draught	Calculated values Draught mid	Calculated values Trim	Observed values Draught Fwd	Observed values Draught Aft	Observed values Draught Mid
1A	2	15,470	GI 1&2 DB's PI 2UWT's	13.2	Lump 2&6 Holds MT	13.82	16.29	-72	48			2.47			
1B	6	16,382													
2A	5	10,000	GI 4DB's PI 4UWT's	8.0	Lump	13.44	14.54	71	56			1.10			
2B	8	10,000													
3A	3	9.000	GI 3DB's	7.2	Lump	12.19	13.68	77	78			1.49			
3B	7	9.000													
4A	5	6,382	GI 5DB's	5.5	Lump 5&8 Holds MT	12.67	15.22	68	38			2.55			
4B	8	6,910	PI 6 Hold to 0.5m ullage												
5A	3	6,382		6.7	Lump 3&7 Holds MT	11.05	13.94	-91	59			2.89			
5B	7	8.382													
			Draught survey & change grade to Fines												
6A	1	6,000	PI 1&5 UWT's	4.8	Fines	9.75	14.01	83	42			4.26			
6B	9	6,000													
7A	4	8,756		7.0	Fines	9.38	10.64	80	52			1.26			
7B	9	8,756													
8A	1	7,050	GI & PI Lower Fore Peak	6.5	Fines	7.59	11.30	84	-82			3.71			
8B	4	8,144	PI Upper Fore Peak & 3UWT's												
INSTRUCTIONS	①		Please empty N°6 hold and leave as clean as possible. This will then be used for ballast during stage 4.												
	②		Grab and bulldozer blades must not be allowed to strike the ship's structure. Please instruct drivers to take special care.												
	③		Please note there are bilge and eductor plates in the after corners of each hold. Care required in these areas.												
	④		All damage to be reported. Holds to be surveyed on cargo completion.												
					SEAGOING CONDITION	7.59	11.30	84	-82			3.31			
	TOTAL	142,614													

NO DEVIATION FROM ABOVE PLAN WITHOUT PRIOR APPROVAL OF CHIEF MATE

Pours to numbered 1A, 1B, 2A, 2B, etc. when using two loaders.
Abbreviations: PI=Pump In GI=Gravitate In F=Full PO=Pump Out GO=Gravitate Out MT=Empty
All entries within the box must be completed as far as possible. The entries outside the box are optional.

Signed Terminal _____

Signed Ship _____

*Bending moments (BM) & shear forces (SF) are to be expressed as a %age of maximum permitted in-port values for intermediate stages, and of maximum permitted at-sea values for the final stage. Every step in the loading/unloading plan must remain within the allowable limits for hull girder shear forces, bending moments and tonnage per hold, where applicable. Loading/unloading operations may have to be paused to allow for ballasting/deballasting in order to keep actual values within limits.