UK P&I CLUB

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Bulk cargo monitoring

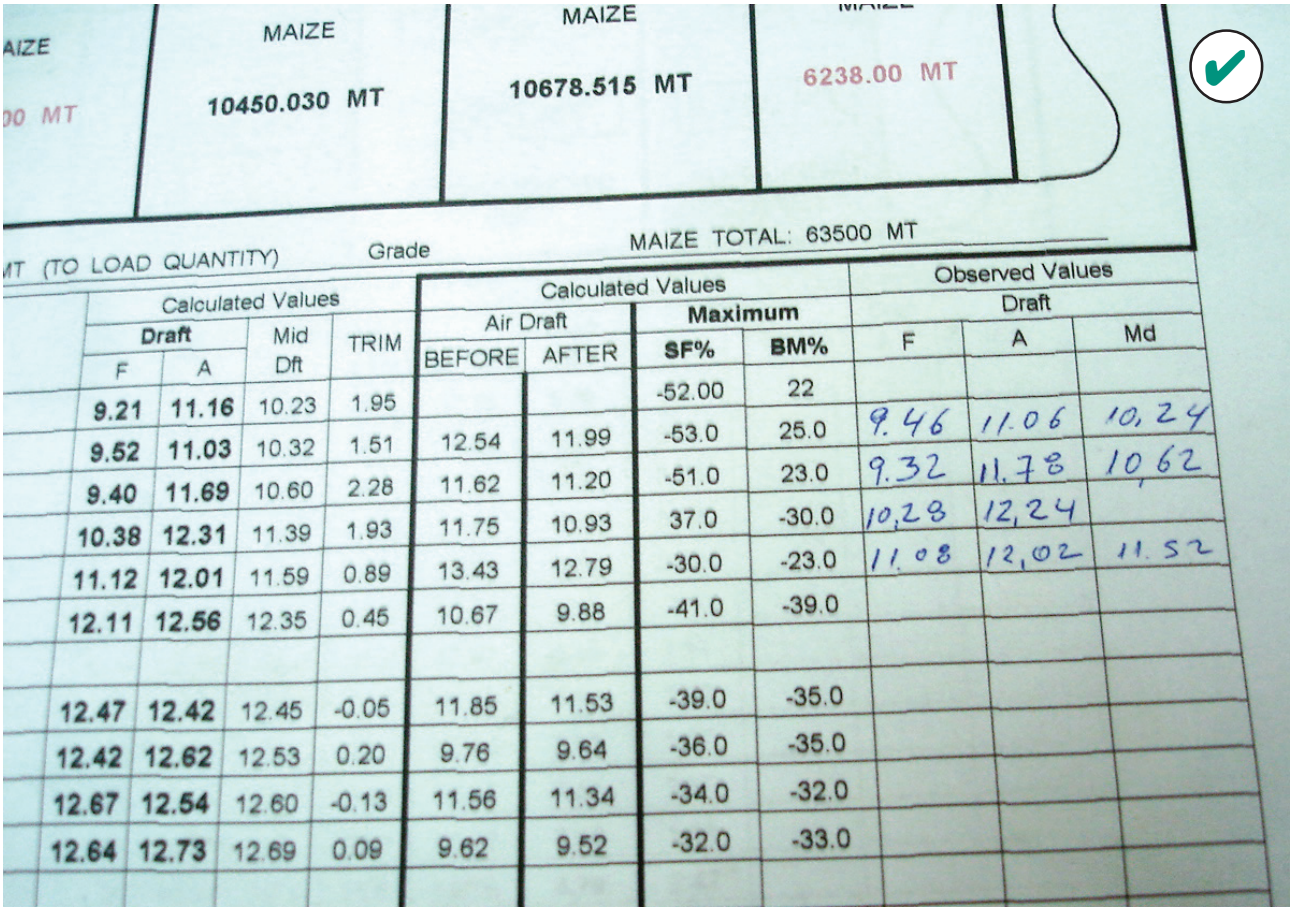
Comparisons between observed and pre-calculated drafts will give an early indication of any possible de-ballasting or ballasting problems or discrepancies in the loading plan

The loading and discharging of bulk cargoes requires constant vigilance if stress limits are to be kept within tolerance levels.

The majority of ships have dedicated load and discharge forms, where the stress levels and pre-calculated drafts are entered on the form. Most of these forms also have a column for visual or observed drafts.

It is important that at the end of each pour or run the observed draft is entered on the load/discharge form and compared to the calculated draft (*below*).

If there are any large variations between the observed draft and the pre-calculated draft, this should give reason for concern, as stress levels SF & BM might be higher than those pre-calculated.



AIZE 00 MT | MAIZE 10450.030 MT | MAIZE 10678.515 MT | 6238.00 MT

MT (TO LOAD QUANTITY) Grade MAIZE TOTAL: 63500 MT

Calculated Values				Calculated Values				Observed Values		
Draft		Mid Dft	TRIM	Air Draft		Maximum		Draft		
F	A			BEFORE	AFTER	SF%	BM%	F	A	Md
						-52.00	22			
9.21	11.16	10.23	1.95			-53.0	25.0	9.46	11.06	10,24
9.52	11.03	10.32	1.51	12.54	11.99	-51.0	23.0	9.32	11.78	10,62
9.40	11.69	10.60	2.28	11.62	11.20	37.0	-30.0	10,28	12,24	
10.38	12.31	11.39	1.93	11.75	10.93	-30.0	-23.0	11.08	12,02	11.52
11.12	12.01	11.59	0.89	13.43	12.79	-41.0	-39.0			
12.11	12.56	12.35	0.45	10.67	9.88					
						-39.0	-35.0			
12.47	12.42	12.45	-0.05	11.85	11.53	-36.0	-35.0			
12.42	12.62	12.53	0.20	9.76	9.64	-34.0	-32.0			
12.67	12.54	12.60	-0.13	11.56	11.34	-32.0	-33.0			
12.64	12.73	12.69	0.09	9.62	9.52					

Frequent draft comparisons between observed and pre-calculated drafts will give an early indication of any possible de-ballasting or ballasting problems or discrepancies in the loading plan.

The load/discharge form is an integral part of the company Safety Management System and all sections of the form should be completed for all cargo operations. This includes the column for observed drafts. Any omissions on the load/discharge form may result in a non conformity under the ISM Code and also increase the risk of higher shear forces and bending moments.

It is the normal practice on some ships to enter drafts in a cargo log book at the end of each watch. While this is good seamanlike practice, it will not provide the OOW with a true comparison with any pre-calculated draft or stress levels.

No visual drafts entered on a previous voyage

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