

OUTLINE

CALTIS II is a software for cargo tank monitoring software. CALTIS II has been certificated by most ship classification societies and operates with HP COMPAQ MARINE personal computer (recommended). We can build the system to match use's needs.

Software supports LAN and the monitor in each cabin is possible by inboard LAN system connection.

CALTIS II has loading computing module and damage stability, and can monitor and operate loading work functionally from one personal computer.



STANDARD SPECIFICATION

Delivery form

Personal computer pre-install
(When soft ware only: CD-ROM)

System requirement

Computer

Personal computer with Windows XP professional
(We recommend HP dc7600.)

Basic software

Microsoft Windows XP Professional
Microsoft Office 2003

Memory

1GB or more

HDD

40GB, 80GB or more

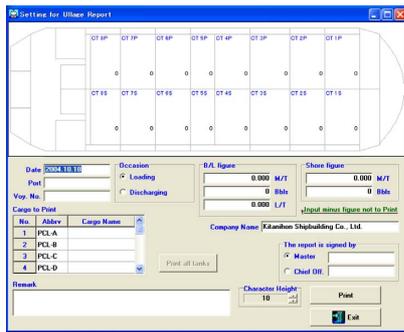
BASIC PERFORMANCE

- 1) Constitute with 15 screens (Optional loading computer, Damage stability)
- 2) Control with mouse
- 3) Display of the present tank data and various setting data
- 4) Displacement and tank sounding numerate function
- 5) Display of level by bar graph
- 6) Printing
- 7) Monitor of cargo handling
- 8) Setup and display of alarm

VERSION

CALTIS II Ver.2.00

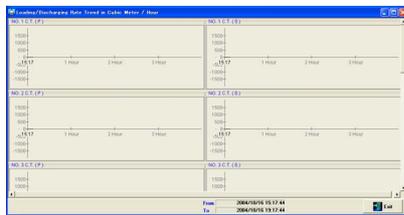
Setting for sounding report



Printing of the result calculated by Tank survey is set up.

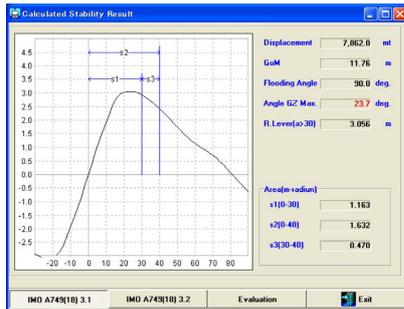
1. Input date, port, and voyage number.
2. The item of before or after loading etc. is selected.
3. Select the tank and print the Tank survey.

Rate trend

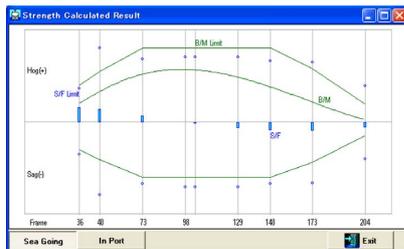


Call this page to display the loading or discharging rate in the cubic meter per hour for latest 2 hours by the graph.

Option Loading computer IMO A749 (18) 3.1



Strength in graphics (Strength graph)



The program calculates and displays shearing forces, and bending moments (green curve) in graphics together with the limit values.

Cargo tank data

Tank No.	NO. 1 C.T. (P)	NO. 1 C.T. (S)	NO. 2 C.T. (P)	NO. 2 C.T. (S)	NO. 3 C.T. (P)	NO. 3 C.T. (S)	NO. 4 C.T. (P)	NO. 4 C.T. (S)
Cap Above	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Temp	22.6 °C							
Vol	4.000	4.000	4.000	4.000	4.000	4.000	4.000	4.000
Weight	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Height	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
U-Height	4.000	4.000	4.000	4.000	4.000	4.000	4.000	4.000
U-Weight	2.007 733	2.007 733	2.007 733	2.007 733	2.007 733	2.007 733	2.007 733	2.007 733
U-Height	13.089 5	13.089 5	13.051 4	13.051 4	13.368 5	13.368 5	13.089 5	13.089 5
U-Weight	2.007 733	2.007 733	2.004 506	2.004 506	2.042 596	2.042 596	2.007 733	2.007 733
L-Height	2.044 912	2.044 912	2.038 467	2.038 467	2.038 467	2.038 467	2.038 467	2.038 467
L-Weight	72.8	72.8	72.4	72.4	72.9	72.9	72.8	72.8

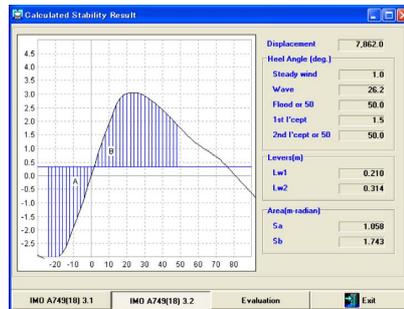
The program calculates the cargo volume and weight from the received tank levels, and displays in tabular form.

Cargo tank level



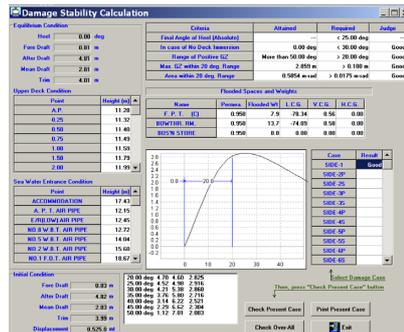
Call this page to display the received cargo tank level (ullage) by the bar graph and figures.

IMO A749 (18) 3.2



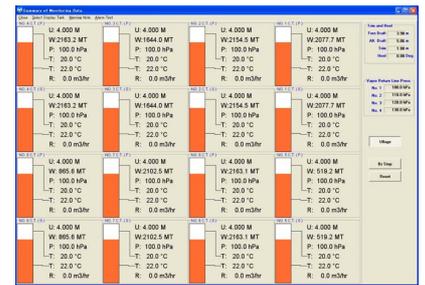
This program calculates the stability in accordance with IMO A749 (18) 3.1 and A749 (18) 3.2.

Damage stability



Residual stability calculation at the time of hull fracture flood is performed automatically.

Received data summary



The program calculates the cargo volumes and weights from the received tank levels, and displays the weights and the levels with graphics.

Tank temperature

Tank	Mean Temp.	Upper Temp.	Lower Temp.	High Alarm T.	Low Alarm T.
NO. 1 C.T. (P)	22.0 °C	22.0 °C	22.0 °C	80.0 °C	0.0 °C
NO. 1 C.T. (S)	22.0 °C	20.0 °C	22.0 °C	80.0 °C	0.0 °C
NO. 2 C.T. (P)	22.0 °C	20.0 °C	22.0 °C	80.0 °C	0.0 °C
NO. 2 C.T. (S)	22.0 °C	20.0 °C	22.0 °C	80.0 °C	0.0 °C
NO. 3 C.T. (P)	22.0 °C	20.0 °C	22.0 °C	80.0 °C	0.0 °C
NO. 3 C.T. (S)	22.0 °C	20.0 °C	22.0 °C	80.0 °C	0.0 °C
NO. 4 C.T. (P)	22.0 °C	20.0 °C	22.0 °C	80.0 °C	0.0 °C
NO. 4 C.T. (S)	22.0 °C	20.0 °C	22.0 °C	80.0 °C	0.0 °C
NO. 5 C.T. (P)	22.0 °C	20.0 °C	22.0 °C	80.0 °C	0.0 °C
NO. 5 C.T. (S)	22.0 °C	20.0 °C	22.0 °C	80.0 °C	0.0 °C
NO. 6 C.T. (P)	22.0 °C	20.0 °C	22.0 °C	80.0 °C	0.0 °C
NO. 6 C.T. (S)	22.0 °C	20.0 °C	22.0 °C	80.0 °C	0.0 °C

Call this page to display temperature at upper, middle, and lower parts in cargo tanks.

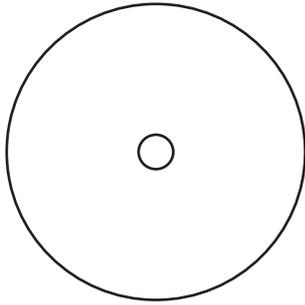
Strength result (Table)

Frame	Shearing Force				Bending Moment				Long. BHD Shearing Force				
	Max	Min	Avg	Unit	Max	Min	Avg	Unit	Max	Min	Avg	Unit	
36	1.560	3.897	3.229	44.4	21.084	60.817	30.629	15.1	48.0	250	1.408	1.471	21.3
40	1.341	2.872	2.565	17.5	33.933	55.026	41.774	68.9	48.0	219	1.408	1.471	21.3
75	544	6.937	4.420	9.9	55.986	81.145	61.162	44.9	27.6	88	1.268	1.276	7.8
80	52	6.727	6.727	0.9	56.845	81.549	62.162	71.1	27.6	170	1.268	1.276	13.6
100	180	6.727	6.727	2.8	57.539	81.549	61.162	78.5	27.6	49	1.315	1.315	2.7
125	424	6.727	6.727	2.6	49.927	81.549	62.162	68.8	27.6	6	1.315	1.315	4.5
140	447	6.349	4.413	11.1	38.879	81.549	61.162	47.7	28.8	43	1.315	1.315	3.3
175	197	6.261	6.219	14.8	70.076	80.797	44.090	37.1	28.8	6	1.315	1.315	4.6
200	440	3.783	3.836	15.7	27.795	19.817	14.862	14.8	22.8	161	1.315	1.315	12.2

The program calculates and displays the shearing forces, longitudinal bulkhead shearing force and the bending moments in tabular form together with the limit values, and percent to the limits.

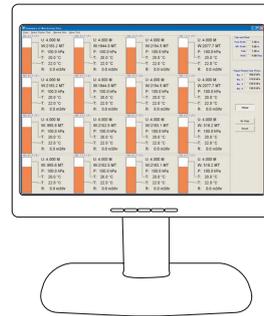
SYSTEM CONFIGURATION

Software (Manufacturer's scope)
 CD-ROM
 (When software only)

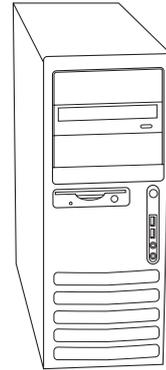


When we prepare a personal computer, install is made at our company.

Computer (Manufacturer's arrangement)



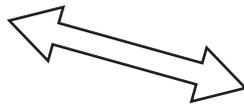
TFT



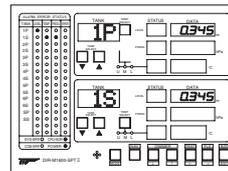
CPU



Various level gauges (Manufacturer's scope)
 SPT-3500 Hall IC type level gauge
 Others DC4 to 20mA output
 (Air purge, Pressure, and Level)



Interface (Manufacturer's scope)



DIR-M1600 series (For SPT-3500)

OPTION

Loading computing module and Damage stability

CALTIS II has a built-in Loading computing module and Damage stability as option.

Loading computing module and Damage stability have type approval of most shipping classification societies, and it can monitor level and operate loading function.

* Specification is subject to change without notice.

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