



Australian Government

Australian Maritime Safety Authority

# INCLINING EXPERIMENT REPORT

Marine Safety (Domestic Commercial Vessel) National Law Act 2012  
Marine Order 503 (Certificates of survey – national law) 2017

This checklist is for use by accredited surveyors whilst witnessing an inclining experiment for a domestic commercial vessel. The completed report should be retained by the accredited surveyor for their records. It is not intended to be provided to the owner of the vessel.

## A. Vessel details

Vessel name	Unique identifier	Service category
<input type="text"/>	<input type="text"/>	<input type="text"/>
Owner of vessel		
<input type="text"/>		
Builder of vessel	Purpose of inclining measurement	
<input type="text"/>	<input type="checkbox"/> New Vessel <input type="checkbox"/> Modified Vessel <input type="checkbox"/> Change of Class <input type="checkbox"/> Other	
Measured length $L_m$ (metres)	Breadth $B$ (metres)	
<input type="text"/>	<input type="text"/>	
Inclining experiment location	Date of inclining	
<input type="text"/>	<input type="text"/>	

## B. Weather and mooring

State of weather	Mooring arrangements
<input type="text"/>	<input type="text"/>

## C. Persons present at inclining

Name of person conducting the inclining	
<input type="text"/>	
Name of surveyor witnessing the inclining	Surveyor identification number
<input type="text"/>	<input type="text"/>
Company or trading name	
<input type="text"/>	

## D. Details of inclining weight and ballast weight

Number of mass groups used for inclining	Each group of mass is made up of:
<input type="text"/>	<input type="text"/>

## E. Sketch (details of inclining weight, ballast weight, inclining party etc.):



## F. Correction of weights

Items **noted** on board the vessel during inclining (Items of significant weight, e.g. anchors, life raft, trawl boards, ballast, etc):

Item description	Mass (tonnes)	Location

Items to be **added** to the vessel after the inclining to arrive at lightship (description, weight & location):

Item description	Mass (tonnes)	Location

Items to be **removed** from the vessel after the inclining to arrive at lightship (description, weight & location):

Item description	Mass (tonnes)	Location

Items to be **moved** after the inclining to arrive at lightship LCG and VCG (description, weight & movement required):

Item description	Mass (tonnes)	Location	Movement Required



# I. Inclining weight movement

Pendulum length:                      mm.

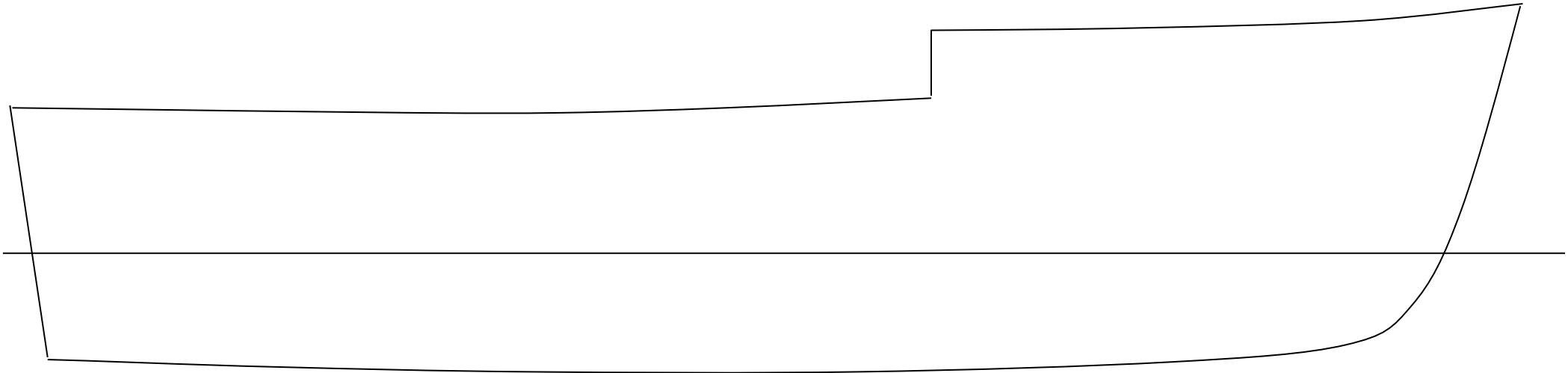
Movement (#)	Mass Group	Direction moved P -> S or S->P	Incline Mass (t) (W)	Distance moved (m) (d)	Heeling Moment (M) = (W) x (d)	Pendulum reading m (+,-)	Pendulum deflection (m) (X)	$\frac{W \times d}{X}$ = $X_2$	Running Average $\frac{1}{n} \sum_{i=1}^n X_2$	Running Deviation	Deviation from Final Average
0											
1											
2											
3											
4											
5											
6											
7											
8											
Final sum of $\frac{W \times d}{X}$											
Final average $\frac{W \times d}{X}$											

**J. Draft mark reading**

Draft marks on vessel:  Yes  No

Aft		Midships		Forward	
Port:		Port:		Port:	
Stbd:		Stbd:		Stbd:	

On the diagram below, sketch the location of the draft marks. If freeboards are measured, indicate on the diagram, where they are taken along the length of the vessel.



**K. Specific gravity of water**

Sample 1	Sample 2	Sample 3

I declare that I have conducted a survey of the above mentioned vessel in accordance with the applicable standards and conditions as set out in Marine Order 503 and that to the extent evident from the inspections carried out, am satisfied that the vessel meets these standards.

Name of surveyor:

Signature of surveyor:

Date of completion:

Surveyor identification number: