

Appendix B Assist Sheet for Overboard Handling Systems (updated 11_1_15 JMS/wec)
This assist sheet is to access progress toward compliance with RVSS Appendix B by the
compliance date of 7/15/2016 per RVSS Edition 10 dated July 2015

Page 1 System Level

Overboard Handling System Operator's Manual (see note 2)	Reference		
	B.12	Y or N or NA	Comment
For each Overboard Handling System (OHS) Configuration			
System Title/Description		Y / N / NA	
OHS MCD	B.5	Y / N / NA	
List of component MCDs	B.5.2.7	Y / N / NA	
Version of each component MCD	B.5.2.7	Y / N / NA	
DLT and/or SWT	B.5.2.7	Y / N / NA	
Reference to each component booklet	B.12	Y / N / NA	
Identify the deployment type(s)	B.5.2.7	Y / N / NA	
Diagram the applicable range of geometries	B.5.2.7	Y / N / NA	
Description of the OHS Layout including:			
Location of each major component	B.12	Y / N / NA	
Orientation of each major component	B.12	Y / N / NA	
Geometry of the tension member	B.12	Y / N / NA	
Overall dimension of each major component	B.12	Y / N / NA	
Weight of major portable components	B.12	Y / N / NA	
OHS Test Procedures and Records:	B.6		
Twice in 5 yrs. not to exceed 3 yrs. for fixed OHS	B.6.3	Y / N / NA	
Within 3 yrs. for OHS containing portable components	B.6.3	Y / N / NA	
OHS Loaded to 125% OHS SWT	B.6.3	Y / N / NA	
Written Test Procedure including geometries	B.6.7	Y / N / NA	
Specify tension member	B.6.7	Y / N / NA	
Specify safety precautions	B.6.7	Y / N / NA	
Test records for each component if tested singly	B.6.8	Y / N / NA	
Test date, test method, names of testers	B.6.8	Y / N / NA	
Records aboard vessel and operator's office	B.6.8	Y / N / NA	
Procedural Safety Requirements	B.7	Y / N / NA	
For new OHS:	B.7.1.1		
Procedures for rigging and un-rigging	B.7.1.1	Y / N / NA	
Procedure for launch and retrieving payload	B.7.1.1	Y / N / NA	
Test plans	B.7.1.1	Y / N / NA	
Training program	B.7.1.1	Y / N / NA	
For existing OHS:	B.7.1.2		
Procedures for rigging and un-rigging	B.7.1.2	Y / N / NA	
Procedure for launch and retrieving payload	B.7.1.2	Y / N / NA	
General Safety:	B.7.2		
Guards and rail enclosures	B.7.2	Y / N / NA	
Emergency stops at equipment	B.7.2	Y / N / NA	
Emergency stops at all operator's stations	B.7.2	Y / N / NA	
Beacon lights when operating	B.7.2	Y / N / NA	
Physical barrier systems to exclude personnel from tension member paths and snap back	B.7.2	Y / N / NA	

Operator Training Procedures and Records	B.8	Y / N / NA	
Formal training program for each operating station	B.8	Y / N / NA	
Annual demonstration of competency	B.8	Y / N / NA	
Records of initial training and competency checks	B.8	Y / N / NA	
Notes:			
1. When using weak links the link should break less than the lowest component SWT (other than the tension member).	B.10.3 B.4.5.3		
2. A OHS Operators Manual is not required when an OHS is formed by combining portable and fixed equipment. This does not appear to waive the requirements of sections B.3 through B.11.	B.12		
3. The Overboard Handling Data Document (OHDD) is completed by the science party for each cruise (B.3). Consider keeping these with the Operators Manuals.	B.3		
4. The tension member tested breaking load (TBL) almost always exceeds the nominal breaking load (NBL) and assigned breaking load (ABL) and thus the TBL should be considered when determining use of a weak link.			
5. In all cases except the exemptions for uninspected vessels listed in sections B.4.5 the tension member should break before the overboard handling system fails.			
6. The prior version of this appendix required OHS emergency procedures be addressed. Although a requirement in appendix A has been added for tension member extenuating circumstances, consideration should be given to plan OHS emergency procedures.			
7. Consider if the tension member or weak link in an OHS should fail before the vessel has stability difficulty if a payload bottom hang occurs.			

Suggestions: Please contact Ted@JMSnet.com

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Page 2 Component & Sub-System Level

For each Overboard Handling System (OHS) Component in the
OHS System Configuration:

Reference

Component MCD Booklet including:	B.11	Y / N / NA	
Component Maximum Capability Document (MCD) including:	B.5	Y / N / NA	
Safe Working Tension (SWT) specified	B.5.2	Y / N / NA	
Reaction Forces on adjacent structures	B.5.2	Y / N / NA	
Design Line Tension (DLT) specified if new	B.5.2	Y / N / NA	
Reaction Forces on Bolts if bolted	B.5.2	Y / N / NA	
Diagram of bolt arrangement if bolted	B.5.2	Y / N / NA	
Required bolt strength / grade if bolted	B.5.2	Y / N / NA	
Design standard used for determining MCD	B.5.2	Y / N / NA	
Calculations used to evaluate MCD if feasible	B.5.2	Y / N / NA	
If MCD determined by testing in lieu of calculation:			
SWT < test load / 1.5	B.6.11	Y / N / NA	
Associated MCD shows range of geometries	B.6.11	Y / N / NA	
For Standard Deck Hardware referencing Mfg.'s Data:			
Manufacturer's data sheets showing FS > 1.5	B.5.2.1	Y / N / NA	
Manufacturer's data sheets showing SWT	B.5.2.1	Y / N / NA	
For Tension Members:			
Manufacturer's data sheets showing NBL	B.5.2.2	Y / N / NA	
Current ABL	B.5.2.2 RVSS Appendix A	Y / N / NA	
SWT for each applicable FS range	B.5.2.2 RVSS Appendix A	Y / N / NA	
For Custom Components:			
DLT and/or SWT for each deployment type	B.5.2.3 B.2	Y / N / NA	
Diagram of range of tension member geometries	B.5.2.3	Y / N / NA	
For each Deck Socket used as a OHS component:		Y / N / NA	
DLT and/or SWT for each component rigging configuration	B.5.2.4	Y / N / NA	
Diagram of range of geometries	B.5.2.4	Y / N / NA	
For Winches:			
Maximum Line Pull	B.5.2.5	Y / N / NA	
For Tension Mitigation Devices and Systems:		Y / N / NA	
For Render & Render Recover		Y / N / NA	
Description of Capabilities meeting B.10.2	B.5.2.6 B.10.2	Y / N / NA	
For Weak Links:		Y / N / NA	
Calibration and Test documents	B.5.2.6 B.10.3	Y / N / NA	

Test to fail < lowest OHS component SWT	B.5.2.6 B.10.3	Y / N / NA	
If used where DLT<NBL exception (B.4.5.3) then Design Details and failure load	B.5.2.6 B.10.3	Y / N / NA	
Dimensions in all configurations	B.11	Y / N / NA	
Test Procedures and Records	B.6	Y / N / NA	
Calibrated instrument or certified test weight	B.6.1	Y / N / NA	
For Deck Sockets and Foundations if part of OHS		Y / N / NA	
Test records including description, test date, tensions, test method, and names	B.6.2.2 B.6.8	Y / N / NA	
For Other Components:		Y / N / NA	
Tested to 125% SWT	B.6.2.4	Y / N / NA	
Frequency:		Y / N / NA	
Auxiliary padeyes every 3 years	B.6.2.5	Y / N / NA	
Deck Sockets every 3 years	B.6.2.5	Y / N / NA	
All other components Twice every 5 yrs. not to exceed 3 years	B.6.2.5	Y / N / NA	
Portable Systems 3 years in specific configuration	B.6.4	Y / N / NA	
Loaded to 125% OHS SWT	B.6.3	Y / N / NA	
Written Test Procedure including geometries	B.6.7	Y / N / NA	
Specify tension member	B.6.7	Y / N / NA	
Specify safety precautions	B.6.7	Y / N / NA	
Test records for each component if tested singly	B.6.8	Y / N / NA	
Test date, test method, names of testers	B.6.8	Y / N / NA	
Records aboard vessel and operator's office	B.6.8	Y / N / NA	
Procedural Safety Requirements	B.7	Y / N / NA	
For new component:	B.7.1.1	Y / N / NA	
Procedures for rigging and un-rigging	B.7.1.1	Y / N / NA	
Procedure for launch and retrieving payload	B.7.1.1	Y / N / NA	
Test plans	B.7.1.1	Y / N / NA	
Training program	B.7.1.1	Y / N / NA	
For existing component:	B.7.1.2		
Procedures for rigging and un-rigging	B.7.1.2	Y / N / NA	
Procedure for launch and retrieving payload	B.7.1.2	Y / N / NA	
General Safety:	B.7.2	Y / N / NA	
Guards and rail enclosures	B.7.2	Y / N / NA	
Emergency stops at equipment	B.7.2	Y / N / NA	
Emergency stops at all operator's stations	B.7.2	Y / N / NA	
Beacon lights when operating	B.7.2	Y / N / NA	
Physical barrier systems to exclude personnel from tension member paths and snap back	B.7.2	Y / N / NA	
Operator Training and Records	B.8	Y / N / NA	
Component operators/uses receive training	B.8	Y / N / NA	
Prove operational and safety competency	B.8	Y / N / NA	
Preventative Maintenance Procedures and Frequency	B.11	Y / N / NA	
If a Portable Component:		Y / N / NA	
Weight	B.11	Y / N / NA	
Ship Service and Interface Requirements	B.11	Y / N / NA	

Inventory of Spares	B.11	Y / N / NA	
		Y / N / NA	
Other requirements not required in component booklet		Y / N / NA	
Structural Design Criteria:	B.4	Y / N / NA	
Design Line Tension (DLT) < Ultimate Design Tension divided by 1.5	B.4.5	Y / N / NA	
Safe Working Tension (SWT) < DLT	B.4.4	Y / N / NA	
Labeling:	B.9	Y / N / NA	
All components labeled	B.9.1	Y / N / NA	
Include SWT	B.9.1	Y / N / NA	
Most recent test date	B.9.1	Y / N / NA	
SWT diagram/geometries	B.9.1	Y / N / NA	
Reference to MCD or other docs.	B.9.1	Y / N / NA	
For Standard Deck Hardware	B.9.2	Y / N / NA	
Color coded	B.9.2	Y / N / NA	
Conspicuously marked referencing test cycle	B.9.2	Y / N / NA	
For Deck Sockets:	B.9.3	Y / N / NA	
Marked referencing specific use	B.9.3	Y / N / NA	
Exceptions and Exemptions:			
Special cases for uninspected vessels:	B.4.5	Y / N / NA	
Deployments is the water column	B.4.5.1	Y / N / NA	
Render and Render Recover	B.4.5.2	Y / N / NA	
Weak Links	B.4.5.3	Y / N / NA	
Underpowered Vessel	B.4.5.4	Y / N / NA	
USCG special case with granted permission	B.4.5.5	Y / N / NA	
Deck Bolts don't need MCD	B.5.1 B.6.2.1	Y / N / NA	
Testing exemptions:			
OHS test can satisfy general purpose component testing (to 125% OHS SWT) for specified configurations	B.6.2.1	Y / N / NA	
Auxiliary padeye require testing if part of OHS. If not part of an OHS then this appendix does not require auxiliary padeye testing.	B.6.2.1	Y / N / NA	
Deck Sockets require testing if part of OHS. If not part of an OHS then this appendix does not require Deck Socket testing.	B.6.2.1 B.6.2.2	Y / N / NA	
Deck bolts do not need testing if made to a specification and marked with grade. Deck bolts is not tested require periodic inspection.	B.6.2.1	Y / N / NA	
Alternative Testing Methods	B.6.6.1	Y / N / NA	
Laboratory and Piecewise Testing	B.6.6.2 B.6.6.3	Y / N / NA	