

OHS CHECKLIST  
REV 6-17-22

OHS NAME			
Requirement	Reference	Y / N / N/A	Comment
<b>COMPONENT DESIGN</b>			
The OHS is designed to withstand and operate in excess of the Design Line Tension (DLT).	B.2		
For inspected vessels, the DLT is the nominal breaking load (NBL) of the strongest tension member used.	B.2		
For uninspected vessels, the DLT is either the NBL of the tension member or the maximum tension when a load limiting device is used.	B.2		
The factor of safety for all metal structural parts is a minimum of 1.5 (i.e., the yield strength of the material is at least 1.5 times the calculated stresses resulting from application of a load equal to the DLT).	B.2		
Suitable assumptions for the actual loading conditions were used in the design of the component. The lead of the wire rope from the head sheave or winch drum were considered to vary from the vertical and in azimuth in a manner to represent the most adverse loading condition.	B.2		
For uninspected vessels, load limiting devices are designed to prevent a load exceeding the DLT autonomously.	B.2.1		
For uninspected vessels, weak links are used to prevent the tension at the head sheave from exceeding the DLT. They are of a calibrated design.	B.2.1.1		
For uninspected vessels, auto-render causes the winch to pay out in order to prevent the DLT from being exceeded. The winch does not free spool, but rather automatically pays out, in a controlled fashion, then resumes its previous operating state.	B.2.1.2		
For uninspected vessels, a torque limiter limits the maximum torque applied to a drum. It is calibrated. It is designed specifically for this purpose. It operates in this manner without damage. It doesn't free spooling and automatically resets to an operable state after an over torque event. It is either a torque-limiting coupler with automatic reset, a relief valve, a brake, or an electronic motor torque control.	B.2.1.3		
Guards are installed to prevent personnel injuries for rotating equipment, pinch points, cable runs, and other hazards or at other appropriate locations.	B.2.2.1 B.3.1		
Signaling devices are installed and setup to warn personnel of unexpected startup, especially when equipment may be operated automatically or is operated remotely.	B.2.2.2		
Accessible e-stops are placed at all operator stations as well as locally to the equipment, when equipment may pose a hazard to personnel.	B.2.2.3		
Electrical safeguards are in place to accommodate lock out/tag out procedures.	B.2.2.4		
The OHS has either a fused disconnect or circuit breaker.	B.2.2.4		
Manual operating devices require constant operator intervention.	B.2.2.5		

\* == A recommendation, not a requirement

\*\*==A recommendation for uninspected vessels, but required on inspected vessels.

\*\*\*==Not required for systems combining portable and fixed equipment.

OHS CHECKLIST  
REV 6-17-22

The OHS has dead man style controls (i.e. spring-centered joysticks, no friction locks).	B.2.2.5		
Interlocks prevent inadvertent operation.	B.2.2.5		
<b>INSTALLATION</b>			
All components of the OHS are properly installed.	B.3.1, B.7.2		
All components of the OHS are installed in accordance with the manufacturer's requirements.	B.3.1		
Operating limitations are posted in an appropriate manner.	B.3.1, B.7.2		
The installation doesn't violate approved trim and stability limitations.	B.3.1, B.7.2		
Installation was supervised by a qualified person.	B.7.1		
The OHS is secure for sea.	B.7.2		
<b>INITIAL TESTING</b>			
An installation load test and safety assessment was conducted by the owner, ship's master and the equipment operator.	B.3.2		
The installation load test consisted of exercising the equipment as a unit with a proof load 25 percent in excess of the equipment's normal working load.	B.3.2		
A safety assessment was conducted consisting of a visual examination with access covers removed.	B.3.2		
The equipment is suitable for the service intended.	B.3.2		
Standard deck hardware was deemed acceptable via manufacturer's data sheet or manufacturer's proof loading.	B.3.2.1		
Sea trials were supervised by a qualified person.	B.7.1		
System testing was supervised by a qualified person.	B.7.1		
<b>LABELLING</b>			
Components are labeled with a SWT.	B.3.3		
All components are labeled with a most recent test date.	B.3.3		
All components are labeled with a clear illustration of the tension member's allowable range of angles when loaded to SWT.*	B.3.3		
Deck Hardware has manufacturer's markings indicating grade or load rating.	B.3.3, B4.4.4		
Deck sockets that are damaged are prominently marked to prevent inadvertent use.	B.4.4.4		
<b>ROUTINE TESTING</b>			
Test loads are measured with a calibrated instrument or using a certified test weight.	B.4.1		
The test load doesn't exceed the SWT of the test rig.	B.4.1		
The OHS is loaded to 125% of the applicable SWT.	B.4.1		
The test closely mimics the use of the system or component at sea.	B.4.1		
The OHS is tested at least once every five years.	B.4.2		
The OHS is tested after major repairs or modifications to the system.	B.4.2		
Standard deck hardware such as deck bolts, shackles, swivels and cleats are inspected to ensure they remain in good condition.	B.4.4.4		

\* == A recommendation, not a requirement

\*\*==A recommendation for uninspected vessels, but required on inspected vessels.

\*\*\*==Not required for systems combining portable and fixed equipment.

OHS CHECKLIST  
REV 6-17-22

Hardware damaged or loaded beyond its safe working tension/load is immediately marked as "not for use" and disposed of.	B.4.4.4		
<b>DOCUMENTATION</b>			
Equipment records are maintained for the OHS.	B.7.2		
One line electrical diagrams are available, showing appropriate overload protection.	B.5.1, 46CFR §189.35-9		
Plans showing hydraulic or pneumatic equipment are available.	B.5.1, 46CFR §189.35-9		
Stress and/or arrangement diagrams with supporting design calculations as appropriate to the specific equipment in question are available.	B.5.1, 46CFR §189.35-9		
For a fixed system, equipment records exist including entries for inspections, important repairs, and casualties.	B.5.2		
For a portable system, equipment records exist including entries for inspections, important repairs, and casualties.*	B.5.2		
Auditable records of initial operator training and annual competency checks are maintained and made available for UNOLS inspections.	B.5.4, B.6, B.7.2		
Test logs contain a test date for each entry.	B.4.5, B.5.2, B.5.5		
Test logs contain the test method.	B.4.5, B.5.2, B.5.5		
Test logs contain the names of personnel accomplishing the test.	B.4.5, B.5.2, B.5.5		
Test logs contain sufficient information to determine the test date for each piece of standard deck hardware.	B.4.5, B.5.2, B.5.5		
Test logs contain entries whenever a component is inspected repaired, or experiences a casualty.	B.4.5, B.5.2, B.5.5		
Test logs are made available to representatives of regulatory agencies and UNOLS inspection teams.	B.4.5, B.5.2, B.5.5		
An MCD has been produced for the OHS.*	B.2.2.6, B.5.6		
The MCD specifies the DLT of the OHS.*	B.5.6		
The MCD specifies the SWT of the OHS.*	B.5.6		
The MCD specifies the reaction forces the OHS will produce.*	B.5.6		
Manufacturer's manuals and other useful information is maintained over the service life of the component.*	B.5.6		
An OHS operators manual is maintained for the OHS.	B.5.3		
The OHS operators manual includes the location of each major component.	B.5.3		
The OHS operators manual includes the orientation of each major component in each OHS configuration.	B.5.3		

\* == A recommendation, not a requirement

\*\*==A recommendation for uninspected vessels, but required on inspected vessels.

\*\*\*==Not required for systems combining portable and fixed equipment.

OHS CHECKLIST  
REV 6-17-22

The OHS operators manual includes the geometry of the tension member in each OHS configuration.	B.5.3		
The OHS operators manual includes the overall dimensions of each major component.	B.5.3		
The OHS operators manual includes the weight of major portable components.	B.5.3		
The OHS operators manual includes system particulars (i.e. operating order considerations, not duplicating component manuals.)	B.5.3		
The OHS operators manual includes OHS test procedures.	B.5.3		
The OHS operators manual includes procedural safety requirements.	B.5.3		
The OHS operators manual includes operator training procedures.	B.5.3		
The OHS operators manual includes references to individual component manuals or data sheets as applicable.	B.5.3		
The OHS operators manual includes routine maintenance procedures or a reference to them.	B.5.3		
<b>TRAINING</b>			
Personnel who operate the OHS receive training.	B.6		
Personnel who operate the OHS demonstrate competency in operating it.	B.6		
Personnel who operate the OHS demonstrate knowledge of safety procedures.	B.6		
A training program has been developed for each operating station, appropriate to the complexity of the component.	B.6		
The training program includes the OHS's operator's manual, as applicable.	B.6		
The training program includes monitoring guidelines, as applicable.	B.6		
The training program includes appendix a requirements, as applicable.	B.6		
Training is conducted in a hands-on fashion.*	B.6		
The training program requires an annual demonstration of competence.	B.6		
For a new OHS, the manufacturer-supplied training program was approved by the Marine Superintendent.	B.7.1		
Qualified operators are designated by the master of the vessel in writing.	B.7.2		
<b>OPERATION</b>			
Only qualified operators are permitted to operate the OHS.	B.7.2		
When gear is being operated, the minimum number of necessary persons are in the immediate area and comply with all safety requirements.	B.7.2		
Prior to a vessel's departure, an entry is made in the official logbook that the ship's weight handling gear is in compliance with the applicable requirements.	B.7.2		

\* == A recommendation, not a requirement

\*\*==A recommendation for uninspected vessels, but required on inspected vessels.

\*\*\*==Not required for systems combining portable and fixed equipment.

COMPONENT CHECKLIST

REV 6-17-22

COMPONENT NAME			
Requirement	Reference	Y / N / N/A	Comment
<b>COMPONENT DESIGN</b>			
The component is designed to withstand and operate in excess of the Design Line Tension (DLT).	B.2		
For inspected vessels, the DLT is the nominal breaking load (NBL) of the strongest tension member used.	B.2		
For uninspected vessels, the DLT is either the NBL of the tension member or the maximum tension when a load limiting device is used.	B.2		
The factor of safety for all metal structural parts is a minimum of 1.5 (i.e., the yield strength of the material is at least 1.5 times the calculated stresses resulting from application of a load equal to the DLT).	B.2		
Suitable assumptions for the actual loading conditions were used in the design of the component. The lead of the wire rope from the head sheave or winch drum were considered to vary from the vertical and in azimuth in a manner to represent the most adverse loading condition.	B.2		
For uninspected vessels, load limiting devices are designed to prevent a load exceeding the DLT autonomously.	B.2.1		
For uninspected vessels, weak links are used to prevent the tension at the head sheave from exceeding the DLT. They are of a calibrated design.	B.2.1.1		
For uninspected vessels, auto-render causes the winch to pay out in order to prevent the DLT from being exceeded. The winch does not free spool, but rather automatically pays out, in a controlled fashion, then resumes its previous operating state.	B.2.1.2		
For uninspected vessels, a torque limiter limits the maximum torque applied to a drum. It is calibrated. It is designed specifically for this purpose. It operates in this manner without damage. It doesn't free spooling and automatically resets to an operable state after an over torque event. It is either a torque-limiting coupler with automatic reset, a relief valve, a brake, or an electronic motor torque control.	B.2.1.3		
Guards are installed to prevent personnel injuries for rotating equipment, pinch points, cable runs, and other hazards or at other appropriate locations.	B.2.2.1 B.3.1		
Signaling devices are installed and setup to warn personnel of unexpected startup, especially when equipment may be operated automatically or is operated remotely.	B.2.2.2		
Accessible e-stops are placed at all operator stations as well as locally to the equipment, when equipment may pose a hazard to personnel.	B.2.2.3		
Electrical safeguards are in place to accommodate lock out/tag out procedures.	B.2.2.4		
The component has either a fused disconnect or circuit breaker.	B.2.2.4		
Manual operating devices require constant operator intervention.	B.2.2.5		

\* == A recommendation, not a requirement

\*\*==A recommendation for uninspected vessels, but required on inspected vessels.

\*\*\*==Not required for systems combining portable and fixed equipment.

COMPONENT CHECKLIST

REV 6-17-22

The component has dead man style controls (i.e. spring-centered joysticks, no friction locks).	B.2.2.5		
Interlocks prevent inadvertent operation.	B.2.2.5		
<b>INSTALLATION</b>			
The component is properly installed.	B.3.1, B.7.2		
The component is installed in accordance with the manufacturer's requirements.	B.3.1		
Operating limitations are posted in an appropriate manner.	B.3.1, B.7.2		
The installation doesn't violate approved trim and stability limitations.	B.3.1, B.7.2		
Installation was supervised by a qualified person.	B.7.1		
The component is secure for sea.	B.7.2		
<b>INITIAL TESTING</b>			
An installation load test and safety assessment was conducted by the owner, ship's master and the equipment operator.	B.3.2		
The installation load test consisted of exercising the equipment as a unit with a proof load 25 percent in excess of the equipment's normal working load.	B.3.2		
A safety assessment was conducted consisting of a visual examination with access covers removed.	B.3.2		
The equipment is suitable for the service intended.	B.3.2		
Standard deck hardware was deemed acceptable via manufacturer's data sheet or manufacturer's proof loading.	B.3.2.1		
Sea trials were supervised by a qualified person.	B.7.1		
System testing was supervised by a qualified person.	B.7.1		
<b>LABELLING</b>			
The component is labeled with a SWT.	B.3.3		
The component is labeled with a most recent test date.	B.3.3		
The component is labeled with a clear illustration of the tension member's allowable range of angles when loaded to SWT.*	B.3.3		
Deck Hardware has manufacturer's markings indicating grade or load rating.	B.3.3, B4.4.4		
Deck sockets that are damaged are prominently marked to prevent inadvertent use.	B.4.4.4		
<b>ROUTINE TESTING</b>			
Test loads are measured with a calibrated instrument or using a certified test weight.	B.4.1		
The test load doesn't exceed the SWT of the test rig.	B.4.1		
The component is loaded to 125% of the applicable SWT.	B.4.1		
The test closely mimics the use of the system or component at sea.	B.4.1		
The component is tested at least once every five years.	B.4.2		
The component is tested after major repairs or modifications to the system.	B.4.2		
The test loads for a general-purpose component are effectively applied during the course of an OHS test.	B.4.4.		

\* == A recommendation, not a requirement

\*\*==A recommendation for uninspected vessels, but required on inspected vessels.

\*\*\*==Not required for systems combining portable and fixed equipment.

COMPONENT CHECKLIST

REV 6-17-22

The component is not part of a fixed or self contained portable OHS. It is tested independently in a manner simulating component use.	B.4.4.3		
Standard deck hardware such as deck bolts, shackles, swivels and cleats are inspected to ensure they remain in good condition.	B.4.4.4		
Hardware damaged or loaded beyond its safe working tension/load is immediately marked as "not for use" and disposed of.	B.4.4.4		
<b>DOCUMENTATION</b>			
Equipment records are maintained for the component.	B.7.2		
One line electrical diagrams are available, showing appropriate overload protection.	B.5.1, 46CFR §189.35-9		
Plans showing hydraulic or pneumatic equipment are available.	B.5.1, 46CFR §189.35-9		
Stress and/or arrangement diagrams with supporting design calculations as appropriate to the specific equipment in question are available.	B.5.1, 46CFR §189.35-9		
For a fixed system, equipment records exist including entries for inspections, important repairs, and casualties.	B.5.2		
For a portable systems and components, equipment records exist including entries for inspections, important repairs, and casualties.*	B.5.2		
Auditable records of initial operator training and annual competency checks are maintained and made available for UNOLS inspections.	B.5.4, B.6, B.7.2		
Test logs contain a test date for each entry.	B.4.5, B.5.2, B.5.5		
Test logs contain the test method.	B.4.5, B.5.2, B.5.5		
Test logs contain the names of personnel accomplishing the test.	B.4.5, B.5.2, B.5.5		
Test logs contain sufficient information to determine the test date for each piece of standard deck hardware.	B.4.5, B.5.2, B.5.5		
Test logs contain entries whenever a component is inspected repaired, or experiences a casualty.	B.4.5, B.5.2, B.5.5		
Test logs are made available to representatives of regulatory agencies and UNOLS inspection teams.	B.4.5, B.5.2, B.5.5		
An MCD has been produced for the component.*	B.2.2.6, B.5.6		
The MCD specifies the DLT of the component.*	B.5.6		
The MCD specifies the SWT of the component.*	B.5.6		
The MCD specifies the reaction forces the component will produce.*	B.5.6		

\* == A recommendation, not a requirement

\*\*==A recommendation for uninspected vessels, but required on inspected vessels.

\*\*\*==Not required for systems combining portable and fixed equipment.

COMPONENT CHECKLIST

REV 6-17-22

Manufacturer's manuals and other useful information is maintained over the service life of the component.*	B.5.6		
<b>TRAINING</b>			
Personnel who operate the component receive training.	B.6		
Personnel who operate the component demonstrate competency in operating it.	B.6		
Personnel who operate the component demonstrate knowledge of safety procedures.	B.6		
A training program has been developed for each operating station, appropriate to the complexity of the component.	B.6		
The training program includes the component's operator's manual, as applicable.	B.6		
The training program includes monitoring guidelines, as applicable.	B.6		
The training program includes appendix a requirements, as applicable.	B.6		
Training is conducted in a hands-on fashion.*	B.6		
The training program requires an annual demonstration of competence.	B.6		
For a new major component, the manufacturer-supplied training program was approved by the Marine Superintendent.	B.7.1		
Qualified operators are designated by the master of the vessel in writing.	B.7.2		
<b>OPERATION</b>			
When gear is being operated, the minimum number of necessary persons are in the immediate area and comply with all safety requirements.	B.7.2		

\* == A recommendation, not a requirement

\*\*==A recommendation for uninspected vessels, but required on inspected vessels.

\*\*\*==Not required for systems combining portable and fixed equipment.