JMS FLEET CIRCULAR

FC Number : **03-2021**

SUBJECT : **Minimum test requirements on lifting appliances, boarding arrangements and working overside system**

ISSUE DATE : **01 November 2021**

This circular applies to vessel above AND below 500GT, in private and commercial operation, provided with one of the following:

- Rescue boat crane approved as per LSA code
- Davit launched life rafts
- NON Man riding cranes
- Man Riding Cranes
- Other lifting appliances (other than rescue boat cranes)
- Passarella, side boarding ladder and gangway

Following to finding in various internal audits, JMS would like to bring your attention to the minimum requirements regarding:

a. Rescue boat crane and cable
b. Rescue boat release hook
c. Rescue boat, its lifting points and lifting strops
d. Side boarding ladders (parallel to ship´s side), Accommodation ladders (like Marquipt ladders) and Stern Passarella
e. NON Man Riding crane and other lifting appliances for tenders other than rescue boats
f. Man Riding Cranes
g. Man Riding Tender ad relevant Lifting Points

Reference Rules are:

- MSC 402(96) - REQUIREMENTS FOR MAINTENANCE, THOROUGH EXAMINATION, OPERATIONAL TESTING, OVERHAUL AND REPAIR OF LIFEBOATS AND RESCUE BOATS, LAUNCHING APPLIANCES AND RELEASE GEAR.

- MSC.1/Circ.1331 - GUIDELINES FOR CONSTRUCTION, INSTALLATION, MAINTENANCE, AND INSPECTION/SURVEY OF MEANS OF EMBARKATION AND DISEMBARKATION

- Reg Yacht Code – common Annex O

- COSWP – Ch.19

- ILO 152

Additionally, as reference for all flagged vessel, the following Cayman Islands Notices:

- CIGN 09/2019 – IMO Res MSC 402(96)
- CISN 04/2021 (Rev.2) - STRENGTH AND LOAD TESTING OF MAN RIDING TENDER LIFTING POINTS

Below indications are based on reference rules which Officers on board are requested to read carefully.

a. RESCUE BOAT CRANE:

Reference rule is MSC 402(96)

1) Weekly and monthly inspections and routine maintenance as specified in the equipment maintenance manual(s), shall be conducted by **shipboard personnel** under the direction of a senior ship's officer in accordance with the maintenance manual(s).

2) Annual thorough examinations and operational tests shall be conducted by **certified personnel of either the manufacturer or an authorized service provider**. This includes:
    a. Davit or other launching structures, in particular about corrosion, misalignments, deformation and excessive free play
    b. Wires and sheaves, possible damage such as kinks and corrosion
    c. Lubrication of wires, sheaves and moving parts
    d. And if applicable:
        i. Functioning of limit switches
        ii. Stored power system
        iii. Hydraulic system

    e. Annual winch break test: for winches of rescue boats cranes, annual operation testing shall be done by lowering the EMPTY rescue boat or equivalent load. When rescue boat has reached its maximum lowering speed and before it enters the water, the brake shall be abruptly applied. Following to this test, the stressed parts shall be re-inspected.

    This means that the rescue boat crane is **NOT** requested to be **annually load tested** to its SWL or higher nor statically nor dynamically.
    Please make sure that the appointed service company is approved either by Manufacturer or that it's certified as per MSC.402(96). Get a copy of their certification, save it in the shared folder and in doubt ask your yacht manager. Note that approved Companies are aware of the requirements.

3) Five-year thorough examination, overhaul and overload operational tests shall be conducted by **certified personnel of either the manufacturer or an authorized service provider.** This includes:
    a. An operational test of the winches of the rescue boat crane shall be carried out with a proof load equal to *1.1 times the weight of the rescue boat and its full complement of persons and equipment*. When the rescue boat has reached its maximum lowering speed and before it enters the water, the brake shall be abruptly applied. After completion of this test, the stressed parts shall be re-inspected.

4) Rescue boat crane cable shall be replaced when necessary due to deterioration of the falls or at intervals of not more than 5 years.

b. RESCUE BOAT RELEASE HOOK:

Reference rule is MSC 402(96)

Annual examination:

1) After the annual operational test of the winch brake with empty rescue boat or equivalent load, the following shall be thoroughly examined on the hook for satisfactory condition:
    a. Excessive free play (tolerances)
    b. Hook fastening
    c. Cable for control and release

    Once the above is examined, an operational test of the release hook for activation of the release gear shall be carried out as follows:

        i. In case of ON-LOAD release gear, the operation will be with boat partially in the water;
        ii. In case of OFF-LOAD release gear, the operation will be with boat fully waterborne.

5 years examination:

2) Release hook shall undergo an operational test and overhaul which shall include:
    a. Dismantling of hook release unit
    b. Examination with regard to tolerances and design requirements
    c. Adjustment of release gear system after assembly
    d. Operational tests with a proof load equal to 1.1 times the weight of the rescue boat and its full complement of persons and equipment
    e. Examination of vital parts with regard to defects and cracks.

As per MSC 402(96), par. 4.2, the above-mentioned Annual Examination is to be conducted by certified personnel of either the manufacturer or an authorized service provider of the release hook. This is though difficult and therefore it is important to agree with the Flag attending surveyor how he would prefer to proceed.

Also, please check the certificate of the release hook since some manufacturers require an annual service to be performed on the release hook. Please note there is the option with some brands to have the release hook exchanged with a newly serviced one on an annual basis. Newly serviced hook shall be received with a new certificate.

5 years examination shall be performed by Manufacturer or authorised service provider (ref. MSC 402(96) par.4.2).

c. RESCUE BOAT:

Reference rule is MSC 402(96)

1) Weekly and monthly inspections and routine maintenance as specified in the equipment maintenance manual(s), shall be conducted by **shipboard personnel** under the direction of a senior ship's officer in accordance with the maintenance manual(s).
2) Annual thorough examinations and operational tests shall be conducted by **certified personnel of either the manufacturer or an authorized service provider**. This includes:
    a. condition of the boat structure including loose equipment like eyebolts, shackles and lifting slings
    b. engine and propulsion system
    c. manoeuvring system
    d. power supply system

d. SIDE BOARDING LADDERS/ACCOMMODATION LADDERS/STERN PASSARELLA

Reference rule is MSC.1/Circ.1331

1) Weekly and monthly inspections and routine maintenance as specified in the equipment maintenance manual(s), shall be conducted by **shipboard personnel** under the direction of a senior ship's officer in accordance with the maintenance manual(s).
    a. Additional checks should be made each time the accommodation ladder/side boarding ladder is rigged, looking out for signs of distortion, cracks and corrosion.
    b. If wires are used to support the means of embarkation and disembarkation, these wires shall be maintained as specified in SOLAS regulation III/20.4 (when necessary due to deterioration of the falls or at intervals of not more than 5 years)

2) Annual thorough examinations and operational tests shall be conducted by competent persons, (which means a person possessing the knowledge or experience necessary for the performance of the duties imposed). This includes:
    a. Steps/treads;
    b. side stringers, cross-members, decking, deck plates, etc.;
    c. all support points such as wheel, roller, etc.;
    d. stanchions, rigid handrails, hand ropes;
    e. remote control system
    f. power supply system
    g. lighting system
    h. safety net and
    i. marking

3) At every five-yearly survey, upon completion of the examination required by at the yearly inspection, the side boarding ladder/accommodation ladder shall be **operationally tested with the specified maximum operational load of the ladder.**
The tests should be carried out with the load applied as uniformly as possible along the length of the accommodation ladder or gangway, at an angle of inclination corresponding to the maximum bending moment on the accommodation ladder or gangway. **It is recommended harmonising the test with a visit by either Flag/Class who can witness accordingly.**

All inspections, maintenance work and repairs of side boarding / accommodation ladders shall be recorded in order to provide an accurate history for each appliance. The information to be recorded appropriately on board should include the date of the most recent inspection, the name of the person or body who carried out that inspection, the due date for the next inspection and the dates of renewal of wires used to support the embarkation and disembarkation arrangement (where fitted).

e. NON MAN RIDING CRANES AND OTHER LIFTING APPLIANCES FOR TENDERS OTHER THAN RESCUE BOAT

Recommended reference Rule is COSWP Ch.19 and ILO 152.

Requirements:

1) A Register of Lifting Appliances and Loose Gear shall be kept on board and be available for inspection.

2) Weekly and monthly inspections and routine maintenance of the crane and loose gear as specified in the equipment maintenance manual(s), shall be conducted by **shipboard personnel** under the direction of a senior ship's officer in accordance with the maintenance manual(s).

3) Annual examination: thorough examination of the crane and relevant loose gear performed by a competent person and recorded on the Register of Lifting Appliances and Loose Gear

4) Five years examination: after the 5th annual thorough examination of the crane by competent person a STATIC load test with a proof load testing (up to 20t SWL): 1.25xSWL. Once the load test is performed a visual examination of the crane and its supports is to be performed.

Re-testing (proof load STATIC testing) and thorough examination is to be performed also in the following cases:

- before new lifting appliance is taken into service
- after structural modification and repair

these re-testing are to be entered in the Register of Lifting Appliances.

f. SAILTRACKS, SINGLE ANCHORING POINTS, PAD EYES AND EYE BOLTS – OVERSIDE WORKING SYSTEM

Reference Rule is Reg Yacht Common Annex B.4 & B.5 and REG YC Corrigenda n.1 of 2019.

For existing tracks, it is necessary to have confirmation that track and car system is provided with EN 795 type approval certificate and if the system has a fall protection device (e.g. safeguards from inadvertent detachment, multi-directional loading, secondary locking etc). If the above cannot be confirmed, please notify your Yacht Manager.

Annual examination:

Unless differently indicated by the manufacturer, there is NO requirement to perform the annual load test.

5 years examination:

A test load of 6kN shall be attached to a single car or single anchor point for at least 15 seconds in at least 3 locations, typically at both ends and at any rail joint or in the middle.

Such testing shall be carried out along with any additional requirements specified by the system manufacturer.

This testing shall be witnessed by an approved Flag or Class surveyor and recorded on a suitable load test certificate which is duly endorsed by the witnessing parties.

g. MAN RIDING CRANES

Reference Rule is Reg Yacht Common Annex O.4

In order for a crane to be defined MAN RIDING, the crane shall be certified as such through compliance with a recognised national or international standard to the satisfaction of the Administration.

Annual and 5 Yearly Testing and maintenance of man-riding cranes shall be carried out by authorised lifting equipment servicing agents and they shall be made full aware of man-riding use and certify accordingly.

h. MAN RIDING TENDER AND RELEVANT LIFTING COMPONENTS – NEW INSTALLATIONS

Reference rule CISN 04/2021 (Rev.2) - STRENGTH AND LOAD TESTING OF MAN RIDING TENDER LIFTING POINTS.

For all flagged vessels, it is recommended to refer to Cayman Islands Shipping Notice 04/2021 (Rev.02) where Flag indicated that, although the notice is applicable to new vessel (construction of which is signed after 1th January 2022), however earlier compliance on a voluntary basis is strongly encouraged for all Man Riding Tenders.

General requirements:

Structural members, pad eyes, links, fastenings and all other fittings used in connection with MAN RIDING tender lifting shall be designed with a Factor of Safety (FOS) on the basis of the maximum working load assigned and the ultimate strength of the materials used in the construction.

A minimum FOS of 4.5 shall be applied to all structural members.

A minimum FOS of 6 shall be applied to any lifting points (including their fastenings), strops and / or similar components.

Any lifting components made from synthetic fibre rope (i.e. strops) shall have a minimum FOS of 7.5.

The builders of man riding tenders are required to ensure that any lifting points and their supporting structure are designed and constructed in accordance with the above. Compliance shall be demonstrated by producing a set of calculations for the lifting structure, a copy of which shall be appended to the Builders Certificate. The provision and accuracy of such calculations remain the responsibility of the builder and do not need to be approved.

Before the installation of the tender on board, a static load testing of every man riding tender shall be conducted by the builder in the presence of a Surveyor to a Recognized Organisation*(RO) as follows:

The tender should be loaded with a properly distributed load of four times the weight of the full complement of persons for which man riding is to be approved and suspended for five minutes from its strops or hooks. The weight should be distributed in proportion to the loading of the tender in its

launch and recovery condition, but the weights used to represent the persons need not be placed more than 300 mm above the seat pan. The tender and its lifting arrangements

should be thoroughly examined by both the manufacturer and the attending Surveyor after the test has been conducted and

should not show any signs of damage. Testing by filling the tender with water should not be accepted on the basis that this method of loading does not give the proper distribution of weight.

The manufacturer shall provide a planned maintenance and inspection routine and guidance on how to identify any defects in the lifting points and supporting structure that may not be immediately visible.

A dynamic Load Test (using a proof load of 1.1 times the maximum Launch and Recovery weight) on board the yacht using its own cranes is to be carried out **when the tender is initially placed onboard followed by intervals of not more than 5 years.** The test shall be witnessed by a Surveyor to a Classification Society, or a Certifying Authority.

The maximum launch and recovery weight of the appliance (to be stated by the Manufacturer) is to be at least equal to the weight of the fully loaded tender including all its fuel and equipment and the number of persons required for launch and recovery operations. The number of persons required shall be confirmed by the Management Company / Owners Representative(s) but shall in no case be less than two. The weight of each person shall be assumed to have an average mass of at least 82.5kg

A thorough visual inspection of the lifting points shall be performed prior to launching following any prolonged period of not having been used and on a weekly basis during periods when the Tender is being regularly launched and recovered.

Such inspections shall follow the manufacturer's instructions.

All visual inspections shall be carried out by persons deemed competent as per the Code of Safe Working Practices for Merchant Seaman, thus someone who has sufficient training and experience or knowledge and other qualities that allow them to carry out the work in hand effectively and safely. This is expected in practice to be a Deck or Engineer Officer.

Lifting Components (including strops) manufactured from synthetic fibre rope shall be replaced at intervals not exceeding 18 months.

Operational Limitations (Beaufort Scale and Sea State) on the launching and recovery of the tender in MAN RIDING mode should be considered by the Company and documented in the Safety Management System.

Any inspection, maintenance, thorough examination, operational testing, overhaul and repair shall be carried out according to the maintenance manuals and associated technical documentation developed by the manufacturer.

A Table for recording the dynamic load testing requirements as follows shall be made available by the Manufacturer, as follows:

Record of Five Yearly Dynamic Load Testing*			
Date	**Test Result****	**Test Conducted By (Signature and Position)**	**Test Witnessed By (Signature and RO / CA / CI Stamp)**
Date of Initial Test:			
Date of 1st Five Yearly:			
Date of 2nd Five Yearly:			
Date of 3rd Five Yearly:			
Date of 4th Five Yearly:			
*A dynamic Load Test (using a proof load of 1.1 times the maximum Launch and Recovery weight) on board the yacht using its own cranes is to be carried out when the tender is initially placed onboard followed by intervals of not more than 5 years.			

Final considerations:

We understand that this is a lot of information, but it is deemed important to try to support the fleet in the large number of regulations available on these highly important subjects.

As mentioned, these are the minimum requirements to comply with the applicable regulations.

Unless already present, please implement in your PMS on board, where applicable, the above periodical verification.

Should you decide to do more test from the minimum above listed, please inform in advance your Yacht Manager.

Your Yacht Manager will assist where necessary in identifying the annual requirement for the various equipment.

Should any clarification be needed please feel free to contact us.

Kind regards,

Lucia Badano