# Annual wire system safety check.

The mechanical steering system is the most important system on board of a vessel. An annual check and maintenance is essential to make sure you have a proper and safe working system.



#### Annual check and service:

#### Chain



Check if the chains are greased and make sure all links run smoothly. Check the condition of the terminals at the chain and quadrant side.

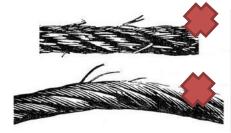


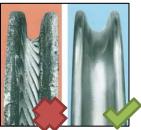


#### **Sheaves**



Check the sheaves condition (Sheave wheel, bearings and fixation). Check the wire for any fraying or loose wires along their length by using a cloth soaked with a little oil and run it over the steering





## Quadrant



Check if the quadrant is in good condition and the clamping bolts are properly tightened. You can grease the tracks of the quadrant





to get a better feeling on the wheel. Check if the wires align with the track in the quadrant, and if the wire terminals at the quadrant are in good condition (check for cracks).



#### Wire tension

To check the wire tension, turn the system against a rudder stop, and hang a weight of 10-15kg on the wheel to pre-tension the wire. Now tighten the loose wire on the quadrant. It is only necessary to do this to one side. Over tightening will reduce the feel on the wheel and will make the system feel stiff. Under tightening will cause slack and a dead area in the middle with risk of steering failure due to the cable jumping off a sheave or the quadrant.

## **Emergency tiller**

In case of steering system failure, it's essential an emergency tiller is on board. Every crew member should know the location and operation of the emergency tiller. It's advisable to have an annual "emergency tiller drill" with the complete crew. In case of a steering loss, please remember in most cases it's also possible to use the autopilot to steer the boat, but the emergency tiller is the primary emergency option.





## Simple force test

A quick system check before leaving port, is turning the steering system hard over to the rudder stops, and apply about 20kg force on the wheel rim. This should be done turning to both sides and when twin wheels are available, at both wheels.

When you have any questions or doubts, please contact your local JEFA distributor or contact the factory in Denmark.

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