

Accident Record

[SUBJECT] Bending Damage of Davit Arm

Luffing limit

Bending damage

1. Applied model

SFA21051EH, SFA21063EH, SFA22055ES,
SFA25055EN
SFS-16-, SFS-17, SFS-20, SFS-21, SFS-22, SFS-25

2. Date of manufacture

From 2010 to 2016

3. Outline

With electric driven free-fall lifeboat davit, there was an accident that davit arm was pulled and bent by excessive force.

4. Cause

When the davit arm is lifted by the luffing motor, limit switch needs to work before the stopper comes to stowing position. However, the limit switch did not work even at the complete stowing position of the davit arm (at the position of davit arm and stopper are contacting).

5. Prevention of accident

☞ *Carry out regular inspection to check if the limit switch for luffing motor works at the recommended standard position mentioned in the handling manual.

<About recommended standard position>

The gap "D" with the stopper is designed to be 150 -200mm or 100-150mm depending on the installed boat type. Please check the details with the handling manual.

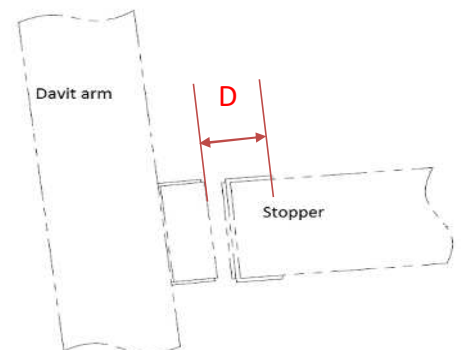
If the gap is smaller (less than 50mm), there is a possibility that the limit switch would not work and the davit arm will be bent.

⚠ If the gap is bigger than the standard, the lifeboat may not be stowed completely by turn buckle or may not be fixed or lashed at the suitable stowing position.

☞ Please use the turn buckle when stowing the davit arm from the stopped position by limit.

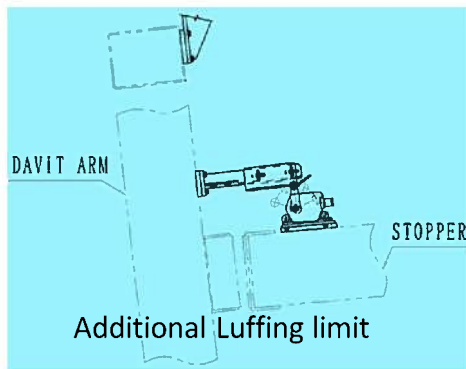
⚠ * Do not put strong tension to the boat fall wire when the hooks are connected to the lashing point. Davit arm may be damaged because the limit switch will not work when the fall wire is tensioned by hoisting winch.

☞ When stowing the davit arm, please arrange the observer on upper for preventing accident due to limit switch failure.



6. Suggestion①

To avoid unexpected failure of the luffing limit switch, we are able to provide additional luffing switch device. Accident risk can be reduced by adding the limit device. Please kindly send us inquiry about this device.



7. Suggestion②

If you carry out hoisting winch operation mistakenly with hooks at lashing position, excessive force from boat fall tension would work and there is possibility that davit arm may be bent.

For avoiding unintentional excessive reeling into the winch, resulting to bend the davit arm, it is recommended to lash with fuse rope. By setting nylon rope with $\Phi 12$, which will work as fuse, between the hook and eye plate like photo below, it will end up only to break the rope even if above mis-operation is carried out.



By tying the both rope end rings as is shown left, the rope will not be come off and stable even during voyages.



Nylon rope (Cremona rope)
 $\phi 12$ L=1000

* Photos show example of use on similar model.

III Recovery of the boat (max. capacity 4 person):

Swing out the davit arm to the max outreach and lower the fall wire to the position to be able to connect to the sling link.

*Check if the jumping stopper at sliding ramp is released or not at this point.

*Pay attention that the hook at the fall wire end would not touch to the boat.

1. Maneuver and bring the boat under the fall wire. Lower the fall wire to the position to be able to connect to the boat and connect to the boat.
2. By hoisting operation, hoist up the boat to the position just before the hoisting upper limit is activated, and then pull the boat up to above the sliding ramp by luffing up operation.
3. As checking the position of boat and sliding ramp, move the boat toward upper side (approx. 100 – 500mm) by repeating davit arm luffing up operation and hoisting down operation and pull in the boat to the stowing position. (Fig. 2)
4. At the stowing position, attach the holding device at aft side of boat. Put the boat weight to the holding device by hoisting down operation for stowing the boat.
(Refer the handling manual of the boat for procedure of holding device.)
5. Hook the jumping stopper to the boat.
6. Remove the fall wire from the boat by hoisting down operation.
7. By luffing up operation, luffing up the davit arm until the davit arm is stopped by limit switch. In case it is already stopped by limit switch, this operation is not necessary.
8. Tighten the turn buckle and lash the davit arm. The luffing wire rope will be loosened at this procedure, it is normal condition.
9. Connect the fall wire to the lashing eye and make tension by hoisting operation to the extent that wire can be easily swung by hand.
<CAUTION> Excessive tension may break the davit arm.
10. After completing the recovery operation, store the switch box.

<Attention>

During recovering operation by davit arm, locate a person at the upper side stage to check the condition of davit arm. Keep checking if the davit arm does not receive any load by touching to stopper. In case the davit arm receives the load, davit arm may be bent and damaged.

