



ARMS Beihai Failsafe Lifeboat Hooks

ARMS supplied Beihai lifeboats with the BG5, BG7, BG10, FS7 and FS10 release <u>hooks</u> have had no <u>hook</u> failures.

3

Houston: 713-923-1671 / ST. Rose: 504-496-0151 / New Iberia: 337-365-1441

HOUSTON • NEW ORLEANS • NEW IBERIA

BHFS Design History

- Beihai series hooks: BG5, BG7, BG10, FS7 and FS10 were designed in 1995.
- The BG and FS series difference is: BG is of galvanized material and FS is of stainless steel material.
- A collaboration of Beihai engineers, with extensive maritime experience, created a design that has stood the test of time.
- The hooks systems are suitable for offshore and shipboard use.
- The original designed release hooks, with NO modifications, passed the IMO Circular 1392 testing protocol, respectively2012/2013 and are on the IMO White List.
- There are over 600 ARMS Beihai release gear systems currently in use worldwide.



Beihai Fail Safe - Hook Safety

- Although cam actioned, no hook load is directly on the cam. Hook load is applied to the amplifying arm.
- The hook cannot release in anyway if the operator does not action the releasing lever.
- Cam systems that failed in the past controlled the hook directly.
- The hook is designed to remain closed even if the activating cable is damaged or removed.



Console Design & Lever Positions

- Both the console and release lever positions are **accessible by only the helmsman** and are **similar in all ARMS/Beihai lifeboats.**
- This design allows for **easy cross-training** of onboard personnel from one **ARMS/Beihai lifeboat model to another.**
- All lifeboat control actions, offload and onload, are performed by the trained coxswain while safely secured in the helmsman seat.



Control Position Safety

- Engine Morse Control Assembly & Hook Red Release Lever are positioned on the helmsman console to provide better overall control of the lifeboat.
- The hook release lever is clearly marked to prevent premature activation of the lifeboat release hooks.

Steps required to operate red release lever in normal circumstances.offload:

- 1. Upon entering the water, remove red safety pin.
- **2.** Once lifeboat is in the water, hydrostatic interlock moves to allow red release lever to be pulled back to open hooks.
- Hydrostatic unit activation is clearly visible by the indicator located at the base of the hook release mechanism.
- 6. All lifeboat controls are easily accessible by one responsible person, the helmsman.

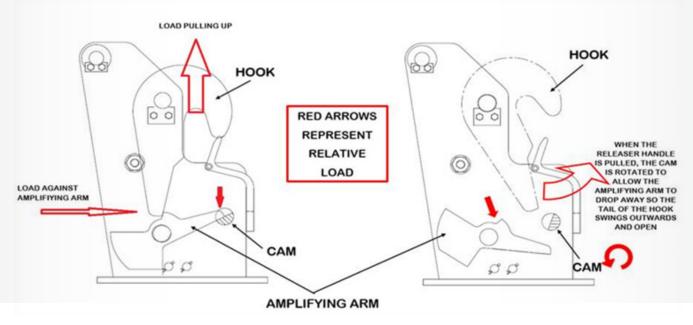
Steps required to operate red release lever, onload:

- The onload feature is required by legislation. To perform the override feature, the operator must remove the protective cover and turn the hydrostatic knob to the GREEN OK. Only then the operator can pull the lever and open the hooks.
 **Our design of the override system makes its use a conscious planned action.
- **2.** To reset the hooks, the helmsman simply pushes the release lever forward. No action is required to the override hydrostatic knob.





Locked & Open Position



www.alexanderryan.com

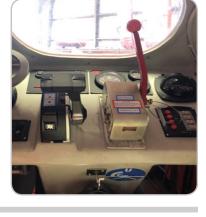


Industry History

- Many other manufacturers hooks are **based upon designs that** had faults.
- IMO Circular 1392 required all hook manufacturers to self access their current hook designs.
- The original designed release hooks: BG5, BG7, BG10, FS7 and FS10 passed, with NO modifications, the IMO Circular 1392 testing protocol, respectively 2012/2013 and are on the IMO White List.
- Unlike other manufacturers, the **BHFS hook cam is separate and** does not contact the tail of the hook.

Rough Weather Launching

- The BHFS hook will release both hooks simultaneously.
- With load over center hooks, this release hook requires the load to be off BOTH hooks at the same time.
- In minimal swell conditions with the load over center hooks, the release of both hooks might be impaired. This could result in the need for the crew/helmsman to activate the onload release feature with all of the associated dangers. Heavy seas present an even higher risk to the crew and lifeboat.
- In an override emergency, with the load over center hooks, the helmsman is not able to perform this function. An occupant must remove his seatbelt to locate and retrieve the override tool and perform this action. Thus risking injury to himself or others.
- Load over center hooks have a potential to become offset and open when the lifeboat starts a pendulum swing. There is a brief moment when the load is negative and the lifting ring can move outward in the hook allowing the pull to be off center and actually apply a load, forcing the hook to open.





Summary

• ARMS supplied Beihai lifeboats with the BG5, BG7, BG10, FS7 and FS10 release hooks have had no hook failures.

Safety Is At The Heart of Everything We Do!

Alexander/Ryan Marine & Safety, LLC

Headquarters

Houston 2000 Wayside Drive Houston, Texas 77011 Tel.: 713.923.1671 Fax: 713.923.9147 www.alexanderryan.com

Branch Offices

New Iberia 109 Old Rd. New Iberia, LA 70560 United States Tel.: 337-365-1441 Fax: 337-365-2135 New Orleans 120 Pintail Street St. Rose, LA 70087 Toll Free: 1-866-496-0151 Tel.: 504-496-0151 Fax: 504-496-0160

