Design & Operation
for Fassmer Duplex Release Systems
Corrosion-resistant materials such as stainless steel and high-strength casted bronze- NO coating, galvanizing etc. necessary.
Round cam design locks the hook safely in ANY closed cam position- 
EVEN if the operation cable is damaged or disconnected. 
There is NO FORCE returned from hook into the cable! 
That system provides SAFE LOCKING even after years of tear and 
wear!

(Bolt pulled out for demonstration only!)
Features

Hook is self-closing by gravity after release: simple return of release lever to locked position and insert of safety pin to the lever locks the system without further action at the hooks.
Features

Visual indicators at the hooks indicate that the hooks have fully returned to the resting position.

Hook up to 6,6t: triangle mark in line with notch

Hook 10t and more: full view through control hole is not restricted by any hook part inside
A safety mechanism prevents the release bolt and connected lever to be returned to the locked position in the unlikely case that the hooks should not have fully returned to the resting position.
Features

Clear marking on the release bolt indicate safe locked position of the bolt and correct adjustment for simultaneous release.
Features

S/s Heavy Duty Bowden wires in a closed, watertight and greased for life- system with special end turn units prevent corrosion and the use of fragile lever end fittings.
The release lever is secured by a hydrostatic interlock system with clear indication:
RED: NOT WATERBORNE- NO RELEASE
GREEN: WATERBORNE- READY FOR RELEASE
The hydrostatic interlock system is activated by a simple floater, thus avoiding the use of rubber membranes and their regular exchange.
Features

Integrated eyes for hanging-off pendants and maintenance slings.
Optional “Harbour safety pin” available for cruise ship lifeboats to secure hooks additionally against accidental release during maintenance in harbours.
Features

Hook attachments at stem and stern avoid hook anchor contact with bilge water and provide full access to all screwed connections.
The basic release system was developed about 25 years ago in Germany in cooperation of all German lifeboat makers together with the National Authority See-BG with the idea to have the same release system on all German ships. It has therefore proven also its long term reliability with a considerably low accident record!

( Photo shows one of the first hook system from 1983 on German vessel “Mellum” before Service in 2007 )
The hoisting hooks installed to the lifeboat are released simultaneously by Bowden wires and are operated by the release lever.

The following drawings and descriptions show the Duplex 10t hook as sample.
The release lever is secured by an hydrostatic locking device to prevent the unintended release of the hooks before the boat is waterborne. This safety device can be bypassed in emergency case.
As soon as the boat is waterborne the hydrostatic locking device opens and the release lever is free for release. The indication of the hydrostatic locking device changes from red to green.
After removing the safety bolt the release lever can be operated. The hoisting hooks will be released under any load.

The hook opens as soon as some load is executed on the hook and returns always to CLOSED- position without load or when long link is out of hook.
The recovery of the boat can be executed after the hook has returned to its closed position (by gravity), the release lever has been returned to its closed position and is secured with the safety pin.
• Check: hook is fully closed when **triangle mark is in line with notch** (**Hooks up to 6,6t**).

• Check: hook is fully closed when NO part of the moveable hook can be seen within the **control hole** (**Hooks 10t and more**).

• Check: hook is correctly locked if **green position marking of release bolt** is in line with the **green “OK” arrow**.
If the hydrostatic locking device (3) does not unlock the release lever (2) it can be bypassed for emergency use as described below:

Ensure the boat is waterborne.

Remove safety glass (4) using the crowbar.

Open the shackle bolt (5).

Operate release lever (2) speedily.

Hooks are now unlocked and will open if under load.
Overhaul and overload release test

Fassmer strongly recommends to execute the 5 yearly 10% hook overload test with suitable test device and to use PROOF LOADS and NOT BOAT for dynamic davit overload tests.
The End – Off to the future ...