



Technical Circular

No.: 060/2021

Date: 24th December 2021

Subject: AMSA Safety Alert 02/2021 Reg. – Correct use of Hydrostatic Release Units (HRUs).

1. Australian Maritime Safety Authority (AMSA) vide Safety Alert No. 02/2021 has informed that, over 100 deficiencies in relation to deficient HRU arrangements on life-rafts and float-free EPIRBs were issued by AMSA in the year 2021.
2. In this regard, it is to be noted that the HRU used on life raft securing devices cuts through a cord that fastens the securing straps. The life raft container has enough inherent buoyancy to float free from its cradle and in doing so, pulls out the life raft painter to inflate the raft. The painter is attached to a weak link that is designed to break once the raft has inflated.
3. **It is important that the HRU and weak link are correctly installed. If the painter is not attached to the weak link correctly, the raft may not inflate, or may not release from the sinking vessel.**
4. Accordingly care must be taken to ensure that the securing straps on a life-raft canister will release when the HRU activates, and that the liferaft painter is attached to the HRU weak-link.
5. Similarly, the HRU on a float-free EPIRB should be checked to ensure it is installed correctly. No additional lashings should be used on the EPIRB housing – this can prevent the housing cover from releasing when the HRU activates, stopping the EPIRB from floating free.
6. Further, HRUs can be serviceable or disposable. Re-useable HRUs must be serviced annually by the manufacturers authorised service agent to ensure they will work when required. Disposable HRUs have a service life once installed and must be replaced once they reach their expiry date.

7. Ship owners/ managers and masters are advised to be guided by above and ensure that hydrostatic release units are installed correctly and that life-raft painters are connected to the HRU weak link.

Enclosure:

1. AMSA Safety Alert No. 02/2021.

Safety Alert 02/2021

CORRECT USE OF HYDROSTATIC RELEASE UNITS

Purpose

This safety alert aims to raise awareness of correct use of hydrostatic release units, for both float-free life rafts and float-free EPIRBs.

Hydrostatic release units

The Hydrostatic Release Unit (HRU) is designed and approved to automatically deploy a life raft or EPIRB in the event of a vessel sinking.

HRUs operate between 1.5 and 4 metres of water depth, to release the securing mechanism for the life raft or EPIRB.

AMSA inspectors often identify circumstances where HRUs are incorrectly fitted. In 2021, AMSA has issued over 100 deficiencies in relation to deficient HRU arrangements on life-rafts and float-free EPIRBs.

from its cradle and in doing so, pulls out the life raft painter to inflate the raft.

The painter is attached to a weak link that is designed to break once the raft has inflated.

It is important that the HRU and weak link are correctly installed. If the painter is not attached to the weak link correctly, the raft may not inflate, or may not release from the sinking vessel.



Correctly fitted HRU on a life raft

Life raft HRU's

The HRU that is used on life raft securing devices cuts through a cord that fastens the securing straps. The life raft container has enough inherent buoyancy to float free



HRU for small life rafts

Over tensioning of the securing straps can lead to failure of the HRU to operate. Similar problems can occur when there is insufficient load on the HRU. Securing straps should be taut but not over tight.

Care must be taken to ensure the securing straps on a life-raft canister will release when the HRU activates, and that the life-raft painter is attached to the HRU weak-link.

A short video showing the operation of a life raft HRU can be found [here](#) (courtesy of Hammar®)

EPIRB HRU's

The HRU that is used for a float-free EPIRB operates in the same way, but usually cuts through the mechanism securing the EPIRB container. Once the container is opened, the EPIRB will float free and activate.

The HRU on a float-free EPIRB should be checked to ensure it is installed correctly. No additional lashings should be used on the EPIRB housing – this can prevent the housing cover from releasing when the HRU activates, stopping the EPIRB from floating free.

Servicing and expiry

HRUs can be serviceable or disposable.

Re-useable HRUs must be serviced annually to ensure they will work when required. The HRU must be serviced by the manufacturers authorised service agent.

Disposable HRUs have a service life once installed and must be replaced once they reach their expiry date. The service life of the HRU is determined by the manufacturer. Most disposable HRUs have a service life of two years after they have been installed on the vessel. The date of installation or expiry is marked on the HRU.



Re-useable hydrostatic release unit

Reminder

- Check that you have the right HRU for your safety equipment
- Check that hydrostatic release units are correctly installed
- Check that life-raft painters are connected to the HRU weak link