



SHIP SAFETY BULLETIN

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Subject: Risky Practice of Partially Beaching Barges

Scope

This bulletin is for the Authorized Representatives, owners and operators of deck cargo, oil, and chemical barges as well as for the Recognized Organizations certifying some of those barges.

Purpose

This bulletin highlights the risks of partially beaching barges for repairs or lay-up.

Background

Transport Canada has recently learned of instances where barges are partially beached to undertake repairs, instead of using a drydock.

These kinds of situations can occur when:

- a drydock is unavailable
- there are unforeseen needs or poor planning, or
- someone wants to try reducing maintenance costs

In these situations, the forward end of the barge was beached while most of the length stayed afloat.

What are the risks of partially beaching a barge:

- All vessels are primarily designed to be afloat, whereby buoyant forces balance out the stresses induced by gravitational forces. When a vessel enters a drydock, it sits on blocks that are placed all along the hull and in way of transverse frames

Keywords:

1. Partially beaching barges
2. Wreck
3. Barge
4. Pollution

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designed and strengthened for this purpose. This ensures that induced stresses are properly distributed throughout the structure.

- Some barges and other vessels such as landing craft (i.e., specially designed vessels with ramps) do partially beach themselves to transfer cargo. However, these operations must be considered in the design of the vessel and may include limitations such as timely operation to avoid exposing the vessels to cyclic tidal variations.
- Partially beaching a barge creates a ground reaction point at the shore end and the rest of the floating portion of the hull rotates about this point with rising and ebbing tides. In barges not designed for this activity, this may create excessive stresses and bending moments on the structure, which then results in the deformation of bulkheads and parting of weld seams, as well as a weakening of the entire hull structure. Eventually, after the barge re-enters service, it could develop cracks in the hull and allow water ingress, which could in turn lead to very serious consequences, including pollution and environmental damage.

What you need know

- Any barge that is beached or grounded should be subject to a vessel condition assessment by a qualified marine surveyor or marine consultant before re-entering service.
- Transport Canada is partnering with various port authorities to better oversee these activities and will maintain vigilance along shorelines. If it is found that a barge has been beached, Transport Canada will request a copy of its condition assessment and may detain the barge if it is determined to be unseaworthy following the beaching operation.
- To avoid delays in operation, authorized representatives are encouraged to proactively inform Transport Canada before undertaking this type of operation and to provide the above-mentioned condition assessment before the barge is put back in service.