

**Transport Safety Investigation Bureau
Safety Flyer – 2023/01**

Sinking of harbour craft due to fallen cargo from a lifting pallet

Aim

1. This Safety Flyer¹ is issued to raise the awareness on the importance of ensuring that the wooden pallet used for transporting cargo is in good condition and is able to take the load of the cargo.

Recent Occurrence

2. In a recent marine casualty, a wooden pallet was used for loading spare parts (comprising four engine cylinder heads, each weighing about 130KG and four carton boxes weighing about 30KG). The wooden pallet, with the spare parts loaded, was loaded on a harbour craft and to be transferred to another vessel in port. While lifting the wooden pallet from the harbour craft to the vessel, the side planks of the wooden pallet broke resulting in the cylinder heads falling on the deck of the harbour craft (see **figure 1a** and **1b**).

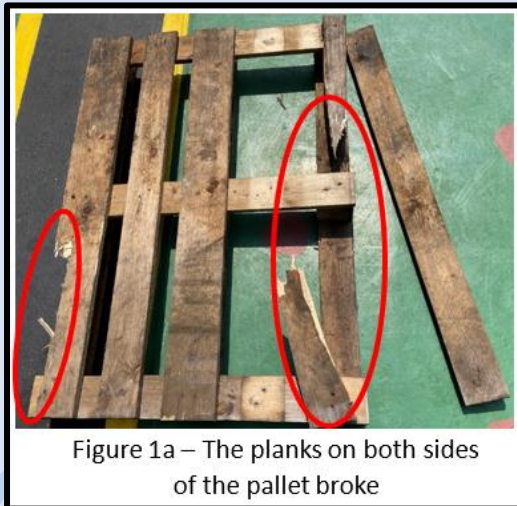


Figure 1a – The planks on both sides of the pallet broke

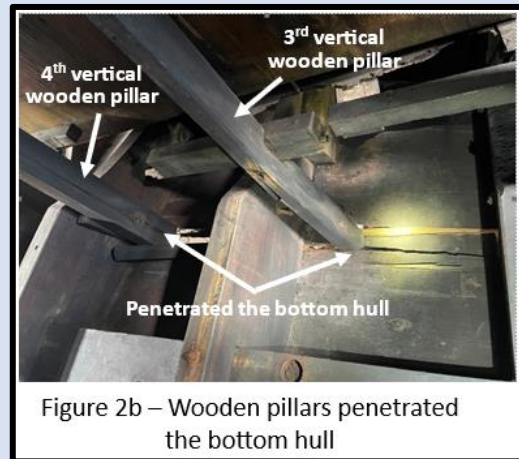
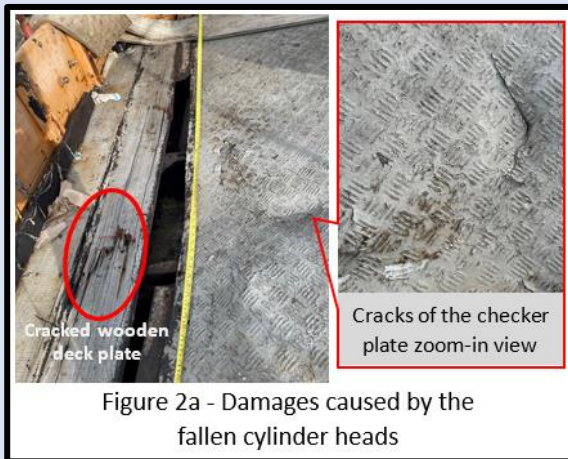


Figure 1b – Four pieces cylinder heads fell on the aft deck port side of the harbour craft

3. The fallen cylinder heads caused damage to the deck and the vertical support pillars below the deck of the wooden harbour craft. The impact force caused the vertical support pillars to penetrate the bottom hull and resulted in sea water ingress into the engine compartment. The harbour craft sank in about 10 minutes, it was fortuitous that no one was injured and all the crew from the harbour craft were evacuated safely.

¹ The contents contained in the flyer are based on prima-facie evidence available at the time of publishing and do not intend to apportion blame or determine any liability.

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4. It is noted that the wooden pallet had no certified safe working load and was not designed to be lifted by crane with webbing slings.

Lessons Learnt

- Use pallet with certified safe working load for loading cargo
- Use pallet designed to be lifted by crane with webbing slings
- Ensure pallet in good condition prior to loading cargo
- Secure pallet with cargo nets to prevent its contents from dropping