Finds from HMS Pomone - The Ship

The Heritage Service looks after 2000 finds associated with the HMS Pomone from The Needles Wreck site. Below are a selection of the finds that provide us with evidence of how the ship was constructed.

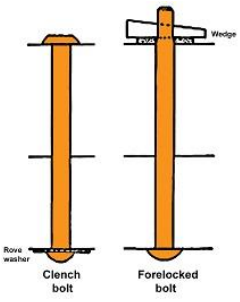
Timber from HMS Pomone

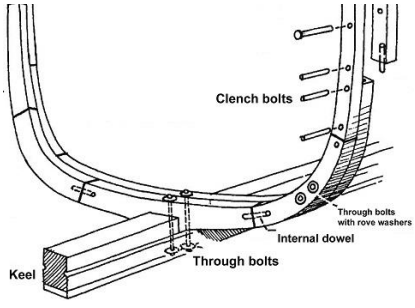
Fixing holes have been drilled in this piece of timber. Copper or wooden rivets would have been used to clamp segments of wood together.

IWCMS:20001.3.631

Clench bolts and rivets

Copper bolts were used to join the wooden timbers of the ship together. They would be hammered through a drilled hole and the heads at each end would be clenched (hammered over). Bolts that pass completely through the timbers are known as 'Through Bolts'. Some bolts were clenched over a dish shaped washer called a rove.





This rivet has a chisel shaped end.

IWCMS:20001.3.523

The end of this rivet is hammered over to prevent its withdrawal.

IWCMS:20001.3.526

Copper sheathing

Copper sheathing was pioneered and developed by the Royal Navy during the 18th century. The underside of a wooden ship would suffer from the corrosive effects of saltwater and damage by shipworm. To prevent this, copper plates would be nailed to the outside of the hull.

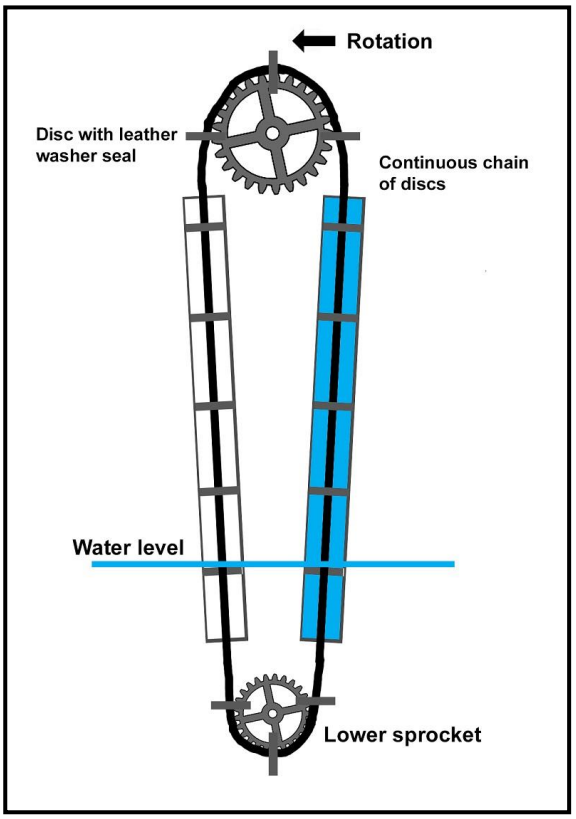
The use of copper sheathing was first suggested in 1708, although the first experiments were not made until the late 1750s. In 1761, the 32-gun frigate *HMS Alarm* was ordered to have her entire bottom coppered. This was in response to the terrible condition of the boat, when she returned from service in the West Indies.

Before the copper plates were applied, the hull was covered with 'soft stuff', which consisted of hair, yarn and brown paper. The copper performed very well, both in protecting the hull from worm invasion and in preventing weed growth. When in contact with water, the copper produced a poisonous film that deterred marine organisms.

Copper plate

The plate has nail holes and the military arrow mark. At the top right hand, there is a date stamp for December 1804: *HMS Pomone* was built in 1805. IWCMS:20001.3.545

Man the pumps



The chain pump would be used to lift the bilge water from the bottom of the ship.

Originally these large cast bronze links would have been encased within substantial wooden tubes made of elm. The chain had several circular discs with leather seals fixed to it. This would run over the upper and lower sprockets.

One part of the chain dips into the water, and the chain runs through the tube. As the chain is drawn up the tube, water becomes trapped between the discs and is lifted to be discharged at the top.

"*Barrie was galvanised into action. He shouted his orders from the quarter-deck commanding men to get below to the chain pumps to try to keep the ship afloat!*"

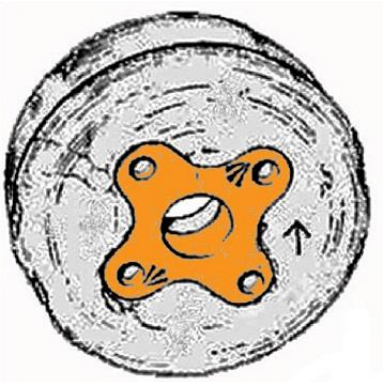
Chain pump links

These are bronze links from HMS Pomone's chain pump.

IWCMS:20001.5.309

Pulley wheels and coaks

A pulley is a collection of one or more wheels over which you loop a rope to make lifting easier. Most pulley wheels were made from lignum vitae, a hard and oily wood which preserves well underwater.



Pulley wheel with coak fitted.

Pulley wheels have a metal piece in the middle known as a coak. The coak reduces wear of the wooden pulley wheel and provides strength.

The pulley wheel was fixed onto a pin which it rotated around. Many pulley wheels were found from the Pomone. They were stamped WT and were manufactured by *Walter Taylor* of Bugle Street, Southampton.

Wooden pulley wheel

Can you see the impression of the coak on this pulley wheel?

IWCMS:20001.5.146

Bronze coaks

These coaks have three lobes; one has no screw holes to secure it to the pulley.

IWCMS:20001.5.157

Copper pulley wheel

This pulley wheel has two prominent broad arrow marks stamped upon it.

The broad arrow indicates that the object had passed through a naval dockyard and was the property of His Majesty's Navy. The broad arrow symbol was introduced in 1661.

IWCMS:20001.5.31

Copper cringle

A cringle is a small ring of rope or metal on the edge of a sail. A line passes through the hole to fasten the sail.

IWCMS:20001.5.83

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Isle of Wight Council Heritage Service