**Plank Lengths used for the Sutton Hoo Ship**

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Document SHSC002, Draft 1.2

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**Abstract:** The Sutton Hoo ship is of such a length that it would be impractical to insist that the strakes were continuous planks of wood. The strakes were made from planks joined end-to-end. The investigations by the British Museum published in 1975 show that the planks were typically 18 feet long, or slightly less. The ribs were positioned not to cover the plank joints.

**Keywords:** Sutton Hoo ship, plank, strake, joint, scarf, rib, hull

# Introduction

The Sutton Hoo ship is of such a length that it would be impractical to insist that the strakes were continuous planks of wood. The strakes were made from planks joined end-to-end. How long were the planks? What is the relation of plank joints to the ribs?

# The 1939 view

Phillips (1940, p. 184) says ‘It is at least certain that there were nine strakes a side. With the exception of the gunwales these consisted of five planks apiece running the length of the ship and united by overlapping joints secured by five clench nails only 1 in. long, showing that the planks made a flush join. The average breadth of a strake, except where it was reducing fore and aft, was 1 ft. 3 in., and its thickness, as shown by the clench nails, 1 in.’

As a rough-and-ready view this is broadly consistent with the results of later work by the British Museum in 1965-1970. Bruce-Mitford (1975, p. 235) summarises these words as: ‘Phillips (1940a, p. 184) says the strakes were made up from five separate lengths of wood, implying four plank-joints to each strake. Bruce-Mitford also cautions the reader that Science Museum, 1939, reproduced as Bruce-Mitford (1975, fig. 185, p. 258), is not reliable concerning the positions of the plank-joints (as well as having other limitations).

# The 1975 view

This is given at Evans (1975, p. 361), where the section called *Plank-joints* starts. The section includes a couple of pages taken up with radiographs of various iron fastenings, and ends on p. 365, where fig. 280 is a good schematic of where the joints were identified. The information sources it uses are:

* the photographs from 1939
* re-excavation during 1966-7
* Science Museum, 1939. (The limitations of this ‘provisional plan’ are described at length in Bruce-Mitford (1975, pp 234-235). In particular, he said the purported plan of the port side is actually a mirror image of information from the elevation of the starboard side. The lack of symmetry shown by fig. 280 makes it very clear that this is what was done. However, fig. 280 implies the plan for the port side is the actual data, which the starboard elevation reproduces as a mirror image.)

Final conclusions on joint positions are given in the fold-out fig. 325, on p. 435. It is consistent with fig. 280 in terms of port and starboard. It is a scale drawing, and a straightforward summary. Note that:

* For strakes 1 to 4, the story is interrupted by the poor state of the lower part of the burial chamber.
* Strake 9, the gunwale, had been almost totally destroyed by 1965 (p. 400).
* Also ‘…no *horizontal* rivets were found during the 1939 excavations which could have been interpreted as evidence of a vertical scarf on the gunwale strake,’ (p. 402).

So, the easiest way to judge how long the typical planks may have been is by looking at strakes 5 to 8, bearing in mind that not all the joints will be shown.

# Analysis

There seems no reason to disagree with Evans (1975, p. 364), where it says “…the strakes of the ship were made up of to five, or in the case of the central strakes six, lengths of timber. Measurements in the ground showed that the commonest distance between the few surviving pairs of plank-joints was approximately 18 feet (5.45 m), although occasionally a much shorter length occurs.”

On p. 365 it says that between any two ribs, when there were joins on adjacent strakes, these were separated, generally with one joint closer to one rib, and the second joint closer to the other.

## Relationship to rib spacing

There were no plank joints sitting *under* a rib. Does this suggest that when the clinker shell was being constructed the positions of the ribs had been decided and were already being taken into account?

Measurements from Bruce-Mitford (1975, fig. 325, p. 435) tend to belie this. If the rib spacing is presumed to be generally uniform, then the position of rib 18 is 3½ inches aft of where it might be expected. It rather looks as if this was an unplanned adjustment to avoid some plank rivets in strake 5 on the starboard side. However, this way of thinking is undermined by the position of rib 16, which is about 2 inches forward of where it might be expected, even though no plank rivets were identified close to it.

Another explanation for the uneven rib spacing could be that the presumed thwarts at ribs 16 and 17 were prestige ‘engine room’ rowing positions, where the most powerful oarsmen sat. These would be large men who would be able to deliver more if they were given some extra space. This hypothesis has more force if there were no rowing positions amidships, a possibility examined in Bruce-Mitford (1975, pp. 419-420).

# Conclusions

There is no reason to disagree with Evans (1975, p. 364) “… the commonest distance between the few surviving pairs of plank-joints was approximately 18 feet (5.45 m), although occasionally a much shorter length occurs.”

Ribs do not cover over any plank joints. This was not necessarily pre-planned. It is possible that rib positions were adjusted to fit the constructed hull where necessary.

# History

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| **Status** | **Date** | **Author** | **Details of change** |
| Published for Symposium. | 6/10/18 | Joe Startin | Published after two drafts |
| Issue 1.0 | 22/2/19 | Joe Startin | Added History section |
| Issue 1.1 | 11/2/20 | Joe Startin | Section 3. Extended in parts, to highlight an inconsistency within Volume I regarding port and starboard, which are the wrong way round on p. 234, but correct in fig. 280 and fig. 325. |
| Issue 1.2 | 15/4/20 | Joe Startin | Added copyright notice at beginning. |

# References

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