Weekly work updates from February 2004 through December 2004 on the restoration of the 1895 lumber schooner *C. A. Thayer*

June 28 – July 2, 2004

The gang has been setting up a steel framework to lift the after house, in tact, mostly in order to free up access to the after portion of the hull.

The after house, containing the officers' cabins and the saloon, is built up from the main deck, but is surrounded on three sides by the raised poop deck. The poop deck planking and beams were removed earlier in the project, leaving the house free-standing, resting on the main deck beams. The floor inside the house is continuous with the main deck. The deck forward of the house, together with the bulk of the main deck beams have been removed.

The idea of the current job is to lift the house as a single piece, including the deck beams upon which it rests. It is figured to weigh about twenty tons. It will go up about six feet.

This will give us access to repair the deteriorated outer ends of the deck beams. The five beams under the house are in generally good condition, with only the extreme outboard ends showing softness. We hope to be able to do only local repairs, well short of lopping them off and scarfing on new ends.

The main deck beam at the forward end of the house will have to be replaced entirely, being well rotted from years of fresh water intrusion. With the house up in the air, this bit of replacement will be that much easier.

Raising the house also allows us to get at the sheer clamps, the fore-and-aft timbers on which the deck beams lie. And we will have better access to the thick ceiling planking which rises up in the very stern area. And it will make it easier to get at the deadwood timbers and the sections of sister keelsons which have to be removed.

An overall view of the setup from forward (click on the image for a larger view). Note the red-painted end of the starboard side longitudinal beam I-beam at the left of this view. Two of these beams run fore-and-aft under the wooden deck beam under the house.

The rig to lift the house seems quite cleverly designed. (We can say this, as it is the contractor's system.) Four steel pipe pillars rise up from the steel cradle upon which the hull rests. Two of these are immediately forward of the house and two are immediately aft. A heavy I-beam is welded across the top of each pair of pillars, running from side to side across the hull. The bottom of the I-beams is about seven feet above main deck level at the forward end of the house. Wire rope stays are rigged from the ends of the beams down to pads on the hanger floor.

A second set of heavy I-beams have been slipped in fore-and-aft, under the house deck beams. These longitudinal beams will be lifted horizontally to take the weight of the house, hanging in effect, from the athwartship beams resting on the pillars. A pair of heavy threaded rods supports each end of the longitudinal beams, passing through the athwartship beams above, and connected at the top and bottom with a short horizontal tie beam. To raise the house, jacks will be placed under the upper tie beams, bearing on the upper surface of the upper I-beams. As the jacks are raised, about 10 inches at a time, the threaded rod rises through the upper beams. Nuts are run down the rods to hold what is gained. The jacks are then backed off and the tie beams are lowered down with additional nuts on the threaded rods.

The jack pushes up the upper tie beam (click on the image for a larger view). When the jack is fully raised, the nuts will be run down the two threaded rods to hold what has been gained.

The lift is supposed to be done next Monday. When the first bit of strain comes on the deck beams under the house the drifts which hold them down to the clamps will be cut through with sawzalls. The forward two beams have knees under them, and here the many drifts will have to be carefully cut through.

We will let you know how this all works.