DAVID B. WYMAN, P.E. NAVAL ARCHITECT-OCEAN ENGINEER MARINE SURVEYOR

ACCREDITED MARINE SURVEYOR - SAMS #240 SOCIETY OF NAVAL ARCHITECTS AND MARINE ENGINEERS - MEMBER REGISTERED PROFESSIONAL ENGINEER - FLORIDA & MAINE LICENSED USCG MASTER AUX, SAIL & POWER



REPORT OF SURVEY

VESSEL: HMS "Bounty" REGISTRATION: 960956 DATE OF SURVEY: March 08-10, 2001 Updated May 15 & 16, 2001

VESSEL PARTICULARS:

- MODEL Wooden hulled, 3 mast, full rigged ship
- BUILDER Smith & Rhuland, Lunenburg, Nova Scotia
- MODEL YEAR 1960
- HULL IDENTIFICATION NUMBER None
- PRINCIPLE DIMENSIONS 120' x 30' x 13' draft
- DISPLACEMENT 500 tons
- ENGINE Twin 220 hp Caterpillar model D 342C Diesels
- OWNER -- HMS "Bounty" Organization, LLC P. O. Box 141, Oakdale, NY
- REPRESENTED BY Robert Hansen, Pres., HMS "Bounty" Organization, LLC C/O Islandaire Inc., 10 Fleetwood Ct., Roukonkoma, NY, 11779

THIS IS TO CERTIFY THAT the undersigned surveyor at the request of Robert Hansen, President, HMS "Bounty" Organization LLC, conducted a limited survey of the above listed vessel for the purpose of determine her suitability for making a one way trip from Fall River, MA to Gloucester, MA for haul out and repairs at the Gloucester Marine Railway Inc. facility. On May 15 & 16, 2001 a reinspection of the vessel was conducted with her at her berth in Fall River, MA.

SCOPE OF SURVEY:

This vessel was examined while afloat at her berth at Heritage Park, Fall River, MA on March 8 thru 10, 2001. This survey was conducted by first thoroughly discussing the ship and her present condition with the people listed below to gain an understanding of the present situation with regards to the vessel:

- · Robert Hansen, President HMS "Bounty" Organization LLC owner
- · Captain Robin Walbridge long time master of the ship
- Leon Poindexter, shipwright who has been involved with the rebuilding of the forward and midship sections of the hull
- Doug Parsons, Diver, Gloucester Marine Railway

Following that, an <u>underwater survey</u> of the vessel was conducted by the diver, Doug Parsons. He gave frequent reports back to the surface and a thorough debrief at the end of his dive with the below signed surveyor. Next came a <u>survey of the topsides from the waterline to the tween deck level</u>. It was also conducted with Doug Parsons who was working from a small boat and had a continuous dialog with the undersigned surveyor. Next a <u>survey of weather deck and rigging</u> was conducted by the undersigned surveyor. Then an <u>internal examination</u> of the ship was conducted by the undersigned surveyor. Finally D.B.Wyman Marine Survey HMS "Bounty" March 8-10, 2001 Page 2 of 5

the <u>machinery was examined</u> including observing the operation of the main engines, generator and bilge pump.

No fixed parts were removed and close attention was given to her condition with regard to hull, rigging, machinery and outfitting. The vessel was found to be in **Poor Condition but, provided that the recommendations listed below are followed,** suitable to proceed to Gloucester, MA for haul out and repair.

On May 15 &b 16, 2001 a reinspection of the vessel was conducted with the vessel laying at her berth in Fall River, MA. The vessel was found in essentially the same condition as reported in my survey of 8 - 10 May 2001 except that some work has been done to put the vessel in better operating condition. One additional recommendation is made due to the elapsed time that a final diver inspection should be made prior to departure to insure that plywood patches are still in place and that the running gear is clear.

ESTIMATED FAIR MARKET VALUE = \$ 260,000

ESTIMATED REPLACEMENT COST = \$ 8,000,000 - \$10,000,000

THESE VALUES WERE DETERMINED by using three basic approaches: (1) Purchase price paid by the new owner HMS "Bounty" Organization, LLC, (2) by estimating value on a dollars per pound basis on my personal data base, and (3) personal knowledge of current local market conditions. The estimated fair market value of this boat is based on offering prices in trade publications and dollars per pound.

REFERENCES:

In conducting this survey the following principle references were used:

- 1. NFPA #302 Fire Protection Standards for Pleasure and Commercial Motor Craft
- 2. ABYC Standards and Recommended Practices for Small Craft
- 3. USCG Rules and Regulations for Recreational Boats

UNDERWATER HULL SURVEY:

An underwater survey of the vessel was conducted by the diver, Doug Parsons with frequent reports back to the surface and a thorough debrief at the end by the below signed surveyor. A visual and haramer survey of the hull planking was conducted by the diver. In addition, the propellers, propeller struts, rudder and seawater intakes were cleaned of growth and examined. In general the underwater hull is in poor condition with the after 1/3 the worst. The following observations were made:

- Plastic sheeting covers the hull from midships aff. This is reported to have been installed by divers last summer to slow down the leaking. The plastic was found to have holes and/or be loose. This will need to be covered with plywood prior to the trip to Gloucester to keep the plastic in place and to prevent additional seams from opening up and allowing water to leak into the hull.
- Various copper patches were found which covered plank seams and butts; they appeared to be in good condition.
- Various areas show worm damage.
- Some caulking was found to be coming loose.
- The propellers were found to be in poor condition with significant thinning at the tips of the blades.
- The seams in the forward portion of the vessel in general appear to be in good condition.
- The shoe on the bottom of the keel from the fore mast aft is missing. This has been missing for at least 10 years because it is shown as missing on a docking plan with a 1990 date.
- The sternpost appears to be in poor condition.
- The shaft strut bolts were sounded and appear to be solid.
- The starboard cutlass bearing support appears to be loose.
- The forward 1/3rd of the underwater hull is reported to have been rebuilt in 1997 and the midships 1/3rd of the underwater hull is reported to have been rebuilt in 1995.

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TOPSIDES FROM WATERLINE TO TWEEN DECK LEVEL:

A survey of the topsides from the waterline to the tween deck level was conducted with Doug Parsons, working from a small boat with continuous dialog with the undersigned surveyor. This area forms the hull above the waterline that will be exposed to the seas when underway. This area was examined by visual inspection and hammer testing. The following observations were made:

- Port side, 8 foot aft of foremast chains, 4th plank above waterline the plank at the butt appears loose, this should be re-bolted.
- Port side at foremast chains, plywood patch just above waterline (this was reported to have been installed this winter after receiving damage in a storm) the patch needs to be more securely fastened.
- Plastic on the bottom where it extends above the waterline needs to be sheathed with 1/4" plywood.
- Port side at the bow, many of the planks appear to be in marginal condition. These should be more carefully inspected when hauled out and repairs made as found necessary.
- Port side, 6' aft of stem, the 3rd plank down from the laminated plank that stands proud approximately 1/2" the butt appears to be loose, this should be refastened.
- Starboard side bow, some of the planks just below the tail board are covered with plywood and the planks appear to be in poor condition this area should be investigated at the haul out and repaired as found necessary.
- Starboard side bow, seam between 3rd and 4th plank above waterline in way of copper patch, the patch was loose, this was re-nailed during the survey but should also be covered with a piece of plywood approximately 6" wide by 8' long.
- Starboard side at the fore mast chains, freeing port is open this was closed with rubber flap 14" by 14" by 1/4"
- Starboard side midships starting at the aff end of the main mast chains there is an area of deteriorated planking which extends down to within 6" of the waterline - this area should be covered with a 4' by 8' sheet of plywood.
- Lower starboard corner of the upper transom has a small hole this should be covered with a lead patch made up of two pieces approximately 12" x 24".
- Port side midships starting at the aft end of the main mast chains there is an area of deteriorated planking which extends down to within 6" of the waterline this area be covered with a 4' by 8' sheet of plywood.

WEATHER DECK AND RIGGING:

A survey of the weather deck and the rigging was conducted by the undersigned surveyor. In general the decks were found in fair condition but a profusion of small leaks were noted. The topmast and all but two of the coarse yard have been lowered to the deck. As a result, the windage has been greatly reduced which should help with the passage.

INTERNAL EXAMINATION:

An internal examination of the ship was conducted by the undersigned surveyor. All of the below decks spaces were entered and inspected. There were no obvious conditions found that would be a problem during this brief voyage. The ceiling planks and other internal structure were found to be in generally good condition.

MACHINERY:

The machinery space and all of the equipment were examined. The main engines are old, but appear to run adequately for the intended voyage. The operation of the generator and the bilge pump was observed. This area of the ship will require extensive work in the future, some of which should be done at this shipyard period.

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FAIR MARKET VALUE:

The fair market value of the vessel in its present condition is depressed and is substantiated by the low sale price. The new owners plan to do extensive work on the vessel, first to repair the obvious hull and machinery problems and then to get her inspected as a passenger vessel. The following preliminary estimates are offered as a guide only for the potential future value of the vessel when various phases of the planned work are completed:

- Current fair market value = \$260k.
- Major hull repairs and general upkeep at Gloucester Marine Railway = \$1,000k
- USCG Inspection Certification as dock side attraction = \$500k
- Rig and topside repairs completed = \$500k
- Machinery and Electrical replacement/upgrade completed = \$500k
- Equipment Upgrades and replacement = \$300k
- USCG Inspection Certification as Passenger Vessel = \$1,000k
- Total Estimated Value if all of the above is completed = \$4,006,000

REPAIR RECOMMENDATIONS:

- 1. Plastic sheeting which covers the hull from midships aft will need to be covered with 1/4" plywood prior to the trip to Gloucester to keep the plastic in place and to provide additional watertight-ness to the hull.
- Port side at 8 foot aft of foremast chains, 4th plank above waterline the plank at the butt appears loose, this should be re-bolted.
- 3. Port side at foremast chains, plywood patch just above waterline (this was reported to have been installed this winter after receiving damage in a storm) the patch needs to be more securely fastened.
- 4. Port side, 6' aft of stem, the 3rd plank down from the laminated plank that stands proud approximately 1/2", the butt appears to be loose. This should be refastened.
- 5. Starboard side bow, seam between 3rd and 4th plank above waterline in way of copper patch, the patch was loose, this was re-nailed during the survey but should also be covered with a piece of plywood approximately 6" wide by 8' long.
- 6. Starboard side midships starting at the aft end of the main mast chains there is an area of deteriorated planking which extends down to within 6" of the waterline this area should be covered with a 4' by 8' sheet of plywood.
- 7. Lower starboard corner of the upper transom has a small hole this should be coved with a lead patch made up of two pieces approximately 12" x 24"
- 8. Port side midships starting at the aft end of the main mast chains there is an area of deteriorated planking which extends down to within 6" of the waterline this area should be covered with a 4' by 8' sheet of plywood.

VOYAGE PREPARATION RECOMMENDATIONS:

- 1. All pumps should be proved to be in good operating condition.
- 2. At least two independently powered pumps should be on deck and their operation proved.
- 3. Dock trials of the engines should be performed to insure that they operate properly.
- 4. A final diver inspection should be made prior to departure to insure that plywood patches are still in place and that the running gear is clear.

RECOMMENDED VOYAGE PRECAUTIONS:

- 1. A fair weather forecast for the next three days should be made prior to departure.
- 2. The voyage should be made in short increments during daylight hours if possible.
- Tugboats that can offer assistance in the event of problems should be identified and placed on standby.

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CONCLUSIONS:

After a thorough underwater, topside and internal inspection, in conjunction with a well-qualified shipyard diver, it is concluded that the vessel appears to be in adequate structural condition for the limited coastwise voyage from Fall River, MA to Gloucester, MA in moderate weather. The primary concern is the water tight integrity of the hull due to the lack of maintenance resulting in open seams primarily in the after portion of the vessel. The recommendations concentrate on temporary thin plywood sheathing over suspect areas of the hull and adequate bilge-pumping capacity to keep up with the remaining leaks, including additional portable pumps. Provided these recommendations are complied with, it is the opinion of the undersigned surveyor that this voyage can be made with an adequate margin of safety.

ALL REFERENCES AND OPINIONS stated herein are based upon conditions as they appeared to this surveyor at the time of the survey and are reported without prejudice. All due diligence has been used in preparation of this survey, but I cannot be held responsible for errors, omissions, or mistakes in judgment and acceptance of this survey constitutes acceptance of this condition.

