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July 3, 2007

Preliminary Inspection Report "Ferry Islander"

**Mr. Bill Welsch
Harbor Ferry Services
647 County Route 351
Medusa NY 12120**

The undersigned at the request of Mr. Bill Welsch of Harbor Ferry Services performed a limited survey of the Nantucket Steamship authority vessel "Islander" The vessel was surveyed afloat July 2, 2007 at the Steamship authority maintenance pier Fairhaven Mass. The scope of the survey was limited to a general condition survey in anticipation of a bid to purchase at auction on July 10, 2007. No testing of equipment for operation or suitability was performed.

Attendance:

Bill Welsch on behalf Harbor Services
During survey Marine Safety Consultants was on board performing internal audio gauging under direction JMS.

Vessel Name:	ISLANDER
USCG Doc. No.:	259789
Vessel Service:	PASSENGER & VEHICLE FERRY (INSPECTED)
IMO Number:	6517718
Trade Indicator:	Coastwise Unrestricted Call Sign: WBP 4750
Hull Material:	STEEL
Hull Number:	Unknown
Ship Builder:	Unknown
Year Built:	1950
Length (ft.):	191.7
Hull Breadth (ft.):	58.1 Hull
Depth (ft.):	14.8
Gross Tonnage:	855

Net Tonnage: 581
Propulsion: Double ended opposing configuration with one engine driving each end EMD-645-D6 approx 850 BHP driving Reintes 56247 Marine gears.
Auxiliary: Two Cat 3406 gensets KW unknown
Steering: Single rudders fore and aft. Rudder on forward end locked amidships during operation. Steering is electric hydraulic with dual rams.

Hailing Port: WOODS HOLE, MA
Owner: MASSACHUSETTS COMMONWEALTH OF WOODS HOLE MARTHA'S VINEYARD AND NANTUCKETSTEAMSHIP AUTHORITY

Background

The subject vessel will be placed on auction on July 10, 2007. The vessel has been in continuous service by current owners since construction (laid up since March of 07). Her current USCG certificate of Inspection is valid through 2011 subject to compliance. The vessel is being considered for use between Governors Island and the Battery in NYC. Harbor Ferry Services is the current operator of the Governors Island ferry route. The subject ferry is to be utilized for passengers, and vehicles both private and commercial.

1. No drawings or scantling sizes provided.
2. No stability book for review.
3. Engine and maintenance logs and records not available for review.
4. Dry-docking History not available for review.
5. Claims and casualty history not available for review.
6. Due to limited time aboard we did not obtain equipment inventories, particulars or survey for operational suitability.
7. The intended length of future service has not been provided.

Configuration: The subject vessel is all welded steel construction. Drawings and plans were not available for viewing. The vessel has eight designed watertight bulkheads. Firefighting station plans designate frame zero in middle. Bulkheads are located at frames (47 forward, 36f, 24f, 13f) & (13aft, 24a, 36a 47a). The machinery space is located between frames 13f to 13a. The hull form has symmetrical plumb ends that are heavily flared with variable deadrise fluted bottom with hard chines that flattens out towards midships. The bow end is designated as end with the anchor as vessel is symmetrical in configuration. She has a flat bar keelson and is traditionally transverse framed on approx 18" centers and has longitudinal T frames. The shell plate is butt welded and frames are stitch welded. She has a flush main vehicle deck with elevated and enclosed p&S passenger wing decks approx 13' wide with bench seating and head on each side. A full length and breadth sundeck with bucket style fixed resin seating is accessed via port and

starboard stairwells. Symmetrical raised wheel houses are located on each end. The bow end has a cafeteria and the stern end has crew dayrooms.

Finding/Observations:

All vessel compartments were entered with observations summarized. Due to short period of time to issue report and in anticipation of gauging report the following comments are brief.

1. **Forepeak:** Coatings almost 100% failed. Compartment has substantial corrosion up in the wings and areas below static waterline. Frame flanges and webs found with heavy scale and when chipped formed knife edges on rolled flanges and several webs were chipped until holed. Compartment requires substantial scaling via blasting or mechanical means. Evidence of gauging noted with marks requiring cropping. Areas with substantial corrosion have no gauging marks. It is likely that steel renewals will be substantial if original scantlings are used as a basis for renewal (ie: replacement based on 15-25% of original). We performed some spot gauging and found some low readings below .158 that were not marked off by gaugers'. The lower section of the after bulkhead was subject down low and requires further dewatering for determination.
2. **Forward hydraulic space:** Coatings largely failed. Water/oil in bilge. After bulkhead was chipped for gauging and was holed. Bulkhead will require substantial cropping with renewal inserts. As above more gauging will reveal more problems.
3. **Galley Void:** Coatings approximately 80% failed. Bulkheads are subject down low as well as numerous frames.
4. **MSD Void:** Extensive steel work under tanks is required due to heavy corrosion, pitting and deflections of frames and pitting bulkhead to bulkhead.
5. **Engine room:** Bilges have to be cleaned prior to obtaining meaning full survey or gauging analysis. Lead ballast also presents obstructions for inspection. Areas under fire pumps etc are subject. Areas under engine bases have obstructions for survey. Steel work will be difficult to repair due to obstructions. Engine room has limited ingress and egress and will potentially have blockage if fire is on car deck. The fore and aft ladder wells are steep, with short treads, uneven rises and rolled bull-nose that presents a crew hazard that requires correction. The sea-chest base and box has some concerns that require further investigation it is likely that further inspection will reveal more steel concerns. **The engine conditions and history not evaluated.**
6. **CO2 Room, Crew space, aft shaft alley/hydraulic/aftpeak:** Coatings are improved. Several marks were made by gaugers that will likely require some steel renewals.
7. **Car deck:** Car deck is wash-buckled between transverse frames. The longitudinal frames are welded to the underside of the transverse unless spacers were welded in. The frame configuration makes the deck prone to deflections. The deck to

centerline is likely to have heavier loads to 12'6" height. The wing decks have an approximate 7.5' clearance and likely do not carry the loads of the inner lane. The deflections are throughout and not limited to the center lanes. Numerous welds on frames are cracked. The diamond plate is worn down and it is likely that large sections of deck will require renewal due to diminution. Deflections are likely due to loading and vessel movements over 57 years of service.

8. **Passenger Deck:** Numerous welds found fractured. Evidence of leaks from heads noted. Fire separation and safety requires further analysis.
9. **Upper deck and house decks:** Coatings heavily blistered with some deep pitting noted. Some localized steel replacement should be anticipated. Chairs require replacement and are considered to be a P&I risk.
10. **Wheel house:** Visibility has shadow forward approximately 45' from end. Poor astern visibility. Electronics dated.

Surveyors Notes:

The lack of information noted in background and history leaves a considerable amount of financial risk at present. The gauging is a non-destructive test that leaves a substantial amount of unknowns without haul out and additional bilge preparation. The location of the gauge can reveal large variations depending on placement. The corrosion was noted to be substantial with heavy pitting and scaling. The plate condition at high wear areas such as wind and wave line, sea chests, and prop wash are unknown. Localized set in also cannot be ascertained. The shaft wear/bearing tolerances and trueness cannot be determined and presents considerable unknowns. Machinery history, electric wiring analysis tolerances etc are also largely unascertained that may in aggregate create a fairly large maintenance/repair uncertainty. The windage and maneuverability of the current configuration for the intended route is also not determined for suitability.

The vessel at a minimum will require some considerable steel renewals depending on baseline used and requirements by the local USCG inspection office. We look forward to reviewing the gauging report. It is safe to say that additional due diligence, haul-out and gauging will increase the concern areas and will likely escalate repairs considerably. If the vessel is intended to be maintained and used (past 4-5 years) substantial blasting and steel updates will be required and will prove costly. The size/age of the vessel, manning requirements, extensive deferred maintenance and repairs may prove inefficient for the intended service.

Conclusion:

The inspection noted numerous concerns that in our opinion warrants additional due diligence with cost benefit analysis. Failure to perform this may present considerable cost variances for use in its intended service. The cost of steel and available dry-docks has recently created considerable cost escalation for shipyard work. Without this due diligence and estimation for length of future service the vessel will in our opinion require

a budget in excess of 7 figures to accomplish some of the modifications, painting and nominal steel renewal. This budget can have substantial fluctuation due to the stated unknowns. Additionally the maintenance for continued service should have budgets for steel renewals for future dry-dockings depending on diminution standards. Survey and report issued without prejudice for those whom concerned.

Respectfully Submitted by,
Claudio Crivici, NAMS, CMS
Marine Surveyor
President

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