

JOSEPH W. LOMBARDI

Marine Surveyor & Consultant

OCEAN TECHNICAL SERVICES, LLC.

10 Dalton Avenue, Gloucester, MA 01930 Office (978)-526-1894 Fax (866)-381-2687

PRIVILEGED & CONFIDENTIAL

Vessel Survey Report No. 2438

Surveyed at: Boston Marine Works, E. Boston, MA

Date of Survey: 23 December 2011

Vessel surveyed: 'FIREFIGHTER' City of Boston Fireboat

Survey commissioned by: Boston City Hall
ATTN: R. P. Malovich
Room #206
One City Hall Square
Boston, MA 02108

Purpose of survey: Condition and valuation

DISCUSSION

'STANDARDS & RECOMMENDED PRACTICES FOR SMALL CRAFT' (ABYC), 'PLEASURE AND COMMERCIAL MOTOR CRAFT # 302' (NFPA) and the 'FEDERAL REQUIREMENTS FOR RECREATIONAL CRAFT 33 & 46 CFR' are utilized in compiling this report; individual reference to subchapters of the above is not made within the body of this report.



VESSEL DATA

LOA: 72' 00"
Beam: 19' 06"
Draft: 5' 06"
Builder: Unknown
Designer: John W. Gilbert Associates, Inc.
58 Commercial Wharf
Boston, MA 02110
Year built: 1972
Hull No.: Unknown
Official No.: 538986
Gross Tons: 125
Net Tons: 85
Homeport (off.): Boston, MA
Berthed: Boston, MA



'FIREFIGHTER' at Burroughs Wharf.¹

¹ <http://capecodfd.com/pages%20special/Fireboats%2003.htm>

DISCUSSION

NOTE: This yacht or workboat survey is issued by the undersigned who has exercised reasonable care in conducting a visual inspection of the accessible areas in connection with a marine survey of the subject vessel. All details and particulars in this report are believed to be true, but are not guaranteed accurate.

All judgments, conclusions, and recommendations are expressions of opinion of the undersigned based upon his skill, training, and experience after a routine examination of the vessel and after discussions with owners or others familiar with the vessel. No part of this report is issued as an expressed or implied warranty of the condition of the vessel, or of the value of the vessel or of the cost of any repairs.

Unless specifically stated otherwise in this report, the undersigned has not operated the engines, machinery, equipment, or appurtenances.

No reference or information should be construed to indicate any of the following:

1. Evaluation of the internal condition of the engines and the propulsion system's operating capacity of the vessels propulsion systems.
2. Electronic equipment checked for "power up" only.

This vessel was surveyed without removals of any parts, including fittings, tacked carpet, screwed or nailed boards, anchors and chain, fixed partitions, instruments, clothing, spare parts, and compartments or otherwise inaccessible areas which would also preclude inspection. Owner is advised to open up all such areas for further inspection. All dimensions, capacities and weights are "as reported" in technical data publications, and price guides. Any other reference to dimensions, capacities and weights where the determination was made by measurement or some other means by the surveyor will be reported as such, e.g. "Estimated tank capacity determined by external tank dimensions."

Further, no determination of stability characteristics or inherent structural integrity has been made and no opinion is expressed with respect thereto. This survey report represents the condition of the vessel on the above date, and is the unbiased opinion of the attending surveyor, but it is not to be considered an inventory or a warranty either specified or implied.

The undersigned has conducted his survey and issued this report for the sole use of the specified requesting party for an agreed fee based upon the intended use of the report and the legal liability of the undersigned; accordingly, others are not to use this report and are not to rely upon the contents of this report without payment to the undersigned of an additional agreed fee based upon re-evaluation of the same factors; further, the undersigned shall have no liability for consequential damages, no liability for personal injury damages, no liability for property loss damages, and no liability for punitive damages, all of which shall be deemed to have been knowingly and voluntarily waived upon use of this report; further, in no event shall the legal liability of the undersigned for this report ever exceed the fee paid by the requesting party for issuance of this report, regardless of the number of claims or suits and regardless of whether under theory of tort, contract, warranty, products, outrage, or otherwise.

The CLIENT specifically agrees to save harmless the SURVEYOR from any loss or claim of any kind whatsoever, arising from the use or reliance of any third party or parties of the survey report, or its content or findings. The use of, or reliance upon, the survey report as a "seller's survey" by subsequent purchasers and parties in interest including charterers is specifically prohibited.

HULL & DECK

This vessel was observed in the water, pierside, for hull inspection. 'FIREFIGHTER' presents a fairly clean and neat cosmetic appearance. This vessel is purpose built as a fireboat and has served her entire time in Boston.

The vessel was inspected pierside, in the water; the underwater appendages were not inspected. Date of last haul-out unknown. No power is supplied to the boat and her batteries have been drained. The interior temperature within her engine room on 22 December was 46 degrees (F). The vessel needs to be winterized as soon as possible before interior systems (fresh water, bilge oil/water separation system, etc.) freeze and explode.

Interior

Her interior accommodations include on maindeck from forward a wheelhouse with storage flat beneath, followed down and aft by the crew messdeck with an L-shaped galley to port, serving table to port and a storage locker to starboard. The wheelhouse has been stripped of all navigation electronics and paperwork; the chart table has had its cover table ripped out. MORSE dual main engine controls are fitted with a DETOIT DIESEL main engine gauge panel showing 5,665.1 port and 4,062.1 hours on the meters; no engine machinery logs are aboard and the main engine histories are missing. The steel surrounding all of the wheelhouse windows is badly corroded with leakage noted. The overhead has a fiberboard with insulation fitted; this has been pulled away on the portside adjacent to the windshield exposing wiring. The cabin sole has deteriorated carpeting installed. A pair of exterior doors are fitted with exterior portable stairways provided; the frames and door handles are corroded.



Wheelhouse, looking to port.

HULL & DECK (cont.)

Down and aft from the wheelhouse is the main salon comprising an L-shaped galley to port with FORMICA countertop, double stainless steel sink, four burner electric stove and oven and adequate wooden storage lockers.



Main salon, looking forward to galley.

The salon also has a table and an L-shaped bench to port with a storage locker to starboard. A main entry door is also fitted to port. The aft portion of this space contains crew clothing lockers.



Main salon, looking forward.

HULL & DECK (cont.)

An exterior door is fitted for access to the Engineerroom. A storage bay is fitted aft with accordion door and has steel pipe storage shelves for hoses and miscellaneous equipment. The pipe racks are badly corroded. A wooden storage rack is fitted to the aft deck for hand tools.



Aft storage locker.

The lower flat from forward comprises the forepeak tank with watertight bulkhead aft and watertight dogging FREEMAN aluminum hatch on the foredeck. The three staterooms follow next aft with an enclosed head and shower to port. A toolroom/workshop is next aft just before the watertight dogging door to the Engineerroom. The Engineerroom follows next and has a watertight dogging door to the Aft Steering Room.

Forepeak Tank

Accessed from maindeck via a watertight dogging hatch; the forepeak tank show much evidence of rust/scale with 1 ½' of standing water. Paint system has failed and there is much degradation of steel scantlings present.



The head has a sink, enclosed shower stall, toilet and urinal installed; all plumbing is suspect, has not been winterized and is in poor material condition. The space itself has lifting tile, poor

HULL & DECK (cont.)

cabinetry and the overhead panel has been pulled down in places.



View of head from passageway.

The stateroom to port has bunk beds, storage lockers and is in good material condition. Firemain is evident in photograph. Exposed lighting system on overhead.



Port forward stateroom.

HULL & DECK (cont.)

The stateroom to starboard has bunk beds, storage lockers and is in good material condition. Firemain is evident in photograph.



Starboard stateroom.

The aft stateroom to starboard has a bed, shelving, storage lockers and is in good material condition. Firemain is evident in photograph.



Aft starboard stateroom.

The workshop/storeroom to port has a work bench with vise and lockers filled with spare parts. Ample extra fuel/oil filters are supplied. Most tools have been removed. Space is in fair material condition.

HULL & DECK (cont.)



Workshop.

Engineroom

Located amidships between two watertight dogging doors, the Engineroom comprise the pair of main propulsion units and running gear, two firemain pumps and main engines and a pair of diesel generators. The cabin sole has removable steel floor insets. Bilges have standing oil/water, but not to an alarming degree. Structural integrity is intact with good foundations, bulkheads and frames noted.



Engineroom, looking aft.

HULL & DECK (cont.)



Engineroom, looking forward.



Bilges, amidships, Engineroom.

HULL & DECK (cont.)

Lazarette

This space is aft of the Engineeroom and comprises the following: steering gear, two air compressors, lube oil tank and fuel transfer assembly/hose. The cabin sole has removable steel floor insets. Bilges have standing oil/water, but not to an alarming degree. Structural integrity is intact with good foundations, bulkheads and frames noted.



Starboard side of lazarette, showing starboard rudder post and steering gear assembly.



Port side of lazarette, showing lube oil tank and port steering/rudder post assembly.

HULL & DECK (cont.)

Upper deck

All electronic gear has been removed. Surface corrosion noted around windows. Heavy corrosion on stacks. A wooden box amidships contains many Type I PFDs in various conditions. Two steel access ladders from maindeck; steel railings in good condition.



Upper deck, looking forward.



Upper deck, looking aft. Notice cut off fire main risers.

HULL & DECK (cont.)

Maindeck

The deck is surrounded by high steel bulwarks with freeing ports, adequate deck hardware; some rubber fendering removed from outside hull. The transom wall has a steel boarding ladder and a steel grate swim platform at the waterline aft. Condition of the maindeck and bulwarks is good, with rust just now breaking through where the paint system is failing. Deck hardware in good condition.

All fire monitors and safety gear has been removed.



Foredeck, looking aft. Notice steel risers where fire monitors have been removed.



Aft end of doghouse, showing shelving and fabric cover for hand tools.

MACHINERY

The vessel is equipped with a pair of DETROIT DIESEL 12V-71, two cycle, V-12 diesel engines powering a pair of TWIN DISC (model MG-514) hydraulic gears thence to 3" stainless steel shafts. The shafts pass through a pair of bronze flax packing glands (not leaking at time of inspection); the underwater appendage was not observed. Both main engines are air started. Both engines are fresh water cooled though keel coolers. Exhaust is vented (dry) via lagged steel piping for discharge at the stacks. Main engines and gears were not operated at time of inspection. Engine hours and histories unknown.



Port main propulsion unit.

The vessel is equipped with a pair of DETROIT DIESEL 12V-71, two cycle, V-12 diesel engines powering a pair of TWIN DISC manual gears thence to a power take-off (PTO) for the pair of fire pumps. Nomenclature of the pumps is not known as all paperwork is missing from vessel. Both main engines are air started. Both engines are fresh water cooled though keel coolers. Exhaust is vented (dry) via lagged steel piping for discharge at the stacks. Main engines, gears and pumps were not operated at time of inspection. Engine hours and histories unknown.



Port main drive engine, PTO and fire pump.

MACHINERY (cont.)

The main engines and both pump engines/firefighting systems have intact control panels, controls and gauges in the wheelhouse; aged, but intact.

Two integral steel fuel tanks of approximately 1,000 gallons each are fitted; fuel lines are of steel with DAHL fuel/water separators fitted for all four 12V – 71 units and generators. MORSE engine controls are fitted for all V-12 units. Fuel quantity in each tank is unknown. A 55 gallon drum of lube oil is fitted in the lazarette and is ¼ full.

A BOSS (bilge oil strainer system) is fitted on the centerline between both fire pumps; this system needs to be drained and winterized.



BOSS system in Engineerroom.

Two SPEEDAIRE compressors (model 12733) are fitted in the lazarette and appear to be in good repair.



Pair of SPEEDAIRE compressors and storage tanks in lazarette.

MACHINERY (cont.)

The fresh water system tankage was not observed; an AC powered fresh water pump is fitted with an inline expansion tank and a 30 gallon 220V AC hot water heater is provided. This system was not energized at time of inspection. The steering system is via sprocket chain drive to a steel shaft with universal joints to the lazerette thence to a bar assembly to the starboard rudder post with a steel bar to the port unit, fine.

ELECTRONICS

A pair of DETROIT DIESEL two stroke 3-71 diesel engines drive a pair of DELCO 50 KW generators; both diesels are fresh water cooled via keel coolers. Exhaust is vented (dry) to the stacks. DAHL fuel/water separators are fitted. Both generators have a pair of 8D batteries with battery switch for engine starting; a converter is fitted for charging both battery banks.



Port main generator.

A main AC panel for the 220V 3 wire harness with volt, amp and hertz gauges; break – before-make switches are fitted for shifting loads between gensets. The wiring harness is of jacketed marine grade wiring with well labeled breaker panels fitted throughout the vessel, fine. A STOLDT 220V AC shore power plug is fitted on the stern deck; no shore power cable was sighted at time of inspection.



Main genset control panel

SAFETY

Safety gear is largely missing or in poor material condition. It is the responsibility of the Owner to properly equip his craft with all approved and mandated U.S. Coast Guard approved safety gear.

RECOMMENDATIONS

- 1.) **Have extinguishers inspected and tagged (annually).**
 - 2.) **Clean bilges of standing oil from all portions of bilge spaces.**
 - 3.) **Properly winterize vessel's propulsion, generator and auxiliary systems.**
 - 4.) **Install proper electronic navigation equipment.**
 - 5.) **Install approved safety gear.**
 - 6.) **Properly assess condition of main propulsion and generator machinery.**
-

VALUATION

Current market value for this craft is \$ 35,000.00. Replacement costs would approach \$ 4,100,000.00

COMMENTS

This craft is in good material and poor cosmetic condition. Her future utilization as a fireboat is a possibility provided the hull is hauled for inspection and her fire monitors are reinstalled. The vessel's electronic navigation systems also require update. The vessel needs to be hauled and bottom cleaned with new anti-fouling paint installed. The boat should be vacated of all linens, and moisture bearing clothing, upholstery, carpeting and old material and be cleaned top-to-bottom.

The true condition of the propulsion and generator machinery should be assessed.

The vessel has the potential to be converted to a specialized workboat or yacht.



Joseph Lombardi
Marine Surveyor