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R.P.O Box 39513, Mississauga, Ontario, L5G 4S6, 416-526-3845

MARINE SURVEY REPORT

Report Number : 2006P/1004

Date of Inspection : August 18, 2006

Commissioned by: [redacted] for condition and evaluation purposes

Address : [redacted]

Phone : [redacted]

e-mail: [redacted]

GENERAL:

Make of Vessel -- Marine Trader built by Chien Wha Yard, Taiwan.

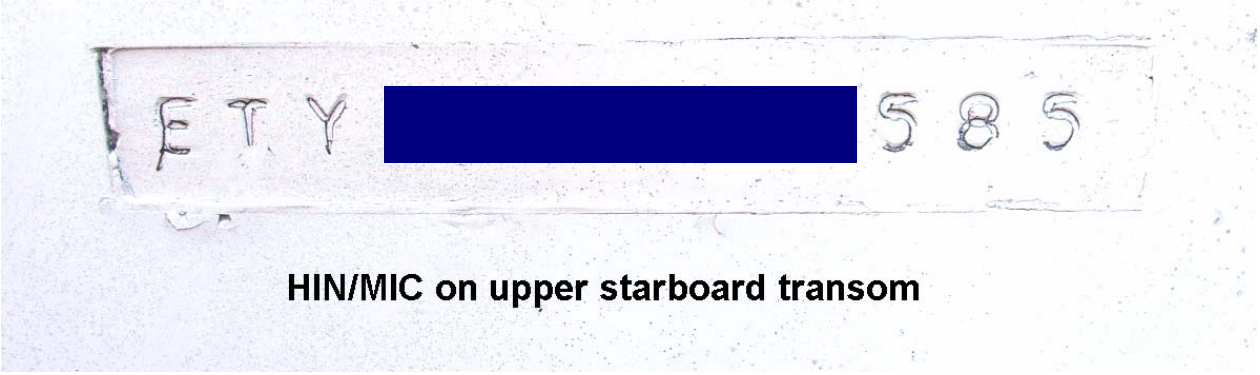
Name of Vessel -- [redacted]

Model year -- 1985

Date of mfg. -- February 1985

License Number -- [redacted]

HIN/MIC -- ETY[redacted]585



HIN/MIC on upper starboard transom

TRANSPORT CANADA REGISTRY DATA:

Register No. : n/a **Registry expires :** n/a

PUBLISHED DIMENSIONS:

L.O.A. : 33' 6" **Beam :** 11' 9"

Draught : 3' 6" **Ballast :** Keel is ballasted, wt. not known

Displacement : 17,200lbs. **Vessel type:** Semi-planing monohull

SURVEY SITE:

The vessel was inspected afloat and ashore in travel lift slings at Bronte Outer Harbour Marina, Oakville, Ontario. Weather was clear, dry and warm. The client did attend.

DESCRIPTION:

The vessel is a standard production trawler type with fore and aft trunks and flying bridge manufactured by Chien Wha and imported to the US by Marine Trading Corporation of Toms River, New Jersey, USA. She has galley, two head compartments and sleeping quarters for six crew. The topsides, deck and trunk are off-white with blue boot stripes. Ontario license numbers are displayed at both bows. The HIN/MIC is clearly moulded in the upper starboard transom.

SCOPE OF SURVEY:

The purpose of this inspection and survey report is to determine, insofar as possible within the limitations of visual and physical accessibility, through non-invasive and non-destructive means, the vessel's condition at time of survey by reporting deficiencies against the standards quoted in the "comments" section of this report and to present the surveyors personal opinion as to the vessel's condition. Certain parts of the structure, systems and equipment are inaccessible without removing decks, tanks, bulkheads and headliners etc. or in the case of cored structure, drilling core samples. This would be prohibitively time consuming, potentially destructive, costly to restore and are not within the scope of this survey. Coatings build up, corrosion, marine growth, excessive gear on board or dirt may have hampered the surveyor's ability to inspect.

It should be noted that moisture meter readings are relative and these meters are affected by many factors other than moisture and that percussive sounding interpretations are subjective. Components requiring access with tools or by disassembly are not inspected. A vessel's systems and component parts have a limited useful life and are subject to deterioration over time. Some conditions affecting useful life include original material specifications, fabrication techniques, environmental exposure and history of use. These systems and component parts often give no readily detectable external indication of deterioration or failure. Cosmetic or comfort issues may be addressed where there is a significant effect on the value of the vessel. Electronic and electrical equipment may be tested by powering up, only when power is already connected. A complete analysis of the vessels electrical systems would require the services of a qualified marine electrician. Only the external visual condition of wiring, connections and panels is reported. The surveyor recommends that a qualified marine mechanic inspect all engines, generators, V-drives, transmissions, saildrives and or stern drives. Loose gear and accessories are neither inventoried nor inspected. This survey is an opinion of the surveyor based on his knowledge and experience. Within these parameters the surveyor will report on the hull, deck, vessel systems, running gear, cosmetic condition and provide a valuation based on the foregoing. The surveyor cannot predict how the vessel or its systems will perform over time.

The statements in this survey are the personal opinions and observations of the undersigned surveyor and are for the consideration of the party or persons retaining him, with no guarantees express or implied. No right of action against the surveyor for negligence, or breach of contract or otherwise, accrues to anyone other than the party retaining the surveyor and is both restricted and limited to the cost of the survey herein provided. The surveyor reserves the right to use this survey (without license number, vessel name or hull number) as a sample of his work unless otherwise informed in writing. Acceptance and or use of this report constitutes agreement to these and all other conditions and limitations contained herein.

The surveyor has made neither weight calculations nor measurements. All dimensions and weights are from published specifications and surveyors' fee is calculated based on the published L.O.A..

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STRUCTURAL:

The internal and external structural elements were visually inspected and tested by percussive sounding. Moisture levels where measured were taken with an Electrophysics, capacitance type digital meter calibrated to a dry test panel and set at the 0.5 scale. Relative meter readings are interpreted as follows 10-12 - low, 13-16 - slightly elevated, 17 - 20 elevated, 21 + high.

HULL:

Structural changes -- No structural modifications sighted other than a deck cut-a-way for the bow thruster tube. The decks fore and aft of the thruster tube have been reinforced.

General construction -- Hull is fabricated from fiber reinforced resin and taken from a two piece female mold. Decks, topsides and superstructure are of FRP cored sandwich construction while the hull is uncored. The hull and deck shells are supported by longitudinal and transverse plywood bulkheads attached to the hull with FRP. All bonding appears secure where accessible with no sign of fracture or separation other than a 3" tape separation at eh forward, starboard bulkhead which is considered inconsequential.

Hull/deck joint -- The inward flange type joint is joined internally by FRP tape but not visually accessible for inspection. Multiple leak stains throughout the vessel suggest this joint is not well sealed. See comment (1).

Topsides – Appear fair and sound with moisture levels in the low range and no more than minor scuffs and abrasions. Spray chines appear sound. Rub rails are secure but both are fractured at the leading edges.

Transom -- The transom is fitted with a teak slat swim platform securely fastened to four bronze struts and appears sound with moisture levels in the low range. Atkins & Hoyle davits are secure.

Bottom -- The bottom painted with an ablative type anti-fouling paint in good condition. Moisture levels were not measured as the vessel had just been lifted from the water. All surfaces are free of blisters and check sound with the exception of two repairs on the starboard midship chine. The forward repair appears secure however, the aft most repair appears to be a piece of laminate "stuck" back on with a caulking material and squirts water when pressed upon. The keel bottom shows evidence of multiple repairs which while roughly done appear sound. See comment (2).

Decks / superstructure -- The decks and superstructure were tested by percussive sounding and visually inspected. Moisture levels were measured as previously stated. The decks show many areas of slightly elevated to high moisture levels with corresponding dull checking. The trunks and deck house check sound with low to slightly elevated areas. See comment (3).

FLYING BRIDGE:

The flying bridge deck checks largely sound with moisture levels in the low to slightly elevated range with the exception of the starboard aft corner which shows fractures through the laminate and very high moisture levels.
See comment (3).

The Bridge deck coaming is uncored and checks sound. Port/starboard front and aft facing benches are secure and sound as are the acrylic sprayshield and stainless steel bimini frame with matching canvas. Stainless steel rails aft of the coaming and a ladder from the aft trunk are secure and in good order.

AFT DECK:

The aft deck is fitted with a plywood hatch cover which provides access to the steering gear and is warped but serviceably sound. A stainless steel ladder from the aft deck to the trunk top is secure. A sliding wooden companionway hatch and wooden doors to the aft cabin are secure and in good order.

DECK EQUIPMENT:

Stainless steel bow and side rails with teak caps are secure as are bow, midship and stern mooring cleats. A teak bow platform is fitted with a single anchor roller and is followed by a windlass and rode pipe. On the fore trunk a wooden hatch, two bronze ports and teak grab rails are secure and in good condition.
The deck house checks sound with moisture levels in the low range. Two deadlights and an opening windshield forward are secure, on the house sides are a sliding companionway door, sliding windows and deadlights all of which are secure. On the trunk are two sliding windows and one deadlight all of which are secure. All sliding windows and deadlights have been sealed with a silicone type caulking material and leakage is suspected. All ports and windows are secure but most show signs of leaking. See comment (4).

RUNNING GEAR:

Helm -- The upper helm station is fitted with wheel steering. Engine ignition panel and dashboard includes oil pressure gauge, temperature gauge, tachometer and volt meter, Lower helm includes the same instrumentation plus an hour meter.

Steering – Hydraulic steering is free moving and free of visible leaks.

Propellers -- One 24LH16 three blade bronze unit in good order is secured on the shaft with a castellated nut, cotter pin and lock nut in good order.

Shaft system -- A stainless steel shaft is secured through a bronze log with cutless bearing to a compressible flange type stuffing box and polyurethane “drive saver” and conventional gear reduction flange in good condition.

Trim tabs -- n/a

PROPULSION ENGINE(S) :

The engine compartment and engines are in generally dirty condition however all systems are secure.

Engine mounts -- Steel mounts with flexible bushings bolted to encapsulated stringer/beds. All appear sound and secure.

Flame arrestors -- n/a

Drip pans -- None fitted. See comment (5).

Cooling system-- Heat exchanger with raw water exhaust cooling.

Engine controls -- Single function levers to cables at both stations are secure and free moving.

Ventilation -- Passive ventilation appears adequate.

Exhaust system -- Cast manifolds to type approved exhaust hose to stainless steel muffler is in good order but one connection at the muffler has only one clamp. See comment (6).

Engine(s) --	One		**Gas/Diesel --**	Diesel
Manufacturer --	Lehman		**Type --**	Naturally aspirated
Engine size --	6 cylinder		**H.P --**	135
Engine Ser. No. --	**Port/Single:**	D3479/022 ER	**Starboard:**	n/a
Model No. --	**Port/Single:**	2725E	**Starboard:**	n/a

Hours --	**Port/Single:**	1809.6 per meter	**Starboard:**	n/a
Gear reduction mfg. --	**Port/Single:**	Borg-Warner	**Starboard:**	n/a
Gear reduction Mod. No. --	**Port/Single:**	10-18-008	**Starboard:**	n/a
Gear reduction Ser. No. --	**Port/Single:**	20070	**Starboard:**	n/a
Gear reduction ratio --	**Port/Single:**	2.10:1	**Starboard:**	n/a

FUEL SYSTEM:

Tanks -- One painted steel tank is outboard on each side of the engine and completely encased within fastened acoustical tiles with only one 6" diameter access area on each tank for inspection. No further comment can be offered.

Ground -- Ground wires from the fuel fill fitting to fuel tank to engine could not be traced due to lack of access.

Fuel filtration -- Two Racor 500MA primaries with plastic bowls, without heat shields and with a heavy concentration of visible slime. One steel bowl secondary and two steel cartridge type on the engine. See comment (7).

Anti-siphon valve -- None sighted. See comment (8).

Shut-off valves -- None sighted.

Fuel overflow -- Vent line not accessible. See comment (9).

Fuel lines(s)-- Only a copper fuel feed line is accessible for inspection and appears sound. See comment (9).

OTHER FUELS:

A galley stove is propane fueled and supplied from a 20lb. bottle inadequately secured by a nylon strap (see photo at right) under the flying bridge coaming.

The bottle is not stored in a "dedicated locker" and is exposed to the under dash DC electrical system. No dedicated or direct overboard drainage, remotely activated solenoid switch or pressure gauge is provided.
See comment (10).

GENERATOR:

None fitted.

SEA CONNECTIONS:

There were 5 below the waterline through hull fittings located on this vessel.

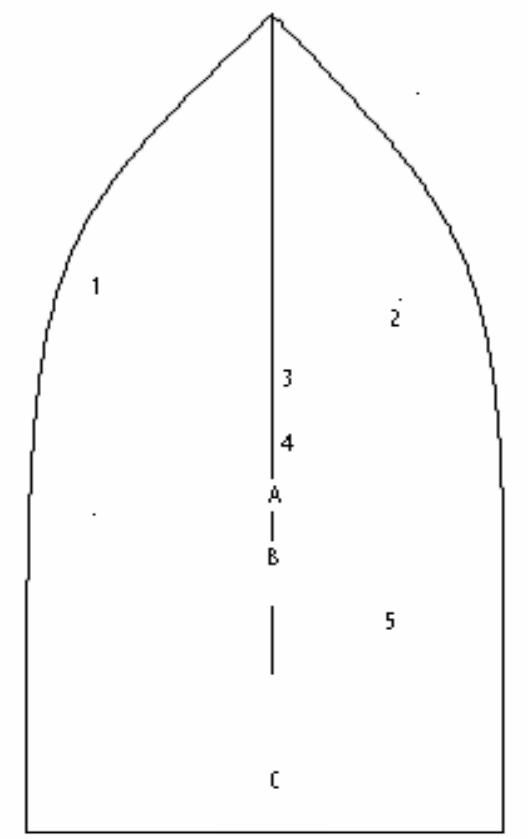
1. Forward head intake, double clamped bronze ball valve.

2. Seawater intake, double clamped bronze ball valve.

3. Bronze garboard plug.

4. Engine intake, double clamped bronze ball valve.

5. Aft head intake. double clamped bronze ball valve.



BILGE PUMPS:

There are 3 electric bilge pumps

A. Rule 12VDC unit.

B. 12VDC submersible type of unidentified manufacture.

C. Rule 12VDC unit.

GROUND TACKLE:

Windlass -- 12VDC Powerwinch with wildcat

Rode -- Undetermined lengths of 5/16" chain leader and 1/2" triple strand Nylon on the primary. A secondary 9/16" triple strand rode is secured to the side rail. Rode sizes are approximate

Anchors -- One approximately 35 type in the bow roller and one approximately 22lb Danforth type secured to a sided rail..

NAVIGATION EQUIPMENT:

Navigation lights-- All in place as required by Collision Regulations.

Compass -- One 3 ½" Ritchie fluid damped type at each station are clear and responsive to magnetic influence.

Radar -- Raytheon RL70 with closed array antenna and LCD display.

Radar reflector -- None sighted. See comment (11).

Chart plotter -- Raytheon RC530

GPS -- Integral to RC530

Loran -- n/a

Depth sounder -- Standard Horizon digital units at each station.

Sound signal -- 12VDC horn.

Knot log -- See GPS

Marine radios -- Ray53 DSC VHF

Autopilot -- Sitex SP80 hydraulic unit with fluxgate compass and controls at both stations.

Windshield wipers -- Two at helm.

Bow thruster -- Sleipner 12VDC unit.

AC ELECTRICAL SYSTEM:

Shore power: 120VAC/30amp

AC panel -- Original equipment type panel with single pole main circuit breaker and no polarity indicator on the same panel as the DC fuses but without a dielectric barrier. See comment (12).

Conductors -- A mix of stranded and solid core copper conductors. The V-berth outlet (see photo at right) has seventeen conductors connected with seven wire twist connectors. See comment (13).

G.F.C.I. outlets -- One G.F.C.I. is fitted in the V-berth and the test button functions but there is no power from the outlet. See comment (14).

Other outlets -- Outlets on the aft deck and in the heads are not G.F.C.I. protected. Outlets are not contained in an approved type box. See comment (15).

Inverter -- Heart 2000watt unit. Case is not grounded. See comment (16).

Battery charger -- 75amp unit integral to inverter.

Galvanic isolator -- None sighted.

Isolation transformer-- None sighted.

DC ELECTRICAL SYSTEM:

Ships power: **-- 12VDC**

DC panel -- Original equipment type fuse panel and one aftermarket accessory panel.

Conductors -- Stranded copper where accessible.

Alternator -- One 55amp unit.

Batteries -- Two 8D wet cells secured in plastic boxes with covers. One group 27 starting battery unsecured in an oversized plastic box with cover. Some terminals have up to five conductors connected. See comment (17).

Battery switch -- One 3-way unit is readily accessible in the saloon.

Current impressor -- None sighted.

Cathodic & bonding protection -- Two transom anodes are in good condition. All metallic, below the waterline components are bonded.

INTERIOR:

The interior teak soles, upholstery vinyl headliners and cabinetry are in clean, sound and secure condition. The lower edges of several Teak plywood panels are water stained with some non-structural delamination. See comment (4).

Cabin layout -- From the deck house companionway one finds the helm to starboard, galley to port followed by a convertible dinette to starboard and settee opposite. Forward is a head shower compartment and conventional V-berth guest stateroom and aft is the master stateroom with double bert6h to starboard, single berth to port and a head/shower compartment.

Lighting -- 12VDC

Heating system – n/a

Air conditioning – n/a

Vacuum system – n/a

Entertainment -- Sony am/fm/cd stereo with ten disc changer.

GALLEY:

Stove -- Magic Chef four burner propane unit with oven.

Fittings/hardware -- All clean secure and in good condition.

Refrigeration -- Norcold 12VDC air cooled unit.

Other appliances -- n/a

Potable water -- Hot/cold 12VDC pressure system. supplied from stainless steel tank.

Water heater – 10US gallon 120VAC/heat exchanger unit shows light corrosion on bottom and no hose is fitted to the PT valve. See comment (18).

SANITATION:

Heads -- Two manual marine heads

Shower-- Integral to head compartments.

Holding tank -- Stainless steel black water tank with deck pump out fitting as required.

SAFETY EQUIPMENT:

Safety equipment that is not integral to the vessel or permanently installed has not been inventoried or inspected by the surveyor. Such equipment as required by law is the responsibility of the owner. The CCG "Safe Boating Guide" lists safety equipment required on this vessel and should be consulted.

Gasoline Fume detector -- No gasoline aboard.

Carbon monoxide detector -- None sighted. See comment (19).

Propane Fume detector -- Xintex two sensor unit. One sensor adjacent to tank under flying bridge coaming. Second sensor could not be located.

Smoke detector -- None sighted. See comment (20).

Fire fighting system -- Halon 1301 system in engine compartment without current inspection tag. See comment (21).

Re-boarding ladder -- Yes, at transom

Emergency tiller -- Rudder stock is accessible but no tiller was sighted.

COMMENTS:

Comments based on a specific authority are cited as such. Other comments are based on the opinion of the surveyor as being of "good marine practice".

Note: A search of the “USCG Recall Notice” database revealed no recalls on this vessel.
A search of the BoatUS “Technical Exchange” database revealed no issues with this model.
A search of the BoatUS “Consumer Protection” database revealed no issues with this model.

A: Issues suggested as maintenance or upgrades:

1. Re-caulking the cap rail may reduce leaks.

5. The Canada Shipping Act prohibits the discharge of petroleum products. The addition of drip pans under the engines will help prevent such discharges through the bilge pumps.

11. Canadian Coast Guard "Collision Regulations" require a vessel of less than 20 meters or constructed of non-metallic materials to be equipped with a passive radar reflector if the vessel will operate in an area where radar navigation is in use, after sundown or in unfavourable environmental conditions.

18. Raising the water heater off the deck with non-absorptive cleats to provide air space underneath will extend the life of the unit. The PT valve should be fitted with a hose leading to the bilge.

B: Issues that may enhance safety and/or value of vessel:

2. This “loose” repair on the starboard chine should be excavated and repaired as required.

3. Various high moisture and fractured areas pose no threat to the vessel but do affect the re-sale value.

4. Re-bedding all deadlights, ports and windows may help reduce leakage and further water staining.

7. Canada Shipping Act – TP1332E 7.7.1 requires every fuel filter or strainer shall meet the fire resistance requirements for fuel systems set forth in ABYC Standards for Small Craft H-24.5.7 unless the filter or strainer is inside the fuel tank. No plastic bowl filters without heat shields meet this standard.

8. requires that fuel lines that may fall below the level of the fuel pickup tube, if broken or separated must be fitted with an anti-siphon device at the tank fitting.

9. ABYC “Diesel Fuel Systems” H-33 requires that all fuel fittings and connections on the tanks be accessible.

17. ABYC "Storage Batteries" Standard E-10 requires in part that batteries be secured by mechanical means so as not to move more than one inch in any direction, be contained in boxes or trays resistant to electrolyte and no terminal to have more than one connection per terminal stud (series/parallel connections excepted).

19. ABYC “Carbon Monoxide Detection Systems” Standard A-24, NFPA 302, USCG and CCG strongly recommend the installation of carbon monoxide detectors.
See www.portcreditmarinesuveys.com for information on CO poisoning.

20. NFPA 302 “Fire Protection Standard for Pleasure and Commercial Motor Craft” recommends the installation of a smoke detector.

21. ABYC "Fire fighting Equipment" Standard A-4 and NFPA 302 “Fire Protection Standard for Pleasure and Commercial Motor Craft” in part recommend that fire extinguishers and fixed fire fighting systems be inspected annually and carry tags indicating date of inspection.

C: Issues in need of immediate attention:

6. Transport Canada TP1332E requires and ABYC "Exhaust Systems" Standard P-1 recommends in part that all exhaust hose connections be double clamped.

10. NFPA-302 and ABYC “ Marine Liquefied Petroleum Gas (LPG) Systems” Standard A-1 recommend that propane fuel bottles be stored securely in a dedicated, top loading locker with gasketed lid and direct overboard drainage from the bottom of that locker and that the system be fitted with a pressure gauge and a remotely controlled shut-off switch located at the appliance that may be reached without reaching over the appliance.

12. Transport Canada “Constructions Standards For Small Vessels”, TP1332E requires conformance with ABYC "AC and DC Electrical Systems On Boats" Standard E-11 which in part requires that AC panels be fitted with a double pole main circuit breaker or a polarity indicator and that AC systems sharing a panel with DC systems must be separated by a dielectric barrier.

13. Transport Canada “Constructions Standards For Small Vessels”, TP1332E requires conformance with ABYC "AC and DC Electrical Systems On Boats" Standard E-11 which in part requires that conductors be of stranded copper and be identified as having a minimum voltage rating of 600volts. That wire twist connectors are prohibited. *Seventeen conductors in seven wire twist connections is dangerous !*

14. This is the outlet mentioned in item13. and must be corrected immediately.

15. Transport Canada “Constructions Standards For Small Vessels”, TP1332E requires conformance with ABYC "AC and DC Electrical Systems On Boats" Standard E-11 and NFPA 302 which in part require that the first outlet in each circuit and others where splash is likely. i.e. galley, shower, cockpit be protected with a G.F.C.I. and require that all AC outlets be contained in a box that meets UL514A or 514C.

16. Transport Canada “Constructions Standards For Small Vessels”, TP1332E requires conformance with ABYC "AC and DC Electrical Systems On Boats" Standard E-11 and the inverter manufacturers instruction require the case to be grounded.

STANDARDS USED:

Standards used are the most current editions and may not have been in place when this vessel was built. ABYC standards are voluntary but generally accepted throughout the marine pleasure craft industry and courts as “the” standard. Transport Canada “Construction Standards for Small Vessels, TP1332E “ are mandatory to the date of manufacture and state "existing pleasure craft shall comply with this standard insofar as it is reasonable and practicable to do so". TP1332 frequently refers to and is in the process of being harmonized with ABYC Standards. Compliance with “Collision Regulations” is mandatory. NFPA 302 is a voluntary standard. Standards quoted may have been paraphrased in the interest of brevity. A 100% accurate survey to the aforementioned standards would require complete disassembly of the vessel and inspection by several specialists and is not within the scope of this report.

Transport Canada TP1332 "Construction Standards for Small Vessels". TP127 "Ships Electrical Systems". TP10739B "International Regulations for Preventing Collisions at Sea,1972 with Canadian Modifications".

American Boat and Yacht Council "Standards and Technical Information Reports for Small Craft".

National Fire Protection Association NFPA302 "Fire Protection Standard for Pleasure and Commercial Motor Craft".

VALUATION:

Valuation may be determined in consultation with knowledgeable boat brokers, personal experience, current listings and available pricing sources such as Boat For Sale Value Guide, Computer Boat Value Guide and N.A.D.A. Marine Appraisal Guide. Boat values vary considerably due to local market demands and guides acknowledge significant premiums may be paid for fresh water vessels in exceptional condition. Currency conversion is done on date of survey using www.xe.com Universal Currency Converter

Current listings	yachtworld.com lists none
BFS Value Guide	None.
NADA Marine Guide	$57,739.53
Computer Boat Value Guide	$89,000.00

"Current fair market value" is the price, in terms of currency or it's equivalent, that a willing seller will accept for property from a willing buyer, neither part being under undue pressure to act in the matter. The assigned value assumes that components, systems, sails or equipment not inspected during the survey are in serviceable condition and that major repairs as recommended are carried out. It should be remembered that few boats sell for the listed price.

It is the opinion of the surveyor that current fair market value of this vessel is $ [redacted]

Prepared without prejudice

Captain Wallace Gouk AMS®
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