

REPORT OF MARINE SURVEY

SAILING VESSEL

"Maggie Tulliver"

JIM BROWN 31' Trimaran

PREPARED EXCLUSIVELY FOR:

**Scott Brown
30 Topham Road
Toronto, Ontario
M4B 3K2**

CONDUCTED BY:

**CAPT.EDWARD WOJTECKI
MARINE SURVEYOR AND CONSULTANT
UNIT #4 – 88 LAKEPORT ROAD
ST CATHARINES, ON
L2N 4P8
(905) 938-3617**

Overview

About the designer:

Jim Brown has been designing multihull boats since the 1960's, following his association with designer Arthur Piver. Best known for his work on the SEARUNNER Trimaran Series, Jim is the author of several books about trimarans and the inventor of the CONSTANT CAMBER construction method. He has conducted boatbuilding training programs for USAID and Save the Children Foundation in Africa, Tuvalu and the Philippines. Recently he designed the WINDRIDER 16, a radical, roto-molded trimaran for Wilderness Systems. In 1996, he and his wife Joanna cruised to the Bahamas, Cuba and Mexico aboard "Scrimshaw", their 27-year-old SEARUNNER 31 Trimaran.

About the design:

The Searunner 31 came in two configurations. Open wing decks and enclosed. The open version ("A" frame) was suitable for extended voyaging reducing the likely hood of under deck pounding from waves. The enclosed version with side decks, added additional stowage and ease of movement.

The Searunner 31 is a center cockpit design. Starting forward and working aft. The fore peak has light stowage for anchors and rode. Stepping aft under the fore hatch is the head. Aft of the head is a change area and small wash basin. A small step up and aft is the sleeping quarters. Port and starboard bunks with stowage under the floor boards and stowage under the bunks. Another step up and aft puts you in the center cockpit with seating port and starboard with coaming box out board for light stowage. The tiller is located here and the floor lifts out to expose the center board trunk and pennant. Light stowage and fuel tank also are located here. Aft and down puts you in the stern castle. Galley and navigation area are immediately below the companionway. Aft of the galley and Nav area is the drop table settee area with bench seating for 4 people. The table stows and forms a double bunk.

Design commentary by the designer:

The original design parameter was to create the smallest seagoing trimaran that could accommodate a family of four with two teenage boys - our family - and which I could build myself. Another requirement was demount ability. I was not alone among those who, during the back yard builder's "multihull hysteria" of the 1960's and 70's, needed to build in one location and launch somewhere else. Consequently she has the "A-Frame" crossbeams, which are welded aluminum trusses that permit the three hulls to be separated. The boat is not "trailer able" as such, for it is difficult to get all three hulls on one trailer, but demount ability allowed us to build the boat at our canyon home where the only vehicular access was via a steep logging road.

Also in the original A-Frame concept was the desire to minimize the pounding of wave tops underneath the wings, which is the Achilles Heel of most cruising multihull. In SCRIMSHAW the outboard two-thirds of each wing, for their full length, exposes only open netting and the A-Frame tubing to the waves - no fixed solid surfaces - and this virtually eliminates under wing pounding.

JIM BROWN

Captain Edward A. Wojtecki
Marine Surveys and Consultation

SURVEY SUMMARY:

This is to certify that on March 22, 2012 I personally surveyed the 31' Jim Brown sailing trimaran Maggie Tulliver bearing the hull identification 31E-1509. The vessel was surveyed on the hard while located at the Toronto Multihull Cruising Club, 16 Regatta Road, Toronto, Ontario. The purpose of the survey was to determine the condition and value of the vessel for insurance purposes.

Problems indicated in this report are in no way intended to present a poor impression of the vessel or to detract from her value. Most problems mentioned are normal for a vessel of her age and type.

Defects not readily visible and not reasonably access able for inspection or discovery without removal of structure, sheathing, liners, joinery, fittings, tanks, machinery and equipment, especially without disassembly or removing those and any other barriers preventing inspection, are not and can not be covered by this report.

This survey is based on facts observed, discovered and presented at the time of survey and represents the honest and unbiased opinion of the surveyor and neither the surveyor nor his agents are to be held responsible for any inaccuracies, omissions, errors in judgment, or negligence. It is submitted in good faith and in no way offers. Expressly or implied, any form of warranty or guarantee concerning the condition of the above mentioned yacht. This survey does not include a determination of the vessel's seaworthiness, nor does it include stability tests or sea trials necessary to such a determination.

It is the experience of the surveyor that develops an opinion as to the vessel's **RATING OF CONDITION**. The grading condition, as developed by **BUC RESEARCH**, and accepted in the marine industry, for a vessel at the time of survey, determines the adjustment to the range of base values in the **BUC USED BOAT PRICE GUIDE**, for a similar vessel sold within a given time period, as a consideration to determine the Market Value. Additional online resources such as multihull brokerage firms have been canvassed to gather market conditions and sales.

EXCELLENT CONDITION is a vessel that is maintained in Bristol Fashion usually better than factory new, loaded with extras, a rarity.

ABOVE AVERAGE CONDITION, has had above average care and is equipped with extra electrical or electronic gear.

AVERAGE CONDITION, ready for sale requiring no additional maintenance and normally equipped for immediate use.

RECOMMENDATIONS

1. Figure 1 Repair Items. Forward beams , port and starboard have a ferrous nut that is corroded and should be replaced.
2. Figure 2 Repair items. Several bolts on the A frame starboard side are ferrous and should be replaced with a stainless version.
- * 3. Figure 3 Repair items. Port side steering cable turning block is lifting off its support. Tighten the bolts .
4. Starboard and port hatch gasket is compressed due to age and considerations should be given to replacing with a rubber bulb style gasket.

Repair items

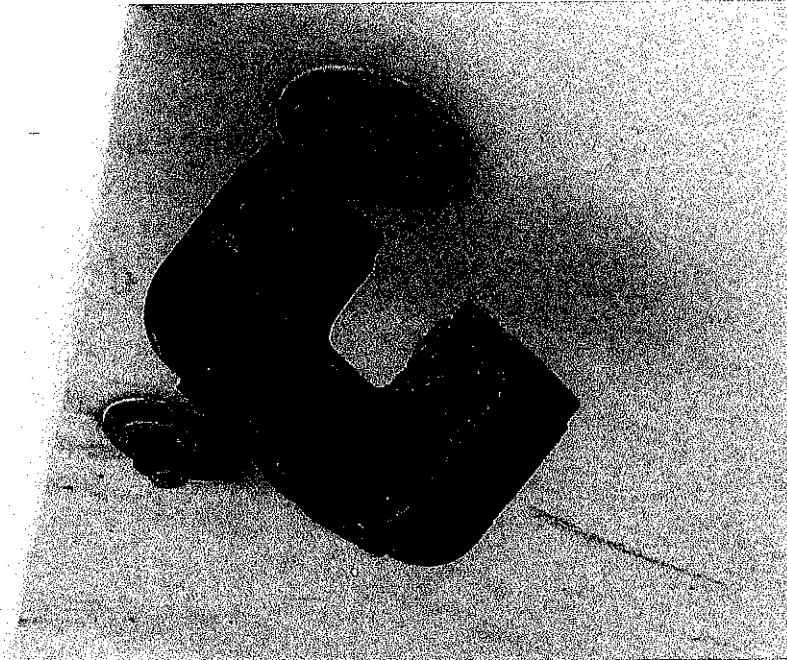


Figure 1 Port and starboard forward beam underside. The bolts need to be replaced with stainless bolts.

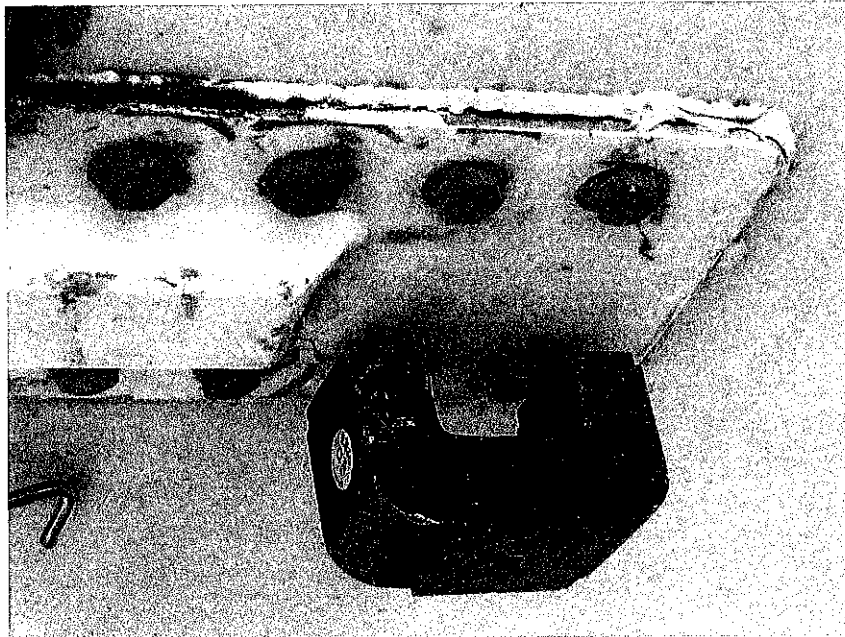


Figure 2 Ferrous bolts should be replaced with stainless. This piece is on the starboard "A" frame under side.

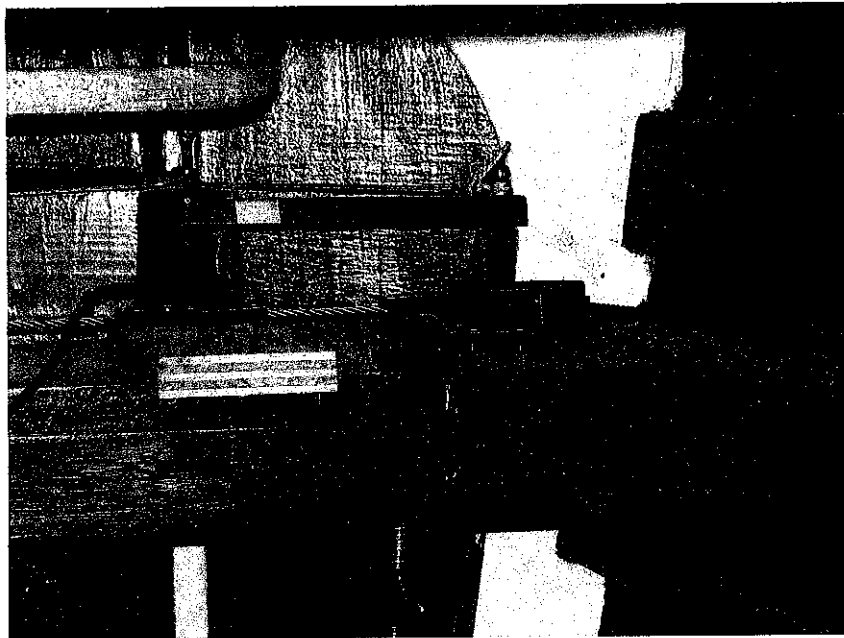


Figure 3 Port side steering cable turning block is lifting from it's support piece. Tighten bolts down

Sail and powered pleasure craft over 9 m and up to 12 m (29'6"- 39'4")



Personal Lifesaving Appliances

1. One (1) Canadian-approved personal flotation device or lifejacket of appropriate size for each person on board
2. One (1) buoyant heaving line at least 15 m (49'3") long
3. One (1) lifebuoy attached to a buoyant line at least 15 m (49'3") long
4. One (1) reboarding device

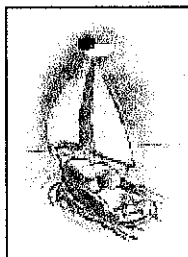
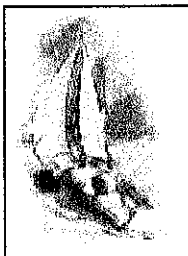
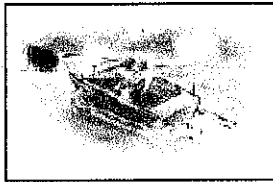
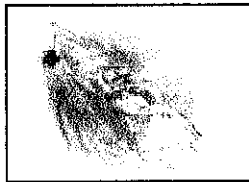
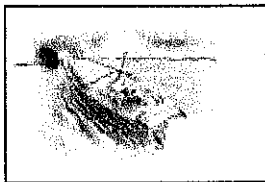
Note: A reboarding device is only required if the vertical height that must be climbed to reboard the pleasure craft from the water is over 0.5 m (1'8").

Visual Signals

5. One (1) watertight flashlight
6. Twelve (12) Canadian-approved flares of Type A (Rocket Parachute), B (Multi-Star), C (Hand), or D (smoke signals)

Note:

1. Not more than six (6) of which are of Type D (smoke signals).
2. Flares are not required for a pleasure craft that:
 - Is operating on a river, canal or lake in which it can never be more than one (1) nautical mile (1.852 km) from shore; **or**
 - Has no sleeping quarters and is engaged in an official competition or in final preparation for an official competition.



Vessel Safety Equipment

7. One (1) anchor and at least 30 m (98'5") of cable, rope or chain in any combination
8. One (1) manual bilge pump

OR

Bilge-pumping arrangements

Note: A bailer or manual bilge pump is not required for a pleasure craft that cannot hold enough water to make it capsize or a pleasure craft that has watertight compartments that are sealed and not readily accessible.

Navigation equipment

9. One (1) sound-signalling appliance that meets the requirements set out in the Collision Regulations

OR

A sound-signalling device

10. Navigation lights that meet the requirements set out in the Collision Regulations

11. One (1) magnetic compass

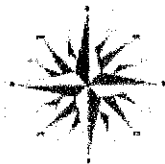
Firefighting Equipment

12. One (1) 10BC fire extinguisher if the pleasure craft is equipped with motor

AND

13. One (1) 10BC fire extinguisher if the pleasure craft is equipped with a fuel-burning cooking, heating or refrigeration appliance

14. One (1) radar reflector is required under certain conditions



Captain Edward A. Wojtecki

Marine Surveys

**CONDITION AND VALUE SURVEY FOR YACHT INSURANCE /
FINANCING**

Vessel: MABLEIE TULLIVER.

Date: MAR. 21 / 12

Requested by: SCOTT BROWN.

Telephone: 416-757-4806

Email: SBROWN@sbpi.com.

Date of Survey: MARCH 21 / 12

Location: TORONTO MULTI HULL CLUB

Hauled ☒

Afloat ☐

Sea Trial ☐

REASON FOR SURVEY

Insurance coverage ☒

Financing ☐

Assess Overall Condition ☐

DESCRIPTION

Type of Vessel: SAILING TRIMARAN.

Hull ID #: 31E-1509

~~Vessel Documentation:~~

Year / Builder: 2002 KEITH THOMPSON.

Designer: JIM BROWN.

Use of Vessel: PLEASURE

Market Value: \$ 38,000 CAN. FUNDS

Replacement Value: \$ 110,000 CAN. FUNDS

DIMENSIONS & CONSTRUCTION

(dimensions are approximations & not measured)

LOA: 31' Beam: 18'6" Draft: 30"/66" Displacement: 6500 lb. Ballast: NONE

Type of Construction: COMPOSITE

Fastenings: WOOD SCREW/FIBERGLASS ~~Keel Bolts~~ N/A

Hull Deck Joint: LAP JOINT /GLASSED OVER

GENERAL CONDITION OF STRUCTURE**HULL & BOTTOM**

	GOOD	FAIR	POOR	COMMENTS
Overall Condition by visual inspection	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	NO DISTORTIONS NOTED
Condition of topside finish	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Condition of bottom & Paint	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Any structural defects/delaminating	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	NONE
Gel coat condition	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	N/A
Deficiencies affecting insurability/value	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	NONE

UNDERWATER GEAR

Type: N/A

Secure: N/A

Evidence of corrosion or wear: N/A

Comments: N/A

ABOVE DECKS

	GOOD	FAIR	POOR	COMMENTS
Condition overall:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Surfaces:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Windows, frames, ports:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Hardware:	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	"A" FRAME PAINT IS CHIPPED ≠ REQUIRES TOUCH UP.

INTERIOR

	GOOD	FAIR	POOR	COMMENTS
Condition of joiner work:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	PICTURES PROVIDED IN ADDITIONAL PICTURES.
Condition of surfaces:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Cushions soft goods:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
General house keeping:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Ventilation:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Are internal supports intact?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>		Comment
Accommodation space separate from engine?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>		Comment

MACHINERY

N/A.

Type: N/A

Serial Number: N/A

Model: N/A.

Reduction Gear: N/A

Condition of:

	GOOD	FAIR	POOR	COMMENTS
Engine (s) on surface: N/A	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Transmission (s): N/A	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Accessories: N/A	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

	GOOD	FAIR	POOR	COMMENTS
Fluids: N/A	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Intake hose & clamps: N/A	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Mounts: N/A	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Stuffing box: N/A	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Flame arrestor: N/A	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Accessibility of machinery: N/A	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Ventilation: N/A	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Exhaust system: N/A	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Engine instruments: N/A	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

Engine (s) operational? : Yes ☐ No ☐ Comment

Any major deficiencies? : Yes ☐ No ☐ Comment

Engines fitted: One ☐ Two ☐

Engine hours: port: starboard:

AUXILIARY MACHINERY

Type: HONDA 8HP. HIGH THRUST Model and Serial number: BAAJ # 1100753

Overall condition: GOOD WORKING CONDITION. Hours: N/A

FUEL SYSTEM

Fuel: GAS.

Tank (s) and Material: PLASTIC.

Capacity: 5gal.

Condition of:

	GOOD	FAIR	POOR	COMMENT
Tank (s): N/A	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Accessibility: N/A	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Properly secured and bonded: N/A	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Properly ventilated: N/A	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Fill hose and deck plate: N/A	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Feed hose: N/A	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Vent hose: N/A	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Fuel shut off valve: N/A	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

ELECTRICAL SYSTEM

Voltage: 12 volt ☒ 24 volt ☐ 32 volt ☐ 110 ac ☐

Battery selector: ONE

Batteries: ONE HOUSE BATTERY
(OFF VESSEL FOR WINTER)

Condition of:

	GOOD	FAIR	POOR	COMMENT
Battery installation:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	CHOCK / STRAPS / PLASTIC BOX.
Wire type:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Organization:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Switchboard:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Accessible and well marked:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Circuit protected:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Shore side connector: N/A	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

NAVIGATION & ELECTRONICS

Compass: AIRGUIDE

Calibrated: Yes ☐ No ☐

DEVIATION-
CARD NOT POSTED

VHF: ✓

GPS: ✓

Depth Sounder: ✓

Knot Meter: ✓

Autopilot: ✓

Radar: N/A

Chart plotter: N/A

Log: ✓

Wind instruments: N/A

AM/FM/CD:

Galley

Stove top (oven):

Good ☒ Fair ☐ Poor ☐

Refrigerator/ice box:

☒ ☐ ☐

Ventilation:

☒ ☐ ☐

Microwave: N/A

☐ ☐ ☐

Galley equipment secured:

☒ ☐ ☐

Stove surround fire protection:

☐ ☐ ☐

AIR CONDITIONING/HEAT N/A

Pump and compressor:

☐ ☐ ☐

Heater exhaust:

☐ ☐ ☐

STEERING

Overall condition:

☒ ☐ ☐

Cable/hydraulics:

☐ ☒ ☐

Secured:

☐ ☒ ☐

} SECURE PORT SIDE
TURNING BLOCK. SEE
RECOMMENDATIONS

	GOOD	FAIR	POOR	COMMENT
Bilge pumps manual:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Bilge pumps electric: N/A.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Bilge pump engine driven: N/A.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

THRUHULL FITTINGS

Condition of:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Operable/accessibility:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Hose & clamps	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

SAFETY EQUIPMENT

PORTABLE FIRE EXTINGUISHER (S)

	GOOD	FAIR	POOR	COMMENT
Condition:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Built in System: N/A.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

FUME DETECTORS

Carbon Monoxide/Dioxide: N/A	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Propane: N/A.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

LIFE PRESERVERS

Condition:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Accessibility:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

ADDITIONAL GEAR

Life Ring: ✓	EPIRB: N/A	Radar Reflector: N/A
Overboard Pole: N/A	Life raft: N/A	Search Light: N/A
Horn /Whistle: ✓	M.O.B. Light: ✓	Flares: ✓
Charts: ✓	Oily Water Discharge Placard: N/A.	
Nav. Lights: ✓		

Anchor (s): FORTRESS #18 200' RODE - 30' CHAIN
CQR #25 150' RODE - 6' CHAIN.
Rode: 200' OF 1/2" NYLON 150' OF 5/8" NYLON

Dock Lines: 8

Fenders: 6

Boarding Ladder: ONE

SAILING VESSEL

TYPE OF RIG:

	GOOD	FAIR	POOR	COMMENT
Mast Step:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Chain plates:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Standing Rigging:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Running Rigging:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Mast, Boom, Spreaders:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Turnbuckles:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Winches:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Sails:	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	MAINSAIL } 2002 GENCO SAILS STAYSAIL. } YANKEE } OLDER SERVICABLE GENOA
Furler: N/A	<input type="checkbox"/>	<input checked="" type="checkbox"/> N/A	<input type="checkbox"/>	

ADDITIONAL REMARKS

DEFINITION OF TERMS

Definition of words and terms that are used in this survey report.

NEW New installation or equipment

GOOD Nearly new with only minor structural / cosmetic issues noted

FAIR Functional as appears with minor repairs

POOR Unusable, requires repairs or replacement of item, system component to be considered
Functional

POWERS UP Electronic item operates, but reliability and all functions of operation cannot be confirmed

NOT PROVEN Installed and appeared functional, but operation was not confirmed

N/A Not Applicable

Additional Photographs



Figure 1 Sea Runner 31



Figure 2 Stern from the port quarter



Figure 3 Interior float detail

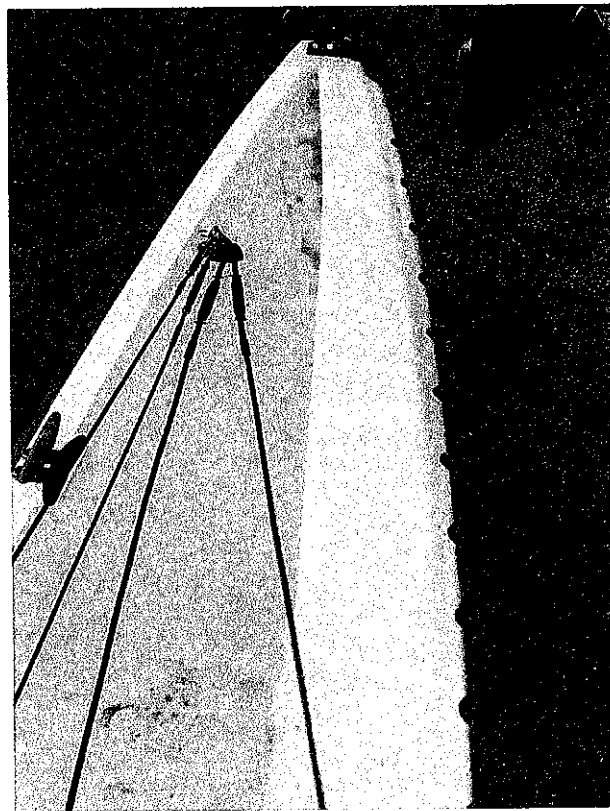


Figure 4 Fore deck port float

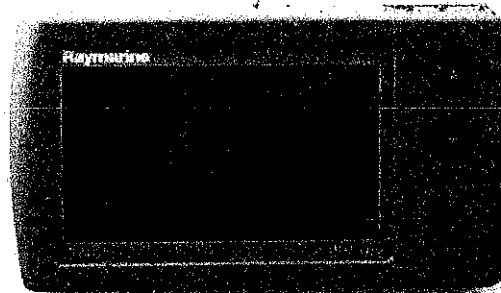


Figure 5 Speed depth



Figure 6 Autopilot

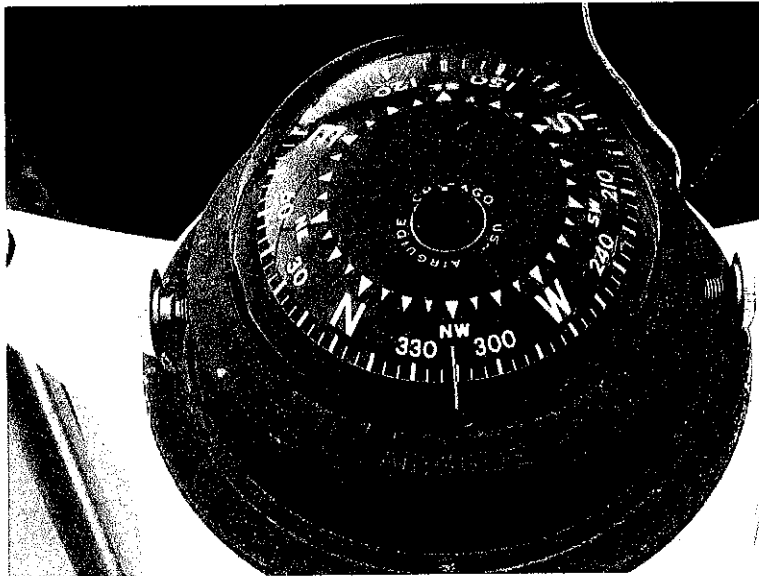


Figure 7 Compass

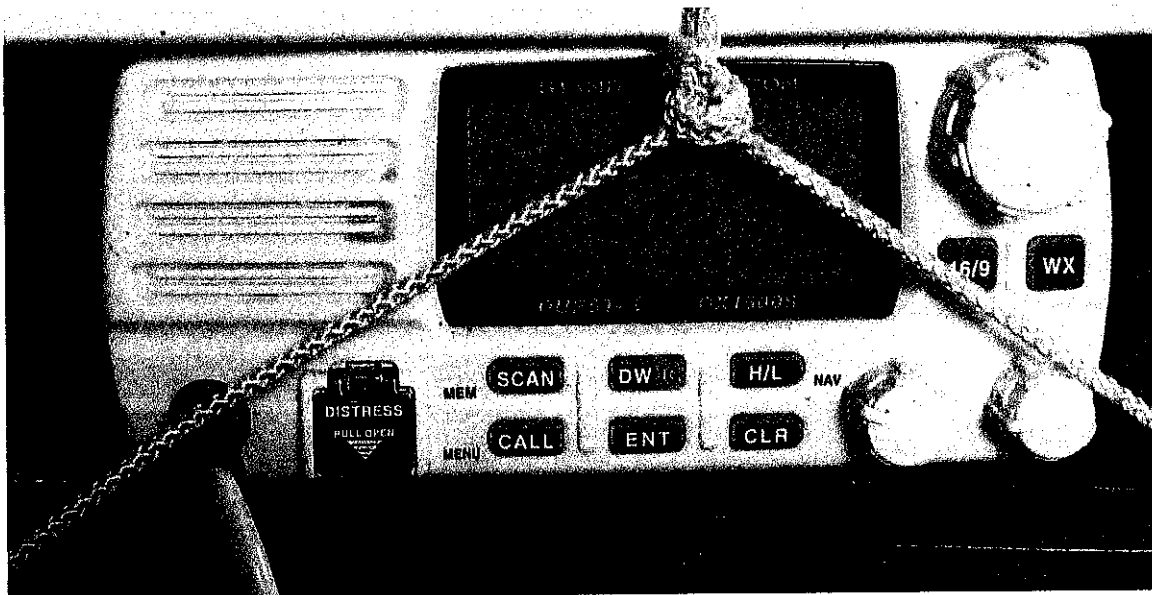


Figure 8 Standard Horizon VHF

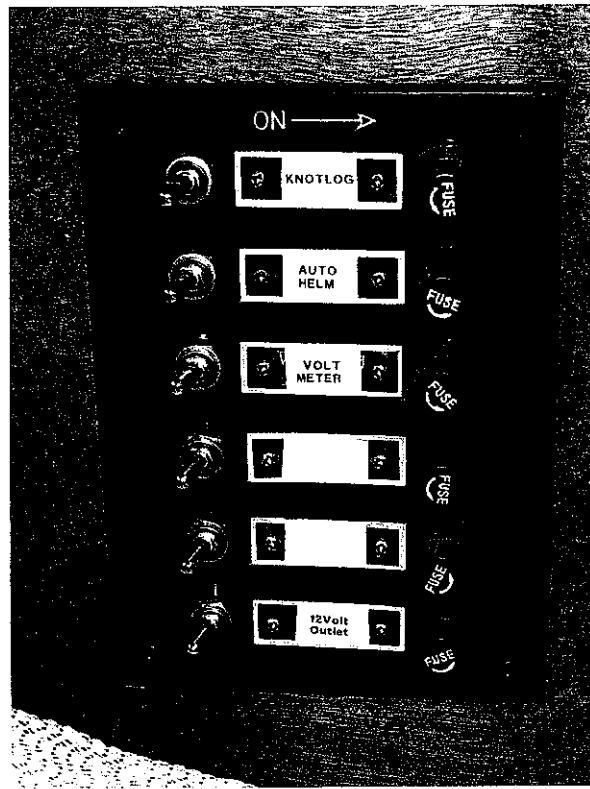


Figure 9 Panel one

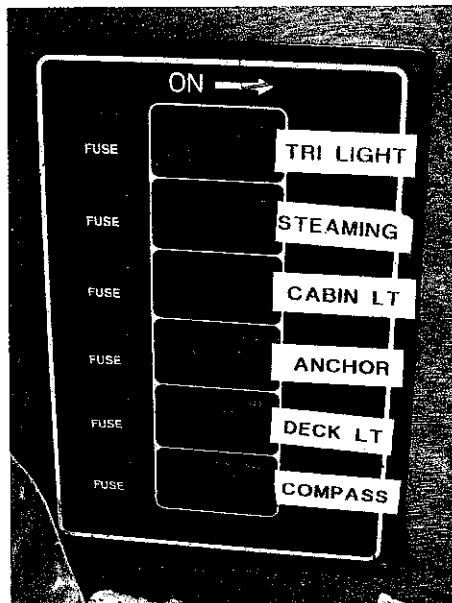


Figure 10 Panel two

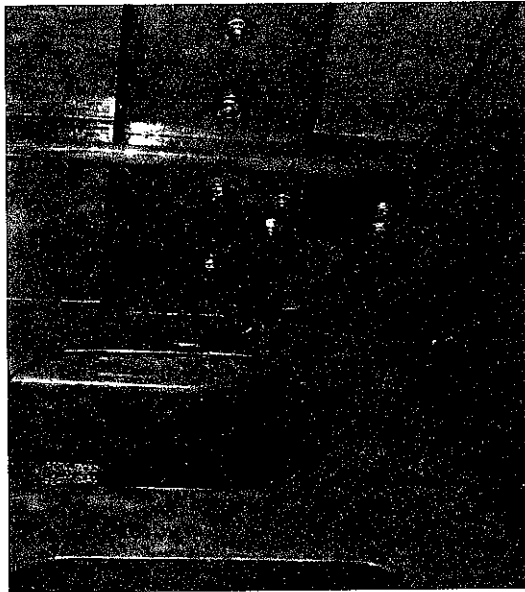


Figure 11 Construction details

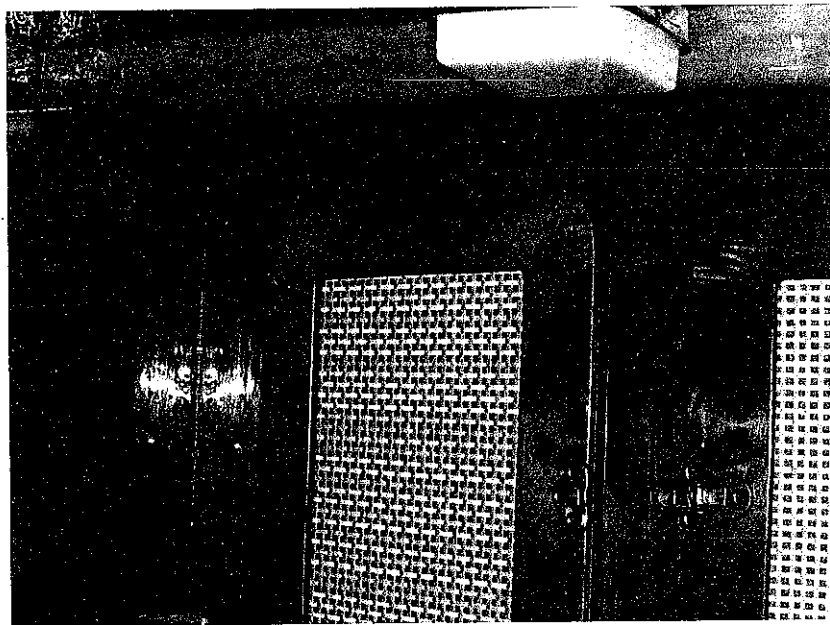


Figure 12 Construction details

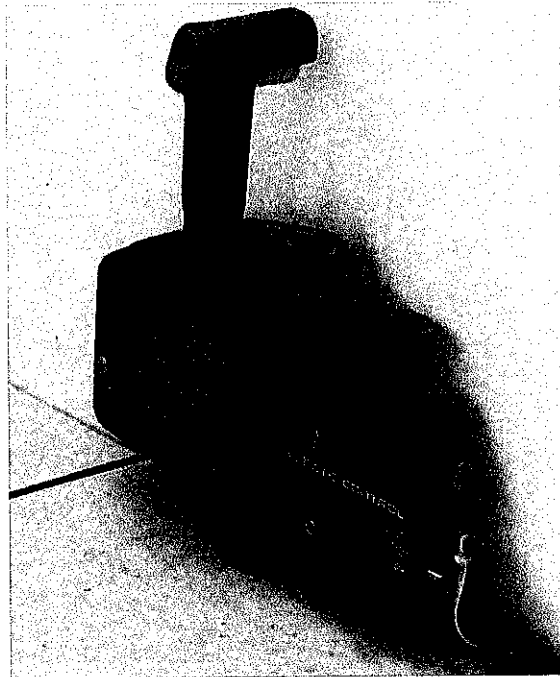


Figure 13 Honda single lever control

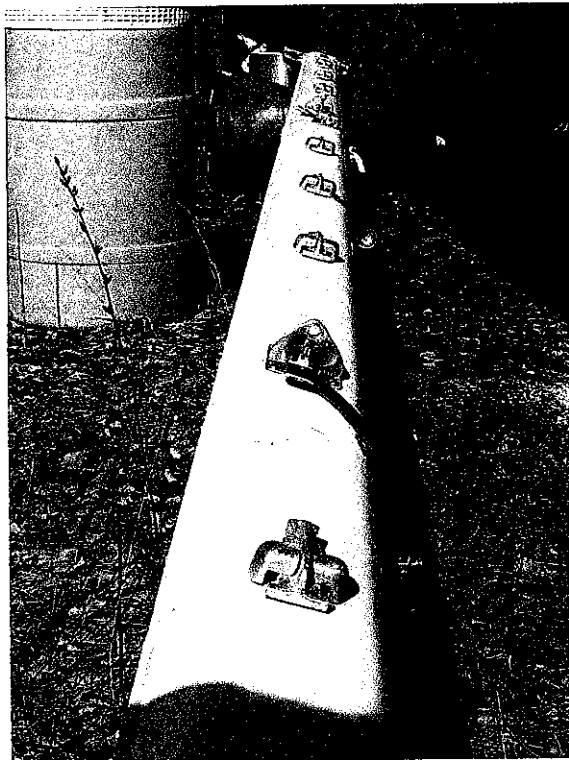


Figure 14 35' aluminum spar with mast climbers. Section is $7 \frac{1}{4}$ " x $4 \frac{1}{8}$ " approx.



Figure 15 Interior pictures chain plate detail

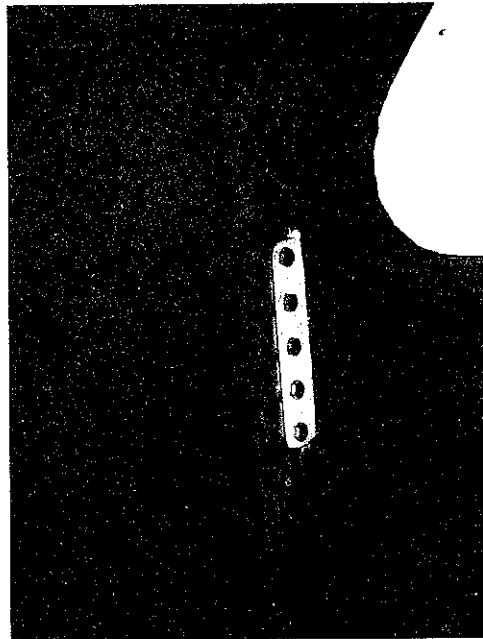


Figure 16 Chain plate detail

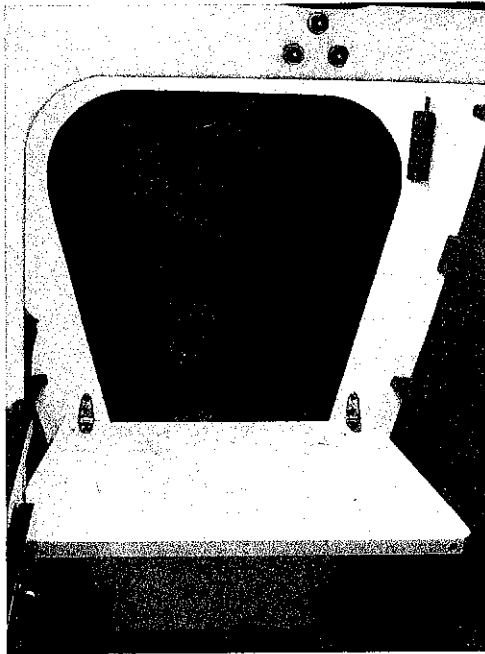


Figure 17 fore peak detail



Figure 18 Lower forestay attachment point



Figure 19 Instrument thru hulls



Figure 20 Anchor rode

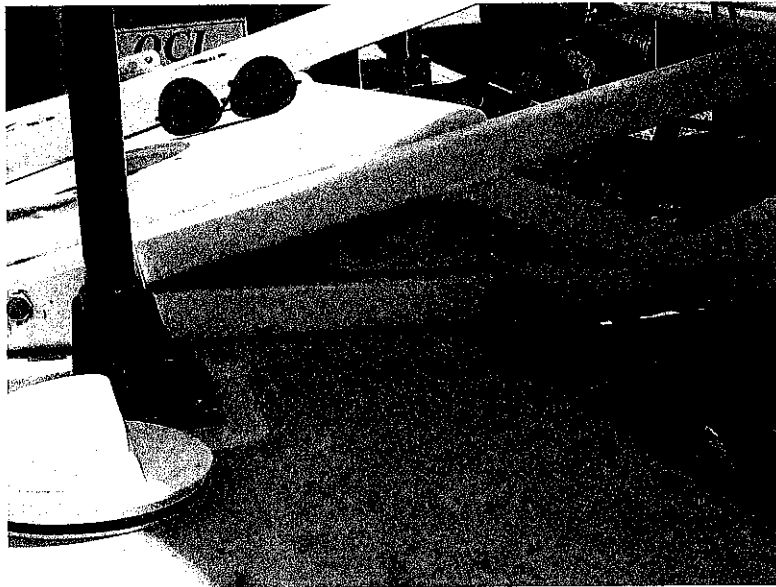


Figure 21 "A" frame detail

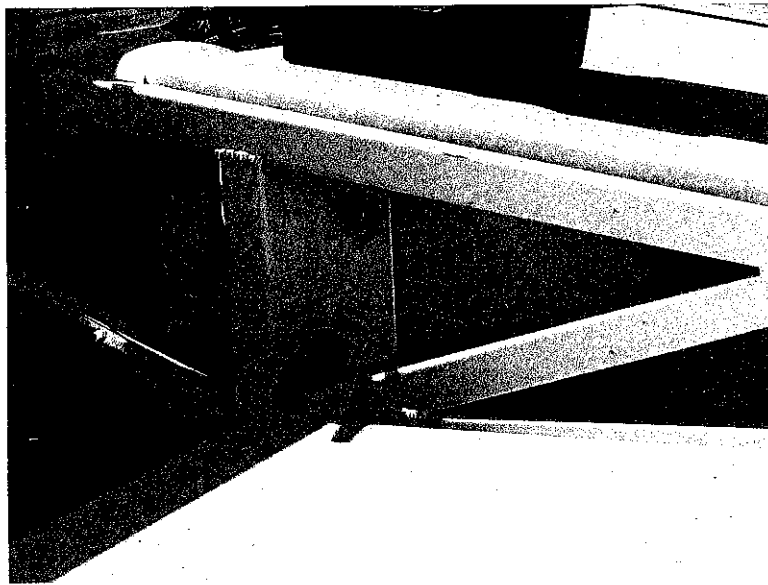


Figure 22 "A" Frame detail

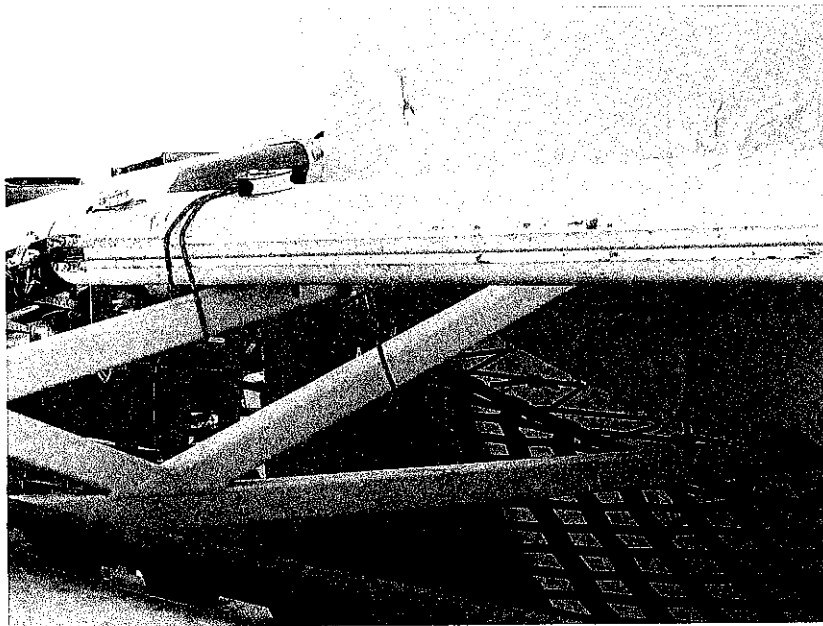


Figure 23 "A" frame detail



Figure 24 "A" Frame detail

