

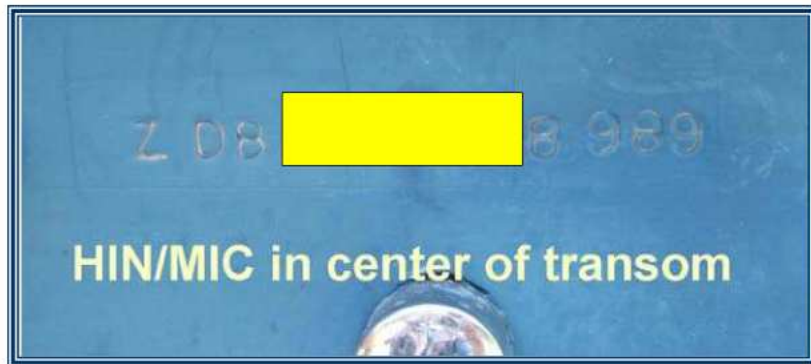
## MARINE SURVEY REPORT

**Report Number :** 2009P/1501  
**Date of Inspection :** May 20, 2009  
**Commissioned by :** XXXXXX XXXXXXXX for insurance purposes.  
**Address :** XXXXXXXXXX  
XXXXXXXXXX  
XXXXXXX  
**e-mail :** XXXXXX@XXX.ca  
**Phone :** XXXXXXXXX



## GENERAL

**Make of Vessel :** Doral, Cavalier  
**Name of Vessel :** XXXXXXXX  
**Model year :** 1989  
**Date of mfg. :** February 1989  
**License Number :** XXXXXXXX  
**HIN/MIC :** ZDBXXXXXB989



## TRANSPORT CANADA REGISTRY DATA

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

## PUBLISHED SPECIFICATIONS

Weights and dimensions are taken from common publications. If any are in question, actual measurements should be taken by the concerned party.

<b>L.O.A. :</b>	24' 0"	<b>Beam :</b>	8' 2"
<b>Draught :</b>	2' "8" (drive down)	<b>Ballast :</b>	305lbs. steel plate. See comment (1).
<b>Displacement :</b>	4500lbs.	<b>Vessel type:</b>	Modified-V monohull with 18°deadrise at transom

## SURVEY SITE

The vessel was inspected ashore and blocked at Port Credit Harbour Marina, Mississauga, Ontario. Weather was warm, clear and dry. The client did not attend but a representative did.

## GENERAL DESCRIPTION

The vessel is a single engine; gasoline powered express type cruiser manufactured by the Doral Corporation of Grand Mere, Quebec. She has galley, head compartment and sleeping quarters for four crew. Decks and super structure are white as are the topsides. Boot stripes are double blue and sheer stripe is grey with blue accents. Ontario license numbers are displayed on both sides at the bow. The HIN/MIC is clearly molded 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.

Be advised that moisture meter readings and percussive soundings on frozen structure are not reliable and that if a survey must be conducted under these conditions the soundings and meter readings should be re-done at thaw. 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 and therefore this report is valid only at time of survey.

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. All photographs remain the property of Port Credit Marine Surveys. 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 such as original brochures The PowerBoat Guide, Mauch's Sailboat Guides, manufacturers or owners association web sites. Survey fees are based on such published L.O.A., This report, all copies and any coloration or use thereof remain the exclusive property of Port Credit Marine Surveys until the accompanying invoice is paid in full.



## STRUCTURAL COMPONENTS :

The internal and external structural elements were visually inspected and tested by random percussive sounding where accessible. Random 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.

**Structural changes :** No structural modifications sighted other than addition of ballast otherwise noted.

**Frames / Bulkheads :** The port bulkhead and deck in the engine compartment under the steel plate is rotten. The opposite bulkhead/deck checks slightly dull with high moisture levels. See comment (1).



*Yellow line indicates scum line approx. 8" higher than normal at the transom center.*

**Topsides :** Appear fair and check sound with no more than a few scuffs and abrasions and the gelcoat retaining a good level of gloss and moisture levels in the low range.

**Bottom :** The hard chined bottom is virtually bare of antifouling paint and checks sound with moisture levels low to slightly elevated forward of amidships and high in the aft quarter with slightly dull soundings. See comment (2)



*309lb. steel plate in engine compartment painted white.*

**Hull/deck joint :** The simple lap type joint is secured with stainless steel fasteners through the rub rail. There is no sign of separation or working of the joint.

**Engine beds :** Encapsulated wooden beds check sound with slightly elevated moisture levels where accessible.

**Decks/trunk/cockpit :** Check sound with moisture levels in the low range.

**Transom :** The transom shows high moisture levels with areas of core separation as revealed by percussive soundings. The transom is compressed around the top end of the transom assembly and there are several areas of fracture as shown by the yellow line in the photo below. See comment (3).





*Yellow lines show areas of fracture. Yellow circle shows area of compression  
Note the scum line that shows the transom assembly will be fully submerged in water.*

## DECK / TRUNK EQUIPMENT

Stainless steel bow pulpit and side rails are secure as are bow, midship and stern mooring cleats. An integral bow platform is fitted with a single anchor roller and is followed by a secure rode pipe. An escape hatch and two deadlights forward on the trunk are secure as is the aluminum framed windshield fitted with safety glass as required. Port/starboard acrylic deadlights with inset ports are secure but the port deadlight is fractured and leaks at fore and aft ends as shown by water stains inside. See comment (4).



## COCKPIT EQUIPMENT

The cockpit is accessed via the starboard side transom step-thru and a large engine compartment hatch with two man doors is sound as is the aft folding passenger bench and escape hatch from the mid-cabin berth. Forward to port is a passenger bench with the pilot bench opposite. A wood and acrylic companionway door is sound and secure. A stainless steel frame supports a full canvas enclosure in good condition.



## STERN EQUIPMENT

The stern is fitted with an attached FRP swim platform through bolted to the transom and supported over two stainless steel struts. The platform is serviceably strong and sound but for the two cored areas where the struts are mounted which check dull and show high moisture content. See comment (5).



## HELM

The single station helm is fitted with wheel steering, trim and throttle/shift controls. Engine ignition panel and dashboard includes volt meter oil pressure gauge, temperature gauge, hour meter tachometer, trim indicator, fuel gauge and speedometer. There were crushed peanut shells among the conductors under the dashboard.

See comment (6).

## RUNNING GEAR

**Steering :** Rack and pinion to cable is secure and free moving.

**Rudders :** n/a

**Propellers :** One three blade aluminum unit in satisfactory condition.

**Drive system :** Mercruiser Inboard /outboard drive assembly is secure and shows minimal bearing play. Drive could not be lowered to fully inspect bellows but they did seem stiff. Skeg is broken.  
See comment (7).

**Shaft system :** n/a

**Trim tabs :** Hydraulic trim tabs are secure.



## PROPULSION SYSTEM

The engine compartment contained several cubic feet of rodent nesting material which the surveyor was reluctant to dig through for a complete inspection. Insulation on the hatches does not appear to be fire rated. See comment (8).

**Engine mounts :** Cast mounts with flexible bushings bolted to angle brackets bolted to encapsulated stringers. All appear sound and secure.

**Drip pans :** None fitted. See comment (9).

**Flame arrestor :** Yes.

**Cooling system :** Raw water cooling.

**Engine controls :** Dual function levers to cables are secure and free moving.

**Exhaust system :** Cast manifolds to type approved exhaust hose to outdrive, all double clamped as required and in good visual order.



**Ventilation :** One fresh air intake duct and one 12VDC exhaust blower provided. The blower ducting does not reach under the engine. [See comment \(10\).](#)



*Several cubic feet of rodent nesting material in engine compartment.*

<b>Engine(s) :</b>	One	<b>Gas/Diesel :</b>	Gasoline
<b>Manufacturer :</b>	Mercruiser	<b>Type :</b>	Naturally aspirated.
<b>Engine size :</b>	8 cylinder, 5.7 liter	<b>H.P. :</b>	260
<b>Engine Ser. No. :</b>	<b>Port/Single :</b> OCXXXX99	<b>Starboard :</b>	n/a
<b>Engine hours :</b>	<b>Port/Single :</b> 00693.3	<b>Starboard :</b>	n/a
<b>Transom Serial. No. :</b>	<b>Port/Single :</b> OCXXXX12	<b>Starboard :</b>	n/a
<b>Drive Ser. No. :</b>	<b>Port/Single :</b> OCXXXX77	<b>Starboard :</b>	n/a

## FUEL SYSTEM

**Tanks :** One aluminum tank is securely mounted forward of the engine however only the aft, upper edge is accessible for inspection.

**Ventilation :** Fuel tank is vented overboard through vent fitting with flame suppression screen as required.

<b>Ground :</b>	Ground wires from the fuel fill fitting to fuel tank to engine could not be fully traced but continuity of 0.06ohms was noted and is within required standards.
<b>Fuel filters :</b>	OE metal cartridge type appears secure.
<b>Anti-siphon valve :</b>	At tank.
<b>Shut-off valves :</b>	None sighted.
<b>Fuel overflow :</b>	Overflow from filling will run overboard as required.
<b>Fuel lines(s) :</b>	Type approved and double clamped where accessible as required.

## OTHER FUELS

A galley stove may be alcohol fueled however, no alcohol was sighted aboard.

## GENERATOR

None fitted.

## GROUND TACKLE

<b>Windlass :</b>	n/a
<b>Anchors :</b>	One approximately 8lb. Danforth type.
<b>Rode :</b>	Undetermined lengths of 5/16" chain leader and 5/8" double braid Nylon. Rode sizes are approximate

## NAVIGATION EQUIPMENT

<b>Navigation lights:</b>	All in place as required by Collision Regulations
<b>Compass :</b>	Saturn 4" fluid damped type is clear and responsive to magnetic influence.
<b>Radar :</b>	n/a
<b>Radar reflector :</b>	None sighted. See comment (11).
<b>Chart plotter :</b>	n/a
<b>GPS :</b>	n/a
<b>Loran :</b>	n/a
<b>Depth sounder :</b>	Eagle Fish I.D. 128
<b>Sound signal :</b>	12VDC horn.
<b>Knot log :</b>	Speed only
<b>Marine radios :</b>	Horizon Galaxy VHF





**Autopilot :** n/a

**Windshield wipers :** One at helm.

**Spot/flood light :** Remote control unit.

## AC ELECTRICAL SYSTEM

**Shore power - 120VAC/30amp**

**NOTE:** Shore power was not connected therefore no AC systems were tested.

**AC Ignition Protection :** An AC outlet in the engine compartment is inherently not ignition protected.  
See comment (12).

**AC panel :** Original equipment type panel with single pole main breaker, polarity indicator, volt meter and accessory breakers in good visual order.

**AC/DC Bond :** The AC and DC system grounds are bonded as required and confirmed by continuity between AC and DC grounds.

**Conductors :** Stranded copper conductors where accessible as required.

**G.F.C.I. :** None. See comment (13).

**Other Outlets :** All secure but not tested.

**Inverter :** None sighted.

**Battery charger :** Guest 15 amp unit.

**Galvanic isolator :** None sighted.

**Isolation transformer :** None sighted.



*AC outlet in engine compartment*



*AC panel*

## DC ELECTRICAL SYSTEM

**Ships power - 12VDC**

**NOTE:** Batteries were not fitted and DC systems not tested.

**DC Ignition Protection :** No DC non-ignition protected equipment was sighted in the fuel or engine compartments.

**DC panel :** Original equipment type fuse panel with crushed peanut shells. See comment (6).

**Conductors :** Stranded copper where accessible.

**Alternator :** One 12VDC

**Battery switch :** One 3-way unit in the engine compartment. See comment (14).

**Cathodic & bonding protection :** Anodes on I/O are in satisfactory condition.

**Batteries :** Space in plastic trays for two batteries is provided. No means of securement is visible. See comment (15).

**Current impressor :** None sighted.

## SEA CONNECTIONS

There were three below the waterline through hull fittings and one within 1" of the waterline located on this vessel.

1. Engine hatch sill drain scupper 1" above waterline and without seacock.
2. Threaded bronze transom drain, plug not fitted.
3. Engine hatch sill drain just below waterline and without seacock.
4. Head intake. Metal lever activated ball valve, single clamped.

See comment (16).

## BILGE PUMPS

There are no manual and no electric bilge pumps sighted. One shower sump pump is fitted.

See comment (17).

## INTERIOR

The interior headliners, carpeting, upholstery and cabinetry are in clean, sound and secure condition with the exception of the leak stains at the port side window.

**Layout :** From the companionway one finds the galley and entrance to aft berth to port with the head/shower compartment opposite. Forward is a convertible V-berth.

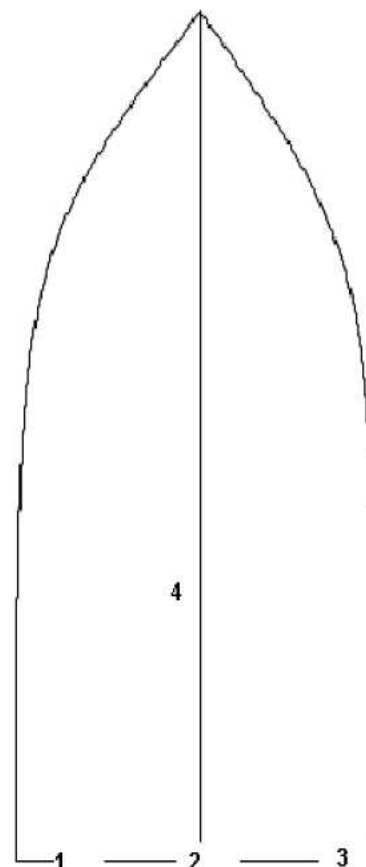
**Heating system:** n/a

**Air conditioning:** n/a

**Vacuum system:** n/a

**Lighting :** 12VDC

**Entertainment :** Am/fm/cd without face plate.





## GALLEY

All galley fixtures and fittings are secure and in sound condition.

- Refrigeration :** AC air cooled unit.
- Stove/Oven :** Origo 4300 2-burner alcohol/120VAC
- Potable water :** 12 VDC pressure system
- Water heater :** n/a
- Other appliances :** n/a



## SANITATION

- Heads :** Manual marine head covered in mould. [See comment \(18\).](#)
- Shower :** n/a
- Holding tank :** Polyethylene black water tank connected to a deck pumpout 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 :** One Scentry unit.
- Carbon monoxide detector :** None sighted. [See comment \(19\).](#)
- Propane Fume detector :** No propane fixed propane system aboard.
- Smoke detector :** None sighted. [See comment \(20\).](#)
- Fixed fire fighting system :** No fixed system in the engine compartment. [See comment \(21\).](#)
- Re-boarding ladder :** Yes, at transom
- Emergency tiller :** n/a

## TP1332E COMPLIANCE MARKINGS

Neither the required *Safety Notice Compliance*, *Fuel Tank*, *Blower Instruction Placard*, *Oil Disposal* or *Garbage Disposal* labels are fitted. [See comment \(22\).](#)

## USCG RECALLS

**Note:** A search of the "USCG Recall Notice" database revealed no issues with this model.

## BoatUS TECHNICAL EXCHANGE NOTICES

**Note:** A search of the BoatUS "Technical Exchange" database revealed no issues with this model.

## BoatUS CONSUMER COMPLAINT DATABASE

**Note:** A search of the BoatUS "Consumer Protection" database revealed no issues with this model.

## 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".**

### A: Issues in need of immediate attention

1. This bow high attitude in part caused by the approximately 309lbs. of ballast and a water logged transom and aft quarter of the bottom and will make piloting difficult and likely erratic. Remove ballast otherwise the vessel is not suitable for more than port risk.
3. Repair transom. Until repaired the vessel is not suited for more than port risk.
8. NFPA 302 requires that insulation in an engine or fuel compartment have a flame spread index of 75 or less and be marked as such. This insulation must be removed from the compartment.
12. ABYC "AC and DC Electrical Systems On Boats" Standard E-11 recommends and Transport Canada TP1332E requires that all electrical fixtures and systems in a compartment containing gasoline must be ignition protected.
16. The bow high attitude of this vessel places the starboard scupper drain lower than the waterline (scum line) and will likely force the port scupper underwater also if one or two people stand at the stern. Transport Canada TP1332E requires that all below the waterline throughhulls (exhaust excepted) must be fitted with a reliable means of closure. i.e. Seacock.

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

4. Replace cracked port side deadlight.
6. Remove peanut shells from around DC fuse block and inspect all DC wiring.
7. Repair skeg on lower unit. Raise unit and inspect bellows.
10. ABYC "Ventilation of Boats Using Gasoline" Standard H-2 and TP1332 require in part that each exhaust duct for such blowers lead from the lower 1/3 of the bilge above the normal accumulation of bilge water and as near as possible directly under each engine.
13. NFPA 302 8-11.1 states "A GFCI shall be permitted to be used on any single phase ac circuit and shall be used for all receptacles in a head, galley, or machinery space or on a weather deck". ABYC "AC and DC Electrical Systems On Boats" Standard E-11 requires the first outlet in all circuits be fitted with a G.F.C.I.
14. Transport Canada TP1332E requires and ABYC "AC & DC Electrical Systems" recommends that a vapour proof battery disconnect switch be readily accessible. TP1332E defines readily accessible as "means capable of being reached for inspection, maintenance or usage under emergency conditions". *It is the surveyors opinion that this switch is not readily accessible.*



15. ABYC "Storage Batteries" Standard E-10 recommends and TP1332E requires in part that batteries be secured so as not to move more than one inch in any direction, , that positive terminals be protected by dielectric material and prohibits wing nuts as a means of securing conductors.
17. There may be a 12VDC bilge pump under the rodent debris in the engine compartment, if not, one should be fitted.
18. Remove mould from toilet.
19. ABYC "Carbon Monoxide Detection Systems" Standard A-24, NFPA 302, USCG and CCG strongly recommend the installation of carbon monoxide detectors.
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" require either an automatic extinguishing system in the engine compartment or a provision (fire port) for discharging a fire extinguisher directly into the engine compartment without opening the primary hatch.

### **C: Offered for information or suggested as maintenance or upgrades**

2. Coat bottom with antifouling paint.
5. Monitor swim platform and repair as required.
9. 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.
22. TP1332E requires the following labels or placards be fitted in visible locations. *Safety Notice Compliance, Fuel Tank, Blower Instruction Placard , Oil Disposal and Garbage Disposal*

### **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, TP1332 " are mandatory to the date of manufacture and states "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** Canada Shipping Act, CSA Small Vessel Regulations, 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, BUC Value Guide and N.A.D.A. Marine Appraisal Guide. Boat values vary considerably due to local market demands and significant premiums may be paid for fresh water vessels in exceptional condition. Currency conversion is done on date of survey using [www.xe.com](http://www.xe.com) Universal Currency Converter

### **Current listings**

Bossmarine.com lists one at \$11,900.00  
Chatam-kent.kijiji.ca lists one at \$12,000.00  
boatdealers.ca lists one at \$12,000.00

### **BFS Value Guide (Listing values)**





None listed.

### **NADA Marine Appraisal Guide**

\$,5347.30 - \$6,052.37

### **Soldboats.com**

Listed below are the sales data for all such models of similar vintage sold through yachtworld.com in North America since January 2007.

<u>Length</u> <u>h</u>	<u>Boats</u>	<u>Year</u>	<u>Listed Can\$</u>	<u>Sold Can\$</u>	<u>Location</u>	<u>YachtWorld</u> <u>Member</u>
 24'	<a href="#">Doral 24 Cav...</a>	1988	10,989 (09/06)	8,670 (04/07)	TN, USA	<a href="#">Erwin</a> <a href="#">Marine...</a>
 24'	<a href="#">Doral Cavalier</a>	1990	16,500 (05/07)	13,000 (10/07)	ON, Can	
 24'	<a href="#">Doral Cavalier</a>	1990	11,000 (01/08)	9,000 (09/08)	ON, Can	<a href="#">Skyline</a> <a href="#">Marina</a>
 24'	<a href="#">Doral Intern...</a>	1987	16,900 (06/07)	16,000 (07/07)	ON, Can	<a href="#">Bridge</a> <a href="#">Yacht...</a>

"Current fair market value" is the price, in terms of currency or its equivalent that a willing seller will accept for property from a willing buyer, neither part being under undue pressure to act in the matter.

This valuation opinion is intended for insurance and financing purposes only and is not intended to influence the purchase or non-purchase of the subject vessel at any value. The surveyor has no interest in the vessel financial or otherwise. It is the opinion of the surveyor that current fair market value of this vessel with all "A" recommendations addressed is

\$ XXXXXXXX

Prepared without prejudice



Captain Wallace Gouk AMS®  
Port Credit Marine Surveys  
Society of Accredited Marine Surveyors, Seal #757