Suenos Azules Marine Surveying and Consulting

REPORT OF MARINE SURVEY

Steel Hull Survey / Ultrasonic Testing of the Vessel

"New Smyrna Inlet"

1973 Diamond Manufacturing 42' Tug and Towing Vessel



PREPARED EXCLUSIVELY FOR:

Big Boat Marine LLC 120 Leigh Mill Road New Orleans, LA 70113

CONDUCTED BY:

Capt. John Banister, SA, Marine Surveyor on April 6, 2010

> Suenos Azules Marine Surveying and Consulting 9910 Alternate A1A, Suite 702-214 Palm Beach Gardens, Florida 33410 (561) 255-4139

SURVEY REPORT TABLE OF CONTENTS

Major Systems Surveyed	Page No.
INTRODUCTION	3
SURVEY SCOPE & GENERAL INFORMATION	4
EXTERIOR HULL & BOTTOM INSPECTION	6
INTERIOR HULL & STRUCTURAL INSPECTION	10
TOP DECK & SUPERSTRUCTURE	10
ELECTRICAL SYSTEMS	11
INBOARD PROPULSION SYSTEM	11
TANKAGE	11
SAFETY EQUIPMENT	12
RECOMMENDATIONS SUMMARY	13
SUMMARY AND SURVEYOR'S CERTIFICATION	15

INTRODUCTION

REPORT INTRODUCTION COMMENTS:

At the request of Mr. Bob Berg (the representative of Big Boat Marine LLC), the prospective buyer of the vessel "New Smyrna Inlet" (a 1973 42.6 foot commercial tug and towing vessel), Mr. Berg specifically requested a 50 shot ultrasonic sound test on the steel hull of the M/V New Smyrna Inlet. This test would only include the stern, bow, topsides, chines, and bottom of the hull. I agreed to conduct the hull condition survey. The current vessel's owner's representative (Mr. Don Neats) was made aware of the time and date of my intended survey prior to arriving at the vessel's location. I arrived at the vessel's location on April 6, 2010 at 3:25 PM. The vessel was out of the water and blocked in the west yard of Cracker Boy Boat Works located at 1124 Avenue C, Riviera Beach, Florida 33404. The survey was conducted from 3:25 PM - 7:49 PM.

The weather on the day of the survey was partly cloudy with an average temperature of 76 degrees fahrenheit. Ultrasonic soundings were taken of the hull with a calibrated PosiTector UTG Std Ultrasonic Thickness Gage.

This survey was strictly limited to taking thickness soundings on the steel hull. There was no other testing of the vessels systems that were inspected. The hull condition survey is a snapshot of time. It is not intended to predict the remaining service life of the vessel. The steel hull thickness survey provided will outline the results of the survey, noting all deficiencies, recommended repairs, and a summary of corrective action that addresses the recommendations. The report will document the current condition of the vessel, but because of the nature of marine operating conditions and the variables that contribute to vessel condition and certification, it is not possible to provide how many years the steel hull will pass U.S. Coast Guard inspections and remain in safe operating condition.

During a vessel's survey the mandatory standards promulgated by the United States Coast Guard (USCG), under the authority of title 46 United States Code (USC), Title 33, and Title 46, Code of Federal Regulations (CFR), and the voluntary standards and recommended practices developed by the American Boat and Yacht Council (ABYC), and the National Fire Protection Association (NFPA) have been used as guidelines in the conduct of this survey. Findings in the summary pages of this survey reflect conditions observed at the time of survey.



SURVEY SCOPE & GENERAL INFORMATION

SCOPE OF SURVEY

Report file no:	10-000103.
Inspection date(s):	April 6, 2010.
Date of written report:	April 7, 2010.
Conducted by:	Capt. John Banister, SA.
Requested by:	This survey was performed at the request of the purchaser, Bob Berg, a
	representative of Big Boat Marine LLC, who was not present at the time of the
	survey.
Purpose of survey:	To assess a 50 point ultrasonic test and survey of the steel hull of the vessel.
Intended use:	Commercial use.
Vessel surveyed at:	Cracker Boy Boat Works, 1124 Avenue C, Riviera Beach, Florida 33404.
Weather conditions:	Partly cloudy and dry, the temperature was 76 degrees.
How survey conducted:	The vessel was surveyed out of the water only resting on wooden blocks and stored
	outside with no overhead protection for the vessel in the boat yard.
Sea trail:	A sea trial was not conducted as a part of this survey.

SURVEY REQUESTED BY

Client name:	Big Boat Marine LLC.
Street address:	120 Leigh Mill Road.
City/State/Zip:	New Orleans, LA 70113.
Business phone:	337-357-0227.

VESSEL INFORMATION

Vessel Yr/Make/Model:	1973 Diamond Manufacturing Tug Boat.
Vessel name:	New Smyrna Inlet.
Hailing port:	Fort Lauderdale, Florida.
Hull ID number	No hull number sighted on the vessel.
verification:	
State validation sticker:	Universeted Travino Vessel Safe



State Registration Sticker and CG Exam

Florida 19017469 (Registration sticker sighted on the vessel expired in June, 2007).

Registration sighted: Manufacturer/Builder: Vessel description:

Diamond Manufacturing, Savannah, Georgia.

A 42.6 foot long steel hull tug boat which is powered by two Detroit Diesel engines that power two propellers to the stern. The vessel maneuvers on a twin rudder hydraulic system that are connected as one unit from the stern deck with thru hull shafts.

No.



Vessel Documentation Number

	544748.
Documented use:	Coastwise unrestricted.
Documented home port:	Fort Lauderdale, Florida.
Documented length:	42.6.
Documented breadth:	16.1.
Documented depth:	7.7.
Documented gross tons:	45.
Documented net tons:	31.

44740

VESSEL SPECIFICATIONS

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Type:
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Steel.

SURVEY STANDARDS

Standards followed:

This survey was completed using as reference the federal regulations and amendments issued and enforced by the United States Coast Guard under the authority of Title 33 and Title 46 of the United States Code of Federal Regulations (CFR's). In addition the American Boat and Yacht Council (ABYC) and National Fire Protection Association (NFPA-302) voluntary standards were used as reference during the survey. These ABYC and NFPA voluntary standard practices are generally followed by most vessel manufacturers today.

SURVEY INSPECTION COMMENTS

Comments:	• All systems and components inspected and described herein are considered serviceable and/or functional except as indicated in the survey report and recommendations section. Electronic devices and instruments were checked for power up only - not for functionality. If a component is not identified in this report, it was not inspected.
	 "Priority I Recommendations" are related to Safety & Regulatory findings and are listed in RED in the report. "Priority II Recommendations" are related to Maintenance & Standards findings and are listed in GREEN in the report
	 "Other Recommendations" are findings that are relatively minor in nature and are listed in <u>BLUE</u> in the report.
	• It is the nature of marine vessels that deterioration, wear and accidents do occur and as such, this report therefore represents the condition of the vessel only at the time the survey was conducted.

EXTERIOR HULL & BOTTOM INSPECTION

HULL EXTERIOR

HOLL LATERION				
Construction material:	Project / Survey M/V New Smyrna Inlet	Type HULL PLATE SURVEY	Report File Number 10-000003	Sheet Of 1 1
	Center Lina			
	Crime Line			
			(a)	/
	0.536 0.5200 7	0.563	0.517 0.562	
	0.519	0.563	0.568 0.588 0.562 0.304* 0.60 9 0.60	1
	STERN		STARBOARD	
	Center Line	1		
	0.538		10 1	
	.0520 0.534 0.476 0.555	0.540 0.544	0.582 0.565 0.594 0.279 [^] 0.597 0.594 0.595	0.568
	Bow		PORT	
	81			
		0.482 . 0.520 0.467	0.481	
	-		0.455	
	- ()9	0.467 0.45	5 0.465	
	<u>y</u>		Boy	
		Vessel Bottom (Double Chine Flat Bottom)		
	THE SOLID HULL. ULTRASONIC READ	NGS IN BETWEEN STRAKE PLATES WER	E AT LEAST 0.500 AROUND T	HOSE AREAS.
	SUENOS AZULES MARINE SURV 9910 ALTERNATE A1A, SUITE 70	/EYING AND CONSULTING	SCALE: N/A DRAWN BY: BANISTER DATE: 4/7/2010	REV: 1 UNITS: INCHES TYPE: UT
	PHONE: (561) 255-4139 EMAIL: SURV THIS DRAWING IS PROPERTY OF SI	/EYOR@SUENOSAZULES.COM	APPROVED BY: JB	SURVEY: HULL ONLY
	NOT TO BE USED OR REPORDUCED Steel.	UNLESS BY WRITTEN CONSENT		
Stem:	Solid, no excessive con	rosion or cracks on ex	ternal inspection	n.
Stem thru hull fittings:	Some minor rust.			
Side thru hull fittings:	Some minor rust.		.1 . 1	
Rub rail:	Intact, in fair condition	. Small tires fastened t	to the port and s	tarboard sheers of the
	ahead as there are custo	om fabricated rub rails	on the bow for	that purpose A stern
	rub rail is also attached	to the stern just below	w the sheer.	that pulpose. It stern
Engine vents:	Engine vents were sigh	ted on the deck of the	tug boat.	
Transom:	Appears to be in good	condition. No excessiv	e corrosion fou	nd in the interior or
Aft deck:	A hydraulic steering ar	m system was sighted	that was protect	ted by removable steel
	deck plates on the aft n	nain deck. The steering	g system was on	ly sighted on this
Hull cosmetics:	survey. Hull cosmetics were in	good condition some	minor pitting in	the steel plates All
		0	P II	· ····································

Other notes:

Condition summary:

Damage sighted:

welds appeared to be sound with no cracks or intrusions sighted. All hull sounding were taken with a calibrated PosiTector UTG Std Ultrasonic Thickness Gage.

Interior of the vessel in the engine room was recently painted, some areas of corrosion were hard to sight because of the fresh paint.



Starboard interior of engine room

There was an area of rust sighted on the interior port side of the vessel just forward of the sixth transverse frame from the transom. The rust was approximately 12 inches in height by five inches across. The rust appeared superficial but was coming through the paint. On the exterior of the hull an ultrasonic sounding was taken of this area which recorded a hull thickness of 0.597 inches. An overhead frame in the engine room just forward of the transom above the exhaust riser had excessive rust. RECOMMENDATION: Have a qualified corrosion technician inspect these locations to prevent further corrosion of the areas mentioned. Repair, replace, or renew if necessary. NOTE: Be sure to have a Coast Guard certified welder service the vessel if needed (See Title 46 CFR 91.50 and NFPA No. 306).



Overhead frame on the port side / interior

HULL BOTTOM	
Construction material:	Steel.
Bottom paint:	Minor areas of flaking bottom paint noted in the bottom stern area near the chines.
	RECOMMENDATION: Remove loose flaking paint, spot sand areas, and touch up peeling/flaking areas prior to next launch.
Stress cracks:	None sighted.
Blister comments:	Surveyor has no firsthand knowledge of the history of bottom maintenance, repairs, or prophylactic coatings on this vessel.
Grounding damage:	Minor dents in the bottom of the vessel. Nothing that would compromise the

Surveyed for: Big Boat Marine LLC - 1973 Diamond Manufacturing Tug Boat Surveyed by: Suenos Azules Marine Surveying and Consulting, Palm Beach Gardens, Florida

integrity of the hull.

Transducers:



One transducer was sighted on the bottom exterior hull that was filled with sand. RECOMMENDATION: Clean out transducer, test, repair, or replace as needed by a qualified technician.

Steel and iron composite. in fair condition.

Thru Hull fittings: Condition summary:



Port side strakes

The bottom was in good condition. Smaller ultrasonic soundings of 0.279 - 0.304 were taken of the exterior strakes that were welded on the port and starboard sides of the hulls. The strakes were welded on over the solid hull which measured at least 0.500 in between the strake areas.





Port side strake with of reading labeled

Damage sighted:

No significant damage was sighted on the bottom.

PROPELLER(S)/SHAFT(S) / STRUT(S)

Prop(s) description:



	Two propellers have three blades and are made of a steel and bronze.
Strut(s):	Two struts reinforcing each propeller shaft.
Condition summary:	The propeller, shaft, strut, and rudder system appears to be in good condition. Only minor corrosion was sighted.
Damage sighted:	None.
RUDDER(S)	
Rudder type:	Steel, full spade design.
Condition summary:	Rudders are in good condition, no significant corrosion sighted.
ANODES	

Hull mounted:



All anodes on the vessel appear to be approximately 50% worn. It is recommended

All anodes on the vessel appear to be approximately 50% worn. It is recommended they be replaced before the vessel is to be put back into the water for a long period of time.

Replacement required?: Other notes:

Monitor all anodes frequently and replace when they are no more than 50% wasted. Anodes are normal replacement items designed to protect the running gear from electrolysis. Keep spares aboard vessel.

INTERIOR HULL & STRUCTURAL INSPECTION

HULL INTERIOR & STRUCTURAL COMPONENTS

Yes.

Hull to deck joint:	Welded on an internal set of frames. The deck is sealed by welding the sheer joint to the deck edges.
Bilge(s):	Approximately three inches of oily water in the bilge underneath the engine room deck plates near the stern. Keep bilge areas as dry as possible by identifying and eliminating the source of all water intrusion as soon as it is discovered (See ABYC H-22).
Stringers:	Hull stiffness provided by steel longitudinal frames butt welded into the transverse frames and run the length of the vessel. Much of the steel framing was painted for protection. The framing appeared sound overall and welded to the hull overhead, bottom, and sides. Complete inspection was not possible due to limited access. Additional framing sighted in the engine compartment for engine/generator mounts and under parts of cabin sole and foredeck are well secured. No severe rusting or separation or cracks sighted.
Bulkheads:	Steel transfer frames are securely welded in place and painted for protection. No visual evidence of movement in any bulkhead.
Stem:	Solid stem, no cracks or separation sighted from the exterior of the stem.
Inside of transom:	Reinforced. Secure-no cracks or separation sighted.
Condition summary:	Hull interior was in fair condition. Some superficial corrosion sighted.
Damage sighted:	None.

TOP DECK & SUPERSTRUCTURE

MAIN DECK & FITTINGS

Deck Surface:	Good condition. Deck is solid under foot, no significant soft spots discovered and
	no visible cracks or chips sighted in the welds.
Toe rail(s):	None sighted on this vessel.
Anchor platform:	Well secured. no cracks sighted.
Anchor/chain locker:	Yes accessed from top deck with hatch lock. Functional.

Bow pulpit/rail: Stanchions/side rail(s):

Lifeline(s): Cleats & fairleads: Cabin (house) to deck joint: Deck hatches: Condition summary: Stainless steel, Well secured. No stanchions on this vessel, just hand rails around the superstructure on the main deck. Double lines vinyl covered in good condition. Bits are all well secured to deck and functional.

Molded in, no stress cracks noted.

Yes, well secured, seals in good condition, support arm in place.



Decks are in good condition. Only minor corrosion was sighted.

Damage sighted:

ELECTRICAL SYSTEMS

D.C. ELECTRICAL SYSTEMS

Other notes:

Note: For 12 volt systems, a fully charged battery reads 12.7 Volts, 75% charged battery reads 12.4 Volts, 50% charged battery reads 12.2 Volts, 25% charged battery reads 12.0 Volts and a discharged battery reads 11.9 Volts or less. Check battery condition frequently.

INBOARD PROPULSION SYSTEM

MAIN ENGINE(S)

Other notes:

NOTE:

• It is good practice when buying a used vessel that all fluids (Engine and Outdrive) be changed and the raw water cooling impeller(s) also be changed.

• As stated in the Terms and Conditions agreement, It is understood that the attending surveyor is not an engine/transmission surveyor. As such, I recommend that all gasoline engines and transmissions be inspected by a qualified engine surveyor/mechanic to determine the internal condition of the engine(s), transmission gears, and pumps, heat exchangers, coolers, etc.

TANKAGE

FUEL TANK(S)

Manufacturer' s label(s): N/A.

Fuel supply lines:NOTE: Most fuel hose manufa
every five years.(just like repla
with the introduction of ethano
the inside. The date of manuface

NOTE: Most fuel hose manufacturers now recommend fuel hoses be replaced every five years.(just like replacing older signal flares). This is more important with the introduction of ethanol into gasoline as hoses can and do deteriorate from the inside. The date of manufacture is imprinted on all USCG approved fuel hoses. Consider replacing all flexible fuel hoses every five years as a part of routine maintenance.

FRESH WATER TANK	(S)
Shore fresh water inlet:	NOTE: Be sure that dockside water pressure is turned off when the boat is unoccupied for any length of time. A burst hose or other water system malfunction could cause serious damage to the vessel or possibly sink the vessel at its assigned slip.
	SAFETY EQUIPMENT
U.S.C.G. REQUIRED	
Life Jackets(PFD's): Visual Distress Signals:	N/A. NOTE: All visual distress signals have a printed expiration date of three years from date of manufacture. It is recommended that expired signals be retained for backup. You must have at least three aerial or three red hand held signals that are current.
BILGE PUMPS	
Bilge Pump Comments:	CAUTION: Bilge pumps are high maintenance items. Bilge pumps are only the initial part of a de-watering system, which may include a strum-box, check-valves or occasionally anti-siphon loops and valves, piping, a seacock if the exit is below waterline and a thru-hull tailpiece. This entire system must be understood and maintained. Bilge pumps may fail at any time. No warranty as to longevity can be expressed or implied at survey. Tapered wooden plugs tied to seacocks are an inexpensive safety item and highly recommended under current ABYC standards. Keeping bilges clean and free of debris is a vital part of insuring proper operation. It is also recommended that each bilge pump be periodically tested by filling the immediate bilge area with water, to ensure the pumps and float switches are operating as designed.
AUXILIARY SAFETY H	EQUIPMENT
Carbon monoxide detectors:	NOTE: During the burning of any of fuels, Carbon Monoxide (CO) gas may be created due to incomplete combustion from propulsion systems, cabin heater or stove as well as nearby boats running generators. Adequate ventilation must be provided at all times while burning any of these fuels, but CO may also be drawn into the cabin through ventilation systems. This is especially true of boats running air conditioning. CO is a silent menace and kills without warning, Regular testing of installed CO detectors in any occupied spaces below decks is highly

recommended.

INSPECTION RECOMMENDATIONS SUMMARY

PRIORITY I - SAFETY & REGULATORY RECOMMENDATIONS:

(MAY BE MANDATORY)

The items listed are required by state laws or federal laws and U.S.C.G. regulations or are considered by the attending surveyor to represent unsafe operating conditions. Recommend these items be corrected before next use of vessel.

None.

PRIORITY II - MAINTENANCE & STANDARDS RELATED RECOMMENDATIONS:

(NOT NORMALLY MANDATORY)

These are important maintenance items sighted which in this firm's opinion should be performed. They may also include recommendations to conform to current ABYC and NFPA-302 voluntary standards which may not have been in effect or may not have been adhered to by the builder when the vessel was constructed. Some of these, if not addressed, could lead to a Priority I safety issue and/or may result in a reduced vessel market value.

EXTERIOR HULL & BOTTOM INSPECTION

HULL EXTERIOR

Damage sighted:

There was an area of rust sighted on the interior port side of the vessel just forward of the sixth transverse frame from the transom. The rust was approximately 12 inches in height by five inches across. The rust appeared superficial but was coming through the paint. On the exterior of the hull an ultrasonic sounding was taken of this area which recorded a hull thickness of 0.597 inches. An overhead frame in the engine room just forward of the transom above the exhaust riser had excessive rust. RECOMMENDATION: Have a qualified corrosion technician inspect these locations to prevent further corrosion of the areas mentioned. Repair, replace, or renew if necessary. NOTE: Be sure to have a Coast Guard certified welder service the vessel if needed (See Title 46 CFR 91.50 and NFPA No. 306).

OTHER OBSERVATIONS:

These are other less significant maintenance items or observations that if not addressed, could lead to more important priority issues and/or could lead to a reduced vessel market value. The cost of addressing these recommendations is generally minimal.

EXTERIOR HULL & BOTTOM INSPECTION

HULL BOTTOM

Bottom paint:

Minor areas of flaking bottom paint noted in the bottom stern area near the chines. RECOMMENDATION: Remove loose flaking paint, spot sand areas and touch up peeling/flaking areas prior to next launch.

Transducers:

One transducer was sighted on the bottom exterior hull that was filled with sand. **RECOMMENDATION**: Clean out transducer, test, repair, or replace as needed by a qualified technician.

ANODES

Hull mounted:

All anodes on the vessel appear to be approximately 50% worn. It is recommended they be replaced before the vessel is to be put back into the water for a long period of time.

INTERIOR HULL & STRUCTURAL INSPECTION HULL INTERIOR & STRUCTURAL COMPONENTS

Bilge(s):

Approximately three inches of oily water in the bilge underneath the engine room deck plates near the stern. Keep bilge areas as dry as possible by identifying and eliminating the source of all water intrusion as soon as it is discovered (See ABYC H-22).

SUMMARY AND SURVEYOR'S CERTIFICATION

CLOSING STATEMENT & SIGNATURE:

SUMMARY:

In accordance with the request for a marine survey of the vessel "New Smyrna Inlet," for the purpose of evaluating its present condition on the date of the survey. I herewith submit my assessment based on the preceding report. The vessel was personally inspected by me (the undersigned) on April 6, 2010. Subject to the correction of the deficiencies listed in the red and green summary page, the vessel will be considered to be suitable for its intended use. Other deficiencies listed in the blue findings should be attended to in a timely fashion.

SURVEYOR'S CERTIFICATION

I certify that, to the best of my knowledge and belief:

The statements contained in this report are true and correct.

The reported analysis, opinions, and conclusions are limited only by the reported findings, but may also extend to the statements of the owner, captain, or representative of the vessel. My report may also be limiting based upon the conditions that the survey may bring. My findings and conclusions are from my best efforts from professional analysis, opinions, and conclusions which are based upon my experience and training.

I have no present or prospective interest in the vessel that is the subject of this report, and I have no personal interest or bias to the parties involved.

My compensation is not contingent upon the reporting of a predetermined value from any party, nor the direction in value or direction in a value assessment that favors the cause of the client. My compensation is not contingent upon the amount of the value estimate, the attainment of a desired result, or the occurrence of a subsequent event.

I have made a personal inspection of the vessel that is the subject of this report.

This survey is submitted in confidence for the exclusive use of Mr. Bob Berg, the representative of Big Boat Marine LLC without prejudice to the rights and / or interests of any other concerned parties and may not be used for any other purpose or relied upon by any other person.

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ATTENDING SURVEYOR

Capt. John Banister, SA, Marine Surveyor