

N°1455 affiliate member

IIMS

*international institute of
marine surveyor*

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Ruolo Periti ed Esperti della CCIAA di Roma n°1871

Iscritto per le categorie e sub categorie XXIII –attività marittime e aeree e di navigazione interna 002 004

iscritto all'albo del **TRIBUNALE PENALE DI ROMA**

On 13/9/2022 the undersigned Stefano Pisano was commissioned by [REDACTED] to evaluate the condition of the vessel in question in order to proceed with the purchase.

MODEL : MARITIMO 500 OFFSHORE NAME : [REDACTED]
LOA :16,50 MT MAX BEAM : 5,2 MT DRAFT : 1,2 MT
BUILDER : MARITIMO YACHTS - AUSTRALIA
HULL NUMBER : [REDACTED]
ITALIAN REGISTER : [REDACTED]
MATERIAL : G.R.P. YEAR: 2009
ENGINES : 2X CATERPILLAR C12 - 715 HP
NUMBERS : [REDACTED]
PEOPLE : CAT A 16
OMOLOGAZIONE CE : A
EMPTY DISPLACEMENT : 21.000 KG
DIESEL CAPACITY: 3500 LT ca
TANK MATERIAL : STAINLESS STEEL
FRESH WATER CAPACITY: 800 LT ca
TANK MATERIAL : STAINLESS STEEL
GENERATOR : CATERPILLAR 17,5 KW
BATTERIES : 8 X 225 AMPERE
OUTBOARD : MERCURY 9,9 CV 4 STROKE
DINGHY : ZODIAC 3,10 MT PVC



Required questions:

Pre purchase survey

To answer the questions, the undersigned Expert made use of the following data:

- On-board documents provided by the shipowner
- Inspection on 13th September at Marina d' Arechi - Salerno
- Sales card and boat description made by [REDACTED]

PREPARATION FOR SURVEY : No parts of the craft were dismantled and no bolts were drawn for inspection. No attempt was made to open up or prove machinery or systems. The electrical installation was not examined in detail, only switch tested.

INACCESSIBLE AREAS : I have not inspected the mouldings, woodwork or other parts of the structure which were covered, unexposed or

inaccessible and I am therefore unable to report that any such part of the structure was free from defect.

Chapter 1

- External hull
- Internal hull
- Rudders
- Ship sides

At the time of the inspection, the boat was hauled after sea trials. No marine relevant concretions or plant residues were present. The surface of the hull due to the presence of antifouling paint was not smooth; as declared by the owner the paint was applied on 2022 May however there were different badly distributed layers applied by roller.

It is clear that the hull has been recently cleaned also because there are few remains of marine concretions where cleaning was difficult.

No evidence of osmotic blistering or wicking was found in the prepared areas.

The original gel coat extremely compact and uniform.

The hull humidity was measured with the following instrument:

RYOBI DIGITAL HUMIDITY MEASUREMENT Meter;

The values found below the waterline were normal (10%-12%)

Given the shortness of the stop on the ground of the boat, to have correct measurement values it could be necessary to measure only the areas dried by the sun.

There are no other signs of contact with the seabed.

Random hammer tapping was carried out over this area of the hull to check for any evidence of separations or voids in the fibreglass.

The soundings were considered satisfactory.

On examination the hull did not show any anomalies.

The vee of the hull, spray rails and chines were in good condition with no evidence of any serious damage or repairs.

The craft was fitted with a bow and a stern thruster. The tubes were firmly glassed in the hull and the edges of the apertures were well sealed; the propellers were intact even if marine concretions were on the plastic propellers.

On shafts (diameter 57 mm) and bronze propellers (5 blades) was applied Pro speed antifouling found in good conditions; no anomalies were found on blades and shaft; bushing were found in fair conditions.

The shafts of the rudders, where visible, did not show any oxidation; rudders were in fair conditions- the bushing of the right one showed more oscillations of the left one, however still tolerable.

The Flaps were working properly, some concretions were found on the hinges.

RECOMMENDED WORKS

Change anods of hull and of bow and stern thrusters.

New antifouling after removing all old layers.

Clean the marine concretions in the hidden corners.

Clean deeply from marine concretions external part of the seacocks.

SCANNING WITH ULTRASONIC THICKNESS GAUGE

INSTRUMENT DESCRIPTION:

The TRITEX Multigauge 5650 Ultrasonic Thickness Gauge is an ultrasonic thickness gauge designed for metal and composite material thickness gauging applications. The meter uses multiple echoes to ignore coatings up to 6mm thick. All probes feature Intelligent Probe Recognition (IPR), which automatically adjusts settings in the meter as it transmits recognition data - the result is a perfectly matched probe and meter for improved performance. In addition, the Automatic Measurement Verification System (AMVS) ensures that only real measurements are displayed, even on the most heavily corroded metals and delaminated composites.

ULTRASOUND EXAMINATION NOTES

This type of examination is conducted when some structural deficiencies are detected visually or by typing examination. Although the instrument is

extremely precise, it is not able to detect any possible anomaly such as porosity or delamination also considering the small diameter of the probe.

EXAME RESULT

No anomalies detected

Average hull thikness 5 cm

The hull internally for the areas inspected, in other words those that could be reached, did not show any anomalies, sure enough the bulkheads and faceplates appeared solid and in good order. No anomalies were found on the countermould areas.

In the central bilges areas was found water less then a liter; in the engine room bilges no water or other liquids were found but just dry tracks .

HULL - WATERLINE TO GUNWALES :-

The white gelcoat of this area was found to be in good condition with no evidence of any serious damage or stress cracking. A couple of minor scratches and abrasions were noted but these were considered to be superficial. The transom was also found to be in good condition with only minor scratches and abrasions .

The engine vents were founds free from damage.

The fibreglass moulded bathing platform was in fair condition and the port stern quarter and the centre section of the platform was solid.

SUPERSTRUCTURE :

The white gelcoat of this area was in good condition with no evidence of any serious damage. There were no signs of any serious stress cracking .

The teak on the deck was fairly sealed and the wood was in good condition

The hatches closed well and glasses were in fair conditions with no leaks even the windows of the cabin had no traces of leaks.

The structural parts of the deck were inspected and no structural damage was noted, bondings of the bulkhead were sound and intact.

The anchor was firmly stowed on the bow roller and the chain was well tethered. The electric windlass was securely mounted to the foredeck.

The unit was switch tested and found to be operative via the deck switches .

The bow and side rails, cleats and other deck fittings were firmly secured .

The fuel deck fillers were correctly labelled.

Pulpits and stanchions appeared in good

INTERIOR :-

The internal structure of the hull was inspected in this area where possible.

The interior layout of the craft consisted of 3 double cabin and 2 toilettes.

There was no evidence of any serious water leaks from the hatches or portholes at the time of survey .

The blinds, carpets, moquettes and upholstery were in a good and clean condition.

The leathercloth head and side linings were well secured and intact.

The upholstery on all beds, the sofa in the dinette and the outdoor cushions were checked.

The woodwork of the interior was sound and free from any serious water damage.

The doors hinges and handles were operative.

The interior lights were tested and found to be operative .

The internal structure of the galley's area wasn't inspectable.

No structural damage or repairs were noted and the bondings of the stringers, bearers and bulkhead were sound and intact.

The bilges between two central cabins were not dry with a little dirty cameled from grey tank circuit.

The toilets were firmly mounted

SMALL OR COSMETICS ANOMALIES

Bow cabin porthole darkening handle .
Left cabin hatch handle
Starboard cabin hatch handle
Corian kitchen top to seal behind hop
Interior wooden floor deteriorated
Compartment doors on fly deteriorated by sun
Left side steel handrail to be sealed
left stanchion to be sealed
Bow cabin windows to be sealed
Wiper blades to be changed
Starboard teak step damaged
Flybridge hatch without arm - inner frame deteriorated
Flybridge icebox flap to be fixed
Flybridge chrome plating of the faucet deteriorated
Left side cabin “Maritimo “ logo to be sealed
Left side cabin at window bottom gelcoat to be filled
Plastic fram to stop anchor to be fixed
Grey waterline deteriorated at the stern edges
Pressure gauge hands deteriorated
Outdoor cushions deteriorated

Chapter 2

- Engines room
- Engines
- Generator
- Service pumps
- Sea cocks
- Wheel house

The engine room was in a fairly good state of use;
Very few traces of deterioration of some metal parts;
Central bildge between engines shows few dry traces of hydrocarbons and water .

The systems appear to be in good condition, as are the sleeves and pipes, which are soft and not crystallised.

Externally, the engines appear with no sign of damage, and few leaks of oil mostly reported on the right engine;

They run regularly and respond positively to expectations considering the hours. (see mechanic report before and after sea trials).

The engine blocks appear solid and all the structural parts connected to those was in good condition.

The generator appears to be in fair condition; no important leaks or corrosion are visible.

The service pumps inspected in the engine rooms respect the operating requirements.

During cruising the shaft lines of both engines works properly with no abnormal fluctuations.

The automatic fire extinguisher of engine room is on green and well mounted.

The wheelhouse was working properly and the bushings of the rudders did not show leaks;

Were also the subject of verification the seacocks and their valves;

N°10 seacocks were reported, all made of stainless steel appeared visually in good condition; as declared by the owner the seacocks are original ;

Only one elbow (see photo) not steel of the air conditioning seacocks showed deterioration but still in working conditions. Same thing happened to the bronze water filter of same circuit.

It is recommended maintenance and lubrication for all valves to keep them operable..

The rubber hoses connected to them and their hose clamps were in a fair conditions.

Diesel tanks circuit did not show any leaks and diesel visible from racor filter had not sludge or bacteria

The dessalator circuit did non shows any leaks.

RECOMMENDED WORKS

Service dessalator

Eliminate oil leaks right engine

Systems and accessories inspections

The following accessories were checked during the inspection and sea trials :

Windlass, cabin lights, navigation lights, bow and stern thrust, bilge pumps, fresh water pumps, deck shower, drain pumps, waste pumps, boiler, generator, battery charger, watermaker, icemaker, air condition system, n. 2 fridge, n. 2 plotter, n. 1 autopilot, navigation instruments, depth sounder, vhf, flybridge instruments,cookers, microwave, oven, kitchen extractor, tv, hydraulic gangaway.

A test was carried out with positive results of efficiency of electronic and analogic engine controls and thrusters.

A visual check of the anchor line, i.e. anchor, joint and chain, did not reveal any anomalies exceeding the normal state of use.

The batteries of both the services and the engines were tested with the electronic instrument Ancel, which gave a positive result both for the state of use and for the state of charge.

A visual check was also carried out on both the electrical and hydraulic systems, and no important anomalies were found only deterioration was found over the hydraulic pump of the gangway.

The systems maintain their original layout and each connection, whether electrical or hydraulic, has not been altered.

A check was carried out to the electrical panel for 24v and for 220v- all connections were in service conditions; all switches were found to be working

Systems found out of order :

- radar out of order
- plotters lcd screen deteriorated
- some oxidation on ground wires found from inside in the bow area close to the left rudder
- dinghy

Safety equipment on board

- no life raft
- fire extinguishers on green
- epirb
- N°8 lifejackets

It is recommended to complete and update the safety equipment.

SEA TRIALS

Sea trial occurred with flat sea and no wind; on board were the 8 people, 600 lt of diesel, 400 lt of water.

Time : from 11 am to 12 am

Performances report :

Synchronized engine power

At : rpm 900 speed 8,8 kn Temperature 87° c

1200	10.8	89
1400	12,4	90
1600	15,9	91
1800	19	91
1900	21,9	91
2100	25,5	92/94
2289	27,5	94

Hourly fuel consumption detected at maximum speed: 129 lt/min each engine

Conclusions :

To be synchronized with the left engine, the right forces a little more.

No anomalous smokiness was detected

No abnormal vibrations were detected

THERMOGRAPHIC EXAMINATION

The engines were scanned with THERMAL CAMERA FLIR in order to detect over-temperature areas relevant to the engine or to correlated systems, which may require further analysis.

EXAM RESULT

no anomaly detected

Note

SOME ITEMS MAY NOT BE FULLY COVERED BECAUSE THEY ARE NOT RELEVANT TO THE EXPERTISE REQUESTED.

THE VALIDITY OF THE CONCLUSIONS IS SUBJECT TO THE MAINTENANCE OF THE CHARACTERISTICS VERIFIED EXCLUSIVELY DURING THE INSPECTION.

THE ASSESSMENT OF ANY HIDDEN DEFECTS OR FLAWS IN THE COMPONENTS OF THE MATERIALS NOT INSPECTED IS ALSO EXCLUDED DUE TO THE IMPOSSIBILITY OF PERFORMING MECHANICAL AND/OR NON-DESTRUCTIVE TESTS ON THEM.

THE ASSESSMENT OF ANY HIDDEN DEFECTS OR FLAWS IS ALSO EXCLUDED DUE TO THE IMPOSSIBILITY OF REACHING CERTAIN OBSTRUCTED OR INACCESSIBLE COMPARTMENTS OR SPACES.

THIS REPORT IS FOR THE EXCLUSIVE USE OF THE ABOVE-MENTIONED CLIENT.

The inspection, although thorough, was mainly of a visual nature and although it was carried out with the utmost care and in good faith, it cannot be guaranteed that every anomaly or defect present on the boat at the time of the inspection was discovered.

The report will be deemed to have been accepted by silence within 3 days of delivery. The information acquired for the purpose of and during the course of the service shall remain confidential and shall be used exclusively for the performance of the professional activity;

The commercial valuation is referred to the single unit and cannot be attributed to other similar models on the market.

The assessment for the presence of encumbrances or mortgages is excluded.

Should the following report be used for insurance purposes, it does not in any case exonerate the Insurant from complying with the legal and policy provisions to which the insurance cover is bound.

For any dispute, the client accepts arbitration as the first method of confrontation. Thereafter, the Court of Rome shall have jurisdiction for any dispute.

Photos of some anomalies detected



Figura 2: antifouling not homogeneous



Figura 1: bow thruster propeller to clean

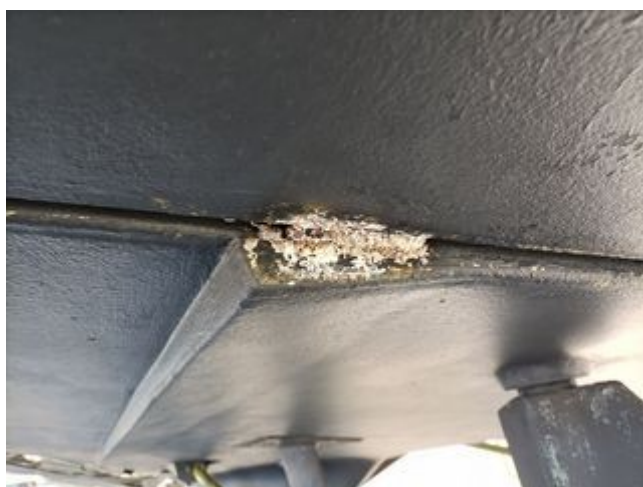


Figura 4: flaps hinges to clean



Figura 3: hygrometer value



Figura 6: a/c seacock elbow



Figura 5: central bilge some dirty from grey tank



Figura 8: ground wire with few oxid- left stern



Figura 7: thermal camera inspection for electric panel

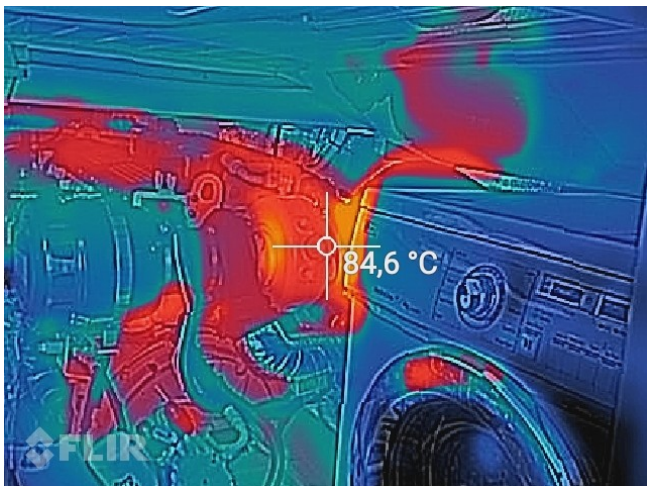


Figura 9: thermal camera inspection right engine



Figura 10: batteries test

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