## 1981 Mariner 28 "Crusader"

Purpose of Inspection: Pre Purchase

#### Survey ID: 151119DB



Report prepared for: Paul Greenup 0417 719 596 paul@sunrisesupportedliving.com.au

Inspection carried out by: Don Buckley ADMIRAL Marine Surveying P/L PO Box 431 Seaforth NSW 2092 0412 226 245

Date of Inspection: 15<sup>th</sup> November 2019

# **Contents**

1	Summary & Valuation	page 3
2	Introduction	page 3
3	The Inspection	page 4
4	Conclusions	page 17
5	Recommendations	page 17
6	General Disclaimers	page 18

#### 1 Summary & Valuation

Mariner boats were built in Australia in the 1970s and 80's before becoming part of the Riviera stable. They have a reputation for being well-equipped, high quality and functional recreational vessels. This boat was built in 1981.

The inspection took place in the water and then on the hardstand at Cockatoo Island.,

The inspection revealed that, this vessel is a good example for its age that was well built by a quality boatbuilding yard.

Some minor faults and recommendations can be found in Section 5.

In summary, it is our opinion that there appears to be no major problems and we can see no reason the vessel can't continue to perform well with on-going repairs, service and maintenance.

# Based on the age and overall condition an <u>approximate</u> valuation for this vessel would be Thirty Thousand Dollars (\$30,000)

#### 2 Introduction

The weather conditions on were approximately warm and dry with light winds.

The client had done a previous inspection and sea trial and discussed the engine with others.

Don Buckley, principal surveyor at ADMIRAL Marine Surveyors (AMS), carried out the inspection.

This report can also serve as guide to any repairs, modifications that may be necessary, or maintenance issues that were observed.

The inspection was carried out according to the agreed Terms & Conditions of AMS (available on request) and the Codes of Conduct & Practice, published by the International Institute of Marine Surveyors. <u>http://www.iims.org.uk/</u>

# 3 The Inspection

The following checklist, comments on the construction, condition and the equipment on board.

Survey Report ID	151119DB	
Date	15 <sup>th</sup> Nov 2019	
Type of Survey	Pre Purchase	
<u>Client details</u>		
Name	Paul Greenup	
Phone	0417 719 596	
Email	paul@sunrisesuppor	tedliving.com.au
Inspection details		
Location	Cockatoo Island – Syd	dney Harbour
Weather	warm and dry	
Vessel details		
Builder	Mariner Boats	
Model	28 Flybridge	
Construction material	GRP hull and deck	
Year built	1981	
Rego number	WY3N	
HIN Number	AU WWA000177-A??	? (tbc)
Builders number	M2805550281	
Length	8.53/m	28'
Beam	2.8/m	
Depth	tbc	

#### **General Condition & Structure**

#### Deck



The GRP deck areas are well constructed and include non-skid surfaces. The foredeck area is accessed via walkways either side of the main saloon. The handrails are solid and well positioned.

#### Flybridge

Is accessed via a ladder on the port aft side deck, it was originally located in the cockpit.

There is a mirrored set of engine controls and a helm bench seat

There is no storage under the bench seat and the entire area is covered and enclosed by a canvas Bimini.

Vision from the helm station is very good, both forward and aft.



#### Aft Cockpit

The aft cockpit is very roomy and provides good access to the side decks and transom area. The side deck height is low enough to allow access from a floating marina arm.

There are fairleads and cleats for mooring lines and the floor panels lift away which gives easy access to the engine, fuel and water tanks, trim tab motor, bilge pumps and also the steering gear.



#### Hull

The hull appeared to be very solid and well constructed in GRP. The Gelcoat, although needing polish and some docking impact repairs in some areas, appeared to be free of any major repairs and is protected by a full length, alloy rubbing strip.



#### Bulkheads/frames etc.

All frames, stringers and frames that were accessible appeared to be very solid and in good condition. There is one small crack in the bonding of the bulkhead and stringer on the port side, which is not major.



#### Engine bearers

The engines bearers were part of longitudinal stringers system and appeared solid.



#### **Bilges**

All bilge areas that were accessible appeared to be clear and sumps were provided in the various compartments for bilge pumping.



#### Under cockpit space

The engine and other equipment is accessed through removable floor hatches in the cockpit floor providing very good access. The area contains the following equipment

- Main engine
- Fuel tank
- Water tank
- Battery bank
- Freshwater pump
- Hot water system
- Engine room blower (not working)
- Manual & electric bilge pumps



#### Lower helm

Located at the forward end of the cockpit on the STBD side is the main helm station with all controls and a basic GPS plotter. A VHF radio is mounted above the helm. The windscreen windows are fixed but the side windows slide open to provide ventilation. There is a single passenger seat opposite the helm seat.



# <u>Saloon</u>

Down a couple of stairs from the lower helm area is the saloon area with a separate bathroom, double berth, dining area and small galley.







#### **Bathroom**

The enclosed bathroom is fitted with an electric toilet.

There are controls for the flushing and black water management. There is a sink with a showerhead and shelves with sliding doors.

All the fittings, mirror, finishes are in reasonable condition.



#### Windows, hatches etc.

Throughout the vessel there are opening windows, hatches and portholes. These are all original and some will need refitting or upgrading in the future. The side windows have leaked over the years causing some damage to the plywood panelling in the saloon particularly. As discussed these water damaged panels will be relatively easy to replace/repair

It may be the case that the sliding window drains are blocked or insufficient to handle heavy rain.



#### Thru hull fittings

All fittings appear to have been replaced in recent years and seem to be in good order.

In some cases the hoses have been fitted directly to the hull fitting without a stopper valve, which should be fitted for safety. Also any hoses under the water line should have 2 x hose clamps. Also the electric bilge pump is not marine grade and should be replaced at some stage.

#### Pumps, taps etc

Freshwater system

•	Galley sink	Ok	
•	Bathroom sink	Ok	
•	Head / shower tap	ОК	
Manual Bilge	pump	ОК	
Electric bilge	oumps	Ok	
Grey water		not tested	directly overboard & into bilge
Blackwater		not tested	directly overboard

#### On Deck

Cockpit flooring	the cockpit ar carpet	ea is covered with waterproof
Anchor winch	Lewmar	almost new
Winch controls –	at both helms	– foot button not working
Anchor – chain – lines	appeared in g	ood condition
Bow roller etc.	Solid roller as	sembly
Deck hatches & Portholes	All original (no	ot water tested)
Cockpit floor locker/s	easy access	

Canvas and clears	the cockpit and flybridge have had new covers fitted in recent years
Mooring cleats	there are large cleats at the bow and stern
Mooring lines	various on board
Fenders	various on board
Boat hook	sighted

#### Steering system

Туре	hydraulic steering system – fitted recently
Components	all accessible through cockpit floor locker

# <u>Tanks – fuel, water etc.</u> Fuel

275 litre (TBC) SS tank located under cockpit floor

??? litre (TBC) SS tank located in forward end of

Water

LPG

1 x gas bottle in galley

cockpit floor space



#### Haul out

Keelson, strakes etc.	appear undamaged
Antifouling	reasonable condition – some worn areas
Topsides	GRP needs polishing and gelcoat repairs
Blistering/osmosis	generally appeared free of blistering or damage
Sterndrive	appeared OK
Trim Tabs	ОК
Prop/s	Mercruiser duo prop – good condition
Anodes	all anodes were approx. 75% intact
Skin fittings – intakes etc.	Appeared to be clear of debris

<u>Notes</u>

- This vessel is stored in out of the water in the racking system at Cockatoo Island
- After use the vessel is washed and the sterndrive flushed



Engine/s	
Make	Mercruiser
Serial number	tba
Capacity	5.7/L 300hp
Fuel type	Unleaded
Engine hours	tbc
Service history	tbc
Drive system	Sterndrive
Exhaust systems	appeared OK
Fuel filters	appeared OK
Throttle control/s	needs adjustment
Engine mounts	solid and in good condition
Coolant hoses	appeared OK – some corrosion on 1 fitting
Engine Oil	not tested
Coolant	not tested
Idle revs	approx. 600rpm
Max rated revs	4800rpm
Max speed on test	approximately 30 knots in smooth water
Alternators charging	not tested

# Note –

• Engine history to be provided



Electrical systems	
System Voltage	12V DC
Switches	All switches appeared OK – some old
Bilge pumps	OK 2 x fitted manual control
VHF radio	OK – near new
Lighting	mostly original and working
Fresh water pump	ОК
Navigation lights	tested OK – except running light
Chartplotter	Hummingbird Wide 128
Depth sounder	ОК
Horn	not working
Hot water	ОК
Anchor winch	LEWMAR – near new
Anchor winch controls	at both helms – old deck foot button n/w
Trim tabs	ОК
Windscreen wiper	ОК



#### Batteries

Туре	Maintenance free
Capacity / Number	2 x 680cca 97a/h
Location,	under cockpit floor
Age & condition	Appear to be near new
Securing	Safe dry area – need to tie down
Cables etc.	Appear in good condition
Isolator switch/s	ОК



#### Safety equipment

Based on NSW minimum requirements - operator must ensure all safety items are onboard, serviceable and in date. Each state can vary slightly and required equipment levels must be met.

The following safety items were noted on board

Life jackets	located under seat in saloon
Anchor, chain etc.	Ok with 2 <sup>nd</sup> anchor under cockpit floor
Bucket/Fire bucket	various on-board
Bilge pump/s	manual & electric – tested Ok
Fire extinguishers	various
Radio	VHF
Safety labelling	some noted
Safety labelling Sound signal/ Horn	some noted horn not working
, c	
Sound signal/ Horn	horn not working
Sound signal/ Horn Hand bailer	horn not working

#### 4 Conclusions

This Mariner 38 is in good condition and appears sound and well built. The vessel also appears to not be used very much and has been upgraded and serviced regularly.

The current owner has endeavoured to keep all systems and equipment in good working order.

There appears to be no evidence of mishandling which means the vessel will continue to be serviceable and should hold its value.

The hull Gelcoat appears to be free of major damage and repairs.

Most of the he vessel and its equipment appear to be in in good condition and serviceable.

The recommendations below can be added to the continuing maintenance and service regime and preparation of the vessel.

#### 5 Recommendations

The following maintenance items were noticed and should be added to the on-going maintenance and service list to ensure on-going reliability of the vessel and the various systems and equipment on-board.

Items to resolve now

- Mechanical adjust throttle control so it stays in place
- Mechanical fix engine room blower
- Electrical horn not working
- Electrical check all navigation lights are working
- Safety check all safety gear is onboard to minimum standard

#### General maintenance & upgrades

- Maintenance redo antifouling especially bare spots
- Maintenance empty all lockers/bilges and remove all old mould and dirt
- Maintenance fix settee table mounting
- Electrical check and clearly label all electrical switches and breakers
- Electrical tie down both batteries
- Electrical remove any old or redundant systems
- Electrical tidy up wiring where possible
- General monitor side windows and hatches for leaks repair as needed
- General topsides and gloss areas need to be maintained and polished annually
- General replace any broken clips for canvas covers
- General tighten any loose deck fittings, aerials etc. and forward handrails

- General fill any unused holes to protect GRP incl. hole in bathroom wall
- General Thru hull valves look at fitting valves to through hulls

#### Things to consider

- Safety possible swap anchors spare maybe in better condition
- Safety fit a compass
- Electrical fit solar charging system
- Timberwork replace/repair any water damaged timberwork
- Anchor winch consider fitting foot button at bow
- Tankage confirm capacity of water & fuel tanks
- Flybridge ladder consider location options
- Gas supply consider moving gas bottle out of saloon
- Antifouling look at full soda blast and strip of old layers
- Galley finish removing old fridge timberwork perhaps fit a small fridge
- Hot water clean up tank and check corrosion repair or replace

#### 6 General Disclaimers

AMS aims to use our best judgment and adhere to accepted professional surveying practices and codes of conduct in the preparation of this report.

Due to design or construction techniques that limit access to deck heads, hull liners, bilges, and areas beneath and behind tanks and machinery, it is possible that we may not have been be able to evaluate all areas of the vessel.

Except where advised, nothing was examined that required removal or moving of structural components, cabinetry, or machinery.

No destructive testing of the vessel was conducted and no comment or opinion is offered regarding the on-going serviceability or condition of the machinery and equipment installed on this vessel.

If the machinery and equipment are not tested during survey, no comment or opinion is offered regarding their current serviceability.

AMS will not be held responsible for errors, omissions or inaccuracies resulting from any limitations to inspection. No comments or conclusions as to seaworthiness, stability or handling of the vessel have been made.

This report, which is covered by international copyright, is confidential and is non transferrable. It must not be copied, reproduced or transmitted in any form or given or sold to any third party without prior written permission