



Marine Surveys UK

"Pragmatic Surveys in Plain English"

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[Yacht surveyor](#), Affiliate member

YDSA, Full member BMSE, MECAL

MCA coding surveyor

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Survey Report no: [REDACTED]

Name of Vessel: "[REDACTED]"

Type of Vessel: Jeanneau, Sunsail Sunfast 37
FRP (fibre reinforced plastic) Bermudian sloop sailing
vessel

Type of survey: Pre-purchase

At the request of:

[REDACTED]

This survey was carried out on the [REDACTED] in the water and in slings at Port Solent Marine, Portsmouth, Hampshire, PO6 4TH, UK. The above named being a prospective purchaser of the vessel.



Limitations:

- ✚ Where access is restricted by fixed panels, linings etc. it was not possible to examine and I cannot say those areas are free from defects.
- ✚ This report has been prepared for the use of commissioning client and no liability is extended to others who may see it.
- ✚ In some cases it is not possible to detect latent and hidden defects without destructive testing which is not possible without the Owner's consent.

Scope of Survey:

- ✚ This is a Pre-Purchase Survey and its purpose is to establish the structural and general condition of the vessel. Where items of equipment have been tested this will be stated in the text.
- ✚ Camera equipment was used in places to view normally inaccessible areas and the pictures analysed to identify any issues.
- ✚ A general inspection of the engine and installation will be made; this is a visual inspection and also running the engine but not under loads. It should be appreciated that some components may appear serviceable but found to be defective when the engine is run for a long period of time.
- ✚ The hatches and port lights and decks were not leak tested with a hose.

Recommendations and advisory notes:

- ✚ Recommendations will be restricted to those defects which should be rectified before vessel is used, (or within a given time span if specified), and items which may affect insurability.
- ✚ ***Recommendations will be printed in bold italics for quick reference.***
- ✚ The recommendations are contained in the body of report in order that they may be read in context, and are also listed as part of the conclusions at the end of this Report.
- ✚ Advisory notes are suggestions to prevent a problem getting worse or general advice and do not have to be carried out before the vessel is used nor should affect the boats current insurability.

Conditions of Survey:

Vessel was examined in the water and for 1 hour in slings at the premises of Port Solent Marina having been afloat for the season. It was increasingly heavy rainfall during the survey.

No special conditions affected the survey other than as described in the text.



Report structure Information is reported in the Sections below. The report is structured so each section names the items, describes it, describes how it was tested then reports its condition with recommendations or advice following at the end of each section with a summary at the end of the report

Hull, Deck and Structure.

1. Details of Subject Vessel, (General Description, Dimensions, Registration etc.).
2. Keel.
3. Hull below Waterline.
4. Topsides above Waterline including Rubbing Strake etc.
5. Deck Moulding.
6. Coach roof.
7. Cockpit.
8. Hull/Deck Join.
9. Bulkheads and Structural Stiffening including Internal Mouldings.

Steering, Stern Gear, and Skin Fittings etc.

10. Rudder and Steering.
11. Stern Gear.
12. Cathodic Protection.
13. Skin Fittings and other through Hull Apertures.

On Deck.

14. Main Companionway and other Accesses to Accommodation.
15. Ports Windows etc.
16. Pulpit, Stanchions, Pushpit, Lifelines and Jackstays.
17. Rigging Attachment Points.
18. Ground Tackle and Mooring Arrangements.
19. Other Deck Gear and Fittings.
20. Davits and Boarding Ladders.

Rig.

21. Spars.
22. Standing Rigging.
23. Running Rigging.
24. Sails and Covers etc.

Safety.

25. Navigation Lights.
26. Bilge Pumping Arrangements.
27. Fire fighting Equipment.
28. Lifesaving and Emergency Equipment.

Engine.

29. Engine and Installation.
30. Fuel System.

Accommodation and onboard Systems.

31. Accommodation General.
32. Gas Installation.
33. Fresh Water Tanks and Delivery.
34. Heads.
35. Electrical Installation.
36. Electronic and Navigation Equipment.
37. Heating & Refrigeration



1. Details of subject vessel:

Sunsail [redacted] is one of a number of Jeanneau SunFast 37 yachts modified during construction by Jeanneau SA, 85500, Les Herbiers, France to make it suitable for the multiple charter uses Sunsail had, being Sailing School, Corporate events including match racing and bareboat charter. They were commissioned to meet the exacting standards of the MCA commercial craft directive. In 2005 I believe Sunsail purchased 40 of these yachts to join their existing fleet of similar vessels. It should be noted that names were reused so that older boats could not be distinguished from the newer yachts to the corporate clients. They are sturdily built, fast, competitive yachts although often not as competitive as privately owned versions due to the extra weight and less competitive sails.

Manufacturers' information from owner manual aboard (not verified by measurement)

Length Overall	10.95m / 35'11"
Length waterline	9.6m / 31'9"
Beam:	3.7m / 12'1"
Draft:	2.07m / 6'9"
Weight of lead	2040kgs / 4497lbs
French classification Category	A 8 Persons/ B 10 persons / C 12 Persons
CE Specification	0607

Boat specific information

Registration	British Full 9 [redacted]
Registered tonnage	10 ^{37/100ths}
HIN number	FR IRI 011 [redacted] B505
Year of Build	February 2005
CE	Category A, 8 persons, Beaufort 8 – 4m wave height Cat B = 10 persons Cat C = 12 persons

2. Keel

- a) The deep fin keel with bulb shape & flat based. It is made of lead, coated in epoxy, connected to the hull with Stainless Steel studs and Stainless Steel nuts though 'U' section lower grade Stainless Steel plates (magnetic).
- b) The keel is coated in one layer of antifouling and primer.
- c) The studs were tested by magnet and found good quality stainless steel.
- d) All nuts are also non magnetic, indicating good quality stainless steel. The nuts were hammer tested and the found sound.
- e) The keel is fair to the hull with no gap at the joint and no signs of damage or movement except where noted.
- f) The forward lower edge of the keel has slight grazes which can be filled or left.



- g) The bilge was wet, there is minor corrosion stains on the washers under the nuts. These scraped clean.

3. Hull below Waterline:

- a) The hull below the waterline is of solid FRP construction utilising chopped strand matt and woven roving. Some areas have had extra layers of GRP applied, visible in lockers, for extra strengthening. Jeanneau are also known to use Kevlar in the hulls for extra strength although I cannot find mention of specific layup for this model.
- b) The vessel was seen hanging in slings; no distortion was noted in the hull.
- c) Light hammer sounding was carried out (not heavy enough to damage anti-foul) of hull at regular intervals approximately 500cm spacing all over. No sounds of delaminating were noted.
- d) The antifouling was removed in 14 patches approximately 50mm x 50mm at random around the hull below the water line. The two layers of antifouling came away easily as did the grey primer. While scraping I was looking for evidence of wicking or blistering and once removed all patches were checked with 10x magnification. No evidence was found.
- e) There are no visible signs of significant damage or repairs to the hull below water line. There are some gel coat scratches port side amidships but not into the laminate.
- f) Moisture readings were taken where the antifouling was removed using a capacitance type moisture meter of Sovereign Quantum type, operating in both shallow and deep reading modes.

The meter was first checked for correct calibration.

The readings recorded below are from the meter operating in the shallow and also deep mode on the relative scale 0-100.

The readings are relative and **do not** express moisture content as a percentage of dry weight. High moisture content is not generally a structural defect, and is to be expected in older boats. However where some moisture has been absorbed the likelihood of moisture related problems occurring is higher, and the actual state of the laminate cannot be completely guaranteed without destructive testing followed by chemical analysis. The opinion given in this survey is based on all the evidence available at the time but without destructive testing.

The conditions prevailing when the readings were taken were as follows:

Air Temperature:	10.8°C
Relative Humidity:	80%
Time ashore	30 minutes
In summary the weather conditions for obtaining moisture readings were poor	

Readings were as follows:



Meter	Range below waterline.	Range above waterline.
Sovereign Quantum, Scale A, 0-100 Shallow mode	18- 26	17
Deep Mode	19 – 32	18

The interpretation of the readings in shallow mode range;

- 0 – 15 : For all practical purposes may be considered dry.
- 16 - 20: Some moisture present at low levels but of no great concern.
- 21 - 30: Considered medium, but those at the top of the range i.e 30 are at the point where the risk of moisture related defects developing is significant.
- 31- 45 Considered high and at a level where the risk of moisture related defects being present but not yet physically detectable is significant.
- 46 – 60 Very High and will usually be accompanied by physically detectable signs. Likely to be accompanied by a significant increase when switching to deep mode.
- 61 – 100 extremely high and indicative of possible laminate damage in addition to osmotic blistering. Likely to be accompanied by a significant increase when switching to deep mode.

These readings need to be considered in conjunction with the period the vessel has been ashore and the weather conditions when obtained. As a rule of thumb you can expect the levels to drop by one range after a few weeks ashore.

The difference between readings above the water line (normally dry) and below it should be noted.

Always storing the boat ashore out of season to allow some natural drying out to occur will contribute significantly to maintaining condition.

4. Topsides (hull) above the waterline and below the deck level:

- a) Top sides are of solid FRP construction utilising chopped strand matt and woven roving along with some fine fibre matting finished in white gel coat.
- b) The topsides were lightly hammer sounded and no indication of voids found. Moisture readings were taken and recorded as above.
- c) The topsides were found fair with no visible signs of significant damage although it is suspected that the topside stem has been professionally repaired as the anchor locker has signs it has been cut away to allow access to the inside of the stem.

5. Deck moulding:



- a) The deck is of FRP with some areas of sandwich construction with end grain balsa core stiffening along with core mat. There is a full FRP inner liner applied to underside of deck restricting access to many areas including underside of foredeck. Where seen, load bearing fittings are through bolted with stainless steel bolts, nuts and large penny washers and can be seen when you remove headlining panels.
- b) The gel coat is white with moulded in non slip, there are no signs of pitting caused by UV or aggressive cleaning agents.
- c) The whole deck was carefully tested underfoot and was lightly hammer sounded
- d) Moisture readings were unable to be taken due to the rain.
- e) There are a number of areas of stress crazing areas in the gel coat including- starboard side deck, around some stanchion bases, at the forward spinnaker block attachment starboard side. In these areas the deck sounds hollow, indicating that the FRP has separated from the foam / balsa core section below it.

Advisory note – Star and stress cracks in the gel coat, if not repaired should be heavily waxed to prevent water ingress into the laminates. To repair, because of the non slip pattern a skilled repair with a mould is required. The hollow areas should be dried out, the foam drilled and again dried out and then injected with epoxy resin to build the strength back. There are some good books detailing these repairs available.

6. Coachroof:

- a) Integral with deck moulding and constructed in the same way.
- b) The whole area was carefully tested underfoot
- c) Hand rails were tested with a lever and found secure except where noted.
- d) The flowing areas of coach roof have delamination of core material noted. Port side inline with front of sliding hatch, section 60mm x 150mm, starboard side of mast, port side by turning block by filled holes.

Advisory note:- The same repairs as required for the deck above should be carried out.

7.Cockpit:

- a) Integral with the deck moulding and of self draining type through transom.
- b) 2 shallow lockers to port and starboard. Both have securely hinged lids and positive method of closure.
- c) Port locker has screwed on access panel into area where bilge pump is mounted and so pump could not be seen.
- d) Aft starboard deep lazarette locker giving good access to steering gear and inside of transom. Well hinged and secure method of closure.
- e) Port aft locker houses gas locker with hinged lid and secure method of closure.
- f) Transom seat lifts out, and is attached by lanyard. It does not fit securely as forward fittings are missing.
- g) Cockpit sole was checked underfoot and locker lids security checked.
- h) There are stress cracks in the cockpit sole (base) around the steering pedestal.



Advisory note: f) Aft seat moulding does not securely locate and should be kept in the down position until repaired

8. Hull/Deck Joint and Toe Rails

- a) This is mechanical type. The hull moulded with a lip at the top, the deck sits on this bonded with a flexible paste and screwed through with large Stainless Steel self tapping screws, hidden by the toe rail which is also screwed through the deck and hull with smaller stainless steel self tapping screws. The stanchion post bases are also bolted through this. Access has been made fairly easy as the inner lining stops short of the edge but viewing is very limited by others linings etc but where seen joint found in good condition except where noted below.
- b) The toe rail is in sections, 3 each side. Found fair to hull except where noted below. Port forward and midships are gold anodised and the others are silver anodised suggesting the silver ones have been replaced. Port forward sections has have dents. Starboard aft section has been joined and starboard midsection is not flush to fairlead.
- c) Around the transom join rubber protection is fitted. No indication of damage below.
- d) There are a number of leaks in the boat from what appears to be the hull deck joint / toe rail fixings. These are port side amidships, starboard side above galley.

Advisory note- The boat is very damp particularly. The source of the leak needs to be found and sealed. This is probably the toe rail screws. It should be noted that the boats were designed for easy changing of the toe rails as they often get damaged in charter use.

9. Bulkheads and Structural Stiffening including Internal Mouldings:

This is a Monocoque (single box) construction and a number of components contribute to the overall structure.

- a) The shell mouldings are robust in the first place.
- b) There are a number of large floors well bonded to the hull throughout the length of the hull. (Floors are heavy transverse frames across the centreline but not continuing full height to deck level).
- c) There are two longitudinal rails either side of the keel area, and further longitudinal rails on the hull, at the waterline and halfway up the top sides running full length of vessel.
- d) The forward and aft bulkheads are bonded on most sides, however only give partial strength, most of the strength coming from the floors and longitudinal rails
- e) Some locker sides are bonded to each other and the hull and so perform a part structural role.
- f) Knees (FRP Boxes moulded from the hull) are attached to the hull to take the chainplates.
- g) The cabin soles were lifted, all floors visually checked, all lockers opened and bonding checked. No stress cracks, fractures or failure of bonding was noted.
- h) The mast compression loadings are transferred onto a solid glass or bonded block in the hull just forward of the keel. There is a further longitudinal running forward of this. No distortion noted in the hull at this point.
- i) The cabin sole sits onto a plywood under sole. This is intact.



- j) All possible access to the structure was examined either directly, by mirror or camera. The edges of the bulkheads were spike tested for moisture.
- k) No issues in structure were found, the lower edges of the wooden bulkheads are starting to draw up water and discolour.

10. Rudder and Steering:

- a) The blade rudder consists of a moulded blade around a stainless steel stock. The rudder tube is FRP and bonded to the hull and supported by webs. There is a bearing at the top. The steering quadrant is fitted to the stock and wire 1x19 cables attach this to the Goyot wheel and pedestal around pulleys below the cockpit floor accessed through a removable panel in each aft cabin.
- b) Emergency tiller was seen in cockpit locker and fits through cockpit floor.
- c) Everything was visually checked, items that could be vigorously turned, twisted and hammered were.
- d) There are no signs of damage from grounding seen. There are no splits of the edges of rudder and when leant on with full body weight I could not open the joint.
- e) No movement was detectable between the blade and stock where it emerges from the top of the blade when the strength of one man was applied to the trailing edge of the blade with the wheel locked in position.
- f) There is play in the lower and upper bearing causing movement of about 2mm at the top of the blade.
- g) There is excess play in the bearing of the Goyot wheel. The pedestal is firmly mounted and does not flex when leant hard against.
- h) Access to the rudder stock and fixing was restricted by fixed panels although one panel was removable making access easier. Pictures were taken through the spaces and checked.
- i) The steering cables are correctly fitted.
- j) Rudder has the same antifouling coatings as hull. Two patches were removed each side as per hull. Moisture readings were 18 - 30 shallow and 24 -34 deep.

Recommendation:- The wheel centre bearing should be replaced as the play is excessive and could fail.

11. Stern Gear:

- a) Two bladed yellow metal propeller on low grade stainless steel shaft secured with bronze nut with locking tab washer.
- b) The propeller was scraped and struck on edge and with hammer. There are no signs of dezincification –it scraped shiny and the edge was firm.
- c) Test with magnet confirms shaft to be of low grade stainless steel. Shaft rotated by hand, appears true with no binding of bearings present.
- d) The shaft is supported by a bronze P Bracket, found secure, hammer tested and scraped and appears in good condition with minor sign of dezincification. Inside the boat the bonding can be seen and is supported. It is fully encapsulated. No signs of movement.
- e) There is a rubber cutlass bearing mounted in the P bracket. The shaft was lifted up and down and play of about 2mm was noted



- f) Stern gland and seal. This is Volvo lip seal, attached to the stern tube which is bonded into the hull. The security of the stern tube was tested with hammer and appears sound. Good stainless steel band clamp with bolts were all hammer tested and viewed underside with a mirror. The seal were checked for splits and as far as can be ascertained are in good condition although there was some water in the bilge under the gland.

Advisory notes: e) Cutlass bearing should be replaced next time boat is hauled to prevent vibration.

12. Cathodic Protection:

- a) There is a no hull anode designed on this boat.
- b) The propeller nut anode is missing.
- c) There was a shaft anode fitted although which was partially wasted.
- d) Both anode fixings were tested for continuity to the propeller, shaft and stern gland which was confirmed. They did not protect the rudder shaft but it has no signs of corrosion.

Advisory Note:- Replace shaft anode before using for more than a month.

13. Skin Fittings and other through Hull Apertures:

Some thru hulls may not be reported below but will be with relevant systems sections. No skin fittings or valves were dismantled as part of this survey but the following routine tests were carried out:

- ✚ Examination from outside and inside the boat. Checked for de-zincification
- ✚ All valves open and closed to their full extent where possible.
- ✚ Any fixing bolts hammer tested where accessible.
- ✚ Bodies of metal valves or sea cocks tested with a hammer inside the boat and external parts hammer tested outside the boat.
- ✚ Fittings aggressively tested inside the boat for security in the hull.
- ✚ Hose clips inspected and hoses aggressively tested for security. 2 clips correctly fitted on outlet spigot unless noted.
- ✚ Lying fair to hull unless noted

Below Waterline:

- a) Toilet outlet: Yellow metal skin fitting with DZR ball valve. (DZR is De-Zincification Resistant)
- b) Fridge system over flow. Yellow metal skin fitting with DZR ball valve.
- c) Heads water inlet. Yellow metal skin fitting, with DZR ball valve.
- d) Heads Sink drain: Yellow metal skin fitting and DZR ball valve.
- e) Shower drain: Yellow metal skin fitting and DZR ball valve.
- f) Engine seawater inlet: Yellow metal skin fitting and DZR ball valve.
- g) Blocked off Yellow metal skin fitting
- h) Galley sink drain: Yellow metal skin fitting, with DZR ball valve.



- i) Fridge sea water intake: Yellow metal skin fitting, with Delrin valve
- j) Sea water intake for galley. Yellow metal skin fitting. Bronze change over valve for galley or fridge pump out.
- k) Log and depth thru hulls. Raymarine Plastic thru hulls.

Advisory note:- There is minor corrosion on most of the clips and it would be advisable to change all of them once the bilge remains dry.

Above Waterline:

- l) Plastic thru hulls below toe rail for bilge pumps not accessible inside except through deep lazarette locker so not seen. Plastic acceptable in this case as no chance of internal damage and high up.
- m) Diesel and water tank breathers high at waterline.
- n) Gas locker drain: Stainless steel in transom. Thru hull.

14. Main Companionway and other Access to Accommodation:

- a) Main companionway access hatch is of sliding Plexiglas, in good condition and secure in its runner.
- b) Single Wash board of Delrin in good condition. Slides in place in aluminium extrusion and remain in position without companionway hatch being closed except in inversion condition.
- c) Fore hatch & Saloon hatch Goyot both forward hinged, Plexiglas in fair condition, some scratches from cleaning, both have secure means of closure, gaskets intact although forward gasket is starting to wear in places. Aluminium surrounds good and well secured. Both have ventilators fitted securely. Size 500 x 500 is good means of secondary escape.

Advisory note: - Fore hatch has small cut in aft side of rubber gasket and there is evidence of Duck Tape been applied indication the hatch may leak..

15. Ports, Windows etc.:

- a) Saloon windows are Plexiglas all in good condition, no cracks.
- b) 6 Gebo opening port lights, 1 x heads, 1 x galley, 2 in each aft cabin, one in each opening to cockpit. All opened and closed vigorously, screws checked for tightness, gaskets checked, catches checked. All sound.

16. Pulpit, Stanchions, Pushpit, Lifelines and Jackstays:

- a) Pulpit. Bolted to deck with stainless steel nuts and bolts with washers underneath. All tested with full body weight and visually checked.
- b) Pushpit. Bolted to deck with stainless steel nuts and bolts with washers underneath. All tested with full body weight and visually checked.
- c) Stanchions. In stainless steel set in alloy bases. The bases are designed so stanchions are slightly loose to avoid corrosion and easy draining. All tested with full body weight and visually checked.
- d) Life lines. Of stainless steel wire, tested with magnet and securely attached.



- e) Jack Stay U bolts. 2 forward and two aft on coach roof. All tested with lever and found sound. Webbing no signs of fraying but has been exposed to weather for many months and the stitching can degrade in UV.
- f) 4 x Life line attachments in cockpit. Tested with lever and secure.

Advisory note: Aft legs of pulpits and inboard legs of push pits are a little loose but secure when tested. Tighten from underside.

Recommendation:- *starboard lower guard rail wire is kinked amidships and should be replaced.*

17. Rigging Attachment Points:

- ✚ All attachment points were tested visually with 10 x magnification
- ✚ Nuts and bolts struck with hammer against sheer where possible
- ✚ Checked with magnet for quality of steel where possible
- ✚ Fittings tested with a substantial crowbar on wood block

Unless noted below, no movement found. No sign of seepage via deck fittings.

- a) Main cap and lower shrouds attachment points. These consist of substantial Gibb deckplate in stainless steel through the deck and attach to steel rod (low grade Stainless Steel) which in turn attaches to substantial bracket through bolted to knees bonded to hull and floors. The deck plates were lying tight to the deck. There are signs of seepage via deck fittings on starboard side. The nuts were tested with a spanner and hammer and found secure.
- b) Main forestay. Stainless steel fitting runs down stem head and is attached with 4 stainless steel bolts in sheer.
- c) Split backstay attached to Gibb "u" bolt attaching points going through deck joint at transom, with backing plates across both bolts and nyloc nuts.

18. Ground Tackle and Mooring Arrangements:

- a) Main bow anchor. This is Delta type with 10mm chain and 14mm 3 strand warp. Chain not laid out and examined link by link. Bitter end attachment not seen.
Advisory note:- The first meter of chain is badly corroded and should be replaced.
- b) Second anchor – Plough anchor, chain and warp seen in cockpit locker. Both shackles are rusted and should be replaced.
- c) Stemhead fitting is stainless steel and secured through deck with Stainless Steel bolts. Hammer tested and no sign of major damage. Single bow roller attachment. The pin that fits in the bow roller to prevent the chain jumping off is missing.
- d) Vessel has aluminium cleats fore and aft of adequate size through bolted the laminate. All hammers tested, levered and found secure.
- e) Anchor locker lid is hinged and has secure means of closure.

Advisory Note:- c) Fit new pin



19. Other Deck Gear and Fittings:

- a) All found of adequate size and securely through bolted, although inspection from under limited by linings.
- b) The following winches fitted were all tested as far as possible but not under load.
 - a. Coachroof, 2 x 2 speed Harken Self tailing primaries &
 - b. 2 x 2 speed Harken self tailing secondary.
- c) Deck hardware all of good quality and specification, and all are serviceable except where noted.
- d) Genoa tracks and cars operated correctly.
- e) Mainsheet jammers and cleats all functioning.

20. Davits and Boarding Ladders:

- a) Vessel fitted with folding stainless steel boarding ladder with 2 Delrin steps and stainless step extending below water line for easy boarding from water. No signs of wear and secure when pulled and climbed on.

21. Spars:

Mast

- a) 19/20th Twin spreader fractional rig keel stepped. The mast was stepped so inspection is restricted to fittings and area to head height. It is a Z Diffusion mast; silver anodised no signs of corrosion around base or fittings except where noted. No damage or distortion to the extrusion was noted.
- b) Mast boot jubilee clip is secure.
- c) Mast base checked in cabin, no faults noted.

Boom

- d) Silver anodised in similar condition to mast.
- e) Main sheet and kicking strap attachment points secure.
- f) Goose neck has been strengthened at the sides and has no wear at the bottom.

Boom vang

- a) No faults noted. Fixing to mast strengthened with plates as gooseneck.

Spinnaker pole

- a) Parrot beaks intact and pistons operate although stiff. Pole is not bent but is marked.

22. Standing Rigging:

- a) Mast shrouds and back stay 1x19 wire. Originally the shrouds would have been "Dyform" type indicating they have been replaced at some stage.
- b) Rigging could only be checked at deck level. These were examined where the wire enters the terminal under 10x magnification, no broken strands visible nor excess corrosion seen.



- c) The rigging screws are Gibb chrome plated bronze open bodied type and all had split pins securing them. They were well tapes but where visible, were found free from distortion or visible stress cracks, again under 10x magnification except where noted.
- d) Genoa furling system – sail was fitted, turned by hand and no faults noted.

23. Running Rigging:

- a) Running rigging appears in good condition with most ends burn closed, just a couple of ends need doing.
- b) Halyards will need to be pulled down to check where running in mast.

Advisory note:- This is considered a consumable by Sunsail and likely to have been replaced many times in the life of the yacht.

24. Sails and Covers etc:

- a) Main sail. Made by Quantum. Viewed furled on boom. Looks in reasonable to good condition.
- b) Genoa. Made by Quantum. Viewed furled on furling system. Similar condition and age to mainsail.
- c) Storm tri-sail in bag in locker, hardly used.
- d) 4th sail by Elvstrom furled in lazarette. Possibly number 3 genoa, appears well used with stitching missing

Advisory note:- Main and genoa were changed minimum every two 2 years sometimes annually by Sunsail.

25. Navigation Lights:

Vessel fitted with lights of correct size, securely mounted and seen working unless noted.

- a) White on stern
- b) Port and starboard separate lights on pulpit.
- c) Steaming light on mast.
- d) Mooring light at mast head

Advisory note:- Bow lights are held on by tape and cable tie. More permanent attachment suggested.

26. Bilge Pumping Arrangements:

- a) Manual bilge pump, mounted in cockpit locker, operated from cockpit. Operated. Could not access back as mounted behind screwed panel. No strum box fitted.
- b) Electric bilge pump, 28 GPM operated from main switch panel with no strum box. Tested and worked. Pump mounted under chart table with inline filter.

27. Fire-fighting Equipment:



- a) There were the following fire-fighting appliances found onboard.
 - a. 4KG Powder in cockpit locker. Service due marked 2014
 - b. 1 KG Dry powder in each of aft cabins and forepeak. All showing green on gauge.
 - c. Fire Blanket in galley
 - d. Two fire bucket with lanyard in lazarette
- b) There is an access point in the engine compartment to discharge an extinguisher without removing the steps.

Advisory note:- All extinguishers should be serviced after 5 years or replaced which is sometimes cheaper.

28. Lifesaving and Emergency Equipment:

The following was seen aboard.

- a) 2 Horseshoe lifebuoy both with floating lights, one with throwing line.
- b) Life raft service due now.
- c) Life jackets – not checked.

Advisory Note: I do not include personal life saving devices in survey

The RNLI operate an excellent free inspection and advice service concerning levels of safety equipment (SEA Check) and can be contacted on 08003280600 or via the RNLI website, www.rnli.org.uk.

The RYA also publish a booklet, G16, "The Boat Safety Handbook" and this specifies levels of Safety Equipment for different categories of use and it is recommended this vessel be equipped to the level appropriate to proposed use.

Booklet is obtainable from nautical bookshops or direct from the RYA, www.rya.org.uk.

29. Engine and Installation:

- a) Engine is Yanmar 3YM30 fresh water cooled. Number E03548 Noted on engine plate.
- b) Engine hour meter LED not displaying.
- c) Engine was started, run for a period of 20 minutes, stopped, gears engaged.
- d) Engine bilge is fairly clean. There are no obvious signs of oil leaks.
- e) Engine exhaust gases colour is clear indicating no issue with injectors or compression.
- f) Oil on engine dipstick while thick black, is smooth and at correct level.
- g) Oil level on gear box is correct
- h) Exhaust water trap box is securely attached. Exhausts elbow is corroded with signs of water leak below. Engine mounts are Yanmar flexible and are secure.
- i) Engine is ventilated by two 100mm diameter pipes that outlet on the transom with fan in one hose.
- j) Fresh water has brown coolant.
- k) Engine throttle and gear control well mounted and operates. Fittings at engine are secure.



- l) Around port back of engine under the exhaust outlet pipe there is minor corrosion on the engine and on the engine mount below caused by water. There is no running water noted.
- m) Around the water pump there are signs of corrosion.

Advisory note – I suspect the rear cover of the heat exchanger is or has been leaking. And further investigation is required. Likewise around the water pump it is possible that it is leaking slightly around the seals. Yanmar advise that the leaks around the gasket on the heat exchanger caused by scaling up of the internal tubes can be prevented with the correct cooling fluid additive. The correct coolant options are: Texaco XLC and Yanmar Genuine Coolant (pink in colour).

30. Fuel System:

- a) Fuel filler is on deck and secure.
- b) Polyurethane tank, mounted in starboard aft cabin under berth.
- c) No smells of diesel
- d) Fuel tank is vented through hose which is swan necked and through stainless protected vent on aft quarter. Securely clipped.
- e) Fuel tank remote shut off mounted in lazarette locker and operates well.
- f) Fuel hoses from tank to primary filter, to lift pump to engine and from engine return to tank are all metal braided fuel hose. These are slightly corroded at the forward end. There are no signs of leaks and they do not fracture when bent.
- g) Racor fuel filter behind engine securely fixed.
- h) No signs of fuel leaks on engine.

31. Accommodation General:

- a) The inside was damp under the cushions in the forepeak. The saloon and aft cabins were dry.
- b) The bilge has about 100mm of clean water in it which I suspect is rain water.
- c) Lockers behind berths have black condensation mould in them.
- d) Visible wood – i.e bulkheads are in good condition, fiddles around tables is losing varnish.
- e) Underberth wood is damp particularly in the forepeak.
- f) Headlining is clean and good with area dropping above galley.
- g) Cushions are vinyl. Berth cushions appear ok.
- h) Most hinges are secure, some locker catches need adjusting and some are missing.

Advisory note:- Interior of boat needs to be thoroughly dried out and cleaned to prevent further damage.

32. Gas Installation:

This vessel has been MCA coded. It was built RCD/CE compliant.



Irrespective of the above all gas systems are subject to the checks listed below as part of this survey. Recommendations will be made where there is an obvious serious safety issue and these must be carried out before use. Suggestions will also be made where appropriate to enhance safety criteria, particularly with systems where there is no mandatory requirement to conform to a standard. It must be understood however that some Insurance companies require a declaration from the assured that the gas system conforms to *current* standards and if that is the case here upgrading may be required as a condition of the insurance policy.

Sources of further information:

www.calormarineshop.co.uk/rules-regs-answer.htm Comprehensive information on standards and best practice. www.boatsafetyscheme.com Even if your boat is not required to comply with this standard it contains much sensible advice and the manual can be downloaded.



Gas Observation and action table

Item	Result	Action required.
Condition and efficiency of self draining bottle storage	Bottles are mounted in sealed locker in port aft quarter, with 18mm Ø drain exiting transom	
Age and condition of flexible hose at bottle.	Hose European not marked. Does not show signs of perishing when bent back. Correctly fitted with pressed fittings and single clip on regulator.	<i>Gas hose should be replaced as more suspect more than 5 years old.</i>
Age and condition of regulator	Fair	
Connection to copper pipe	Correct gland	
Condition of copper pipe where accessible	Not seen as behind joinery.	
Is pipework adequately supported and not under stress where accessible?	Not seen	
Connections and Flexible pipe to cooker and other appliances	Hose European not date marked.	<i>Gas hose should be replaced as more suspect more than 5 years old.</i>
Is cooker gimballed?	Cooker is gimballed and crash bar fitted.	
Are all appliances fitted with flame failure devices on all burners, and did these work properly under test?	FFD on burners and stove, not seen working.	
Are any appliances requiring flues properly fitted with same?	N/A	
Is a gas alarm fitted?	Yes.	Red light comes on when activated but no audible alarm.
Is each appliance fitted with an isolating tap	Cooker yes in locker below	
If fitted did leak bubble tester function?	N/a	Consider fitting bubble tester.

Additional Observations:

None

Please note this survey is not a gas safety certificate, that is only obtainable after comprehensive pressure testing and assessment by a qualified person listed on the Gas safe register (formally CORGI) www.gassaferegister.co.uk



33. Fresh Water Tanks and Delivery.

- a) 2 x Fresh water tanks, solid plastic mounted in forecabin 150L and port aft cabin 186L. Clips checked where visible and secure.
- b) 2 change over valves connected to accumulator tank, flow jet automatic pressure pump, 2 litre accumulator tank and pump guard in line filter. All mounted under chart table.
- c) Hot water tank from engine and also 240v. Well mounted and clips secure. No signs leaks.
- d) Taps operated at galley and heads. Heads pressure a bit low. Hot water tested.

34. Heads:

- a) Toilet is a Jabsco PAR ITT with locking handle, mounted below waterline
- b) No signs of leaks.
- a) Hoses have good Swan necks in pipe to underside of deck.
- b) Pipes securely clipped to toilet.
- c) Shower pump operates.

35. Electrical Installation:

DC circuits

- a) 12v alternator, charging
- b) Two batteries normally located in starboard aft cabin underberth in locker. 1 Optima sealed 12v 55ah, starter battery and domestic battery is missing. In plastic boxes, no lids but gasket around locker lid. Straps to secure. Wiring tight and neat.
- c) Individual battery isolator switches for each battery, negative circuit and a shunt switch.
- d) Electronic Isolator fitted.
- e) Fuses for gas detector and others behind engine steps, all neat and well laid out.
- f) All circuits have circuit breakers doubling as switches on panel, no sign of extras fitted, all factory fitted as far as I can see.

240v Circuits

- a) Not tested.
- b) Professionally installed 240V system. Socket is in Starboard lazarette locker with approved RCD circuit breaker all professionally fitted.
- c) 240V water heater and sockets in cabins.
- d) Battery charger, in aft cabin
- e) Shore power has circuit breakers on instrument panel for battery charger, water heater, Fridge.

36. Electronic and Navigation Equipment:

The following was seen aboard operating

- a) Raymarine GPS RN300 – could not get fix for satalite.
- b) Raymarine Tri data – depth, log, sea temp.
- c) Raymarine Ray54E DSC VHF
- d) Tacktick wind display – removed and on chart table.



- e) Plastimo binnacle compass
- f) Clock and Barometer

37. Heating and refrigeration

- a) Fridge is CLD Marine sea water cooled with large tectonic plate in ice box. This did not work. The return water hose is disconnected and the water pump, while new, is not mounted correctly and wires are not attached.

Advisory note - This is a good system, one of the best so worth getting looked at before replacing.

- b) No heating.



RECOMMENDATIONS and CONCLUSIONS:

Maintenance Overview:

Cosmetic maintenance: The boat has been cleaned up and is looking quite good compared to others seen in same fleet. These boats get annual refit time. The number of star cracks is significant. The dampness of the accommodation and the black mould in lockers should be attended to

Technical Maintenance: I suspect the engine and gear box and mechanical systems will have been well maintained as is often the case with charter companies as with the rig. Toe rails and gel coat etc require more maintenance now.

List of Recommendations:

The Recommendations made in the Report are listed below with their respective section numbers. *All Recommendations should be carried out before use of vessel or as stated.*

10. Rudder and Steering:

The wheel centre bearing should be replaced as the play is excessive and could fail.

16. Pulpit, Stanchions, Pushpit, Lifelines and Jackstays:

Starboard lower guard rail wire is kinked amidships and should be replaced.

32. Gas Installation:

Gas hose should be replaced as more suspect more than 5 years old.

Conclusions:

Sunsail ■ is one of the better prepared and maintained Sunsail Sunfast 37's I have survey. Apart from the soft areas on the coach roof, the rain water leaks and the recommendations above little is needed to get her to be a good family boat.