

'Yacht Name'



ANCHOR HOUSE  
MARINE SURVEYS

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## **Full Condition Survey Report**

### **Hallberg Rassy Rasmus 35**

(Yacht Name)

Hamble Point Marina, Hanble, UK

Monday 21<sup>st</sup> and Tuesday 22<sup>nd</sup> January 2019

Prepared on Behalf of the Owner



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## Summary

'██████' is a Hallberg Rassy Rasmus 35 built by Hallberg Rassy, Ellos, Sweden to a design by Olle Enderlein. She was found to be in overall good condition for her age and showing evidence of having had regular use but with various areas requiring servicing / maintenance. She has had various updates to her systems but appears not to have been altered from her original overall design. The main summary of points is as follows:

1. The topsides, deck and superstructure are in overall good condition structurally with only minor defects such as topside paint chips and various small stress cracks but no signs of any major damage or repair. The internal structure where seen is clean with no evidence of any movement though the bilge and tank areas contain salt and fresh water.
2. Hull coatings are generally smooth overall though there are various areas of antifoul flaking and detachment. The outer bottom laminates were tested for moisture content and the resulting readings were all in the low scale though the rudder has areas of high moisture.
3. The encapsulated keel is sound externally but internally contains areas of fresh and salt water around the keel based tanks.
4. The stern gear is in a serviceable condition overall but the cutlass bearing has strong play.
5. The rudder is still damp from leaking salt water and it is rubbing on the lower support with strong play present in the support connection. Internally, the quadrant has play present and the rudder trunk gland is leaking.
6. The masts and rigging are in generally good order but various rigging block shackles need the pins wired to prevent accidental unscrewing and the mizzen mast shroud reinforcement plates are showing corrosion and the support blocks slowly collapsing.
7. All seacocks are in good order and are 'CR' (corrosion resistant' marked where seen.
8. The gas hose is almost out of date and the forward electric bilge pump does not work.
9. The electrical system is in good overall condition.
10. The fuel system is in good overall condition.
11. The engine is in overall good cosmetic condition with no leaks noted.
12. There is no engine compartment based fire extinguishing system or gas alarms fitted.

This is a nice overall example of a Hallberg Rassy Rasmus 35 and with all servicing and maintenance issues addressed, with some as a priority, '██████' will continue to give good service for many years.

Within this report, any issues found are graded for your information according to severity as:

### **"Urgent Recommendation"**

Must be done urgently before re-floating and certainly before any use is made of the vessel.

### **"Recommendation"**

Should be done at the earlier of next docking or within twelve months or such other time scale as may be specified.

### **"Suggestion"**

For information and consideration but not particularly significant to safety at this stage.

### **"Note"**

For information only.

‘Yacht Name’

## Circumstances

The survey was carried out on the 21<sup>st</sup> and 22<sup>nd</sup> January 2019. [REDACTED] was inspected ashore at Hamble Point Marina, Hamble. The masts and rigging were standing. The weather at time of inspection was overcast, dry, 6°C with light north westerly winds. The survey was carried out on the instruction of the owner [REDACTED] to ascertain the condition of the yacht and produce a report.

No fastenings were drawn and no paint was removed above the water line externally. A few areas of paint were removed below the waterline. Moisture meter readings were taken to determine the moisture content of the hull laminate. The hull was examined externally above and below the water line and internally where accessible, elsewhere internal mouldings prevented examination. The cabin soles, bunk boards, hatches and portable joinery were removed as necessary to gain access to the interior of the vessel. The engine was not stripped, the tanks were not opened unless stated, nor their capacities checked. The batteries and the electrical systems were tested including interior and exterior lights. Equipment and interior fittings were tested as far as practicable and as described below.

**Please note:** This condition report is correct as per the date of survey stated above and as such, it cannot be guaranteed for any time after the survey was undertaken.



‘Yacht Name’

## Description of the Yacht

‘[REDACTED]’ is an all glass fibre construction, round bilge, encapsulated keel, sailing yacht. She has a raked entry and a counter stern, carrying her maximum beam aft of amidships.

She was built by Hallberg Rassy, Ellos, Sweden in 1978.

The yacht’s principle dimensions as supplied are set out below:

<b>Length overall</b>	10.52m
<b>Length of waterline</b>	8.41m
<b>Beam</b>	3.05m
<b>Draft</b>	1.30m (approx.)
<b>Displacement</b>	5.40 tonnes (approx.)
<b>Engine</b>	Beta 43 4-cylinder diesel
<b>Fuel capacity</b>	238 litres (approx.)
<b>Water capacity</b>	265 litres (approx.)
<b>Stern gear</b>	Conventional shaft drive
<b>Yard no</b>	Rasmus 674
<b>SSR</b>	SSR 64347



**Hull**

*Hull:*

All GRP construction with raked entry and round bilge with a shallow bilge running aft to a reverse counter stern. She has an encapsulated keel and her maximum beam is carried just aft of midships. The hull is in good condition overall.

*Port Topside:*

This is in white painted GRP with a slight knuckle above a navy blue cove stripe, a teak topped toe rail and a navy blue antifoul waterline stripe. The topside is generally clean but there are areas of small paint chips aft and some rub marks forward but there are no signs of any major damage or repair. The teak toe rail has rub marks in areas, is outwardly proud at the join forward and there are areas of poor sealant / gaps in the sealant on the underside. There are no fore and aft sling tags present.

*Starboard Topside:*

This is in white painted GRP with a slight knuckle above a navy blue cove stripe, a teak topped toe rail and a navy blue antifoul waterline stripe. There are areas of small paint chips aft, an area of scrapes at midships at the waterline, a long scrape forward of midships and a scratch aft of forward but there are no signs of any major damage or repair. The teak toe rail has rub marks in areas, is outwardly proud at the join forward and there are areas of poor sealant / gaps in the sealant on the underside. There are no fore and aft sling tags present.



**Fig.1** – topside paint peeling / chips.

*Bow:*

This is sound but there is a small area of paint detachment to starboard of the chain plate.

*Transom:*

This is in white painted GRP and is in overall clean cosmetic condition though there are some light scuffs / rubs on the port side and previous fixings holes are visible around the bathing ladder. There is an area of scuffing / paint detachment on the starboard edge but there are no signs of any major damage or repair. The teak fender is securely fitted.

*Attachments:*

There is a centrally located, folding, stainless steel bathing. This is secure and extends to 300mm below the waterline. There is light surface corrosion on the underwater portion and fixings and there are light rust runs from the port securing bracket on the transom.

**Recommendation**

Add sling tags below the teak capping and reseal the underside of the capping.

**Recommendation**

Repair the topside defects.

**Recommendation**

Repair the starboard side scuffing.

**Coatings:**

The antifoul is in black, smooth in appearance and adhering generally well though it is flaking and detaching in areas. The hull has been faired and primed and whilst there are coatings between the fairing and antifoul, these need to be confirmed as they are not the usual 'International' Gelshield colours.



**Fig.2** – hull coatings make up layers.

**Gel Condition:**

The hull gel was inspected and is smooth with no signs of any damage, delamination or blistering.

**Hull Below Waterline:**

Moisture readings were taken with a 'Protimeter' Aquant 2 meter at more than 100 positions over the outer bottom area and these mainly produced readings of 70 – 160 which is in the low scale. However, the areas around the rudder top and bottom connections produced medium to high readings and the antifoul is still damp from slowly leaking out salt water. The scale used is 0 – 160 (dry) / 161 – 200 (medium) / 201 – 999 (wet).

**Keel:**

The keel is an encapsulated, steel type and externally this is in a sound condition, showing no signs of cracking or movement. Internally there is salt water evident around the fresh water tank located in the keel well seen through the cut outs below the saloon sole boards.

**Cathodic Protection**

**Anodes:**

There is a single pear anode aft of midships on the starboard side.

**Bonding:**

All stern and steering metallic items are bonded satisfactorily.

**Wastage:**

The anode is wasted by approximately 10 - 15%.

**Recommendation**

Either remove and reapply the antifoul or paint over the existing patches.

## **Hull Openings, Fittings and Seacocks**

### *Sea Water Coolant Inlet:*

The engine coolant inlet is located aft of midships on the port side and is a 25mm bronze fitting which is secure and in good condition. Internally, this is fitted to a secure, brass body seacock with 'CR' (corrosion resistant) marking which is operable and in a clean condition, though the handle is bent and is slightly tight to turn.

### *Heads Outlet:*

The heads' black and grey water tanks discharge hull outlet is located at midships on the port side and is a 38mm bronze fitting which is secure and in good condition. Internally, this is fitted to a secure, brass body seacock with 'CR' (corrosion resistant) marking which is operable and in a clean condition.

### *Grey Water Outlet:*

The galley sink outlet is located forward of midships on the starboard side and is a 32mm bronze fitting which is secure and in good condition. Internally, this is fitted to a secure, brass body seacock with 'CR' (corrosion resistant) marking which is operable but there is light surface corrosion at the elbow to pipe connection.

### *Bilge Outlets:*

There are secure bronze and plastic fittings located on the starboard topside and port aft waterline area serving the electric and manual bilge pumps.

### *Exhausts:*

There are the following installations:

- The engine exhaust is a secure 65mm (i/d) bronze fitting with light surface corrosion located extreme aft on the port side at the waterline. Internally, the fitting is showing all over surface corrosion.
- There is a chromed heater exhaust fitting securely fitted to the port side of the transom.

### *Cockpit Drains:*

The cockpit drains through the engine hatch gully to twin 38mm bronze discharge fittings securely fitted through the hull aft of midships on both sides. These are in good condition. Internally, the bronze fittings are showing various levels of surface corrosion, the brass 'CR' marked seacock on the starboard side is operable though showing signs of light surface corrosion and the pipework is of double clipped sanitary grade. There are no leaks noted, though the keel well forward is full of mainly fresh water which may indicate a leak though this will need further investigation to confirm.

### *Scuppers:*

The decks drain through the topsides via two bronze drain fittings per side in the side decks aft.

### *Tank Vents:*

There are steel and chromed tank vents located on both topsides for the waste tanks, fuel tank and fresh water tank and these are all secure. Internally, there are flexible white plastic pipes protruding from the base of the bilge forward of the engine and aft of the fresh water tank. It is unknown what these potential vents are used for and this needs to be confirmed.

### *Transducers:*

There are the following thru-hull installations:

- There is a thru-hull wheel speed log unit securely located forward on the port side, outboard of the keel and this spins freely though is replaced by a blank at present.
- There is a thru-hull depth sounder unit securely located forward of midships on the starboard side.

### **Stern Gear**

#### *Propeller:*

The propeller is a three blade type of all bronze construction and is in good condition, though no serial number was noted.

#### *Shaft:*

The propeller shaft is of 30mm 'temet' steel (with iron content) and this rotated satisfactorily when turned by hand.

#### *Securing Arrangement:*

This consists of a locking nut with tab washer and is secure.

#### *Cutlass Bearing:*

There is strong play in the cutlass bearing.

#### *Stern Tube:*

The stern tube runs through the stern post moulding with an external cutlass bearing housing in bronze. The external housing is showing light surface corrosion.

#### *Stern Gland:*

The 'Tides Marine' dripless stern gland is in overall good condition but should be monitored for any potential leaks even though the salt water in the stern bilge is almost certainly due to a failed rudder trunk gland.

#### *Coupling:*

The coupling is in a clean and serviceable condition.

### **Steering Gear**

#### *Mechanism:*

The rudder stock is turned via a quadrant and wire / wheel pulley system linked to the chain driven helm wheel on the cockpit mounted pedestal. The installation operated satisfactorily.



**Fig.3** – quadrant to stock join showing strong corrosion.

#### *Stock:*

This is in 35mm bronze and continues through the aft end of the aft cabin and up to the stern deck. The join with the quadrant located under the aft cabin bunk is showing strong surface corrosion and the quadrant has play present.

### **Recommendation**

Replace the cutlass bearing.

### **Recommendation**

Clean off the corrosion and inspect the connection and key.

**Rudder:**

The rudder is an unbalanced, supported, GRP type. There are no signs of any damage or repair but the rudder base and the main join are still damp with salt water and moisture readings are high in these areas along with flaking and detaching antifoul. In addition, the rudder appears to have dropped slightly as the lower section is rubbing heavily on the supporting section and there are areas of paint flaking and detachment here as well as signs of corrosion coming from the joint.

**Bearing:**

The rudder lower connection has strong play present and knocks when tested.

**Rudder Trunk Gland:**

This is a bronze packing type with independent greaser reservoir and this is showing signs of corrosion with evidence of a long term leak along with areas of standing salt water present. There is evidence of numerous previous leak runs all heading towards the stern bilge.



**Fig.4** – leaking rudder trunk gland.

**Emergency Steering:**

The top of the stock is accessed from a fitting on the stern deck to which an emergency tiller is attached.

**Deck and Superstructure**

**Deck:**

The GRP deck and cockpit is overlaid with 'Permateek' synthetic teak decking and this is clean and in good condition. The toe rail is in GRP and there are various stress cracks noted as well as areas of touch up paint present. There is cracking around the port aft stanchion and light scuffs and scratches in some areas but there are no signs of any major damage or repair.

**Superstructure:**

The superstructure is in cream GRP with non-slip panels on the horizontal surfaces. There is a small stress crack under the aft cabin aft portlight, cracks in the aft cabin forward bulkhead adjacent to the hatch, various small edge damages, some touch up areas and overpainted filled in holes on the cockpit roof. There is a stress crack outboard of the main hatch moulding on the starboard side, minor chips on the port side of the hatch entrance, various rub down marks and a couple of areas of discolouration of the saloon superstructure moulding. but there are no signs of any major damage or repair.

**Recommendation**

Consider drilling a small hole in the rudder base to see if any water drains out. If not, further investigation is needed.

**Recommendation**

Investigate the cause of the connection play and the lower section rubbing.

**Recommendation**

Investigate the cause of the gland leak and repair / repack as necessary.

**Recommendation**

Repair the various deck and superstructure defects

*Hull Deck Joint:*

The deck is laid over the hull inboard flange and then bonded together and there is a toe rail formed at the join to which a teak topping is screwed through. Where visible, there is no sign of any movement.

*Inner Tray:*

There is a wooden deck matrix secured to the hull. This is in good condition with no signs of any movement where seen.

*Floors / Stiffening:*

There are moulded fore and aft stringers, bilge based floors and partial bulkheads in parts of the accommodation. There are all bonded to the main hull and where seen, there is no evidence of any movement.

*Bulkheads:*

The main and partial bulkheads are in marine ply, bonded to the hull and where seen, there were no signs of any movement.

**Hatches, Windows and Port Lights**

*Main Hatch:*

The main hatch consists of three weathered teak washboards with the top unit vented, located in aluminium runners with teak framing. The top washboard locks to a GRP sliding cover with teak pusher and located in aluminium runners. The operation is slightly tight.

*Fore Hatch:*

There is a ‘Lewmar’ 510mm square, forward friction hinged, aluminium framed fore hatch with lightly crazed acrylic glazing and sound seal, securely fitted over the forward cabin. This has two external and internal lockable handles and no leaks were evident.

*Windows:*

There are the following installations:

- There is a ‘Seaglaze’ wraparound helm window installation. This is securely fitted and consists of a painted aluminium frame with acrylic glazing panels and good seals.
- There are two aluminium framed, acrylic glazed windows located one per side screwed through the saloon superstructure from inside. The external sealant is rough in areas especially on the underside but the internal seals are good and there are no signs of any leaks.

*Portlights:*

There are the following installations are secure with no leaks noted:

- 2 x openable units in the forward accommodation consisting of aluminium frames with acrylic glazing, the same build as the side windows. The starboard unit forward handle is loose.
- 2 x sealed units in the forward accommodation consisting of aluminium frames with acrylic glazing, the same build as the side windows. The inner seals are loose in areas.
- 2 x openable units in the aft accommodation consisting of aluminium frames with acrylic glazing, the same build as the side windows. The handle bodies are showing signs of light surface corrosion.
- 1 x sealed unit in the aft accommodation aft end consisting of an aluminium frame with acrylic glazing, the same build as the side windows.

*Additional Hatches:*

- The aft hatch consists of a single, vented, weathered teak washboard located in teak framing and this locks to a GRP sliding cover with teak pusher and located in aluminium runners. The hatch sticks and can easily be lifted out of the runners.
- The engine hatch is a GRP type with ‘Permateek’ cover and this locks in to place via four locks. The hatch coaming has numerous chips and there are drain holes in the gulley at the forward and aft ends.

**Recommendation**

Ensure the aft cabin sliding hatch cannot be lifted out.

## Hand Rails and Stanchions

### *Pulpit / Pushpit:*

There are 25mm diameter stainless steel tube pulpit and pushpit installations, all are sound and secure.

### *Stanchions:*

There are 10 x 25mm port and starboard, tapered stainless steel stanchions securely located into stainless steel sockets inboard of the toe rail. The two aftermost stanchions on the starboard side are slightly bent back.

### *Guardwires:*

There are 5mm 1 x 19 stainless steel upper and lower guardwires secured by cord lashing aft from the pushpit. These are all slack and should be tensioned.

### *Hand Rails:*

There are 6 x varnished / weathered teak hand rails located on the coach roof, helm cover and aft cabin coach roof and these are securely fitted. Internally, there are various hand rails located in the accommodation such as by the steps and secured to the deckhead and these are all secure.

## Ground Tackle and Mooring Arrangements

### *Anchor:*

There is a serviceable condition, galvanised steel, 15kg claw anchor fitted at the bow and the securing shackle to the chain is a stainless steel type with allen screw pin.

### *Chain:*

The main anchor cable is a length of 10mm galvanised steel chain connected to a length of strong but cuttable rope which in turn is connected to a strong point on the anchor chain locker bulkhead. The chain is in a serviceable condition where seen.

### *Windlass:*

There is a 'Quick' electric, vertical windlass securely fitted through the aft end of the bowsprit with cable gypsy only. This was not operable at the time but it was discovered after that the windlass is only operable with the engine running and subsequently confirmed as working by the broker.

### *Stem Head:*

There is a stainless steel stem head cap at the end of a tensioned teak bowsprit with integral fore stay chain plate securely mounted at the bow with a single nylon roller.

### *Cleats:*

There are the following installations securely fitted at the deck and cockpit edges:

- 6 x 300mm chromed mooring and spring cleats
- 2 x 200mm chromed cleats on the cockpit coaming.
- All fairleads are securely fitted.

## Mast, Spars and Rigging

### *Masts:*

The 'Selden' anodised aluminium masts are in good condition as seen from the deck. The fittings and plates are in a good serviceable condition.

### *Booms / Kicker:*

- The anodised aluminium booms are sound and secure. The mast mounting brackets are secure, pinned and in good serviceable condition but the topping lift shackle pins are not secured against accidental unscrewing.
- The main mast 'Selden' rodkicker is in a serviceable condition with a serviceable bracket though the shackle pin is not secured against accidental unscrewing.

### *Foots / Steps:*

The masts are both deck stepped on the coach roof moulding and aft into a cockpit transverse bulkhead. They are securely pinned through to the aluminium foot castings, which in turn are securely bolted to the re-enforced deck mouldings with no evidence of any movement. All through wiring is neat, watertight and internally, no evidence of leaks were noted. The main mast foot, starboard forward screw is proud and not flush.

## Recommendation

Tighten all guardwires.

## Recommendation

Ensure all rigging shackle pins are secured against accidental unscrewing.

## Suggestion

Repair the deck reinforcement cracks.

**Deck Moulding:**

The main mast deck moulding has a crack at the forward and aft ends and there is a section of discolouration aft of the foot indicating a possible repair or item relocation.



**Fig.5** – example of rigging shackle pin not wired against accidental unscrewing.

**Spreaders:**

There is a single pair of aluminium, lightly swept back spreaders and a single pair of aluminium, swept back spreaders pinned into sockets riveted to the main and mizzen masts respectively when viewed from the deck. The main mast starboard spreader is slightly loose.

**Stays:**

There are the following installations:

- A 'Furlex' 240S furling system forestay, which is in good condition and securely fitted, pinned and taped to the integral stem head / chain plate via a stainless steel bottlescrew.
- The main mast aft stay consists of twin 6mm 1 x 19mm stainless steel wires connected to the dual use chain plates on the side decks aft by stainless steel open bottlescrews that are pinned and taped.
- The mizzen mast has a partial forestay connected to the aft of the main mast upper end. This was serviceable as seen from the deck.

**Shrouds:**

There are the following installations:

- The main mast cap shrouds are securely fitted and tensioned 8mm 1 x 19 stainless steel wires.
- The main mast lower shrouds (fore and aft) are securely fitted 7mm 1 x 19 stainless steel wires, though the aft wires are lightly slack.
- The ketch cap and lower shrouds are securely fitted and tensioned 5mm 1 x 19 stainless steel wires.

**Rigging Screws:**

The stainless steel open bottlescrews for all shrouds are in a good serviceable condition throughout, securely pinned to the deck plates and the screws are all pinned and taped.

**Recommendation**

Tighten the starboard spreader.

*Chain Plates / Reinforcements:*

- The reinforcements for the main mast shrouds are in stainless steel and secured to strong frames inside the saloon.
- The reinforcements for the main mast aft stay and mizzen mast shrouds are showing signs of surface corrosion and some of the internal support blocks are beginning to collapse.
- The forestay is secured via a chain plate to the top of the bow stem and is sound and secure with no evidence of any movement.

**Recommendation**

Inspect and service the reinforcements and support blocks.



**Fig.6** – combination mizzen mast shroud and main mast aft stay reinforcement.

**Sails and Deck Gear**

*Main:*

Where seen, the main sail is in a serviceable condition with a serviceable tack.

*Mizzen:*

Where seen the 'Sanders' mizzen sail is in a serviceable condition with a serviceable tack.

*Jib:*

This was removed at the time of survey.

*Winches:*

There are the following installations:

- 2 x 'Lewmar' 40 power ratio, 2 speed winches, one per side securely fitted through the cockpit coaming.
- 1 x 'Lewmar' 7 power ratio, single speed securely fitted to port and aft in the cockpit.
- 2 x 'Lewmar' 16 power ratio, single speed securely located on the mast.

*Jammers:*

There are the following mast installations:

- 2 x 'Spinlock' triple finger jammers securely fitted.
- 2 x 'Spinlock' single finger jammers securely fitted.

All associated fittings are secure and serviceable.

*Mainsheet:*

This is a rope and block type system secured to the helm pedestal and there are minor stress cracks around the securing bracket. The top securing shackle's pin is not wired against accidental unscrewing.

*Tracks and Cars:*

There are secure 'Barton' tracks and cars, one located through each side deck at midships. These are all securely fitted and serviceable. The cars are located in the tracks by spring pins and are serviceable.

*Running Rigging / Lazy Jacks*

- The running rigging is a mixture of ropes and where seen, all are in a good serviceable condition.
- There is a set of serviceable lazy jacks installed.

**Ventilation**

*Accommodation:*

The main and aft cabin hatch, forehatch, opening portlights and coach roof vents serve the accommodation and heads.

*Machinery:*

The engine compartment draws ventilation from the bilge.

*Tanks:*

These are vented to atmosphere through fittings / hoses in the topsides.

*Stowages:*

These are naturally vented and it is recommended to never overfill any storage locker to avoid a potential build-up of moisture and also to allow natural ventilation.

**Interior Joinery and Furnishings**

*Inner Modules:*

Mahogany forms the bases of much of the accommodation units and these are either part of the deck tray or are glassed / screwed to the hull and where visible, there are no signs of any damage or movement.

*Joinery:*

The woodwork throughout the accommodation is in good condition overall, though worn in some areas such as around the chart table base. There is some light water staining under the hatch in the fore cabin and there is a scratch on the heads door which is also binding on the bottom of the door frame. The sliding door to the fore cabin is jammed open and very tight to close.

*Deck:*

The decking consists of a framework with removable sole boards and some fixed panels. The second from aft right hand sole board is cracked and bowing. Basic carpet sections cover the deck.

*Linings:*

There are mahogany slats at the medium level, a cream fabric at high level with cream vinyl and mahogany frames on the deck head with no signs of any sagging. This is clean overall but there are some dirty marks in places.

*Soft Furnishings:*

There are teal coloured, brushed cotton seat and mattress cushions fitted throughout the accommodation. However, there is a leak in the aft cabin forward on the port side and the cushions were generally damp at the time of survey. The saloon long cushions have signs of early mould appearing and some had a slight damp feel at the time of survey. There are also blue vinyl seat cushions stored in the fore cabin.

**Gas and Domestic Installation**

*Locker / Bottle(s):*

This is located in the cockpit starboard forward seat locker and contains 2 x 2.75kg 'Campingaz' butane gas bottles which are in a serviceable condition. Any leaking gas escapes via the drain hole / vent in the base of the locker discharging through the topside fitting. The vent pipework is in reinforced hose and securely clipped. Although a tight space, the bottles are not secured.

**Recommendation**

Replace the cracked sole board.

*Regulator / Hose:*

The regulator is secure and serviceable and should be no more than 10 years old. The orange gas flexible is BS 3212 compliant with a manufactured date of 2014, securely clipped with no signs of cracking visible though dry in feel. The hose should be replaced. There is a gas bubble detector fitted but the surrounding copper pipework is showing surface corrosion.

*Gas Pipe / Cut Off Valve:*

The pipe is in drawn copper and where visible is in a serviceable condition though there are areas of surface corrosion after the locker. There are twin operable gas cut off valves below the oven.



**Fig.7** – area of surface corrosion on copper gas pipe under the oven.

*Cooker:*

There is a 'Dometic' combination stainless steel sink and twin burner hob fitted in the galley on the starboard side. There is fresh water around the aftermost burner and causing corrosion. There is a 'Smev' oven and grill unit securely located underneath.

*Refrigerator:*

Located forward of the galley is an 'Isotherm' 12V fridge with freezer compartment. The unit is clean and operable.

*Calorifier:*

There is an engine and 230V element heated calorifier fitted in the cockpit port forward seating locker. This is secure and operable though there are areas of light surface corrosion on some of the fixings / elbows.

**Fresh Water Installation**

*Deck Filler:*

There is a chromed, screw deck filler securely fitted through the starboard side deck aft. The seal is good but the securing chain is broken.

*Tank:*

The fresh water tank is securely fitted in the keel well. The main inlet and vents are in reinforced clear hose and securely clipped. There are cut outs in the tank top with a rubber membrane underneath and when pressed, salt water is pushed out. Directly under the inlet and vent pipes is a keel well which is full of mainly fresh water, though the pipes are secure.

**Recommendation**

Replace the orange hose.

**Note** – all gas work must be undertaken by a registered gas engineer.

**Suggestion**

Water tanks should be cleaned annually with super chlorination and flushing prior to use each season is recommended.

*Pump / Accumulator:*

There is a 'Whale' 12V pump located behind the aft end of the saloon seating and an accumulator located underneath. The pump is very lightly loose but the whole operated satisfactorily with no leaks noted.

*Pipework:*

This is in plastic hose with screw fitting connections, some of which were lightly loose at the time of survey, though no leaks were noted during testing of the system.

*Taps:*

There are the following installations:

- There is a silver plastic mixer tap located at the galley and this is operable.
- There is a separate drinking water tap with a local switch operating a pump in secured bottles holding drinking water.
- There is a stainless steel shower type mixer tap in the heads and this operated satisfactorily.

**Sewage and Bilge Installation**

*Toilet:*

There is a 'Jabsco' china bowl, electric, fresh water flush toilet fitted in the heads. This is secure but the seat / lid is slightly loose. This operated satisfactorily.

*Toilet Pipework:*

This is in sanitary grade with single and double clipping and where visible there are no leaks noted. There is a no smell filter securely located behind the port side bulkhead.

*Black Water Tank:*

The toilet flushes to the black water tank which is securely located under the saloon central seating. The inlet and vent pipework is in sanitary grade, double and single clipped respectively. The contents can either be discharged via a secure 3-way valve located aft of the tank via the discharge seacock by a switch at the chart table or it can be sucked out via the chromed deck fitting located forward on the port side deck. The fitting seal is good and the discharge pump operated satisfactorily.

*Sinks / Shower Sump:*

There are the following installations:

- The galley sink is a stainless steel type draining via reinforced clear hose securely clipped to the discharge seacock.
- The heads sink is a stainless steel type but the plug hole section is loose to lift up thus allowing water to bypass and drain into the bilge. The sink drains to the shower sump in the bilge and the pipework is in sanitary grade and securely clipped.
- The shower drains through the heads deck tray and into the shower sump where the whole is discharged into the grey water tank and is operable. The sump is a 'Rule' 800gph unit but this is loose and not secured though the unit operated satisfactorily via the chart table based switch.

*Grey Water Tank:*

The shower sump discharges to the grey water tank which is securely located under the saloon forward seating. The inlet and vent pipework is in sanitary grade, single and double clipped respectively. The contents is discharged via a secure 3-way valve located aft of the black water tank via the discharge seacock by a switch at the chart table.

*Electric Bilge Pumps:*

There are two electric bilge pumps located in the stern bilge and in the keel well aft of the fresh water tank. The stern pump operated satisfactorily though the forward pump was not operable at the time of survey. Subsequently, this was traced to a broken wire and the broker confirmed its operation. The discharge pipework is in reinforced hose and securely clipped. The operation switches are located in the helm on the port side along with the bilge alarm which tested satisfactorily.

**Recommendation**

Secure and seal the sink plug plate

*Manual Bilge Pump:*

There is a manual bilge pump securely located in the cockpit starboard seating lock aft and the pickup is in the keel well bilge. The mechanism operated satisfactorily and discharged through the starboard topside fitting via the reinforced clear hose which is securely clipped.

**Electrical Installation**

*Batteries:*

There are the following installations securely fitted under the saloon aft seating:

- 1 x 'Vetus' 12V 90Ah battery for the engine start. The terminals are clean and tight.
- 2 x 'Vetus' 12V 90Ah batteries for the domestic systems. The terminals are clean and tight.

*Isolators:*

There are 3 x main rotary isolators fitted on the forward face of the saloon aft seat base and these are securely fitted and operated satisfactorily. The anchor windlass isolator is located next to the domestic isolator.

*Shore Power:*

There is a cockpit starboard based 230V shore power inlet wired to the 'Marlanvil' consumer unit / RCD breaker unit securely fitted under the chart table. This operated satisfactorily and the outlets all tested for correct polarity.

*Panels:*

The 12V DC and 230V AC panels are located in the saloon aft on the starboard side and these are well laid out and operated satisfactorily though the compass light switch trips out.

*Charger:*

There is a 'Sterling Power Products' 4 step charger securely fitted under the chart table and this operated satisfactorily.

*Wiring:*

Where visible, the main wiring installations are clean, securely clipped and have been installed in accordance with good engineering practice.

*Lights:*

There are various switched lights throughout the accommodation and all operated satisfactorily.

*Navigation Lights:*

There are pulpit mounted port and starboard navigation lights, a pushpit stern light, mast lights and an all-round tricolour light located at the mast top. All lights operated satisfactorily.

*Galvanic Isolator:*

There is no galvanic isolator seen and this is advised as an upgrade if the yacht is to be using shore power at marinas on a regular basis.

*Additional Equipment:*

There is a 'Solbian' Flex solar panel fitted to the helm roof and wired in to give continuous charge to the batteries.

**Fuel Installation**

*Deck Filler:*

There is chromed, screw deck filler securely fitted through the port side deck aft. The seal is poor but the securing chain is good.

*Tank:*

This is fitted in the stern bilge with only the inlet plate being visible. The inlet and vent hoses are securely single clipped with the inlet hose marked as ISO 7840 compliant and the vent hose covered but gaps show it is 'RINA' compliant. The fittings are showing areas of surface corrosion.

**Recommendation**

Install a galvanic isolator to ensure underwater fittings are secure when plugged in to marina power supplies.

**Fuel Shut Off Valves:**

There are twin fuel shut off valves located on the inlet plate and these operated satisfactorily both locally and via the helm control.

**Distribution:**

This is simple, but suitable and is in accordance to good engineering practice where seen.

**Pipework:**

The hoses are securely fitted and serviceable with no signs of any cracks or leaks, though because they are externally covered it is not known if these are ISO 7840 A1 compliant clipped as required.

**Pre-filters / Filters:**

- There is a 'Fuel Guardi' fuel / water separator filter with clear bowl and drain tap located forward in the engine compartment. This is securely fitted and no leaks were noted from this installation.
- There is an engine mounted screw on cannister and this is secure with no leaks noted.

**Machinery**

**Engine:**

The engine details are:

<b>Make</b>	Beta 43 4-cylinder diesel engine
<b>Max rating</b>	43hp @ 2,800 rpm
<b>Serial no</b>	7FL3356
<b>Engine hours</b>	Unknown

The engine is in an overall clean and good cosmetic condition and appears to be have been serviced and maintained regularly.



**Fig.8** – Beta 43 4-cylinder diesel engine.

**Gearbox:**

The gearbox details are:

<b>Make</b>	Twin Disc TMC 60P
<b>Ratio</b>	2.00:1
<b>Serial No</b>	2247133

**Recommendation**

Ensure all flexible hoses in the fuel system (incl. inlet and vent) are ISO 7840 compliant.

*Bearers and Mounts:*

The engine is firmly secured to lengthwise strong GRP beams via four engine mounts. These are in good condition overall though there is some light surface corrosion on some of the base plates but there no movement of the engine when rocked by hand.

*Strainer:*

The strainer is located in the cockpit starboard side seating locker and the unit is securely fitted with reinforced hosing that is securely clipped.

*Cooling / Heat Exchanger:*

The engine is cooled indirectly by seawater supplied by an engine driven impeller type pump. The coolant is clear and protects to -18°C. The heat exchanger is in good condition with no signs of any endcap leaks or salt deposits.

*Hoses:*

These are in a serviceable condition where seen with no signs of cracking evident and suitably clipped.

*Lubricants:*

- The engine oil is semi-carboned, viscous and showing full on the dipstick.
- The gearbox oil dipstick could not be accessed.

*Fluid Tight:*

There are no signs of any major leaks from the installation.

*Exhaust:*

The exhaust gases from the engine travel through the manifold and thermally wrapped riser connected to a securely clipped, black reinforced rubber hose leading to a marine exhaust. This then runs aft where it is looped up via a gooseneck silencer and connected securely to the bronze exhaust fitting.

*Controls:*

These are all serviceable and operated satisfactorily.

*Ancillaries:*

The engine is fitted with twin 12V alternators which supply charge to the yacht’s batteries when the engine is running and these are securely fitted with correctly tensioned belts.

**Fire Fighting Equipment**

*Accommodation:*

There are 2 x 1kg, dry powder, ABC extinguishers showing charged located in the accommodation and helm in good condition with manufactured dates of 2015.

*Galley:*

No fire blanket was seen at the time of survey.

*Engine Room:*

There is a no automatic fire extinguisher located in the engine compartment which is advised.

*Smoke / CO / Gas Alarm:*

There are no alarms installed which is advised with a gas installation.

**Lifesaving Appliances**

*Life Jackets:*

None seen at the time of survey.

*Life Raft:*

None seen at the time of survey.

*Flares:*

None seen at the time of survey.

*Life Buoys:*

None seen at the time of survey.

**Recommendation**

Install an automatic ‘clean agent’ type extinguisher in the engine compartment.

**Recommendation**

Install a CO / smoke / gas detector.

*Additional Equipment:*

There is an an 'ACR' Epirb securely located in the aft cabin.

**Ancillary Equipment**

*Compass:*

There is a 'Plastimo' Offshore 55 floating card compass located on the helm pedestal which is serviceable.

*GPS / Chartplotter:*

- There is a 'Raymarine' unit located at the chart table which operated satisfactorily.
- There is a 'Raymarine' eSeries Hybrid Touch multi data display located in the cockpit and this operated satisfactorily.

*Radar:*

There is a 'Raymarine' radome mounted on the mizzen mast. This displays via the eSeries display unit and operated satisfactorily.

*Echo Sounder / Log / Wind Direction:*

There are 'Raymarine' display units located in the cockpit and these operated satisfactorily.

*Autopilot:*

There is a 'Raymarine' P70s unit installed with control unit in the cockpit and this operated satisfactorily with increments of 10° tested.

*VHF:*

A 'Raymarine' VHF unit is located at the chart table and this operated satisfactorily.

*AIS:*

There is a receiver securely fitted.

*Entertainment:*

There is a 'Fusion' MS UD830 unit, with saloon based twin speakers, located at the chart table but this would not power up at the time of survey. Subsequently, the broker stated that this was operable.

‘Yacht Name’

## Statement

This report is a true and accurate description of '██████' as far as could be ascertained at the time of the survey, but no guarantee is given or implied. We have not inspected equipment, woodwork or other parts of the structure which are not included within this report or were covered, unexposed or inaccessible and we are therefore unable to report that any such part is free from defect.

The owner should satisfy themselves that all systems which could not be tested or inspected at the time of survey are operable.

The yacht has not been examined for compliance with any code, rule or craft directives and no opinion as to such compliance is expressed or implied.

This report is provided for the sole use of the instructing client named within this survey report and no liability of any nature will be accepted by the surveyor to any third party.

This report is submitted without prejudice.



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**AssocIIMS**

Anchor House Marine Surveys  
25<sup>th</sup> January 2019

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