



ANCHOR HOUSE MARINE SURVEYS

Full Condition Survey Report

Westerly Fulmar

'Keromi'

Universal Marina, Sarisbury Green, Hampshire, UK

Thursday 6th October 2022

Prepared on Behalf of the Purchaser

Mr. [REDACTED]



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Summary

'Keromi' is a Westerly Fulmar built in 1985 by Westerly Yachts Limited of Waterlooville, Hampshire, UK to a design by Ed Dubois. She was found to be in overall good condition for her age but requiring some servicing, maintenance and possible updating. She 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 a serviceable condition. The internal structure where seen is clean with no evidence of any movement though the saloon bilge contains a small amount of salt water and salt crystals.
2. Hull coatings are rough but adhering well. The outer bottom laminates were tested for moisture content and the resulting readings were mainly in the medium scale, though the hull was still mainly damp after lifting out.
3. The bilge keels are in a serviceable condition and the bolts and fixings are in a clean and serviceable condition.
4. The stern gear is in a serviceable condition.
5. The steering system is in a serviceable condition.
6. The mast, standing rigging and internal reinforcements are in a serviceable condition.
7. The domestic systems are in a serviceable condition overall but the gas locker requires updating and the Eberspacher diesel heater does not work.
8. The electrical system is in a serviceable, but DIY condition overall.
9. Where seen, the fuel system is in a serviceable condition but the tank could not be accessed for inspection.
10. The engine is in overall good cosmetic condition but there are signs of some coolant leaks and a towel is wrapped around the back end.
11. The accommodation extinguishers and CO alarm(s) were not inspected.

This is a good overall example of a Westerly Fulmar but requiring some servicing in specific areas and would benefit from some updating. With all servicing, maintenance and updating issues addressed, 'Keromi' should 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.

Circumstances

The survey was carried out on the 6th of October 2022. 'Keromi' was inspected afloat and then in the slings at Universal Marina, Sarisbury Green, Hampshire, UK. The mast and rigging were standing. The weather at time of survey was fine and clear, dry with varying westerly winds at 17°C. The survey was carried out on the instruction of Mr. [REDACTED] to ascertain the condition of the yacht for insurance purposes.

No fastenings were drawn and no paint was removed above the water line externally. A few areas of paint were removed below the waterline to determine coatings makeup and moisture readings. 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.



Description of the Yacht

'Keromi' is an all glass fibre construction, round bilge, bilge keeled sailing yacht. She has a raked entry and a transom stern, carrying her maximum beam aft of amidships.

She was built by Westerly Yachts Limited in 1985.

The yacht's principal dimensions as supplied are set out below:

Length Overall	9.73m
Length of Waterline	7.92m
Beam	3.33m
Draft	1.60m (approx.)
Displacement	4.50 tonnes (approx.)
Engine	Bukh DV20 2-cylinder diesel engine
Stern Gear	Conventional shaft drive
Fuel Capacity	90 litres (approx.)
Water Capacity	102 litres (approx.)
Yard No.	
SSR	



Hull and Internal Structure

Hull:

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

Port Topside:

This is in white GRP with a blue decal sheer stripe below the rubbing strip. The topside is generally clean with only signs of normal wear, but there are no signs of any major damage or repair. The rubbing strip is in teak, securely fitted but with some light gaps in the under sealant and there are no fore and aft sling tags present.

Starboard Topside:

This is in white GRP with a blue decal sheer stripe below the rubbing strip. The topside is generally clean with only signs of normal wear, but there are no signs of any major damage or repair. The rubbing strip is in teak, securely fitted but with some light gaps in the under sealant and there are no fore and aft sling tags present.

Bow:

This is generally clean with no signs of any major damage or repair.

Transom:

This is in white GRP and is generally clean but in addition to signs of normal wear and tear there are some light chips and scuffs around the edges, but there are no signs of any major damage or repair. The rubbing strip is in teak and securely fitted.

Attachments:

Securely fitted to the transom on the centreline is a folding, stainless steel tube, bathing ladder with six rungs.

Coatings:

The antifoul is in blue and rough in appearance due to overpainting but adhering generally well. The seller states that a 'Blakes' epoxy resin was last applied in 2003.

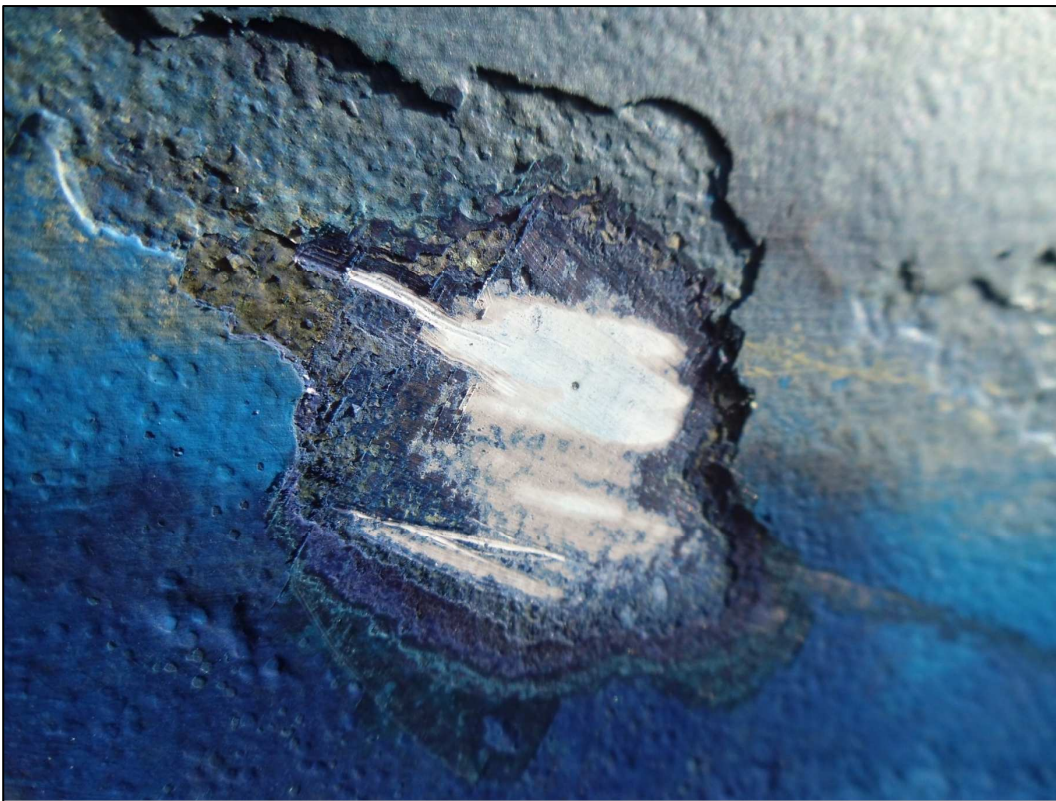


Fig.1 – hull scraping showing epoxy resin, primer and antifoul coatings.

Gel Condition:

The hull gel was inspected and is smooth with no signs of any damage, delamination or blistering though the rough coatings limited some closer inspection.

Recommendation

Add sling tags below the teak fender to aid with lifting operations.

Recommendation

At the next service ashore, remove and reapply the antifoul or remove all coatings back to bare GRP and reapply new epoxy resin and new antifoul after a thorough inspection and moisture reading recheck of the hull.

Hull Below Waterline:

Moisture readings were taken with a 'Protimeter' Aquant 2 meter at approximately 80 positions over the outer hull. The scale used is 0 – 160 (dry) / 161 – 200 (medium) / 201 – 999 (wet) and the following readings were obtained:

- Hull – where dry, readings ranged from 160 to 220 which is in the dry to low wet scale.
- Rudder – readings ranged from 250 to 999 which is in the low to maximum wet scale. Though where the coatings were scraped back to bare GRP, the readings reduced to around 250.

Note: The hull was still very damp in areas, particularly on the starboard side and it is expected these readings would be much lower after an extended period ashore to dry out.

Keels:

The bilge keels are of coated iron ballast and externally are in a clean condition, showing no signs of any obvious corrosion. The yacht was briefly sat on the ground and no clear signs of any movement were noted. The keel to hull joins are in a serviceable condition with no clear signs of any cracking or corrosion weeping noted, though there are some minor areas of corrosion breaking through the join paint. Internally, the stainless steel keel bolts and fixings are in a clean condition where seen, hammer testing returned solid sounds and there were no clear signs of any leaks or movement.

Inner Tray:

There is a wooden deck matrix secured to the hull with removable marine ply deck panels laid over the top. This is in good condition with no signs of any movement where seen.

Floors / Stiffening:

There is a matrix of moulded fore and aft stringers, partial frames and a forefoot strengthener and where seen, all are securely bonded to the hull. There is a light deformation of the external hull forward of midships on the port side, but inspections internally confirmed this is almost certainly the drawing in of the hull via a frame when cured from new.

Bulkheads:

The main and partial bulkheads are in varnished / painted timber and bonded to the hull via GRP tabbing and where seen, there were no clear signs of any movement. There are some light areas of water staining at the base of the heads bulkhead / compression post and some salt water / crystals just aft of the compression post in the bilge.

Recommendation

Remove all water remnants and salt crystals and monitor for any return to locate the source.



Fig.2 – areas of water staining at the base of the compression post.

Cathodic Protection

Anodes:

There is a single, pear anode securely fitted outboard of the propeller shaft on the port side.

Bonding:

The pear anode is electrically bonded to the P bracket only. Continuity is good and resistance is under 1Ω. Up to 2Ω is the expected level for good condition systems. Internally, there is a bonding wire to the engine coolant seacock. But the installation is poor, incorrect and should be removed, for this will actually cause corrosion, not stop it.

Wastage:

The anode is wasted by approximately 15%.

Hull Openings and Fittings

Sea Water Coolant Inlets:

The engine coolant inlet is located outboard of the propeller shaft on the port side and is a secure, aft facing, bronze grill fitting which is in good condition.

Toilet Inlet and Outlets:

- The toilet inlet was hidden behind the forward lifting belt and so could not be inspected.
- The toilet outlet is located aft of the inlet and is a secure, medium bore bronze semi-flush fitting which is in good condition.

Grey Water Outlets:

- The galley sink outlet is located aft of midships on the starboard side and is a secure, small bore bronze fitting which is in a serviceable condition.
- The heads sink outlet was hidden behind the forward lifting belt and so could not be inspected.

Bilge Outlet:

There is a secure, plastic skin fitting located on starboard aft topside serving the manual bilge pump.

Exhausts:

- The engine exhaust is a secure, large bore bronze fitting located to starboard on the transom with a stub outlet fitted. Internally, the outlet elbow has all over patina / surface corrosion.
- There is a stainless steel diesel heater exhaust securely fitted to port on the transom.

Cockpit Drains:

The cockpit drains through twin, secure, medium bore fittings located at the base of the transom in good condition. Internally, the pipework is in black, reinforced hose and single clipped to the skin fittings.

Scuppers:

The decks drain overboard via gaps in the toe rail.

Transducers:

- There is a thru-hull speed log unit to starboard of the forefoot, but a blank is inserted. Internally, the plastic wheel spins freely and no leaks were noted.
- There is a thru-hull depth sounder unit securely located to port of the speed log and internally, no leaks were noted.

Stern Gear

Propeller:

The propeller is a two bladed, right hand turning type of all bronze construction and is in a serviceable condition with no dezincification and testing returned a good ring.

Shaft:

The propeller shaft is 1" stainless steel and this rotated satisfactorily when turned by hand.

Securing Arrangement:

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

Recommendation

Add a shaped / spherical anode to the shaft with tie wraps fitted at either end to avoid slippage.

Recommendation

Remove the bonding wires to any seacocks as they serve no purpose.

Recommendation

Clean off all patina.

Recommendation

Ensure the outlet hoses are double clipped to the skin fittings.

P Bracket:

This is in bronze and securely fitted with no signs of any dezincification.

Cutlass Bearing:

There is negligible play in the cutlass bearing.

Stern Tube:

The stern tube runs through the hull moulding which will be a cutlass bearing fitted in a bronze sleeve.

Stern Gland:

The 'Volvo Penta' dripless stern gland is in overall good condition but should be monitored for any potential leaks after relaunching as well as being 'burped' of air once afloat.

Coupling:

The rigid coupling is in a clean and serviceable condition with serviceable fixings seen, but not accessed.

Steering Gear

Mechanism:

The rudder stock is directly turned via a cockpit mounted tiller arm assembly and the operation is smooth.

Rudder:

The rudder is an unbalanced, unsupported skeg guided GRP type in aerofoil section. There are no signs of any damage or repair, though there are large blisters just beginning to form all over. The moisture readings initially indicated very wet, but where the coatings were scraped away, the dropped to low wet.

Stock:

This could not be accessed due to the enclosed rudder trunk.

Bearing:

There is negligible play detected in the bearing(s).

Rudder Trunk / Gland:

The stock runs inside a GRP trunk bonded between the hull and deck underside so no internal fittings could be seen.

Deck and Superstructure

Deck:

This in white GRP with grey non-slip paint on the horizontal surfaces with secure, teak, toe rail sections fitted. This is generally clean with only signs of normal wear and tear, though there are some toe rail screw plus missing, but there are no signs of any major damage or repair.

Superstructure:

The superstructure is in white with blue non-slip painted panels moulded into the horizontal surfaces in the cockpit and grey on the superstructure. This is generally clean, though weathered with areas of gelcoat crazing due to washing and there is some cracking along the cockpit starboard seat / locker curve, but there are so clear signs of any damage or repair. There are teak tread boards covering the cockpit deck and these are in a serviceable condition.

Hull to Deck Joint:

The deck is laid over the hull in a 'biscuit tin' fashion, joined together through the fender and internally bonded. Where visible, there are no signs of any movement.

Hatches, Windows and Port Lights

Main Hatch:

The main hatch consists of 2 x white plastic acrylic washboards, with the top one vented, which slot into teak framing secured to the GRP hatch moulding. This locks to an acrylic sliding cover with teak pusher running in secure, aluminium runners and the operation is smooth.

Recommendation

Consider drilling some holes in the rudder base and sides to see if any water drains out. Allow to drain and dry out if so before resealing. Reseal the rudder to stock join and regularly monitor for any worsening blistering.

Fore Hatch:

There is a 'Lewmar' square, aft friction hinged, aluminium frame and lid securely fitted over the forward cabin. This has heavily crazed acrylic glazing incorporating a central vent, a serviceable seal and two non-lockable handles. There is evidence of water runs down the base frame forward and the mattresses beneath the hatch have a light damp / cold feel to them, indicating a possible leak – or it may be condensation drips.

Additional Hatches:

There is a 'Lewmar' rectangular, aluminium frame and lid, inboard hinged hatch with heavily crazed acrylic glazing securely fitted over the heads. The seal is serviceable and there is a non-lockable handle, but some of the hinge fixings have surface corrosion.

Windows:

There are 8 x aluminium framed windows securely fitted throughout the accommodation. The glazing is clean though the external seals are dry and beginning to crack in areas. Internally, the seals are serviceable and there is no clear evidence of any leaks.

Hand Rails and Stanchions

Pulpit / Pushpit:

There are stainless steel tube pulpit and pushpit installations securely fitted and in a serviceable condition.

Stanchions:

There are 6 x anodised aluminium, tapered stanchions fitted into anodised aluminium sockets secured to the deck edge.

Guardwires:

There are 1 x 19 stainless steel upper and lower guardwires securely pinned to the pulpit, though taped over, and tensioned by cord aft. The starboard side wires are lightly slack.

Hand Rails:

- There are 6 x weathered teak hand rails securely located on the main coach roof and hatch area.
- Internally, there are 2 x hand rails located by the steps and 2 x hand rails in the saloon.

Ground Tackle and Mooring Arrangements

Anchor:

There is a 35lb CQR anchor fitted at the bow and is connected to the chain via a galvanised steel shackle. The securing pin is not wired to prevent accidental unscrewing.

Chain:

The main anchor cable is a length of 8mm galvanised steel chain in a serviceable condition where seen in the chain locker. The chain bitter end could not be seen attached to a length of cuttable cord attached to a strong point in the chain locker and there is mould on the locker sides.

Windlass:

There is no windlass fitted which is advised as an upgrade.

Stem Head:

There is a twin channel, chromed steel, integral chain plate and stem head securely fitted at the bow with 2 x nylon rollers and clean welds where seen.

Cleats:

There are 5 x anodised aluminium, mooring and spring cleats securely fitted and 2 x anodised aluminium fairleads securely fitted at the bow.

Mast, Spars and Rigging

Mast:

The 'Selden' anodised aluminium mast is in a serviceable condition as seen from the deck. The fittings and plates are in a serviceable condition. There is a wooden compression post securely fitted in the saloon as part of the heads aft bulkhead, but there are some light areas of water staining around the base, the copper lightning strip has all over patina / corrosion and there is an area of salt crystals and water remnants in the bilge.

Recommendation

Check the hatch for water after rain.

Recommendation

Replace the anchor to chain connection with a swivel shackle or wire the existing one.

Recommendation

Ensure the chain bitter end is connected to a strong point in the locker via a length of cuttable cord.



Fig.3 – area of salt crystals and water remnants aft of the compression post in the bilge.

Spreaders:

There are 2 x pairs of aluminium, swept back spreaders securely pinned into sockets riveted to the mast when viewed from the deck. There was no excessive movement in these when the caps were shook.

Foot / Step:

The mast is deck stepped on the coach roof reinforced moulding and securely riveted to the cast aluminium foot. This in turn is securely bolted to the deck with no evidence of any movement or cracking across the fixings, though the starboard forward bolt has a different type head. The thru-wiring is in a serviceable condition though some of the waterproof caps and sealant are rough.

Boom:

The 'Selden' anodised aluminium boom is in a clean and serviceable condition with serviceable, aluminium end caps securely riveted in place, though there is some corrosion around the rivets. The boom is laterally secured and pinned to the hinge which in turn is vertically secured and pinned to the cast aluminium mounting bracket, which is securely riveted to the mast and is in a serviceable condition. The topping lift is securely fitted.

Kicking Strap:

The 'Rutgerson' rope and block system is in a clean and serviceable condition and securely fitted to the boom underside and to the aluminium mast mount, which is securely riveted, via a securely fitted and vertically pinned hinge. However, the boom and lower block connecting shackles do not have their pins wired to prevent accidental unscrewing.

Stays and Reinforcements:

- There is a 'Rotostay IV' furling system forestay which is in a serviceable condition, is securely fitted and pinned to the stem head central flange and the drum is free to turn. Externally, the chainplate fixings are lightly proud with some corrosion staining noted, particularly the top one.
- The aft stay is in 5mm 1 x19 stainless steel wire with a clean swaged end fitted to an open bottlescrew which is pinned but not taped. This in turn is securely pinned to a chromed stainless steel chainplate which is securely bolted to the transom on the centreline.

Recommendation

Replace the wiring seals to make watertight.

Recommendation

Ensure all rigging shackle pins to prevent accidental unscrewing.

Shrouds and Chainplates:

- The cap and lower shrouds consist of 7mm 1 x 19 stainless steel wire.
- There are inters fitted between the spreaders and where seen from the deck are in a serviceable condition. The bottlescrews are pinned but not taped.
- There are no signs of any wire breaks at the swaged joins though there is some corrosion staining on all. These are securely fitted to open bottlescrews which are pinned and taped and in turn are securely pinned to stainless steel deck chainplates with no clear signs of any weld or deck cracking, lifting or movement. Internally, the chainplates are securely pinned to stainless steel bars which are then securely bolted to vinyl lined web frames that are securely bonded to the hull on both sides and no leaks were noted coming through the chainplates.

Winches:

- 2 x 'Barlow' twin speed, non-self-tailing winches, one per side securely fitted through the cockpit coaming forward and these operated satisfactorily when tested.
- 2 x 'Barlow' 19 power ratio, twin speed, non-self-tailing winches, one per side securely fitted by the main hatch and these operated satisfactorily when tested.

Gas and Domestic Installation

Locker / Bottle(s):

This is located in a moulded locker under the cockpit starboard forward seat. This contains a 2 x 2.75kg 'Campingaz' butane gas bottles which are in good condition but not secured. The forward bottle is connected up but the outlet fitting has surface corrosion present. The bottles sit in a shaped wooden base, but this is breaking up and the drain holes discharge into the cockpit under the tread boards. The drain should go directly overboard.



Fig.4 – drain hole is not sufficient nor is it directly overboard.

Regulator / Hose:

- The regulator appears original and is in an average condition but should be no more than 10 years old.
- The orange gas flexible hose is BS3212 compliant, securely single clipped and dated 10/2020.

Gas Pipe / Cut Off Valve:

The pipe is in drawn copper and where seen is in a serviceable condition. There is a manual gas cut off valve fitted under the cooker and this operated satisfactorily.

Recommendation

Add a drain that discharges any leaking gas directly overboard, rather than into the cockpit deck where it could pool and potentially ignite.

Recommendation

Replace the regulator.

Cooker:

There is a 'Flavel' Vanessa stainless steel twin burner hob, grill and oven securely fitted in the galley on the starboard side. This is gimballed with a serviceable lock. The burners and elements are in a serviceable condition where visible. The flexible, braided stainless steel hose to the cooker from the cut off valve is in a serviceable condition dated 01/2018.

Diesel Heater:

There is an 'Eberspacher' diesel heater securely fitted on the centreline behind the helm seat, accessed from the cockpit starboard locker with the control panel located by the chart table. This did not work at the time of survey, but the unit is old and showing corrosion to the casing. The control panel is also old and it is advised that the installation is replaced with a modern one. Where seen, the vent trunking and exhaust is in a serviceable condition.



Fig.5 – diesel heater does not work and the casing is showing all over corrosion.

Note

Gas systems and appliances must be maintained and or checked by a suitably qualified gas engineer conversant with the requirements of BS 5482 Part III or its modern equivalent.

Recommendation

Replace the diesel heater and control panel with a modern one.

Sewage and Bilge Installation

Sink Drains, Seacocks and Pipework:

- The galley sink drains directly overboard to a new brass bodied, ball valve seacock. 'CR' markings could not be seen, but this is possibly a 'CR' marked seacock and is located under the galley sink. This is in a serviceable condition and operated satisfactorily. The pipework is in white, reinforced hose and double clipped to the sink drain and the seacock.
- The heads sink drains directly overboard to a brass bodied, rotary valve seacock located under the heads sink, which operated satisfactorily and is in a serviceable condition, but the handle is beginning to corrode. No 'CR' markings were noted. The pipework is in clear, reinforced hose and single clipped to the sink drain and double clipped to the seacock.

Toilet Seacocks and Pipework:

- The toilet inlet seacock is a bronze 'Blakes' type which operated satisfactorily and is in a serviceable condition. The pipework is in white reinforced hose, double clipped to the seacock, is suitably looped up and is single clipped to the toilet inlet.
- The toilet outlet is in single clipped, white reinforced hose, is suitably looped up and double clipped to a bronze 'Blakes' seacock which operated satisfactorily and is in a serviceable condition.

Note: Both wooden bases are old in appearance and the outlet seacock handle is very free to turn, so these should be monitored for any possible leaks.

Recommendation

Ensure **all** seacocks are free to operate, tighten any loose handles, clean off any surface corrosion and protect and ensure they are all double clipped to their hoses.

Note

All seacocks must be 'CR' or 'CW602N' marked types, full bronze types or 'Marelon' plastic types. Do **not** use 'CW617N' marked brass types.

<p><i>Electric Bilge Pump:</i> No electric bilge pump is fitted which is advised.</p> <p><i>Manual Bilge Pump:</i> There is a 'Henderson' lever operated, manual bilge pump securely fitted in the cockpit coaming on the starboard side. The pick-up is fitted located in the saloon bilge well and the pipework is in single clipped, black reinforced hose. However, the lever would not fit into the pump opening.</p> <p>Electrical Installation</p> <p><i>Batteries:</i> There are 2 x 12V 115Ah and 110Ah batteries securely fitted under the aft bunk forward end. These are showing charged, have clean terminals, tight cables and are parallel connected.</p> <p><i>Isolators:</i> There are 2 x removable key isolators securely fitted to the forward face of the aft bunk base and these operated satisfactorily.</p> <p><i>Charger:</i> No charger is fitted as there is no 240V AC installation.</p> <p><i>Shore Power:</i> No 240V AC installation is fitted which is recommended as an upgrade.</p> <p><i>Panel:</i> The 12V DC switch panel is located by the chart table, is well laid out and operated satisfactorily.</p> <p><i>Wiring:</i> Where visible, the main cable and wiring installations are in a serviceable condition overall but there are various areas of loose and DIY wiring which will require tidying up and fixed to local bulkheads.</p> <p><i>Lights:</i> There are switched lights throughout the accommodation and operated satisfactorily.</p> <p><i>Navigation Lights:</i> There are pulpit mounted port and starboard navigation lights, a mast mounted steaming and deck flood light, a mast top all-round tricolour and anchor light and a stern light. These were not tested.</p> <p>Fuel Installation</p> <p><i>Deck Filler:</i> This is located in the cockpit deck aft under the tread board and is in anodised aluminium and the seal is average and there is no chain fitted.</p> <p><i>Tank:</i> The fuel tank is fitted behind the water tank but could be seen as the access panel was obstructed by all the locker items. Once the locker has been emptied, the tank should be fully inspected particularly.</p> <p><i>Fuel Shut Off Valves:</i> There are no fuel shut off valves seen fitted which is advised.</p> <p><i>Distribution:</i> This is simple but suitable where seen.</p> <p><i>Pipework:</i> The outlet and return pipework is in drawn copper and showing areas of some patina / surface corrosion where seen. From the pre-filter and from the engine, the flexible fuel hoses are securely single clipped but no ISO 7840 compliant markings were seen.</p> <p><i>Pre-filters / Filters:</i></p> <ul style="list-style-type: none"> • There is an unmarked fuel / water separator filter with drain tap securely fitted to port in the engine compartment with no clear leaks noted from the installation. • There is a screw on filter fitted to the engine. 	<p>Urgent Recommendation Ensure the lever fits and the pump operates satisfactorily.</p> <p>Recommendation Tidy up all loose / open wires.</p> <p>Urgent Recommendation Ensure all navigation lights operate.</p> <p>Recommendation Replace the seal and add a securing chain.</p> <p>Recommendation Install shut off valves in all fuel using systems and where they can be easily accessed.</p> <p>Recommendation Ensure all flexible fuel pipework is ISO 7840 compliant hose.</p>
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Machinery

Engine:

The engine is in an overall good cosmetic condition with no clear signs of any corrosion or major leaks noted and the compartment sides are lined with sound deadening insulation. There is a towel wrapped around certain aspects of the engine aft, so it is recommended the complete powertrain is inspected and serviced by a competent 'Bukh' specialist. The engine was started and ran satisfactorily during the trip to the lift out and the main specifications are.

Make	Bukh DV20 2-cylinder diesel
Max Rating	20hp @ 3,000 rpm
Serial No.	107804
Engine Hours	n/r

Gearbox:

The gearbox is in good cosmetic condition where seen, but access is extremely difficult. The gearbox should be serviced as part of the wider powertrain inspection:

Make	n/r
Ratio	n/r
Serial No	n/r

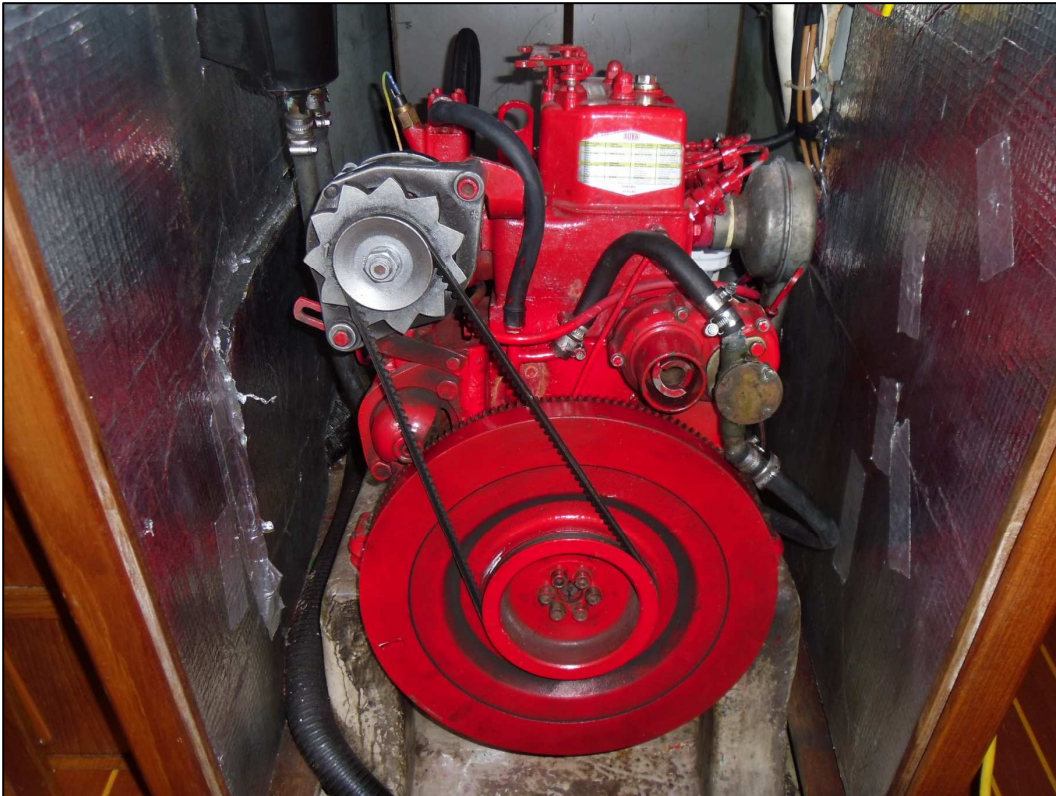


Fig.6 – Bukh DV20 2-cylinder diesel engine.

Bearers and Mounts:

The engine is firmly secured to lengthwise strong GRP beams via four engine mounts. These are in serviceable condition overall and there is no excess movement of the engine when rocked by hand.

Seacock and Strainer:

The engine coolant seacock is located in the battery compartment and is a 'CR' marked brass bodied, ball valve seacock which operated satisfactorily and is in a serviceable condition. The outlet hose is in double clipped, black reinforced hose which should be fire resistant compliant and there is patina to the join as well as to the base fitting. The hose is double clipped to a strainer securely fitted starboard aft in the engine compartment with the outlet also double clipped from the strainer into the water pump inlet.

Recommendation

Fully inspect and service the engine and enquire why there is a towel wrapped around the back.

Recommendation

Ensure the hose is fire resistant.

Recommendation

Replace all oils as part of the wider service.

Cooling:

The engine is cooled directly by seawater supplied by an engine driven impeller type pump which is in a serviceable condition, though there are some areas of corrosion and possible salt deposits around the outlet fitting. However, there is a diamond outlet take-off fitted to the forward face of the engine which has corrosion and deposits around the edges and fixings and there are salt deposits around the forward cylinder manifold outlet.

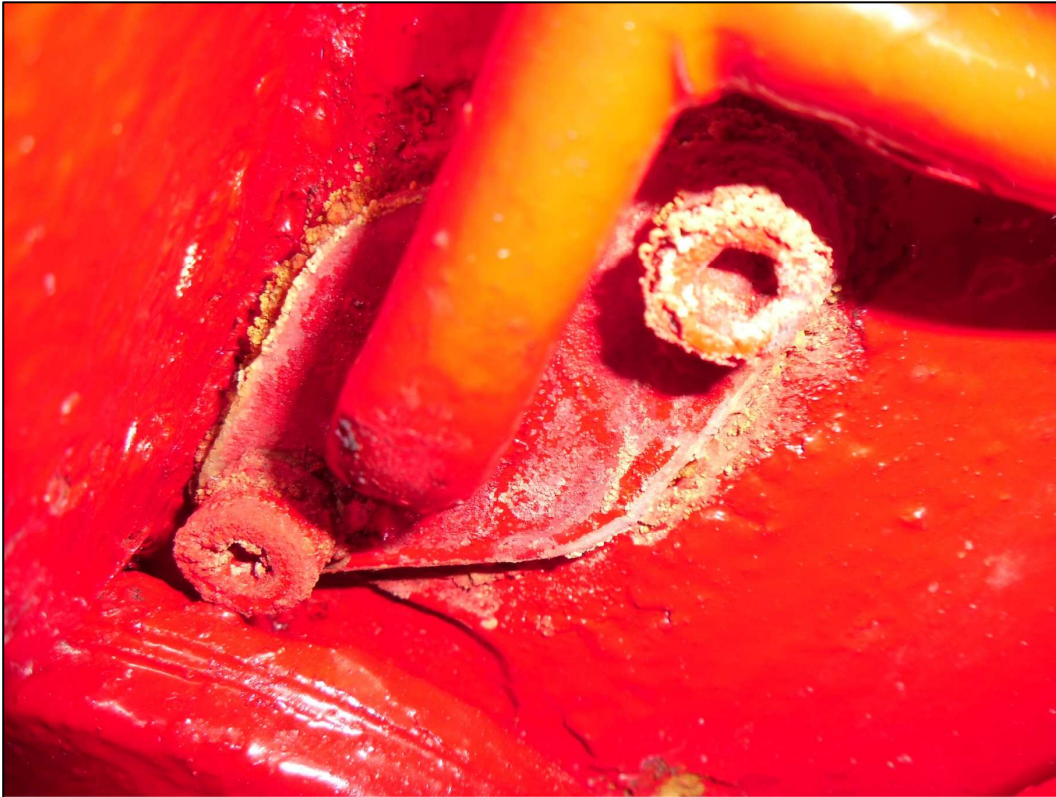


Fig.7 – corrosion and deposits around the forward take-off.

Hoses:

These are in a serviceable condition, double and single clipped where seen.

Lubricants:

- The engine oil was not checked.
- The gearbox oil was not checked.

Fluid Tight:

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

Exhaust:

The exhaust gases from the engine travel through the manifold and connected to a securely double clipped, black reinforced rubber hose. No silencer or water lock was seen and the hose runs aft where it is looped up to the exhaust fitting.

Controls:

These are all serviceable and operated satisfactorily.

Ancillaries:

The engine is fitted with a 12V alternator which supplies charge to the yacht's batteries when the engine is running and this is securely fitted with a correctly tensioned belt.

Fire Fighting Equipment

Accommodation:

- There is a 2kg ABC dry powder extinguisher showing charged and dated 2019 located in the cockpit starboard locker.
- There is a 0.6kg ABC dry powder extinguisher showing charged and dated 2018 loosely located in the gas locker.
- All interior extinguishers were not inspected.

Recommendation

Clean off all deposits and monitor for any leaks when the engine is running and resolve as required.

Urgent Recommendation

Replace all accommodation extinguishers if out of date and ensure they are all fitted to local bulkheads.

<p><i>Galley:</i> No fire blanket was seen located at the galley.</p> <p><i>Engine Compartment:</i> There is no automatic extinguisher fitted which is advised.</p> <p><i>Smoke / CO / Gas Alarm:</i> There is a CO detection alarm fitted in the accommodation but was not tested.</p>	<p>Recommendation Add a fire blanket if not already fitted.</p> <p>Recommendation Install an automatic 'clean agent' type extinguisher in the engine compartment.</p> <p>Recommendation Ensure the CO alarms operate.</p>
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Statement

This report is a true and accurate description of 'Keromi' 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.

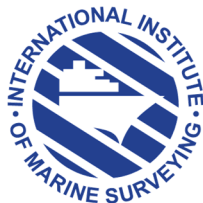
This report is provided for the sole use of the instructing client named within this survey report and no liability of any nature will be accepted by the surveyor to any third party.

This report is submitted without prejudice.



Rupert Keyzar
AssocIIMS

Anchor House Marine Surveys
12th October 2022



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