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'Widebeam Barge'

## **Pre-Purchase Survey**

**Report Date:**

**Survey Date:**

**Place of Survey:**

**Vessel name:**

**Vessel Type:** Widebeam

**Builder:**

## **Client**

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## I. Terms & Conditions

### Terms & Conditions

This Survey was carried out under the Yacht Designers and Surveyors Association current Terms of business which were e-mailed to the client prior to the survey.

### Limitations

- We have not inspected woodwork or any other parts of the structure which were covered, unexposed or inaccessible and we are, therefore, unable to report that any such part of the structure is free from defect.
- 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.
- Where repairs, further opening up, or dismantling are required, additional decay, damage or necessary work may be uncovered.
- The engine, tanks and other normally installed mechanical equipment were in situ which limited inspection and examination in these areas.
- A Cygnus 4 multiple echo ultrasonic thickness gauge was used to determine plating thickness. This instrument uses repeat echoes to differentiate between coatings and metal. It is used to assess point thickness at regular intervals and more frequently where corrosion is suspected in conjunction with a visual examination. However, it is unlikely that localised pitting will be found by this method if it is otherwise concealed.
- The vessel was out of the water during the survey. This survey is unable to ascertain the water tightness of the vessel.
- The vessel was not surveyed with respect to any particular code or standard or navigation body's rules or bylaws unless specifically stated. No documentation or compliance with any regulations has been checked as part of this survey. No guarantees or warranties are given or implied with respect to the vessels suitability or fitness for purpose.
- This report has been prepared for the use of the commissioning client and no liability is extended to others who may see it.
- The vessel had not been shot/sand blasted or UHP washed prior to survey. No comment can be made on parts of the vessel which were covered by marine grass/growth.
- The vessel was found resting on wooden sleepers and no comment can be made on the base plate where the wooden sleepers obscured inspection.

### 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.
- The survey is not a parts and labour guarantee and it should be noted that defects may exist in the vessel that the survey could not detect due to limitations of time, vessel presentation and the range of tests acceptable to the owner.
- Please note that where reference is made to condition in all cases this must be considered in relation to the vessels's age, for example: very good condition should not be taken to mean new condition.
- A general inspection of the engine, installation and systems will be made, but this is a visual inspection only and an item has only been operated if stated. It should be appreciated that some components may appear serviceable but be found defective when run under load and for a prolonged period.

## Recommendations

- Recommendations will be restricted to those defects which should be rectified before the vessel is used, (or with a given time span if specified, and items which may affect insurability.)

*Recommendations are listed at the end of each section, labelled with priorities as listed below:*

- **Dangerous:** Items which must be repaired prior to the vessel being re-floated or used for habitation/navigation. Vessel deemed uninsurable with this issue.
- **Urgent:** Items which are not classed as dangerous, however, should be repaired preferably prior to the vessel being re-floated or used for habitation/navigation. Vessel deemed an increased risk for insurers with this issue.
- **Priority:** Items of repair should be carried out as soon as possible. Repair should be carried out no later than within six months. Vessel only insurable with restrictions or safety precautions.
- **Caution:** Items would require monitoring and further investigation. Repair may be required within the next twelve months.
- **Advisory:** Items are advised for safety or maintenance. These do not pose an insurance risk to the vessel.
- Recommendations will be printed in blue, for quick reference. The recommendations are contained in the body of the report in order that they may be read in context.
- *Suggestions will be printed in italics as they do not constitute a requirement. Suggestions are this surveyors opinion only, and can be looked on as 'helpful advice' to preserve the craft for the long term or improve handling and comfort.*

## II. Details of Subject Vessel:

'Widebeam Barge' was reported as having been built in 2017. She was found on the hard in Buckinghamshire.

She was a cruiser stern steel wide beam barge with a flat bottom plate. The swept bow included a fabricated stem post and the semi-circular stern with a horizontal uxtter (counter) plate and flared swim plates. The deck and cabin are of welded mild steel. The internal fit out is of timber & plywood construction.

**Length Overall:** 57' 0" (17.37m)

**Beam:** 12' 0" (3.65m)

**Draft:** ~2' 0" (0.60m)

**Engine:** Canaline Marine Diesel

**Year of construction:** 2017

**CRT number:**

**Boat Safety Scheme number:** Not seen

**Builders number:**

**Owners manual:** Seen

**Certificate of conformity:** Not seen

\*Above taken from various sources, not checked unless specifically noted.

### III. Legislation & Ownership:

Note: The inspection is not undertaken with any intention to ascertain that the vessel would comply with any rule or code of practice, as may be required by any authority under whose jurisdiction the vessel may be operated. It carries no warranty regarding ownership of the vessel or any warranty regarding outstanding mortgages, charges or other debt there may be on the vessel. No documentation was seen onboard the vessel at the time of survey.

#### **Boat Safety Scheme:**

No BSS certificate was found onboard the vessel at the time of survey. Please be aware that the existence of a Boat Safety Scheme certificate does not imply that the craft is safe. A BSS certificate only indicates that, on the day of the inspection, the craft met the requirements for the licensing with the Navigational Authority concerned, with a view to minimising the risk of fire & pollution and its effect on other vessels. BSS inspections are required every 4 years.

*Suggestion: Inland waterways boat owners are advised to download a full copy of the Boat Safety Scheme guide from [www.boatsafetyscheme.com](http://www.boatsafetyscheme.com) and keep it on the vessel for reference.*

Note: Alterations and improvements should be made to the manufacturers installation guidelines, but should also comply with the Boat Safety Scheme essential guide.

#### **V.A.T Status & Proof of Ownership:**

The original invoice for the vessel was not seen onboard and therefore there was no evidence that United Kingdom V.A.T had been paid. There was no proof of ownership found onboard the vessel.

#### **Small Ships Register/British Waterways Registration:**

A British Waterways licence number was found on board and displayed: \*\*\*\*\*. When checked with the Canal & River Trust the vessel was showing as being licensed. Registration would require updating and formal display with any change of ownership.

#### **Recreational Craft Directive:**

The vessel was reported to have been built after the 16 June 1998 and therefore the vessel does need to comply with the requirements of the Recreational Craft Directive (RCD). A manufacturers HIN number was noted embossed into the starboard aft of the hull, and an instruction manual was provided by the broker.

- [Recommendations - Advisory: Requesting all additional paperwork and corroborating paperwork be produced prior to the purchase of the vessel.](#)

### IV. Condition Report:

#### **1. Hull Deck**

The Hull, Deck, Cabin Structure and associated equipment were visually inspected, and the hull above and below the waterline was sample hammer tested and reported below. Any defects found are noted below, along with advice or recommendations.

#### **Hull Thickness Measurements**

A Cygnus 4 multi echo ultrasonic thickness meter was used to measure sample plate thickness. The meter was calibrated before use.

Thickness testing was of a sample nature targeting suspect locations around the hull. Over 150 readings were achieved and these showed an acceptable level of consistency.

Pitting testing was of a sample nature targeting suspect areas of pitting around the hull. A digital veneer caliper which measures down to 0.01mm was used. The meter was calibrated before use.

### **Base Plate**

The base plate had not been ultra high pressure washed prior to survey and a visual inspection of the base plate was fair. Coupons of marine growth and residual blacking were cleaned back to allow for thickness measurements to be taken at meter intervals along the edge and centre line, these were gauged to be between 9.6mm & 10.4mm. The vessel had been epoxy coated and there was some evidence of blacking with a bitumen type paint system, however, the general blacking covering was considered to be very thin and thought to be more than two years old, with coatings now offering limited protection. Some limited evidence of corrosion to the base plate was noted.

The presentation of the vessels base plate allowed for a detailed visual inspection for pitting to be made and no pitting was noted at this time. Hammer soundings returned an acceptable level of consistency across the entire base plate. Where possible welds were visually inspected and hammer sounded between the edges of the plates at the foot, and were found to be continuous and fair.

Internally, inspection of the base plate was limited to the engine compartment and a very small inspection hole at the foot of the companionway. No signs of corrosion to the base were noted within the engine compartment where painted coatings offered good protection. Hammer soundings of the base plate within the engine compartment returned robust soundings.

- **Recommendation - Advisory:** Externally the vessels base plate should be cleaned thoroughly prior to at least two coats of 'blacking' being applied to protect the base plate going forward.
- *Suggestion: Water on the interior of the vessel can cause considerable damage over time. If left untreated it has been known for vessels to corrode from the inside out, often seen in the form of significant damage to the inner base & uxtter plate. Inspection hatches within the cabin sole floor should be left open when the vessel is not in use to help increase the air flow throughout the vessel and help keep the base plate dry.*

### **Uxtter Plate**

The uxtter plate had not been ultra high pressure washed prior to survey and a visual inspection of the uxtter plate was good. Where residual coupons of blacking and surface corrosion were cleaned back to allow for thickness measurements to be taken at meter intervals around the edge and centre, these were gauged to be between 5.8mm & 5.9mm. There was some limited evidence of blacking with a bitumen type paint system, however, the general covering was considered to be very thin and thought to be more than two years old, with coatings now offering very limited protection. Some evidence of corrosion to the uxtter plate was noted.

The presentation of the vessels uxtter plate allowed for a detailed visual inspection for pitting to be made and no pitting was noted at this time. Hammer soundings returned an acceptable level of consistency across the entire uxtter plate. Where possible, welds were visually inspected and hammer sounded between the edges of the plates, and were found to be continuous and fair.

Internally, inspection of the uxtter plate was limited to the engine compartment. No signs of corrosion to the uxtter plate was noted within the engine compartment where painted coatings offered good protection. Hammer soundings of the uxtter plate within the engine compartment returned robust soundings.

- Recommendation - Advisory: Externally the vessels uxtter plate should be cleaned thoroughly prior to at least two coats of 'blacking' being considered to protect the uxtter plate going forward.

### Side Plates

The side plates had not been ultra high pressure washed prior to survey and a visual inspection of the side plates was good. Where residual coupons of blacking and surface corrosion were cleaned back to allow for thickness measurements to be taken at meter intervals above, at and below the waterline these were gauged to be between 5.6mm & 6.0mm. There was some limited evidence of blacking with a bitumen type paint system, however, the general covering was considered to be very thin and thought to be more than two years old, with coatings now offering very limited protection. No evidence of corrosion to the side plates was noted.

The presentation of the vessels sides plate allowed for a detailed visual inspection for pitting to be made and no pitting was noted at this time. Hammer soundings returned an acceptable level of consistency and where welds were cleaned back between plates, and the foot, these were visually inspected, hammer sounded and found to be continuous and fair.

The vessel carried one 50mm 'D' section steel rubbing strake welded from the stem to the 4.20m mark. In addition a 50mm 'D' section quarter rail ran around the stern of the vessel, starting at the 12.25m mark. These were visually inspected, hammer sounded and found to be secure with the topsides and undersides of the 'D' sections welded continuously along their full lengths which is considered best practice.

- Recommendation - Advisory: Externally, the side plates should be cleaned thoroughly prior to at least two coats of 'blacking' being considered to protect the base plate going forward.

### Weed Hatch

The weed hatch was set into the uxtter plate and positioned above the propeller with good access. The weed hatch and anti-cavitation were removed and visually inspected, hammer sounded and found to be serviceable with no significant signs of corrosion noted. The tightening clamp fastened securely down on the top flange and was found to be secure and serviceable. The sealing gasket was visually inspected and noted to be serviceable. The seam between the weed hatch wall and uxtter plate were visually inspected and no corrosion was noted where it butted the uxtter plate. The height of the weed hatch was measured to be over 150mm above the counter plate and therefore at the height associated with best practise.

*Note: The BSS advises for privately owned boats to have a secure and watertight weed hatch which reaches to at least 150mm (6ins) above the waterline, when the boat is loaded up as normal.*

- Recommendation - Advisory: The weed hatch and anti-cavitation plate should be removed and the walls cleaned thoroughly, prior to two coats of 'blacking' being applied to protect the weed hatch and anti-cavitation plate going forward.

## **2. Hull Internal Structure**

*Access Note: Access to the base plate, side shell, and main deck structure were limited by way of the accommodation due to the presence of floorboards, linings and cupboards.*

Access to the aft bulkhead via the engine compartment allowed for visual inspection and hammer soundings. Where hammer soundings allowed, these were found to be robust, with painted coatings offering good protection.

No ballast in the form of concrete blocks or otherwise was noted within the limited areas available for inspection. It was not possible to inspect the internal framing due limitations of access.

*Suggestion: Creating inspection hatches within the vessel which can be left open when the vessel is not in use, to increase the air flow throughout the vessel.*

## **3. Decks**

The aft steering deck was visually inspected, and hammer tested and found to be fabricated in 4.0mm mild steel. A three section centre hatch fabricated in buffalo board gave way to the weed hatch and engine compartment below and was in good serviceable condition. The overall condition of the aft deck was considered good, with painted coatings offering good overall protection with only a small number of chips exhibiting spots of corrosion. The supporting structure was visually inspected from within the engine compartment and found to be serviceable.

The fore well and fore deck were visually inspected and hammer sounded and found to be fabricated in 4.0mm mild steel. The deck was visually inspected and found to be in good serviceable condition. Coatings were deemed to be offering good overall protection with no corrosion noted around the bow locker or hinges. The water filler located on the well deck was serviceable and of a marine grade.

The side decks were visually inspected, hammer sounded and thickness gauged and found to be fabricated in 4.0mm mild steel. The side decks were visually inspected and found to be in good serviceable condition with coatings offering good overall protection.

## **4. Cabin & Covers**

The cabin structure was visually inspected, hammer tested and thickness gauged and found to be fabricated in 4.0mm and 5.0mm mild steel. The cabin top and sides were visually inspected and were found to be in serviceable condition. Large sections of the cabin top were covered with solar panels which did not allow for visual or physical inspection in these areas. The paintwork on the cabin top and sides had been finished in black and cream coloured coatings which were in fair serviceable condition and offering good overall protection, except for a number of small spots where minor corrosion was noted on the cabin



top. Hand rails were integral to the cabin top and were visually inspected and physically tested and found in good serviceable condition. Drainage from the sides of the cabin top were noted to be poor with draining only noted forward and aft.

Neither the steering deck and fore deck were covered with fabricated covers.

## 5. Rudder & Steering

The rudder plate had not been ultra high pressure washed prior to survey. The rudder plate was visually inspected, hammer tested and thickness gauged and found to be of 10.2mm mild steel plate welded to the rudder shaft and supported at the bottom end on a skeg. No play was noted in the heel pintle. The rudder stock passed cleanly through the rudder tube. A detailed examination of the rudder stock and tube could not be made due to limitations of access where it passed through the diesel tank, however, no corrosion was noted where inspection was possible. Full and free movement of the rudder was confirmed with the rudder making contact with the hull at the full extent of its turn. The tiller and locking nut were visually inspected and found to be secure and in good serviceable condition. Some movement in the top bearing was noted, which was noted to be loose and in need of tightening. A tiller arm extension and pin were noted and both were serviceable.

- Recommendation - Advisory: The top rudder bearing should be tightened up using the allen screw which is present.

## 6. Propeller & Stern Gear

One unmarked 480mm three bladed fixed pitch yellow metal propeller was fitted. The propeller was visually inspected, hammer sounded and scraped and no signs of impact damage or dezincification were noted. The propeller rang true when hammer sounded, and was securely fastened to the shaft.

The stainless steel propeller shaft was found in good condition, with no pitting noted. Upon turning, the shaft was found to be straight with no play noted in the cutlass bearing when tested under the surveyors weight. The shaft alignment was visually good, and the stern gland was a dripless type. No water ingress was noted around the dripless stern gland, however, this could not be confirmed as the vessel was out of the water at the time of survey. The age of the stern gland is considered to be in keeping with the age of the vessel and so should be within the recommended manufacturers warranty. The coupling was visually inspected and noted to be in serviceable condition.

- Recommendation - Advisory: The dripless stern gland should be replaced in accordance with the manufactures warranty going forward.

## 7. Cathodic Protection

The vessel featured one anode on the shaft, aft of the propeller and two pairs of 2.5kg sacrificial anodes fitted to the hull side shell by way of welded straps. Two at the bow and two at the swim. These were hammer tested and found to be secure.

As listed below:

Bow -> Stern (m)			
Port	Original Weight	Wasted %	Recommendation
1.50	~ 2.5 KG	~ 10%	Serviceable
15.75	~ 2.5 KG	~ 10%	Serviceable

Bow -> Stern (m)			
Starboard	Original Weight	Wasted %	Recommendation
1.50	~ 2.5 KG	~ 10%	Serviceable
15.75	~ 2.5 KG	~ 10%	Serviceable

- Recommendation - Advisory: The anodes should be inspected when the vessel is next hauled out for blacking and replaced as according to requirements.

*Note: Sacrificial anodes on steel narrowboats in fresh water help to protect only a limited area around each anode, with little or no benefit to the majority of the underwater hull. Care should be taken to use anodes of the appropriate material for the mooring location; zinc for salt water, magnesium for fresh water & aluminium for brackish water.*

## 8. Through Hull Apertures

The following above waterline, overboard discharges from the accommodation and engine compartment were found.

These were installed as brass, bronze or plastic through hull fittings with threaded internal spigot, or formed by a tube welded to the side shell and a pipe attached, which can be considered good practice. Each discharge was hammer tested, and scraped externally and inspected internally where accessible and found to be in a serviceable condition.

Bow -> Stern (m)				
Port	AWL	Function	Type	Condition
0.85	200mm	Bow locker drain	Hole	Serviceable
2.35	250mm	Well deck drain	Hole	Serviceable
11.85	260mm	Washing machine drain	Skin fitting	Serviceable
13.36	300mm	Galley sink drain	Skin fitting	Serviceable
13.36	300mm	Galley sink over flow	Skin fitting	Serviceable
14.95	150mm	Gas locker drain	Welded pipe	Serviceable
15.20	300mm	Calorifier drain	Skin fitting	Serviceable
16.20	150mm	Engine exhaust	Welded pipe	Serviceable
16.40	300mm	Bilge pump	Skin fitting	Serviceable
16.60	150mm	Aft deck drain	Welded pipe	Serviceable

Bow -> Stern (m)				
Starboard	AWL	Function	Type	Condition
0.85	200mm	Bow locker drain	Hole	Serviceable
2.35	250mm	Well deck drain	Hole	Serviceable
2.75	275mm	Water tank breather	Breather	Serviceable
5.25	350mm	Holding tank breather	Breather	Serviceable
5.45	350mm	Shower drain	Skin fitting	Serviceable
7.00	330mm	Heads	Skin fitting	Serviceable
15.10	300mm	Webasto exhaust	Skin fitting	Serviceable
16.65	100mm	Aft deck drain	Welded pipe	Serviceable
16.65	450mm	Engine compartment vent	Vent hole	Serviceable

- Recommendation - Advisory: All through hull apertures be securely fastened to hoses using a hose clamp at either end where practically possible.

*Note: The Canal Boat Association guidelines recommend 150mm of freeboard under any opening in the side shell to prevent down flooding.*

## 9. Access to Accommodation

The aft entrance was visually inspected and found to be by way of double doors. These were fabricated from mild steel on the exterior and wood lined on the interior. A sliding top hatch was noted over the companionway. The top hatch operated on sliding runners which were noted to be fabricated from plastic and had become significantly warped making opening and closing of the hatch difficult. The doors locked securely together by means of lock and key.

The side entrance was visually inspected and found to be by way of a double doors. These were fabricated from mild steel on the exterior and wood lined on the interior. The doors locked securely together by means of latches. These were noted to be stiff to open.

The forward entrance was visually inspected and found to be by way of double doors. These were fabricated from a soft wood, thought to be pine and were noted to have warped due to water ingress and proved difficult to open and close. Varnished surfaces were noted to be in poor condition. The doors locked securely together by means of lock and key.

- Recommendation - Advisory: Sanding or planing the forward doors, and varnishing the doors and frames.

## 10. Windows & Ports

The windows were large alloy framed top hoppers port holes. These were visually inspected and found to be in good serviceable condition. Window gaskets were found to be in place and windows showed only minimal signs of water damage around the frames on the wood below.

- Recommendation - Advisory: Hose testing windows & portholes to determine water tightness.

### 11. Stanchions

A taff rail was noted securely affixed around the aft steering deck. Painted coatings were noted to be in good serviceable condition.

### 12. Mooring Arrangements

No kedging anchor, chain or warp were noted onboard the vessel at the time of survey. On the bow a T-shaped mooring bollard was visually inspected and hammer tested and found to be secure. On the stern two mooring bollards were noted which were visually inspected and hammer tested and found to be secure. A number of mooring lines but no side fenders were seen onboard the vessel at the time of survey. The lines were in serviceable condition. Button fenders were noted at the bow or stern and were serviceable. A number of mooring pins were noted onboard the vessel at the time of survey and were serviceable.

- Recommendation - Advisory: Anchor, chain & warp for this size of vessel be procured prior to extended navigation.

### 13. Navigation Lights & Horn

A tunnel light, navigation lights and horn were noted affixed to the forward bulkhead and cabin sides, and a stern light affixed to the aft deck. The tunnel light and horn were noted as not being serviceable. The navigation lights including stern light were noted to be serviceable.

- Recommendation - Advisory: The tunnel light and horn should be seen to be serviceable prior to extended navigation.

### 14. Bilge Pumping Arrangements

A Rule 500GPH electric bilge pump was located within the engine compartment beneath the stern gland. This was switch tested and heard and seen to be serviceable with water in the bilge seen to be expelled over the side.

### 15. Fire Fighting and Emergency Equipment

The fire fighting and emergency equipment onboard the vessel was as follows:

Position	Fire Fighting item	Weight (kg)	Code	Condition
Forward cabin	Powder Fire Extinguisher	1 Kg	8A 55B C	Serviceable - Green Sector
Saloon	Powder Fire Extinguisher	1 Kg	8A 55B C	Serviceable - Green Sector
Companionway	Powder Fire Extinguisher	1 Kg	8A 55B C	Serviceable - Green Sector
Companionway	Fire Blanket	-		Serviceable
Saloon	Carbon Monoxide			Replace batteries and test
Saloon	Smoke Alarm	-	-	Replace batteries and test

- Recommendation - Advisory: Smoke & Carbon Monoxide alarm batteries should be replaced and tested for serviceability.

Carbon monoxide poisoning is a considerable hazard and there have been a number of accidents caused by faulty gas appliances, inadequate alarm systems and inefficient flues or lack of ventilation.

## 16. Engine & Installation

The engine was visually inspected and briefly seen running. It started by means of an electric starter. The following checks were carried out:

Part	Results
Engine Type	Canaline 52
Engine Hours	1259.9hrs
Engine Mountings	Visually inspected & hammer tested and found to be secure.
Exhaust	Found to be secure, and fully lagged.
Sump Pump	Tested, serviceable.
Fluid Levels	Inspected, serviceable
Hose Conditions	Found to be serviceable, and marked of a marine grade.
Engine Cooling	Visually inspected, and no signs of leakage noted.

The overall visual condition of the engine was good with painted coatings in good condition. No diesel was seen leaking from the pre or primary filters or hoses. The morse type throttle was securely mounted and gear shift actuator was seen to move smoothly. Hoses where marked were of a marine grade with ends securely fastened with jubilee clamps. Electrical wiring was securely fastened and crimped, and wires neatly laid.

The engine started with no excessive smoke noted. The engine was only seen and heard to run for a short period and was serviceable, however, a high pitched tapping was noted. The engine was not seen running under load and no guarantees can be given of the engines serviceability under load over a prolonged period of time, as part of this survey.

*Note: The inspection of the engine is limited to those tests and inspections listed above. It is recommended that the services of a diesel marine engineer are sought for a full and detailed engine inspection and analysis.*

- Recommendation - Advisory: The vessel should be taken for an extended sea/river trial, where the engine may be seen running under sustained heavy load and where actuators may also be seen functioning whilst the engine is in service.
- Recommendation - Advisory: A marine diesel engineer should further investigate the high pitch tapping noted when the engine was idling and run in low revs.

## 17. Fuel System

The mild steel diesel tank was situated in the counter stern of the vessel. This was visually inspected, hammer sounded and found to be in a serviceable condition with no corrosion to the tank noted. A fuel filler was located on the aft deck and was visually inspected and found to be in serviceable condition and of a marine grade with arrangements for preventing water entering the fuel tank found to be adequate.

A fuel shut-off valve in the draw pipe and return were noted in the engine compartment beneath the steering platform. Pipe work was inspected where accessible and found to be fully supported. The diesel tank breather was incorporated into the starboard aft mooring bollard with a fireproof gauze visually inspected and found to be serviceable.

### 18. General Accommodation

The layout and general accommodation arrangement of the vessel was as follows, from bow to stern:

- Fore Deck
- Fore Well
- Forward Cabin
- Heads/Shower
- Saloon
- Galley
- Steering Platform / Engine Compartment

The accommodation was finished in a combination of pine and plywood finish with plywood bulkheads and pine wooden floors throughout. The pine wooden floor boards were visually serviceable with no sagging noted under the weight of the surveyor, however, water stained discolouration was noted in a number of areas on the floors and cabin walls within the vessel. The source of the water ingress was not established, however, it is thought that this may have occurred due to holes drilled into the cabin top to affix the solar panels.

- **Recommendation - Advisory:** Hose testing around solar panel attachment point to establish whether these are the source of the water ingress and sealing with a marine type sealant if required.

*Suggestion: Adding a number of inspection hatches in convenient locations. These hatches should then be left open when the boat is left unattended to allow some ventilation through the vessel.*

### 19. Gas Installation

A full gas installation inspection can only be carried out by a suitably qualified gas operative registered with Gas Safe. Please note this survey is not any kind of gas safety certificate. This is only obtainable in the UK after comprehensive pressure testing and assessment by a qualified person listed on the Gas Safe Register [www.gassaferegister.co.uk](http://www.gassaferegister.co.uk)

*Note: The following is a visual inspection only, however, any serious deficiencies that affect safety will be noted. The system was not physically tested as part of the survey.*

The gas locker storage was found set into the steering deck and engine compartment. This was visually inspected, hammer sounded, and found to be serviceable. The locker was of mild steel with a mild steel lid which had been painted and was serviceable. The gas bottle storage locker door was clearly labelled.

Two 13kg butane gas bottles were found within the locker. One of the gas bottles was found to be connected to a flexible hose which was found to be less than 1m long and clearly marked. The hose was connected to a single regulator. No manual master gas shut off valve was noted in the pipework within the locker. Inspection of the copper piping, as far as the gas cooker was only partially visible. Where pipe work was inspected this was serviceable and

supported. Two inline gas shut off valves were noted beneath the galley countertop, and noted to be serviceable.

## **20. Freshwater, Sanitation & Pollution**

The fresh water tank was located beneath the well deck. It was not possible to visually inspect the tank due to limited access from within the forward cabin and the tank having been coated in foam insulation. A water filler was located on the well deck and was visually serviceable and of a marine grade.

A 12v water pump was noted in the space aft of the water tank. The water system was switch tested by running the taps in the heads and galley with water having been seen delivered to both sets of taps. No leaks were noted in the pipework coming from the fresh water tank, pump or calorifier.

The heads consisted in three parts. Shower, toilet and wash basin. The wash basin drained overboard with gravity. A shower which drained overboard by means of an electric shower sump pump which was switch tested and heard to be serviceable. An electric toilet which was serviceable with a high quality sanitary hose carrying waste leading to the holding tank. The holding tank was located beneath the forward bed space and was also coated in foam insulation obscuring physical inspection. A pump out fitting was located on the cabin top and was visually serviceable and of a marine grade.

*Attention: Water leakage from showers and bathrooms can cause considerable damage over time and have been known to rot whole sub floors if not found, causing damage to the base plate below. Continual monitoring for any leaks is suggested.*

## **21. Electrical Installation**

### **DC:**

The 12v system consisted of 4 x 120Ah sealed lead acid batteries for domestic consumption, and engine starting. These were tested with a multi meter and were found to be serviceable, reading 14.1v and 12.7v. All the batteries were noted resting within a dedicated housing on the starboard uxtter plate with a dedicated lid to protect against accidental shorting. The housing was secure and the batteries were found to be strapped down.

Three master isolation switches were noted incorporated into the battery housing. These were switch tested and found to be serviceable. Battery cables were deemed to be of an adequate size and cable runs generally tidily clipped and run.

An electrical fuse board was noted at the companionway entrance and was visually serviceable. 12v cabin lights were found throughout the vessel which were switch tested and found to be serviceable. The water pump and shower sump pump were switch tested and found to be serviceable. Four large solar panels were noted securley affixed to the cabin top, with wires running to two MPPT smart charge controllers and displays, which was securley mounted aside the companionway and were serviceable.

### **AC:**

An RCD (Residual Current Device) was noted attached to the port aft bulkhead within the engine compartment and was visually serviceable. A standard marine 230v plug socket was noted securely affixed to the engine control casing, however, serviceability was unconfirmed

as the vessel was not connected to shore power at the time of survey and no shore power cable found onboard the vessel at the time of survey.

A number of 240v plug sockets were noted within the accommodation. These were tested whilst the vessels inverter was running and found to be serviceable. A 12v Shoreline fridge was noted in the galley and was switch tested and seen to switch on. (*Note: Switch testing does not signify serviceability.*)

The inverter was noted securely affixed beneath the companionway steps and was serviceable.

- Recommendation - Advisory: The RCD should be tested whilst the vessel is plugged into shore power.

## 22. Heating, Ventilation & Refrigeration

A Webasto diesel heater was noted securely installed within the engine compartment. This was visually inspected and tested and found to be serviceable with water felt to become warm, after a period of time.

A calorifier was noted secular fastened within the engine compartment. This was not seen to be serviceable at the time of survey as the vessel was plugged into shore power.

A small solid fuel stove was noted securely mounted to a metal hearth. The flue was 230mm from the nearest combustable material. The hearth was noted to extend 230mm out in front of the stove. Inspection of the flue from the outer cabin top noted considerable soot deposit within the flue.

High level ventilation was provided by five mushroom vents securely located in the cabin ceiling. Low level ventilation was provided by vents in the bottom of the fore and aft doors.

Closed cell insulation was seen behind fixtures and fittings and tanks. It could not be confirmed if the whole cabin had been close cell insulated or not.

Carbon monoxide poisoning is a considerable hazard and there have been a number of accidents caused by faulty gas appliances, inadequate alarm systems and inefficient flues or lack of ventilation.

## 23. Additional Safety Items

No life jacket or horse shoe buoy or any other emergency equipment were found onboard the vessel at the time of survey.

- Recommendation - Advisory: The BSS (Boat Safety Scheme), RYA or RNLI can advise on appropriate safety equipment. Recommend checking the websites below and adding additional equipment as appropriate.

- The Royal National Lifeboat Institute - [www.rnli.org.uk](http://www.rnli.org.uk)
- The Boat Safety Scheme - [www.boatsafetyscheme.org](http://www.boatsafetyscheme.org)
- The Royal Yachting Association - [www.rya.org.uk](http://www.rya.org.uk)



**24. Conclusion & Recommendations**

'Widebeam Barge' was found on the hard at. A Pre-Purchase survey was conducted at the request of the purchaser.

Overall the vessel was set up as a live aboard, with the capacity for cruising. The hull thickness measurements of the vessel were found to be satisfactory overall, and hammer soundings did not return any areas of concern. The vessel should be thoroughly cleaned of marine growth prior to two coats of blacking being applied for additional protection prior to vessel being re-floated. There are a number of additional recommendations within the body of the report which should be actioned in accordance with the recommendation ascribed.

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London Barge Surveys  
20/3/2020

**APPENDIX I : Table of Ultrasonic Thickness Measurements**

<b>Bow -&gt; Stern</b>																			
<b>Port (m)</b>	<b>0</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>	<b>8</b>	<b>9</b>	<b>10</b>	<b>11</b>	<b>12</b>	<b>13</b>	<b>14</b>	<b>15</b>	<b>16</b>	<b>17</b>	<b>17.3</b>
Upper side plate	5.9	5.9	5.9	5.8	5.9	5.9	5.9	5.9	5.9	5.9	5.9	5.9	5.9	5.9	5.9	5.9	5.9	5.8	5.9
Waterline	NA	5.9	5.9	5.9	5.9	5.9	5.9	5.9	5.9	5.9	5.9	5.9	5.9	5.9	5.9	5.9	5.8	5.8	5.8
Lower Side plate	NA	5.9	5.9	5.9	5.6	5.9	5.8	5.8	5.8	5.8	5.9	5.8	5.8	5.8	NA	NA	NA	NA	NA
Base Plate edge	NA	9.6	9.6	9.8	9.6	9.8	9.8	9.7	9.8	9.8	9.8	9.8	9.8	9.8	10.2	10.2	10.3	NA	NA
Base Plate mid	NA	9.7	9.8	9.8	9.7	9.7	9.8	9.7	9.5	9.7	9.7	9.7	9.7	10.0	10.2	10.4	10.3	NA	NA
Counter Plate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.8	5.8	5.8	NA	NA
Uxter Plate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.8	5.8	5.8	5.8	5.8
<b>Starboard (m)</b>	<b>0</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>	<b>8</b>	<b>9</b>	<b>10</b>	<b>11</b>	<b>12</b>	<b>13</b>	<b>14</b>	<b>15</b>	<b>16</b>	<b>17</b>	<b>17.3</b>
Upper side plate	5.9	5.9	5.9	5.9	5.9	5.9	5.9	5.9	5.9	5.9	5.9	5.9	5.9	5.9	5.9	6.0	5.9	5.9	5.8
Waterline	NA	5.9	5.9	5.9	5.9	5.9	5.9	5.9	5.9	5.9	5.8	5.9	5.9	5.9	5.9	5.9	5.9	5.9	5.8
Lower Side plate	NA	5.9	5.8	5.8	5.8	5.8	5.8	5.8	5.8	5.8	5.8	5.8	5.8	5.8	NA	NA	NA	NA	NA
Base Plate edge	NA	9.7	9.7	9.7	9.7	9.7	9.7	9.7	9.7	9.7	9.7	9.7	9.7	9.7	10.2	10.2	10.4	NA	NA
Base Plate mid	NA	9.7	9.8	9.8	9.7	9.7	9.8	9.7	9.5	9.7	9.7	9.7	9.7	10.0	10.2	10.4	10.3	NA	NA
Counter Plate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.8	5.9	5.9	NA	NA
Uxter Plate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.9	5.9	5.9	5.8	5.8

APPENDIX II : Photographs



