Marine Surveyors and Consulting Engineers

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## "EXCELLENT"

# HULL STRUCTURAL CONDITION REPORT





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### **HULL STRUCTURAL CONDITION SURVEY REPORT**

1 NAME : EXCELLENT

Class : Wooden Fishing Vessel

Type : Netter

Gross Tonnage : 75

Registered length : 23.18m

Built : 1931

#### 2 TYPE OF SURVEY & PURPOSE

In water structural survey of visible parts of the external hull and accessible internal structure with comments as applicable.

#### 3 DATE AND PLACE OF SURVEY

16<sup>th</sup> December 2014 Afloat at Newlyn, Cornwall.

#### 4 OWNER

W Stevenson & Sons Ltd

Harbour Offices

Newlyn

Cornwall

**TR18 5HB** 

#### 5 SURVEY COMMISSIONED BY

The Owner.

#### 6 RELEVANT HISTORY AND STYLE OF BOAT

Single Screw Wooden Motor Fishing Vessel built 1931 and used for netting during its later life by the current owner operating out of Newlyn.



Number of previous Owners not known but the current Owner obtained the vessel in 1937 as FR 242 "Efficient" which became PZ 242 "Efficient" until about 1945/46 when renamed PZ 513 "Excellent". The vessel has not been used for several years and has been de-commissioned. There was no evidence of any maintenance having been carried out for some considerable time and the condition of the vessel had deteriorated into a very poor state.

Note:

The above historical information given by the Owners and/or obtained from the internet has not been checked or verified by us, and no guarantee of accuracy can be given.

#### 7 HULL DETAILS

Length overall:24.75 metresBeam:5.90 metersDraft:2.20 meters

#### 8 PROPULSION DETAILS

Engine: Lister Blackstone (201kw / 269 HP)

#### 9 VESSEL LAYOUT

Traditional wooden hull with steel superstructure. From forward to aft:

Forward storage space below shelter deck.

Fish hold below weather deck between forward storage space and engine room.

Engine room below superstructure.

Aft accommodation area below superstructure and aft weather deck.

#### 10 ACCESS & LIMITATIONS OF SURVEY

The vessel was afloat and berthed starboard side to the quay at the new ice berth on the New Quay in Newlyn harbour. The external hull could only be examined from the quay and by leaning over the side from the deck. There was good access to the lower parts of the forward store and fish room and limited access to upper parts of these spaces which were partially lined there was also limited access to the engine room internal structure and aft accommodation structure. This survey only addressed structural parts of the vessel so no machinery inspections or trials were carried out.

**Note 1:** This report does not address stability, craft performance, suitability for purpose or overall design, and no warranty is conveyed under these heads.

**Note 2:** This survey is a factual report on the inspection carried out, and the opinions expressed are given in good faith as to the condition of the vessel as seen at the time of the survey.



It implies no guarantee, no safeguard against latent defects, subsequent defects, or defects discovered at the time of the survey in the hull, fixtures and fixings or areas of the vessel which are covered, unexposed, or covered by non-removable linings, panels and internal structures etc. or where limited access was encountered.

#### 11. HULL & DECK STRUCTURE

- **11.1** A limited inspection of the outer hull above the waterline was carried out and the following found:-
  - Areas of rust staining over large area of the upper and lower hull indicating deterioration of the plank fastenings.
  - ii) Heavy contact and rubbing damage, starboard side amidships, with exposed heads of fastenings and a large amount of the planking rubbed away.
  - iii) Port side transom just above the waterline hole through the planking with daylight visible inside the vessel.
  - iv) Transom centre at change of section just above the waterline plank ends visibly damaged.
  - v) Several sections of the belting just below the main deck very soft with large areas of rot.
- 11.2 An inspection of the internal hull spaces was carried out and the following found:-

#### i) <u>Forward store</u>

Visible parts of the planking examined and the majority of accessible parts spike tested for softness – Some plank ends joining the stem timbers very soft with one plank rotten to the extent that a section could be dug out. The majority of the frames were found in reasonable order with some small areas of softness in the bilge area. The ends of the under deck beam at the aft part of the space were very soft with the port side suffering from dry rot rather than wet rot, the adjacent lodging knee's were also soft. A very large number of the deck planks above this space, especially around the hatch, were rotten through with large amounts of caulking missing and daylight visible from within the space.

#### ii) Fish hold

The deck planking in the bottom of this space was in a very poor condition having either completely failed due to rot or in an unsafe condition and not safe to stand on in unsupported areas.

The majority of the upper parts were lined but where the internal structure was accessible this was very wet and some areas spike tested were very soft.



Due to the unsafe nature of the internal deck planking only the after part of the internal structure in the bilge area was close up examined. At the time of our survey the fish hold had been pumped out but there was a small amount of what appeared to be a slightly toxic liquid in the after part of the bilge. Several frames were spike tested and where deck planking had previously been there were large areas which were very soft with wet rot.

Where upper parts of the space were accessible spike testing was carried out and whilst the main structure was generally fair a large amount of the deck planking, especially at the forward part, was very rotten with the caulking missing.

#### iii) Engine room

Access to the lower structure in the engine room was poor due to the machinery being in place but where spike testing was carried out timber that appeared dry was generally satisfactory but some of the wet areas were soft. The upper structure was lined in places with the upper accommodation above in the centre part but some of the areas in way of the deck edge were heavily rust stained indicating leakage from the upper deck with some soft timbers when spiked. Accessible deck planking was generally fairly hard when spiked but all parts were not checked.

#### iv) Aft accommodation area

Access to the lower structure in the aft accommodation was fair but the sides were lined, where spike testing was carried out timber that appeared dry was generally satisfactory but some of the wet areas were soft. The upper structure was lined in places with the after part of the upper accommodation above in the centre part. Some of the areas in way of the deck edge were heavily rust stained indicating leakage from the upper deck with soft timbers when spiked. Accessible deck planking was generally fairly hard when spiked but all parts were not checked. Access to the very after part of this space around the rudder trunk was difficult but daylight could be seen through the hull planking as detailed above. Accessible parts of the main structure were spiked and some areas of rot were found. The main support timber forward of the rudder stock was in very poor condition being completely rotten in places.

#### **11.3** Fastenings

i) With the vessel being afloat it was not possible for any plank fastenings to be drawn for examination but with the extent of the rust staining throughout the hull we would expect some of these to be corroded and possibly close to failure.



ii) Some of the heads of the fastenings were visible in way of the plank damage at about amidships on the starboard side but there was not enough of the remaining parts of the fastenings visible to be able to make an assessment of their overall condition.

#### 12 INTERNAL SPACES

Internal spaces above the main deck (saloon and galley leading to the wheelhouse and Skippers cabin) were only visually inspected as part of a general examination. The lower spaces were in very poor condition having had a considerable number of birds resident for some time. The steel wheelhouse deck was noted to be corroded through in places.

#### 13 DECK STRUCTURE, FIXTURES AND FITTINGS (External)

#### **13.1** Deck planking

- i) As well as accessible deck planking being spike tested from inside the under deck spaces the majority of the main deck was spike tested from above and a substantial amount of this was found to be rotten with the caulking in very poor condition or missing.
- ii) The after part of the main deck had been clad and it was not possible to check any of the planking beneath the cladding only accessible parts from within the vessel.

#### 13.2 Gunwales and bulwarks

- i) The majority of the gunwales and bulwarks were in very poor condition with large sections of the bulwarks completely rotten away with the adjacent section of gunwale in very poor condition.
- ii) The bulwark and gunwale sections along the sides of the contribute to the longitudinal strength of the vessel and their very poor condition will therefore have reduced the overall strength of the vessel.
- **13.3** Deck fixtures and fittings were not specifically examined as part of this survey but the majority were noted to be in very poor condition.

#### 14 MACHINERY, EQUIPMENT, FIXTURES AND FITTINGS

Machinery, equipment, fixtures and fittings were not specifically examined as part of this survey but engine room machinery was noted to be heavily corroded with some fixtures and fitting in very poor



condition. We noted that the two fuel tanks had been emptied and cleaned with the manhole covers

left off and these were in fair condition.

15 CONCLUSIONS AND COMMENTS

**15.1** Whilst some parts of the hull structure appeared in reasonable condition a lot of the vessels

structure was in poor condition, especially at the forward part. Whilst none of the fastenings

were withdrawn the amount of rust staining around the vessel would indicate some

deterioration to the extent that were they to be overloaded they might fail.

15.2 With the worst deterioration at the forward part we would not recommend any attempt be

made to slip the vessel. With the very high loading at the forward part, when the bow initially

comes into contact with the slipway trolley, failure of some of the fastenings, and possibly

structure, would mean the vessel could not be re-launched without some repairs being

carried out and these could be extensive.

**15.3** If a further examination of the lower hull planking is deemed necessary then we would

recommend this be carried out at the drying out berth during fine weather in order to keep

any "bumping" of the hull to the absolute minimum. If any plank fastenings were to be

removed at this time then we would recommend that only those above the waterline be

removed.

15.4 If a full hull structural survey is required, say for restoration purposes, then the vessel would

require lifting from the water and supporting ashore

Note. This was an in-water structural hull survey, with no trials, to ascertain the suitability of

slipping the vessel only and should not be taken as a full condition survey.

G.W. Wilson

Attending Surveyor

Attached: Photographs.

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Outer Hull 1.JPG



Outer Hull 2.JPG



Outer Hull 3.JPG



Outer Hull 4.JPG



Outer Hull 5.JPG



Outer Hull 6.JPG



Outer Hull 7.JPG



Outer Hull 8.JPG



Outer Hull 9.JPG



Outer Hull 10.JPG



Outer Hull 11.JPG



Outer Hull 12.JPG



Deck 1.JPG



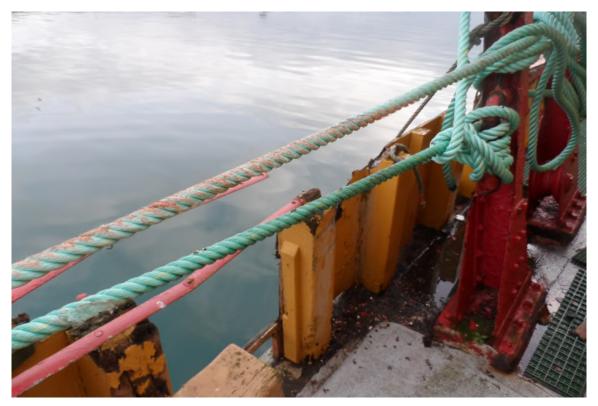
Deck 2.JPG



Deck 3.JPG



Deck 4.JPG



Deck 5.JPG



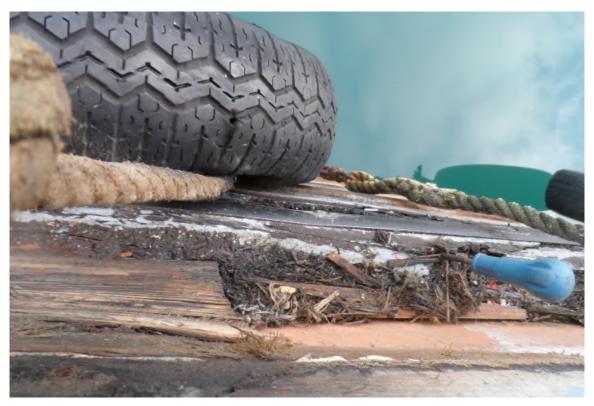
Deck 6.JPG



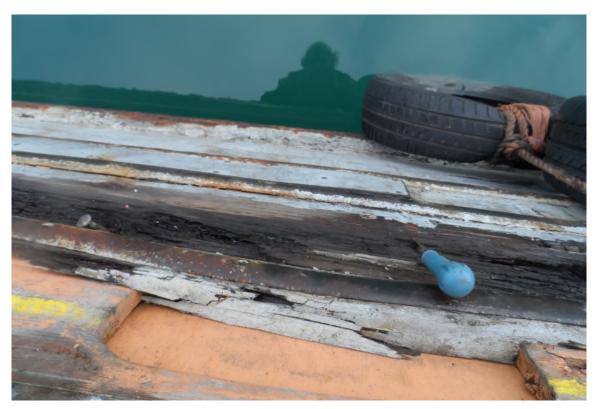
Deck 7.JPG



Deck 8.JPG



Deck 9.JPG



Deck 10.JPG



Forward Space 1.JPG



Forward Space 2.JPG



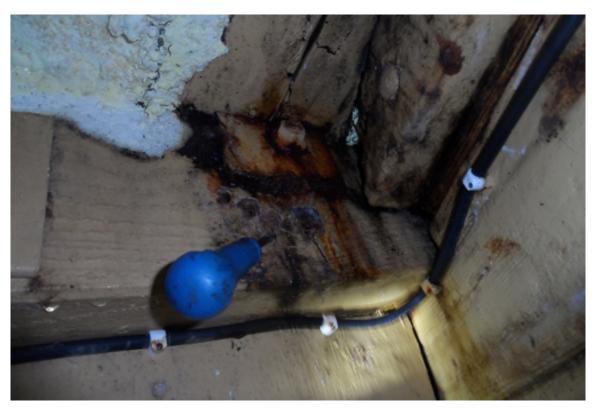
Forward Space 3.JPG



Forward Space 4.JPG



Forward Space 5.JPG



Forward Space 6.JPG



Forward Space 7.JPG



Forward Space 8.JPG



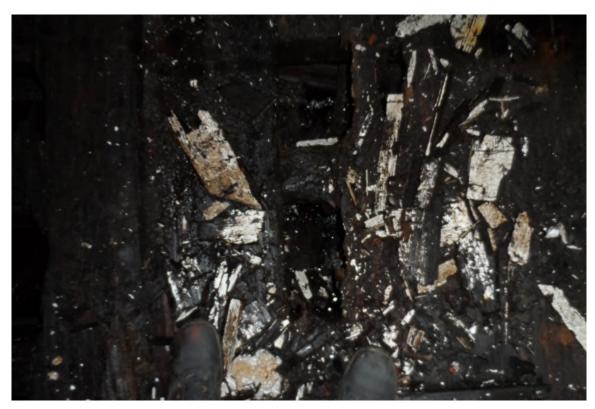
Forward Space 9.JPG



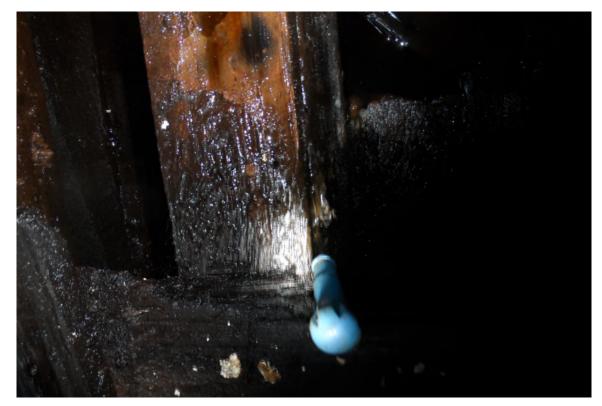
Forward Space 10.JPG



Fish Room 1.JPG



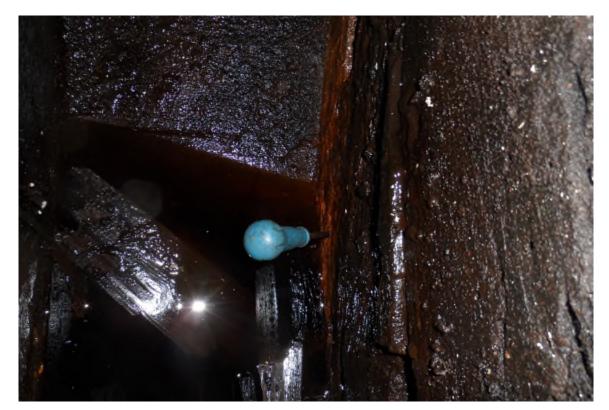
Fish Room 2.JPG



Fish Room 3.JPG



Fish Room 4.JPG



Fish Room 5.JPG



Fish Room 6.JPG



Fish Room 7.JPG



Fish Room 8.JPG



Fish Room 9.JPG



Fish Room 10.JPG



Engine Room 1.JPG



Engine Room 2.JPG



Engine Room 3.JPG



Engine Room 4.JPG



Engine Room 5.JPG



Engine Room 6.JPG



Engine Room 7.JPG



Engine Room 8.JPG



Aft Space 1.JPG



Aft Space 2.JPG



Aft Space 3.JPG



Aft Space 4.JPG



Aft Space 5.JPG



Aft Space 6.JPG



Aft Space 7.JPG



Aft Space 8.JPG



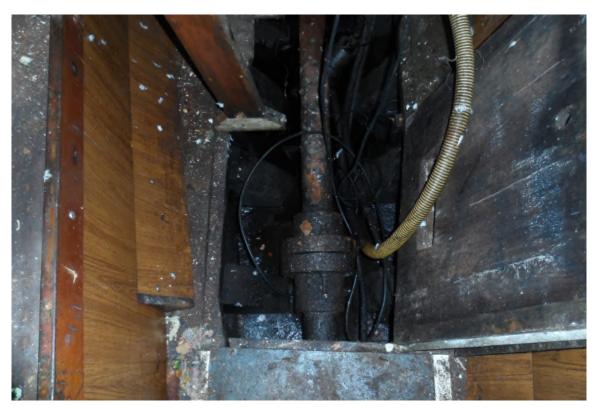
Aft Space 9.JPG



Aft Space 10.JPG



Aft Space 11.JPG



Aft Space 12.JPG



View Looking Aft.JPG



View Looking Forward.JPG



Forward Starboard Quarter.JPG



Transom.JPG



Wheelhouse 1.JPG



Wheelhouse 2.JPG



Mess Room 1.JPG



Mess Room 2.JPG