

# REPORT ON STEAM RECIPROCATING ENGINE MACHINERY.

Received at London Office 29 JAN 1931

Date of writing Report 28.1.31 When handed in at Local Office 28 Jan 31 Port of HULL  
 No. in Survey held at HULL Date, First Survey 16 Aug 30 Last Survey 23 Dec 1931  
 Reg. Book. 67813 on the STEAM TRAWLER "SOLON" (Number of Visits 31)  
 Built at Beverly By whom built Book, Welton & Gemmell Yard No. 562 When built 1931  
 Engines made at Hull By whom made Amos & Smith Ltd Engine No. 625 When made 1931  
 Boilers made at Hull By whom made Amos & Smith Ltd Boiler No. 625 When made 1931  
 Registered Horse Power \_\_\_\_\_ Owners Standard Steam Fishing Co Ltd Port belonging to Grimshy  
 Nom. Horse Power as per Rule 98 Is Refrigerating Machinery fitted for cargo purposes no Is Electric Light fitted yes  
 Trade for which Vessel is intended Fishing

**ENGINES, &c.**—Description of Engines Triple Expansion Revs. per minute \_\_\_\_\_  
 Dia. of Cylinders 15" 22 3/4" 37" Length of Stroke 26" No. of Cylinders 3 No. of Cranks 3  
 Crank shaft, dia. of journals as per Rule 7 1/2" Crank pin dia. 7 1/2" Crank webs Mid. length breadth 14 3/4" shrunk Thickness parallel to axis 4 3/4"  
 as fitted 7 1/2" Mid. length thickness 4 3/4" Thickness around eye-hole 3 1/2"  
 Intermediate Shafts, diameter as per Rule 6.9" Thrust shaft, diameter at collars as per Rule 7.2"  
 as fitted 4 3/8" as fitted 7 1/2"  
 Tube Shafts, diameter as per Rule \_\_\_\_\_ Screw Shaft, diameter as per Rule 7.7" Is the { tube } shaft fitted with a continuous liner { yes }  
 as fitted \_\_\_\_\_ as fitted 8 1/4" { screw }  
 Bronze Liners, thickness in way of bushes as per Rule 9/16" Thickness between bushes as per Rule 9/16" Is the after end of the liner made watertight in the  
 as fitted \_\_\_\_\_ as fitted \_\_\_\_\_ propeller boss yes If the liner is in more than one length are the junctions made by fusion through the whole thickness of the liner \_\_\_\_\_  
 If the liner does not fit tightly at the part between the bearings in the stern tube, is the space charged with a plastic material insoluble in water and non-corrosive \_\_\_\_\_  
 If two liners are fitted, is the shaft lapped or protected between the liners \_\_\_\_\_ Is an approved Oil Gland or other appliance fitted at the after end of the tube  
 shaft \_\_\_\_\_ If so, state type \_\_\_\_\_ Length of Bearing in Stern Bush next to and supporting propeller 36"  
 Propeller, dia. 10' 3" Pitch 10' 7 1/2" No. of Blades 4 Material B.I. whether Moveable no Total Developed Surface 38 sq. feet  
 Feed Pumps worked from the Main Engines, No. One Diameter 2 7/8" Stroke 13" Can one be overhauled while the other is at work \_\_\_\_\_  
 Bilge Pumps worked from the Main Engines, No. One Diameter 2 7/8" Stroke 13" Can one be overhauled while the other is at work \_\_\_\_\_  
 Feed Pumps { No. and size One 6" x 3" x 6" Pumps connected to the { No. and size One 6 1/4" x 4 3/4" x 6" + 3" Ejector }  
 { How driven Steam Main Bilge Line { How driven Steam }  
 Ballast Pumps, No. and size \_\_\_\_\_ Lubricating Oil Pumps, including Spare Pump, No. and size \_\_\_\_\_  
 Are two independent means arranged for circulating water through the Oil Cooler \_\_\_\_\_ Suctions, connected to both Main Bilge Pumps and Auxiliary  
 Bilge Pumps;—In Engine and Boiler Room 2 @ 2" In Pump Room \_\_\_\_\_ In Holds, &c. 5 @ 2"

Main Water Circulating Pump Direct Bilge Suctions, No. and size One 3 1/2" Independent Power Pump Direct Suctions to the Engine Room Bilges,  
 No. and size One 3" Ejector Are all the Bilge Suction Pipes in holds and tunnel well fitted with strum-boxes yes  
 Are the Bilge Suctions in the Machinery Space led from easily accessible mud-boxes, placed above the level of the working floor, with straight tail pipes to the bilges yes + strums  
 Are all Sea Connections fitted direct on the skin of the ship yes Are they fitted with Valves or Cocks Both  
 Are they fixed sufficiently high on the ship's side to be seen without lifting the stokehold plates yes Are the Overboard Discharges above or below the deep water line Above  
 Are they each fitted with a Discharge Valve always accessible on the plating of the vessel yes Are the Blow Off Cocks fitted with a spigot and brass covering plate yes  
 What Pipes pass through the bunkers forward suction How are they protected Wood casing  
 What pipes pass through the deep tanks \_\_\_\_\_ Have they been tested as per Rule \_\_\_\_\_  
 Are all Pipes, Cocks, Valves, and Pumps in connection with the machinery and all boiler mountings accessible at all times yes  
 Is the arrangement of Valves and their connections such as to prevent the possibility of water passing from the sea or from water tanks into the cargo or machinery spaces, or from one  
 compartment to another yes Is the Shaft Tunnel watertight \_\_\_\_\_ Is it fitted with a watertight door \_\_\_\_\_ worked from \_\_\_\_\_

MAIN BOILERS, &c.—(Letter for record S) Total Heating Surface of Boilers 1753 sq feet  
 Is Forced Draft fitted no No. and Description of Boilers One Single Ended Working Pressure 200 lb  
 IS A REPORT ON MAIN BOILERS NOW FORWARDED? yes  
 IS A DONKEY BOILER FITTED? no If so, is a report now forwarded? \_\_\_\_\_  
 Is the donkey boiler intended to be used for domestic purposes only \_\_\_\_\_  
 PLANS. Are approved plans forwarded herewith for Shafting \_\_\_\_\_ Main Boilers yes Auxiliary Boilers \_\_\_\_\_ Donkey Boilers \_\_\_\_\_  
 (If not state date of approval)  
 Superheaters \_\_\_\_\_ General Pumping Arrangements yes Oil fuel Burning Piping Arrangements \_\_\_\_\_

### SPARE GEAR.

Has the spare gear required by the Rules been supplied yes  
 State the principal additional spare gear supplied centrifugal pumps impeller shaft; set of valves for donkey pumps; 3 escape valve springs.

For AMOS & SMITH LTD

The foregoing is a correct description,

*[Signature]*  
 MANAGER, Manufacturer.



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 Foundation

Dates of Survey while building

During progress of work in shops -- } 1930. Aug 26. Sept 15. 22. 26. 27. Oct 10. 10. 15. 17. 18. 29. 30. 31. Nov 4. 11. 14. 17.

During erection on board vessel --- } 18. 28. Dec 5. 10. 17. 18. 19. 24. 1931. Jan 7. 7. 19. 20. 21. 23.

Total No. of visits 31.

Dates of Examination of principal parts—Cylinders 10-12-30. Slides 10-12-30 Covers 10-12-30

Pistons 10-12-30 Piston Rods 10-12-30 Connecting rods 10-12-30

Crank shaft 29-10-30 Thrust shaft 4-11-30 Intermediate shafts 4-11-30

Tube shaft / Screw shaft 4-11-30 Propeller 17-11-30

Stern tube 18-10-30 Engine and boiler seatings 19-1-31 Engines holding down bolts 19-1-31

Completion of fitting sea connections 19-12-30

Completion of pumping arrangements 20-1-31 Boilers fixed 19-1-31 Engines tried under steam 23-1-31

Main boiler safety valves adjusted 23-1-31 Thickness of adjusting washers F 3/32 A 3/32

Crank shaft material Steel Identification Mark Lloyds 568 Thrust shaft material Steel Identification Mark Lloyds 568

Intermediate shafts, material Steel Identification Marks Lloyds 568 Tube shaft, material / Identification Mark /

Screw shaft, material Steel Identification Mark Lloyds 623 Steam Pipes, material S. B. Clarke Test pressure 400 lb Date of Test 21-1-31

Is an installation fitted for burning oil fuel No Is the flash point of the oil to be used over 150°F. /

Have the requirements of the Rules for the use of oil as fuel been complied with /

Is the vessel (not being an oil tanker) fitted for carrying oil as cargo No If so, have the requirements of the Rules been complied with /

If the notation for Ice Strengthening is desired, state whether the requirements in this respect have been complied with

Is this machinery duplicate of a previous case Yes If so, state name of vessel "Edwardian"

**General Remarks** (State quality of workmanship, opinions as to class, &c. The machinery of this vessel has been built under special survey, the materials & workmanship being sound and good.

It has been satisfactorily fitted on board, tried under working conditions and found in good order.

It is eligible, in my opinion, to have record of H.L.M.C. 1, 31. C.L.

The forging reports were forwarded previously with the report on sister-vessel "Edwardian" - Hull No. 41542.

The amount of Entry Fee ... £ 2 : 0 :  
 Special ... £ 24 : 10 :  
 Donkey Boiler Fee ... £ : :  
 Travelling Expenses (if any) £ : :

When applied for, 28 Jan 1931  
 When received, 30.1.1931

b. Moffatt  
 Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute FRI. 30 JAN 1931  
 Assigned + L.M.C. 1. 31



The Surveyors are requested not to write on or below the space for Committee's Minute.