

Rpt. 4.

No. 19248

## REPORT ON STEAM RECIPROCATING ENGINE MACHINERY.

Received at London Office

24 DEC 1930

Date of writing Report 6<sup>th</sup> DECEMBER 1930. When handed in at Local Office 19-12-1930. Port of Greenock.

No. in Survey held at Port Glasgow. Date, First Survey 21<sup>st</sup> APRIL 1930. Last Survey 14<sup>th</sup> Dec 1930.

Reg. Book. on the T. S. S. "ABEILLEN" No 16 (Number of Visits 44)

Built at Pt Glasgow By whom built Ferguson Bros (Pt Glasgow) Yard No. 300 Tons { Gross 282.35 Net 2.14 When built 1930.

Engines made at Port Glasgow. By whom made " " " Engine No. 300 when made "

Boilers made at Greenock. By whom made John G. Kincaid & Co. Ltd Boiler No. 199 when made "

Registered Horse Power 145. Owners Cie de Remorquage de Sauvage "Les Abeilles" Port belonging to Havre.

Nom. Horse Power as per Rule 145. Is Refrigerating Machinery fitted for cargo purposes No. Is Electric Light fitted yes.

Trade for which Vessel is intended Towing purposes.

ENGINES, &c.—Description of Engines Triple expansion (2 sets). Revs. per minute 128.

Dia. of Cylinders 12 3/4 20 3/4 34. Length of Stroke 24. No. of Cylinders 6. No. of Cranks 6.

Crank shaft, dia. of journals as per Rule 6.68 as fitted 6 3/4. Crank pin dia. 6 3/4. Crank webs Mid. length breadth 13 1/2 Mid. length thickness 4 1/4. Thickness parallel to axis 4 1/4. Thickness around eye-hole 3 1/8.

Intermediate Shafts, diameter as per Rule 6.36 as fitted NONE. Thrust shaft, diameter at collars as per Rule 6.68 as fitted 6 3/4.

Tube Shafts, diameter as per Rule 4.4 as fitted 4 5/8. Is the tube screw shaft fitted with a continuous liner No.

Bronze Liners, thickness in way of bushes as per Rule 17/32 as fitted 5/8. Thickness between bushes as per Rule 5/8 as fitted 5/8. Is the after end of the liner made watertight in the 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 yes.

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 yes.

If two liners are fitted, is the shaft lapped or protected between the liners Line rings at end of liners. Is an approved Oil Gland or other appliance fitted at the after end of the tube shaft L.V. bush. Length of Bearing in Stern Bush next to and supporting propeller 2' 9 1/2.

Propeller, dia. 8' 4 1/2. Pitch 11' 3". No. of Blades 4. Material C.I.. whether Moveable No. Total Developed Surface 29.21 sq. feet.

Feed Pumps worked from the Main Engines, No. 2. Diameter 2 1/2" Stroke 12" Can one be overhauled while the other is at work yes.

Bilge Pumps worked from the Main Engines, No. 2. Diameter 2 1/2" Stroke 12" Can one be overhauled while the other is at work yes.

Feed Pumps { No. and size 1-6" x 4 1/2" x 6" How driven STEAM. Pumps connected to the Main Bilge Line { No. and size 1-6" x 6" x 6" How driven STEAM.

Ballast Pumps, No. and size 2-2 1/2" Lubricating Oil Pumps, including Spare Pump, No. and size 2-2 1/2"

Are two independent means arranged for circulating water through the Oil Cooler yes. Suctions, connected to both Main Bilge Pumps and Auxiliary Bilge Pumps;—In Engine and Boiler Room 2-2 1/2"

In Holds, &c. 1-2" FORE & AFT PEAKS, EACH 1-2"

Main Water Circulating Pump Direct Bilge Suctions, No. and size 2-4 1/2" Independent Power Pump Direct Suctions to the Engine Room Bilges, No. and size 1-2 1/2"

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.

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 NONE. How are they protected yes.

What pipes pass through the deep tanks yes. Have they been tested as per Rule yes.

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 yes. Is it fitted with a watertight door yes. worked from yes.

MAIN BOILERS, &c.—(Letter for record S Total Heating Surface of Boilers 2720 sq. ft.)

Is Forced Draft fitted yes. No. and Description of Boilers One single ended Working Pressure 180 lbs.

IS A REPORT ON MAIN BOILERS NOW FORWARDED? yes

IS A DONKEY BOILER FITTED? No If so, is a report now forwarded? yes

PLANS. Are approved plans forwarded herewith for Shafting yes Main Boilers yes Auxiliary Boilers yes Donkey Boilers yes

perheaters yes General Pumping Arrangements yes Oil fuel Burning Piping Arrangements yes

PAIRE GEAR. State the articles supplied:—

4 BOTTOM END BOLTS & NUTS,  
4 TOP " " " "  
4 MAIN BEARING " " "

10 COUPLING " " "

4 FEED PUMP VALVES

4 BILGE " " "

2 SETS OF AFR PUMP VALVES.

1 SET OF PISTON RINGS & SPRINGS.

2 PROPELLER SHAFTS

2 PROPELLER.

1 BOTTOM END BEARING COMPLETE.

1 ASTON ROD

1 VALVE ROD

2 SAFETY VALVE SPRINGS.

ASSORTED BOLTS & NUTS

IRON OF VARIOUS SIZES.

The foregoing is a correct description,  
FERGUSON BROTHERS (PORT-GLASGOW), LTD.

Peter Ferguson DIRECTOR

Manufacturer.



© 2020

Lloyd's Register  
Foundation

00362-002373-0033

Dates of Survey while building  
 During progress of work in shops -- (1930) Apr. 21-24-28 May 2-6-16-21-26-28 June 3-20-24-26 July 14-23-25 Aug. 4-8-11-18-26-24 Sept. 9-12 Oct. 4-10-20-24-28-30  
 During erection on board vessel --  
 Total No. of visits 4

Dates of Examination of principal parts—Cylinders 24-8-30 Slides 10-10-30 Covers 24-8-30  
 Pistons 10-10-30 Piston Rods 20-10-30 Connecting rods 20-10-30  
 Crank shaft 8-8-30 Thrust shaft 24-10-30 Intermediate shafts ✓  
 Tube shaft ✓ Screw shaft 24-10-30 Propeller 24-10-30  
 Stern tube 20-10-30 Engine and boiler seatings 28-11-30 Engines holding down bolts 11-11-30  
 Completion of fitting sea connections 28-11-30  
 Completion of pumping arrangements 9-12-30 Boilers fixed 11-11-30 Engines tried under steam 11-12-30  
 Main boiler safety valves adjusted 10-12-30 Thickness of adjusting washers P.  $\frac{1}{32}$  S  $2\frac{3}{4}$   
 Crank shaft material O.H.I.S Identification Mark 3403 Thrust shaft material O.H.I.S Identification Mark 3403  
 Intermediate shafts, material ✓ Identification Marks ✓ Tube shaft, material ✓ Identification Mark ✓  
 Screw shaft, material O.H.I.S Identification Mark 3403 Steam Pipes, material S.D. COPPER Test pressure 360 lbs Date of Test 24-11-30  
 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 carrying and burning oil fuel been complied with ✓  
 Is this machinery duplicate of a previous case NO. If so, state name of vessel ✓

**General Remarks** (State quality of workmanship, opinions as to class, &c.) These Engines have been built under special survey, in accordance with the Rules and approved plans. The materials and workmanship are good. The engines and boilers have been securely fitted on board the vessel and tried under power with satisfactory results. The machinery is eligible, in my opinion, to be classed in the Register Book and to have record of survey  $\nabla$  LMC 12-30.

The amount of Entry Fee ... £ 3 : 0 :  
 Special 35 THS ... £ 76 : 5 :  
 Donkey Boiler Fee ... £ ✓ :  
 Travelling Expenses (if any) £ ✓ :

When applied for.

11TH DECEMBER 1930.

When received.

2/2/31

Committee's Minute GLASGOW 23 DEC 1930

Assigned + L.M.C. 12.30.

J. Avey  
 Engineer Surveyor to Lloyd's Register of Shipping.



© 2020

Lloyd's Register  
 Foundation

Date of writing

No. in Reg. Book.

Master

Engines made

Boilers made

Nominal Horse

MULTITU

Manufacturers

Total Heating

No. and Descr

Tested by hydr

Area of Firegr

Area of each s

In case of donk

Smallest distan

Smallest distan

Largest interna

Thickness

long. seams

Percentage of s

Percentage of s

Thickness of bu

Material

Length of plain

Dimensions of s

End plates in s

How are stays

Tube plates: M

Mean pitch of s

Girders to comb

at centre 16

in each 30

Tensile strength

Pitch of stays to

Working pressur

Thickness 3

Pitch of stays at

Working Pressur

Diameter { At body or

Over three

Working pressure

Diameter { At turned or

Over three