

## REPORT ON STEAM RECIPROCATING ENGINE MACHINERY.

Received at London Office

-5 NOV 1930

Date of writing Report

19

When handed in at Local Office

3<sup>rd</sup> Nov 1930 Port of Belfast

No. in Survey held at Belfast

Date, First Survey 5<sup>th</sup> March 1930 Last Survey 30<sup>th</sup> October 1930

Reg. Book.

(Number of Visits 44)

90252 on the

STEEL SC.

EBANO

Tons

Gross

Net

Built at Belfast

By whom built

Harland &amp; Wolff Ltd.

Yard No. 899

When built 1930

Engines made at Belfast

By whom made

Harland &amp; Wolff Ltd.

Engine No. 899

When made 1930

Boilers made at Belfast

By whom made

Harland &amp; Wolff Ltd.

Boiler No. 899

When made 1930

Registered Horse Power

Owners Ebano Oil Co. Ltd. (A. Trei &amp; Co. Ltd. mgs.)

Port belonging to London

Nom. Horse Power as per Rule 229

Is Refrigerating Machinery fitted for cargo purposes No

Is Electric Light fitted Yes

Trade for which Vessel is intended

Ocean-going

## ENGINES, &amp;c.—Description of Engines Inverted triple expansion

Revs. per minute 130

Dia. of Cylinders 18 $\frac{1}{4}$ " - 28 $\frac{1}{2}$ " - 48 $\frac{1}{4}$ "

Length of Stroke 28"

No. of Cylinders three

No. of Cranks three

Crank shaft, dia. of journals

as per Rule 8.89"

Crank pin dia. 9"

Crank webs

Mid. length breadth 16 $\frac{3}{4}$ "Thickness parallel to axis 6 $\frac{1}{8}$ "

as fitted 9"

as per Rule 8.46"

as fitted 9"

Mid. length thickness 6 $\frac{1}{8}$ "

shrink

Thickness around eye-hole 3 $\frac{7}{8}$ "

Intermediate Shafts, diameter

as per Rule 8.89"

as fitted 9"

Thrust shaft, diameter at collars

as per Rule 8.89"

as fitted 9 $\frac{1}{8}$ "

Tube Shafts, diameter

as per Rule 8.89"

as fitted 9"

Screw Shaft, diameter

as per Rule 9.46"

as fitted 9 $\frac{3}{4}$ "

Is the tube

screw

shaft fitted with a continuous liner

Yes

Bronze Liners, thickness in way of bushes

as per Rule 18.71"

as fitted 3 $\frac{1}{2}$ "

Thickness between bushes

as per Rule 14.04"

as fitted 3 $\frac{1}{2}$ "

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

If two liners are fitted, is the shaft lapped or protected between the liners

Yes

Is an approved Oil Gland or other appliance fitted at the after end of the tube

Yes

Length of Bearing in Stern Bush next to and supporting propeller

40"

Propeller, dia. 12'-0"

Pitch 9'-0"

No. of Blades FOUR

Material MANG. IR.

whether Moveable No

Total Developed Surface

46 sq. feet

Feed Pumps worked from the Main Engines, No. TWO

Diameter 3 $\frac{1}{2}$ "Stroke 13 $\frac{1}{2}$ "

Can one be overhauled while the other is at work

Yes

Bilge Pumps worked from the Main Engines, No. TWO

Diameter 3 $\frac{1}{2}$ "Stroke 13 $\frac{1}{2}$ "

Can one be overhauled while the other is at work

Yes

Feed Pumps

No. and size TWIN 8 $\frac{1}{2}$ " x 6" x 13"

How driven STEAM

Pumps connected to the Main Bilge Line

No. and size TWO 9" x 10" x 24"

How driven STEAM

Ballast Pumps, No. and size ONE 9" x 10" x 24"

Lubricating Oil Pumps, including Spare Pump, No. and size

ONE 6" (PORT)

Independent Power Pump Direct Suctions to the Engine Room Bilges,

No. and size ONE 6" (STARBOARD)

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

Yes

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

How are they protected

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

Is the Shaft Tunnel watertight

none

Is it fitted with a watertight door

worked from

MAIN BOILERS, &amp;c.—(Letter for record S.)

Total Heating Surface of Boilers

3880 sq. ft.

Is Forced Draft fitted

Yes

No. and Description of Boilers

Two Single ended Cyl. Multi-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

Main Boilers Yes

Auxiliary Boilers

Yes

Donkey Boilers

Yes

Superheaters

General Pumping Arrangements

Oil fuel Burning Piping Arrangements

SPARE GEAR. State the articles supplied:—

2 Connecting rod top end bolts and nuts, 1 pair 10 end bushes, 2 Connecting rod bottom end bolts and nuts,

1 pair bottom end bushes, 2 main bearing bolts and nuts, 1 set each hookwood &amp; Carlsberg rings for 48, 28, &amp; 18 pistons, 12 joint ring studs and nuts, 1 eccentric strap complete,

1 pair each of engine and pump link brasses, 1 pair pump lever carriage brasses, 24 Condenser tubes, 1 diaphragm for engine stop valve, 1 spring each for 28, 28, &amp; 18

cylinder relief valves, auxiliary feed pumps discharge, general service pumps discharge and Ballast pump discharge, 1 set United States packing for

piston rod and 1 set for valve rod, 1 spring each for auxiliary and for cargo heating exhaust to atmosphere, 1 air pump bucket, rod, nut and 18 valve discs,

2 feed and 2 bilge pumps suction and discharge valve lids, 1 spring for feed pump relief valve, 1 propeller shaft, 6 Coupling bolts and nuts, 1 C.I. propeller,

10 L.V. strips of wood for aft bush and 10 L.V. strips for forward bush, 12 plain boiler tubes, 2 safety valve springs, 1 lid each for main stop valve, auxiliary stop valve, main

feed check valve and auxiliary feed check valve, 1 steam valve cock, 1 blow down valve lid, 2 oil fuel burners, 16 tips, 6 springs, 1 suction filter basket, 1 discharge filter

basket, 2 thermometers, 5 flame controls, 1 set of girth valves and springs for each pump, 1 set each oil piston rings &amp; steam piston rings for each pump,

8 strainer atomizers, 1 burner supply valve, 1 burner supply pipes, 3 jacket tubes, 1 oil pot and lid, 1 set spanners and rack for O.F. pumps, 2 burner spanners,

The foregoing is a correct description,  
For HARLAND AND WOLFF, LIMITED.

F. E. Beck

Manufacturer.



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Lloyd's Register  
Foundation



1930  
 During progress of work in shops -- Mar 5. 19. 24. 25. 26 Apr 8. 9. 10. 17. 28. 30 May 1. 12. 13. 14. 15. 16. 19. 20. 22. 24. 26. 28  
 June 2. 5. 6. 9. 10. 12. 13. 16. 17. 18. 19. 20. 23. 24. 27. 30 July 8. 11. 31 Sept 20  
 Oct 30  
 During erection on board vessel --  
 Total No. of visits 44

OVAEE

Dates of Examination of principal parts—Cylinders 30. 4. 30 Slides 30. 4. 30 Covers 30. 4. 30  
 Pistons 30. 4. 30 Piston Rods 15. 5. 30 Connecting rods 15. 5. 30  
 Crank shaft 28. 4. 30 Thrust shaft 22. 5. 30 Intermediate shafts ✓  
 Tube shaft ✓ Screw shaft 22. 5. 30 Propeller 20. 5. 30  
 Stern tube 20. 5. 30 Engine and boiler seatings 24. 5. 30 Engines holding down bolts 24. 6. 30  
 Completion of fitting sea connections 24. 5. 30  
 Completion of pumping arrangements 30. 6. 30 Boilers fixed 24. 6. 30 Engines tried under steam 30. 6. 30  
 Main boiler safety valves adjusted 30. 6. 30 Thickness of adjusting washers Pat Boiler 2 7/8" A 7/16" Stan. Boiler 2 1/2" A 3/8"  
 Crank shaft material S. M. STEEL Identification Mark 123 R.L.A. Thrust shaft material S. M. STEEL Identification Mark 126 R.L.A.  
 Intermediate shafts, material ✓ Identification Marks 126 R.L.A. ✓ Tube shaft, material ✓ Identification Mark ✓  
 Screw shaft material S. M. STEEL Identification Mark 129 TDS Steam Pipes, material S. D. Steel ✓ Test pressure 540 lbs. ✓ Date of Test 9. 6. 30  
 Is an installation fitted for burning oil fuel Yes Is the flash point of the oil to be used over 150°F. Yes  
 Have the requirements of the Rules for the use of oil as fuel been complied with Yes  
 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 ✓  
 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. The machinery of this vessel has been constructed under special survey. The materials and workmanship are found and good. The main and auxiliary machinery has been tried under working conditions with satisfactory results. In my opinion the vessel is now eligible for notation in the Society's Register Book. L.M.C. 10. 30. C.L. fitted for oil fuel 10. 30. F.P. above 150°F. Electric light.

It is submitted that  
 this vessel is eligible for  
 THE RECORD + L.M.C. 10. 30 C-L

F.D. Fitted for oil fuel (10. 30) F.P. above 150°F.

10/11/30.

*[Signature]*

The amount of Entry Fee ... £ 4 : - : When applied for,  
 Special ... £ 57 : 5 : 4<sup>th</sup> Nov. 1930.  
 Donkey Boiler Fee ... £ : :  
 Travelling Expenses (if any) £ : : 28. 11. 1930

*[Signature]*  
 R. Lee Aimear.  
 Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute

TUE. 11 NOV 1930

Assigned

+ Amb. 10. 30 C.L. 30  
 Fitted for oil fuel 10. 30 F.P. above 150°F

CERTIFICATE VALIDATED.



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

[Lm 720]—Copyable Ink.]