

# REPORT ON OIL ENGINE MACHINERY.

No. 86170

9 - SEP 1930

Received at London Office  
NEWCASTLE-ON-TYNE

6-9-30 Port of

of writing Report

When handed in at Local Office

Date, First Survey

Last Survey

3 Sept. 1930

Number of Visits 46

in Survey held at

Book

on the ~~Triple~~ Single Screw vessel

"Athelfoam"

Tons { Gross  
Net

ult at

Birkenhead  
Kalsend

By whom built Cammell Laird & Co. Ltd.

Yard No. 978 When built 1930

Engines made at

By whom made North Eastern Marine & Cold

Engine No. 2454 When made 1930

Monkey Boilers made at

By whom made

Boiler No. When made

Indicated Horse Power

2150

Owners United Molasses Co. Ltd.

Port belonging to

nom. Horse Power as per Rule

476

Is Refrigerating Machinery fitted for cargo purposes

Is Electric Light fitted

Trade for which vessel is intended

L ENGINES, &c.—Type of Engines

Kirkspoor.

2 or 4 stroke cycle H Single or double acting S.A.

Maximum pressure in cylinders

500

Diameter of cylinders

28 3/4"

Length of stroke

59"

No. of cylinders

6

No. of cranks

6

Position of bearings, adjacent to the Crank, measured from inner edge to inner edge

980 mm

Is there a bearing between each crank yes

Revolutions per minute

105

Flywheel dia. 2590 mm

Weight H. 36 tons

Means of ignition Compression

Kind of fuel used F.P. alone 150° F

Crank Shaft, dia. of journals

as per Rule 458 mm

Crank pin dia.

H80 mm

Crank Webs

Mid. length breadth 932 mm

Mid. length thickness 290 mm

Thickness parallel to axis 290 mm

Flywheel Shaft, diameter

as per Rule 458 mm

Intermediate Shafts, diameter

as per Rule 117

Thrust Shaft, diameter at collars

as per Rule 12 285 mm

Tube Shaft, diameter

as per Rule 458 mm

Screw Shaft, diameter

as per Rule 458 mm

Is the tube shaft fitted with a continuous liner

Bronze Liners, thickness in way of bushes

as per Rule

Thickness between bushes as per rule

Is the after end of the liner made watertight in the

Propeller boss

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

Length of Bearing in Stern Bush next to and supporting propeller

Propeller, dia.

Pitch

No. of blades

Material

whether Moveable

Total Developed Surface

sq. feet

Method of reversing Engines

Compression

Is a governor or other arrangement fitted to prevent racing of the engine when declutched

Means of lubrication

forced

Thickness of cylinder liners

40 mm

Are the cylinders fitted with safety valves yes

Are the exhaust pipes and silencers water cooled or lagged with

Non-conducting material

yes

If the exhaust is led overboard near the waterline, what means are arranged to prevent water from being syphoned back to the engine

Cooling Water Pumps, No.

1 @ 2 1/2 dia 350 stroke P.A.

Is the sea suction provided with an efficient strainer which can be cleared within the vessel

Bilge Pumps worked from the Main Engines, No.

2

Diameter

140 mm

Stroke

350 mm

Can one be overhauled while the other is at work

yes

Pumps connected to the Main Bilge Line

No. and Size

How driven

Lubricating Oil Pumps, including Spare Pump, No. and size 1, D.A. 130 mm dia x 350 stroke

Ballast Pumps, 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, No. and size:—In Machinery Spaces

In Holds, &c.

Independent Power Pump Direct Suctions to the Engine Room Bilges, No. and size

Are all the Bilge Suction pipes in Holds and Tunnel Well fitted with strum-boxes

Are the Bilge Suctions in the Machinery Spaces

Are they fitted with Valves or Cocks

Are they fixed sufficiently high on the ship's side to be seen without lifting the platform plates

Are the Overboard Discharges above or below the deep water line

Are they each fitted with a Discharge Valve always accessible on the plating of the vessel

Are the Blow Off Cocks fitted with a spigot and brass covering plate

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

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

Is it fitted with a watertight door

worked from

If a wood vessel, what means are provided to prevent leakage of either fuel oil or of lubricating oil from saturating the woodwork

Main Air Compressors, No.

one

No. of stages

3

Diameters

140, 160, 200, 250, 350

Stroke

500 mm

Driven by main engines

Auxiliary Air Compressors, No.

No. of stages

Diameters

Stroke

Driven by

Small Auxiliary Air Compressors, No.

No. of stages

Diameters

Stroke

Driven by

Scavenging Air Pumps, No.

Diameter

Stroke

Driven by

Auxiliary Engines crank shafts, diameter

as per Rule

as fitted

AIR RECEIVERS:—Is each receiver, which can be isolated, fitted with a safety valve as per Rule

Can the internal surfaces of the receivers be examined

What means are provided for cleaning their inner surfaces

Is there a drain arrangement fitted at the lowest part of each receiver

High Pressure Air Receivers, No.

Two

Cubic capacity of each

18.15 c.ft.

Internal diameter

15 3/4"

Thickness

5/8"

Seamless, lap welded or riveted longitudinal joint

Material

Steel

Range of tensile strength

28 to 32%

Working pressure by Rules

109 H lbs.

Starting Air Receivers, No.

Total cubic capacity

Internal diameter

Thickness

Seamless, lap welded or riveted longitudinal joint

Material

Range of tensile strength

Working pressure by Rules

W336-0055

Lloyd's Register  
Foundation



IS A DONKEY BOILER FITTED?

If so, is a report now forwarded?

PLANS. Are approved plans forwarded herewith for Shafting *Yes*  
(If not, state date of approval)

Receivers

Separate Tanks

Donkey Boilers

General Pumping Arrangements

Oil Fuel Burning Arrangements

SPARE GEAR In accordance with & in excess of the Rules as per enclosed list.

The foregoing is a ~~correct~~ description of the machinery of the *Stamphill Steam* Manufacturer.

Dates of Survey while building  
During progress of work in shops - 1930 Jan. 3. 27. Feb. 5. 19. 21. 24. 28. Apr. 9. May 5. 7. 16. 19. 21. 23. 27. June 4. 12. 17. July 3.  
During erection on board vessel - 7. 8. 10. 11. 14. 15. 16. 18. 21. 22. 23. 24. 25. 28. 29. 31. Aug. 1. 5. 7. 18. 21. 22. 27. 28. 29. Sep. 3.  
Total No. of visits 46.

Dates of Examination of principal parts - Cylinders 21. 5. 30 to 18. 4. 30 Covers 21. 5. 30 to 10. 4. 30 Pistons 14. 4. 30 H. 4. 30 to 10. 4. 30 Rods 21. 2. 30 Connecting rods 6. 3. 30  
Crank shaft 7. 4. 30 Flywheel shaft 4. 4. 30 Thrust shaft 4. 4. 30 Intermediate shafts Tube shaft  
Screw shaft Propeller Stern tube Engine seatings Engines holding down bolts

Completion of fitting sea connections Completion of pumping arrangements Engines tried under working conditions.  
Crank shaft, Material O.H. Steel Identification Mark 2454 W.B. Flywheel shaft, Material O.H. Steel Identification Mark 3445 W.B.  
Thrust shaft, Material O.H. Steel Identification Mark 3445 W.B. Intermediate shafts, Material Identification Marks  
Tube shaft, Material Identification Mark Screw shaft, Material Identification Mark

Is the flash point of the oil to be used over 150° F. *yes.*  
Have the requirements of the Rules for oil fuel pipes and tank fittings been complied with  
Is the vessel (not being an oil tanker) fitted for carrying oil as cargo 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.)  
This machinery has been built under Special Survey. Materials and workmanship good, hydraulic tests satisfactory.  
The machinery has been shipped to Birkenhead for installation in the vessel.  
The Liverpool surveyors have been notified.

The amount of Entry Fee ... £ 5 : 0 : 0  
Special *4/5* ... £ *4/1* : 2 : 4  
Donkey Boiler Fee ... £ *✓*  
Travelling Expenses (if any) ... £ *✓*  
When applied for - 8 SEP 1930  
When received 12. 9. 30 R.B.A.

*William Butler*  
Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute  
Assigned *See Liv. J.E. 98861*

Newcastle-on-Tyne

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