

Rpt. 4b

## REPORT ON OIL ENGINE MACHINERY.

Sld. No. 30504  
Shm. No. 3297.

Received at London Office

13 AUG 1930

Date of writing Report 8 Aug. 1930 When handed in at Local Office

Port of Shm.

Sld 17 Nov. 1930

No. in Survey held at Sickla Shm. Dist.

Date, First Survey 24 March

Last Survey 31 July 1930.

Reg. Book

Number of Visits 6

Single } MOTOR  
on the Twin } Screw vessel  
Triple }  
Quadruple }

"THORSHAVN"

Tons { Gross 6749  
Net 4045

Built at Sunderland.

By whom built Sir James Laing &amp; Co. Ltd

Yard No. 710 When built 1930

Engines made at Stockholm

By whom made H. H. Has &amp; Söner

Engine No. 80336 When made 1930

Donkey Boilers made at

By whom made

Boiler No. When made

Brake Horse Power 100

Owners Messrs. William Delford &amp; Sons Ltd.

Port belonging to Sunderland

Nom. Horse Power as per Rule 46

Is Refrigerating Machinery fitted for cargo purposes No

Is Electric Light fitted Yes

Trade for which vessel is intended Oil Tanker

OIL ENGINES, &amp;c.—Type of Engines Stationary Diesel Oil Engine (type 2429) 2 or 4 stroke cycle Single or double acting

Maximum pressure in cylinders 35 kg/cm<sup>2</sup> Diameter of cylinders 290 mm Length of stroke 410 mm No. of cylinders 2 No. of cranks 2

Span of bearings, adjacent to the Crank, measured from inner edge to inner edge 984 mm Is there a bearing between each crank No

Revolutions per minute 275 Flywheel dia. 1400 mm Weight 1185 kg Means of ignition compression Kind of fuel used crude oil

Crank Shaft, dia. of journals as per Rule 78 mm as fitted 200 Crank pin dia. 195 mm Crank Webs Mid. length breadth 260 mm shrunk Thickness parallel to axis "

Flywheel Shaft, diameter as per Rule as fitted The flywheel is fitted on the crank shaft Intermediate Shafts, diameter as per Rule as fitted Thrust Shaft, diameter at collars as per Rule as fitted

Tube Shaft, diameter as per Rule as fitted Screw Shaft, diameter as per Rule as fitted Is the { tube } shaft fitted with a continuous liner { screw }

Bronze Liners, thickness in way of bushes as per Rule as fitted Thickness between bushes as per Rule as fitted 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 Is a governor or other arrangement fitted to prevent racing of the engine when declutched Yes Means of lubrication

pumps Thickness of cylinder liners none fitted Are the cylinders fitted with safety valves Yes Are the exhaust pipes and silencers water cooled or lagged with

non-conducting material 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. / Is the sea suction provided with an efficient strainer which can be cleared within the vessel

Bilge Pumps worked from the Main Engines, No. Diameter Stroke Can one be overhauled while the other is at work

Pumps connected to the Main Bilge Line { No. and Size } How driven

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, No. and size:—In Machinery Spaces

In Holds, &amp;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

led from easily accessible mud-boxes, placed above the level of the working floor, with straight tail pipes to the bilges

Are all Sea Connections fitted direct on the skin of the ship 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, None fitted No. of stages Diameters Stroke Driven by

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, None fitted, solid injection Cubic capacity of each Internal diameter thickness

Seamless, lap welded or riveted longitudinal joint Material Range of tensile strength Working pressure by Rules

Starting Air Receivers, None ordered Total cubic capacity Internal diameter thickness

Seamless, lap welded or riveted longitudinal joint Material Range of tensile strength Working pressure by Rules

002138-002150-0015



IS A DONKEY BOILER FITTED?

If so, is a report now forwarded?

PLANS. Are approved plans forwarded herewith for Shafting *E 28.5.25*  
(If not, state date of approval)

Receivers *25.10.26*

Separate Tanks

Donkey Boilers

General Pumping Arrangements

Oil Fuel Burning Arrangements

SPARE GEAR *as per list, approved on the 4th Febr. 1926, will be inspected when machinery is being fitted in ship.*

The foregoing is a correct description,

Manufacturer.

Dates of Survey while building { During progress of work in shops - *24 14 2.17 29 & 31 / 7 - 30*  
During erection on board vessel - *3 4*  
Total No. of visits *in shop 6*

Dates of Examination of principal parts—Cylinders *with* Covers *29 30* Pistons *29 30* Rods *24 28 29 / 7* Connecting rods *24 28 29 / 7*

Crank shaft *14 17 & 29 / 7 - 30* Flywheel shaft Thrust shaft 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 *in shop 29 30*

Crank shaft, Material *S.M. Steel* Identification Mark *LLOYD'S N: 5888 A.I. 29.7.30. A* Flywheel shaft, Material Identification Mark

Thrust shaft, Material Identification Mark 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.

Is this machinery duplicate of a previous case *yes* If so, state name of vessel *See Som. report no. 3272*

General Remarks (State quality of workmanship, opinions as to class, &c.)

*I am of opinion that this engine is of superior material and workmanship, and as it has been designed and constructed under Special Survey, I have respectfully to submit that it be approved as auxiliary to a classed main engine.*  
*This engine has been satisfactorily fitted in the vessel & tried under full working conditions with good results.*

The amount of Entry Fee ... £ : : When applied for,  
Special survey in shop *£ 218.40* : : *8.8. 1930*  
Donkey Boiler Fee ... £ : : When received,  
Travelling Expenses (if any) *£ 28.00* : : *30.9. 1930*  
Total *£ 246.40*

Committee's Minute

TUE. 25 NOV 1930

Assigned

*See Sld JE 30504*

*Shawbottle.*  
*R. Y. Andersson*  
Acting Engineer Surveyor to Lloyd's Register of Shipping.



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Rpt. 5a.

Date of writing Report

No. in Survey held Reg. Book.

on the

Master

Engines made at

Boilers made at

Nominal Horse Power

MULTITUBULAR

Manufacturers of St

Total Heating Surfa

No. and Description

Tested by hydraulic

Area of Firegrate in

Area of each set of

In case of donkey boiler

Smallest distance betw

Smallest distance betw

Largest internal dia

Thickness *27 32*

long. seams *2. R*

Percentage of streng

Percentage of streng

Thickness of butt str

Material *Ste*

Length of plain par

Dimensions of stiffen

End plates in steam

How are stays secur

Tube plates: Mater

Mean pitch of stay

Girders to combusti

Wings *7 1/2*

at centre *Cent. 7*

in each *3*

Tensile strength

Pitch of stays to ditto

Working pressure by

Thickness *25 32*

Pitch of stays at w

Working Pressure

Diameter { At body of

Over threads

Working pressure by

Diameter { At turned off

Over threads