

Rpt. 4b.

## REPORT ON OIL ENGINE MACHINERY.

No. 30504

21 NOV 1930

Date of writing Report

When handed in at Local Office

19 Nov 1930 Port of Sunderland.

No. in  
Reg. Book.

Survey held at

Sunderland

Date, First Survey 31 Jan

Last Survey 17 Nov 1930

Number of Visits 62

Single  
Twin  
Triple  
Quadruple

Screw vessel

MOTOR "THORS HAVN"

Tons { Gross 6748  
Net 4045

Built at Sunderland

By whom built

J. James &amp; Sons Ltd

Yard No. 710

When built 1930

Engines made at

Do

By whom made

William Dumbell &amp; Co Ltd

Engine No. 178

When made 1930

Donkey Boilers made at

Sunderland

By whom made

Richardson &amp; Welford

Boiler No. 2083

When made 1930

Brake Horse Power 2900

Owners

J. James &amp; Sons Ltd

Port belonging to

Sunderland

Nom. Horse Power as per Rule 687

Is Refrigerating Machinery fitted for cargo purposes

No

Is Electric Light fitted

Yes

Trade for which vessel is intended

Oil Tanker.

23 1/2

91 1/2

## OIL ENGINES, &amp;c.—Type of Engines

Infad 4 stroke cycle 2 or 4 stroke cycle 2

Single or double acting Single

Maximum pressure in cylinders 568

Diameter of cylinders 800

Length of stroke 2326

No. of cylinders 4

No. of cranks 4

No. of throws 2

Span of bearings, adjacent to the Crank, measured from inner edge to inner edge 1050

Is there a bearing between each crank

Yes

Revolutions per minute 90

Flywheel dia. 7-8 1/2

Weight 11 tons

Means of ignition

Kind of fuel used

CRUDE OIL

Sunderland

Crank Shaft, dia. of journals

as per Rule 423

as fitted 430

Crank pin dia. 475

Crank Webs

Mid. length breadth 650

Mid. length thickness 200

Thickness parallel to axis 260

Thickness around eye 190

Flywheel Shaft, diameter

as per Rule 430

as fitted 430

Intermediate Shafts, diameter

as per Rule 430

as fitted 430

Thrust Shaft, diameter at collars

as per Rule 430

as fitted 430

Tube Shaft, diameter

as per Rule

as fitted

Screw Shaft, diameter

as per Rule

as fitted

Is the

shaft fitted with a continuous liner

Yes

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

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

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 6-0

Propeller, dia. 17-5

Pitch 14-8 1/2

No. of blades 4

Material BRONZE

whether Moveable

No

Total Developed Surface 101

sq. feet

Method of reversing Engines

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

Yes

Means of lubrication

FORCED

Thickness of cylinder liners

REINFORCED

Are the cylinders fitted with safety valves

YES

Are the exhaust pipes and silencers water cooled or lagged with

non-conducting material

LAGGED

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

EXHAUST

FRESH WATER

COOLING

Cooling Water Pumps, No. 2

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

Yes

Bilge Pumps worked from the Main Engines, No. 1

Diameter

Stroke

Can one be overhauled while the other is at work

No

Pumps connected to the Main Bilge Line

No. and Size

How driven

STEAM

Ballast Pumps, No. and size 1

250 TONS PR HR

Lubricating Oil Pumps, including Spare Pump, No. and size 2

250 TONS PR HR

Suctions, connected to both Main Bilge Pumps and Auxiliary Bilge

Pumps, No. and size:—In Machinery Spaces 4

In Pump Room 2

In Holds, &amp;c. 1

Independent Power Pump Direct Suctions to the Engine Room Bilges, No. and size 1

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

YES

Are the Bilge Suctions in the Machinery Spaces

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 platform plates

YES

Are the Overboard Discharges above or below the deep water line

YES

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

YES

Is the Shaft Tunnel watertight

Is it fitted with a watertight door

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

YES

Main Air Compressors, No. 1

No. of stages

Diameters

Stroke

Driven by

STEAM

Auxiliary Air Compressors, No. 2

Small Auxiliary Air Compressors, No. 1

No. of stages

Diameters

Stroke

Driven by

ELECTRIC

Scavenging Air Pumps, No. 1

Diameter

Stroke

Auxiliary Engines crank shafts, diameter

as per Rule

as fitted

Position

No. 2

65 KW.

ENGINE ROOM PLATFORM.

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

YES

Can the internal surfaces of the receivers be examined and cleaned

YES

Is a drain fitted at the lowest part of each receiver

YES

High Pressure Air Receivers, No. 1

Cubic capacity of each

Internal diameter

thickness

Seamless, lap welded or riveted longitudinal joint

Material

Range of tensile strength

Working pressure

Actual

Starting Air Receivers, No. 2

Total cubic capacity 220 CUB FT

Internal diameter 3-6

thickness 1

Seamless, lap welded or riveted longitudinal joint

RIVETED

Material

STEEL

Range of tensile strength 28 to 32

Working pressure

Actual

by Rules

Actual

002135 002135 002135



IS A DONKEY BOILER FITTED?

YES

If so, is a report now forwarded? YES.

Is the donkey boiler intended to be used for domestic purposes only

NO

PLANS. Are approved plans forwarded herewith for Shafting

NO

NO M.V. PEGASUS

Receivers NO. TWO PEGASUS

Separate Tanks NO. TWO M.V. PEGASUS

Donkey Boilers YES.

General Pumping Arrangements YES.

Oil Fuel Burning Arrangements NO. TWO M.V. PEGASUS

### SPARE GEAR.

Has the spare gear required by the Rules been supplied YES.

State the principal additional spare gear supplied

1 Piston rod with skirt complete, 1 centre piston ring, 1 centre cross-head bearing, 1 centre bottom end bearing, 1 side connecting rod bottom end bearing, 1 non return starting valve, 1 relief valve for main cylinder, 4 scavenger pump valve direct, 1 thrust pad, 1 propeller shaft, 1 C.I. propeller, 1 set valves for fuel transfer pump, 1 set of valves for bilge pump. Extra spares for boilers, oil fuel burning plant and auxiliary machinery.

The foregoing is a correct description.

WILLIAM DOXFORD & SONS, Limited,

A. Maxwell

Manufacturer.

Dates of Survey while building: During progress of work in shops - 29. Jan. 31. Feb. 11. 12. 14. 18. 19. 20. 25. 26. 28. 29. Mar. 30. 31. Apr. 3. 4. 7. 28. May. 1. 12. 15. 16. 30. June 2. 20. 27. July 1. 8. 12. 17. 29. Aug. 1. 14. 15. 26. 27. 29. Sep. 3. 11. 16. 18. 24. Oct. 2. 3. 7. 8. 15. 16. 17. 20. 22. 23. 24. 27. 28. 29. 30. 31. Nov. 3. 6. 7. 10. 11. Total No. of visits 62

Dates of Examination of principal parts - Cylinders 26/3/30 JACKET 34/4/30 Pistons 28/2/30 8 Rods 11/2/30 Connecting rods 25/2/30 Crank shaft 2/6/30 Flywheel shaft 8 Thrust shaft 30/3/30 Intermediate shafts 10/7/30 Tube shaft 2/6/30 Screw shaft 7/10/30 Propeller 29/7/30 Stern tube 3/9/30 Engine seatings 15/10/30 Engines holding down bolts 31/10/30 Completion of fitting sea connections 3/9/30 Completion of pumping arrangements 17/11/30 Engines tried under working conditions 17/11/30 Crank shaft, Material I. STEEL Identification Mark 8045/6/7 Flywheel shaft, Material and. Identification Mark Thrust shaft, Material I. STEEL Identification Mark 3652 Intermediate shafts, Material I. STEEL Identification Marks 3845 Tube shaft, Material I. STEEL Identification Mark 3822 Spare 3822. Screw shaft, Material I. STEEL Identification Mark WORK 3784.

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 YES

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 -

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 M. V. PEGASUS.

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 are good. On completion the machinery was tried under full working conditions with satisfactory results. The machinery throughout is now in a good & efficient condition & eligible in my opinion to have the record E L M C - 11 - 30 marked in The Society's Register Book.

The Donkey boilers are also fitted to burn oil fuel F. O above 150° F & the requirements of the Rules (Section 20) fully complied with.

The amount of Entry Fee .. £ 6-0-0 When applied for, Special ... £ 109-7-0 15 Nov. 19. 30 Donkey Boiler Fee ... £ 4-4-0 When received, Travelling Expenses (if any) £ 4-4-0 18 Nov. 19. 30

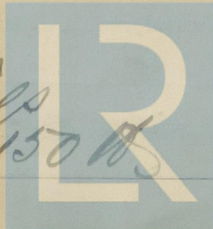
Committee's Minute

Assigned

TUE. 25 NOV 1930

+ Lmb 11.30 Ch. oil Eng 2 DB-150

Engineer Surveyor to Lloyd's Register of Shipping.



© 2020

Lloyd's Register Foundation

CERTIFICATE WRITTEN