Rpt. 4b.

REPORT ON OIL ENGINE MACHINERY.

No. 12643.

Received at London Office 22 APR 1926

Date of writing Report 21-4-1926 When handed in at Local Office 21-4-1926 Port of Middlesbrough

No. in Reg. Book. 139591 Survey held at Middlesbrough Date, First Survey 9th ~~Feb~~ Nov. 1925 Last Survey 17/4/1926 Number of Visits 23.

on the ~~Single~~ Twin ~~Triple~~ Screw vessel T.S.M.V. JAVA Tons Gross 8875 Net 5225

Master Built at Haverton Hill on Tees By whom built Furness S.B. Co Yard No. 86 When built 1926

Engines made at Greenock By whom made J. G. Kincaid & Co. Ld Engine No. K9 When made 1926

Donkey Boilers made at Greenock By whom made J. G. Kincaid & Co. Ld Boiler No. K.9. When made 1926

Brake Horse Power 2895 Owners A/S J. Ludwig Mowinckels Rederi. Port belonging to Bergen

Nom. Horse Power as per Rule 709 ✓ Is Refrigerating Machinery fitted for cargo purposes no Is Electric Light fitted yes.

ENGINES, &c.—Type of Engines See Greenock Rpt 18509 ✓ 2 or 4 stroke cycle Single or double acting

m pressure in cylinders ✓ No. of cylinders ✓ No. of cranks ✓ Diameter of cylinders ✓

of stroke ✓ Revolutions per minute ✓ Means of ignition ✓ Kind of fuel used ✓

a bearing between each crank ✓ Span of bearings (Page 92, Section 2, par. 7 of Rules) ✓

between centres of main bearings ✓ Is a flywheel fitted ✓ Diameter of crank shaft journals as per Rule ✓ as fitted ✓

r of crank pins ✓ Breadth of crank webs as per Rule ✓ as fitted ✓ Thickness of ditto as per Rule ✓ as fitted ✓

r of flywheel shaft as per Rule ✓ as fitted ✓ Diameter of tunnel shaft as per Rule ✓ as fitted ✓ Diameter of thrust shaft as per Rule ✓ as fitted ✓

r of screw shaft as per Rule ✓ as fitted ✓ Is the screw shaft fitted with a continuous liner the whole length of the stern tube ✓

fter end of the liner made watertight in the propeller boss yes ✓ If the liner is in more than one length are the joints burned ✓

iner 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 ✓

liners are fitted, is the shaft lapped or protected between the liners ✓ If without liners, is the shaft arranged to run in oil ✓

outer gland fitted to stern tube none ✓ Length of stern bush ✓ Diameter of propeller ✓

f propeller ✓ No. of blades ✓ state whether moveable ✓ Total surface ✓ square feet

of reversing ✓ Is a governor or other arrangement fitted to prevent racing of the engine ~~when declutched~~ yes ✓ Thickness of cylinder liners ✓

cylinders fitted with safety valves ✓ Means of lubrication ✓ Are the exhaust pipes and silencers water cooled or lagged with

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

No. of cooling water pumps ✓ Is the sea suction provided with an efficient strainer which can be cleared

the vessel yes ✓ No. of bilge pumps fitted to the main engines ✓ Diameter of ditto ✓ Stroke ✓

be overhauled while the other is at work ✓ No. of auxiliary pumps connected to the main bilge lines ✓ How driven ✓

pumps ✓ No. and sizes of suctions connected to both main bilge pumps and auxiliary bilge pumps:—In engine room {4 - 3½" dia / 2 - 2½ dia} ✓

holds, etc. (No 1 - 2. 2½") Tanker ✓ No. of ballast pumps one ✓ How driven steam ✓ Sizes of pumps 9" x 8" x 12"

ballast pump fitted with a direct suction from the engine room bilges yes ✓ State size 6" ✓ Is a separate auxiliary pump suction fitted in

Room and size yes 2 - 3½" ✓ Are all the bilge suction pipes fitted with roses yes ✓ Are the roses in Engine Room always accessible yes ✓

sluices on Engine Room bulkheads always accessible none ✓ Are all connections with the sea direct on the skin of the ship yes ✓

ey valves or cocks Sold ✓ Are they fixed sufficiently high on the ship's side to be seen without lifting the floor plates yes ✓

discharge pipes 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 ✓

pipes, cocks, valves and pumps in connection with the machinery accessible at all times yes ✓ Are the bilge suction pipes, cocks and valves arranged so as to prevent any

nication between the sea and the bilges yes ✓ Is the screw shaft tunnel watertight ✓ Is it fitted with a watertight door ✓

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. of stages Diameters Stroke Driven by

auxiliary air compressors No. of stages Diameters Stroke Driven by

small auxiliary air compressors No. of stages Diameters Stroke Driven by

scavenging air pumps Diameter Stroke Driven by

er of auxiliary Diesel Engine crank shafts as per Rule as fitted Are the air compressors and their coolers made so as to be easy of access

Lubricating Oil pumps No. 2. ✓

RECEIVERS:—No of high pressure air receivers Internal diameter Cubic capacity of each

l Seamless, lap welded or riveted longitudinal joint Range of tensile strength

ss working pressure by Rules No. of starting air receivers Internal diameter

ubic capacity Material Seamless, lap welded or riveted longitudinal joint

of tensile strength thickness Working pressure by rules Is each receiver, which can be isolated,

ith a safety valve as per Rule Can the internal surfaces of the receivers be examined What means are provided for cleaning their

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

IS A DONKEY BOILER FITTED? (2) yes If so, is a report now forwarded? yes

HYDRAULIC TESTS:—

DESCRIPTION.	DATE OF TEST.	WORKING PRESSURE.	TEST PRESSURE.	STAMPED.	REMARKS.
Engine Cylinders	Trial Trip Results				
" " Covers	Vessel loaded to her marks				
" " Jackets	Mean speed on measured mile 11·09 knots				
" Piston Water Passages	" Revs per min 108·9				
Main Compressors—1st Stage					
" 2nd "	Full power Revs Ahead 109 per min				
" 3rd "	" " Astern 109 " "				
Air Receivers-Starting	Lowest no of revs maintained by both engines 29. ✓				
" Injection					
Air Pipes					
Fuel Pipes					
Fuel Pumps					
Silencer					
" Water Jacket					
Separate Fuel Tanks					

PLANS. Are approved plans forwarded herewith for shafting (If not, state date of approval) see Forwarded Rec this time. Separate Tanks

SPARE GEAR

Note:- Cylinders cast in groups of three.

List of spare gear attached.

The foregoing is a correct description,

Manufacturer.

Dates of Survey while building — During progress of work in shops: ✓

During erection on board vessel: 1925. Nov. 9. Dec. 9. 17. 24. 1926. Jan 8. 13. 18. 22. 25. Feb 1. 15. 23. Mar 3. 9. 15. 16. 24. 29. 31. Apl. 8. 13. 14. 17.

Total No. of visits 23

Dates of Examination of principal parts—Cylinders ✓ Covers ✓ Pistons ✓ Rods ✓ Connecting rods ✓

Crank shaft ✓ Thrust shaft ✓ Tunnel shafts ✓ Screw shaft ✓ Propeller ✓ Stern tube ✓ Engine seatings 13-

Engines holding down bolts 29-3-26 Completion of pumping arrangements 13-4-26 Engines tried under working conditions 13-4-2

Completion of fitting sea connections 13-1-26 Stern tubes 17-12-25 Screw shaft and propeller 13-1-26

Material of crank shaft ✓ Identification Mark on Do. ✓ Material of thrust shaft ✓ Identification Mark on Do. ✓

Material of tunnel shafts ✓ Identification Marks on Do. Material of screw shafts ✓ Identification Marks on Do. ✓

Is the flash point of the oil to be used over 150° F. yes

Is this machinery duplicate of a previous case yes If so, state name of vessel T.S.M.V. "Athelprince". Greenock

General Remarks (State quality of workmanship, opinions as to class, &c. He main engines and auxiliaries pla on board at this Port and efficiently secured in position, pipe connec and mountings fitted. Steam, feed and air pipes tested as required by Rules. Valves and cocks controlled from above as required. T donkey boilers placed in tween decks fwd of engine room on lev with Cyl tops and entered through a door from same. Efficiently secu in position and their safety valves adjusted under steam and tried fo accumulation. Casing gear fitted. Pipes, heaters and fittings tested after jointing to twice W.P. Heating coils in double bottom tanks and oil fuel bu tested to 360 lbs ☐", All machinery tried under working conditions and fo satisfactory, it now appears to be eligib record of + LMC 4-26

W. H. Roberts

Engineer Surveyor to Lloyd's Register of Shippi

The amount of Entry Fee ... £ : : When applied for, ✓ 19

Special ... ... £ 27 : 16 : 6 (See Tk. rpt.)

Donkey Boiler Fee ... £ : : When received, ✓ 19

Travelling Expenses (if any) £ : : Applied for at Greenock

Committee's Minute PM. 28 APR 1926 CERTIFICATE WRITTEN

Assigned + Lmc. 4. 26 Oil Engines 2 DA - 180 lbs

(The Surveyors are requested not to write on or below the s; ace for Committee's Minut.)

Certificate (if required) to be sent to Hull Office