

REPORT ON OIL ENGINE MACHINERY.

No. 19133
18 DEC 1929

Received at London Office

Date of writing Report 19. 11. 29 When handed in at Local Office 13th Dec. 1929 Port of Greenock

No. in Survey held at Greenock Date, First Survey 12th June 1929 Last Survey 13th December 1929
Reg. Book. 39307 Sup. Single on the Twin Triple Screw vessel Number of Visits 5^h

M/S "Athelregent" Tons Gross 8881 Net 5231

Built at Middlesbrough By whom built Furness & Co Ltd Yard No. 153 When built 1929
Engines made at Greenock By whom made John Bruce & Co Ltd Engine No. 178 When made 1929
Boilers made at ditto By whom made ditto Boiler No. 179 When made 1929
Brake Horse Power 3200 Owners United Nations Co Ltd Port belonging to Greenock
Nom. Horse Power as per Rule 709 Is Refrigerating Machinery fitted for cargo purposes - Is Electric Light fitted -
Trade for which vessel is intended Foreign

OIL ENGINES, &c.—Type of Engines Sumner's Patent (25th) 2 1/2 stroke cycle 4 Single or double acting Single
Maximum pressure in cylinders 500 Diameter of cylinders 630 mm Length of stroke 1300 mm No. of cylinders 12 No. of cranks 12
Span of bearings, adjacent to the Crank, measured from inner edge to inner edge 892 mm Is there a bearing between each crank yes

Revolutions per minute 110 Flywheel dia. 2620 mm Weight 13,450 lbs Means of ignition Couperion Kind of fuel used Diesel
Crank Shaft, dia. of journals as per Rule 403.3 mm as fitted 415 mm Crank pin dia. 415 mm Crank Webs Mid. length breadth shrunk Thickness parallel to axis 240 mm
Flywheel Shaft, diameter as per Rule as per Rule as fitted 163/8 Intermediate Shafts, diameter as per Rule 11.26 as fitted 113/4 Thrust Shaft, diameter at collars as per Rule 11.8 as fitted 123/8

Tube Shaft, diameter as per Rule as per Rule as fitted 12.38 Screw Shaft, diameter as per Rule 13 as fitted 13 Is the tube screw shaft fitted with a continuous liner yes
Bronze Liners, thickness in way of bushes as per Rule 65 as fitted 3/4 Thickness between bushes as per rule 56 as fitted 5/8 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 shaft yes Length of Bearing in Stern Bush next to and supporting propeller 52"

Propeller, dia. 13.3 Pitch 11.0 No. of blades 4 Material Brass whether Moveable no Total Developed Surface 52 sq. feet
Method of reversing Engines air Is a governor or other arrangement fitted to prevent racing of the engine when detached yes Means of lubrication forced
Thickness of cylinder liners 36/46 mm 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 syphoned back to the engine yes

Cooling Water Pumps, No. 3 (one bottom) 2 10x8 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. yes Diameter - Stroke - Can one be overhauled while the other is at work yes
Pumps connected to the Main Bilge Line No. and Size 2. 8x9x10 4x4 1/2x9 How driven steam

Ballast Pumps, No. and size one 8x9x10 Lubricating Oil Pumps, including Spare Pump, No. and size 3 (one bottom) 2.4x8
Are two independent means arranged for circulating water through the Oil Cooler yes Suctions, connected to both Main Bilge Pumps and Auxiliary Bilge pumps, No. and size:—In Machinery Spaces 2. 3 1/2; 2. 2 1/2; 2. 3 1/4 2. 2 1/2

Holds, &c. To forward pump. 2. 2 1/2 in cargo hold, 1. 2 1/2 in chain locker, 1. 2 1/2 in fuel pump store, 1. 2 1/2 Pump Room
Independent Power Pump Direct Suctions to the Engine Room Bilges, No. and size 2. 5 1/2
Are all the Bilge Suction pipes in Holds and Tunnel Well fitted with strum-boxes yes Are the Bilge Suctions in the Machinery Spaces 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 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 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

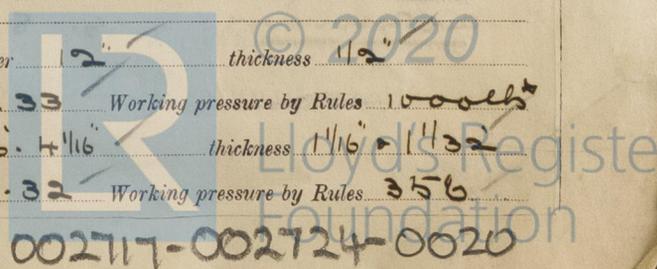
Do all pipes pass through the bunkers none How are they protected -
Do all pipes pass through the deep tanks none Have they been tested as per Rule yes
Are all Pipes, Cocks, Valves, and Pumps in connection with the machinery and all boiler mountings accessible at all times yes

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 none 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 yes

Main Air Compressors, No. 2 No. of stages 3 Diameters 600-1540 120 mm Stroke 480 mm Driven by main engine
Auxiliary Air Compressors, No. one No. of stages 3 Diameters 400-350 52 mm Stroke 260 Driven by steam
All Auxiliary Air Compressors, No. - No. of stages - Diameters - Stroke - Driven by -
Reversing Air Pumps, No. yes Diameter yes Stroke - Driven by -

Auxiliary Engines crank shafts, diameter as per Rule as per Rule as fitted as fitted
RECEIVERS:—Is each receiver, which can be isolated, fitted with a safety valve as per Rule yes
Are the internal surfaces of the receivers be examined yes What means are provided for cleaning their inner surfaces manholes
Is there a drain arrangement fitted at the lowest part of each receiver yes

High Pressure Air Receivers, No. 4 Cubic capacity of each 150 litres Internal diameter 12" thickness 1/2"
Material Seamless Range of tensile strength 29.33 Working pressure by Rules 1000 lbs
Working Air Receivers, No. 2 Total cubic capacity 1300 CF Internal diameter 6.4 1/16" thickness 1 1/16"
Material Riveted Range of tensile strength 28.32 Working pressure by Rules 356



auxiliary **BOILERS FITTED?** yes If so, is a report now forwarded? yes
PLANS. Are approved plans forwarded herewith for Shafting (If not, state date of approval) yes Receivers ye Separate Tanks -
auxiliary Boilers yes General Pumping Arrangements - Oil Fuel Burning Arrangements -
SPARE GEAR see separate list

The foregoing is a correct description,
 For JOHN G. KINCAID & CO. LIMITED
 Director. Manufacturer.

Dates of Survey while building
 During progress of work in shops - (1929) June 12 July 18.26.30 Aug 1.5.8.9.14.19.26.30 Sept 11.18.19.20.23.24.25.26.27 Oct 2.4.8.9.10.14.16.14.23.24.25.29.30.31 Nov. 1.4.11.12.13.14.18.20.21.22.25.26.28.29 Dec 3.4.6.13. 1929/ Dec 9.13.23 1930/ Jan 7.8.22.24.27.31 Feb. 4.12.13.15.17.18.21
 During erection on board vessel - - -
 Total No. of visits 54
 Dates of Examination of principal parts
 Crank shaft 22-11-29 Flywheel shaft 25-11-29 Thrust shaft 25-11-29 Intermediate shafts 25-11-29 Tube shaft 24-1-30
 Screw shaft 25-11-29 Propeller 25-11-29 Stern tube 6-12-29 Engine seatings 13-12-29 Engines holding down bolts 21.2.30
 Completion of fitting sea connections 13.12.29 Completion of pumping arrangements
 Crank shaft, Material S Identification Mark K 48-HRWGM Flywheel shaft, Material S Identification Mark LR 1371.1372WG
 Thrust shaft, Material S Identification Mark LR 1371.1372WG Intermediate shafts, Material S Identification Marks LR 18548.8580
 Tube shaft, Material S Identification Mark LR 3001.135H11 Screw shaft, Material S Identification Mark LR 3001.135H11
 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 "Alhe Sultan" Larkhall 9:19126
 General Remarks (State quality of workmanship, opinions as to class, &c.) These engines have been under special survey in accordance with the approved plans. The workmanship is of good quality. They have been tested on the Brake of good quality. They have now been shipped to Middlesbrough, at which port they will be fitted on board. The machinery, when fitted on board, tried under working conditions, will be entitled in my opinion for the record of L.M.C. with date.

This machinery has been securely fitted aboard and tested with satisfactory results under working conditions and is, in my opinion, eligible for classification with record + L.M.C. 2.30.

The amount of Entry Fee ... £ 6 : - : When applied for,
 Special Sub 4/5 ... £ 88 : 4 : 13th DECEMBER 1929
Sub 1/5 ... £ 22 : 2 :
auxiliary Boiler Fee ... £ 25 : 3 :
air arrangements ... £ 8 : 8 :
 Travelling Expenses (if any) ...

W. Gordon-Maclean
 Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute GLASGOW 17 DEC 1929
 Assigned Deferred

FRI. 7 MAR 1930
 + 20230
 or 1800
 Lloyd's Register Foundation

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