

## REPORT ON OIL ENGINE ELECTRIC GENERATOR SETS.

No. 11.382.

Received at London Office

15 OCT 1934

of writing Report

19

When handed in at Local Office

13/10/19

34 Port of

Belfast

Visits included in 4.8 machy.

Date, First Survey

Last Survey

19

Number of Visits

in Survey held at

Belfast

Book.

59 on the Single  
Twin  
Triple  
Quadruple  
Screw vessel

"ASTURIAS"

Tons } Gross  
Net

at

Belfast

By whom built

Harland &amp; Wolff Ltd.

Yard No. 507

When built 1925

ers

Royal Mail Lines Ltd.

Port belonging to

Belfast

Engines made at

By whom made

Harland &amp; Wolff Ltd.

Contract No. 507

When made 1925

rators made at

By whom made

do.

Contract No. 507

When made 1925

of Sets 4 Engine Brake Horse Power 560 Nom. Horse Power as per Rule 21640 Total Capacity of Generators 1480 Kilowatts.

ENGINES, &amp;c. Type of Engines Harland &amp; Wolff - B.W. Type Diesel 2 or 4 stroke cycle 4 Single or double acting Single

mm pressure in cylinders 500 lbs Diameter of cylinders 500 mm Length of stroke 750 mm No. of cylinders 4 No. of cranks 4

of bearings, adjacent to the Crank, measured from inner edge to inner edge 688 mm. Is there a bearing between each crank Yes

utions per minute 168 Flywheel dia. 2,800 mm. Weight 10,000 Kms. Means of ignition Compression Kind of fuel used diesel oil

k Shaft, dia. of journals as per Rule 295 mm as fitted 300 mm Crank pin dia. 300 mm Crank Webs Mid. length breadth 540 mm Thickness parallel to axis 195 mm Mid. length thickness 195 mm shrunk Thickness around eyehole 137.5 mm

heel Shaft, diameter as per Rule as fitted crankshaft Intermediate Shafts, diameter as per Rule as fitted Thickness of cylinder liners 36 mm.

governor or other arrangement fitted to prevent racing of the engine when declutched Yes Means of lubrication forced

the cylinders fitted with safety valves Yes Are the exhaust pipes and silencers water cooled or lagged with non-conducting material Yes

ing Water Pumps, No. Is the sea suction provided with an efficient strainer which can be cleared within the vessel Yes

ricating Oil Pumps, No. and size One of 10 2 1/2 in. Three 360 x 315 x 72 mm. 330 mm. Crankshaft Compressors, No. One No. of stages Two Diameters 120 x 106 mm. Stroke 100 mm. Driven by Electric motor

enging Air Pumps, No. Diameter Stroke Driven by

RECEIVERS: Is each receiver, which can be isolated, fitted with a safety valve as per Rule Fusible plug on each receiver - safety valve on Compressor

the internal surfaces of the receivers be examined Yes What means are provided for cleaning their inner surfaces open ends

checked, were a drain arrangement fitted at the lowest part of each receiver Yes Pressure Air Receivers, No. Four Two Cubic capacity of each 150 lbs 290 lbs Internal diameter 295 mm 416 mm thickness 15 mm 17.5 mm

less, lap welded or riveted longitudinal joint Yes Material Steel Range of tensile strength 28/32 Tons Working pressure by Rules 1415 lbs 1180

ing Air Receivers, No. Ten Total cubic capacity 2900 lbs Internal diameter 416 mm thickness 17.5 mm

less, lap welded or riveted longitudinal joint Yes Material Steel Range of tensile strength 28/32 Tons Working pressure by Rules 1180 lbs

CTRIC GENERATORS: Type Compound wound Dynamos

sure of supply 206 volts. Load 1800 Amperes. Direct or Alternating Current direct

alternating current system, state frequency of periods per second

the Automatic Governor been tested and found efficient when the whole load is suddenly thrown on or off Yes

erators, do they comply with the requirements regarding rating Yes are they compound wound Yes

they over compounded 5 per cent. Yes, if not compound wound state distance between each generator

adjustable regulating resistance fitted in series with each shunt field Yes Are all terminals accessible, clearly marked, and furnished with sockets Yes

they so spaced or shielded that they cannot be accidentally earthed, short circuited, or touched Yes Are the lubricating arrangements of the generators as per Rule Yes

NS. Are approved plans forwarded herewith for Shafting 28.2.34 Receivers Separate Tanks

RE GEAR See list attached to Main Engines' Report.

The foregoing is a correct description,

Manufacturer.



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Lloyd's Register

002215-002221-0115



Dates of Survey while building  
 { During progress of work in shops - - }  
 { During erection on board vessel - - - }  
 Total No. of visits

Dates of Examination of principal parts—Cylinders 30.5.34 5.6.34 Covers as Cyls. Pistons as Cyls. Piston rods  
 Connecting rods 22.5.34 18.6.34 Crank and Flywheel shaft 22.5.34 18.6.34 Intermediate shaft  
 Crank and Flywheel shafts, Material Identification Mark  
 Intermediate shafts, Material Identification Marks  
 Is this machinery duplicate of a previous case If so, state name of vessel

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

These auxiliary engines were built under survey by the Board of Trade. The whole of the machinery has now examined, the scankings compared with the designs, new liners have been fitted to the cylinders and these and dynamos placed in good working order. Anti-vibrating gear has been fitted to these engines and they have been tried out under full electrical loads with satisfactory results. The original air lines have been modified in accordance with the approved plans and the relief valves adjusted. In my opinion the auxiliary engines and dynamos are eligible for service in a classed vessel.

100,028—Transfer.  
 (The Surveyors are requested not to write on or below the space for Committee Minute.)

The amount of Fee ... £ : : When applied for, 19.....  
 Travelling Expenses (if any) £ : : When received, 19.....

Committee's Minute TUE. 10 OCT 1934  
 Assigned see J. E. Machy

R Lee Amess  
 Surveyor to Lloyd's Register of Shipping.