

28 JUL 1930

Bel. 10.424

No. 50483

Rpt. 4c.

REPORT ON OIL ENGINE ELECTRIC GENERATOR SETS.

Received at London Office 28 MAY 1930

Date of writing Report 17th May, 1930 When handed in at Local Office 23rd May, 1930 Port of GLASGOW.

No. in Survey held at Glasgow Date, First Survey 26. 11. 29 Last Survey 8th May, 1930. Reg. Book. Number of Visits 22

84465 on the Single Twin Triple Screw vessel "SILVER WALNUT" Tons Gross Net

Built at Belfast By whom built Harland & Wolff Ltd. Yard No. 883 When built 1930

Owners Silver Line Ltd. (STANLEY & JOHN THOMPSON LD. MGRS.) Port belonging to LONDON.

Oil Engines made at Glasgow By whom made Harland & Wolff Ltd. Contract No. 883-1 When made 1930

Generators made at Belfast By whom made Harland & Wolff Ltd. Contract No. 883 When made 1930.

No. of Sets 4 Engine Brake Horse Power 15 each Nom. Horse Power as per Rule 172 Total Capacity of Generators 400 Kilowatts.

IL ENGINES, &c. Type of Engines Diesel, Vertical Reciprocating 2 or 4 stroke cycle 4 Single or double acting Single

Maximum pressure in cylinders 500 lb./in.² Diameter of cylinders 230 mm. Length of stroke 380 mm. No. of cylinders 6 No. of cranks 6

Span of bearings, adjacent to the Crank, measured from inner edge to inner edge 302 mm. Is there a bearing between each crank Yes

Revolutions per minute 300 Flywheel dia. 1225 mm. Weight 1.08 tons Means of ignition Compression Kind of fuel used Diesel

Crank Shaft, dia. of journals as per Rule 132 mm. as fitted 140 mm. Crank pin dia. 140 mm. Crank Webs Mid. length breadth 335 mm. Thickness parallel to axis 2 solid Mid. length thickness 78 mm. Thickness around eyehole 3 forged.

Flywheel Shaft, diameter as per Rule 132 mm. as fitted 140 mm. Intermediate Shafts, diameter as per Rule as fitted Thickness of cylinder liners 18 to 14 mm.

Is a governor or other arrangement fitted to prevent racing of the engine when declutched Yes Means of lubrication Forced & gravity.

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

Cooling Water Pumps, No. Ship's System Is the sea suction provided with an efficient strainer which can be cleared within the vessel

Lubricating Oil Pumps, No. and size One off each engine — Each 2 tons/hour.

Air Compressors, No. None No. of stages — Diameters — Stroke — Driven by —

Scavenging Air Pumps, No. None Diameter — Stroke — Driven by —

IR RECEIVERS:—Is each receiver, which can be isolated, fitted with a safety valve as per Rule Fusible plug: safety valve on pipe line.

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

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

High Pressure Air Receivers, No. None 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, No. One Total cubic capacity 150 litres Internal diameter 295 mm. thickness .73 in.

Seamless, lap welded or riveted longitudinal joint — Material Steel Range of tensile strength 28-32 tons/in.² Working pressure by Rules 1800 lb./in.²

ELECTRIC GENERATORS:—Type Open type.

Pressure of supply 220 volts. Load 455 (each) Amperes. Direct or Alternating Current Direct.

If alternating current system, state frequency of periods per second

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

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

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

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

Are 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

ANS. Are approved plans forwarded herewith for Shafting 12th Oct. 1929 Receivers No Separate Tanks None

ARE GEAR As per attached list — In accordance with the Rules

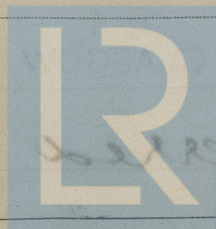
& in excess.

The foregoing is a correct description,
For HARLAND AND WOLFF, LIMITED

Archibald Paterson

Acting Finnieston Secretary

Manufacturer.



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Lloyd's Register
Foundation

005470-005479-0138

Dates of Survey while building { During progress of work in shops - - } 29 Nov 26 Dec 10 (1930) Jan 30 Feb 5 13 14 17 20 Mar 5 18 20 24 26 28 31 Apr 8 9 16 28
{ During erection on board vessel - - - } May 1 8
Total No. of visits MOD 22 12

Dates of Examination of principal parts—Cylinders 8-4-30 Covers 8-4-30 Pistons 29-4-30 Piston rods None

Connecting rods 29-4-30 Crank and Flywheel shaft 13th & 20th-2-30 Intermediate shaft —
Crank and Flywheel shaft, Material Steel Identification Marks 4404 D'S 5558, 8552 2671, 2825 Intermediate shafts, Material None Identification Marks —

Is this machinery duplicate of a previous case Yes. If so, state name of vessel M.V. "Silver Express."

General Remarks (State quality of workmanship, opinions as to class, &c.) These four 6-cylinder Auxiliary Diesel Engines have been built under special survey in accordance with this Society's Rules. The materials & workmanship are good. They have been run in the Works under full power load with satisfactory results.

The Engines & their Generators have been forwarded to Belfast to be fitted in the vessel.

These engines have been efficiently fastened on seats in the motor room of the vessel & tried out under full working conditions with satisfactory results.

R. Lee Ames
Belfast.

A.L.
23/5/30.

The amount of Fee ... £ 17: 4/-
Travelling Expenses (if any) £ — : —
When applied for, 26.5.19.30
When received, 20.6.19.30

J. D. Boyle
Surveyor to Lloyd's Register of Shipping.

Committee's Minute GLASGOW 27 MAY 1930

Assigned Deferred.

WED. 6 AUG 1930

See Bel. J.E. 102427
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