

REPORT ON OIL ENGINE ELECTRIC GENERATOR SETS.

Sld. No. 29458
Lon No. 91,428

Received at London Office 20 MAY 1927 23 JUN 1927

Date of writing Report 20 MAY 1927 When handed in at Local Office 20 MAY 1927 Port of London

No. in Survey held at Bedford Date, First Survey July 12, 1926, Last Survey May 18, 1927

Reg. Book. Single on the Triples Screw vessel "SILVERGUAVA" Tons { Gross 5294 Net 3088

Built at Sunderland By whom built Sir James Laing & Co Ltd Yard No. 696 When built 1917

Owners Silver Line Ltd. (Stanley & John Thompson Ltd. Ingr.) Port belonging to London

Oil Engines made at Bedford By whom made Messrs. H. H. Allen Sons & Co. Contract No. 39523/15 When made 1927

Generators made at Sunderland By whom made Messrs. Sunderland F & Eng. Co. Contract No. 110-12-15 When made 1927

No. of Sets Four Engine Brake Horse Power 600 Nom. Horse Power as per Rule 171 Total Capacity of Generators 400 Kilowatts.

OIL ENGINES, &c.—Type of Engines Diesel (Burmester & Main) 2 or 4 stroke cycle 4 Single or double acting S.P.

Maximum pressure in cylinders 530 lbs/sq. in. Diameter of cylinders 300 mm Length of stroke 430 mm No. of cylinders 3 No. of cranks 3

Span of bearings, adjacent to the Crank, measured from inner edge to inner edge 360 mm Is there a bearing between each crank Yes

Revolutions per minute 300 Flywheel dia. 1600 mm Weight 4 Tons Means of ignition Compression Kind of fuel used Diesel oil

Crank Shaft, dia. of journals as per Rule 166 mm as fitted 180 mm Crank pin dia. 180 mm Mid. length breadth 230 mm Crank Webs Mid. length thickness 100 mm Thickness parallel to axis SOLID FORGED Thickness around eye-hole

Flywheel Shaft, diameter as per Rule CRANK SHAFT Intermediate Shafts, diameter as fitted Thickness of cylinder liners 25 mm

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

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

Cooling Water Pumps, No. 2 2 Motor driven Is the sea suction provided with an efficient strainer which can be cleared within the vessel

Lubricating Oil Pumps, No. and size Driven from engine

Air Compressors, No. 4 No. of stages 3 Diameters 46, 195, 220 mm Stroke 180 mm Driven by Crank on hand shaft

Scavenging Air Pumps, No. Diameter Stroke Driven by

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

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

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

High Pressure Air Receivers, No. 4 Cubic capacity of each 35 litres Internal diameter 7 1/4" thickness 3/8"

Seamless, lap welded or riveted longitudinal joint Seamless Material Steel Range of tensile strength 29/33 Working pressure by Rules 1332 lbs/sq. in.

Starting Air Receivers, No. 4 Total cubic capacity 150 litres Internal diameter 12" thickness 1/2"

Seamless, lap welded or riveted longitudinal joint Seamless Material Steel Range of tensile strength 29/33 Working pressure by Rules 1227 lbs/sq. in.

ELECTRIC GENERATORS:—Type Two bearing open, drip proof; 6 pole Direct

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

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 with interpoles

Are they over compounded 5 per cent. level compounding not compound wound state distance between each generator

Are 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

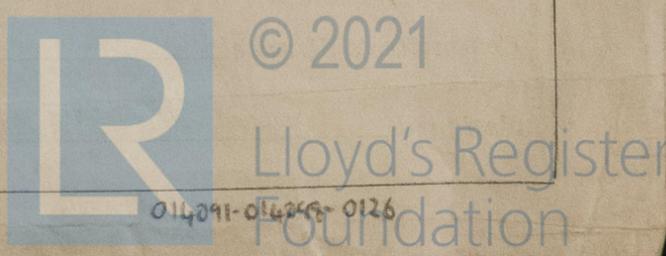
Are approved plans forwarded herewith for Shafting No. 12.2.26 Plans Receivers Separate Tanks

PRE GEAR

See attached List

The foregoing is a correct description,

W.H. ALLEN SONS & CO. LTD., *Overhead* 10/5/27 Manufacturer



Dates of Survey while building: During progress of work in shops - - 1926. July 12, 16 Dec. 10, 29 1927. Jan 14, Feb 4, 28 March 9, 16, 23, 31. April 29 May 18^{2/3} partial = 7 full Rpt
 During erection on board vessel - - -
 Total No. of visits

Dates of Examination of principal parts - Cylinders 4-2-27, 28-2-27 9-3-27 Covers 28-2-27, 16-3-27 31-3-27 Pistons 16-3-27, 22-3-27 31-3-27 Piston rods ✓

Connecting rods 12-7-26, 16-7-26, 10-17-26 29-12-26 Crank and Flywheel shaft 9-3-27 16-3-27, 31-3-27 Intermediate shaft ✓

Crank and Flywheel shaft, Material Steel Identification Mark See below Intermediate shafts, Material Identification Marks

Is this machinery duplicate of a previous case Yes If so, state name of vessel "Silverbelle"

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

Crank Shafts; Identification Marks: -

<u>39512.I.</u>	1149 LLOYDS 9-11-26 LR 9-3-27	<u>39512.F.</u>	LLOYDS TEST J.S.P. LLOYDS 7581 31-5-26 LR 9-3-27	<u>39523.A.</u>	LLOYDS TEST 594 LLOYDS 1328 17-9-26 T.H. LR 9-3-27	<u>39523.B.</u>	LLOYDS 1169 10-12-26 E.O. LR 16-3-27
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This Machinery has been constructed under special survey and in accordance with approved plans and Rule requirements.

The workmanship and material, so far as can be seen, are good and satisfactory bench trials have been carried out under survey.

The four sets which are numbered 39512/I/F & 39523/A/B have been despatched to Sunderland where they are to be installed and, in my opinion, will be eligible for inclusion in the Classification and record of T.L.M.C. of the vessel.

The installation has been tried under full working conditions with satisfactory results. The spare gear was examined & found complete. For notation see machinery report.

Garbottle

Im. 7.26 - Transfer. (The Surveyors are requested not to write on or below the space for Committee's Minute.)

The amount of Fee ... £ 17-2-0 When applied for, 20 MAY 1927
 Travelling Expenses (if any) £ 4-0-6 When received, 18-7-27

Richard P. Palmer
 Surveyor to Lloyd's Register of Shipping.

Committee's Minute TUES. 28 JUN 1927
 Assigned *See Sd Rpt No 29458*

