

4c.

REPORT ON OIL ENGINE ELECTRIC GENERATOR SETS.

Bel. No. 401
No. 50300

19 APR 1930

Received at London Office

Writing Report 4th April, 1930 When handed in at Local Office 5th April, 1930 Port of GLASGOW.
 in Survey held at Glasgow Date, First Survey 26. 11. 29 Last Survey 4th April, 1930.
 Book. Number of Visits 33

Single on the Twin Triple Quadruple Screw vessel "SILVER CYPRESS"
 Tons { Gross
 Net

at Belfast By whom built Harland & Wolff Ltd. Yard No. 882. When built 1930.
 Silver Line Ltd. Port belonging to London

Engines made at Glasgow By whom made Harland & Wolff Ltd. Contract No. 882 When made 1930.

Generators made at Belfast By whom made Sunderland Works Eng. Co. Ltd. Contract No. 882 When made 1930.

of Sets 4 Engine Brake Horse Power 151 each Nom. Horse Power as per Rule 172 Total Capacity of Generators 400 Kilowatts.

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

Maximum pressure in cylinders 500 lbs/in² Diameter of cylinders 230 mm. Length of stroke 380 mm. No. of cylinders 6 each No. of cranks 6 each

Distance 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. Mid. length thickness 18 mm. Thickness parallel to axis Solid Thickness around eye hole Fayed

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 there a governor or other arrangement fitted to prevent racing of the engine when decoupled 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. 3 Ships 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/hr.

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

Exhausting Air Pumps, No. None Diameter Stroke Driven by

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

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 Seamless Material Steel Range of tensile strength 28-32 tons/in² Working pressure by Rules 1800 lbs/in²

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 compounded 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

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

SPARE GEAR As per attached List In accordance with the Rules & in excess.

The foregoing is a correct description,

Manufacturer.

For HARLAND & WOLFF, LTD.

R. C. Green,
MANAGER FINNISTON WORKS

WS16-0340

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Lloyd's Register
Foundation

Dates of Survey while building
During progress of work in shops - 29 Nov. 26 Oct 10.16 (1930) Jan 9 10.15 21.22 27.30 Feb 10 14.25 26 28 Mar 5b.
During erection on board vessel - 5.6.17 18 20.24 Apr 4
Total No. of visits 23

Dates of Examination of principal parts—Cylinders 6-3-30 Covers 6-3-30 Pistons 28-2-30 Piston rods 28-2-

Connecting rods 28-2-30 Crank and Flywheel shafts 16-12-29 & 27-1-30 Intermediate shaft

Crank and Flywheel shaft, Material Steel Identification Mark 2530, 2490, 2517 & 2541 Intermediate shafts, Material None Identification Marks

Is this machinery duplicate of a previous case No. If so, state name of vessel.

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 material & 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 & fitted in the vessel.

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

R. Lee Amess
Belfast.

The amount of Fee ... £ 17 : 4/- 7-APL 1930

Travelling Expenses (if any) £ - : - 13.1.30

See London advice.

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

Committee's Minute GLASGOW 8-APR 1930

Assigned Defered.