

REPORT ON OIL ENGINE ELECTRIC GENERATOR SETS.

Std. No. 29318
Lm. No. 90,507
-4 NOV 1926

Date of writing Report 21 SEP 1926 When handed in at Local Office 21 SEP 1926 Port of London
 No. in Survey held at Bedford Date, First Survey April 7th Last Survey Sep. 10th 1926
 Reg. Book. 90861 Single Triple Screw vessel "SILVERBEECH" Tons { Gross 5311 Net 3096
 Built at Sunderland By whom built Sir J. Laing & Sons Ltd. Yard No. When built 1926
 Owners Silver Line Ltd. (Stanley & John Thompson Ltd. Ingrs.) Port belonging to London
 Oil Engines made at Bedford By whom made Messrs W. H. Allen & Son Contract No. 39501 When made 1926
 Generators made at Sunderland By whom made Messrs. Sunderland F & E Co. Contract No. When made
 No. of Sets 3 Engine Brake Horse Power 450 Nom. Horse Power as per Rule 128.50 Total Capacity of Generators 300 Kilowatts.

OIL ENGINES, &c.—Type of Engines Diesel (Bismister Main) 2 or 4 stroke cycle 4 Single or double acting SA
 Maximum pressure in cylinders 530 lbs 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 (ANGLO-AMERICAN)
 Crank Shaft, dia. of journals as per Rule 166^{mm} as fitted 180^{mm} Crank pin dia. 180^{mm} Crank Webs Mid. length breadth 230^{mm} 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 per Rule 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. 2e2 "Proto. 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. 3 No. of stages 3 Diameters 46/195/220^{mm} Stroke 180^{mm} Driven by crank on main 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 ✓
 Is there a drain arrangement fitted at the lowest part of each receiver Yes
 High Pressure Air Receivers, No. 3 Cubic capacity of each 35 likes Internal diameter 7 1/4" thickness 3/8"
 Seamless, lap welded or riveted longitudinal joint Seamless Material Steel Range of tensile strength 28/32 Working pressure by Rules 133 2/10^{psi}
 Starting Air Receivers, No. 3 Total cubic capacity 150 likes Internal diameter 12" thickness 1/2"
 Seamless, lap welded or riveted longitudinal joint Seamless Material Steel Range of tensile strength 28/32 Working pressure by Rules 112 7/10^{psi}

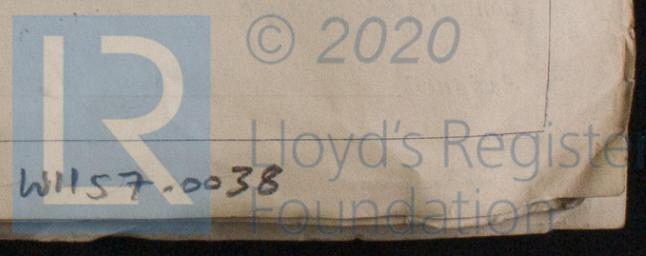
ELECTRIC GENERATORS:—Type Two bearing open; drip proof; 6 pole
 Pressure of supply 220 volts. Load 455 Amperes. Direct or Alternating Current Direct
 If alternating current system, state frequency of periods per second ✓
 Has the Automatic Governor been tested and found efficient when the whole load is suddenly thrown on or off Yes
 Generators, do they comply with the requirements regarding rating Yes are they compound wound Yes with inter poles
 are they over compounded 5 per cent. Level compounding, 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 12-2-26 retained for repeat orders. Receivers ✓ Separate Tanks ✓
 (If not, state date of approval)

SPARE GEAR
See attached List.

The foregoing is a correct description,
 FOR W.H. ALLEN SONS & CO. LTD.

Andrew Reid 17/9/26 Manufacturer.



Dates of Survey while building: April 7. 22. July 1. 23. Aug 9. 13. 20. 25. 27. 31. Sep. 8. 10
 Total No. of visits: Ap. 7. 22 July 1. 23 = 1 Aug. 9. 13. 20. 25. 27. 31 Sep 8. 10 = 3 i.e. 4 full visits

Dates of Examination of principal parts—Cylinders Aug 13. 20. 25. Covers Aug. 13. 25 Pistons Aug 25. Piston rods ✓

Connecting rods April 7. 22 Aug. 27. Crank and Flywheel shaft July 23. Aug. 23. 20 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 "SILVERASH"

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

Crank shaft marks:— N. 4 Engine

LLOYDS
1074
20-5-26
AL
13-8-26
LR

N. 5 Engine

LLOYDS
1073
AL
23-7-26
LR

N. 6 Engine.

LLOYDS
1079
AL
2-6-26
6
20-8-26
LR

This machinery has been constructed under special survey in accordance with approved plans and Rule requirements. The workmanship & material, so far as can be seen, are good and satisfactory bench trials have been carried out under survey.

The three sets which are numbered 39501/4/5/6 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 +LMC 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.

1 in. 7. 29—Transfer. (The Surveyors are requested not to write on or below the space for Committee's Minute.)

The amount of Fee ... £ 12-17-0 When applied for, 21 SEP 1926

Travelling Expenses (if any) £ 3-16-6 When received, 9-10-26

Arthur A. Robinson.
Surveyor to Lloyd's Register of Shipping.

Committee's Minute

FRI. 5 NOV 1926

Assigned

See p. 6. 4. attached



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