

AUXILIARY REPORT ON OIL ENGINE/ELECTRIC GENERATOR SETS.

No. **8002**

Received at London Office - 6 MAR 1934

Date of writing Report **3rd March 1934** When handed in at Local Office **5th March 1934** Port of **Manchester**No. in Survey held at **Manchester** Date, First Survey **1st Feb. 1934** Last Survey **14th Feb. 1934**
Reg. Book. Number of Visits **3**

Single
on the Twin
Triple
Quadruple } Screw vessel

Tons { Gross
NetBuilt at **RENFREW** By whom built **WM. SIMONS** Yard No. **704** When built

Owners Port belonging to

Oil Engines made at **MANCHESTER** By whom made **L. GARDNER & SONS** Contract No. **31248** When made **1934**

Generators made at By whom made Contract No. When made

No. of Sets **ONE** Engine Brake Horse Power **38** Nom. Horse Power as per Rule **10.8** Total Capacity of Generators **24** Kilowatts.OIL ENGINES, &c.—Type of Engines **Vertical, oilless injection cold** 2 or 4 stroke cycle **4** Single or double acting **Single**Maximum pressure in cylinders **650 lbs.** Diameter of cylinders **4 1/4"** Length of stroke **6"** No. of cylinders **4** No. of cranks **4**Span of bearings, adjacent to the Crank, measured from inner edge to inner edge **5 7/16"** Is there a bearing between each crank **Yes**Revolutions per minute **1000** Flywheel dia. **26"** Weight **511 lbs.** Means of ignition **Compression** Kind of fuel used **Heavy oil**Crank Shaft, dia. of journals as per Rule **2 1/2"** as fitted **2 5/8"** Crank pin dia. **2 5/8"** Mid. length breadth **4"** Thickness parallel to axis **50 lbs.**
Crank Webs Mid. length thickness **1 3/8"** Thickness around eye-holeFlywheel Shaft, diameter as per Rule as fitted Intermediate Shafts, diameter as per Rule as fitted Thickness of cylinder liners **Solid Cylinder**Is a governor or other arrangement fitted to prevent racing of the engine when declutched **Yes** Means of lubrication **Forced.**Are the cylinders fitted with safety valves **No.** Are the exhaust pipes and silencers water cooled or lagged with non-conducting materialCooling Water Pumps, No. **One** Is the sea suction provided with an efficient strainer which can be cleared within the vesselLubricating Oil Pumps, No. and size **One Rotary Gear Type.**Air Compressors, No. **✓** No. of stages Diameters Stroke Driven byScavenging Air Pumps, No. **✓** Diameter Stroke Driven byAIR RECEIVERS:—Is each receiver, which can be isolated, fitted with a safety valve as per Rule **✓**

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

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

High Pressure Air Receivers, No. **✓** 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. **✓** Total cubic capacity Internal diameter thickness

Seamless, lap welded or riveted longitudinal joint Material Range of tensile strength Working pressure by Rules

ELECTRIC GENERATORS:—Type

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

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

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

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

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

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

LANS. Are approved plans forwarded herewith for Shafting **Yes** Receivers **✓** Separate Tanks **Yes**GARE GEAR **One piston assembly.** **1** Exhaust set of piston rings, **1** scraper assembly**1** pair crank pin bushes **1** piston pin and pin **1** piston pin bush **1** Camshaft chain**1** Fuel pump tappet, **1** Set of Springs **1** Exhaust valve complete with springs**1** Inlet valve complete with springs, **1** pair main bearings (flywheel end) **1** pairmain bearings (gear end) **1** pair main bearings (inlet) **1** Set of Bosch Fuel Pump parts**1** Regulating sleeve, **1** Delivery valve spring.

The foregoing is a correct description,

L. GARDNER & SONS, LIMITED.

William Gardner.

Manufacturer.

DIRECTOR.



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W6-0145

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

1st, 8th, 14th Feb 1934

Dates of Examination of principal parts—Cylinders 8-2-34 Covers 1-2-34 Pistons 8-2-34 Piston rods ✓

Connecting rods 8-2-34 Crank and Flywheel shaft 8-2-34 Intermediate shaft ✓

Crank and Flywheel shaft, Material Mild Steel Identification Mark ^{LLOYDS} No 3464 A Intermediate shafts, Material ✓ 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.) This auxiliary engine, Messrs

L. Gardner & Son Ltd, type 4L2, has been built under special survey and the materials tested in accordance with the Rules.

The materials so far as can be seen are sound and the workmanship is good.

This engine connected to a 24KW (104amp 220/230 volts) Generator No F151A206 manufactured by Messrs Crompton & Parkinson and supplied by Messrs J. Charter Glasgow, has been satisfactorily tested under full load in the ship & found satisfactory.

Im 720—Transfer.
(The Surveyors are requested not to write on or below the space for Committee's Minute.)

The amount of Fee ... £ 4 : 4 : 5th Mo 1934

Travelling Expenses (if any) £ ✓ : 5/4/34

George Anderson
Surveyor to Lloyd's Register of Shipping.

FRI. 19 OCT 1934

Committee's Minute

FRI. 12 OCT 1934

Assigned

See Rgn Rpt 873



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