

REPORT ON OIL ENGINE ELECTRIC GENERATOR SETS.

No. 21123

Received at London Office 16 NOV 1939

Date of writing Report 15. 11. 39 When handed in at Local Office 15. 11. 39 Port of *Grimsby*
 Date, First Survey 14. 11. 38 Last Survey 13. 11. 39
 Number of Visits 18

on the *Single* Screw vessel
Triple
Quadruple

built at *Greenock* By whom built *Greenock Dockyard Co. Ltd* Yard No. 437 When built 1940

Port belonging to

Oil Engines made at *Lincoln* By whom made *Ruston & Hornsby Ltd* Engine Contract No. 1976/17 When made 1939

Generators made at *Manchester* By whom made *Metropolitan Vickers Ltd. Ltd* Generator Contract No. 414770/1/02 When made 1939

No. of Sets *One* Engine Brake Horse Power 64 Nom. Horse Power as per Rule 18.3 Total Capacity of Generators 39 Kilowatts.

TYPE ENGINES, &c.—Type of Engines *4 VQZ- Vertical Solid Injection* 2 or 4 stroke cycle *4* Single or double acting *Single*

Maximum pressure in cylinders *800 lbs* Diameter of cylinders *5 3/8"* Length of stroke *8"* No. of cylinders *4* No. of cranks *4*

Span of bearings, adjacent to the Crank, measured from inner edge to inner edge *6 1/4"* Is there a bearing between each crank *Yes*

Revolutions per minute *900* Flywheel dia. *27"* Weight *414 lbs* Means of ignition *Compression* Kind of fuel used *Heavy oil*

Crank Shaft, dia. of journals *as per Rule 3 5/8"* Crank pin dia. *3 1/4"* Crank Webs *Mid. length breadth 5 7/8"* Thickness parallel to axis *shrunk*
as fitted 3 5/8" *Mid. length thickness 1 3/4"* Thickness around eyehole

Flywheel Shaft, diameter *as per Rule 3 5/8"* Intermediate Shafts, diameter *as per Rule* Thickness of cylinder liners *1/2"*
as fitted 3 5/8" *as fitted*

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

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

Cooling Water Pumps, No. *One* Is the sea suction provided with an efficient strainer which can be cleared within the vessel *Yes*

Lubricating Oil Pumps, No. and size *One, twin geared*

Air Compressors, No. *One* No. of stages *Single* Diameters *2 3/4"* Stroke *3"* Driven by *Engine*

Scavenging Air Pumps, No. *Yes* Diameter *Yes* Stroke *Yes* Driven by *Yes*

AIR RECEIVERS:—Have they been made under Survey *Yes* State No. of Report or Certificate *C 3438*

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 *Inspection hole*

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

High Pressure Air Receivers, No. *Yes* Cubic capacity of each *Yes* Internal diameter *Yes* thickness *Yes*

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

Starting Air Receivers, No. *One* Total cubic capacity *2.25 cu. ft.* Internal diameter *1'-3"* thickness *5/16"*

Seamless, lap welded or riveted longitudinal joint *Seamless* Material *Steel* Range of tensile strength *26-30 tons* Working pressure by Rules *Approved*

ELECTRIC GENERATORS:—Type *Drip proof*

Pressure of supply *220* volts. Full Load Current *177* Amperes. Direct or Alternating Current *Direct*

Is alternating current system, state the periodicity *Yes* Has the Automatic Governor been tested and found efficient when the whole load is suddenly thrown on and off *Yes*

Generators, are they compounded as per rule *Yes* Is an adjustable regulating resistance fitted in series with each *Yes*

Armature 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*

Do the generators are under 100 kw. full load rating, have the Makers supplied certificates of test *Yes* and do the results comply with the requirements *Yes*

Do the generators are 100 kw. or over have they been built and tested under survey *Yes*

PLANS. Are approved plans forwarded herewith for Shafting *24-10-33* Receivers *5-5-38* Separate Tanks *25-2-38*
 (If not, state date of approval)

SHAFTING AND GEAR

As per Rule requirements.

The foregoing is a correct description,

Ruston & Hornsby Limited,

Gen. Mgrs.

13-11-39

Manufacturer.

Oil & Gas Engine Dept.



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Lloyd's Register

Foundation

003282-003289-0004

Dates of Survey while building { During progress of work in shops - - 1938 Nov 14. 17. 28 Dec 1. 1939 Jan 5. 9 Feb 16 Mar 7. 21 Apr 24 May 15. 23 June 13 July 31 Nov 26. 9
During erection on board vessel - - -
Total No. of visits 18

Dates of Examination of principal parts—Cylinders 31-8-39 Covers 31-8-39 Pistons 31-8-39 Piston rods -

Connecting rods 24-4-39

Crank and Flywheel shafts 5-1-39

Intermediate shafts ✓

Crank and Flywheel shafts, Material

Steel

Identification Marks LLOYDS 3472-5-1-39AS

Intermediate shafts, Material ✓

Housing

Identification Marks LLOYDS 3473-31-8-39AS

Identification marks on Air Receivers

8885
Lloyd's Test
600 lbs.
WP 300 lbs.
9-11-39AS

Is this machinery duplicate of a previous case Yes If so, state name of vessel Lus. Apt. No 20962.

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

This engine has been built under special survey in accordance with the Rules and approved plans.

The workmanship and materials are good.

Running tests have been carried out at the Maker's works with satisfactory results.

The engine is being shipped to Messrs. Greenwich Dockyard Co. Ltd., Greenwich, for fitting on board the vessel.

3761/1/38/12/598-P/12/12691.

Request form attached Lus. Rpt 20962

The amount of Fee ... £ 4 : 18 : 8

Travelling Expenses (if any) £

When applied for,

15.11.39

When received,

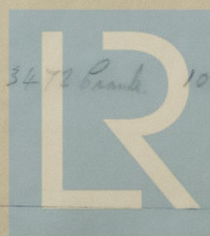
8th FEB. 1940

Pauline

Surveyor to Lloyd's Register of Shipping.

Committee's Minute GLASGOW 16 APR 1940

Assigned SEE ACCOMPANYING MACHINERY REPORT.



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