

Rpt. 4c.

REPORT ON OIL ENGINE ELECTRIC GENERATOR SETS.

No. 21233

JUL -4 1940

Date of writing Report 2.7.40 When handed in at Local Office 2.7.40 Port of Grimsby

No. in Survey held at Reg. Book.

Date, First Survey 5.10.39

Last Survey 27.4 June 1940.

Number of Visits 10.

70402 on the Single
Twin
Triple
Quadruple

Screw vessel

Underwood

Tons { Gross 1990
Net 1359

Built at Leith By whom built Henry Robt. Ltd Yard No. 291 When built 1941

Owners Union Steamship Co of New Zealand Port belonging to London

Oil Engines made at Lincoln By whom made Ruston & Hornsby, Ltd Engine Contract No. 207095 When made 1940

Generators made at Norwich By whom made Laurence, Scott & Electromotors, Ltd Generator Contract No. 81871 When made 1940

No. of Sets One Engine Brake Horse Power 40 Nom. Horse Power as per Rule 11.4 Total Capacity of Generators 20 Kilowatts.

OIL ENGINES, &c.—Type of Engines 4 VROZ—Vertical Solid Injection 2 or 4 stroke cycle 4 Single or double acting Single

Maximum pressure in cylinders 800 lbs. Diameter of cylinders 4½" Length of stroke 5½" No. of cylinders 4 No. of cranks 4

Span of bearings, adjacent to the Crank, measured from inner edge to inner edge 6 17/32" Is there a bearing between each crank Yes

Revolutions per minute 1000 Flywheel dia. 26" Weight 424 Means of ignition Compression Kind of fuel used Heavy oil.

Crank Shaft, dia. of journals as per Rule Approved 3 Crank pin dia. 3" Crank Webs Mid. length breadth 3½" Thickness parallel to axis shrunk
as fitted 3 Mid. length thickness 1 1/16" Thickness around eyehole

Flywheel Shaft, diameter as per Rule Approved 3 Intermediate Shafts, diameter as per Rule Thickness of cylinder liners 5/16"

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

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

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

Air Compressors, No. No. of stages Diameters Stroke Driven by

Scavenging Air Pumps, No. Diameter Stroke Driven by

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

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 Enclosed-ventilated, drip-proof.

Pressure of supply 220 volts. Full Load Current 91 Amperes. Direct or Alternating Current Direct

If alternating current system, state the periodicity 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

shunt field 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

If 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

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

PLANS. Are approved plans forwarded herewith for Shafting 7-10.38 Receivers Separate Tanks

(If not, state date of approval)

SPARE GEAR

As per Rule requirements.

The foregoing is a correct description.

H. Geo. Kimber

Manufacturer.



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Foundation

W266-0184

Dates of Survey while building { During progress of work in shops - - } 1939 Oct 5.16 1940 Mar 14.18.29 Apr 8 May 20.23.30 Jun 27
 { During erection on board vessel - - - }
 Total No. of visits 10

Dates of Examination of principal parts—Cylinders 20.5.40 Covers 20.5.40 Pistons 20.5.40 Piston rods ✓
 Connecting rods 8.4.40 Crank and Flywheel shafts 20.5.40 Intermediate shafts ✓
 Crank and Flywheel shafts, Material Steel Identification Marks LLOYD'S 5444-20.5.40AS
 Intermediate shafts, Material Housing Identification Marks LLOYD'S 3571-20.5.40AS
 Identification marks on Air Receivers

Is this machinery duplicate of a previous case yes If so, state name of vessel Sms. Rpt. No 21166.

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 Makers works with satisfactory results.

The set is being despatched to Messrs Henry Robt. Ltd, Leith, for fitting on board the vessel.

Request form attached.

94633/T/40/12/1.- P/12/10768

The amount of Fee £3 less £ 2 13/8
 5/- for survey of 5444
 2/- do. 4R 111C (40)
 Travelling Expenses (if any) £ : :
 When applied for, 21/7/40
 When received, 21/10/40

R. A. L. H.

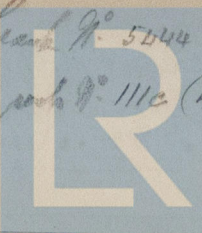
Surveyor to Lloyd's Register of Shipping.

Committee's Minute

Assigned

FRI, 11 JUL 1941

See Lth. J.E. 20437



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