pt. 4c.

REPORT ON OIL ENGINE ELECTRIC GENERATOR SETS.

No. 104613

JUL -7 1937

Received at London Office 30 JUN 1937

Date of writing Report 29th June 1937 When handed in at Local Office 30 JUN 1937 Port of London

No. in Reg. Book. Survey held at Newbury Date, First Survey 7th June 1936 Last Survey 25th May 1937 Number of Visits 8

on the Single / ~~Twin~~ / ~~Triple~~ / ~~Quadruple~~ Screw vessel "SERENITY" Tons Gross / Net

Built at Greenock By whom built George Brown & Co Ltd Yard No. 201 When built 1937

Owners T. T. Everard & Sons Ltd Port belonging to

Oil Engines made at Newbury By whom made Newbury Diesel Co Ltd. Eng ~~Contract~~ No. 2921/C When made 1937

Generators made at By whom made Lawrence Scott & Electromotors Ltd Generator ~~Contract~~ No. 116574 When made 1937

No. of Sets 1 Engine Brake Horse Power 20 Nom. Horse Power as per Rule 5·7 Total Capacity of Generators 5·75 Kilowatts.

OIL ENGINES, &c.—Type of Engines Airless injection Hand Starting 2 or 4 stroke cycle 4 Single or double acting Single

Maximum pressure in cylinders 700 lb/in² M.I.P. 105 lb/in² Diameter of cylinders 105 m/m Length of stroke 152 m/m No. of cylinders 2 No. of cranks 2

Span of bearings, adjacent to the Crank, measured from inner edge to inner edge 128 m/m Is there a bearing between each crank Yes

Revolutions per minute 1000 Flywheel dia. 634 m/m Weight 2·5 cwts. Means of ignition Compression Kind of fuel used Heavy oil

Crank Shaft, dia. of journals as per Rule 60·5 m/m as fitted 62·0 m/m Crank pin dia. 62·0 m/m Crank Webs Mid. length breadth 84 m/m Mid. length thickness 32 m/m shrunk Thickness parallel to axis ✓ Thickness around eyehole ✓

Flywheel Shaft, diameter as per Rule as fitted Crank Shaft **Intermediate Shafts**, diameter as per Rule ✓ as fitted Thickness of cylinder liners 10 m/m

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 material

Cooling Water Pumps, No. 1 SA. D 45 m/m S 127 m/m RPM 500 Is the sea suction provided with an efficient strainer which can be cleared within the vessel

Lubricating Oil Pumps, No. and size 1 Gear type. 0·7 gal. per minute.

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

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 See Report on Marine Engine No 692.

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 1 hour rating

Pressure of supply 110 volts. **Full Load Current** 52 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

Generators, are they compounded as per rule 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

If the generators are under 100 kw. full load rating, have the makers supplied certificates of test – and do the results comply with the requirements –

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

PLANS. Are approved plans forwarded herewith for Shafting 5-1-35 (type) (If not, state date of approval) Receivers ✓ Separate Tanks ✓

SPARE GEAR See list attached hereto

The foregoing is a correct description.

For & on behalf of THE NEWBURY DIESEL Co. LTD.

SECRETARY.

Manufacturer.

W449-0346

Dates of Survey while building { During progress of work in shops - - } 1936 June 7. 26 Aug 7. Dec 21. 1937 Jan 19 Feb 17 Ap 12. May 25 = 8 Visits
{ During erection on board vessel - - - }
{ Total No. of visits

Dates of Examination of principal parts—Cylinders 7.6.36 Covers 26.6.36 Pistons 31.12.36 Piston rods —

Connecting rods 21.12.36 Crank and Flywheel shaft 7.8.36 Intermediate shaft —

Crank and Flywheel shafts, Material M. S. Steel Identification Mark Lloyds 6427 MAR. 1.2.36

Intermediate shafts, Material ✓ Identification Marks ✓

Is this machinery duplicate of a previous case If so, state name of vessel

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

This auxiliary engine has been specially surveyed during construction & is in accordance with the approved plans & the Rules. Shop trials were witnessed with the engine direct coupled to its electric generator when all worked satisfactorily. It has now been dispatched to Greenock for fitting onboard.

Attached hereto: Forging certificate for crank shaft & list of spare gear

The amount of Fee ... ... £ : : When applied for, ... 19.....

Travelling Expenses (if any) £ : : When received, ... 19.....

Geo. A. Lang
Surveyor to Lloyd's Register of Shipping.

Committee's Minute GLASGOW 6TH JUL 1937

Assigned See Grk. Rpt. No. 20401

(The Surveyors are requested not to write on or below the space for Committee Minute.)

1m,2,36.—Transfer.