

REPORT ON OIL ENGINE ELECTRIC GENERATOR SETS.

No. 54531

-3 SEP. 1934

16 MAY 1934

Date of writing Report 9th May 1934 When handed in at Local Office 14th May 1934 Port of GLASGOW
 No. in Survey held at Glasgow Date, First Survey 10th May 1933 Last Survey 4th May 1934
 Reg. Book. Number of Visits 30

on the Single Screw vessel "WAIWERA" Tons { Gross _____ Net _____
Twin
Triple
Quadruple

Built at Belfast By whom built Harland & Wolff Ltd. Yard No. 922 When built 1934

Owners Messrs. Shaw, Savill & Albion Co. Ltd. Port belonging to _____

Engines made at Glasgow By whom made Harland & Wolff Ltd. Contract No. 922 When made 1934

tors made at Belfast By whom made Do. Contract No. 922 When made 1934

Sets 4 Engine Brake Horse Power 433 each Nom. Horse Power as per Rule 495 Total Capacity of Generators 1200 Kilowatts.

ENGINES, &c.—Type of Engines Heavy oil, trunk type: airless injection or 4 stroke cycle 4 Single or double acting Single

um pressure in cylinders 500 lbs./sq. in. Diameter of cylinders 330 mms. Length of stroke 580 mms. No. of cylinders 6 No. of cranks 6

bearings, adjacent to the Crank, measured from inner edge to inner edge 400 mms. Is there a bearing between each crank yes

tions per minute 270 Flywheel dia. 1900 mms. Weight 4.9 tons Means of ignition Compression Kind of fuel used Diesel

Shaft, dia. of journals as per Rule 190 mms. Crank pin dia. 220 mms. Crank Webs Mid. length breadth 288 mms. Thickness parallel to axis Solid

as fitted 280 mms. Mid. length thickness 115 mms. Thickness around eye hole for rings

Steel Shaft, diameter as per Rule 190 mms. Intermediate Shafts, diameter as per Rule Thickness of cylinder liners 24 to 20 mms

as fitted crank shaft as fitted ✓

governor or other arrangement fitted to prevent racing of the engine when decoupled yes Means of lubrication Forced

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

ing Water Pumps, No. Ship's system Is the sea suction provided with an efficient strainer which can be cleared within the vessel yes

icating Oil Pumps, No. and size 1 (each) @ 6 1/2 tons/hour

Compressors, No. None No. of stages ✓ Diameters ✓ Stroke ✓ Driven by ✓

enging Air Pumps, No. None Diameter ✓ Stroke ✓ Driven by ✓

RECEIVERS:—Is each receiver, which can be isolated, fitted with a safety valve as per Rule _____

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

are a drain arrangement fitted at the lowest part of each receiver _____

Pressure Air Receivers, No. _____ Cubic capacity Main Engines Internal diameter _____ thickness _____

less, lap welded or riveted longitudinal joint Report on Material _____ Range of tensile strength _____ Working pressure by Rules _____

ting Air Receivers, No. Belfast Total cubic capacity _____ Internal diameter _____ thickness _____

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

ELECTRIC GENERATORS:—Type Harland & Wolff: Open Type

ssure of supply 220 volts. Load 1350 Amperes. Direct or Alternating Current Direct

Alternating current system, state frequency of periods per second ✓

the Automatic Governor been tested and found efficient when the whole load is suddenly thrown on or off yes

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

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

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

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

INS. Are approved plans forwarded herewith for Shafting yes Receivers Del. Rpt. Separate Tanks Del. Rpt.

RE GEAR As per attached list.

The foregoing is a correct description,
 For HARLAND AND WOLFF, LIMITED.

Wm. J. Wright

Manufacturer.

Finnlestone Secretary



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 Foundation

Dates of Survey while building
 During progress of work in shops - 1933 Nov: 10. 20. 22. 24 Dec: 5. 7. 11. 20. 21. 22. 25. 27. 28 (1934) Jan: 8. 9. 11. 12. 17
 During erection on board vessel - 21. 24. 26. 30 Feb: 6. 7. 9. 22 Mar: 9. 18. 27 May: 4
 Total No. of visits 30

Dates of Examination of principal parts—Cylinders 22-2-34 Covers 12-1-34 Pistons 22-2-34 Piston rods None

Connecting rods 17-1-34 Crank and Flywheel shaft 11-1-34, 9-2-34 Intermediate shaft 28-12-33, 30-1-34

Crank and Flywheel shaft, Material Steel Identification Mark 4740, 4748, 4751, 4756 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.) These four auxiliary engines have been built under special survey in accordance with the Society's Rules & the approved plans. The materials & workmanship are good. Together with the generators they have been examined under full power on the Works test bed & found satisfactory. The engines & generators have been forwarded to Belfast & be fitted in the vessel.

14/5/34

These auxiliary engines have been efficiently installed on the vessel in the wings of the main motor room. They have been tried out under working conditions with satisfactory results and the vessel is eligible, in my opinion, for classification in the Society's Register Book.

R Lee Amess
 30. 8. 34. Belfast.

Im, 7. 26 - Transfer.
 (The Surveyors are requested not to write on or below the space for Committee's Minute.)

The amount of Fee ... £ 49 : 10/-
 Travelling Expenses (if any) £ :
 When applied for, 15 MAY 1934
 When received, 22nd June 1934 See Secs Notice C.4.

Committee's Minute GLASGOW 15 MAY 1934

Assigned Deferred.

FRI 14 SEP 1934

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