

REPORT ON OIL ENGINE ELECTRIC GENERATOR SETS.

No. 100,714
29 OCT 1934 30 JAN 1935

Date of writing Report 27th October 1934 When handed in at Local Office 29 OCT 1934 Port of London

No. in Survey held at Bedford Date, First Survey 3rd May 1934 Last Survey 16th October 1934
Reg. Book. Number of Visits 29

on the Single Twin Triple Quadruple Screw vessel M/V Port Wyndham Tons { Gross 8580
Net 5233

at Glasgow. By whom built John Brown & Co. Ltd. Yard No. 541 When built 1934

is Commonwealth and Dominion Line Ltd. Port belonging to

Engines made at Bedford By whom made W. H. Allen & Sons Ltd. Contract No. K/43968 When made 1934

Generators made at Bedford By whom made W. H. Allen & Sons Ltd. Contract No. E/43969 When made 1934

Sets 3 Engine Brake Horse Power 1662 Nom. Horse Power as per Rule (3 x 554) Total Capacity of Generators 1125 Kilowatts. (3 x 375 kW)

ENGINES, &c.—Type of Engines (6847) Heavy oil, solid injection 2 or 4 stroke cycle 4 Single or double acting Single

Working pressure in cylinders 650 lb/sq in Diameter of cylinders 350 mm Length of stroke 470 mm No. of cylinders 6 No. of cranks 6

Clearance bearings, adjacent to the Crank, measured from inner edge to inner edge 420 mm Is there a bearing between each crank Yes

Revolutions per minute 350 Flywheel dia. 1800 mm Weight 8500 lb. Means of ignition Compression Kind of fuel used Heavy oil.

Shaft, dia. of journals as per Rule 200 mm as fitted 210 mm Crank pin dia. 210 mm Crank Webs Mid. length breadth 310 mm Thickness parallel to axis shrunk
Mid. length thickness 105 mm Thickness around eye-hole

Shaft, diameter as per Rule as per Rule Intermediate Shafts, diameter as per Rule as per Rule Thickness of cylinder liners 26 mm

Governor or other arrangement fitted to prevent racing of the engine 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

Sea Water Pumps, No. None on engines. Is the sea suction provided with an efficient strainer which can be cleared within the vessel

Feeding Oil Pumps, No. and size 1. rotary gear pump for engine 20.5 gallon per minute.

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

Engining Air Pumps, No. — Diameter — Stroke — Driven by —

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

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

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

Pressure Air Receivers, No. — Cubic capacity of each — Internal diameter — thickness —

Are the receivers lap welded or riveted longitudinal joint — Material — Range of tensile strength — Working pressure by Rules —

Engining Air Receivers, No. 3 Total cubic capacity 14 x 3 = 42 cu. ft. Internal diameter 20 1/8" thickness 7/16"

Are the receivers lap welded or riveted longitudinal joint D.R. Lap. Material Steel Range of tensile strength 26/30 ton/sq in Working pressure by Rules Approx. 300 lb.

ELECTRIC GENERATORS:—Type Marine type, open.

Voltage of supply 220 volts. Load each 1705 Amperes. Direct or Alternating Current Direct

Are the generators rotating current system, state frequency of periods per second —

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

Do the generators, do they comply with the requirements regarding rating Yes are they compound wound Yes

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

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

Are the terminals 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

Are approved plans forwarded herewith for Shafting 5-12-29 Receivers 13-2-31 Separate Tanks —

BE GEAR 1 cylinder liner, 1 cylinder head, 1 piston complete, 6 gudgeon pins, 48 piston rings and

12 scraper rings, 6 pairs main bearings, 6 pairs bottom end bearings, 2 pairs thrust bearings,

6 gudgeon pin bearings, 8 main bearing studs, 2 connecting rod bolts, 3 exhaust valves complete,

3 starting air valves, 6 injector needles & valves, 1 spare chain for chain drive 3 fuel pumps,

3 fuel injectors, 3 fuel pump delivery valves & seats, 1 pump unit for lubrication,

46 various springs 1 pair dynamic bearings. 1 thrust coil, 9 bush holders.

The foregoing is a correct description,
W. H. ALLEN, SONS & Co., Ltd.

W. H. Allen

Manufacturer.

TUE. 12 FEB 1935



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Lloyd's Register
Foundation

Dates of Survey while building: During progress of work in shops - 1934 May 3, 9, 16, 17, 25, 31, June 13, 19, 22, 28, July 4, 10, 17, 27, Aug 2, 17, 21, 25, 29, 31, Sept 5, 18, 21, 25, 27. Oct. 10, 16 = 27 visits.

During erection on board vessel -

Total No. of visits

Dates of Examination of principal parts - Cylinders 9.5.34 to 31.8.34 Covers 16/5/34 - 16/10/34 Pistons 21/8/34 - 5/9/34 Piston rods -

Connecting rods 21/8/34 to 5/9/34 Crank and Flywheel shafts 10/7/34 - 2/8/34 Intermediate shaft -

Crank and Flywheel shaft, Material G.2. Steel Identification Mark see below Intermediate shafts, Material - Identification Marks -

Is this machinery duplicate of a previous case Yes. If so, state name of vessel Allen K/38236, Swan Hunter & Wigham Richardson N° 1483

General Remarks (State quality of workmanship, opinions as to class, etc.) Workmanship good.

These three sets of auxiliary oil engines and their direct coupled electric generators have been built under special survey in accordance with the approved plan of the Rules. The materials used have been made at works approved by the Committee and tested by the Surveyors to this Society. They have satisfactorily withstood six hours full power, two hours overload, governing & imulation trials in shop and have now been dispatched to Glasgow for fitting onboard. They will merit in my opinion the notation of Electric Light in the Register's Book, when fitted onboard and tested as required by the Rules.

Attached hereto: Fitting Certificate 3 in R. - Certificate for Acceptance List of Spare Gear

Crank Shafts, Stamped:

K/43968/A
Lloyds
1264
MAB
15-5-34
SAL
10-7-34

K/43968/B
Lloyds
1334
MAB
8-6-34
SAL
2-8-34

K/43968/C
Lloyds
1314
MAB
8-6-34
SAL
2-8-34

1m. 7.26 - Transfer. (The Surveyors are requested not to write on or below the space for Committee's Minute.)

The amount of Fee ... £ 90 : 12 :
2/- on (475 + 431) 11/7

Travelling Expenses (if any) £ 7 : 11 : 7

When applied for, 30 OCT 1934

When received, 1/11/35

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

Committee's Minute GLASGOW 29 JAN 1935

Assigned See Gls. Rpt. No 55340

TUE. 12 FEB 1935

