

# REPORT ON OIL ENGINE ELECTRIC GENERATOR SETS.

No. 66824

Received at London Office 24 MAR 1943

Date of writing Report 10 When handed in at Local Office 22.3.43 Port of Glasgow

No. in Survey held at Glasgow Date, First Survey 5th Oct 1942 Last Survey 18th Mar 1943

Reg. Book. Number of Visits 17

on the <sup>Single</sup> ~~Triple~~ ~~Quadruple~~ Screw vessel MV. "SAMANCO" Tons { Gross 8335 Net 4945

Built at Belfast By whom built Harland & Wolff Ltd Yard No. 1156 When built 1943

Owners Pacific Steam Navigation Co Ltd Port belonging to Liverpool

Oil Engines made at Glasgow By whom made British Auxiliaries Ltd Contract No. 446, 447, 448 When made 1943

Generators made at Belfast By whom made Harland & Wolff Ltd Contract No. When made

No. of Sets 3 Engine Brake Horse Power 1125 Nom. Horse Power as per Rule 320 Total Capacity of Generators 900 Kilowatts.

**OIL ENGINES, &c.**—Type of Engines Heavy Oil K.451 Type 2 or 4 stroke cycle 2 Single or double acting Single

Maximum pressure in cylinders 780 lbs M.I.P. 95 lbs Diameter of cylinders 250 7/8 Length of stroke 420 7/8 No. of cylinders 15 No. of cranks 15

Span of bearings, adjacent to the Crank, measured from inner edge to inner edge 360 7/8 Is there a bearing between each crank Yes

Revolutions per minute 350 Flywheel dia. 1300 7/8 Weight 1100 kgs. Means of ignition Compression Kind of fuel used Diesel

Crank Shaft, dia. of journals as per Rule 157 7/8 as fitted 160 7/8 Crank pin dia. 160 7/8 Crank Webs Mid. length breadth 214 7/8 Thickness parallel to axis ✓ Mid. length thickness 90 7/8 Thickness around eye hole ✓

Flywheel Shaft, diameter as per Rule 154 7/8 as fitted 160 7/8 Intermediate Shafts, diameter as per Rule Thickness of cylinder liners 19.5 7/8

Is a governor or other arrangement fitted to prevent racing of the engine when de-clutched Yes Means of lubrication Forced

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

Cooling Water Pumps, No. none fitted Is the sea suction provided with an efficient strainer which can be cleared within the vessel ✓

Lubricating Oil Pumps, No. and size One each engine 130 litres per minute

Air Compressors, No. none No. of stages Diameters Stroke Driven by ✓

Scavenging Air Pumps, No. One each engine Diameter 650 7/8 Stroke 2160 7/8 Driven by main engine

**AIR RECEIVERS:**—Is each receiver, which can be isolated, fitted with a safety valve as per Rule Not Supplied by British Auxiliaries

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

Pressure of supply volts. Load Amperes. Direct or Alternating Current

If alternating current system, state frequency of periods per second

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

Generators, do they comply with the requirements regarding are they compound wound

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

is an adjustable 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

**PLANS.** Are approved plans forwarded herewith for Shafting 5-11-35 Receivers ✓ Separate Tanks ✓

(If not, state date of approval)

**SPARE GEAR** as per attached list. ✓

The foregoing is a correct description.

FOR BRITISH AUXILIARIES, LTD.

*[Signature]*  
Director and General Manager

Manufacturer.



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003659-003670-0069

25/3/43

Dates of Survey while building  
 During progress of work in shops - -  
 During erection on board vessel - - -  
 Total No. of visits

1942 Oct 5, 9, 14 Nov 2, 10, 13, 17, 25 Dec 21, 24, 28 1943 Jan 6, 28, 31 Feb 4, 23, Mar 18.

Dates of Examination of principal parts—Cylinders 5-10-42, 9-10-42, 14-10-42, 17-11-42  
 Covers 10-11-42, 25-11-42  
 Pistons 9-10-42, 14-12-42  
 Piston rods 25-11-42, 21-12-42  
 Connecting rods 25-11-42, 21-12-42  
 Crank and Flywheel shaft } LLOYDS. No. 1135 E.L.K. 30-4-42 No. 446  
 " " " 1278 F.H. E.L.K. 22-6-42 " 447  
 " " " 7198 E.L.K. 11-6-42 " 448 } ✓  
 Crank and Flywheel shaft, Material steel Identification Mark A Intermediate shafts, Material Identification Marks

Is this machinery duplicate of a previous case? Yes. If so, state name of vessel: *M/V Hororata Gls. No. 62906.*

General Remarks (State quality of workmanship, opinions as to class, etc.)  
*These auxiliary engines have been built under Special Survey in accordance with the Rules and approved plans. The materials and workmanship are good. On completion they have been tried on the bench at full power (connected to the brake) with satisfactory results. They are to the order of Messrs Harland & Wolff Ltd. Belfast and intended for a vessel building at their yard No. 1756.*

*Messrs Harland & Wolff Ltd Belfast are supplying the generators and starting air receivers.*

*20/3/43 These auxiliary engines have now been efficiently fitted on board the vessel and tried under full working conditions with satisfactory results.*  
*K. Shaw 12/8/43.*

*Referred to the Committee's Minute*

The amount of Fee ... £ 32:0:0  
 Travelling Expenses (if any) £ : :  
 When applied for, 23 MAR 1943  
 When received, 19

*G. E. Murdoch*  
 Surveyor to Lloyd's Register of Shipping.

Committee's Minute GLASGOW 23 MAR 1943  
 Assigned *Referred for comp.*

FRI 10 SEP 1943  
 See minute on Del. to Rpt.  
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Im. 7, 26—Transfer. (The Surveyors are requested not to write on or below the space for Committee's Minutes.)