

REPORT ON OIL ENGINE ELECTRIC GENERATOR SETS

No. 1049

Received at London Office

21 NOV 1954

NOTTINGHAM.

Date of writing Report 19... When handed in at Local Office 19... Port of

No. in Survey held at Lincoln. Date, First Survey... Last Survey... 19... Number of Visits

90267 S. on the ~~Triple~~ ^{Single} Screw vessel **M.V. FOUNTAINS ABBEY** Tons Gross 197 Net 170

built at Aberdeen. By whom built Hall, Russell & Co. Ltd., Yard No. 839 When built 1954

Owners **ASSOCIATED HAMBUR LINES** Port belonging to **HULL** C 4388/TX/13/510315-6. B.63685

Engines made at Lincoln. By whom made Ruston & Hornsby Ltd., Engine No. 366769-70. When made 1953

Generators made at Sunderland. By whom made Sunderland Forge & Eng. Co. Ltd. Generator No. 47760-1. When made 1953

No. of Sets 2 B.H.P. of each Set 170 M.N. as per Rule 42.5 Capacity of each Generator 100 Kilowatts per generator.

OIL ENGINES, &c.—Type of Engines 5VCBZ. Engines Nos. 366769-70. 2 or 4 stroke cycle 4 Single or double acting S.A.

Maximum pressure in cylinders 730±3% Diameter of cylinders 8" Length of stroke 10 3/4" No. of cylinders 5 No. of cranks 5

Mean indicated pressure 104 Firing order 1.3.5.4.2. Span of bearings (i.e., distance between inner edges of bearings in way of a crank) 9.3/16"

Is there a bearing between each crank Yes Moment of inertia of flywheel 5.3 tons ft.² Revolutions per minute 600

Flywheel dia. 3'-9" Weight 12.3 cwt. Means of ignition Compression Kind of fuel used Diesel Oil

Crank Shaft, Solid forged dia. of journals 6" Crank pin dia. 4.3/4" Crank Webs Mid. length breadth 8" Thickness parallel to axis

Flywheel Shaft, diameter 6" Generator armature, moment of inertia (16 m² or Kg.-cm.²)

Are means provided to prevent racing of the engine Yes Means of lubrication Forced Kind of damper if fitted

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. and how driven One engine Is the sea suction provided with an efficient strainer which can be cleared within the vessel

Lubricating Oil Pumps, No. and size One - 480 gals. per hour. Engine driven.

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

Scavenging Air Pumps or Blowers, No. How driven

AIR RECEIVERS:—Have they been made under Survey YES State No. of Report or Certificate **NOTT. C. 18000**

(other than main engines) State full details of safety devices **S.L. S.V. SET. 310 LBS/IN²**

Can the internal surfaces of the receivers be examined and cleaned YES.

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

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

Starting Air Receivers, No. **Two** Total cubic capacity **22.4 cuft.** Internal diameter **2'-0"** thickness **5/16"**

Seamless, lap welded or riveted longitudinal joint Material Range of tensile strength Working pressure

ELECTRIC GENERATORS:—Type Open canopy DP. CW. CR. Machines Nos. 47760-1.

Pressure of supply 220 volts. Full Load Current 455 Amperes. Direct or Alternating Current D.C.

If alternating current system, state the periodicity Has the Automatic Governor been tested and found as per Rule when full 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 YES

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

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 YES

Details of driven machinery other than generator

PLANS.—Are approved plans forwarded herewith for Shafting 20.12.38. Receivers Separate Tanks

Have Torsional Vibration characteristics if applicable been approved 14.12.49. Armature shaft Drawing No.

Has the spare gear required by the Rules been supplied To rule requirements.

The foregoing is a correct description,

Ruston & Hornsby, Limited. Manufacturer.

Y. F. Burchall



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Lloyd's Register Foundation

002717-002724-0167

Dates of Survey while building:

- During progress of work in shops - - ~~XXXXXX~~ 10.2.53. 2.3.53. 18.2.53.
- During erection on board vessel - - -

 Total No. of visits: 4

Dates of Examination of principal parts:

- Cylinders: 10.2.53.
- Covers: 18.2.53.
- Pistons: as cyls.
- Piston rods: as cyls.
- Connecting rods: as cyls.
- Crank and Flywheel shafts: 24.9.52. & 3.11.52. & as cyls.
- Intermediate shafts: -

Crank shaft:

- Material: _____
- Elongation: _____
- Tensile strength: _____
- Identification Marks: LL.7941. T.D.S. R.G.98. LL.8380. T.D.S. R.G.1168.

Flywheel shaft, Material: _____ Identification Marks: _____

Identification marks on Air Receivers: NEW 4487/8. LLOYD'S TEST. 600 LBS. W.P. 300 LBS. 25/4/53. TDS No.

Is this machinery duplicate of a previous case. Yes If so, state name of vessel. Nottingham First Entry Report No. 1048.

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.)

These engines have been built under Special Survey in accordance with the Approved plans and the Regulations of the Society, materials and workmanship being good.

The generating sets have been tested in the shops under working conditions and the governors tested with satisfactory results.

The sets have been forwarded to Aberdeen for installation in the vessel.

These generator sets have been installed in M.V. "FOUNTAINS ABER", examined under working conditions, governors tested and found to operate efficiently.

T. Shonis

The amount of Fee ... £ 14 : 10 : 0

When applied for 22-4-1953

per engine.
Travelling Expenses (if any) £ : :

When received 19

Committee's Minute

GLASGOW 9 NOV 1954

SEE ACCOMPANYING MACHINERY REPORT

Assigned

