

# REPORT ON OIL ENGINE ELECTRIC GENERATOR SETS.

Writing report 13. 6. 1938 When handed in at Local Office 13. 6. 1938 Port of Grimsby  
Survey held at Lincoln Date, First Survey 24. 6. 37 Last Survey 3rd June 1938  
Number of Visits 15

Single on the Twin Triple Quadruple } Screw vessel  
Tons { Gross 27155  
Net 15813

at Newcastle By whom built Swan, Hunter & Wigham Richardson Yard No. 1547 When built  
Port belonging to

Engines made at Lincoln By whom made Ruston & Hornsby, Ltd ENGINE Contract No. 186122 When made 1937  
Generators made at Sunderland By whom made Sunderland Forge & Engineering Co., Ltd GENERATOR Contract No. F5777 When made 1937

Engine Brake Horse Power 150 Nom. Horse Power as per Rule 31 Total Capacity of Generators 100 Kilowatts.

ENGINES, &c. Type of Engines 5 VCRZ - Vertical Solid Injection 2 or 4 stroke cycle 4 Single or double acting Single  
Working pressure in cylinders 400 Diameter of cylinders 8" Length of stroke 10 3/4" No. of cylinders 5 No. of cranks 5  
Distance between bearings, adjacent to the Crank, measured from inner edge to inner edge 9 1/8" Is there a bearing between each crank Yes

Revolutions per minute 600 Flywheel dia. 3'-4" Weight 17 1/2 tons Means of ignition Compression Kind of fuel used Heavy oil  
Crank Shaft, dia. of journals as per Rule Approved Crank pin dia. 4 3/4" Crank Webs Mid. length breadth 8" Thickness parallel to axis shrunk  
as fitted 6" Mid. length thickness 2 1/2" Thickness around eyehole shrunk

Intermediate Shafts, diameter as per Rule Approved as fitted 6" Thickness of cylinder liners 3/4"  
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 Yes Are the exhaust pipes and silencers water cooled or lagged with non-conducting material Water cooled.

Number of Water Pumps, No. One Is the sea suction provided with an efficient strainer which can be cleared within the vessel Yes  
Number of Indicating Oil Pumps, No. and size One, geared

Number of Compressors, No. Yes No. of stages Yes Diameters Yes Stroke Yes Driven by Yes  
Number of Suctioning Air Pumps, No. Yes Diameter Yes Stroke Yes Driven by Yes

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

Number of Pressure Air Receivers, No. Yes Cubic capacity of each Yes Internal diameter Yes thickness Yes  
Are they lap welded or riveted longitudinal joint Yes Material Yes Range of tensile strength Yes Working pressure by Rules Yes

Number of Suctioning Air Receivers, No. One Total cubic capacity 11.2 cub. ft. Internal diameter 2 1/8" thickness 5/16"  
Are they lap welded or riveted longitudinal joint Seamless Material Steel Range of tensile strength 26/30 tons Working pressure by Rules Approved.

ELECTRIC GENERATORS:—Type Open  
Voltage of supply 220 volts. Load 455 Amperes. Direct or Alternating Current Direct  
Is the alternating current system, state frequency of periods per second Yes  
Has the 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 Yes  
Are 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 Yes

Are approved plans forwarded herewith for Shafting 11. 11. 32 Receivers 7. 11. 34 Separate Tanks 14. 9. 37  
(If not, state date of approval)

FREE GEAR  
As per Rule requirements.

The foregoing is a correct description,  
G. Lough Manufacturer.



20389

Dates of Survey while building { During progress of work in shops - - } 1937 Jun 24 Jul 8 12 20 Aug 9 24 Sep 16 20 27 Oct 7 14 Dec 14 1938 May 19 23 Jun 3 40  
{ During erection on board vessel - - - }  
Total No. of visits 15

Dates of Examination of principal parts - Cylinders 14-10-37-23-5-38 Covers 14-10-37, 23-5-38 Pistons 14-10-37, 23-5-38 Piston rods ✓

Connecting rods 14-10-37, 23-5-38 Crank and Flywheel shaft 16-9-37, 23-5-38 Intermediate shaft ✓

Crank and Flywheel shafts, Material Steel Identification Mark LLOYD'S 3351-16-9-37AS

Intermediate shafts, Material ✓ Identification Marks ✓

Is this machinery duplicate of a previous case Yes If so, state name of vessel Grim Rpt 20365

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

This engine has been built under special survey in accordance with the Rules and approved plans.

The workmanship and materials are good

Running tests have been carried out at the Makers works with satisfactory results.

The engine has been despatched to Newcastle to the order of Messrs Swan, Hilliker & Wigham Richardson, for fitting on board the vessel.

(Grim Rpt 20389)

Note: - This engine was reported on the 15<sup>th</sup> December, 1937, and has now been fitted on a new base & coupled to a 100 kw generator.

Running tests have again been carried out & the engine subsequently opened up and examined with satisfactory results.

This Auxiliary Oil Engine Dyno Set for Emergency Lighting has been satisfactory fitted in its engine Room on "Sports" Deck of the M.V. DOMINION MONARCH, & tested under working conditions

A Watt  
Newcastle on Dyno  
27/1/39

94206/P/IV.8968  
- 37/IV.1730.

Engine fee charged on  
The amount of fee Grim Rpt: 20389 : 13/6/38  
See for alterations & running test  
Travelling Expenses (if any) £ 2 2 - : When received, 13/6/38

*A. Watt*  
Surveyor to Lloyd's Register of Shipping.

TUE. 14 FEB 1939

Committee's Minute

Assigned

See Nwa J.E 97140



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Foundation

1m.6.31 - Transfer.  
(The Surveys are requested not to write on or below the space for Committee Minute.)