



# REPORT ON OIL ENGINE ELECTRIC GENERATOR SETS.

Received at London Office 17 MAY 1950

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

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

Single on the Twin Triple Quadruple Screw vessel. s/t "Jon Baldvinsson". Tons Gross Net.

Built at Aberdeen. By whom built Hall Russell & Co. Ltd., Yard No. 826. When built 1951.

Owners Icelandic Trawlers. Government. Port belonging to Reykjavik.

Oil Engines made at Lincoln. By whom made Ruston & Hornsby Ltd., Contract No. 480244-5. When made 1950.

Generators made at Gateshead. By whom made Clarke Chapman & Co. Ltd., Contract No. When made 1950.

No. of Sets 2. Engine Brake Horse Power 120 M.N. as per Rule 30. Total Capacity of Generators 160 Kilowatts.

Is Set intended for essential services Yes per engine.

OIL ENGINES, &c.—Type of Engines 6VPHZ. Eng. No. 284831-2. 2 or 4 stroke cycle 4. Single or double acting SA.

Maximum pressure in cylinders 1000 lbs. Diameter of cylinders 5.3/8". Length of stroke 8". No. of cylinders 6. No. of cranks 6.

Mean indicated pressure 109 lbs. Firing order in cylinders 1.2.4.6.5.3. Span of bearings, adjacent to the Crank, measured from inner edge to inner edge 6.25/32".

Is there a bearing between each crank Yes. Moment of inertia of flywheel (16 m² or Kg.-cm.²) 1870 lb.-ft. Revolutions per minute 1000.

Flywheel dia. 2'2". Weight 630 lbs. Means of ignition Compression. Kind of fuel used Diesel Oil.

Crank Shaft, dia. of journals as per Rule Approved. 4.3/16". Crank pin dia. 3.1/4". Crank Webs Mid. length breadth 5.3/4". Thickness parallel to axis.

Flywheel Shaft, diameter as per Rule C'shaft. Intermediate Shafts, diameter as per Rule. General armature, moment of inertia (16 m² or Kg.-cm.²).

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

Are the cylinders fitted with safety valves No. Are the exhaust pipes and silencers water cooled or lagged with non-conducting material.

Cooling Water Pumps, No. one, engine driven. Is the sea suction provided with an efficient strainer which can be cleared within the vessel.

Lubricating Oil Pumps, No. and size one 557 gallons/hour. Engine driven.

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

Scavenging Air Pumps, No. Diameter. Stroke. Driven by.

AIR RECEIVERS:—Have they been made under Survey. State No. of Report or Certificate.

Is each receiver, which can be isolated, fitted with a safety valve as per Rule.

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 DP. CW. CR. Machine No. 23666-7.

Pressure of supply 220 volts. Full Load Current 364 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 Yes.

If the generators are under 100 kw. full load rating, have the makers supplied certificates of test Yes and do the results comply with the requirements Yes.

If the generators are 100 kw. or over have they been built and tested under survey.

Details of driven machinery other than generator.

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

Have Torsional Vibration characteristics if applicable been approved (state date of approval) 13.4.43. 14-4-49 for 1000 RPM. Armature shaft Drawing No.

SPARE GEAR To rule requirements.

The foregoing is a correct description, Ruston & Hornsby Limited.

M. Reeves Engineering Divn.

Manufacturer.



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Lloyd's Register Foundation

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Dates of Survey while building { During progress of work in shops - - } 2.1.50. 22.3.50. 28.12.49.  
 { During erection on board vessel - - }  
 Total No. of visits 3

Dates of Examination of principal parts—Cylinders 2.1.50. 28.12.49. Covers as cyls. Pistons as cyls. Piston rods -  
 Connecting rods as cyls. Crank and Flywheel shafts as cyls. Intermediate shafts

Crank shaft { Material Tensile strength  
 Elongation Identification Marks LL.4221. RE.1901. TDS.  
 LL.4168. RE.1805. TDS.  
 Flywheel shaft, Material Identification Marks

Identification marks on Air Receivers

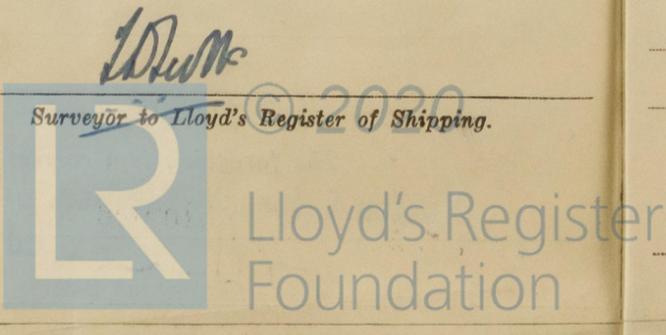
Is this machinery duplicate of a previous case. If so, state name of vessel.

**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 Regulations of the Society, materials and workmanship being good.  
 On completion the sets were tried in the shops under working conditions and found to be satisfactory.  
 The sets have been forwarded to Aberdeen for installation on board the vessel.

*These engines now securely fitted on board, tried under power & found satisfactory.*  
*Alme Bell*  
*Aberdeen*

The amount of Fee ... £ 6 : 0 : 0 { When applied for 5. 5. 19 50  
 per engine.  
 Travelling Expenses (if any) £ : : { When received 19

Committee's Minute GLASGOW 27 JUN 1951  
 Assigned SEE ACCOMPANYING MACHINERY REPORT



681,118.—T. (MADE AND PRINTED IN ENGLAND)  
 (The Surveyors are requested not to write on or below the space for Committee Minute.)