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Rpt. 4c.

# REPORT ON OIL ENGINE ELECTRIC GENERATOR SETS.

26 MAR 1949  
No. 28 DEC 1948

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

No. in Survey held at **Lincoln** Date, First Survey... Last Survey... 19...  
 Reg. Book. **91046** on the **ADAMS BECK** Single }  
 Triple } Screw vessel. Number of Visits...  
 Quadruple }

Built at **Burntisland.** By whom built **Burntisland S.B. Co. Ltd.,** Yard No. **328.** When built...  
 Owners... Port belonging to **4466/T/12/470160-1.**  
 Oil Engines made at **Lincoln** By whom made **Ruston & Hornsby Ltd.,** Contract No. ... When made...  
 Generators made at **Liverpool.** By whom made **Campbell & Isherwood.** Contract No. ... When made...  
 No. of Sets **2** Engine Brake Horse Power **54** M.N. as per Rule **13.6** Total Capacity of Generators **70** Kilowatts.  
 Is Set intended for essential services... per engine. per engine.

**OIL ENGINES, &c.**—Type of Engines **6VVRHZ.** No. **265399, 265400.** 2 or 4 stroke cycle  Single or double acting  SA.  
 Maximum pressure in cylinders **850 lbs.** Diameter of cylinders **4 1/2"** Length of stroke **5 1/2"** No. of cylinders **6** No. of cranks **6**  
 Mean indicated pressure **113 lbs.** Ring order in cylinders **1-2-4-6-5-3** Span of bearings, adjacent to the Crank, measured from inner edge to inner edge **7"**  
 Is there a bearing between each crank  Yes  No **WD<sup>2</sup>** Moment of inertia of flywheel **1000 lb.ft<sup>2</sup>** Revolutions per minute **900**  
 Flywheel dia. **26"** Weight **366 lbs.** Means of ignition **Compression.** Kind of fuel used **Diesel Oil.**  
 Crank Shaft, dia. of journals **3 5/8"** Crank pin dia. **3"** Crank Webs Mid. length breadth **4 1/8"** Thickness parallel to axis...  
 Flywheel Shaft, diameter **Crank.** Intermediate Shafts, diameter **16"** Mid. length thickness **1.11** Thickness round eyehole...  
 General armature, moment of inertia (16 m<sup>2</sup> or Kg.-cm.<sup>2</sup>)...

Are means provided to prevent racing of the engine when declutched  Yes  No Means of lubrication **Forced** Kind of damper if fitted...  
 Are the cylinders fitted with safety valves  No  Yes Are the exhaust pipes and silencers water cooled or lagged with non-conducting material...  
 Cooling Water Pumps, No. ... Is the sea suction provided with an efficient strainer which can be cleared within the vessel...  
 Lubricating Oil Pumps, No. and size **one gear, 276 gals. per 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... No. **40906, 40861.**  
 Pressure of supply **220 volts.** Full Load Current **159** 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  No Generators, are they compounded as per Rule  Yes  No is an adjustable regulating resistance fitted in series with each shunt field  Yes  No  
 Are all terminals accessible, clearly marked, and furnished with sockets  Yes  No Are they so spaced and shielded that they cannot be accidentally earthed, short circuited, or touched  Yes  No  
 Are the lubricating arrangements of the generators as per Rule  Yes  No  
 Do the generators are under 100 kw. full load rating, have the makers supplied certificates of test  Yes  No and do the results comply with the requirements  Yes  No  
 Do the generators are 100 kw. or over have they been built and tested under survey...

**SHAFTS.**—Are approved plans forwarded herewith for Shafting **17.5.40.** Receivers... Separate Tanks...  
 Have Torsional Vibration characteristics if applicable been approved  Not applicable. Armature shaft Drawing No. ...  
**SHAFTING GEAR** To rule requirements.

**Ruston & Hornsby Limited.**  
 The foregoing is a correct description,  
 R. Reeves for L. Wans  
 Engineering Diva. Manufacturer.



011928-011994-0209

Dates of Survey while building  
 During progress of work in shops - - 21.6.48. 17.11.48.  
 During erection on board vessel - - -  
 Total No. of visits 2

Dates of Examination of principal parts—Cylinders 21.6.48. Covers 21.6.48. Pistons 21.6.48. Piston rods -  
 Connecting rods 21.6.48. Crank and Flywheel shafts 21.6.48. Intermediate shafts

Crank shaft { Material Tensile strength 40/45 Tons/sq.in.  
 Elongation Identification Marks LL.1518. RD.7159. TDS.  
 LL.1513. RD.7083. 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 Standard Set.

**GENERAL REMARKS** (State quality of workmanship, opinions as to class, &c.)  
 This machinery has been built under Special Survey, in accordance with the approved plans and Rules of the Society, materials and workmanship being good.  
 On completion the generating sets were tried in the shops under working conditions with satisfactory results.  
 The sets have been despatched to Burntisland for installation in the Vessel.

The amount of Fee ... £ 4 : 0 : 0 (When applied for 23/12/1940 per engine.)  
 Travelling Expenses (if any) £ : : (When received 19

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

Committee's Minute TRI. 22 APR 1949  
 Assigned See F.E. Mchey spt

