

Received at London Office.....
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.....
.....on the Twin }
Single } Screw vessel..... Tons { Gross.....
Triple } Net.....
Quadruple }
Built at.....Glasgow..... By whom built.....Alex. Stephens & Sons..... Yard No.....612..... When built.....
Owners..... Port belonging to...../13/450116-19.
Oil Engines made at.....Lincoln..... By whom made.....Ruston & Hornsby Ltd.,..... Contract No..... When made.....1947.
Generators made at..... By whom made..... Contract No..... When made.....
No. of Sets.....4..... Engine Brake Horse Power.....445..... M.N. as per Rule.....111.25..... Total Capacity of Generators.....300..... Kilowatts.
per engine per engine
Is Set intended for essential services.....

OIL ENGINES, &c.—Type of Engines..... 8VEBZ. solid injection. Eng's. Nos. 2 or 4 stroke cycle..... 4 ✓ Single or double acting..... SA ✓
 243765, 6, 7, 8.
 Maximum pressure in cylinders..... 735 lbs. Diameter of cylinders..... 10 $\frac{1}{2}$ " ✓ Length of stroke..... 14 $\frac{1}{2}$ " ✓ No. of cylinders..... 8 ✓ No. of cranks..... 8 ✓
 Mean indicated pressure..... 99.5 ✓ Firing order in cylinders..... 1.3.2.5.8.6.7.4. ✓ Span of bearings, adjacent to the Crank, measured from inner edge to inner edge..... 12.5/16" ✓
 lbs. GD²
 Is there a bearing between each crank..... Yes ✓ Moment of inertia of flywheel (~~10,000 lbs.-in.²~~) 16 Tons/ft. revolutions per minute..... 465 ✓
 Flywheel dia..... 4'-6" ✓ Weight..... 24 $\frac{1}{2}$ cwt. ✓ Means of ignition..... Compression ✓ Kind of fuel used..... Diesel Oil. ✓
 as per Rule..... Approved ✓ Crank Shaft, dia. of journals..... 3" ✓ Crank pin dia..... 6 $\frac{1}{4}$ " ✓ Mid. length breadth..... 11" ✓ Thickness parallel to axis..... -
 as fitted..... Crank Webs Mid. length thickness..... 3.7/16" ✓ Thickness round eyehole..... -
 as per Rule..... Flywheel Shaft, diameter..... Intermediate Shafts, diameter..... General armature, moment of inertia (16 m² or Kg.-cm.²)..... -
 as fitted..... Crankshaft..... as fitted.....
 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..... Yes ✓ Are the exhaust pipes and silencers water cooled or lagged with non-conducting material.....
 Cooling Water Pumps, No. Independent. Is the sea suction provided with an efficient strainer which can be cleared within the vessel.....
 Lubricating Oil Pumps, No. and size..... one 700 gals./hour. Engine driven.

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.....

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

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.....

Generators, are they compounded as per Rule.....is an adjustable regulating 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.....

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.....

Details of driven machinery other than generator.....

PLANS.—Are approved plans forwarded herewith for Shafting. Standard Approved. Receivers. Separate Tanks.
(If not, state date of approval) 18-4-12-47-39.
Have Torsional Vibration characteristics if applicable been approved. Armature shaft Drawing No.
(state date of approval) V. Armstrong H2105.
SPARE GEAR To rule requirements. ✓

The foregoing is a correct description,

Manufacturer.

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Lloyd's Register
Foundation

012211-012220-0246

Dates of Survey while building
During progress of work in shops - -
During erection on board vessel - -
Total No. of visits
16.7.47. 16.7.47. 16.7.47.
11.8.47. 11.8.47. 11.8.47.
13.8.47. 13.8.47. 13.8.47.
16.7.47. 13.8.47. 20.8.47.
11.8.47. 20.8.47. 10.2.47. 11.8.47. 20.8.47.
2.7.47. 13.8.47.
16.7.47. 20.8.47.
Cylinders Covers Pistons Piston rods
Connecting rods Crank and Flywheel shafts Intermediate shafts
Material
Elongation
Tensile strength
Identification Marks
(LLOYDS. 885 RD.4666. TDS.
(LLOYDS. 658 IM.S.7828. TDS.
(LLOYDS. 661 IM.S.7829. TDS.
(LLOYDS. 659 IM.S.7827. TDS.
Flywheel shaft, Material
Identification Marks
Identification marks on Air Receivers

Is this machinery duplicate of a previous case. Yes. If so, state name of vessel Standard Type. Vickers-Armstrong. No.957.

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.

On completion, the Engines were tried in the shops under full power against brake loading with satisfactory results.

They are being forwarded to Glasgow for installation on board the vessel, where the generators will also be installed.

To Complete the Survey of these generating sets, it will be necessary to carry out the combined test and test the automatic Governor. It is stated that arrangements have been made for this to be done on board the vessel.

These engines have been satisfactorily installed on board the vessel and afterwards tried under working conditions.

B. Macdonald

Glasgow. 20.5.48

The amount of Fee ... £ 66 : 15 : 0. When applied for 27-11-19 47.
4 Engines :
Travelling Expenses (if any) £ When received 19

Committee's Minute

GLASGOW

21 JUN 1948

SEE ACCOMPANYING MACHINERY REPORT

Assigned

Surveyor to Lloyd's Register of Shipping.

Lloyd's Register
Foundation