

REPORT ON OIL ENGINE ELECTRIC GENERATOR SETS.

No. 366.

NOV 1948

Received at London Office.

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

NEWCASTLE-ON-TYNE ON 9-NOV 1948

No. in Survey held at... Date, First Survey... Last Survey... 19

on the... Screw vessel. ATHELKNIGHT. Number of Visits... VISITS-SEE OVER

built at SUNDERLAND. By whom built Sir James Lang & Co. Ltd. Yard No. 779. When built 1948-10 mo.

Order placed by Sunderland Forge & Eng. Co. Ltd. Port belonging to...

Engines made at Lincoln By whom made Ruston & Hornsby Ltd. Contract No. 13/460191. When made.

Generators made at Sunderland By whom made Sunderland Forge & Eng. Co. Ltd. Contract No. When made.

of Sets 1 Engine Brake Horse Power 35 M.N. as per Rule 21.25 Total Capacity of Generators 50 Kilowatts.

Set intended for essential services. For lighting.

IL ENGINES, &c.—Type of Engines 3VCBZ. No. 256897. 2 or 4 stroke cycle 4 Single or double acting SA

Maximum pressure in cylinders 750 lbs. Diameter of cylinders 8" Length of stroke 10 3/4" No. of cylinders 3 No. of cranks 3

Indicated pressure 104 lbs. Firing order in cylinders 1-3-2 Span of bearings, adjacent to the Crank, measured from inner edge to inner edge 9.3/16"

Is there a bearing between each crank Yes Moment of inertia of flywheel 12.5 Tons. Revolutions per minute 500

Flywheel dia 3'-9" Weight 28 1/2 cwts. Means of ignition Compression Kind of fuel used Diesel Oil

Crank Shaft, dia. of journals as per Rule App'd. 6" Crank pin dia 4 3/4" Crank Webs Mid. length breadth 8" Thickness parallel to axis -

as fitted 6" Crank pin dia 4 3/4" Crank Webs Mid. length thickness 2 1/2" shrunk Thickness round eyehole -

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

as fitted C/shaft. Intermediate Shafts, diameter as fitted. General armature, moment of inertia (16 m² or Kg.-cm.²) -

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. Is the sea suction provided with an efficient strainer which can be cleared within the vessel

Lubricating Oil Pumps, No. and size one 400 gals./hour. Engine driven.

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

Exhausting Air Pumps, No. Diameter Stroke Driven by

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

Each receiver, which can be isolated, fitted with a safety valve as per Rule

Are 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

Working 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 Sunderland Forge & Engineering Co. Ltd., No. G.7369.

Pressure of supply 110 volts Full Load Current 454 Amperes Direct or Alternating Current D.C.

Alternating current system, state the periodicity Has the Automatic Governor been tested and found as per Rule when full load is suddenly thrown

and off Yes Generators, are they compounded as per Rule 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

Shielded that they cannot be accidentally earthed, short circuited, or touched Yes Are the lubricating arrangements of the generators as per Rule Yes

Applied for Are the generators under 100 kw. full load rating, have the makers supplied certificates of test and do the results comply with the requirements

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

Are there any other driven machinery other than generator

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

(If not, state date of approval) 20.12.38. Armature shaft Drawing No. 42189.

Are the torsional vibration characteristics if applicable been approved (state date of approval)

MANUFACTURE GEAR

The foregoing is a correct description, RUSTON & HORNSEY LIMITED. (Sgd.) S. W. BURCHNALL. Manufacturer. Engineering Divn.



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19.5.48. 31.5.48.

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

Dates of Examination of principal parts—Cylinders 18.5.48. Covers 18.5.48. Pistons 18.5.48. Piston rods -

Connecting rods 18.5.48. Crank and Flywheel shafts 18.5.48. Intermediate shafts

Crank shaft { Material Steel. Tensile strength
Elongation Identification Marks LL.1375. TDS. RD.6240.

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.)

This machinery has been constructed under Special Survey in accordance with the Approved Plans and Rules of the Society, materials and workmanship being good.

On completion, the generating set was tried in the Shops under working conditions and found satisfactory.

The set has been despatched to SUNDERLAND for installation on board the vessel.

SURVEY OF MACHINERY.
NEWCASTLE-ON-TYNE.

FIRST SURVEY 18/6/47 LAST SURVEY
No. OF VISITS III

*This 50KW. Oil Engine/Elec. Generator Set
Ruston Engine N°256897.
has been fitted satisfactorily in the main Engine
of M.V. ATHELKNIGHT.*

A Watt
Newcastle on Tyne
SURVEYOR TO LLOYD'S REGISTER
NEWCASTLE-ON-TYNE
Nov 1948

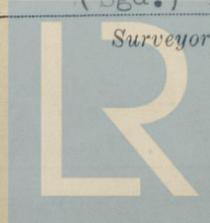
The amount of Fee ... £ 4 : 5 : 0 { When applied for 29/7/48. 19
Travelling Expenses (if any) £ : : { When received 19

(Sgd.) T. D. SCOTT.
Surveyor to Lloyd's Register of Shipping.

FRI. 3 DEC 1948

Committee's Minute

Assigned *See F.E. mch. rpt.*



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