

NEWCASTLE-ON-TYNE, No. 105373

## REPORT ON OIL ENGINE ELECTRIC GENERATOR SETS.

No. 366.

NOV 1948

pt. 4c.

Date of writing Report.

19

When handed in at Local Office.

19

Port of

NOTTINGHAM.

No. in  
g. Book.

Survey held at

NEWCASTLE-ON-TYNE ON 9- NOV 1948

Date, First Survey

Last Survey

19

Number of Visits

NEWCASTLE-ON-TYNE VISITS-SEE OVER

Tons

Net

on the <sup>Single</sup>  
~~Triple~~  
~~Quadruple~~ Screw vessel

ATHELKNIGHT.

Built at

SUNDERLAND.

By whom built

Sir James Lang &amp; Co. Ltd.

Yard No. 779

When built 1948-10 mo.

Order placed by Sunderland Forge &amp; Eng. Co. Ltd.

Port belonging to

13/460191.

Engines made at

Lincoln

By whom made

Ruston &amp; Hornsby Ltd.

Contract No.

When made

Generators made at

Sunderland

By whom made

Sunderland Forge &amp; Eng. Co. Ltd.

Contract No.

When made

No. 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.

OIL ENGINES, &amp;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

GD

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.

ft. 2

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

-

Flywheel Shaft, diameter

as per Rule

as fitted

Intermediate Shafts, diameter

as per Rule

as fitted

General armature, moment of inertia (16 m<sup>2</sup> or Kg.-cm.<sup>2</sup>)

-

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

Savenging 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 &amp; Engineering Co. Ltd., No. G.7369.

Voltage 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

Are the generators shielded that they cannot be accidentally earthed, short circuited, or touched

Yes

Are the lubricating arrangements of the generators as per Rule

Yes

Are the generators under 100 kw. full load rating, have the makers supplied certificates of test

Applied for

and do the results comply with the requirements

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

List of driven machinery other than generator

APPROVALS.—Are approved plans forwarded herewith for Shafting

Standard Approved.

Receivers

Separate Tanks

Are Torsional Vibration characteristics if applicable been approved

(state date of approval)

Armature shaft Drawing No. 42189.

SHAFTING GEAR

The foregoing is a correct description.

RUSTON &amp; HORNSEY LIMITED.

(Sgd.) S. W. BURCHNALL.

Manufacturer.

Engineering Divn.



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Lloyd's Register  
Foundation

004263-004274-0154



Dates of Survey while building During progress of work in shops - - 19.5.48. 31.5.48.  
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 2  
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.

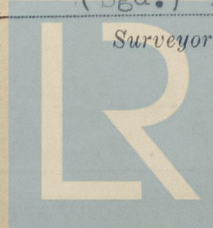
A Watt  
Newcastle on Tyne  
SURVEYOR TO LLOYD'S REGISTER  
NEWCASTLE-ON-TYNE.  
Nov 1948

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.

Committee's Minute

Assigned S. F. E. mch. 1948



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