

REPORT ON OIL ENGINE ELECTRIC GENERATOR SETS.

No. 4610

Received at London Office MAR 17 1938

Date of writing Report 12th March, 1938 When handed in at Local Office

Port of Stockholm.

No. in Survey held at Sickla, Skm. District.

Date, First Survey 9/7/36

Last Survey 4/2/ 1938.

Reg. Book.

Number of Visits 12

Single
on the Twin
Triple
Quadruple

Screw vessel "NORVIKEN".

Tons { Gross
Net

Built at Lunde, Norway.

By whom built Örsundsværket A-B.

Yard No. 49. When built 1938.

Owners Wallem & Co. A/S.

Port belonging to Bergen.

Oil Engines made at Stockholm. By whom made P.B. Atlas Diesel.

Contract No. 85513 When made 1938.

Generators made at

By whom made

Contract No.

When made

No. of Sets 1 Engine Brake Horse Power 200 Nom. Horse Power as per Rule 44 Total Capacity of Generators Kilowatts.

OIL ENGINES, &c.—Type of Engines Stationary Diesel Oil Engine, type K45E2 on 4 stroke cycle 2 Single or double acting Single

Maximum pressure in cylinders 60 kg/cm² Diameter of cylinders 180 mm. Length of stroke 300 mm No. of cylinders 5 No. of cranks 5

Span of bearings, adjacent to the Crank, measured from inner edge to inner edge 218 mm.

Is there a bearing between each crank Yes.

Revolutions per minute 500 Flywheel dia. 800 mm. Weight 285 kgs. Means of ignition Compression Kind of fuel used Marine Diesel Oil

Crank Shaft, dia. of journals as per Rule

as fitted 125 mm

Crank pin dia. 120 mm

Crank Webs

Mid. length breadth 214 mm

Thickness parallel to axis

The flywheel is fitted on the crank shaft.

Flywheel Shaft, diameter

Intermediate Shafts, diameter

as per Rule

Mid. length thickness 54 mm

Thickness around eyehole

as fitted

as fitted

as fitted

Thickness of cylinder liners 12 mm.

as fitted

Is a governor or other arrangement fitted to prevent racing of the engine when declutched Yes. Means of lubrication pumps.

Are the cylinders fitted with safety valves Yes.

Are the exhaust pipes and silencers water cooled or lagged with non-conducting material Yes.

Cooling Water Pumps, No. 1.

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

Lubricating Oil Pumps, No. and size 1 80 litres/min.

Air Compressors, No. None fitted No. of stages

Diameters

Stroke

Driven by

Scavenging Air Pumps, No. 1

Diameter 400 mm.

Stroke 230 mm.

Driven by Engine.

AIR RECEIVERS:—Have they been made under Survey Yes.

State No. of Report or Certificate

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

Can the internal surfaces of the receivers be examined Yes.

What means are provided for cleaning their inner surfaces Mudhole.

Is there a drain arrangement fitted at the lowest part of each receiver Yes.

High Pressure Air Receivers, No. None fitted

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. One.

Total cubic capacity 100 litres

Internal diameter 340 mm.

thickness 16 mm.

Seamless, lap welded or riveted longitudinal joint lap welded

Material S.H. steel

Range of tensile strength 38 kg/mm²Working pressure by Rules 50 kg/cm² as a min.

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 efficient when the whole 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

PLANS. Are approved plans forwarded herewith for Shafting E. 7.1.37.

Receivers E. 28/4/35

Separate Tanks

(If not, state date of approval)

SPARE GEAR as per enclosed list. The spare gear has been examined before it was despatched.

The foregoing is a correct description,

AKTIEBOLAGET ATLAS DIESEL

G. Jacobsson

Manufacturer.



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Foundation

W349-0180

Dates of Survey while building
During progress of work in shops - 9, 30, 23, 36, 12, 28, 8, 11, 6, 37, 21, 5, 21, 4, 38;
During erection on board vessel - 7, 12, 1, 2, 3, 1, 2
Total No. of visits 12 in shop.

Dates of Examination of principal parts—Cylinders 21/1/38 Covers 21/1/38 Pistons 21/1/38 Piston rods
Connecting rods 9, 30, 23, 36, 12, 37, 21, 38 Crank and Flywheel shafts 8, 6, 37, 21, 38
Generator 28, 11, 37, 21, 38
Intermediate shafts 1, 2, 3, 1, 2
Crank and Flywheel shafts, Material S.H. Steel. Identification Marks LLOYDS No 6913.
T.B. 6.3.37.

Generator Intermediate shafts, Material S.H. Steel. Identification Marks 6909 K.A.

Identification marks on Air Receivers
No 8266
LLOYDS TEST 100 kg.
W.P. 50 kg.
K.A. 7.1.38.

Is this machinery duplicate of a previous case Yes If so, state name of vessel Please see Shm. Rpt. No 4487.

General Remarks (State quality of workmanship, opinions as to class, &c.)

We are of opinion that this engine is of superior material and workmanship, and as it has been designed and constructed under Special Survey, we have respectfully to submit that it be approved as auxiliary, when installed into H.M.S. Oceanic, owned A.B., of Landshorn, No 49. to the satisfaction of the Society's Surveyors.

1m.5.37.—Transfer.
(The Surveyors are requested not to write on or below the space for Committee Minute.)

The amount of Fee ... 228/-
When applied for, 19
Travelling Expenses (if any) £ : :
When received, 19

(228/- received as per Sec. letter "T" of the 3.6.1938 to the Hbg. Surveyor.)
FRI. 24 JUN 1938

Committee's Minute
Assigned

See Hbg. J.E. 1187

R. F. Anderson & Thomas Pilow
Surveyor to Lloyd's Register of Shipping.



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