

REPORT ON OIL ENGINE ELECTRIC GENERATOR SETS.

MDB.RPT. 17965

No. 112981

Date of writing Report 25 Jun 1945 When handed in at Local Office Bedford.

No. in Survey held at Reg. Book.

Port of London

Date, First Survey 6 April

Last Survey 4 July 1945

Number of Visits 16.

Single
on the Twin
Triple Screw vessel
Quadruple

"NORHVAL"

Tons Gross 13830
Net 7401

Built at Haverton Hill on Lees.

By whom built Furness L.B. Co. Ltd.

Yard No. 388 When built 1945

Owners

Norwegian Government

Oil Engines made at Bedford

By whom made W. H. Allen & Sons & Co. Ltd.

Port belonging to

Generators made at

By whom made

Contract No. 12/51828 When made 1945

No. of Sets 3

Engine Brake Horse Power 600

Nom. Horse Power as per Rule 15-0

Contract No. 12/51829 When made 1945

Total Capacity of Generators 400 each Kilowatts.

OIL ENGINES, &c.—Type of Engines Heavy Oil

Maximum pressure in cylinders 800 lb. sq. in.

Diameter of cylinders 290 in.

Length of stroke 470 in.

2 or 4 stroke cycle 2

Single or double acting single

Span of bearings, adjacent to the Crank, measured from inner edge to inner edge 352 in.

Revolutions per minute 333

Flywheel dia. 1500 in.

Weight 4750 lb.

Means of ignition Compression

Is there a bearing between each crank yes

Crank Shaft, dia. of journals

as per Rule 229 in.

as fitted 230 in.

Crank pin dia. 200 in.

Crank Webs

Mid. length breadth 320 in.

Mid. length thickness 93 in.

Thickness parallel to axis

Flywheel Shaft, diameter

as per Rule

as fitted

Intermediate Shafts, diameter

as per Rule

as fitted

Thickness of cylinder liners 16 in.

Is a governor or other arrangement fitted to prevent racing of the engine when declutched yes

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. One Centrifugal

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

Lubricating Oil Pumps, No. and size One Rotary Geared Type

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. 1 per Engine

Total cubic capacity 11.2 cu ft.

Internal diameter 21 in.

thickness 5/16 in.

Seamless, lap welded or riveted longitudinal joint

Material Steel

Range of tensile strength 26/30

Working pressure by Rules 300 lb. sq. in.

ELECTRIC GENERATORS:—Type open

Pressure of supply 220 volts.

Full Load Current 1900

1818 nominal

Amperes.

Direct or Alternating Current Direct

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

Generators, are they compounded as per rule yes

shunt field

Are all terminals accessible, clearly marked, and furnished with sockets yes

Are they so spaced or shielded that they cannot be accidentally earthed, short circuited, or touched yes

If the generators are under 100 kw. full load rating, have the Makers supplied certificates of test

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

Are the lubricating arrangements of the generators as per Rule yes

and do the results comply with the requirements

PLANS. Are approved plans forwarded herewith for Shafting 12.12.38.

(If not, state date of approval)

Receivers

Separate Tanks

SPARE GEAR! Piston: 1 Cyl liner, 20 Piston Rings, 5 Scraper Rings, 1 Main bearing 2 Main Big bolts
 5 Exhaust Valves & springs, 1 Fuel Injector, 6 nozzles, 1 Fuel pump & 2 spare plungers
 1 Lub oil pump, 1 stg air Valve assembly, 1 Relief Valve assembly, 1 set of nuts for 1 cyl.
 1 Gudgeon pin & bearing, 1 bottom end bearing bolts, 3 sets springs for 1 cyl, 3 Fuel Injection
 pipes etc etc. Two brush holder & 1 set of brushes.

The foregoing is a correct description,

W. H. ALLEN, SONS & Co., Ltd., Manufacturer.

A. H. Clarke. 28/6/45.



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Lloyd's Register
Foundation

004785-004788-0208

Dates of Survey while building	During progress of work in shops - - During erection on board vessel - - Total No. of visits	1945: April 6. 10. 13. 19. May. 1. 4. 7. 11. 15. 29 June. 1. 5. 8. 15. 27 July. 4 16
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Dates of Examination of principal parts—Cylinders 1.5.45 1.6.45 8.6.45
19.4.45 4.8.45 Covers 1.5.45 29.8.45 Pistons 28.8.45 Piston rods L

Connecting rods 1.6.45 Crank and Flywheel shafts 1.5.45 71.57.45 41.5.45 Intermediate shafts 77

Crank and Flywheel shafts, Material *Steel* Identification Marks *220405 4150 20-3-45 R10 E1-5-45*
" *77 4157 20-3-45 RWR 11-5-45*

Intermediate shafts, Material Identification Marks

Identification marks on Air Receivers.

4435 ✓

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.) The generator sets have been constructed under Special Survey in accordance with the requirements of the Rules & approved plans; the steel was made at works approved by the Committee; the workmanship is good and on completion the sets were tested upon the bench under full and overload conditions and found satisfactory.

The sets have been dispatched to MelB. for installation on board the vessel.

Calculation for Loximal Vibration approved 23 July 1945.

Noted
y Rm.

The amount of Fee	£ 63.0-0	When applied for, 19 July 1945
Travelling Expenses (if any) £	5 : 10 : 10	When received, 19

for self *AR Earnett & RW Coomber*
Surveyor to Lloyd's Register of Shipping.

Committee's Minute **FRI. 15 FEB 1946**

Assigned. See F.E. machy. vph.

Committee See F. E. M. 7