

REPORT ON OIL ENGINE ELECTRIC GENERATOR SETS.

1 AUG 1945

Date of writing Report

27 JUL 1945

When handed in at Local Office

27 JUL 1945

Port of

Received at London Office

27 JUL 1945

No. in Survey held at Reg. Book.

Single on the Twin Triple Quadruple

Screw vessel

NORWAL

Date, First Survey 16 FEBRUARY

Last Survey 23.3.1945

Number of Visits 3

Built at

Warton Hill on Toss

By whom built Turners Shipping Co.

Yard No. 387 When built

Oil Engines made at

Bedford

By whom made

Port belonging to

Warton

Contract No. H2/51834

When made 1945

Generators made at

By whom made

Contract No. G2/51835

When made

No. of Sets

Engine Brake Horse Power 110

Nom. Horse Power as per Rule 28

Total Capacity of Generators 75 Kilowatts.

OIL ENGINES, &c. Type of Engines

Maximum pressure in cylinders

Number of cylinders

2 or 4 stroke cycle 4

Single or double acting single

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

Length of stroke 3007

No. of cylinders 3

No. of cranks 3

Revolutions per minute 500

Flywheel dia. 1200

Weight 3500

Is there a bearing between each crank yes

Crank Shaft, dia. of journals as per Rule

as fitted 1407

Crank pin dia. 1507

Cranks

Means of ignition

Kind of fuel used Diesel

Flywheel Shaft, diameter as per Rule

as fitted

Intermediate Shafts, diameter as per Rule

as fitted

Cranks

Mid. length breadth 2047

Thickness parallel to axis

Mid. length thickness 707

Thickness around eye-hole

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

Means of lubrication Forced

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 Gear Rotary 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

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

State No. of Report or Certificate

Can the internal surfaces of the receivers be examined

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

What means are provided for cleaning their inner surfaces

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. One

Total cubic capacity 5 cu ft

Internal diameter 1'-6"

thickness 5/16"

Working pressure by Rules 300 lbs

Seamless, lap welded or riveted longitudinal joint

Material Steel

Range of tensile strength 25/30 ton

Working pressure by Rules

ELECTRIC GENERATORS: Type open

Pressure of supply 229 volts. Full Load Current

Amperes.

Direct or Alternating Current D.C.

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 yes

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

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 yes

and do the results comply with the requirements yes

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

PLANS. Are approved plans forwarded herewith for Shafting

(If not, state date of approval)

Receivers

Separate Tanks

SPARE GEAR

One complete set of Valves for one cylinder, 2 nozzles, 1 set piston rings for 1 piston, 6 byl. Hd. Studs nuts, 2 Balls nuts for main bearing, 1 Big end Proj complete with Bolts, 1 Fuel Pump, 1 Gudgeon pin + bearing, 1 Fuel Injection pipe

Dynamo Spares: 2 Brush Holders, 1 set of brushes.

The foregoing is a correct description,

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

A. Clarke. 14/4/45.



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004785-004788-0209

Dates of Survey while building { During progress of work in shops - - 1945 Feb 16. 20 Mar 23
 { During erection on board vessel - - - 3 (in shops)
 Total No. of visits

Dates of Examination of principal parts—Cylinders 20. 2. 45 Covers 20. 2. 45 Pistons 20. 2. 45 Piston rods

Connecting rods 20. 2. 45 Crank and Flywheel shafts Intermediate shafts ✓

Crank and Flywheel shafts, Material Steel Identification Marks 270. LLOYDS T.T. 2806. 14.12.43. H.A. 9.16.2.45.

Intermediate shafts, Material Identification Marks ✓

Identification marks on Air Receivers 81/440751 20. 2. 45

Is this machinery duplicate of a previous case

General Remarks (State quality of workmanship, opinions as to class, etc.)
 The generator set was constructed under special survey in accordance with the requirements of the Rules and approved plans; the workmanship is good. The steel was made at the Works approved by the Committee, and on completion the set was tested upon the bench under full and overload conditions and found satisfactory.

Note: The generator set has been despatched to Haverton Hill on being fitted on board the vessel.

The requirements of Circular 1803 have been complied with (per Mr. Moffat 31.8.45)

[Faint handwritten notes and scribbles]

[Faint handwritten notes, possibly describing parts or quantities]

The amount of Fee ... £ 10 : 10 :
 Travelling Expenses (if any) £ : 14/10

When applied for, 27 JUL 1945
 When received, 19

RWBomber
 Surveyor to Lloyd's Register of Shipping.

FRI. 15 FEB 1946

Committee's Minute

Assigned See F.E. Macky, rpt.

Assigned



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