

Rpt. 4c.

REPORT ON OIL ENGINE ELECTRIC GENERATOR SETS.

No.

113758

Date of writing Report

15 APR 1946

When handed in at Local Office

15 APR 1946

Port of

LONDON

Received at London Office

15 APR 1946

No. in
Reg. Book.

Survey held at

Bedford

Date, First Survey

2 November 1945

Last Survey

15-3-1946

Single
on the Twin
Triple
Quadruple

Screw vessel

Holland Wolff 101327 for United Whalers Ltd

Number of Visits

13

Tons

Gross

Net

Built at

Belfast

By whom built

Holland Wolff & Co

Yard No.

1327

When built

Owners

Port belonging to

Oil Engines made at

Bedford

By whom made

W H Allen Sons & Co Ltd

Contract No.

12/57000

When made

1946

Generators made at

"

By whom made

"

"

"

Contract No.

12/57000

When made

4

No. of Sets

2

Engine Brake Horse Power

437

Nom. Horse Power as per Rule

Total Capacity of Generators

300 each

Kilowatts.

OIL ENGINES, &c.—Type of Engines

Diesel

2 or 4 stroke cycle

4

Single or double acting

Single

Maximum pressure in cylinders

70 lb

Diameter of cylinders

325 1/2

Length of stroke

370 1/2

No. of cylinders

6

No. of cranks

6

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

362 1/2

Is there a bearing between each crank

yes

Revolutions per minute

410

Flywheel dia

1600 1/2

Weight

5700 lb

Means of ignition

Companion

Kind of fuel used

Diesel

Crank Shaft, dia. of journals

as per Rule

230 1/2

Crank pin dia

205 1/2

Crank Webs

Mid. length breadth

88 1/2

Thickness parallel to axis

306 1/2

Flywheel Shaft, diameter

as per Rule

as fitted

Intermediate Shafts, diameter

as per Rule

as fitted

Thickness of cylinder liners

15 1/2

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

yes

Means of lubrication

Forced

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.

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 Gear 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.

Two

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

Open

Pressure of supply

220

Full Load Current

1364

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

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

Receivers

Separate Tanks

SPARE GEAR 2 Main Brgs. & studs & nuts, 1 Thrust Brg 1 Piston & nut, 6 sets Piston Rings, 2 Gudgeon pins, 1 Connecting Rod, 2 Big end Brgs & 4 Bolt & nuts, 2 small end Brgs, 1 set of joints, 1 Crank Rod, 1 set studs & nuts for Crk. Head, 1 Crk. Head & nut with all valves, 1 Relief Valve, 1 Stop Air Valve, 2 Air Inlet Valve & 2 Exhaust Valve & nut, 1 set of springs, 6 Inlet & 6 Exhaust Valve, 1 Injector, 4 Nozzles, 6 Fuel Injection pipes, 1 Cam shaft chain, 1 Fuel Pump, 2 Fuel oil Cartridges, 1 set of lub oil pump wheels, 1 Lub oil Filler Cartridge, 1 C.W. Pump Chain, Impeller & gland packing, 1 set Compressor spares, Generator spares, 2 sets Brushes, 2 Brush Holders & springs & 1 spare bearing, 1 set spares for compressor motor

The foregoing is a correct description,

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

Manufacturer.

A. Clarke. 3/4/46.



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Lloyd's Register

Foundation

009557-009569-0235

Dates of Survey while building
During progress of work in shops - 1945: Nov 9, 16, 20, 23, 30.
1946: Jan 8, 11, 15, 29 Feb 1, 6, 8 Mar 15
During erection on board vessel -
Total No. of visits 13 (See ship)

Dates of Examination of principal parts - Cylinders 16-11-46
15-1-46
29-1-46
Covers 20-11-45
23-11-45
8-1-46
11-1-46
Pistons 23-11-45
11-1-46
Piston rods
Intermediate shafts
Crank and Flywheel shafts 2-11-45
2-46

Connecting rods 30-11-45
8-2-46

Crank shaft
Material Steel
Elongation ✓

Tensile strength
SET B 768/2956 44-703 T.W.B 12-5-45 H.A. 2-11-45
512 44-703 T.W.B 3055 12-7-45 1-2-46 (R)

Identification Marks

Identification Marks

Flywheel shaft, Material

Identification Marks

Is this machinery duplicate of a previous case?

Identification marks on Air Receivers E 4498 + E 4499 for particulars see Nottingham Certificate C 3416 + 63418 attached

Is this machinery duplicate of a previous case? If so, state name of vessel

GENERAL REMARKS (State quality of workmanship, opinions as to class, etc.)

The generator sets have been constructed under special survey in accordance with the requirements of the Rules and approved plans; the steel was made at works approved by the Committee; the workmanship is good, and on completion the two sets were tested upon the bench under full and overload conditions with satisfactory results.

The torsional calculations have been approved. See Lon. letter 25-9-45 ✓

It was stated torsion graph records would be taken from this set

These have not yet been received 29-4-46

The sets have been despatched to Harland & Wolff Works Belfast.

FORGING RPTS F5630, F5485 FOR CRANKSHAFTS, ATTACHED.

These generating sets have been efficiently installed onboard the vessel and tested under full working conditions, with satisfactory results

Chas. S. Thomas

The amount of Fee ... £ 32 : 14 : 0
Travelling Expenses (if any) £ 4 : 2 : 2

When applied for 19

When received 19

FRI. 22 NOV 1946

Committee's Minute

Assigned

See F.E. mech. rpt.

R.W. Boomer

Surveyor to Lloyd's Register of Shipping.



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