

REPORT ON OIL ENGINE ELECTRIC GENERATOR SETS.

No. 59572

Received at London Office

APR 13 1938

Date of writing Report

19

When handed in at Local Office

5. 4. 1938 Port of

Glasgow

Date, First Survey

Last Survey

30. 3. 1938

Number of Visits

No. in Survey held at

Glasgow

Reg. Book.

Single
on the Twin
Triple
Quadruple

Screw vessel

"KOOLAMA."

Tons { Gross 4026
Net 2213

Built at

Glasgow

By whom built

Harland & Wolff Ltd.

Yard No. 1003

When built 1938

Owners

GOVERNMENT OF WESTERN AUSTRALIA

Port belonging to

FREMANTLE

Oil Engines made at

Glasgow

By whom made

Harland & Wolff Ltd.

Contract No. 1003

When made 1938

Generators made at

Belfast

By whom made

do

Contract No.

When made 1938

No. of Sets

3

Engine Brake Horse Power

259

Nom. Horse Power as per Rule

74

Total Capacity of Generators 526.5 Kilowatts.

OIL ENGINES, &c.

Type of Engines Heavy oil.

Solid injection

2 or 4 stroke cycle

Single or double acting S.A.

Maximum pressure in cylinders

800 lb/sq. in.

Diameter of cylinders

220 mm.

Length of stroke

370 mm.

No. of cylinders

5

No. of cranks

5

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

304 mm.

Is there a bearing between each crank

yes

Revolutions per minute

360

Flywheel dia.

1300 mm.

Weight

1 3/4 tons

Means of ignition

Compression

Kind of fuel used

Diesel oil.

Crank Shaft, dia. of journals

as per Rule 139.4 mm.

Crank pin dia.

180 mm.

Crank Webs

Mid. length breadth 260 mm.

Thickness parallel to axis

Solid

Flywheel Shaft, diameter

as per Rule 139.4 mm.

Intermediate Shafts, diameter

as per Rule

Thickness of cylinder liners 18 to 16 mm.

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

yes

Means of lubrication

grease

Are the cylinders fitted with safety valves

yes

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

lagged

Cooling Water Pumps, No. 1 off each, 12 ton per hr.

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

yes

Lubricating Oil Pumps, No. and size

1 off each, 14 ton per hr. Cog wheel type.

Air Compressors, No. See main engine

No. of stages

Diameters

Stroke

Driven by

Scavenging Air Pumps, No. 1 off each, Roots Type.

Diameter

Stroke 1130 cu. ft./min.

Driven by

Engine.

AIR RECEIVERS:—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

Inspection door

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

yes

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

60 litres

Internal diameter

1-2 5/8 in.

thickness Shell 7/8 in. Feds 1/2 in.

Seamless, lap welded or riveted longitudinal joint

Riveted

Material steel

Range of tensile strength

Feds 28/32

Working pressure by Rules 356 lb/sq. in.

ELECTRIC GENERATORS:—Type

1 pm

Pressure of supply

225

volts. Load

780

Amperes.

Direct or Alternating Current

Direct

If alternating current system, state frequency of periods per second

Has the Automatic Governor been tested and found efficient when the whole load is suddenly thrown on or off

yes

Generators, do they comply with the requirements regarding rating

yes

are they compound wound

yes

are they over compounded 5 per cent.

yes

if not compound wound state distance between each generator

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

yes

Are the lubricating arrangements of the generators as per Rule

yes

PLANS. Are approved plans forwarded herewith for Shafting

(If not, state date of approval)

Receivers

yes

Separate Tanks

yes

SPARE GEAR

as per attached list.

The foregoing is a correct description,

FOR HARLAND AND WOLFF, LIMITED.

Wm. J. Blaght.

Manufacturer.

Flintston Secretary



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Lloyd's Register

W185-075

Dates of Survey while building { During progress of work in shops - - }
{ During erection on board vessel - - - }
Total No. of visits

SEE ACCOMPANYING MACHINERY REPORT.

Dates of Examination of principal parts—Cylinders 4-6+13/10/37 Covers 4-6+13/10/37 Pistons 24-11-37 21-1-38 Piston rods -

Connecting rods 24-11-37 21-1-38 Crank and Flywheel shaft 4-11-37 Intermediate shaft -

Crank and Flywheel shaft, Material Steel Identification Mark 7856 P.F. 7857 P.F. Identification Marks

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.)

These auxiliary engines have been built under Special Survey and in accordance with the Approved plans and the Rules of this Society. The materials and workmanship are good. The engines have been efficiently installed in position on board the vessel and afterwards tried under full working conditions with satisfactory results.

Together with the main engines, this machinery is eligible in my opinion to be classed in the Register Book with notation of - LMC 3.38.

15/4/38

The amount of Fee ... £

Travelling Expenses (if any) £

When applied for,

19

When received,

19

P. Fitzgerald

Surveyor to Lloyd's Register of Shipping.

Committee's Minute

GLASGOW 12 APR 1938

Assigned

SEE ACCOMPANYING MACHINERY REPORT.



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