

REPORT ON OIL ENGINE ELECTRIC GENERATOR SETS.

No. 20546

Received at London Office

MAY 19 1938

Date of writing Report 17th May 1938 When landed in at Local Office 18th May 1938 Port of Grimsby
 No. in Survey held at Lincoln Date, First Survey 24th Aug 1937 Last Survey 12th May 1938
 Reg. Book. Number of Visits 9

on the Single Triple Quadruple Screw vessel M.V. 'CERION' Tons { Gross _____ Net _____

Built at Middlesbrough By whom built Smith's Dock Co., Ltd. Yard No. 519 When built 1938

Owners _____ Port belonging to _____

Oil Engines made at Lincoln By whom made Ruston & Hornsby, Ltd. ENGINE Contract No. 187328 When made 1938

Generators made at _____ By whom made _____ Contract No. _____ When made _____

No. of Sets 1 Engine Brake Horse Power 40 Nom. Horse Power as per Rule 12.46 Total Capacity of Generators ✓ Kilowatts.

OIL ENGINES, &c.—Type of Engines 2YCRZ - Vertical Solid Injection 2 or 4 stroke cycle 4 Single or double acting Single

Maximum pressure in cylinders 700 lbs. Diameter of cylinders 8" Length of stroke 10 3/4" No. of cylinders 2 No. of cranks 2

Span of bearings, adjacent to the Crank, measured from inner edge to inner edge 9 1/8" Is there a bearing between each crank yes

Revolutions per minute 450 Flywheel dia. 3'-4" Weight 19 lbs. Means of ignition Compression Kind of fuel used Heavy oil

Crank Shaft, dia. of journals as per Rule Approved Crank pin dia. 4 3/4" Crank Webs Mid. length breadth 8" Thickness parallel to axis shrunk

as fitted 6" Mid. length thickness 2 1/2" Thickness around eyehole ✓

Flywheel Shaft, diameter as per Rule Approved Intermediate Shafts, diameter as per Rule Thickness of cylinder liners 3/4"

as fitted 6" as fitted ✓ as fitted ✓ Thickness of cylinder liners 3/4"

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 Water cooled

Cooling Water Pumps, No. One Is the sea suction provided with an efficient strainer which can be cleared within the vessel ✓

Lubricating Oil Pumps, No. and size One, geared

Air Compressors, No. 62711 No. of stages 2 Diameters 8 1/8" & 4 1/8" Stroke 5 1/4" Driven by Engine

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. ✓ 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 ✓

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 11.11.32 Receivers ✓ Separate Tanks ✓
 (If not, state date of approval)

SPARE GEAR

As per Rule requirements.

The foregoing is a correct description, Ruston & Hornsby, Limited

B. Lloyd

Manufacturer.

Oil & Gas Engine Dept



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011057-011061-0079

Dates of Survey while building { During progress of work in shops - - } 1937 Aug 24 Nov 12.25 Dec 6 (1938) Jan 20 Feb 7.10. May 2 12
{ During erection on board vessel - - - }
Total No. of visits 9

Dates of Examination of principal parts—Cylinders 10-2-38 Covers 10-2-38 Pistons 10-2-38 Piston rods ✓

Connecting rods 5-11-34 X 10-2-38 Crank and Flywheel shafts 6-12-37 Intermediate shafts ✓

Crank and Flywheel shafts, Material Steel Identification Marks LLOYD'S 3369-6-12-37 AS

Intermediate shafts, Material ✓ Identification Marks Housing 3370-25-11-37 AS

Identification marks on Air Receivers. ✓

Is this machinery duplicate of a previous case Yes If so, state name of vessel Gms Rpt 20533 (Wenderson Aus)

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

This engine and compressor have been built under special survey in accordance with the Rules and approved plans.

The workmanship and materials are good.

Running tests have been carried out at the Maker's works with satisfactory results.

The set has been despatched to Middlesbrough to the order of Messrs Smith's Dock Co., Ltd for Tank No 519.

This engine & compressor have been fitted on board & found satisfactory under full working conditions.

Beloff

Request form sent with Gms Rpt 20533
Ref 72506/P/IV.9383 - 37/IV.1563

The amount of Fee ... £

Jobe : ^{When applied for} ₁₉ ^{When received} ₁₉
Account

Travelling Expenses (if any) £

Beloff

Surveyor to Lloyd's Register of Shipping.

Committee's Minute

FRI 6 JAN 1939

Assigned

See Mch F.E. machy 71-16450



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