

REPORT ON OIL ENGINE MACHINERY.

No. 79795

17 NOV. 1925

Received at London Office

NEWCASTLE-ON-TYNE

Date of writing Report 16th Nov 1925 When handed in at Local Office 16th Nov 1925 Port of

No. in Survey held at Elmirk - Leeton Date, First Survey 18 July 1923 Last Survey 5th Nov 1925
Reg. Book. Number of Visits 27121202 on the ^{Single} Twin Screw vessels Gripsholm Tons Gross 17000 Net 10500

Master Built at Newcastle By whom built L. H. & G. Armstrong Yard No. 999 When built 1925

Engines made at Copenhagen By whom made Burmeister & Wain Engine No. 1000 When made 1925

Donkey Boilers made at Newcastle By whom made L. H. & G. Armstrong Boiler No. 50 When made 1925

Brake Horse Power 13500 Owners Reson A. B. Sverige Nordamerika Port belonging to Gothenborg.

Nom. Horse Power as per Rule 2533 2570 Is Refrigerating Machinery fitted for cargo purposes yes Is Electric Light fitted yes

OIL ENGINES, &c. Type of Engines Diesel for particulars please see Copenhagen Rpt 7087A 2 or 4 stroke cycle Single or double acting

Maximum pressure in cylinders No. of cylinders No. of cranks Diameter of cylinders

Length of stroke Revolutions per minute Means of ignition Kind of fuel used

Is there a bearing between each crank Span of bearings (Page 92, Section 2, par. 7 of Rules)

Distance between centres of main bearings Is a flywheel fitted Diameter of crank shaft journals as per Rule as fitted

Diameter of crank pins Breadth of crank webs as per Rule as fitted Thickness of ditto as per Rule as fitted

Diameter of flywheel shaft as per Rule as fitted Diameter of tunnel shaft as per Rule as fitted Diameter of thrust shaft as per Rule as fitted

Diameter of screw shaft as per Rule as fitted Is the screw shaft fitted with a continuous liner the whole length of the stern tube yes

After end of the liner made watertight in the propeller boss yes If the liner is in more than one length are the joints burned

Liner does not fit tightly at the part between the bearings in the stern tube, is the space charged with a plastic material insoluble in water and non-corrosive

Liners are fitted, is the shaft lapped or protected between the liners If without liners, is the shaft arranged to run in oil

Counter gland fitted to stern tube None Length of stern bush 84" Diameter of propeller 16' 9"

Propeller 17' 3" No. of blades 3 state whether moveable yes Total surface 102 square feet

of reversing Is a governor or other arrangement fitted to prevent racing of the engine when declutched Thickness of cylinder liners

Cylinders fitted with safety valves Means of lubrication Are the exhaust pipes and silencers water cooled or lagged with

conducting material If the exhaust is led overboard near the waterline, what means are arranged to prevent water from being syphoned back to the engine

Is there a main funnel No. of cooling water pumps Is the sea suction provided with an efficient strainer which can be cleared

the vessel yes No. of bilge pumps fitted to the main engines Diameter of ditto Stroke

Can be overhauled while the other is at work No. of auxiliary pumps connected to the main bilge lines 3 How driven Electrical

In 150 tons Bilge & one emergency 135 tons per hour No. and sizes of suction connected to both main bilge pumps and auxiliary bilge pumps: In engine room 3" DB room 3" Main 3" Tunnel 3" 250 tons per hour

In holds, 3" in 1, 2, 3, 4, 5, 6 and one 3" in tunnel well No. of ballast pumps 10, one for water Electrical Sizes of pumps 250 tons per hour

Ballast pump fitted with a direct suction from the engine room bilges yes State size 8" Is a separate auxiliary pump suction fitted in

Engine Room and size yes 8" Are all the bilge suction pipes fitted with roses yes Are the roses in Engine Room always accessible yes

The sluices on Engine Room bulkheads always accessible Are all connections with the sea direct on the skin of the ship yes

The valves or cocks Both Are they fixed sufficiently high on the ship's side to be seen without lifting the floor plates yes

The discharge pipes above or below the deep water line above Are they each fitted with a discharge valve always accessible on the plating of the vessel yes

All pipes, cocks, valves and pumps in connection with the machinery accessible at all times yes Are the bilge suction pipes, cocks and valves arranged so as to prevent any

communication between the sea and the bilges yes Is the screw shaft tunnel watertight yes Is it fitted with a watertight door yes

If a wood vessel, what means are provided to prevent leakage of either fuel oil or of lubricating oil from saturating the woodwork

of main air compressors No. of stages Diameters Stroke Driven by

of auxiliary air compressors No. of stages Diameters Stroke Driven by

of small auxiliary air compressors No. of stages Diameters Stroke Driven by

of scavenging air pumps Diameter Stroke Driven by

Diameter of auxiliary Diesel Engine crank shafts as per Rule as fitted Are the air compressors and their coolers made so as to be easy of access

AIR RECEIVERS: No. of high pressure air receivers Internal diameter Cubic capacity of each

Material Seamless, lap welded or riveted longitudinal joint Range of tensile strength

Thickness Working pressure by Rules No. of starting air receivers Internal diameter

Total cubic capacity Material Seamless, lap welded or riveted longitudinal joint

Range of tensile strength Thickness Working pressure by rules 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

If so, is a report now forwarded? *yes*

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Plene de Copenhagen report 2006A

Yes for intermediate

Receivers *Cpn report*

Separate Tanks

Con report

Plans of Donkey Boilers & parts, bilge & bilge & oil fuel arrangements, forging report
 & plans of intermediate & propeller shafts, certificates
 of oil burning units, Copenhagen report no 7057 A &
 list of spare gear are now forwarded.

EdThe foregoing is a correct description,
 S/R W. G. ARMSTRONG, WHITWORTH & CO. LIMITED.
 LONDON

~~For~~ The foregoing is a correct description.

SIR W. G. ARMSTRONG, WHITWORTH & CO. LIMITED.

Howard Johnson

Plans of intermediate & Propeller shafts, certificates
of oil burning units, Copenhagen report no 7057 A &
list of spare gear are now forwarded.

Manufacturer

*Dates
of Survey
while
building*

Dates of Examination of principal parts—Cylinders

Is the flash point of the oil to be used over 150° F. *Yes*

Is this machinery duplicate of a previous case *No* If so, state name of vessel ☒

General Remarks (State quality of workmanship, opinions as to class, &c. The four Diesel engines (Copenhagen report No 7087 A) have been built under special survey as have also the intermediate and propeller shafts, propellers sea cocks, stern tubes, the testing of all air fuel & steam pipes, the survey and testing of 2 donkey boilers and the fitting on board of the engines, auxiliaries, donkey boilers, pumps etc carried out here.

On completion of the fitting on board, all the main engines and their auxiliaries in all cases started off without a hitch and the full speed trials in the North Sea on the 4th & 5th inst were satisfactory, a speed of 17.82 knots having been attained. On the 12 consecutive trials the

the amount of Entry Fee } ... Copenhagen ...
Special ... } ...
2 Donkey Boiler Fee 6 } ...
When applied for, ...
Starting, the pressure fell from 375 to 275 lbs
Prompt. ... the reversing of the engines being very

Donkey Boiler Fee, ... £ 4.00 ✓
Travelling Expenses (if any) £ 0.00 ✓
When received, 27/11-1925
In my opinion the machinery is now
Engineer Surveyor to Lloyd's Register of Shipping.
George Murdoch

Committee's Minute

Assigned *Oil Engines 2000-12000* *oil burning.* FRI. 4 DEC 1925 Lloyd's Register

CERTIFICATE WRITTEN.