

REPORT ON OIL ENGINE MACHINERY.

No. 47906

Received at London Office 27th April 1928
Date of writing Report 26th April 1928 When handed in at Local Office 27th April 1928 Port of Glasgow
in Survey held at Glasgow
Book. Date, First Survey 11th January 28 Last Survey 26th April 1928
Number of Visits 5
on the Single Twin Triple Screw vessel
Messrs Richardson Westgarth No. 2667 Tons
Gross
Net
By whom built Yard No. When built
By whom made Messrs G & J Wein Ltd Engine No. 84984 When made 1928
By whom made Boiler No. When made
Owners Port belonging to
Is Refrigerating Machinery fitted for cargo purposes Is Electric Light fitted
Horse Power 90
Horse Power as per Rule
Trade for which vessel is intended

ENGINES, &c. Type of Engines Solid Injection 2 or 4 stroke cycle 2 Single or double acting Single
Maximum pressure in cylinders 540 lb. Diameter of cylinders 11 1/4" Length of stroke 15 1/4" No. of cylinders 2 No. of cranks 3
Position of bearings, adjacent to the Crank, measured from inner edge to inner edge 13 5/16" Is there a bearing between each crank yes
Revolutions per minute 300 Flywheel dia. 4'-8" Weight 6430 lbs. Means of ignition Compression Kind of fuel used Diesel
Crank Shaft, dia. of journals as per Rule 5 7/8" Crank pin dia. 6 1/4" Crank Webs Mid. length breadth ENG. 8 1/2" Thickness parallel to axis
as fitted 6 1/4" Mid. length thickness ENG. 3 1/2" Thickness around eye hole
Flywheel Shaft, diameter as per Rule Intermediate Shafts, diameter as per Rule Thrust Shaft, diameter at collars as per Rule
as fitted as fitted as fitted
Main Shaft, diameter as per Rule Screw Shaft, diameter as per Rule Is the tube shaft fitted with a continuous liner
as fitted as fitted as fitted
Bronze Liners, thickness in way of bushes as per Rule Thickness between bushes as per Rule Is the after end of the liner made watertight in the
as fitted as fitted as fitted
Propeller boss If the liner is in more than one length are the junctions made by fusion through the whole thickness of the liner
the 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
two liners are fitted, is the shaft lapped or protected between the liners Is an approved Oil Gland or other appliance fitted at the after
end of the tube shaft Length of Bearing in Stern Bush next to and supporting propeller
Propeller, dia. Pitch No. of blades Material whether Moveable Total Developed Surface sq. feet
Method of reversing Engines Is a governor or other arrangement fitted to prevent racing of the engine when decoupled yes Means of lubrication
Forced Thickness of cylinder liners Max. 1 1/8" Min. 13/16" Are the cylinders fitted with safety valves yes Are the exhaust pipes and silencers water cooled or lagged with
non-conducting material Exh. W. COOLED If the exhaust is led overboard near the waterline, what means are arranged to prevent water from being syphoned back to the engine
Cooling Water Pumps, No. 1 Is the sea suction provided with an efficient strainer which can be cleared within the vessel
Bilge Pumps worked from the Main Engines, No. Diameter Stroke Can one be overhauled while the other is at work
Pumps connected to the Main Bilge Line No. and Size How driven
Ballast Pumps, No. and size Lubricating Oil Pumps, including Spare Pump, No. and size 1. 2 1/2 x 2 1/2 Stroke. Klinger.
Are two independent means arranged for circulating water through the Oil Cooler No Suctions, connected to both Main Bilge Pumps and Auxiliary Bilge
Pumps, No. and size:—In Machinery Spaces
Holds, &c.

Independent Power Pump Direct Suctions to the Engine Room Bilges, No. and size
Are all the Bilge Suction pipes in Holds and Tunnel Well fitted with strum-boxes Are the Bilge Suctions in the Machinery Spaces
d from easily accessible mud-boxes, placed above the level of the working floor, with straight tail pipes to the bilges
Are all Sea Connections fitted direct on the skin of the ship Are they fitted with Valves or Cocks
Are they fixed sufficiently high on the ship's side to be seen without lifting the platform plates Are the Overboard Discharges above or below the deep water line
Are they each fitted with a Discharge Valve always accessible on the plating of the vessel Are the Blow Off Cocks fitted with a spigot and brass covering plate
That pipes pass through the bunkers How are they protected
That pipes pass through the deep tanks Have they been tested as per Rule

Are all Pipes, Cocks, Valves, and Pumps in connection with the machinery and all boiler mountings accessible at all times yes
Is the arrangement of valves and their connections such as to prevent the possibility of water passing from the sea or from water tanks into the cargo or machinery spaces, or from one
compartment to another Is the Shaft Tunnel watertight Is it fitted with a watertight door worked from
of a wood vessel, what means are provided to prevent leakage of either fuel oil or of lubricating oil from saturating the woodwork
Main Air Compressors, No. No. of stages Diameters Stroke Driven by
Auxiliary Air Compressors, No. No. of stages Diameters Stroke Driven by
Small Auxiliary Air Compressors, No. No. of stages Diameters Stroke Driven by
Scavenging Air Pumps, No. 1 Diameter 12 3/4" Stroke 15 1/4" Driven by Engine shaft
Auxiliary Engines crank shafts, diameter as per Rule
as fitted

AIR RECEIVERS:—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

IS A DONKEY BOILER FITTED?

If so, is a report now forwarded?

PLANS. Are approved plans forwarded herewith for Shasting
(If not, state date of approval)

Receivers

Separate Tanks

Donkey Boilers

General Pumping Arrangements

Oil Fuel Burning Arrangements

SPARE GEAR

1 Relief valve
1 Air starting valve
1 Fuel injection valve
1 Fuel injection needle valve & guide
1 set piston rings
2 Conn rod bott. end bolts & nuts
2 " " top " "
2 Main bearing " "
1 group scavenge Suct. valves
1 " " Disch. "
1 Fuel pump plunger

1 Fuel pump barrel
2 " " valves
1 Lub. oil pump plunger
1 Circulating pump Suct. valve
1 " " Disch. "
2 Governor springs
15 feet Fuel piping
1 set of sealing rings
2 glass tubes for water flow Indr.
8 Cyl. cone nuts & studs
Assorted bolts & nuts

Generator spares
1 set bushes
1 Line brush holder
1 bearing liner

The foregoing is a correct description,

J. J. Rickman

For G. & J. Weir, Ltd. Manufacturer.

Dates of Survey while building
During progress of work in shops - 1928 Jan 11 Feb 16 Mar 26 Apr 24 26
During erection on board vessel -
Total No. of visits 5

Dates of Examination of principal parts—Cylinders 11-1-28 Covers 11-1-28 Pistons 26-3-28 Rods 26-3-28 Connecting rods 26-3-28

Crank shaft 16-2-27 Flywheel shaft Thrust shaft Intermediate shafts Tube shaft

Screw shaft Propeller Stern tube Engine seatings Engines holding down bolts

Completion of fitting sea connections Completion of pumping arrangements Engines tried under working conditions 26-4-28 24-4-28

Crank shaft, Material Steel Identification Mark (see below) Flywheel shaft, Material Identification Mark

Thrust shaft, Material Identification Mark Intermediate shafts, Material Identification Marks

Tube shaft, Material Identification Mark Screw shaft, Material Identification Mark

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

Have the requirements of the Rules for oil fuel pipes and tank fittings been complied with

Is the vessel (not being an oil tanker) fitted for carrying oil as cargo If so, have the requirements of the Rules been complied with

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 diesel engines have been built under special survey

The workmanship and materials are good

They were examined while working on the test bed and found satisfactory

The materials have been tested in accordance with the rules

Crank shaft marked. No. 84984. 30533 Fried Krupp. A.G. Essen, 9-27. C.H. 4150. P.R. 35 (180483)

LLOYDS 3363. J.L. 27-9-27.

No. 84985. Fried Krupp. A.G. Essen, 10-1927 C.H. 4150. P.R. 36 (180483 No. 2) LLOYDS 3435 11-10-27

Engines dispatched to West Hartlepool

The amount of Entry Fee ... £12-0-0
Special ... £
Donkey Boiler Fee ... £
Travelling Expenses (if any) £

When applied for Monthly
When received

Committee's Minute GLASGOW 1 MAY 1928

Assigned Deferred

G. E. Murdoch, D. C. Barr
Engineer Surveyor to Lloyd's Register of Shipping.

FRI 24 AUG 1928

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See Minute on Hpt Rhs 16667