

## REPORT ON OIL ENGINE MACHINERY.

No. 115556

Date of writing Report 16-7-1947 When handed in at Local Office 21 JUL 1947 19 Port of Ipswich  
No. in Survey held at 1100 Date, First Survey 28-3-47 Last Survey 11-7-1947  
Reg. Book. Number of Visits

Single  
on the Twin } Screw vessel M.Y. "POLST JARNAN" ex "M.M.S. 1006"  
Triple }  
Quadruple }

Built at Lowisloft By whom built Richards Ironworks Ltd. Yard No. 1006 When built  
Engines made at U.S.A. By whom made National Superior Ltd. Engine No. When made  
Donkey Boilers made at By whom made Boiler No. When made  
Brake Horse Power 500 Owners Kjall Sunnlaugsson Port belonging to Dalvik  
Nom. Horse Power as per Rule M.H. 113 Is Refrigerating Machinery fitted for cargo purposes Is Electric Light fitted  
Trade for which vessel is intended 6pm Sea

L ENGINES, &c.—Type of Engines Heavy Oil 2 or 4 stroke cycle 4 Single or double acting Single  
Maximum pressure in cylinders 760 lb. sq. in. Diameter of cylinders 12" Length of stroke 15" No. of cylinders 8 No. of cranks 8  
Span of bearings, adjacent to the Crank, measured from inner edge to inner edge 13 1/4" Is there a bearing between each crank  
Revolutions per minute 400 Flywheel dia. 36" Weight Means of ignition Compression Kind of fuel used Diesel  
Crank Shaft, dia. of journals as per Rule 8 1/2" Crank pin dia. 8 1/8" Crank Webs Mid. length breadth 13 1/4" Thickness parallel to axis  
as fitted 8 1/2" Mid. length thickness 37/16" shrunk Thickness around eyehole  
Flywheel Shaft, diameter as per Rule Intermediate Shafts, diameter as per Rule 8 1/4" Thrust Shaft, diameter at collars as per Rule  
as fitted 5 1/2" as fitted 8 1/4" as fitted  
Tube Shaft, diameter as per Rule Screw Shaft, diameter as per Rule 8 1/2" Is the tube shaft fitted with a continuous liner  
as fitted 8 1/2" as fitted 8 1/2" 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 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

d of the tube shaft In Tyne Length of Bearing in Stern Bush next to and supporting propeller 29"  
Propeller, dia. 4'-11" Pitch 3'-11" No. of blades 4 Material Bronze whether Moveable Total Developed Surface 12 sq. feet

Method of reversing Engines Diesel Is a governor or other arrangement fitted to prevent racing of the engine when declutched Means of lubrication  
oil Thickness of cylinder liners Are the cylinders fitted with safety valves Are the exhaust pipes and silencers water cooled or lagged with

non-conducting material lapped 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. Two (one main) Is the sea suction provided with an efficient strainer which can be cleared within the vessel  
Bilge Pumps worked from the Main Engines, No. One Diameter Centrifugal Stroke Can one be overhauled while the other is at work

Pumps connected to the Main Bilge Line No. and Size Three 2 - Centrifugal, 1 Downston  
How driven 2 - main engine, 1 - Aux. engine  
Ballast Pumps, No. and size One Centrifugal Lubricating Oil Pumps, including Spare Pump, No. and size Two - Searched

Are two independent means arranged for circulating water through the Oil Cooler Suctions, connected to both Main Bilge Pumps and Auxiliary Bilge  
Pumps, No. and size:—In Machinery Spaces 4 - 2 1/2"  
Holds, &c. 3 - 2 1/2"

Independent Power Pump Direct Suctions to the Engine Room Bilges, No. and size One 2 1/2" Two direct as indicated on plan  
Are all the Bilge Suction pipes in Holds and Tunnel Well fitted with strum-boxes Are the Bilge Suctions in the Machinery Spaces

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  
What pipes pass through the bunkers How are they protected  
What 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  
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

apartment to another Is the Shaft Tunnel watertight Is it fitted with a watertight door worked from  
On a wood vessel, what means are provided to prevent leakage of either fuel oil or of lubricating oil from saturating the woodwork Strip trays fitted under all tanks

Main Air Compressors, No. One No. of stages 2 Diameters Stroke Driven by main engine  
Auxiliary Air Compressors, No. One No. of stages 2 Diameters 1 1/8" x 3 3/4" Stroke Driven by Aux. engine

All Auxiliary Air Compressors, No. No. of stages Diameters Stroke Driven by  
Savenging Air Pumps, No. Diameter Stroke Driven by

Auxiliary Engines crank shafts, diameter as per Rule  
as fitted

RECEIVERS:—Is each receiver, which can be isolated, fitted with a safety valve as per Rule  
Are 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

Working Air Receivers, No. Two Total cubic capacity 15 1/2 cub. ft. (approx) Internal diameter 20" thickness 3/16"  
Seamless, lap welded or riveted longitudinal joint Material Steel Range of tensile strength 30 ton Working pressure by Rules 250 lb. sq. in.  
(assumed)



IS A DONKEY BOILER FITTED?

If so, is a report now forwarded?

PLANS. Are approved plans forwarded herewith for Shafting

(If not, state date of approval)

5-5-47

Receivers

Separate Tanks

2-5-47

Donkey Boilers

General Pumping Arrangements

5-5-47

Oil Fuel Burning Arrangements

SPARE GEAR.

The foregoing is a correct description,

Manufacturer.

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

Dates of Examination of principal parts—Cylinders 10-4-47 Covers 10-4-47 Pistons 10-4-47 Rods 10-4-47 Connecting rods 10-4-47 Crank shaft 10-4-47 Flywheel shaft 10-4-47 Thrust shaft 10-4-47 Intermediate shafts 10-4-47 Tube shaft 10-4-47 Screw shaft 28-3-47 Propeller 28-3-47 Stern tube 28-3-47 Engine seatings 10-4-47 Engines holding down bolts 10-4-47

Completion of fitting sea connections 28-3-47 Completion of pumping arrangements 11-7-47 Engines tried under working conditions 11-7-47

Crank shaft, Material Steel Identification Mark ✓ Flywheel shaft, Material Steel Identification Mark ✓

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

Tube shaft, Material ✓ Identification Mark ✓ Screw shaft, Material Steel Identification Mark ✓

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

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.)

For the information of the Committee:

Periodical Vibration Characteristics approved. Recd. 23.5.47 for R. Service 400 R.P.M. provided the governing arrangements are set to cut off the fuel so that the maximum speed will not exceed 435 R.P.M. and a notice board to this effect fitted at the Control Station.

The amount of Entry Fee ... £ : : When applied for, Special ... £ : : 19 Donkey Boiler Fee ... £ : : When received, Travelling Expenses (if any) £ : : 19

Committee's Minute

FRI. 21 NOV 1947

Assigned LMC 7.47 Oil Eng. Subject S (O.G) 3.47

Engineer Surveyor to Lloyd's Register of Shipping.



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