

# REPORT ON OIL ENGINE MACHINERY.

No. 15767  
5 AUG 1936

Received at London Office

Date of writing Report 1. 8. 1936. When handed in at Local Office 1. 8. 1936 Port of MIDDLESBROUGH.  
No. in Survey held at SOUTH BANK. Date, First Survey Last Survey 28. 7. 1936.  
Reg. Book. Number of Visits

on the <sup>Single</sup> ~~Triple~~ ~~Quadruple~~ Screw vessel "JOLLY GIRLS" Tons { Gross 483. Net 260.  
Built at South Bank By whom built Smiths Dock Co. Ltd. Yard No. 998 When built 1936.  
Engines made at Stockholm By whom made A.B. Atlas Diesel Engine No. 85234 When made 1936.  
Donkey Boilers made at By whom made Boiler No. - When made -  
Brake Horse Power 500. Owners J. W. Harlock. Port belonging to Harwich  
Nom. Horse Power as per Rule 125. Is Refrigerating Machinery fitted for cargo purposes No. Is Electric Light fitted Yes.  
Trade for which vessel is intended Coasting 13 3/8" 27 7/16"

OIL ENGINES, &c.—Type of Engines Polar Diesel 2 or 4 stroke cycle 2 Single or double acting Single  
Maximum pressure in cylinders 55 kg/cm<sup>2</sup> Diameter of cylinders 340 mm Length of stroke 570 mm No. of cylinders 4 No. of cranks 4  
Span of bearings, adjacent to the Crank, measured from inner edge to inner edge 484 mm Is there a bearing between each crank Yes  
Revolutions per minute 220 Flywheel dia. 1550 mm Weight 1900 kg Means of ignition Compression Kind of fuel used Crude oil  
Crank Shaft, dia. of journals as per Rule 220 mm Crank pin dia. 220 mm Crank Webs Mid. length breadth 308 mm Thickness parallel to axis -  
as fitted 220 mm Crank pin dia. 220 mm Crank Webs Mid. length thickness 122 mm Thickness around eye-hole -  
Flywheel Shaft, diameter as per Rule 220 mm Intermediate Shafts, diameter as per Rule 6 1/2" Thrust Shaft, diameter at collars as per Rule 220 mm  
as fitted 220 mm Intermediate Shafts, diameter as fitted 6 1/2" Thrust Shaft, diameter at collars as fitted 220 mm  
Tube Shaft, diameter as per Rule - Screw Shaft, diameter as per Rule 6.3 Is the { tube } shaft fitted with a continuous liner { No. }  
as fitted - Screw Shaft, diameter as fitted 7 7/8" Is the { screw } shaft fitted with a continuous liner { No. }  
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 - Thickness between bushes as fitted - Is the after end of the liner made watertight in the  
propeller boss If the liner is in more than one length are the junctions made by fusion through the whole thickness of the liner -  
If 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 -  
If 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 Yes - Newark Length of Bearing in Stern Bush next to and supporting propeller 2'-9 1/8"

Propeller, dia. 7'-1" Pitch 5'-3" No. of blades 4 Material C.I. whether Moveable No. Total Developed Surface 19 sq. feet  
Method of reversing Engines Direct Is a governor or other arrangement fitted to prevent racing of the engine when declutched Yes Means of lubrication  
forced Thickness of cylinder liners 27.57- Are the cylinders fitted with safety valves Yes Are the exhaust pipes and silencers water cooled or lagged with  
non-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 -  
Cooling Water Pumps, No. one Is the sea suction provided with an efficient strainer which can be cleared within the vessel Yes

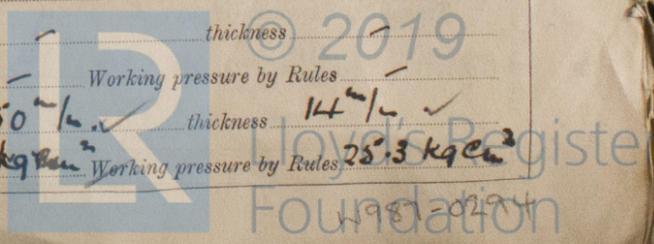
Bilge Pumps worked from the Main Engines, No. 1 Diameter 90 mm Stroke 140 mm Can one be overhauled while the other is at work -  
Pumps connected to the Main Bilge Line { No. and Size 1-20 lins. 2 lins. 5" x 5" 1-3" Hamworthy Centrif. 30 lins  
How driven gear driven off generator. Driven off Astern Engine by clutch  
Ballast Pumps, No. and size 1-3" Hamworthy Centrif. 30 lins. Lubricating Oil Pumps, including Spare Pump, No. and size 2 - rotary  
Are two independent means arranged for circulating water through the Oil Cooler Yes Suctions, connected to both Main Bilge Pumps and Auxiliary Bilge  
Pumps, No. and size:—In Machinery Spaces 1-2"  
In Holds, &c. 2. 2 3/4"

Independent Power Pump Direct Suctions to the Engine Room Bilges, No. and size 1-2 1/2"  
Are all the Bilge Suction pipes in Holds and Tunnel Well fitted with strum-boxes Yes Are the Bilge Suctions in the Machinery Spaces  
led from easily accessible mud-boxes, placed above the level of the working floor, with straight tail pipes to the bilges Yes  
Are all Sea Connections fitted direct on the skin of the ship Yes Are they fitted with Valves or Cocks valves  
Are they fixed sufficiently high on the ship's side to be seen without lifting the platform plates Yes Are the Overboard Discharges 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 Are the Blow Off Cocks fitted with a spigot and brass covering plate -  
What pipes pass through the bunkers none How are they protected -  
What pipes pass through the deep tanks none 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 Yes Is the Shaft Tunnel watertight none Is it fitted with a watertight door - worked from -  
If 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. 1 No. of stages 2 Diameters 175/70 Stroke 350 mm Driven by main engine  
Auxiliary Air Compressors, No. 1-2 crans No. of stages 2 Diameters 178/324 Stroke 4 1/2" Driven by 12 HP Astern Oil Engine  
Small Auxiliary Air Compressors, No. - No. of stages - Diameters - Stroke - Driven by Hand starting

Scavenging Air Pumps, No. 1 Diameter 770 mm Stroke 350 mm Driven by main engine  
Auxiliary Engines crank shafts, diameter as per Rule 3 1/2" app<sup>d</sup>.  
as fitted 3 1/2" app<sup>d</sup>.  
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 door on end  
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. 2 Total cubic capacity 1600 litres Internal diameter 650 mm thickness 14 mm  
Seamless, lap welded or riveted longitudinal joint welded Material S.M. Steel Range of tensile strength 41 kg/cm<sup>2</sup> Working pressure by Rules 25.3 kg/cm<sup>2</sup>



IS A DONKEY BOILER FITTED?

No. / Yes.

If so, is a report now forwarded?

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

Receivers 6. 8. 36

Separate Tanks

Donkey Boilers

General Pumping Arrangements

Oil Fuel Burning Arrangements

SPARE GEAR

See separate list

The foregoing is a correct description, FOR SMITH'S DOCK CO. LTD.

Swarley

Manufacturer.

Dates of Survey while building: During progress of work in shops - 1936 April 17 24 28 30 May 4; During erection on board vessel - 7 9 12 14 28 July 13 23 24 28; Total No. of visits

Dates of Examination of principal parts - Cylinders - Covers - Pistons - Rods - Connecting rods -

Crank shaft - Flywheel shaft - Thrust shaft - Intermediate shafts 9. 5. 36 - Tube shaft -

Screw shaft 28. 4. 36 - Propeller 30. 4. 36 - Stern tube 30. 4. 36 - Engine seatings 4. 5. 36 - Engines holding down bolts 28. 5. 36

Completion of fitting sea connections 4. 5. 36 - Completion of pumping arrangements 24. 7. 36 - Engines tried under working conditions 28. 7. 36

Crank shaft, Material S.M. Steel Identification Mark KA 10. 11. 32; Flywheel shaft, Material S.M. Steel Identification Mark KA 20. 12. 33

Thrust shaft, Material S.M. Steel Identification Mark KA 12. 12. 33; Intermediate shafts, Material S.M. Steel Identification Marks 9. 5. 36 P.T.B.

Tube shaft, Material Identification Mark; Screw shaft, Material S.M. Steel Identification Mark 28. 4. 36 P.T.B.

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

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.)

This engine was built under special survey at Stockholm (see Stockholm Report No. 4203. The auxiliary generator sets were built at Ipswich (see Ipswich Reports 103129 A+B.

This machinery has been securely fitted aboard under special survey and in accordance with the Rules. It has been tested under working conditions with satisfactory results and is, in my opinion, eligible for classification with record + L.M.C. 7.36 and to have notation T.S. etc.

Committee's Minute (The Surveyors are requested not to write on or below the space for Committee's Minute.)

The amount of Entry Fee ... £ 3-0-0: When applied for,

1/3 Special ... £ 6-5-0: 4. 8. 1936

Donkey Boiler Fee ... £ : : When received,

Travelling Expenses (if any) £ : : 2. 10 1936

Assigned + L.M.C. 7.36 Oil Inf. 09. TUE. 1 SEP 1936

P. J. Ma

Engineer Surveyor to Lloyd's Register of Shipping.



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Lloyd's Register Foundation

Rpt. 4b.

Date of writing

No. in Survey Reg. Book.

Built at

Engines made

Donkey Boilers

Brake Horsepower

Nom. Horsepower

Trade for use

OIL ENGINE

Maximum pressure

Mean Indicated

Span of bearing

Revolutions per

Crank Shaft

Flywheel Shaft

Tube Shaft,

Bronze Liner

propeller boss

If the liner does

If two liners are

shaft

Propeller, dia

Method of

pumps

non-conducting

Cooling Water

Bilge Pumps

Pumps connect

Is the cooling water

arrangements

Ballast Pump

Are two independent

Pumps, No. and

In Holds, &c.

Independent

Are all the Bilge

led from easily

Are all Sea Co

Are they fixed su

Are they each fitte

What pipes pass

What pipes pass

Are all Pipes, C

Is the arrange

compartment to a

If a wood vessel,

Main Air Com

Auxiliary Air

Small Auxiliari

Scavenging Air

Auxiliary Engin