

Rpt. 4b.

## REPORT ON OIL ENGINE MACHINERY.

No. 53793.

NOV 1946

Date of writing Report

When handed in at Local Office

7 NOV 1946

Port of

Received at London Office

9 NOV 1946

HULL

No. in Survey held at  
Reg. Book.

Goole

Date, First Survey

12. 3. 46.

Last Survey

24. 10. 19 46.

Number of Visits

14.

87170

Single  
on the  
Triple  
Quadruple

Screw vessel

"GREBBESTROOM".

Tons { Gross 1000  
Net

Built at Goole

By whom built Goole Shipbuilding & Rep-  
airing Co. Ltd.

Yard No. 459

When built 1946

Engines made at Wintnerthur

By whom made Sulzer Bros. Ltd.

Engine No. 25432

When made 1945

Donkey Boilers made at -

By whom made

Boiler No. -

When made -

Brake Horse Power 1050

Owners N.V. Hallandsche Stoomboot

Port belonging to Amsterdam

Machinery Numeral

246 Is Refrigerating Machinery fitted for cargo purposes

No

Is Electric Light fitted

Yes

Trade for which vessel is intended

Home Services.

IL ENGINES, &amp;c. Type of Engines See Winterthur Rpt. No. 220 2 or 4 stroke cycle 2 Single or double acting SA

Maximum pressure in cylinders 850 lbs

7 T.S. 36 Sulzer Solid Injection. SC

Mean Indicated Pressure 76 lbs

Diameter of cylinders 14.3/16"

Length of stroke 23 1/8"

No. of cylinders 7

No. of cranks 7

Span of bearings, adjacent to the Crank, measured from inner edge to inner edge

438 m.m.

Is there a bearing between each crank Yes

Revolutions per minute 250

Flywheel dia. 1250mm

Weight .8 tons

Means of ignition compression

Kind of fuel used Pool Diesel

Crank Shaft, Solid forged

Solid forged

as per Rule 218mm

dia. of journals as fitted 240mm

Crank pin dia. 240mm

Crank Webs Mid. length breadth 380mm

Thickens parallel to axis -

Flywheel Shaft, diameter

as per Rule 218mm

Intermediate Shafts, diameter

as per Rule approd. 7"

Thrust Shaft, diameter at collars

as per Rule 250mm

Tube Shaft, diameter

as per Rule -

Screw Shaft, diameter

as per Rule approd. 8 1/4"

Is the { tube } shaft fitted with a continuous liner { screw } No

Bronze Liners, thickness in way of bushes

as per Rule npne

Thickness between bushes

as per Rule -

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 If so, state type Boole S.B. &amp; R. Co. Ltd.

Length of Bearing in Stern Bush next to and supporting propeller 2' 10 1/2"

Propeller, dia. 7' 9"

Pitch 5' 8"

No. of blades 4

Material M. Bronze

Whether Moveable No

Total Developed Surface 23.5 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 26mm

Are the cylinders fitted with safety valves Yes

Are the exhaust pipes and silencers water cooled or lagged with

non-conducting material water 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. 2 D.A. 100 mm dia. x 160mm ST.

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. one

Diameter 100mm

Stroke 160mm

Can one be overhauled while the other is at work

Pumps connected to the Main Bilge Line

No. and Size

a) 1-100mm x 160mm b) Plunger Pump - 50/tons per hr. c) Self priming cent-

How driven

A) M.E. b) &amp; c) Electric motor.

rifugal pump. 50/ tons per hr.

Is the cooling water led to the bilges No

If so, state what special arrangements are made to deal with this water in addition to the ordinary bilge pumping

Ballast Pumps, No. and size 2-50tons/hr. as above.

Power Driven Lubricating Oil Pumps, including Spare Pump, No. and size One gear pump

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

E.R. ford. 2 1/2"

FER. oil bilge 2 1/2" FE aft 2 1/2"

In Pump Room none

In Holds, &amp;c. No. 1 P. &amp; S. = 2 1/2"

No. 2 P. &amp; S. = 2 1/2"

F. cofferdam No. 2 DBT = 2 1/2", Aft. cofferdam No. 2 DBT = 2 1/2"

Independent Power Pump Direct Suctions to the Engine Room Bilges, No. and size One 3"

Are all the Bilge Suction pipes in Holds and Tunnel Well fitted with strum-boxes Yes

Are the Bilge Suctions in the Machinery Spaces

ed 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

on robust EW steel

as far as they are fitted with Valves or Cocks valves

Are they fixed sufficiently high on the ship's side to be seen without lifting the platform plates practicable

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

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 Part of ER 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. one

No. of stages one

Diameters 100mm

Stroke 340mm

Driven by ME

Auxiliary Air Compressors, No. one

No. of stages two

Diameters 4 1/2" &amp; 1 1/2"

Stroke 4 1/2"

Driven by Aux. &amp; Oil eng.

Small Auxiliary Air Compressors, No. -

No. of stages see

Diameters above

Stroke -

Driven by -

What provision is made for first Charging the Air Receivers

800mm

Scavenging Air Pumps, No. One Tandem D.A.

Diameter 700mm

Stroke 340 mm

Driven by ME

Auxiliary Engines crank shafts, diameter

as per Rule

approd.

3", 4.3/16", 4.3/16"

No. -

Position -

Have the Auxiliary Engines been constructed under special survey

Yes

Is a report sent herewith

Lincoln - See Nott. Rpts.

Nos. C. 4544, 4507 &amp; 4510.

4 SCSA One 3 1/2" 4 1/2" 50 BHP  
One 6 1/2" 5 1/2" 120 BHP  
One 6 1/2" 5 1/2" 120 BHP

013588 - 013595 - 0015



"GREETSTROOM".

**AIR RECEIVERS:**—Have they been made under survey **Bureau Veritas** State No. of Report or Certificate **See Winterthur Rpt No. 220.**

Is each receiver, which can be isolated, fitted with a safety valve as per Rule **Yes** Survey.

Can the internal surfaces of the receivers be examined and cleaned **yes** Is a drain fitted at the lowest part of each receiver **Yes**

**Injection 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 **-**

**See Winterthur Rpt. No. 220**

**Starting Air Receivers, No. 4** Total cubic capacity **2,000 litres** Internal diameter **478mm** thickness **15 mm**

Seamless, lap welded or riveted longitudinal joint **Seamless** Material **S.M. Steel** Range of tensile strength **55-61.3 kgf** Working pressure **61 kgf** by Rules **61 kgf**

IS A DONKEY BOILER FITTED? No

*If so, is a report now forwarded?*

*Is the donkey boiler intended to be used for domestic purposes only*

See Wintlerthu Rpt. No. 220

*PLANS.* Are approved plans forwarded herewith for Shafting 21.8.45. Receivers 17.8.38. See Separate Fuel Tanks 5.2.46.  
(If not, state date of approval)

Donkey Boilers - General Pumping Arrangements 13.10.45. Pumping Arrangements in Machinery Space 5.2.46.  
Oil Fuel Burning Arrangements 5.2.46.

*Oil Fuel Burning Arrangements*.....5.2.46.

*SPARE GEAR.*

Has the spare gear required by the Rules been supplied **Yes**

Please see list.

State the principal additional spare gear supplied

*The foregoing is a correct description,*

*Manufacturer.*

See Winterthur Report No. 220.	
Dates of Survey while building	During progress of work in shops--
	During erection on board vessel--
	Total No. of visits

1946. Mar. 12. May 22. July 12. Aug 13. 19. 22. 29. Sept 6. 25. Oct. 10. 12. 17. 19. 24.

14.

Dates of Examination of principal parts—Cylinders		Covers	Pistons	Rods	Connecting rods
Crank shaft	Flywheel shaft	Thrust shaft	Intermediate shafts	Tube shaft	
Screw shaft	22.7.46.	Propeller	22.7.46.	Stern tube	22.7.46.
Engine seatings	22.7.46.	Engines holding down bolts	29.8.46.		
Completion of fitting sea connections	22.7.46.	Completion of pumping arrangements	25.10.46.	Engines tried under working conditions	17.10.46.
Crank shaft, Material	Identification Mark	See Winterthur	Report No. 220	Identification Mark	25.10.46.
Thrust shaft, Material	-	Identification Mark	Intermediate shafts, Material	F.I. Steel	Identification Marks
Tube shaft, Material	-	Identification Mark	-	Screw shaft, Material	F.I. Steel
Identification Marks on Air Receivers	See Winterthur Report				
	No. 220.				

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

*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 No If so, have the requirements of the Rules been complied with

*If the notation for Ice Strengthening is desired, state whether the requirements in this respect have been complied with.*

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 above machinery installed by The Goole Shipbuilding & Repairing Co. Ltd., Goole in accordance with the Secretary's letters, approved plans and the Rules. The materials used and the workmanship are good.

Vessel's machinery tried under working conditions and found satisfactory. See London letter Ref.E. 19.1.46. A notice board has been fitted at the control station stating that the engines are not to be run continuously below 114 R.P.M.

Eligible to be recorded in the Register Book;-

+LMC 10,46 O.G. Oil engine 7 cyl. 14.3/16" - 23.5/8" 2SC SA.

MN 246.

The amount of Entry Fee .. £	:	:	When applied for, 7 NOV 1946
Fee Installing Mchy. 24 12	:	:	
Special ... .. £	:	:	
Donkey Boiler Fee ... £	:	:	
Travelling Expenses (if any) £	:	:	When received, 19

## Committee's Minute

FRI. 6 DEC 1946

Assigned + LMC 10.46 Oil Eng.  
O.G.

W. S. Childs

*Engineer Surveyor to Lloyd's Register of Shipping.*

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Foundation