

## REPORT ON OIL ENGINE MACHINERY.

No. 20881.

JAN 10 1940

Received at London Office

Date of writing Report 3<sup>RD</sup> JAN. 1940 When handed in at Local Office 5<sup>TH</sup> JANUARY 1940 Port of GREENOCKNo. in Survey held at  
Leg. Book.

GREENOCK

Date, First Survey 22<sup>ND</sup> MARCH 1939. Last Survey 28<sup>TH</sup> DECEMBER 1939

Number of Visits 101.

Single  
on the Twin  
Triple  
Quadruple } Screw vessel

"DESMOULEA"

Tons { Gross 8120.34  
Net 4788.01

Built at PORT GLASGOW

By whom built LITHGOWS LTD.

Yard No. 920 When built 1939

Engines made at GREENOCK

By whom made JOHN G. KINCAID &amp; CO. LTD.

Engine No. 128 When made 1939

Donkey Boilers made at GREENOCK

By whom made JOHN G. KINCAID &amp; CO. LTD.

Boiler No. 128 When made 1939

Brake Horse Power 3600 *max*  
3000 *normal*

Owners ANGLO SAXON PETROLEUM CO. LTD.

Port belonging to LONDON

Nom. Horse Power as per Rule 502.3

Is Refrigerating Machinery fitted for cargo purposes No

Is Electric Light fitted Yes

Trade for which vessel is intended

Ocean going Oil Tanker

L ENGINES, &amp;c. Type of Engines Kincaid's B.W. under piston super charge 2 or 4 stroke cycle 4 Single or double acting single

Maximum pressure in cylinders 600 lbs

Diameter of cylinders 650 7/8

Length of stroke 1400 7/8

No. of cylinders 8

No. of cranks 8

Mean Indicated Pressure 118 lbs

Span of bearings, adjacent to the Crank, measured from inner edge to inner edge 844 7/8

Is there a bearing between each crank Yes

Revolutions per minute 120 *max*  
114 *normal*

Flywheel dia. 2218 7/8

Weight 2.19 tons

Means of ignition Compression

Kind of fuel used Diesel oil

Crank Shaft,

Solid forged  
Semi built  
All builtdia. of journals  
as per Rule  
as fittedas per Rule  
as fitted

Crank pin dia. 460 7/8

Crank Webs

Mid. length breadth 750 7/8  
Mid. length thickness 267 7/8

shrunk

Thickness parallel to axis 290 7/8  
Thickness around eyehole 210 7/8

Flywheel Shaft, diameter

as per Rule  
as fitted

Intermediate Shafts, diameter

as per Rule  
as fitted

Thrust Shaft, diameter at collars

as per Rule  
as fitted

Tube Shaft, diameter

as per Rule  
as fitted

Screw Shaft, diameter

as per Rule  
as fittedIs the { tube  
screw } shaft fitted with a continuous liner {

Yes

Bronze Liners, thickness in way of bushes

as per Rule  
as fitted

Thickness between bushes

as per Rule  
as fitted

Is the after end of the liner made watertight in the

propeller boss

Yes

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

Propeller, dia. 15'0"

Pitch 12'0"

No. of blades 4

Material Bronze

whether Moveable No

Total Developed Surface 72

sq. feet

Method of reversing Engines

Compressed air

Is a governor or other arrangement fitted to prevent racing of the engine when declutched Yes

Means of lubrication

Fixed Thickness of cylinder liners 40 7/8

Are the cylinders fitted with safety valves Yes

Are the exhaust pipes and silencers water cooled or lagged with

non-conducting material lagged 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

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. Two

Diameter Rotary

Stroke 32 tons/hr

Can one be overhauled while the other is at work Yes

Pumps connected to the Main Bilge Line

No. and Size Two 32 tons/hr

How driven Main engine

One duplex 8" x 8" x 10"

Steam

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

arrangements

Ballast Pumps, No. and size

None

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

1-40 tons/hr Main Eng.

1-8 x 8 x 10 duplex steam

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

3 @ 3 1/2"

In Pump Room

In Holds, &amp;c.

2 @ 2 1/2"

Cofferdam 2 @ 3"

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

2 @ 6"

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

Yes

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

Yes

What pipes pass through the bunkers

None

How are they protected

Yes

What pipes pass through the deep tanks

None

Have they been tested as per Rule

Yes

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

Yes

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. Two

No. of stages Two

Diameters 4 1/2" x 10"

Stroke 7 1/2"

Driven by 1 Steam  
1 Diesel

Auxiliary Air Compressors, No. None

No. of stages

Diameters

Stroke

Driven by

Small Auxiliary Air Compressors, No. None

No. of stages

Diameters

Stroke

Driven by

What provision is made for first Charging the Air Receivers

Steam driven air compressor

Scavenging Air Pumps, No.

Diameter

Stroke

Driven by

Auxiliary Engines crank shafts, diameter

as per Rule  
as fitted

See attached reports

No.

One Kromhout 7309 One Ruston 7309

Position

Engine Room platform

Have the Auxiliary Engines been constructed under special survey

Yes

Is a report sent herewith

Yes

Amst. N° 15792

Grimsby N° 2112

002784-002789-0086



# AIR RECEIVERS:—Have they been made under survey

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

Can the internal surfaces of the receivers be examined and cleaned

Injection Air Receivers, No.

Cubic capacity of each

Is a drain fitted at the lowest part of each receiver

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?

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

If so, is a report now forwarded?

PLANS. Are approved plans forwarded herewith for Shafting

(If not, state date of approval)

Receivers

Separate Fuel Tanks Built in ship

Donkey Boilers

General Pumping Arrangements

Pumping Arrangements in Machinery Space

Oil Fuel Burning Arrangements

## SPARE GEAR.

Has the spare gear required by the Rules been supplied

State the principal additional spare gear supplied

See attached list

The foregoing is a correct description,  
For JOHN G. KINCAID & CO. LIMITED.

Director. Manufacturer.

Dates of Survey while building  
During progress of work in shops - (1939) MAR. 22-24-25-31. APR. 4-5-10-11-12-14-15-19-24-25. MAY 9-10-15-16-17-24-25-26-29-30-31. JUNE 2-5-6-9-12-13-14-17-20-23-24. JULY 12-14-17-19-20-24-25-26-27-28-31. AUG. 1-2-11-14-15-16-18-21-22-23-24-25-28-31. SEPT. 6-7-8-12-13-15-19-20-21-22-25-26-27-28-29. OCT. 4-5-6-10-19-20. NOV. 3-8-10-14-21-22-24-25-28. DEC. 1-4-7-11-12-13-19-20-26-28.  
During erection on board vessel - --  
Total No. of visits 101.

Dates of Examination of principal parts—Cylinders 28-8-39 Covers 23-8-39 Pistons 20-9-39 Rods 7-9-39 Connecting rods 7-9-39  
Crank shaft 23-5-39 Flywheel shaft Thrust shaft 19-9-39 Intermediate shafts 19-9-39 Tube shaft  
Screw shaft 19-9-39 Propeller 20-12-39 Stern tube 6-9-39 Engine seatings 27-9-39 Engines holding down bolts 12-12-39  
Completion of fitting sea connections 27-9-39 Completion of pumping arrangements 28-12-39 Engines tried under working conditions 28-12-39

Crank shaft, Material S Identification Mark 8533 CNH Flywheel shaft, Material Identification Mark  
Thrust shaft, Material S Identification Mark 8533 CNH Intermediate shafts, Material S Identification Marks 8533 CNH  
Tube shaft, Material Identification Mark Screw shaft, Material S Identification Mark 8533 CNH

Identification Marks on Air Receivers  
LLOYDS  
N° 1294  
550 lbs. JCB  
350 lbs. W.P.  
24-5-39 JCB

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 Oil Tanker

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

If so, state name of vessel "DELPHINIA" GREENOCK N° 20861

General Remarks (State quality of workmanship, opinions as to class, &c.)

These engines have been built under Special survey in accordance with the Rules and approved plans. The materials and workmanship are good. They have been efficiently installed on board & tested under full working conditions with satisfactory results on a short sea trial.

This machinery is eligible in my opinion to be classed in the Register Book with Record + LMC 12-39 & Notation Screw Shaft CL. DB 180 lbs

The amount of Entry Fee .. £ 6 : 0 :  
Special ... .. £ 100 : 3 :

Donkey Boiler Fee ... £ 23 : 6 :  
AIR RECEIVERS 8 : 8 :  
Travelling Expenses (if any) £ : :  
When applied for, 6th JAN 1940  
When received, 11/1/1940

Charles J. Hunter.  
Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute GLASGOW 9 JAN 1940

Assigned 1- Lmc 12, 39 oil eng  
DB 180 lb



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