

## REPORT ON OIL ENGINE MACHINERY.

No 16444

Received at London Office

40 NOV 1947

Report 15th Nov 47 When handed in at Local Office

Port of BRISTOL.

Survey held at

Avonmouth

Date, First Survey 26th August

Last Survey 20th October 47

Number of Visits 10

Fitting on the  
as far as far  
est car  
en all  
d foundSingle  
Twin  
Triple  
Quadruple

Screw vessel

"ZENT"

Tons  
Gross  
Net

Landskrona

By whom built Oresundsvarvet Aktiebolag

Yard No. 50 When built 1938

Copenhagen

By whom made Akt. Burmeister &amp; Wain

Engine No. 2761 When made 1938

Boilers made at

By whom made

Boiler No. When made

Horse Power

3200

Owners Elders &amp; Fyffes

Port belonging to London

Horse Power as per Rule

Is Refrigerating Machinery fitted for cargo purposes

Yes

Is Electric Light fitted

Yes

renewal which vessel is intended Ocean going. Banaga carrying.

GINES, &amp;c. Type of Engines 2 S.C. S.A. 9 cy. 2 or 4 stroke cycle 2 Single or double acting single

Pressure in cylinders 49 Kc/cm<sup>2</sup>

Diameter of cylinders 500 m.m.

Length of stroke 900 mm

No. of cylinders 9

No. of cranks 9

ated Pressure

ings, adjacent to the Crank, measured from inner edge to inner edge

650 m.m.

Is there a bearing between each crank

Yes

per minute 160

Flywheel dia.

Weight

Means of ignition compression

Kind of fuel used Diesel Oil

nd all

XXXXXX

dia. of journals

as per Rule

as fitted 337.5mm

Crank pin dia.

337.5mm

Crank Webs

Mid. length breadth 850mm

shrink

Thickness parallel to axis

212mm

All built

as per Rule

as fitted 337.5mm

Crank pin dia.

337.5mm

Crank Webs

Mid. length thickness 212mm

shrink

Thickness around eye-hole

212mm

21 &amp; 24

Shaft, diameter

as per Rule

as fitted

Intermediate Shafts, diameter

as per Rule

as fitted 290 m.m.

Thrust Shaft, diameter at collars

as per Rule

as fitted 300 m.m.

Shaft, diameter

as per Rule

as fitted

Screw Shaft, diameter

as per Rule

as fitted 325 m.m.

Is the

screw

shaft fitted with a continuous liner

Yes

liners, thickness in way of bushes

as per Rule

as fitted 19 m.m.

Thickness between bushes

as per Rule

as fitted 19 m.m.

Is the after end of the liner made watertight in the

ss

Yes

If the liner is in more than one length are the junctions made by fusion through the whole thickness of 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

ers 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

If so, state type

Length of Bearing in Stern Bush next to and supporting propeller

dia. 3886mm

Pitch 3075mm

No. of blades 4

Material Phosphor Bronze

whether Moveable

No

Total Developed Surface

sq. feet

f reversing Engines

Rotating cam shaft

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

Yes

Means of lubrication

Thickness of cylinder liners

Are the cylinders fitted with safety valves

Yes

Are the exhaust pipes and silencers lagged with

ing material

Yes

If the exhaust is led overboard near the waterline, what means are arranged to prevent water from being syphoned back to the engine

Water Pumps, No.

2

Is the sea suction provided with an efficient strainer which can be cleared within the vessel

Yes

Pumps worked from the Main Engines, No.

2

Diameter 5.29/32"

Stroke

Can one be overhauled while the other is at work

Yes

connected to the Main Bilge Line

No. and Size

2 - 5.29/32" Dia.

1 Bilge Pump

1 Ballast Pump

Rotary 5 1/2"

suction

ing 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

Pumps, No. and size

1 Rotary 5 1/2"

suction

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

2

dependent means arranged for circulating water through the

Oil Cooler

Yes

Suctions, connected to both Main Bilge Pumps and Auxiliary Bilge

No. and size:—In Machinery Spaces

4

3" diam. plan

In Pump Room

No. 2 in each Nos. 1, 2 &amp; 3 holds.

3" diam. plan

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

1 Rotary

6" diam. plan

Bilge Suction pipes in Holds and Tunnel Well fitted with strum-boxes

Yes

Are the Bilge Suctions in the Machinery Spaces

sity accessible mud-boxes, placed above the level of the working floor, with straight tail pipes to the bilges

Yes

Connections fitted direct on the skin of the ship

Yes

Are they fitted with Valves or Cocks

Valves

ed 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

below

ch 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

pass through the bunkers

How are they protected

Yes

pass through the deep tanks

Have they been tested as per Rule

Yes

es, Cocks, Valves, and Pumps in connection with the machinery and all boiler mountings accessible at all times

Yes

ngement 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

t to another

Yes

Is the Shaft Tunnel watertight

Yes

Is it fitted with a watertight door

Yes

worked from top platform

essel, what means are provided to prevent leakage of either fuel oil or of lubricating oil from saturating the woodwork

Compressors, No.

No. of stages

Diameters

Stroke

Driven by

Air Compressors, No.

3

main engines

No. of stages

2

Diameter

250 m.m.

Stroke

Driven by

Auxiliary Air Compressors, No.

No. of stages

Diameters

Stroke

Driven by

sion is made for first Charging the Air Receivers

Hand compressor

Air Pumps, No.

2

Rotary Blowers

Diameter

Stroke

Driven by main engines

Engines crank shafts, diameter

as per Rule

as fitted 150 m.m.

No.

Position Bottom platform

Auxiliary Engines been constructed under special survey

Is a report sent herewith

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# AIR RECEIVERS:—Have they been made under survey

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 and cleaned

Yes

Injection Air Receivers, No.

Capacity of each

State No. of Report or Certificate

Is a drain fitted at the lowest part of each receiver

Yes

Internal diameter

Thickness

Range of tensile strength

Working pressure

by Rules

Actual

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

Actual

## 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 Shifting

(If not, state date of approval)

Receivers

Separate Fuel Tanks

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

Yes

State the principal additional spare gear supplied

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

Covers

Pistons

Rods

Connecting rods

Crank shaft

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

Crank shaft, Material

Identification Mark

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

Identification Marks on Air Receivers

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

Description of fire extinguishing apparatus fitted

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

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

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

This vessel's Machinery, not built under Special Survey, has been examined as far as possible. The workmanship has been found good and the materials so far as can be ascertained are sound

efficient. The machinery has been tried under working conditions and found satisfactory.

It is considered that the machinery is eligible to be classed in the Register Book LMC

Screwshaft CS 10,47.

The amount of Entry Fee .. £

Special ... £

Donkey Boiler Fee ... £

Traveling Expenses (if any) £

When applied for,

19

When received,

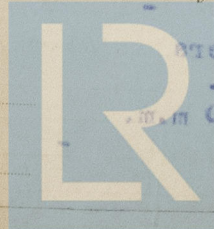
19

Committee's Minute

Assigned LMC CS 10,47 Oil Eng. Subject

C.L. 8,47.

Mr. J. Donaldson & Self & Brooke Limited  
Engineer Surveyors to Lloyd's Register of Shipping



Lloyd's Register Foundation