

REPORT ON OIL ENGINE MACHINERY.

No. 45810

Received at London Office

13 JUL 1926

Date of writing Report

July 12 1926

When handed in at Local Office

12.7.26

Port of

Glasgow

Date, First Survey

7.8.26

Last Survey

July 12 1926

Number of Visits

80

Tons

Gross 5240.47

Net 3088

on the

Single

Triple

Screw vessels

45 m.s.

STORSTEN.

By whom built

Barclay Curle & Co. Ltd

Yard No. 613

When built

1926

By whom made

N.B. Engine Wks Ltd

Engine No. 36

When made

1926

By whom made

Forth S.B. Co.

Boiler No. 9416

When made

1926

Owners

Lonsberg Rederi A/S

Port belonging to

Lonsberg

Indicated Horse Power

2000

Net Horse Power as per Rule

626

Is Refrigerating Machinery fitted for cargo purposes

no

Is Electric Light fitted

yes

ENGINES, &c.

Type of Engines

2 S.C.D.A. Sliding Clr Diesel

2 or 4 stroke cycle

2 Single or double acting

Double

Minimum pressure in cylinders

450 lbs

No. of cylinders

Three

Diameter of cylinders

24 1/2"

No. of cranks

3

Length of stroke

44"

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

38 1/2"

Is there a bearing between each crank

yes

Revolutions per minute

85/100

Flywheel dia

none fitted

Weight

16 1/2"

Means of ignition

Compression

Kind of fuel used

heavy

Crank Shaft, dia. of journals

as per Rule

16 3/4"

Crank pin dia.

16 1/2"

Crank Webs

Mid. length breadth

10 1/2"

Mid. length thickness

10 1/2"

Thickness parallel to axis

10 1/2"

Wheel Shafts, diameter

as per Rule

as fitted

Intermediate Shafts, diameter

as per Rule

as fitted

Thrust Shaft, diameter at collar

as per Rule

as fitted

14 3/4"

Shafts, diameter

as per Rule

as fitted

Screw Shaft, diameter

as per Rule

as fitted

Is the

shaft fitted with a continuous liner

yes

Size 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

yes

Liner boss

yes

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

yes

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

yes

Liners are fitted, is the shaft lapped or protected between the liners

yes

Is an approved Oil Gland or other appliance fitted at the after

the tube shaft

no

Length of Bearing in Stern Bush next to and supporting propeller

4'7"

Propeller, dia.

15'6"

Pitch

12'7"

No. of blades

4

Material

Bronze

whether Moveable

no

Total Developed Surface

78

sq. feet

Kind of reversing Engines

Direct

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

yes

Means of lubrication

Thickness of cylinder liners

1'9"

Are the cylinders fitted with safety valves

yes

Are the exhaust pipes and silencers water-cooled or lagged with

conducting material

yes

Exhaust led to Silencer in

FW

one working

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

yes

Water Pumps, No.

one stand by

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

yes

Can one be overhauled while the other is at work

yes

Pumps fitted to the Main Engines, No.

2

Diameter

4 1/2"

Stroke

15"

Can one be overhauled while the other is at work

yes

S connected to the Main Bilge Line

No. and Size

one - 8" x 10" x 10"

How driven

steam

at Pumps, No. and size

one 8" x 10" x 10" steam

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

one 4 1/2" x 15"

one 5 1/2" x 12"

Independent means arranged for circulating water through the Oil Cooler

yes

Suctions, connected to both Main Bilge Pumps and Auxiliary Bilge

No. and size:—In Engine and Boiler Room

3 - 3 1/2"

Is, &c.

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

one - 4 1/4"

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

yes

Are the Bilge Suctions in the Machinery Space

yes

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

yes

Sea Connections fitted direct on the skin of the ship

yes

Are they fitted with Valves or Cocks

both

Are fixed sufficiently high on the ship's side to be seen without lifting the hatch cover plates

yes

Are the Overboard Discharges above or below the deep water line

below

Are 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

Do pipes pass through the bunkers

none

How are they protected

Do pipes pass through the deep tanks

yes

Have they been tested as per Rule

yes

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

yes

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

ment to another

yes

Is the Shaft Tunnel watertight

yes

Is it fitted with a watertight door

worked from

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

Air Compressors, No.

One

No. of stages

3

Diameters

28 5/8" x 25 1/2" x 5 1/2"

Stroke

28 1/2"

Driven by

M.E. Crank

Auxiliary Air Compressors, No.

One

No. of stages

3

Diameters

6 1/2" x 9" x 4 1/2"

Stroke

9"

Driven by

Steam

Enging Air Pumps, No.

One

Diameter

55"

Stroke

30"

Driven by

M.E. Crank

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

yes

Are internal surfaces of the receivers be examined

yes

What means are provided for cleaning their inner surfaces

manhole

Is a drain arrangement fitted at the lowest part of each receiver

yes

Pressure Air Receivers, No.

1 Reserve

Cubic capacity of each

12 c.f.

Internal diameter

17 3/4"

Thickness

5/8" both

Are lap welded or riveted longitudinal joint

Seamless

Material

Steel

Range of tensile strength

28/32

Working pressure by Rules

1090

Thickness

13/32"

Air Receivers, No.

2

Total cubic capacity

476 c.f.

Internal diameter

60"

Range of tensile strength

28/32

Working pressure by Rules

534

Are lap welded or riveted longitudinal joint

riveted

Material

Steel

IS A DONKEY BOILER FITTED? *yes - two*

If so, is a report now forwarded? *yes*

HYDRAULIC TESTS:-

DESCRIPTION.	DATE OF TEST.	WORKING PRESSURE.	TEST PRESSURE.	STAMPED.	REMARKS.
ENGINE CYLINDERS	23-4-26	15 LBS " "	30 LBS " "	HLS.	
" " COVERS	23-4-26	15 " "	30 " "	HLS.	
" " JACKETS	3-5-26	15 " "	30 " "	HLS.	
" PISTON WATER PASSAGES	26-2-25	60 " "	550 " "	ADM.	one casting
MAIN COMPRESSORS-1st STAGE	26-2-25	250 " "	550 " "		
" 2nd "	11-9-25	1000 " "	2000 " "	H.C.F.	
" 3rd "	14-2-26	475 " "	675 " "	HLS.	
AIR RECEIVERS-STARTING	4-4-26	1000 " "	2000 " "	HLS.	
" INJECTION	6-4-26	500 " "	950 " "	HLS.	
AIR PIPES	6-4-26	" "	30 " "	HLS.	
FUEL PIPES <i>FILLING & SUCTION.</i>	3-3-25	" "	1750 " "		
FUEL PUMPS <i>For & After.</i>	" "	" "	" "		
SILENCER	9-6-26	15 " "	30 " "	HLS.	
" WATER JACKET	3-5-26	" "	10 " "	HLS.	
SEPARATE FUEL TANKS					

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

Receivers *Blast air* ✓ Separate Tanks *air storage*

Donkey Boilers *yes*

General Pumping Arrangements *yes*

Oil Fuel Burning Arrangements

SPARE GEAR

all as per Rule requirements.

The foregoing is a correct description,

Wm Wright for Barclay Curle & Co Ltd Manufacturer.

Dates of Survey while building	During progress of work in shops -	1924 Aug 7, 11, 27, Sept 11, Oct 2, 3, 4, 7, 10, 15, 20, 27, Nov 2, 5, 7, 10, 13, 20, Dec 2, 4, 9, 11, 15
	During erection on board vessel -	1925 Feb 6, 12, 24, 19, 27, Mar 17, 24, 31, May 19, Oct 22, 27, Nov 17, 27, Dec 28, 29, 11, 17, 18, 26
	Total No. of visits	1926 Jan 14, 18, 21, 25, 28, 31, Mar 5, 10, 19, 22, 23, 27, Apr 7, 14, 20, 29, May 28, 31, 12, 18, 19, 24, June 9, 14, 16
Dates of Examination of principal parts -	Cylinders	9-12-24
	Covers	23-4-26
	Pistons	3-5-26
	Rods	11-8-24
	Connecting rods	11-8
Crank shaft	27-8-24	Flywheel shaft ✓
	Thrust shaft	27-8-24
	Intermediate shafts	15-2-26
	Tube shaft	✓
Screw shaft	19-3-26	Propeller 8-5-26
	Stern tube	9-5-26
	Engine seatings	8-5-26
	Engines holding down bolts	14-6
	Engines tried under working conditions	9-4
Completion of fitting sea connections	10-5-26	Completion of pumping arrangements
Crank shaft, Material	Steel	Identification Mark <i>837 LLOYDS 1411 AE 19-2-26</i>
	Flywheel shaft, Material	✓
	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. *yes*

Is this machinery duplicate of a previous case *yes* If so, state name of vessel

CITY OF STOCKHOLM

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

The machinery has been constructed under Special Survey, in accordance with the Rules and approved plans. The materials and workmanship are good. The machinery has been satisfactorily fitted on board the vessel, examined under full working conditions, and found satisfactory, and is eligible, in my opinion, to have the record + LMC 7.26 in the Register Book.

The amount of Entry Fee ... £ 6 : 0 :
Special ... £ 106 : 6 :
Donkey Boiler Fee ... £ : :
Travelling Expenses (if any) £ : :
When applied for, 12-7-26
When received, 22-7-26

Committee's Minute

GLASGOW

27 JUL 1926

CD

Assigned

+ LMC 7.26

CERTIFICATE WRITTEN

Herbert L. Sutheist
Engineer Surveyor to Lloyd's Register of Shipping



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