

Rpt. 4b

REPORT ON OIL ENGINE MACHINERY.

No. 81433

Received at London Office

NEWCASTLE-ON-TYNE.

Date of writing Report

When handed in at Local Office

31-5 1927 Port of

No. in Survey held at
Reg. Book.Wallsend-on-Tyne
Pecten

Date, First Survey

18 Nov. 1925

Last Survey 26 May 1927

Number of Visits 129.

Single
on the ~~Triple~~ Screw vesselsTons
Gross
Net

Built at

Sargow

By whom built

Palmer's S. B. Coy

Yard No.

955

When built

1924

Engines made at

Wallsend

By whom made

North Eastern Mar. & Eng. Co.

Engine No.

2615

When made

1924

Donkey Boilers made at

Wallsend.

By whom made

North Eastern Mar. & Eng. Co.

Boiler No.

2615

When made

1924

Brake Horse Power

3500.

Owners

Anglo Saxon Petroleum Oil Co. Ltd

Port belonging to

London

Nom. Horse Power as per Rule

1020 1/2

Is Refrigerating Machinery fitted for cargo purposes

No

Is Electric Light fitted

yes

L ENGINES, &c.—Type of Engines

North Eastern Works poor Diesel 2 or 4 stroke cycle 4

Single or double acting D.A.

Maximum pressure in cylinders

500

No. of cylinders

6

Diameter of cylinders

820 mm

No. of cranks

6

Length of stroke

1500 mm

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

1110 mm

Is there a bearing between each crank

yes

Revolutions per minute

85

Flywheel dia.

3000 mm

Weight

9 tons

Means of ignition

Compression

Kind of fuel used Fuel oil F.P. above 150 F

Crank Shaft, dia. of journals

504 mm

as per Rule

540 mm

Crank pin dia.

540 mm

Crank Webs

Mid. length breadth 1040 mm

shrink

Thickness parallel to axis

340 mm

Flywheel Shafts, diameter

504 mm

as per Rule

540 mm

Intermediate Shafts, diameter

15.8

as per Rule

22.04 mm

Thrust Shaft, diameter at collars

16.632

as per Rule

22.04 mm

Main Shafts, diameter

14.3

as per Rule

18.3

Screw Shaft, diameter

18.3

Is the

shaft fitted with a continuous liner

yes

Bronze Liners, thickness in way of bushes

.83

as per Rule

.88

Thickness between bushes

.62

as per Rule

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

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

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

Length of Bearing in Stern Bush

Propeller, dia. 14' 6"

Pitch 16' 3"

No. of blades 4

Material Bronze

whether Moveable

no

Total Developed Surface

95 sq. feet

Method of reversing Engines Compressed air

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

Thickness of cylinder liners 14.5 to 15 mm

Are the exhaust pipes and silencers water cooled or lagged with

conducting 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

Suction Water Pumps, No. 3

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

yes

Main Engines, No. Two

Diameter 140 mm

Stroke 300 mm

Can one be overhauled while the other is at work

yes

Pumps connected to the Main Bilge Line

No. and Size 2 as above

1 Duplex donkey 6" x 4" x 10"

1 Duplex Ballast Tank 8" x 10" x 10"

Steam driven

Fast Pumps, No. and size 1 @ 8" x 10" x 10"

Lubricating Oil Pumps, including Spare Pump, No. and size 2 as above

2 in bilges 2.10 cyl x 300 str

1 motor driven rotary 6" suet

Suctions, connected to both Main Bilge Pumps and Auxiliary Bilge

two independent means arranged for circulating water through the Oil Cooler

yes

Pumps, No. and size:—In Engine and Bilge Room

6 @ 3 1/2"

Carrying petroleum in bulk

And hold 3 @ 2 1/2", 3-4" in Pump room, 1 @ 3" in 1st pump room

1 @ 4 1/2" + 1 @ 4" dia

1 @ 4" cofferdams.

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

all the Bilge Suction pipes in Holds and Tunnel Well fitted with strum-bones

Are the Bilge Suctions in the Machinery Space

yes

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

yes

All Sea Connections fitted direct on the skin of the ship

yes

Are they fitted with Valves or Cocks

both

Are the Overboard Discharges above or below the deep water line

above

Are the Blow Off Cocks fitted with a spigot and brass covering plate

yes

How are they protected

yes

Have they been tested as per Rule

yes

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

yes

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

partment to another

yes

Is the Shaft Tunnel watertight

none, mch. aft

Is it fitted with a watertight door

worked from

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

in Air Compressors, No. Two

No. of stages Three

Diameters 15 5/8 6 5/8 6 5/8

Stroke 550 mm

Driven by Main Engines

Auxiliary Air Compressors, No. Two

No. of stages Three

Diameters 15 5/8 6 5/8 6 5/8

Stroke 550 mm

Driven by Steam off 1 off

all Auxiliary Air Compressors, No. Two

No. of stages Three

Diameters 15 5/8 6 5/8 6 5/8

Stroke 550 mm

Driven by

venting Air Pumps, No. none

Diameter

Stroke

Driven by

Auxiliary Engines crank shafts, diameter

as per Rule

as fitted

See separate reports

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

yes

the internal surfaces of the receivers be examined

yes

What means are provided for cleaning their inner surfaces

manholes in ends

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

yes

High Pressure Air Receivers, No. Three

Cubic capacity of each 20 ft

Internal diameter 440 mm

thickness 22.5 mm

Range of tensile strength 32 to 35 tons

Working pressure by Rules 1630 lbs

Material Steel

Internal diameter 1545.6 mm

thickness 27.48 mm

Working pressure by Rules 450 lbs

Material Steel

Range of tensile strength 28 to 32 tons

Working pressure by Rules 450 lbs

Material Steel

Range of tensile strength 28 to 32 tons

Working pressure by Rules 450 lbs

Material Steel

Range of tensile strength 28 to 32 tons

Working pressure by Rules 450 lbs

Material Steel

Range of tensile strength 28 to 32 tons

Working pressure by Rules 450 lbs

Material Steel

Range of tensile strength 28 to 32 tons

Working pressure by Rules 450 lbs

Material Steel

Range of tensile strength 28 to 32 tons

Working pressure by Rules 450 lbs

Material Steel

Range of tensile strength 28 to 32 tons

Working pressure by Rules 450 lbs

Material Steel

Range of tensile strength 28 to 32 tons

Working pressure by Rules 450 lbs

Material Steel

Range of tensile strength 28 to 32 tons

Working pressure by Rules 450 lbs

Material Steel

Range of tensile strength 28 to 32 tons

Working pressure by Rules 450 lbs

Material Steel

Range of tensile strength 28 to 32 tons

Working pressure by Rules 450 lbs

Material Steel

Range of tensile strength 28 to 32 tons

Working pressure by Rules 450 lbs

Material Steel

Range of tensile strength 28 to 32 tons

Working pressure by Rules 450 lbs

Material Steel

Range of tensile strength 28 to 32 tons

Working pressure by Rules 450 lbs

Material Steel

Range of tensile strength 28 to 32 tons

Working pressure by Rules 450 lbs

Material Steel

Range of tensile strength 28 to 32 tons

Working pressure by Rules 450 lbs

Material Steel

Range of tensile strength 28 to 32 tons

Working pressure by Rules 450 lbs

Material Steel

Range of tensile strength 28 to 32 tons

Working pressure by Rules 450 lbs

Material Steel

Range of tensile strength 28 to 32 tons

Working pressure by Rules 450 lbs

Material Steel

Range of tensile strength 28 to 32 tons

Working pressure by Rules 450 lbs

Material Steel

Range of tensile strength 28 to 32 tons

Working pressure by Rules 450 lbs

Material Steel

Range of tensile strength 28 to 32 tons

Working pressure by Rules 450 lbs

Material Steel

Range of tensile strength 28 to 32 tons

Working pressure by Rules 450 lbs

Material Steel

Range of tensile strength 28 to 32 tons

Working pressure by Rules 450 lbs

Material Steel

Range of tensile strength 28 to 32 tons

Working pressure by Rules 450 lbs

Material Steel

Range of tensile strength 28 to 32 tons

Working pressure by Rules 450 lbs

Material Steel

Range of tensile strength 28 to 32 tons

Working pressure by Rules 450 lbs

Material Steel

Range of tensile strength 28 to 32 tons

Working pressure by Rules 450 lbs

Material Steel

Range of tensile strength 28 to 32 tons

Working pressure by Rules 450 lbs

Material Steel

Range of tensile strength 28 to 32 tons

Working pressure by Rules 450 lbs

Material Steel

Range of tensile strength 28 to 32 tons

Working pressure by Rules 450 lbs

Material Steel

IS A DONKEY BOILER FITTED?

If so, is a report now forwarded?

HYDRAULIC TESTS:-

DESCRIPTION.	DATE OF TEST.	WORKING PRESSURE.	TEST PRESSURE.	STAMPED.	REMARKS.
ENGINE CYLINDERS	27-8-26 to 29-11-26	500 lbs	1000 lbs	W.B.	
" " COVERS	27-10-26 to 28-1-27	"	"	"	
" " JACKETS	28-11-26 to 25-11-26	20 lbs	40 lbs	"	
" " PISTON WATER PASSAGES	13-1-27 to 17-1-27	"	415 lbs	"	
MAIN COMPRESSORS—1st STAGE	21-4-26 to 8-11-26	45 lbs	640 lbs	"	
" 2nd "	21-4-26 to 17-11-26	300 lbs	640 lbs	"	
" 3rd "	27-10-26 to 26-5-27	1000 lbs	2200 lbs	"	
AIR RECEIVERS—STARTING	2-11-26	450 lbs	900 lbs	W.B.	
" INJECTION	8-6-26 to 10-6-26	1000 lbs	2000 lbs	TH	12922, 12926,
AIR PIPES	2-3-27 to 22-3-27	450 lbs	900 lbs	W.B.	
FUEL PIPES	20-4-27	200 or 15.	400 or 60.	W.B.	
FUEL PUMPS	22-9-26 to 13-1-27.	1000	2000	W.B.	
SILENCER		✓	✓		
" WATER JACKET		✓	✓		
SEPARATE FUEL TANKS		✓	✓		

PLANS. Are approved plans forwarded herewith for Shafting 11-11-26 Receivers sent with the 1st entry report of work
(If not, state date of approval) submitted by Messrs. W. & A. Marpessa
Donkey Boilers see Marpessa General Pumping Arrangements see Marpessa Oil Fuel Burning Arrangements ✓
Separate Tanks

SPARE GEAR In accordance with and much in excess of the Rules. List of same is
hereunto enclosed. (blue print).

THE NORTH EASTERN MARINE ENGINEERING CO., LTD.
The foregoing is a correct description.

W. Marpessa
Secretary Manufacturer.

Dates of Survey while building
During progress of work in shops-- 1925 Nov. 18, 20, 25, 30, Dec. 11, 21, 24, 29. 1926 Jan. 11, 12, 13, 18, 19, 21, 22, 26, 27, Feb. 3, 9, 10, 11, 18, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, Sept. 2, 6, 7, 8, 10, 15, 16, 17, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, Oct. 1, 5, 6, 7, 11, 14, 15, 18, 19, 21, 26, 27, 29, Nov. 2, 3, 4, 5, 8, 9, 10, 12, 16, 19, 22, 25, 26, 29, Dec. 3, 8, 9, 10, 14, 15, 16, 17, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, Jan. 4, 5, 11, 13, 14, 17, 18, 19, 24, 25, 27, 28, Feb. 7, 8, 9, 10, 14, 18, 24, 25, Mar. 2, 8, 10, 16, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, Apr. 7, 14, 20, 27, 28, May 10, 16, 17, 18, 20, 24, 26.
During erection on board vessel--
Total No. of visits 129

Dates of Examination of principal parts—Cylinders 29-11-26 Covers 4-1-27 Pistons 14-1-27 Rods 14-1-27 Connecting rods 20-1-27

Crank shaft 2-4-26 Flywheel shaft 5-11-26 Thrust shaft 20-1-26 Intermediate shafts 11-2-26 Tube shaft ✓

Screw shaft 26-1-26, 3-2-26 Propeller 4-2-27 Stern tube 24-8-26 Engine seatings 18-8-27 Engines holding down bolts 20-1-27

Completion of fitting sea connections 20-5-27 Completion of pumping arrangements 20-4-27 Engines tried under working conditions 24-5-27

Crank shaft, Material off steel Identification Mark 598532 RLA Flywheel shaft, Material off steel Identification Mark 399

Thrust shaft, Material off steel Identification Mark 1466 RLA Intermediate shafts, Material off steel Identification Marks 12420

Tube shaft, Material ✓ Identification Mark ✓ Screw shaft, Material off steel Identification Mark 12399 434

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 M.S. Marpessa.

General Remarks (State quality of workmanship, opinions as to class, &c.) The machinery of this vessel has
built under Special Survey. Materials & Workmanship good. Hydraulic test
satisfactory. The whole of the machinery is efficiently installed & fixed in
vessel and tried & tested under working conditions and found satisfactory and
good & safe working conditions and eligible in my opinion to be classed and
marked L.M.C. 5-27 Sail Shaft C.L. OG. Electric Light
fitted for oil fuel 5-27 Flash point above 150° F.

The amount of Entry Fee ... £ 6 : 0 0 : When applied for,

Special ... £ 130 : 3 6 : 9.6 1927

Donkey Boiler Fee ... £ 19 : 16 0 : When received,

STARTING AIR RECEIVERS Travelling Expenses (if any) £ 18 : 18 0 : 18.6 1927

Committee's Minute TUES. 14 JUN 1927

Assigned Thine 5.27 cl

Oil Eng 2 DB 18046

William D. Butler
Engineer Surveyor to Lloyd's Register of Shipping



© 2019

Lloyd's Register
Foundation