

Rpt. 4.

REPORT ON MACHINERY.

No. 4655

Received at London Office

SEP. 17 1920

Date of writing Report

10

When handed in at Local Office

16.9.

10 20 Port of

Manchester

No. in Survey held at
Reg. Book.

Manchester

Date, First Survey 26. May 1919

Last Survey 8. Sept.

1920

on the main Engines for Coasting Vessel 2.72 St. Pissie

(Number of Visits 9.)

Tons

Gross

Net

Master

Built at Ellismoor Port.

By whom built Manchester Dry Dock Co.

When built 1920.

Engines made at

Manchester.

By whom made

Manchester Dry Dock Co.

when made

1920.

Boilers made at

By whom made

when made

Registered Horse Power

Owners

Port belonging to

Nom. Horse Power as per Section 28 52.

Is Refrigerating Machinery fitted for cargo purposes

Is Electric Light fitted

ENGINES, &c.—Description of Engines

Compound Surface Condensing

No. of Cylinders 2

No. of Cranks 2

Dia. of Cylinders 15" and 32"

Length of Stroke 21"

Revs. per minute 120

Dia. of Screw shaft

as per rule 6.89"

Material of

FORGED

screw shaft

INGOT STEEL

Is the screw shaft fitted with a continuous liner the whole length of the stern tube

20

Is the after end of the liner made water tight

in the propeller boss *yes*. If the liner is in more than one length are the joints burned

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 *yes*.

Length of stern bush 2'4"

Dia. of Tunnel shaft

as per rule

none

Dia. of Crank shaft journals

as per rule

6.44"

Dia. of Crank pin

as fitted

6.5"

Size of Crank webs

11 1/4" x 5"

Dia. of thrust shaft under

collars 6.5"

Dia. of screw

7'6"

Pitch of Screw

7'9"

No. of Blades 4

State whether moveable

no

Total surface

21 ft

No. of Feed pumps 1

Diameter of ditto 2 1/2"

Stroke 10"

Can one be overhauled while the other is at work

No. of Bilge pumps 1

Diameter of ditto 2 1/2"

Stroke 10"

Can one be overhauled while the other is at work

No. of Donkey Engines

Sizes of Pumps

No. and size of Suctions connected to both Bilge and Donkey pumps

In Engine Room

In Holds, &c.

No. of Bilge Injections

sizes

Connected to condenser, or to circulating pump

Is a separate Donkey Suction fitted in Engine room & size

Are all the bilge suction pipes fitted with roses

Are the roses in Engine room always accessible

Are the sluices on Engine room bulkheads always accessible

Are all connections with the sea direct on the skin of the ship

Are they Valves or Cocks

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

Are the Discharge Pipes above or below the deep water line

Are they each fitted with a Discharge Valve always accessible on the plating of the vessel

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

What pipes are carried through the bunkers

How are they protected

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

Are the Bilge Suction Pipes, Cocks, and Valves arranged so as to prevent any communication between the sea and the bilges

Is the Screw Shaft Tunnel watertight

Is it fitted with a watertight door

worked from

BOILERS, &c.—(Letter for record

Manufacturers of Steel

Total Heating Surface of Boilers 952 ft

Is Forced Draft fitted

no.

No. and Description of Boilers

Working Pressure 130 lbs.

Tested by hydraulic pressure to

Date of test

No. of Certificate

Can each boiler be worked separately

Area of fire grate in each boiler

No. and Description of Safety Valves to

each boiler

Area of each valve

Pressure to which they are adjusted

Are they fitted with easing gear

Smallest distance between boilers or uptakes and bunkers or woodwork

Mean dia. of boilers

Length

Material of shell plates

Thickness

Range of tensile strength

Are the shell plates welded or flanged

Descrip. of riveting: cir. seams

long. seams

Diameter of rivet holes in long. seams

Pitch of rivets

Lap of plates or width of butt straps

Per centages of strength of longitudinal joint

rivets

Working pressure of shell by rules

Size of manhole in shell

Size of compensating ring

No. and Description of Furnaces in each boiler

Material

Outside diameter

Length of plain part

top

Thickness of plates

crown

Description of longitudinal joint

No. of strengthening rings

Working pressure of furnace by the rules

Combustion chamber plates: Material

Thickness: Sides

Back

Top

Bottom

Pitch of stays to ditto: Sides

Back

Top

If stays are fitted with nuts or riveted heads

Working pressure by rules

Material of stays

Area at smallest part

Area supported by each stay

Working pressure by rules

End plates in steam space:

Material

Thickness

Pitch of stays

How are stays secured

Working pressure by rules

Material of stays

Area at smallest part

Area supported by each stay

Working pressure by rules

Material of Front plates at bottom

Thickness

Material of Lower back plate

Thickness

Greatest pitch of stays

Working pressure of plate by rules

Diameter of tubes

Pitch of tubes

Material of tube plates

Thickness: Front

Back

Mean pitch of stays

Pitch across wide water spaces

Working pressures by rules

Girders to Chamber tops: Material

Depth and

thickness of girder at centre

Length as per rule

Distance apart

Number and pitch of stays in each

Working pressure by rules

Steam dome: description of joint to shell

% of strength of joint

Diameter

Thickness of shell plates

Material

Description of longitudinal joint

Diam. of rivet holes

Pitch of rivets

Working pressure of shell by rules

Crown plates

Thickness

How stayed

SUPERHEATER. Type

Date of Approval of Plan

Tested by Hydraulic Pressure to

Date of Test

Is a Safety Valve fitted to each Section of the Superheater which can be shut off from the Boiler

Diameter of Safety Valve

Pressure to which each is adjusted

Is Easing Gear fitted

004564-004572-00458

IS A DONKEY BOILER FITTED?

If so, is a report now forwarded?

SPARE GEAR. State the articles supplied:

Two connecting rod top and bolts and nuts, two connecting rod bottom end bolts and nuts, two main bearing bolts and nuts, one set coupling bolts, one set feed and bilge pump valves, Assorted bolts and nuts, iron or steel of various sizes.

The foregoing is a correct description,
FOR THE MANCHESTER DRY DOCKS COMPANY LTD.

Manufacturer.

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

26/5/19, 24/6/19, 6/2/20, 8/6/20, 21/6/20, 14/7/20, 6/8/20, 7/9/20, 8/9/20, 9 visits.

Is the approved plan of main boiler forwarded herewith

Dates of Examination of principal parts—Cylinders Feb. 1920. Slides Feb. 1920. Covers Feb. 1920. Pistons June 1920. Rods June 1920.

Connecting rods June 1920. Crank shaft June 1920. Thrust shaft June 1920. Tunnel shafts June 1920. Screw shaft June 1920. Propeller June 1920.

Stern tube ✓ Steam pipes tested ✓ Engine and boiler seatings ✓ Engines holding down bolts ✓

Completion of pumping arrangements ✓ Boilers fixed ✓ Engines tried under steam ✓

Completion of fitting sea connections ✓ Stern tube ✓ Screw shaft and propeller ✓

Main boiler safety valves adjusted ✓ Thickness of adjusting washers ✓

Material of Crank shaft O.H. steel Identification Mark on Do. N° 360 Material of Thrust shaft O.H. steel Identification Mark on Do. 354

Material of Tunnel shafts ✓ Identification Marks on Do. ✓ Material of Screw shaft O.H. steel Identification Marks on Do. 361

Material of Steam Pipes

Test pressure

Is an installation fitted for burning oil fuel

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

Have the requirements of Section 49 of the Rules been complied with

Is this machinery duplicate of a previous case Yes. If so, state name of vessel 1/2 "DEVERON" N° 71.

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

This machinery has been built under Special Survey and the materials tested in accordance with the rules of this Society. The workmanship and materials used, so far as can be seen, are good and eligible in my opinion to be classed with record of S.L.M.C. This machinery has been dispatched to Ellesmere Port to be installed on board the vessel.

Certificate (if required) to be sent to

The amount of Entry Fee ... £ 4 : 10 : 0 When applied for, 16-9-1920
Special ... £ : : :
Donkey Boiler Fee ... £ : : :
Travelling Expenses (if any) £ : : :
When received, 11/10/20

A. Campbell
Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute

Assigned. See Minute on
Liv 26. 83483



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Foundation