

Rpt. 4b.

## REPORT ON OIL ENGINE MACHINERY.

Sld. N° 34560

Name No. 103944

Date of writing Report 19

When handed in at Local Office 19

112 SEP 1945

Port of

Received at London Office

23 SEP 1945

NEWCASTLE-ON-TYNE

Date, First Survey 28 JUNE 1945

Last Survey 30 SEPTEMBER 1946

Number of Visits 31

1946

by Rules. No. in  
Actual. 85852

Survey held at Wallsend on Tyne

by Rules. No. in  
Actual. 85852Single  
on the Triple  
Screw vessel.

"BRITISH ROSE"

Gross. 6101  
Net. 3332

Built at Sunderland

By whom built J.L. Thompson &amp; Sons, Ltd

Yard No. 646 When built 1946

Engines made at Wallsend

By whom made N.E. Mar. Eng. Co. (1938) Ltd

Engine No. 3133 When made 1946

Donkey Boilers made at ditto

By whom made ditto

Boilers No. 3133 When made 1946

Brake Horse Power 2500

Owners British Tanker Co. Ltd.

Port belonging to

Nom. Horse Power as per Rule 534 M.H.P.

Is Refrigerating Machinery fitted for cargo purposes No

Is Electric Light fitted Yes

Trade for which vessel is intended

Ocean going. Carrying Petroleum in bulk.

OIL ENGINES, &amp;c. — Type of Engines

3 Cylinder Heavy Oil Engine

2 or 4 stroke cycle 2

Single or double acting Single

Maximum pressure in cylinders

640 lb/sq

Diameter of cylinders 600

Length of stroke 2320

No. of cylinders 3

No. of cranks 3 of 3THROW

Mean Indicated Pressure

88

Span of bearings, adjacent to the crank, measured from inner edge to inner edge

1200

1890

1200

1890

Revolutions per minute

108

Flywheel dia

2300

Weight

37m

Mean of 12.43m

Is there a bearing between each crank

Yes, but each

3-THROW

Crank Shaft, dia. of journals

450

Crank pin dia.

450

Crank webs

Mid. length breadth

820

Kind of fuel used

Heavy Oil Fuel

Flywheel Shaft, diameter

450

Intermediate Shafts, diameter

430

Thrust Shaft, diameter at collars

341

Is the shaft fitted with a continuous liner

Yes

See Flywheel shaft

Tube Shaft, diameter

450

Screw Shaft, diameter

430

Is the shaft fitted with a continuous liner

Yes

See Flywheel shaft

Bronze Liners, thickness in way of bushes

20.8

Thickness between bushes

15.6

Is the after end of the liner made watertight in the

propeller boss

Yes

In one piece

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

Yes

If two 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

end of tube shaft

Yes

If so, state type

Compressed air

Propeller, dia.

15.9

Pitch

11.6

No. of blades

4

Material

Brzg.

whether moveable

No

Method of reversing Engines

by hand lever

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

Yes

Means of

lubrication

Forced

Thickness of cylinder liners

25

Are the cylinders fitted with safety valves

Yes

Are the exhaust pipes and silencers water cooled

Yes

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.

2 for DISTILLED WATER in JACKETS

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

No

Bilge Pumps worked from the Main Engines, No.

NIL

Diameter

Stroke

Can one be overhauled while the other is at work

Yes

Pumps connected to the Main Bilge Line

No. and size

One Ball P. 10" 12" x 10"

One Sanitary &amp; one Bilge P. each 7" 8" x 8"

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

Yes

Ballast Pumps, No. and size

One of 10" 12" x 10"

Power Driven Lubricating Oil Pumps, including spare pump, No. and size

One by M. Eng. each 25 tons/hr

Are two independent means arranged for circulating water through the Oil Cooler

Yes

Are the bilge suction pipes in holds and tunnel well fitted with strum-boxes

Yes

Are the bilge suction pipes 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 they fitted with valves or cocks

Both

Are they fixed

Below

Are all Sea Connections fitted direct on the skin of the Ship

Yes

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

Yes

How are they protected

Yes

What pipes pass through the deep tanks

Yes

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

NIL

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

Yes

Main Air Compressors, No.

NIL

No. of stages

diameters

stroke

driven by

Steam

Auxiliary Air Compressors, No.

Two

No. of stages

3

diameters

1 1/2, 9 1/2, 2 3/4

stroke

7

driven by

Steam

Small Auxiliary Air Compressors, No.

NIL

No. of stages

What provision is made for first charging the air receivers

Steam driven air compressors

Scavenging Air Pumps, No.

One - Double acting

diameter

1700

stroke

608

Auxiliary Engines crank shafts, diameter

as per Rule

NIL

all Steam driven

No.

Position

driven by

levers from

main engine

Have the auxiliary engines been constructed under special survey

Yes

Is a report sent herewith

Yes

Continued over

002449-002456-0083

2020

Register

Foundation



AIR RECEIVERS:—Have they been made under survey Yes State No. of report or certificate See Marks below. Identification See Marks below.  
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 Is a drain fitted at the lowest part of each receiver Yes

Injection Air Receivers, NIL. Cubic capacity of each ✓ Internal diameter ✓ thickness ✓  
Seamless, lap welded or riveted longitudinal joint ✓ Material ✓ Range of tensile strength ✓ Working pressure ✓  
Starting Air Receivers, No. 2. Total cubic capacity 220 cub ft Internal diameter 3-6" thickness 1"  
Seamless, lap welded or riveted longitudinal joint T.R. M. test shop Material Stl Range of tensile strength 29-33 Working pressure 627-1  
Actual 6000

IS A DONKEY BOILER FITTED Yes (Two) If so, is a report now forwarded Yes. New/2yne. Rpt 5a.  
Is the donkey boiler intended to be used for domestic purposes only No.

PLANS. Are approved plans forwarded herewith for shafting CRANK SHAFT 4-6-45. Receivers 19-12-45. Separate fuel tanks 27-6-45  
(If not, state date of approval) 3-12-45  
Donkey boilers 28-9-45 General pumping arrangements ✓ Pumping arrangements in machinery space 23-5-46  
Oil fuel burning arrangements 23-5-46. Vertical vibration character approved See letter to H.M. 2.10.45

SPARE GEAR.  
Has the spare gear required by the Rules been supplied Yes  
State the principal additional spare gear supplied One upper & one lower Piston rods; 2 Piston Skirts;  
4 Scavenge pump Suction & Delivery Valves, One Propeller shaft complete with Nut.

THE NORTH EASTERN MARINE ENGINEERING CO. (1938) LTD.  
The foregoing is a correct description ✓ Manufacturer.

Dates of Survey while building  
During progress of work in shops - (1945) JUNE 25, JULY 17, 31, AUG 12, 26, SEPT 4, 18, 26, 27, 28, OCT 10, NOV 14, DEC 3, 6, 11, 12, (1946) JAN 8, 24, FEB 4, 6, 8, 15, 20, 24, 25, 26, MAR 4, 21, 26, APR 4, 5, 8, 11, 12, 17, 23, 24, 26, 29, MAY 4, 6, 9, 10, 13, 14, 17, 20, 22, 24, 27, 29, JUNE 3, 6, 7, 12, 13, 14, 17, 18, 19, 20, 21, 24, 25, 26, JULY 3, 5, 10, 11, 16, 18, AUG 6, 8, 16, 19, 26, 29, SEPT 3.  
During erection on board vessel - 10, 11, 16, 18, AUG 6, 8, 16, 19, 26, 29, SEPT 3.  
Total No. of visits 81

Dates of examination of principal parts—Cylinders 18-2-46 Covers ✓ Pistons 27-5-46 Rods 27-5-46 Connecting rods 27-5-46  
Crank shaft 17-4-46 Flywheel shaft as Cr. Sh. Thrust shaft as Cr. Sh. Intermediate shafts 20-5-46 Tube shaft ✓  
Screw shaft 20-5-46 Propeller at 17-4-46 Stern tube at 17-4-46 Engine seatings 5-7-46 Engine holding down bolts 8-8-46  
Completion of fitting sea connections 9-5-46 Completion of pumping arrangements Stl. Engines tried under working conditions in works.  
Crank shaft, material 7. Stl Identification mark 2-4-46 Flywheel shaft, material 7. Stl Identification mark as Crank sh.  
Thrust shaft, material 7. Stl Identification mark as Cr. Sh. Intermediate shafts, material 2. Stl Identification marks 9479. J.D.  
Tube shaft, material ✓ Identification mark ✓ Screw shaft, material 7. Stl Identification mark 9479 J.D.  
Identification marks on air receivers: starting Right hand: Lloyd's Test 800th, WP 600th, 20-5-46 AW and  
Left hand: " " " " 22-5-46 AW and

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 Yes  
Description of fire extinguishing apparatus fitted Steam fire engine under the 2 Donkey Boilers about 14 Imp Gals. also 1 off 10 gall. ditto in Bldg Room. engine with 2 1/2" hose  
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 not desired  
Is this machinery duplicate of a previous case Yes If so, state name of vessel Doxford's Yacht 736.

General Remarks (State quality of workmanship, opinions as to class, &c.) The Machinery of this Vessel has been constructed under Special Survey in accordance with the approved plans and the Society's Rules and the materials & workmanship are good. The Main oil Engine and the two S.E. Donkey Boilers were fitted on board satisfactorily, and the shafting & engines set in alignment with chocks & HD Bolts fitted and found satisfactory. The Vessel has now been towed back to Sunderland to complete fitting out. To complete the Survey for Record & L.M.C. with date, the following items require to be done, viz:-  
(1) O.F. Suction & filling lines to be tested,  
(2) O.F. Pressure lines & burners of the 2 Donk. Bldg. to be tested.  
(3) Safety Valves of Donkey Boilers to be adjusted under steam.  
(4) Bilge Pumping in Machy. Space, & Cargo Pump Rooms to be tested  
(5) Elec. Smith, (6) Basin Trial & Manoeuvring Tests, (7) Sea trials.

The amount of Entry Fee £ 6-0  
Special 2/3 to N.E. 67-10/101-14/1  
Fab's Constn Bedplate, Laid etc. £ 12-12/1  
2 Donkey Boiler Fee £ 25-17/1  
2 Starting Air Receivers £ 4-4/1  
Travelling Expenses (if any) £  
When applied for 19  
When received 19

Committee's Minute FRI. 22 NOV 1946  
Assigned See F.E. mealy. rpt.  
Engineer Surveyor to Lloyd's Register of Shipping.

Certificate (if required) to be sent to  
(The Surveyors are requested not to write on or below the space for Committee's Minute.)

NEWCASTLE ON-TYPE

11L-D

Rpt. 5a.  
Date of writing  
No. in Sur  
Reg. Book  
SUPPLEMENT  
85851 on  
Master  
Main Oil  
Engines made  
Donkey.  
Boilers made a  
Nominal Horse  
of Boi  
MULTITU  
Manufacturers  
Total Heating  
No. and Descr  
Tested by hydro  
Area of Firegr  
Area of each se  
In case of donkey  
Smallest distanc  
Smallest distanc  
Largest internal  
Thickness 29/  
long, seams T.R.  
Percentage of str  
Percentage of str  
Thickness of butt  
Material Steel  
Length of plain p  
Dimensions of sti  
End plates in ste  
How are stays sec  
Tube plates: Mat  
Mean pitch of stay  
Girders to combu  
at centre 9" x  
in each 2 at  
Tensile strength  
Pitch of stays to dit  
Working pressure b  
Thickness 27/3  
Pitch of stays at w  
Working Pressure  
Diameter { At body of  
Over threads.  
Working pressure by  
Diameter { At turned off  
Over threads.