

REPORT of SURVEY for REPAIRS, &c.

Date of writing Report 7th Nov 1921 When handed in at Local Office 19

Port of Rotterdam

No. in Survey held at Rotterdam

Date, First Survey 5th Nov 1920 Last Survey 2nd Feb 1921

28231 on the Wood, Iron or Steel

S.S. RADIX

Master

TONNAGE:-

GROSS 6852

UNDER DECK 6413.23

NET 3967

Built at Sunderland By whom W. Duxford & Sons Ltd. When 1919 - 10

Owners Anglo-Saxon Petroleum Co Ltd Port belonging to London

Owners' Address London

(if not already recorded in Appendix to Register Book)

Surveyed Afloat or in Dry Dock? Both Name of Dock P.H. Pontoon Destined Voyage

WB=Cell DBor DBa

feet; uE&B

feet; f

feet; f

total capacity tons. FPT tons; APT tons; MT feet tons.

Particulars of Classification (which must be inserted precisely as in Register Book & Supplements).

If the Vessel has Water Ballast Tanks, state whether the manhole covers have been removed, and the insides of the tanks examined. Also state the amount of deterioration (if any) found in the thicknesses of the floors, framing, girders, and of the inner bottom plating, especially in the boiler space.

Last Report, No. 73734 Port NWC

(Periodical Surveys, when held, must be reported in detail and serially in the terms of the Rules. State clearly the cause of Repairs, if any, and, in detail, the nature and extent of Examinations and subsequent repairs. Repairs on account of Damage (the cause of which must be stated) should be separated from Repairs due to other causes; and besides being detailed in the body of the report, should be summarised in the form shown below. Whenever the replacement of Anchors or Chains is reported, the particulars should be clearly stated in the space provided on the back of this form. State also the dates and initials of any letters respecting this case.

CHARACTER. X for Special Survey. Date of last Survey and of Periodical Surveys.

Machinery and Boiler Survey (including date of N.B., if any).

Shelter deck with

10.19

BATTENS

in weekend

Society's Freeboard (if assigned) as painted on Ship and now verified 9 ft. 3.2 ins.

In damage cases where the Surveyor has not made a special damage report he is required to state whether he offered his services for this purpose and to whom and why they were declined? Not Required Special Case. Was a damage report made by anyone else? If so, by whom? No one.

REPAIRS, OR EXAMINATION AS PER RULE, FOR Survey of repairs and Conversion into Oiltanker.

This vessel arrived at this port in two parts for repairs. She was broken abaft the engine room in way of tunnel recess. The two parts of the vessel have been placed in drydock, on even keel and joined together. Apart from the necessary repairs she has been converted into an oilcarrying vessel, for reference of which please see Secretary's letters dated 4.22/10 - 25/10 - 29/10 - 3/11 - 11/11 - 17/11 - 1920 8/8/10 - 15/10 - 17/10 - 19/10 - 1921. - and the approved plans retained in London.

P.T.O.

SUMMARY OF DAMAGE REPAIRS:-

	Plates.	Frames.	R. Frames.	Floors.	Beams.	Str. Plates.	Dk. Plates.	Other Items:-
Renewed								
Removed and Faired or Repaired								
Faired or Repaired in place								

PRESENT CONDITION OF THE

Decks	good	State if Tanks have been examined inside	yes	Dblg. Plates under Sounding Pipes	good	Copper, or Y.M. of Wood Vessels	
Caulking of Decks	"	State if Tanks now tested	yes and tight	Engine Room Skylights	"	(State if on Fell.)	
Waterways	"	Bulkheads	good	Coal Bunkers, Open'gs, Lids, &c.	"	When put on, Month	Year
Coamings	"	Ceiling	"	Scuppers	"	Boats	good
Beams & Fastenings	"	Cement or Asphalt	"	Cargo Hatchways	"	Masts, Yards, &c.	"
Outside Plating	"	(State which.)	"	Hatches	"	Condition, how ascertained	in shop
Caulking of ditto	"	Rudder	good	Planking	of Wood/Vessels	(State if wedges removed)	yes
Livets	"	Steering gear and its connections	"	Caulking	ditto	Sails	"
Breasthooks & Crutches	"	Windlass	"	Treenails	ditto	Equipment letter	A +
Ransoms	"	Have Pumps now been examined and found efficient?	yes and good	Breasthooks & Stemson	ditto	Anchors, No. o	3 B. 1.5
Rames	"	Have Sluice Valves now been examined and found efficient?	"	Transoms, Pointers, & Crutches	ditto	Cables (State if now ranged)	in shop
Reverse Frames	"	Have Watertight Doors now been examined and found efficient?	"	Timbers of Frame at openings	ditto	" length	270 size 2 5/16
Boors	"	Have Ventilators and their Coamings been examined and found efficient?	yes and good	Ditto ditto at other places	ditto	" Rule length	270 size 2 5/16
Seelons	"			Stringers, Clamps & Shells	ditto	Hawser & Warps	good
Tringers	"			Salting	ditto	Standing & Running Rigging	good
Inner Bottom Plating	"						

General Observations, Opinion as to Class, Recommendation, &c.:-

State clearly whether any and, if so, what alteration is suggested to be made in the existing classification and notification of the vessel in the Register Book consequent upon this survey, thus, for example: "to remain as now classed in the Register Book without fresh record of Survey," "to remain as classed and to have record of survey, 1,15," or "to remain as classed and to have record of survey, 1,15, and the notations of ss No. 1-15 and ptnd 15, &c."

This vessel has been repaired converted into an oilcarrying vessel and she is in our opinion eligible to be classed with notation for vessel carrying Petroleum in bulk 100 FI

Shelterdeck - 10/21. -

Survey Fee (per Section 28) 222.00

Special Damage or Repair Fee (if any) 19

Selling Expenses (if chargeable) 144

Second Surveyor's Fee (if any) 144

Committee's Minute 10001

Character Assigned 10001

Shelterdeck with fld

Carrying petroleum in bulk

note W.B. &c. under own

+ L.M.B. 10.21

Sited for oil fuel 10.21

A. above 150.2

Received by me, 17.11.1921

Surveyor to Lloyd's Register of Shipping.

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To Certificate required? If so, to be sent to

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In connection with the repairs the following has been carried out.

Lower part of stemframe renewed, made of Cast Steel under our inspection at the works of Messrs "Bakker" at Riddaerkerk, tested examined and found good.

Kulplates counted from stemframe.

Kulplates N° 3-4-5-6-10-11-12-13-14-17-18-19-20-21-22 and 23 removed faired and replaced.

Kulplates N° 7-8-9-15 and 16 renewed.

Shellplating counted from Stem S.B.

A shake plates N° 9-10 and 13 renewed.

A " " N° 1-2-3-4-5-6-7-8-11-12-14-15-16-17-18-19-20 and 21 removed faired and replaced.

B shake plates N° 4-5-6-7-8-9-10-11 and 12 renewed

B " " N° 1-2-3-13-14-15-16-17 removed faired and replaced.

C shake plate N° 5-6 and 7 renewed.

C shake plates N° 2-3-4-8-9-10-11-12-13-14-15 removed faired and replaced.

D shake plates N° 10 and 11 renewed.

D " " N° 1-8-9-12-13-14-15-16-17-18-19 removed faired and replaced.

E shake plates N° 9 and 15 renewed

E shake " N° 12 and 17 removed faired and replaced.

F shake " N° 9 and 10 renewed.

F " " N° 15 and 18 removed faired and replaced.

G " plate N° 9 renewed

G " plates N° 14 and 15 removed faired and replaced.

H " plates N° 10 and 11 renewed

H " plate N° 16 removed faired and replaced.

J " " N° 11 renewed

K " " N° 12 renewed

K " " N° 11 removed faired and replaced.

L " " N° 11 renewed.

M " " N° 12 renewed.

N " " N° 4 and 5 renewed } forecastle side

O " " N° 4 and 5 renewed }

On P.S.

A shake plates N° 9-10 and 13 renewed

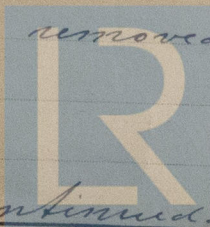
A " " N° 1-2-3-4-5-6-7-8-11-12-14-15-16-17-18-19-20 and 21 removed faired and replaced.

B shake plates N° 4-6-7-8-9-10-11-12 and 18 renewed.

B " " N° 1-2-3-5-13-14-15-16 and 17 removed faired and replaced.

C shake plates N° 5-6 and 10 renewed.

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Foundation

C stake plates N^o 2-3-4-7-8-9-11-12-13-14-15 and 16 removed faired and replaced.

D stake plates N^o 10-12-13-14-15-16-17-18 and 19 renewed.

D " " N^o 1-7-8-9-11 and 20 removed faired and replaced.

E stake plates N^o 9-10 and 15 renewed.

E " " N^o 11 and 18 removed faired and replaced.

F " " N^o 9-10-11 and 16 renewed.

F " plate N^o 19 removed faired and replaced.

G " plates N^o 9-11¹⁶ and 17 renewed.

G " plate N^o 10 removed faired and replaced.

H " plates N^o 11 and 17 renewed.

H " plate N^o 10 removed faired and replaced.

J " plates N^o 11 and 18 renewed.

K " " N^o 12 and 13 renewed.

K " " N^o 11 and 18 removed faired and replaced.

L " plate N^o 11 renewed

L " " N^o 18 removed faired and replaced.

M " " N^o 12 renewed.

N " plates N^o 4 and 5 renewed } forecastle side.

O " " N^o 4 and 5 renewed }

In total divided over the whole vessel.

On S.B. 90 floors of double bottom renewed.

30 floors of double bottom removed faired and replaced.

95 frames on floors renewed.

25 " " " removed faired and replaced.

62 reverse frames renewed.

58 " " removed faired and replaced.

On P.S. 78 floors of double bottom renewed.

43 floors of double bottom removed faired and replaced.

85 frames on floors renewed

40 " " " removed faired and replaced.

48 reverse frames renewed.

73 " " removed faired and replaced.

9 plates of Centre girder renewed.

Keel angles renewed for about $3\frac{1}{2}$ length.

On S.B. 140 intercostals with angles renewed.

119 intercostals removed faired and replaced.

On P.S. 160 intercostals with angles renewed.

88 intercostals removed faired and replaced.

On S.B. 14 Shellframes renewed

24 " removed faired and replaced.

24 bilge brackets renewed

40 " removed faired and replaced.

Continued.

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On P.S. 15 Shellframes renewed.

20 " " removed faired and replaced.

20 Bilge brackets renewed.

56 " " removed faired and replaced.

On S.B. 11 margin plates renewed.

On P.S. 9 " " renewed.

Double bottom. 15 plates of middle line stake renewed.

In biterspace 13 plates of tanktopplating renewed. Thickness .56 and new floors .54 (all removed at this part.).

Approved P.S. and S.B. for length of tanks 13 new stringer plates fitted in total and stringer angle $5 \times 5 \times .54$ fitted.

8 deckplates renewed along trunk

12 " " of stake next to stringer.

Deckbeams fitted $L 7 \times 3 \times .42$ as per approved plan, and also channelbeams as required.

Shelterdeck On P.S. ^{and S.B.} one stringer plate renewed.

In way of tanks middle stake of deckplating 12 plates renewed.

2nd stake 13 plates renewed.

3rd " 6 plates renewed.

4th " 6 plates renewed.

On S.B. 2nd Stake 13 plates renewed.

3rd " 5 " renewed

4th " 7 " renewed.

Doubling plates fitted as per plan.

On P.S. and S.B. one length of stringer angle renewed.

On Shelterdeck new beams fitted of the original scantlings.

Longitudinal bulkhead.

All stakes continuous from fr. 50 to 165.

Bottomstake .60; Upperstake .54; all other stakes $\frac{3}{8}$ "

from 50 to 129 stiffeners $L 10 \times 3\frac{1}{2} \times .50$

" 129 to 142 " $L 10 \times 3\frac{1}{2} \times .54$ and $L 11 \times 3\frac{1}{2} \times .58$

" 142 to 164 " $L 11\frac{1}{2} \times 3\frac{1}{2} \times .62$

Top and bottom angles $5 \times 5 \times .52$.

Two sidestingers fitted as per plan $24 \times .42$ and $28 \times .46$

with face bar $L 8 \times 3\frac{1}{2} \times .50$ In way of upperdeck beams shelf plate fitted $30 \times .40$ flanged. further constructed as per plan.

Bulkheads fitted on the frames 50-53-65-77-90-103-116-129-142-145-159 and 161.

Bulkheads on fr. 50 and 53. (cofferdam)

plating .50-.48-.44-.42-.40

Stiffeners $L 9 \times 3\frac{1}{2} \times .54$ and $L 11\frac{1}{2} \times 3\frac{1}{2} \times .62$ in way of sidestingers.

24" apart. shellangle $5 \times 5 \times .52$ and further constructed as per plan.

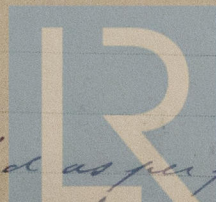
Bulkhead on fr. 65 partly renewed.

plating .50-.48-.44-.42-.40

Stiffeners $L 12 \times 3\frac{1}{2} \times .60$ 24" apart. webframes fitted as per plan

Continued

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horizontal girders fitted as per plan; further all per plan.
remaining single edges electrically welded by the Quasi Arc system.

Bulkhead on fr. 77. (renewed)

plating .50-.48-.44-.42.

Stiffeners $L 12 \times 3\frac{1}{2} \times .62$ 24" apart. Webframes fitted as per plan .46 with face bar $L 7 \times 3\frac{1}{2} \times .62$

horizontal girders fitted as per plan. $30 \times .50$ and $25 \times .50$
with face bar $L 8\frac{1}{2} \times 3 \times .50$ further as per plan.

Bulkheads on the frames 90-103-116-129-142 & 155

plating .50-.48-.46-.42-.40

Stiffeners $L 11\frac{1}{2} \times 3\frac{1}{2} \times .62$ 24" apart and further all as approved.
webframes fitted as per plan .46 with face bar $L 7 \times 3\frac{1}{2} \times .62$

horizontal girders fitted as per plan.

Bulkheads on the frames 159-161 (Cofferdam

plating .50-.48-.46-.42-.40

Stiffeners $L 9 \times 3\frac{1}{2} \times .56$ and further constructed as per plan

Welds fitted on the frames 10-23-35-57-61-69-73-82-86-94
-99-107-112-120-125-133-138-146-151-165-169 and 173.

Construction of welds as per approved plan.

Webplates $32" \times .54$ with face bars $L 7 \times 3\frac{1}{2} \times .62$ and $L 8 \times 3\frac{1}{2} \times .62$

bracketed at top and bottom as per plan. Welds to

longitudinal bulkheads $3'8" \times .50$ with face bars $L 7\frac{1}{2} \times 3\frac{1}{2} \times .62$

In way of tanks extra reverse bars fitted on floors

$L 7 \times 3\frac{1}{2} \times .62$ and pillars formed by double channel

$9 \times 3\frac{1}{2} \times 3\frac{1}{2} \times .44$. welds on expansion trunk $24 \times .40$ flanges.

Constructed keelsons in tanks plate $15 \times .50$ and

4 angles $6 \times 6 \times .60$ as per plan. Deckbeams on welds

to longitudinal bulkhead double channel $12 \times 3\frac{1}{2} \times 3\frac{1}{2} \times .62$

Riderplates $24 \times .64$ as per plan.

Two sidestingers from collision bulkhead to

afterpeak $32" \times .54$ with face bar $L 7 \times 3\frac{1}{2} \times .62$

from forepeak bulkhead to tank No. 1 a 3rd sidestinger

fitted as shown on plan $38" \times .54$ with face bar $L 7 \times 3\frac{1}{2} \times .62$

further constructed as per approved plan. Butt shapes

for stinger face bar as per plan.

Trunk casing plating .60-.42 stiff. $L 6\frac{1}{2} \times 3 \times .40$ on every frame

and bracketed to top and bottom as per approved plan.

angle along trunk $5 \times 5 \times .50$

Stiffeners on bulkheads and washplates in way of summer

tanks $L 5\frac{1}{2} \times 3 \times .36$ bracketed at top and bottom

All frames cut in way of tanks at oiltight deck

and bracketed as per plan.

Intermediate frames $L 6\frac{1}{2} \times 3\frac{1}{2} \times .44$ and bracketed as

per plan.

Continued.

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Oilfuel bunkers fitted as per approved plan.

All new plating riveted as per Rules for Tank-vessels. remaining single edges electrically welded by the Quasi Arch System.

The whole of the work carried out in accordance with the approved plans and Secretary's letter referred to above.

She has been fitted for carrying and burning liqued fuel and all requirements of Sec. 49 of the Rules fully comply with.

The workmanship has been found good, and all cargo tanks, cofferdams, summer tanks, oilfuel bunkers, fore and afterpeak tanks and double bottom tanks have been tested as required by the Rules, and found sound and tight.

Afterpeak tank	Capacity as originally	(oilfuel)
Forepeak tank	" " "	waterballast
DBM in boilerspace	Length 44'2" Capacity 135 tons	(oilfuel)
DBM in enginespace	" 39'4" " 60	" feedwater.
DBM forward in hold	" 35'4" " 53	" waterballast.

P. Heumenburg J. V. Heumen

P.S. The Tonnage Bill was sent to London. please apply for gross and Net Tonnage at Owner's address.