

REPORT ON MACHINERY.

Id No. 28775

Received at London Office

WED. MAR. 26 1924

Date of writing Report

19

When handed in at Local Office

25 MAR 1924 Port of

SUNDERLAND.

No. in Survey held at
Reg. Book.

Date, First Survey

10th April 23

Last Survey

21.3.24

9-6-1924

(Number of Visits 45)

36030 on the new steel S/S "USK BRIDGE".

Gross 2530

Net 1515

Master Built at Burntisland By whom built Burntisland SBC Co 9/5/1921 When built 1924

Engines made at Sunderland By whom made N.E. Marine Eng Co Ltd (No 2530) when made 1924

Boilers made at Sunderland By whom made N.E. Marine Eng Co Ltd (No 2530) when made 1924

Registered Horse Power Owners H. & S. Cold (R. W. Jones & Co. N.Y.S.) Port belonging to Newport (Man.)

Nom. Horse Power as per Section 28 278 Is Refrigerating Machinery fitted for cargo purposes no Is Electric Light fitted yes

ENGINES, &c.—Description of Engines Triple expansion No. of Cylinders 3 No. of Cranks 3

Dia. of Cylinders 22"-36"-60" Length of Stroke 39" Revs. per minute 75 Dia. of Screw shaft as per rule 12.5" Material of screw shaft 9. Steel

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

liners are fitted, is the shaft lapped or protected between the liners — Length of stern bush 4'-2"

Dia. of Tunnel shaft as per rule 10.86" Dia. of Crank shaft journals as per rule 11.4" Dia. of Crank pin 11.2" Size of Crank webs 16" x 7 3/16" Dia. of thrust shaft under

collars 11.2" Dia. of screw 15.2" Pitch of Screw 14'-6" No. of Blades 4 State whether movable no Total surface 75 1/2 sq ft

No. of Feed pumps 2 Diameter of ditto 3" Stroke 21" Can one be overhauled while the other is at work yes

No. of Bilge pumps 2 Diameter of ditto 3 1/2" Stroke 21" Can one be overhauled while the other is at work yes

No. of Donkey Engines 3 Sizes of Pumps 2 @ 6 1/4 x 6, 1 @ 8 1/2 x 11 x 10 1/2 No. and size of Suctions connected to both Bilge and Donkey pumps

In Engine Room 3 @ 2 1/2" In Holds, &c. No 1 hold - 2 @ 2 1/2", No 2 hold - 2 @ 2 1/2"

No 3 hold - 3 @ 3" Tunnel well - 2 1/2"

No. of Bilge Injections 1 sizes 4" Connected to condenser, or to circulating pump b.p. Is a separate Donkey Suction fitted in Engine room & size yes, 4"

Are all the bilge suction pipes fitted with roses yes Are the roses in Engine room always accessible yes Are the sluices on Engine room bulkheads always accessible none

Are all connections with the sea direct on the skin of the ship yes Are they Valves or Cocks both

Are they fixed sufficiently high on the ship's side to be seen without lifting the stokehold plates yes Are the Discharge Pipes above or below the deep water line both

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 are carried through the bunkers none How are they protected —

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

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

Is the Screw Shaft Tunnel watertight yes Is it fitted with a watertight door yes worked from Top platform

BOILERS, &c.—(Letter for record (S) Manufacturers of Steel John Spencer & Sons Ltd.

Total Heating Surface of Boilers 4762 sq ft Is Forced Draft fitted no No. and Description of Boilers Two single ended marine

Working Pressure 180 Tested by hydraulic pressure to 320 Date of test 21-1-24 No. of Certificate 3860

Can each boiler be worked separately yes Area of fire grate in each boiler 61 sq ft No. and Description of Safety Valves to

each boiler two direct spring Area of each valve 8.29 sq ft Pressure to which they are adjusted 185 Are they fitted with easing gear yes

Smallest distance between boiler uptakes and bunkers or woodwork 1'-6" Mean dia. of boilers 15'-6" Length 10'-9 1/16" Material of shell plates steel

Thickness 1 1/4" Range of tensile strength 29-32 tons Are the shell plates welded or flanged no Descrip. of riveting: cir. seams B.R.

long. seams B.R.S.T.R. Diameter of rivet holes in long. seams 1 3/32" Pitch of rivets 9" Lap of plates or width of butt straps 1'-7 1/8"

Per centages of strength of longitudinal joint rivets 87.5 Working pressure of shell by rules 180 Size of manhole in shell 16" x 12"

Size of compensating ring flanged No. and Description of Furnaces in each boiler 3 Deighton Material steel Outside diameter 3'-8 3/8"

Length of plain part top 3' 9" Thickness of plates crown 3 9/16" Description of longitudinal joint welded No. of strengthening rings —

Working pressure of furnace by the rules 183 Combustion chamber plates: Material steel Thickness: Sides 25/32" Back 25/32" Top 25/32" Bottom 25/32"

Pitch of stays to ditto: Sides 12" x 9 3/4" Back 11 1/2" x 10 1/2" Top 11 1/2" x 9 3/4" If stays are fitted with nuts or riveted heads nuts Working pressure by rules 180

Material of stays steel Area at smallest part 2.360" Area supported by each stay 117.80" Working pressure by rules 180 End plates in steam space:

Material steel Thickness 1 5/16" Pitch of stays 23" x 21 1/2" How are stays secured W.N. & W Working pressure by rules 181 Material of stays steel

Area at smallest part 7.980" Area supported by each stay 494.50" Working pressure by rules 180 Material of Front plates at bottom steel

Thickness 1/8" Material of Lower back plate steel Thickness 1/8" Greatest pitch of stays 4 3/4" x 10 1/4" Working pressure of plate by rules 190

Diameter of tubes 3 1/4" Pitch of tubes 4 1/2" x 4 7/8" Material of tube plates steel Thickness: Front 1/8" Back 3/4" Mean pitch of stays 10.5"

Pitch across wide water spaces 14 1/2" Working pressures by rules 184 Girders to Chamber tops: Material steel Depth and

thickness of girder at centre 208 1/2" x 7 1/8" Length as per rule 2'-7 1/2" Distance apart 11 1/2" Number and pitch of stays in each 2 @ 9 3/4"

Working pressure by rules 185 Steam dome: description of joint to shell none % 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

UPERHEATER. 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

IS A DONKEY BOILER FITTED?

yes

If so, is a report now forwarded?

yes

SPARE GEAR. State the articles supplied:— Two connecting rod top and bottom end bolts and nuts. Two main bearing bolts. One set of coupling bolts. One set of feed and bilge pump valves. Iron and bolts various sizes.

The foregoing is a correct description,

THE NORTH EASTERN MARINE ENGINEERING CO. LTD.

Manufacturer.

Dates of Survey while building { During progress of work in shops - - 1923. Apr. 12, 27. May. 25. June. 6, 11, 19. July. 5, 20. Aug. 1, 15, 16, 21, 29. Sep. 7, 13. Oct. 17. Nov. 6, 7, 9. During erection on board vessel - - 19. 21, 28. Dec. 4, 5, 6, 12, 13, 14, 17, 19. 1924. Jan. 11, 18, 21, 29. Feb. 22, 26. Mar. 6, 11, 14, 17, 18, 22. Total No. of visits 43 Leith 27. 3. 24 16. 4. 24 29. 5. 24 9. 6. 24 (4 visits) the approved plan of main boiler forwarded herewith yes donkey " " " " " " yes

Dates of Examination of principal parts—Cylinders 17-11-23 Slides 19-11-23 Covers 9-11-23 Pistons 19-11-23 Rods 17-10-23 Connecting rods 4-12-23 Crank shaft 17-10-23 Thrust shaft 17-10-23 Tunnel shafts 17-10-23 Screw shaft 26-2-24 Propeller 21-11-23 Stern tube 29-1-24 Steam pipes tested 11-3-24 Engine and boiler seatings 2-1-24 Engines holding down bolts 17-3-24 Completion of pumping arrangements 22-3-24 Boilers fixed 11-3-24 Engines tried under steam 22-3-24 Completion of fitting sea connections 20-2-24 Stern tube 6-3-24 Screw shaft and propeller 6-3-24 Main boiler safety valves adjusted 22-3-24 Thickness of adjusting washers Port boiler - F 1 1/2". A 7/8". Star boiler - bold 1 1/2" Material of Crank shaft I. Steel Identification Mark on Do. LLOYD'S NO 6511 L.C.D. 17-10-23 Material of Thrust shaft I. Steel Identification Mark on Do. LLOYD'S NO 6511 L.C.D. 17-10-23 Material of Tunnel shafts I. Steel Identification Marks on Do. LLOYD'S NO 6511 L.C.D. 17-10-23 Material of Screw shafts I. Steel Identification Marks on Do. LLOYD'S NO 6511 L.C.D. 17-10-23 Material of Steam Pipes Solid drawn copper Test pressure 400 lbs per sq. in. Is an installation fitted for burning oil fuel no 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 "USKHAVEN" (Sld Rpt. No 2859)

General Remarks (State quality of workmanship, opinions as to class, &c.) To complete the survey the shaft tunnel door gearing requires to be fitted and the spare gear to be checked. The vessel has returned to Burntisland for completion. Leith Surveyors advised.

The materials and workmanship are good. The machinery has been constructed under special survey and is eligible in our opinion for classification and the record + LMC 6.24

The machinery of this vessel has been securely fitted on board & tested under full working conditions & found satisfactory. The shaft tunnel door gearing fitted & found satisfactory. Spare gear checked.

It is submitted that this vessel is eligible for THE RECORD. + LMC 6.24. CL.

The amount of Entry Fee ... £ 4 : : When applied for, Special ... £ 66 : 14 : 25 MAR 1924 Donkey Boiler Fee ... £ : : When received, Travelling Expenses (if any) £ : : 22-4-1924

Committee's Minute FRI 20 JUN 1924 Assigned + LMC 6.24 C.L.

S. Davis & R. J. Asthore Engineer Surveyors to Lloyd's Register of Shipping.

FRI 22 AUG 1924



© 2021 Lloyd's Register Foundation