

REPORT ON MACHINERY.

Received at London Office

Date of writing Report 19 When handed in at Local Office 2 May 1919 Port of London 1919

No. in Survey held at West Hartlepool Date, First Survey May 24 1918 Last Survey 1 May 1919
Reg. Book. on the Screw Tug "Cretelawser" (Number of Visits 74) Tons 262

Master Wear Concrete SBC Ltd Built at Sunderland By whom built Wear Concrete SBC Ltd When built 1919

Engines made at West Hartlepool By whom made Central Marine Engine Works when made 1919

Boilers made at ditto By whom made ditto when made 1919

Registered Horse Power 120 Owners (H.M. Govt.) Shipping Controller Port belonging to London

Nom. Horse Power as per Section 28 120 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 15"-25"-40" Length of Stroke 27" Revs. per minute 120 Dia. of Screw shaft 8 1/2" Material of screw shaft Iron

Is the screw shaft fitted with a continuous liner the whole length of the stern tube no 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 yes 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 no liner in way of bearings

liners are fitted, is the shaft lapped or protected between the liners short liner in way of bearings Length of stern bush 3'-4"

Dia. of Tunnel shaft 7.46" Dia. of Crank shaft journals 7.83" Dia. of Crank pin 7 1/8" Size of Crank webs 12 3/8" x 5" Dia. of thrust shaft under collars 8" Dia. of screw 10'-0" Pitch of Screw 9'-9" No. of Blades 4 State whether moceable no Total surface 34 sq ft

No. of Feed pumps 2 Diameter of ditto 2 1/2" Stroke 14" Can one be overhauled while the other is at work yes

No. of Bilge pumps 2 Diameter of ditto 2 1/2" Stroke 14" Can one be overhauled while the other is at work yes

No. of Donkey Engines 2 Sizes of Pumps Donkey 5" x 5" x 6" No. and size of Suctions connected to both Bilge and Donkey pumps Feed 6" x 4" x 6"

In Engine Room One of 2 1/4", two of 2 1/2" In Holds, &c. One of 2 1/2" in fore-comp. one of 2 1/2" in main-comp. one of 2 1/4" in after-comp.

No. of Bilge Injections 1 sizes 5" Connected to condenser, or to circulating pump Ch Is a separate Donkey Suction fitted in Engine room of size 2 1/2"

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 above

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 yes

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

Dates of examination of completion of fitting of Sea Connections 7.10.18, 20.1.19 of Stern Tube 14.3.19 Screw shaft and Propeller 14.3.19

Is the Screw Shaft Tunnel watertight none Is it fitted with a watertight door yes worked from yes

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

Total Heating Surface of Boilers 1820 Is Forced Draft fitted yes No. and Description of Boilers Two single ended

Working Pressure 180lbs Tested by hydraulic pressure to 360lbs Date of test 29-8-18 No. of Certificate 3511

Can each boiler be worked separately yes Area of fire grate in each boiler 24.65 sq ft No. and Description of Safety Valves to each boiler 2 direct spring

Area of each valve 4.91 sq in Pressure to which they are adjusted 185lbs Are they fitted with easing gear yes

Smallest distance between boilers or uptakes and bunkers or woodwork 8" Mean dia. of boilers 9'-6" Length 11'-0" Material of shell plates Steel

Thickness 3/32" Range of tensile strength 29 3/4/34 Are the shell plates welded or flanged no Descrip. of riveting: cir. seams DR lap.

long. seams JR DR S Diameter of rivet holes in long. seams 13/16" Pitch of rivets 5 3/4" Lap of plates or width of butt straps 12 1/4"

Per centages of strength of longitudinal joint rivets 85.8 Working pressure of shell by rules 186lbs Size of manhole in shell 16" x 12"

plate 85.8 Size of compensating ring 35 3/4 x 31 3/4 x 25/32 No. and Description of Furnaces in each boiler 2 Deighton Material S Outside diameter 36 1/8"

Length of plain part top 15 Thickness of plates crown 15 Description of longitudinal joint Welded No. of strengthening rings yes

bottom 32 Working pressure of furnace by the rules 191 Combustion chamber plates: Material S Thickness: Sides 1/16" Back 1/16" Top 1/16" Bottom 3/4"

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

Material of stays S Diameter at smallest part 2.066 Area supported by each stay 10" x 9" Working pressure by rules 206 End plates in steam space:

Material S Thickness 1/16" Pitch of stays 19" x 16" How are stays secured Dr rivet Working pressure by rules 187 Material of stays S

Area at smallest part 5.05 Area supported by each stay 17 1/2" x 16 1/2" Working pressure by rules 184 Material of Front plates at bottom S

Thickness 1/16" Material of Lower back plate S Thickness 1/16" Greatest pitch of stays 13 1/2" x 9 1/2" Working pressure of plate by rules 286

Diameter of tubes 2 1/2" Pitch of tubes 3 1/2" x 3 1/2" Material of tube plates S Thickness: Front 1/16" Back 3/4" Mean pitch of stays 10 1/2" x 7"

Pitch across wide water spaces 13 1/2" Working pressures by rules 253 Girders to Chamber tops: Material S Depth and thickness of girder at centre 9 1/2" x 1 1/4" Length as per rule 30 9/16" Distance apart 10" Number and pitch of stays in each Two - 9"

Working pressure by rules 182 Superheater or Steam chest; how connected to boiler none Can the superheater be shut off and the boiler worked separately yes

Is a Report sent on the Hull of the Ship? If not, state whether, and when, it will be sent.

009527-009534-0189

Lloyd's Register Foundation

IS A DONKEY BOILER FITTED? No.

If so, is a report now forwarded?

SPARE GEAR. State the articles supplied: - One set of bolts and nuts for connecting rods top and bottom ends 2 main bearing bolts & nuts. One set coupling bolts and nuts. One set of air, circulating, feed and bilge pump valves. 1 set of LP piston springs. 1 set feed check valves. 1 escape valve spring of each size. Condenser ferrules. firebars. assorted bolts, nuts and iron. 1 set water valves and rings for pistons for both donkey pumps. MP & LP piston rings. A propeller supplied but not put on board.

The foregoing is a correct description.

THE CENTRAL MARINE ENGINE WORKS

(Incorporated in 1918)

J. M. Smith

Manufacturer.

Managing Director, G.M.E.W.

Dates of Survey while building: During progress of work in shops - 1918 May 24, 27, 30. June 3, 4, 6, 7, 10, 12, 13, 17, 19, 20, 21, 27. July 12, 14, 9, 10, 11, 12, 15, 16, 17, 18, 19, 23, 24, 25. During erection on board vessel - 26, 29, 30, 31. Aug 2, 13, 14, 15, 16, 20, 23, 27, 29. Sep 3, 4, 5, 6, 9, 11, 12, 13. Oct 2, 4, 17, 18, 22. 1919 Feb 13, 14. Mar 18, 19, 20. Total No. of visits: (71 + 3)

Is the approved plan of main boiler forwarded herewith? yes

Shd. Oct 7, Jan 20, Mar 14

Is the approved plan of main boiler forwarded herewith? donkey

Dates of Examination of principal parts: Cylinders 2-8-18 Slides 9-9-18 Covers 11-4-19 Pistons 3-9-18 Rods 1-8-18 Connecting rods 7-6-18 Crank shaft 16-8-18 Thrust shaft 16-8-18 Tunnel shafts 11-9-18 Screw shaft 9-9-18 Propeller 2-10-18 Stern tube 14-2-19 Steam pipes tested 17+22-10-18 Engine and boiler seatings 18-3-19 Engines holding down bolts 20-3-19 Completion of pumping arrangements 11-4-19 Boilers fixed 2-4-19 Engines tried under steam 24-4-19 Main boiler safety valves adjusted 11-4-19 Thickness of adjusting washers Forward 3/8 & 3/8. Aft 3/8 & 5/16. Material of Crank shaft Steel. Identification Mark on Do. 6007. Material of Thrust shaft S. Steel. Identification Mark on Do. 6007. Material of Tunnel shafts Scrap. Identification Marks on Do. 6007. Material of Screw shafts Scrap. Identification Marks on Do. 6007. Material of Steam Pipes Lap welded steel. Test pressure 600 lbs. 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? no. If so, state name of vessel. ✓

General Remarks (State quality of workmanship, opinions as to class, &c.) This vessel's machinery has been made and fitted on board under special survey. The materials and workmanship are good. On completion the machinery was tried under full steam at sea satisfactorily. The machinery is now in good and safe working condition and eligible in my opinion to have the notation + L.M.C. 5. 19. in the register book.

It is submitted that this vessel is eligible for THE RECORD + L.M.C. 5. 19. F.D.

J.W.D. 12/5/19 A.P.S.

The amount of Entry Fee ... £ 6: : : When applied for, Special ... £ 54: : : 17/6/19 1919 Donkey Boiler Fee ... £ : : : When received, Travelling Expenses (if any) £ : : : 16/4/19

R.D. Philston & Co. Engineer-Surveyor to Lloyd's Register of British & Foreign Shipping.

Committee's Minute

FRI. 6 JUN. 1919

Assigned

+ L.M.C. 5. 19 F.D.

MACHINERY CERTIFICATE WRITTEN.



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