

Rpt. 4.

REPORT ON MACHINERY

No. 3503

REC'D JUN 13 1921

Received at London Office

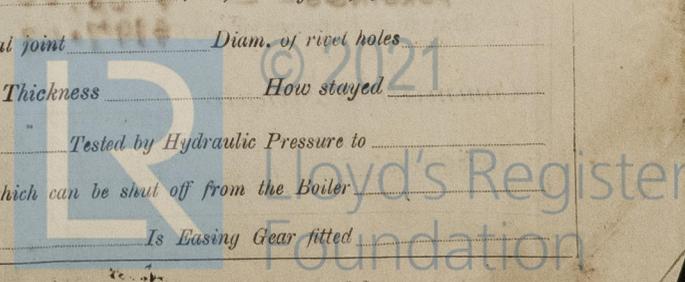
Date of writing Report 19 When handed in at Local Office 19 Port of San Francisco
 No. in Survey held at LOS ANGELES Date, First Survey 28th MARCH 1921
 Reg. Book. 19 (Number of Visits 1)
 on the _____ Tons } Gross
 Master _____ Built at VANCOUVER, WASH. By whom built G. M. STANDIFER CONS. CORPN When built _____ } Net
 Engines made at LOS ANGELES, CAL. By whom made LLEWELLYN IRON WORKS when made 1921
 Boilers made at _____ By whom made _____ when made _____
 Registered Horse Power _____ Owners _____ Port belonging to _____
 Nom. Horse Power as per Section 28 _____ Is Refrigerating Machinery fitted for cargo purposes _____ Is Electric Light fitted _____

ENGINES, &c.—Description of Engines QUADRUPLE EXPANSION No. of Cylinders 4 No. of Cranks 4
 Dia. of Cylinders 24" x 35" x 51" x 1/5" Length of Stroke 51" Revs. per minute 82 Dia. of Screw shaft as per rule Material of screw shaft _____
 Is the screw shaft fitted with a continuous liner the whole length of the stern tube _____ Is the after end of the liner made water tight in the propeller boss _____
 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 _____ Length of stern bush _____
 Dia. of Tunnel shaft as per rule Dia. of Crank shaft journals as per rule 14.16" Dia. of Crank pin 14 3/4" Size of Crank webs 5 1/8" x 9 1/4" Dia. of thrust shaft under collars 14 1/4" Dia. of screw _____ Pitch of Screw _____ No. of Blades _____ State whether moveable _____ Total surface _____
 No. of Feed pumps _____ Diameter of ditto _____ Stroke _____ Can one be overhauled while the other is at work _____
 No. of Bilge pumps Two Diameter of ditto 3 1/2" Stroke 24" Can one be overhauled while the other is at work Yes
 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 _____ Is Forced Draft fitted _____ No. and Description of Boilers _____
 Working Pressure _____ 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 _____
 plate _____
 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 _____
 bottom _____
 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 _____



IS A DONKEY BOILER FITTED?

If so, is a report now forwarded?

SPARE GEAR. State the articles supplied:— 1. Section crank shaft. 1 set of piston rings and springs for each cylinder. 2 Air pump links complete. 1 Air pump rod and bucket. 3 Valve spindle. 2 Eccentric straps. 1 Crank pin brass with bolts and nuts complete. 2 Crosshead brasses with bolts and nuts complete. 2 Main bearing bolts and nuts. 1 set (8) coupling bolts and nuts. 12 Cylinder cover studs. 8 Valve chest cover studs. 10 Follow up studs for piston. 1 set of Air pump valves, studs and guards. 1 set of bilge pump valves, studs, guards and springs. 1 set of cylinder relief valve springs. 100 assorted bolts and nuts.

The foregoing is a correct description,

Arthur Dunkel, Engineer
Llewellyn Iron Works

Manufacturer.

Dates of Survey while building: During progress of work in shops -- Nov. 3, 11, Dec. 15, 28, Jan. 5, 24, Feb. 4, 5, 7, 11, 21, Mar. 18, 21, 24, 25, 26, 28. During erection on board vessel --- Total No. of visits

Is the approved plan of main boiler forwarded herewith

Dates of Examination of principal parts—Cylinders 21/3/21 Slides 24/10/3/21 Covers 18/3/21 Pistons 21/3/21 Rods 21/3/21

Connecting rods 18/3/21 Crank shaft 25/3/21 Thrust shaft 21/3/21 Tunnel shafts Screw shaft Propeller

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 STEEL Identification Mark on Do. LLOYDS 1074 25-3-21 W.S. (11) Material of Thrust shaft STEEL Identification Mark on Do. LLOYDS 1076 25-3-21 W.S. (11)

Material of Tunnel shafts Identification Marks on Do. Material of Screw shafts Identification Marks on Do.

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 If so, state name of vessel

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

The above engines were constructed under special survey of materials, tested to full requirements and the workmanship found good throughout. When these engines have been efficiently installed in the vessel and proved satisfactory under working conditions, it is the opinion of the undersigned that these engines are eligible to be classed in the Register Book. * L.M.C. (WITH DATE)

IN MARK ON SPARE SECTION

CRANK SHAFT

LLOYDS
 1074
 25-3-21
 W.S. (11)

The amount of Entry Fee ... £ : : When applied for,
 Special 2/5ths fee \$ 208:10 : { Apr. 14, 1921
 Donkey Boiler Fee ... £ 65:00 : When received,
 FORGINGS - - - \$ 197.63 : { 12.5.1921

Wm. Smith & J. Blackett
 Engineer Surveyors to Lloyd's Register of Shipping.

Committee's Minute

New York MAY 31 1921

Assigned

See P. Or. Rpt 633



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