

REPORT ON MACHINERY

WED. 2 APR. 1921

Received at London Office
 Date of writing Report 12 March 1921 When handed in at Local Office 18 March 1921 Port of New York
 Date, First Survey 14 June 20 Last Survey 17 March 1921
 No. in Survey held at Kearny, New Jersey (Number of Visits 112)
 Reg. Book. on the Twin Screw Steel Oil Tanker WALTER JENNINGS
 Master W. J. Healy Built at Kearny, N. J. By whom built Federal Ship Building Co When built 1921
 Engines made at Kearny, N. J. By whom made Federal Ship Building Co when made 1921
 Boilers made at Kearny, N. J. By whom made Federal Ship Building Co when made 1921
 Registered Horse Power 3500 I.H.P. Owners Standard Oil Co of New Jersey Port belonging to New York
 Net Horse Power as per Section 28 676 Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted Yes

GINES, &c.—Description of Engines Twin Vertical Reciprocating Triple Exp. of Cylinders 3 No. of Cranks 3
 Dia. of Cylinders 20 1/2 x 35 x 60 Length of Stroke 42 Revs. per minute 90 Dia. of Screw shaft as per rule 12.54 Material of screw shaft S
 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
 the propeller boss Yes If the liner is in more than one length are the joints burned Welded 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 liners fits tightly two
 liners are fitted, is the shaft lapped or protected between the liners protected Length of stern bush 4'-6"
 Dia. of Tunnel shaft as per rule 11.3 Dia. of Crank shaft journals as per rule 11.9 Dia. of Crank pin 12 Size of Crank webs 24 x 8 1/4 Dia. of thrust shaft under
 flars 12 Dia. of screw 15'-0" Pitch of Screw 13'-7 1/2" No. of Blades 3 State whether moceable Yes Total surface 50.2925
 No. of Feed pumps 3 Diameter of ditto 12 x 8 Stroke 24 Can one be overhauled while the other is at work Yes
 No. of Bilge pumps 3 Diameter of ditto 8 x 8 1/2 Stroke 12 Can one be overhauled while the other is at work Yes
 No. of Donkey Engines 1 Sizes of Pumps 8 x 5 x 12 No. and size of Suctions connected to both Bilge and Donkey pumps
 Engine Room 8-3 1/2" Engine + Stokehold In Holds, &c. 4-6" Cargo pump room.
2-2 1/2" Forward pump room. 2-2 1/2" Forward Hold.
 No. of Bilge Injections 2 sizes 8" Connected to condenser, or to circulating pump C.P. Is a separate Donkey Suction fitted in Engine room & size Yes 3 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 Below
 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 Steam & Exhaust to Pump room & Deck machy How are they protected Boxed in with steel plate
 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 No Tunnel Machy aft.

BOILERS, &c.—(Letter for record S) Manufacturers of Steel Carnegie & Illinois Steel Co.
 Total Heating Surface of Boilers 9618.5 Is Forced Draft fitted Yes No. and Description of Boilers 3-4 Furnace Single Ended Scotch
 Working Pressure 210 lbs Tested by hydraulic pressure to 315 lbs per sq" Date of test 23-9-20 No. of Certificate 386
28-9-20 387
30-9-20 388
 Can each boiler be worked separately Yes Area of fire grate in each boiler Oil burner No. and Description of Safety Valves to
 each boiler 1-3 1/2" Twin Spring Area of each valve 9.629 Pressure to which they are adjusted 210 lbs Are they fitted with easing gear Yes
 Smallest distance between boilers or uptakes and bunkers or deck work 36" Mean dia. of boilers 16'-0" Length 11'-6" Material of shell plates S
 Thickness 1 23/32 Range of tensile strength 26.8 to 32.5 Are the shell plates welded or flanged No Descrip. of riveting: cir. seams D.R.LAP.
 Long. seams TR/DBS Diameter of rivet holes in long. seams 1 1/16 Pitch of rivets 9 1/4 Lap of plates or width of butt straps 23 3/4
 Per centages of strength of longitudinal joint rivets 105.5 Working pressure of shell by rules 228 Size of manhole in shell 16 x 12
 plate 81.8
 Size of compensating ring 37 x 33 No. and Description of Furnaces in each boiler 4 Morrison Material S Outside diameter 44 1/4
 Length of plain part top Yes Thickness of plates crown 5/8 Description of longitudinal joint Weld No. of strengthening rings Yes
 bottom Yes
 Working pressure of furnace by the rules 215 Combustion chamber plates: Material S Thickness: Sides 1 1/16 Back 3/4 Top 1/16 Bottom 7/8
 Pitch of stays to ditto: Sides 7 1/2 x 7 1/4 Back 8 x 8 Top 7 1/2 x 7 1/4 stays are fitted with nuts or riveted heads Yes Nuts Working pressure by rules Side 222
Back 225
 Material of stays S Area at smallest part 1.8 Area supported by each stay Side 54.375 Working pressure by rules Side 298 End plates in steam space: Back 298
 Material S Thickness 1 1/16 Pitch of stays 15 1/2 x 15 How are stays secured D. Nuts Working pressure by rules 217 Material of stays S
 Area at smallest part 5.939 Area supported by each stay 232.5 Working pressure by rules 266 Material of Front plates at bottom S
 Thickness 1 Material of Lower back plate S Thickness 1 Greatest pitch of stays 13 x 8 Working pressure of plate by rules 220
 Diameter of tubes 2 3/4 Pitch of tubes 4 x 3 3/4 Material of tube plates S Thickness: Front 1 Back 13/16 Mean pitch of stays 12 x 7 1/2
 Pitch across wide water spaces 13 Working pressures by rules Front 212 Girders to Chamber tops: Material S Depth and
 thickness of girder at centre 10 x 7 1/8 Length as per rule 35 Distance apart 7 1/2 Number and pitch of stays in each 4 @ 7 1/4
 Working pressure by rules 272 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
 SUPERHEATER. Type None 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:— 1 Spare propeller shaft. 2 propellers complete.
1 Crank shaft section. 3 Valve stems with link blocks. 3 Eccentric straps.
1 Set of bottom end bearings. 1 Set of top end bearings. 2 Top end & 2 Bottom
bolts & nuts. 2 main bearing bolts & nuts. 1 Set of rings & springs for H.P. & L.P.
pistons. 12 cylinder cover studs & nuts. 6 Relief valve springs. 2 Sets of coupling bolts &
35 Boiler tubes. 8 tube stoppers. 4 Safety valve springs. Bearers. baffle plate
& firebars complete. 3 Spare check valves. Spare feed & bilge pump valves & springs
125 Condenser tubes. 100 Ferrules & packing. Assorted Bolts & nuts & round iron bar

The foregoing is a correct description,

Federal Shipbuilding Co., N.W. Smith, Ch. Eng. Manufacturer.

Dates of Survey while building { During progress of work in shops - - 1920 - June, 14, 25, July 13, Aug. 19, 21 Sept. 10, 11, 16 Oct. 1, 4, 5, 7, 9, 11, 13, 14, 15
During erection on board vessel 1920 - 23, 25, 27, 28, 29 Nov. 8, 11, 13, 15, 17, 18, 19, 22, 23, 24, 27, 28, 30 Dec. 3, 4, 6
Total No. of visits 112 - 0, 12, 13, 17, 18, 20, 21, 22, 23, 24, 27, 29, 30, 31, 1921 - Jan. 3, 4, 5, 6, 7, 8, 10, 11, 12, 13, 14, 15, 17, 18, 19, 20, 21, 22, 24, 25, 26
Is the approved plan of main boiler forwarded herewith 18, 19, 21, 23, 24, 26, 28, Dec. 1, 24, 7, 8, 9, 10, 11, 14, 15, 17.

Dates of Examination of principal parts—Cylinders 1-12-20 Slides 1-12-20 Covers 1-12-20 Pistons 1-12-20 Rods 1-12-20

Connecting rods 5-1-21 Crank shafts 23-11-20 Thrust shafts 25-1-21 Tunnel shafts 25-1-21 Screw shafts 22-1-21 Propellers 31-1-21

Stern tubes 21-1-21 Steam pipes tested 30-11-20 Engine and boiler seatings 13-1-21 Engines holding down bolts 17-2-21

Completion of pumping arrangements 9-3-21 Boilers fixed 29-12-20 Engines tried under steam 26-2-21

Completion of fitting sea connections 2-2-21 Stern tubes 25-1-21 Screw shafts and propellers 7-2-21

Main boiler safety valves adjusted 24-2-21 Thickness of adjusting washers 15/16 17/16 13/8 13/8 1 1/2 1 5/16

Material of Crank shafts S Identification Mark on D.S. 17-1-21 J.P. Material of Thrust shafts S Identification Mark on D.S. 17-1-21 J.P.

Material of Tunnel shafts S Identification Marks on D.S. 25-1-21 J.P. Material of Screw shafts S Identification Marks on D.S. 25-1-21 J.P.

Material of Steam Pipes O.H. Steel. Test pressure 630 lbs.

Is an installation fitted for burning oil fuel *Yes* Is the flash point of the oil to be used over 150°F. *Yes*

Have the requirements of Section 49 of the Rules been complied with *Yes*

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.)

The above engines & boilers have been constructed under Special

Survey in accordance with the approved plans. The material

& workmanship employed in their manufacture, so far as can

be seen, are sound & good. They have been fitted on board

the Vessel & proved satisfactory under steam trial.

They are eligible in my opinion to the notation in the

Register Book + L.M.C. Fitted for oil fuel. 3-21. Flash point

above 150°F.

It is submitted that

this vessel is eligible for

THE RECORD. + L.M.C. 3.21.FD.C.L.

Fitted for Oil Fuel 3.21. FP above 150°F.

REK 13/4/21

J. Flockhart.

Engineer Surveyor to Lloyd's Register of Shipping.

The amount of Entry Fee ... \$30 : 00 : When applied for,

Special ... \$544 : 00 : 17-3-1921

Donkey Boiler Fee ... \$10 : 00 : When received,

Travelling Expenses (if any) \$20 : 00 : 11/4/21

Committee's Minute New York MAR 22 1921

Assigned + L.M.C. 3.21

MACHINERY GEN'L WRITTEN 12/5/21 (revised 6/4/21)

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Lloyd's Register

Foundation