

REPORT ON OIL ENGINE MACHINERY.

No. 4702

MON. 3 DEC. 1923

Received at London Office
 Date of writing Report NOV. 8th 1923. When handed in at Local Office NOV. 8th 1923. Port of PHILADELPHIA, PA.

No. in Survey held at PHILADELPHIA, PA. Date, First Survey MAY 4th 1922 Last Survey NOV. 1st 1923
 Reg. Book. Number of Visits 123

832 on the Single { Screw vessels "SEEKONK"
 Triple { Tons { Gross 4999.
 Net 3114.

Master Built at HOG ISLAND, PA. By whom built AMER. INTERNAT. YARD No. When built 1919.
 S. B. CORP.

Engines made at PHILADELPHIA, PA. By whom made THE WM. CRAMP & SONS SKEB. CO. Engine No. 500 When made 1923

Donkey Boilers made at DO. By whom made DO. Boiler No. When made 1923.

Brake Horse Power 2550 Owners DO. Port belonging to PHILADELPHIA, PA.

Com. Horse Power as per Rule 488 ✓ Is Refrigerating Machinery fitted for cargo purposes NO. Is Electric Light fitted YES.

L ENGINES, &c.—Type of Engines VERTICAL DIESEL OIL ENGINES 2 or 4 stroke cycle 4 Single or double acting SINGLE

Maximum pressure in cylinders 500 lbs. No. of cylinders 6 No. of cranks 6 Diameter of cylinders 29 $\frac{1}{8}$ "

Length of stroke 59" Revolutions per minute 85 Means of ignition COMPRESSED AIR Kind of fuel used OIL FUEL

Is there a bearing between each crank YES Span of bearings (Page 92, Section 2, par. 7 of Rules) 39 $\frac{9}{16}$ "

Distance between centres of main bearings 57 $\frac{1}{8}$ " Is a flywheel fitted YES. Diameter of crank shaft journals as per Rule 18.502" as fitted 18.5"

Diameter of crank pins 18.5" Breadth of crank webs as per Rule 24.6" as fitted 34.5" Thickness of ditto as per Rule 10.36" as fitted 12 $\frac{3}{16}$ "

Diameter of flywheel shaft as per Rule 18.502" as fitted 18.5" Diameter of tunnel shaft as per Rule 12.87" as fitted 13 $\frac{1}{4}$ " Diameter of thrust shaft as per Rule 13.52" as fitted 14"

Diameter of screw shaft as per Rule 13.86" as fitted 14.5" 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 watertight in the propeller boss YES. If the liner is in more than one length are the joints burned —

Does 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. —

Are two liners are fitted, is the shaft lapped or protected between the liners — If without liners, is the shaft arranged to run in oil —

Type of outer gland fitted to stern tube NONE Length of stern bush 66" Diameter of propeller 16'-0" ✓

Pitch of propeller 13'-3" No. of blades 4 state whether moveable NO. Total surface EXPANDED 86.5 square feet

Method of reversing DIRECT Is a governor or other arrangement fitted to prevent racing of the engine when declutched YES. ✓ Thickness of cylinder liners 27 $\frac{1}{16}$ "

Are the cylinders fitted with safety valves YES. Means of lubrication FORCED LUBRICATION Are the exhaust pipes and silencers water cooled or lagged with

Non-conducting material BOTH If the exhaust is led overboard near the waterline, what means are arranged to prevent water from being syphoned back to the engine EXHAUST

ED UP FUNNEL No. of cooling water pumps TWO Is the sea suction provided with an efficient strainer which can be cleared

Within the vessel YES. No. of bilge pumps fitted to the main engines NONE Diameter of ditto — Stroke —

Can one be overhauled while the other is at work — No. of auxiliary pumps connected to the main bilge lines 2-SINGLE How driven MOTOR DRIVEN

Sizes of pumps 8" PLUNGERS 11" STROKES No. and sizes of suction connected to both main bilge pumps and auxiliary bilge pumps:—In engine room 8-3 $\frac{1}{2}$ " 1-4" 1-2 $\frac{1}{2}$ "

In holds, etc. 3-3 $\frac{1}{2}$ " AFT. 1-2" FROM RUDDER TRUNK No. of ballast pumps ONE How driven MOTOR DRIVEN Sizes of pumps ROTARY. 128 TONS PER HOUR.

Is the ballast pump fitted with a direct suction from the engine room bilges YES. ✓ State size 6" ✓ Is a separate auxiliary pump suction fitted in

Engine Room and 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 VALVES ✓ Are they fixed sufficiently high on the ship's side to be seen without lifting the floor 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 all pipes, cocks, valves and pumps in connection with the machinery 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. ✓

Is the bilge pumped from GRATING AT UPPER DECK LEVEL If a wood vessel, what means are provided to prevent leakage of either fuel oil or of lubricating oil from saturating the woodwork —

No. of main air compressors ONE No. of stages THREE Diameters 5 $\frac{29}{32}$ ", 26 $\frac{9}{16}$ ", 29 $\frac{1}{2}$ " Stroke 18 $\frac{1}{8}$ " Driven by MAIN ENGINES.

No. of auxiliary air compressors THREE No. of stages THREE Diameters 3 $\frac{1}{16}$ ", 11 $\frac{7}{32}$ ", 12 $\frac{1}{2}$ " Stroke 6 $\frac{1}{16}$ " Driven by AUX. MOTORS

No. of small auxiliary air compressors ONE No. of stages TWO Diameters 15 $\frac{1}{16}$ ", 4 $\frac{3}{16}$ " Stroke 3 $\frac{1}{8}$ " Driven by STEAM.

No. of scavenging air pumps NONE Diameter — Stroke — Driven by —

Diameter of auxiliary Diesel Engine crank shafts as per Rule 63 $\frac{3}{8}$ " as fitted Are the air compressors and their coolers made so as to be easy of access. YES. ✓

RECEIVERS:—No of high pressure air receivers TWO Internal diameters 18" Cubic capacity of each 30700 CUB. FT.

Material STEEL Seamless, lap welded or riveted longitudinal joint SEAMLESS Range of tensile strength 28-32 TONS.

Working pressure by Rules 1437, 1347, 7461 lbs. No. of starting air receivers TWO Internal diameter 6'-0"

Cubic capacity 1112 CUB. FT. Material STEEL Seamless, lap welded or riveted longitudinal joint D.B. STRAPS.

Range of tensile strength 28-32 TONS. thickness 1 $\frac{1}{16}$ " Working pressure by rules 371 lbs. Is each receiver, which can be isolated,

Is it fitted with a safety valve as per Rule YES. ✓ Can the internal surfaces of the receivers be examined YES. ✓ What means are provided for cleaning their

Internal surfaces MANHOLES Is there a drain arrangement fitted at the lowest part of each receiver. YES. ✓

IS A DONKEY BOILER FITTED? **YES.**

If so, is a report now forwarded? **YES**

HYDRAULIC TESTS:—

DESCRIPTION.	DATE OF TEST.	WORKING PRESSURE.	TEST PRESSURE.	STAMPED.	REMARKS.
ENGINE CYLINDERS	22.5.23	500 lbs.	711 lbs.	L.R.	
" " COVERS	11.6.23, 21.6.23	15 "	142 "	L.R.	
" " JACKETS	4.5.23	15 "	142 "	L.R.	
" PISTON WATER PASSAGES	20.1.23	15 "	142 "	L.R.	
MAIN COMPRESSORS—1st Stage JACKETS	20.1.23	15 "	142 "	L.R.	
" 2nd "	19.6.23	900 "	1350 "	L.R.	
" 3rd " AIR SPACE	5.6.23	355 "	583 "	L.R.	NO. 545 LLOYD'S TEST 583 lbs. W.P. 355 " J.M.B. 5.6.23
AIR RECEIVERS—STARTING	7.8.23	975 "	1950 "	L.R.	
" INJECTION	17.9.23	900 "	1350 "	L.R.	
AIR PIPES	24.9.23	1125 "	2250 "	L.R.	
FUEL PIPES from pumps to valves	24.9.23	1125 "	2250 "	L.R.	
FUEL PUMPS					
SILENCER		15 "	30 "	—	
" WATER JACKET	13.7.23	5 "	10 "	—	
SEPARATE FUEL TANKS					

PLANS. Are approved plans forwarded herewith for shafting (If not, state date of approval)

YES.

Receivers **YES.**

Separate Tanks —

SPARE GEAR ONE CYL: COVER COMPLETE WITH ALL VALVES, SEATS, SPRINGS ETC. ONE COMPLETE SET OF VALVES, SEATS, SPRINGS ETC. FOR ONE CYL: OF MAIN AND OF AUXIL: DIESEL ENGS: & FUEL NEEDLE VALVES FOR HALF THE NUMBER OF CYLS: OF EACH ENG: ONE PISTON COMPLETE WITH RINGS, STUDS & NUTS FOR MAIN ENG. ONE SET PISTON RINGS FOR MAIN & AUXIL. ENGINES. TWO CON: ROD TOP END BOLTS & NUTS. TWO BOT: END BOLTS & NUTS. TWO MAIN BEARING BOLTS & NUTS FOR MAIN & AUXIL. ENGINES. ONE SET COUP: BOLTS FOR CRANK SHAFT & ONE SET FOR INT: SHAFTS. COMPLETE SET PISTON RINGS FOR MAIN & AUX: COMPRESSORS. HALF SET VALVES FOR MAIN & AUX: COMPS: COMPLETE SET PARTS FOR FUEL PUMP FOR MAIN & AUX: ENGINES. SETS OF VALVES FOR FUEL SUPPLY PUMP WATER CIRCUL: GILGE LUBRICATING OIL PUMPS. ONE CYL. LINER. ASSORTED BOLTS & NUTS. LENGTHS OF PIPING OF VARIOUS SIZES. ETC. ETC. CON: ROD BUSHES

The foregoing is a correct description,
THE WM. CRAMP & SONS SHIP & ENGINE BUILDING CO.

Manufacturer.

Dates of Survey while building
During progress of work in shops — MAY 4, 12, 17, 24, 31, JUN. 6, 13, 20, 28, JULY 11, 12, 19, 24, AUG. 2, 3, 31, SEP. 1, 6, 9, 13, 19, 21, OCT. 4, 7, 10, 14, 21, 24, 28, 30, NOV. 1, 3, 8, 9, 13, 17, 20, 22, 24, 29, DEC. 5, 8, 13, 15, 19, 22, 27, 1923, JAN. 4, 6, 11, 15, 19, 20, 22, 25, 26, FEB. 2, 4, 5, 12, 20, 26, MAR. 5, 13, 16, 20, 22, 26, 29, APR. 5, 11, 23, 26, MAY 1, 4, 8, 10, 12, 15, 18, 20, 23, 24, 27, 28, 31, JUN. 4, 5, 11, 14, 18, 19, 20, 21, 25, 28, 30, JUL. 5, 12, 13, 17, 19, 21, 24, 25, 28, OCT. 1, 9, 16, 15, 30, NOV. 1.
During erection on board vessel — AUG. 29, 31, SEP. 7, 11, 17, 19, 24, 25, 28, OCT. 1, 9, 16, 15, 30, NOV. 1.
Total No. of visits 123.

Dates of Examination of principal parts—Cylinders 13.12.22 Covers 8.5.23 Pistons 4.5.23 Rods 19.12.22 Connecting rods 19.12.22
Crank shaft 4.10.22 Thrust shaft 20.2.23 Tunnel shafts 5.3.23 Screw shaft 8.5.23 Propeller 8.5.23 Stern tube 8.5.23 Engine seatings 4.6.23
Engines holding down bolts 24.9.23 Completion of pumping arrangements 16.10.23 Engines tried under working conditions 1.11.23
Completion of fitting sea connections 12.5.23 Stern tube 10.5.23 Screw shaft and propeller 12.5.23
Material of crank shaft O.H. STEEL Identification Mark on Do. 4104 JMB Material of thrust shaft O.H. STEEL Identification Mark on Do. 4238. JMB.
Material of tunnel shafts O.H. STEEL Identification Marks on Do. 4210-JMB 4211 JMB 4220 JMB 4221 JMB Material of screw shafts STEEL Identification Marks on Do. (OLD SHAFT)
Is the flash point of the oil to be used over 150° F. **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.)

ALL THE MACHINERY HAS BEEN BUILT UNDER SPECIAL SURVEY, THE MATERIALS AND WORKMANSHIP ARE OF GOOD DESCRIPTION, HYDRAULIC TESTS SATISFACTORY, ALL MACHINERY HAS BEEN FITTED ON BOARD IN A SATISFACTORY MANNER, TAIL SHAFT, STERN BUSH FASTENING AND SEA CONNECTIONS EXAMINED IN DRY DOCK, & STERN BUSH REWOODED, ALL PLACED IN GOOD CONDITION, ON COMPLETION, THE MACHINERY WAS TRIED UNDER FULL WORKING CONDITIONS ON TRIAL TRIP, AND WAS FOUND IN GOOD & SAFE WORKING CONDITION. SECTION 35 OF THE RULES HAS BEEN COMPLIED WITH. IN MY OPINION THE MACHINERY IS ELIGIBLE TO BE CLASSED, AND TO HAVE THE RECORD **LMC 11-23**, FITTED FOR OIL FUEL 5, 19, F.P. ABOVE 150° F.

The amount of Entry Fee \$ 25.00
Special ... \$ 491.00
Donkey Boiler Fee SEE APT. 5b.
Travelling Expenses (if any) \$ 25.00
When applied for, 16.11.23
When received, 21.12.23

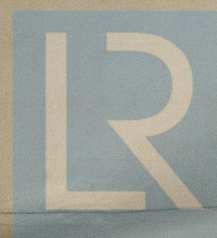
Committee's Minute

Assigned

New York NOV 20 1923

+ LMC - 11.23
+ NE - 23

Engineer Surveyor to Lloyd's Register of Shipping.



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