

REPORT ON STEAM RECIPROCATING ENGINE MACHINERY.

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Writing Report 30th Aug. 1948. When handed in at Local Office 31st Aug. 1948. Port of HALIFAX, N. S.
 Survey held at Halifax, N. S. Date, First Survey 2nd July. Last Survey 14th July, 1948.
 (Number of Visits 6)
 on the Steel Single Screw Steamer "SEA KING" Tons Gross 7210
Baltimore, Md. By whom built Bethlehem-Fairfield Shipyard, Inc. Yard No. -- When built 1944
 made at Hamilton, Ohio. By whom made General Machinery Corp. Engine No. 7829 When made 1944
 made at Edge Moor, Del. By whom made Edge Moor Iron Works, Inc. Boiler No. S 3548
P 3549 When made 1944
 red Horse Power -- Owners Scindia Steam Navigation Co., Ltd. Port belonging to Bombay.
 Horse Power as per Rule 667 M.N. Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted Yes
 for which Vessel is intended Ocean going freighter.

INES, &c.—Description of Engines Triple expansion reciprocating. Revs. per minute 76
 Cylinders 24 1/2 : 37 ins. 170 ins Length of Stroke 48 ins. No. of Cylinders 3 No. of Cranks 3
 shaft, dia. of journals as per Rule 14" Crank pin dia. 14 1/4 ins. Crank webs Mid. length breadth -- H.P. & I.P. 9 ins.
 as fitted 14 1/4" Mid. length thickness -- Thickness parallel to axis L.P. 9 1/2
 Intermediate Shafts, diameter as per Rule 13.33" Thrust shaft, diameter at collars as per Rule 14" (Journals) 7 1/8 ins.
 as fitted 13 1/2" as fitted 14 1/4"
 shafts, diameter as per Rule 14.87" Is the shaft fitted with a continuous liner Yes
 as fitted 15 1/4"
 Liners, thickness in way of bushes as per Rule 0.754 Thickness between bushes as per Rule 23/32" Is the after end of the liner made watertight in the
 as fitted 25/32 as fitted 23/32"
 If the liner is in more than one length are the junctions made by fusion through the whole thickness of the liner --
 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 liners are fitted, is the shaft lapped or protected between the liners -- Is an approved Oil Gland or other appliance fitted at the after end of the tube --
 No If so, state type -- Length of Bearing in Stern Bush next to and supporting propeller 61 ins.
 Pitch 16' 0" No. of Blades 4 Material Bronze whether Moveable No Total Developed Surface -- sq. ft.
 Pumps worked from the Main Engines, No. None Diameter -- Stroke -- Can one be overhauled while the other is at work --
 Pumps worked from the Main Engines, No. Two Diameter 4 1/2 ins. Stroke 24 ins. Can one be overhauled while the other is at work Yes
 {No. and size 2-12"x8"x24" (Vertical) Pumps connected to the {No. and size 2-10"x11"x12" Vert. Duplex (Two-MB attached)
 {How driven Steam (Simpler) Main Bilge Line {How driven Steam Cap 128 tons/hr. (pumps, as above)
 Pumps, No. and size 2-10"x11"x12" Vert. Duplex Lubricating Oil Pumps, including Spare Pump, No. and size None
 independent means arranged for circulating water through the Oil Cooler N/A Steam driven. Suctions, connected to both Main Bilge Pumps and Auxiliary
 Tank In Engine and Boiler Room 1-3" P. & S.; Tunnel ford. 1-3"; Tunnel well 1-2 1/2 ins.
 P. & S. 1-3"; In cofferdam In Holds, &c. All Holds 1-3" P. & S; Deep tanks in No. 1 Hold 1-4"
 tank; Deep tanks in No. 4 Hold 1-5" each tank.
 Water Circulating Pump Direct Bilge Suctions, No. and size 1-10" Independent Power Pump Direct Suctions to the Engine Room Bilges,
 size 2-5" (1 P & 1 S) Are all the Bilge Suction Pipes in holds and tunnel well fitted with strum-boxes Yes
 Bilge Suctions in the Machinery Space led from easily accessible mud-boxes, placed above the level of the working floor, with straight tail pipes to the bilges Yes
 Sea Connections fitted direct on the skin of the ship Yes (Except Main Injn. on trunk) Are they fitted with Valves or Cocks Valves
 fixed sufficiently high on the ship's side to be seen without lifting the stokehold plates Yes Are the Overboard Discharges above or below the deep water line below
 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 No
 pipes pass through the bunkers -- How are they protected --
 pipes pass through the deep tanks -- Have they been tested as per Rule --
 Pipes, Cocks, Valves, and Pumps in connection with the machinery and all boiler mountings accessible at all times Yes
 arrangement of Valves and their connections such as to prevent the possibility of water passing from the sea or from water tanks into the cargo or machinery spaces, or from one
 ment to another Yes Is the Shaft Tunnel watertight Yes Is it fitted with a watertight door Yes worked from Top E.R.
 (above level of Bhd.Dk.)

BOILERS, &c.— (Letter for record --) Total Heating Surface of Boilers 10,233 sq. ft.
 Boilers are fitted with Forced Draft Both Which Boilers are fitted with Superheaters Both
 Description of Boilers 2 - W.T. Cross-drum (B. & W. type) Working Pressure 250 lbs. per sq. in. (Superheater
230 lbs. per sq. in.)
 REPORT ON MAIN BOILERS NOW FORWARDED? Yes
 DONKEY BOILER FITTED? No If so, is a report now forwarded? --
 donkey boiler be used for domestic purposes only --
 Are approved plans forwarded herewith for Shafting -- Main Boilers -- Auxiliary Boilers -- Donkey Boilers --
 (If not state date of approval) (Type E C 2 - S-C1 vessel. No plans available)
 General Pumping Arrangements -- Oil fuel Burning Piping Arrangements --

SPARE GEAR.

Spare gear required by the Rules been supplied To complete the spare gear requirements the following items remain
 principal additional spare gear supplied to be supplied:- Spare propeller; spare impeller shaft for main cir-
 culating pump; spare main feed check valve lid.

The vessel is proceeding to New York from this Port, and it was stated by the Owner's Repre-
 sentative that arrangements have been made to place the above items on board the vessel on arrival at
 New York, together with a spare tailshaft).

The foregoing is a correct description

Manufacturer.



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S.S. "SEA KING"

Dates
of Survey
while
building

During progress of
work in shops

During erection on
board vessel

Special Survey for Classification:- 2nd, 5th, 6th, 8th, 9th & 14th July, 1948.

Total No. of visits 6

Dates of Examination of principal parts — Cylinders 5th & 6th July '48 Slides 8th July, '48 Covers 5th, 6th & 8th July, '48.

Pistons 5th & 6th July, '48. Piston Rods 5th & 6th July, '48. Connecting rods 6th & 8th July, '48.

Crank shaft 6th & 8th July, '48 Thrust shaft 6th July, '48 Intermediate shafts 6th July, '48

Tube shaft ---- Screw shaft 2nd July, '48 Propeller 2nd July, '48

Stern tube 2nd July, '48 Engine and boiler seatings 2nd, 5th & 6th July Engines holding down bolts 6th July, '48.

Completion of fitting sea connections examined 2nd July, '48.

Examined completion of pumping arrangements 8th & 9th July, '48 Boilers exd. 2nd, 5th, 6th & 9th July, '48 Engines tried under steam 14th July, '48.

Main boiler/safety-valves adjusted 14th July, '48 Thickness of adjusting washers (Lock Nuts)

Crank shaft material Forged steel Identification Mark (ABS test) Thrust shaft material Forged steel Identification Mark (ABS test).

Intermediate shafts, material Forged steel Identification Marks (ABS test) Tube shaft material ---- Identification Mark ----

Screw shaft, material Forged Steel Identification Mark Illegible Steam Pipes, material Steel Test pressure -- Date of Test --

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 the Rules for the use of oil as fuel been complied with Yes (F.P. above 150°F. in deep tanks)

Is the vessel (not being an oil tanker) fitted for carrying oil as cargo Yes If so, have the requirements of the Rules been complied with Yes

If the notation for Ice Strengthening is desired, state whether the requirements in this respect have been complied with Not desired

Is this machinery duplicate of a previous case Yes If so, state name of vessel (American Type E C 2 -S -Cl)

General Remarks (State quality of workmanship, opinions as to class, &c.) The Machinery of this vessel was built and in-

stalled in 1944 to the requirements of the American Bureau of Shipping and under survey of the

Surveyors to that Society.

The Machinery has been examined at this time in accordance with the requirements of the Rules for Periodical Special Survey, and all recommendations made have been satisfactorily carried out, (See Rpt. 9), and the principal scantlings have been checked.

The Machinery has been tested under working conditions, ahead and astern, and found satisfactory.

In result of the present examination, the Machinery of this vessel is considered in good and efficient condition, and eligible in my opinion to be classed with this Society, and to have record of L.M.C. 7,48 and Tailshaft Seen (C L) 7,48, together with the notations of Fitted for oil fuel F.P. above 150°F. and Carrying oil F.P. above 150°F. in deep tanks, subject as follows:-

Automatic feed water regulators to be fitted.

Ship's side blow down valve to be altered to comply with Rule requirements.

Spare propeller, spare impeller shaft for main circulating pump, and spare main feed check valve lid to be supplied.

The amount of Entry Fee ... \$ see Rpt. 9) When applied for,
Special ... \$: : 19
Donkey Boiler Fee ... \$: : When received,
Travelling Expenses (if any) \$: : 19

FRI. 29 OCT 1948

Committee's Minute

Assigned

Lmc 7.48

Subjed

Geo Reddie
Engineer Surveyor to Lloyd's Register of Shipping.



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