

REPORT ON STEAM RECIPROCATING ENGINE MACHINERY.

Received at London Office 24 APR 1947

Date of writing Report 18-4-1947. When handed in at Local Office 23 APR 1947. Port of HULL.

No. in Survey held at HULL. Date, First Survey 11.3.47. Last Survey 12-4-1947.
Reg. Book 66,543. On the STEAM TRAWLER "KINGSTON SAPPHIRE" (Number of Visits 15.)

Tons Gross 443. Net 161.

Built at SOUTH BANK MIDDLESBROUGH By whom built SMITHS DOCK CO. LD. Yard No. 987 When built 1935.

Engines made at MIDDLESBROUGH By whom made SMITHS DOCK CO. LD. Engine No. 425 When made 1935.

Boilers made at HAATLEPOOL By whom made RICHARDSON WESTGARHS. Boiler No. When made 1935.

Registered Horse Power 99 Owners KINGSTON STEAM TRAWLING CO. LD. Port belonging to HULL.

Nom. Horse Power as per Rule 132. Is Refrigerating Machinery fitted for cargo purposes No. Is Electric Light fitted YES.

Trade for which vessel is intended FISHING. MN = 172.

Engines, &c.—Description of Engines. TRIPLE EXPANSION. Revs. per minute 122.

Dia. of Cylinders 13½"-22½"-39" Length of Stroke 26" No. of Cylinders 3 No. of Cranks 3.

Crank shaft, dia. of journals as per Rule 7½" Crank pin dia. 8" Mid. length breadth Mid. length thickness Thickness parallel to axis 4 19/16" shrunk Thickness around eye-hole 3 1/2"

Intermediate Shafts, diameter as per Rule 7½" Thrust shaft, diameter at collars as per Rule 7½"

Tube Shafts, diameter as per Rule Screw Shaft, diameter as per Rule 8½" Is the screw shaft fitted with a continuous liner YES.

Bronze Liners, thickness in way of bushes as per Rule 9/16" Thickness between bushes as per Rule 9/16" 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 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 two 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 at No. If so, state type.

Length of Bearing in Stern Bush next to and supporting propeller 3'-6"

Propeller, dia. 9'-5ft. Pitch 9'-6ft. No. of Blades 4. Material BRONZE whether Moveable No. Total Developed Surface 32.5 sq. feet

Feed Pumps worked from the Main Engines, No. ONE Diameter 3" Stroke 13½" Can one be overhauled while the other is at work.

Bilge Pumps worked from the Main Engines, No. ONE Diameter 3" Stroke 13½" Can one be overhauled while the other is at work.

Feed Pumps No. and size ONE 6" x 3½" x 6" Pumps connected to the Main Bilge Line No. and size ONE 6" x 4" x 6" + STEAM EJECTOR 2½"

How driven STEAM. How driven STEAM or I.M.E. pump

Ballast Pumps, No. and size ONE Lubricating Oil Pumps, including Spare Pump, No. and size NONE.

Are two independent means arranged for circulating water through the Oil Cooler.

Suctions, connected both to Main Bilge Pumps and Auxiliary Bilge Pumps:—In Engine and Boiler Room 2 - 2½" DIA. + 1-2½" EJECTOR SUCTION.

In Pump Room In Holds, &c. 1-2" DIA FORE HOLD. 2-2½" DIA SLUSH WELLS.

Main Water Circulating Pump Direct Bilge Suctions, No. and size ONE - 4½" DIA. Independent Power Pump Direct Suctions to the Engine and/or Boiler Room Bilges, No. and size ONE 2½" DIA.

Are all the Bilge Suction Pipes in holds and tunnel well fitted with strum-boxes YES.

Are the 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.

Are all Sea Connections fitted direct on the skin of the ship YES. Are they fitted with Valves or Cocks YES.

Are they 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 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.

That Pipes pass through the bunkers STEAM TO, WINCH, STEERING + WINDLASS. How are they protected STEEL CASINGS.

That pipes pass through the deep tanks NONE. Have they been tested as per Rule.

Are all Pipes, Cocks, Valves, and Pumps in connection with the machinery and all boiler mountings accessible at all times YES.

Is the 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 compartment to another YES.

Is the Shaft Tunnel watertight NONE. Is it fitted with a watertight door worked from.

IN BOILERS, &c.—(Letter for record S.) Total Heating Surface of Boilers 2500 sq. ft. SUPERHEATER 1100 sq. ft.

Which Boilers are fitted with Forced Draft NONE. Which Boilers are fitted with Superheaters MAIN.

No. and Description of Boilers 1 - S.B. Working Pressure 225 lbs/sq. in.

IS A REPORT ON MAIN BOILERS NOW FORWARDED? YES.

IS A DONKEY BOILER FITTED? No. If so, is a report now forwarded?

Is the donkey boiler be used for other than domestic purposes.

PLANS. Are approved plans forwarded herewith for Shafting 3-3-47. Main Boilers 13-3-47. Auxiliary Boilers. Donkey Boilers.

(If not state date of approval)

Superheaters. General Pumping Arrangements 25-3-47. Oil fuel Burning Piping Arrangements.

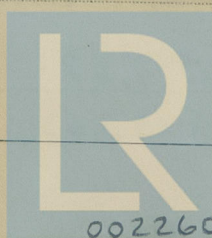
SPARE GEAR.

Is the spare gear required by the Rules been supplied YES.

Is the principal additional spare gear supplied.

The foregoing is a correct description.

Manufacturer.



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Dates
of Survey
while
building

During progress of
work in shops - -

NONE

During erection on
board vessel - - -

NONE

Total No. of visits

Dates of Examination of principal parts—Cylinders 24-3-47 Slides 24-3-47 Covers 24-3-47
Pistons 24-3-47 Piston Rods 24-3-47 Connecting rods 24-3-47
Crank shaft 24-3-47 Thrust shaft 28-3-47 Intermediate shafts 29-3-47
Tube shaft 29-3-47 Screw shaft 29-3-47 Propeller 29-3-47
Stern tube 29-3-47 Engine and boiler seatings 16-4-47 Engines holding down bolts 16-4-47
Completion of fitting sea connections 28-3-47
Completion of pumping arrangements 16-4-47 Boilers fixed 17-4-47
Main boiler safety valves adjusted 16-4-47 Thickness of adjusting washers P $1\frac{5}{32}$ S $3\frac{3}{8}$ 5" $3\frac{3}{32}$
Crank shaft material STEEL Identification Mark Thrust shaft material STEEL Identification Mark
Intermediate shafts, material STEEL Identification Marks Tube shaft, material Identification Mark
Screw shaft, material STEEL Identification Mark Steam Pipes, material STEEL Test pressure 675 lbs/sq in Date of Test 14-4-47
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 the Rules for the use of oil as fuel been complied with
Is the vessel (not being an oil tanker) fitted for carrying oil as cargo NO. If so, have the requirements of the Rules been complied with
If the notation for Ice Strengthening is desired, state whether the requirements in this respect have 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 boiler & machinery of this vessel were not built under the survey of Lloyd's Register of Shipping, but have been opened up & examination made of all parts. The boiler has been hydraulically tested, examined under test & under steam, main engine & auxiliary machinery examined under working condition & safety valves of boiler adjusted & all found satisfactory. The boiler is as shown on approved plan of 13-3-47. Report 5A attached hereto. The pumping arrangement is as shown on approved plan of 25-3-47 & to Rule Requirements except for the alteration to the Feed Water Tanks aft in tunnel space & aft peak. The aft peak is now a dry tank; the feed tanks have had the suction valves removed & are now used as one common Cold River Oil Tank. An Evaporator has been fitted for make up feed water. The scantlings of the main engine are in accordance with letter of 13-3-47. The materials & workmanship appear to be of good quality & the machinery of this vessel is in my opinion eligible for classification with record of "L.M.C. 4-47" & notation of T.S.C.L. examined 4-47. This vessel was formerly classed by the British Corporation.

SEE RPT 9 ATTACHED

The amount of Entry Fee	£	:	:	When applied for,
Special	£	:	:	19
Donkey Boiler Fee	£	:	:	When received,
Travelling Expenses (if any)	£	:	:	19

Date FRI, 6 JUN 1947

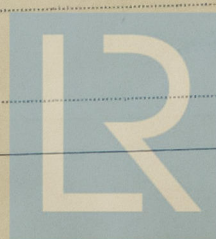
Committee's
Minute

LMC 4,47

S (C.L.) 3,4) 15B 225/11 Spt.

J. Dobbie

Engineer Surveyor to Lloyd's Register of Shipping



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