

REPORT ON OIL ENGINE MACHINERY.

No. 127211
18/6/53

Received at London Office

Date of writing Report 19. When handed in at Local Office 17/6/53 Port of Spewick
 No. in Survey held at Reg. Book. Wivenhoe Date, First Survey 30/4/52. Last Survey 27/3/53.19
 on the Single Screw vessel holm tank barge "Swallow C" Number of Visits 14
 Built at Wivenhoe By whom built Jas W. Cook & Co (Wivenhoe) Ltd Yard No. 1663 When built 1953
 Engines made at Slingsford By whom made Blackstone & Co Ltd Engine No. 4913 When made 10/51
 Donkey Boilers made at - By whom made - Boiler No. - When made -
 Brake Horse Power 180 Owners Jas W. Cook & Co Ltd. Port belonging to -
 Nom. Horse Power as per Rule M.N. 32. Is Refrigerating Machinery fitted for cargo purposes no Is Electric Light fitted Yes
 Trade for which vessel is intended carrying petroleum in bulk. Canal & estuary service (Aire & Calder).

Tons { Gross 71.68
Net 44.69

OIL ENGINES, &c.—Type of Engines EVNCR4. Heavy oil 2 or 4 stroke cycle 4 Single or double acting Single
 Maximum pressure in cylinders ✓ Diameter of cylinders - Length of stroke - No. of cylinders - No. of cranks -
 Span of bearings, adjacent to the Crank, measured from inner edge to inner edge - Is there a bearing between each crank -
 Revolutions per minute 600 Flywheel dia. - Weight - Means of ignition Compression Kind of fuel used Diesel
 Crank Shaft, dia. of journals as per Rule Crank pin dia. ✓ Crank Webs Mid. length breadth Thickness parallel to axis -
as fitted ✓ Mid. length thickness shrunk Thickness around eye-hole -
 Flywheel Shaft, diameter as per Rule Intermediate Shafts, diameter as per Rule Thrust Shaft, diameter at collars as per Rule
as fitted as fitted as fitted
 Tube Shaft, diameter as per Rule Screw Shaft, diameter as per Rule Is the tube screw shaft fitted with a continuous liner no
as fitted as fitted 4 1/2" ✓ Is the shaft fitted with a continuous liner no
 Bronze Liners, thickness in way of bushes as per Rule Thickness between bushes as per rule Is the after end of the liner made watertight in the
as fitted as fitted ✓ as fitted propeller boss ✓ 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 shaft Yes. If so, state type Kewell Rubber Compression Type Length of Bearing in Stern Bush next to and supporting propeller 18 7/8"
 Propeller, dia. 54" Pitch 3 1/2" No. of blades 4 Material Bronze whether Moveable no Total Developed Surface 1240 sq. inches
 Method of reversing Engines S.L.M. GEAR Is a governor or other arrangement fitted to prevent racing of the engine when declutched Yes. Means of lubrication grease
 Thickness of cylinder liners ✓ Are the cylinders fitted with safety valves Yes Are the exhaust pipes and silencers water cooled or lagged with non-conducting material lagged If the exhaust is led overboard near the waterline, what means are arranged to prevent water from being syphoned back to the engine ✓

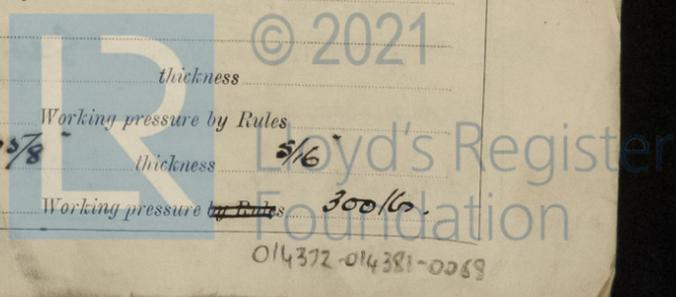
Cooling Water Pumps, No. Two Is the sea suction provided with an efficient strainer which can be cleared within the vessel Yes
 Bilge Pumps worked from the Main Engines, No. 0 Diameter - Stroke - Can one be overhauled while the other is at work -
 Pumps connected to the Main Bilge Line { No. and Size One 2" dia suction "mono" pump 15 lins/hour
 How driven Chain driven thro' clutch by Aux Gen. engine
 Ballast Pumps, No. and size Carso pump 35 lins/hour Lubricating Oil Pumps, including Spare Pump, No. and size 1 Supply 810 GPH. 1 Reserve 1160 GPH
 Are two independent means arranged for circulating water through the Oil Cooler Yes Suctions, connected to both Main Bilge Pumps and Auxiliary Bilge Pumps, No. and size:—In Machinery Spaces 2" bilge suction connected to Aux B.P. Pumps & main engine circulating pumps. also Hand pump.
 In Holds, &c. Carso tanks each of the 4" suction connected to Carso pump only. Hand pump to Coopermans & Peck Spaces.

Independent Power Pump Direct Suctions to the Engine Room Bilges, No. and size none
 Are all the Bilge Suction pipes in Holds and Tunnel Well fitted with strum-boxes Yes Are the Bilge Suctions in the Machinery Spaces 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 Both
 Are they fixed sufficiently high on the ship's side to be seen without lifting the platform 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 -

What pipes pass through the bunkers none How are they protected ✓
 What 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

If a wood vessel, what means are provided to prevent leakage of either fuel oil or of lubricating oil from saturating the woodwork ✓
 Main Air Compressors, No. One No. of stages one Diameters 1 3/8" Stroke 2" Driven by main engine
 Auxiliary Air Compressors, No. One No. of stages one Diameters 3/4" Stroke 3/4" Driven by Aux engine
 Small Auxiliary Air Compressors, No. - No. of stages - Diameters - Stroke - Driven by -
 Scavenging Air Pumps, No. - Diameter - Stroke - Driven by -

Auxiliary Engines crank shafts, diameter as per Rule See Bristol Locomotive Co. S.C. 2538
as fitted
IR RECEIVERS:—Is each receiver, which can be isolated, 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 inner surfaces Hand hole door
 Is there a drain arrangement fitted at the lowest part of each receiver Yes
High Pressure Air Receivers, No. 3 Cubic capacity of each 15 cu ft. Internal diameter 17 3/8" thickness 5/16"
 Seamless, lap welded or riveted longitudinal joint Welder Material Steel Range of tensile strength See Sheffield Certificate C. 11219. 11249 & 11255. Working pressure by Rules 300/lb.
Starting Air Receivers, No. 3 Total cubic capacity 15 cu ft. Internal diameter 17 3/8" thickness 5/16" Working pressure 300/lb.
 Seamless, lap welded or riveted longitudinal joint Welder Material Steel Range of tensile strength See Sheffield Certificate C. 11219. 11249 & 11255.



IS A DONKEY BOILER FITTED?

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If so, is a report now forwarded?

PLANS. Are approved plans forwarded herewith for Shafting *20/12/51* Receivers Separate Tanks
(If not, state date of approval)
 Donkey Boilers General Pumping Arrangements *22/5/52* Oil Fuel Burning Arrangements

SPARE GEAR *To rule requirements.*

The foregoing is a correct description,

For and on behalf of
 JAMES W. COOK & Co. (Wivenhoe) LTD.

Manufacturer.

Dates of Survey while building
 During progress of work in shops -- *2/10/51, 9/10/51, 20/12/50.*
 During erection on board vessel -- *30/4/52, 6/5/52, 9/5/52, 26/5/52, 7/7/52, 22/10/52, 18/11/52, 17/12/52, 5/1/53, 29/1/53, 16/2/53.*
 Total No. of visits *X. 17*

Dates of Examination of principal parts—Cylinders Covers Pistons Rods Connecting rods
 Crank shaft Flywheel shaft Thrust shaft Intermediate shafts Tube shaft
 Screw shaft *5/5/52* Propeller *5/5/52* Stern tube *5/5/52* Engine seatings *30/4/52* Engines holding down bolts *30/6/52*
 Completion of filling sea connections *6/5/52* Completion of pumping arrangements *4/2/53* Engines tried under working conditions *4/2/53*
 Crank shaft, Material Identification Mark Flywheel shaft, Material Identification Mark
 Thrust shaft, Material Identification Mark Intermediate shafts, Material Identification Marks
 Tube shaft, Material Identification Mark Screw shaft, Material *Steel* Identification Mark *6.17.17229 WH 22/5/52 23*

Is the flash point of the oil to be used over 150° F. *Yes.*
 Have the requirements of the Rules for oil fuel pipes and tank fittings been complied with *Yes.*
 Is the vessel (not being an oil tanker) fitted for carrying oil as cargo If so, have the requirements of the Rules been complied with *Yes*
 Is this machinery duplicate of a previous case *Yes.* If so, state name of vessel *Kestrel C & Kingfisher C*

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

The machinery of this ship has been built under Survey in accordance with plans approved and the requirements of the Rules & satisfactorily installed on board. except as stated below. materials used are sound & of good description and material tests have been carried out in accordance with Rule requirements. the workmanship is good and satisfactory trials of main & aux machinery have been carried out with the following exception.

On trials the auxiliary compressor set did not circulate satisfactorily, and the Steamwhip Compressor No. 89150 supplied with the Aux Pumping & Comp Set by Kest Marine Sales was found to be not a Lloyds Turbo Compressor. The vessel has now been towed to Hull, where it is the Owners intention to obtain a h.r. Compressor and modify the circulating system to the Aux Set.

This machinery installation is in my opinion eligible for the notation +LMC when satisfactorily completed. See copy of Ltr attached.

Longitudinal vibration characteristics have been approved for an engine speed of 600 RPM with propeller speed of 300 RPM, and no sea hammer was observed on trials.

The amount of Entry Fee ... £ *20-0-0* When applied for,
 Special ... £ : : 19
 Donkey Boiler Fee ... £ : : When received,
 Travelling Expenses (if any) £ *See Hull* 19

L. Roberts
 Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute

FRIDAY 17 JUL 1953

Assigned + LMC 3.53 Oil Eng Subject

OG.

Engines 160 B.H.P. 4 cylinder on Swallow C. 120 B.H.P. 3 cylinder on previous.

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



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