

Rpt. 4b.

REPORT ON OIL ENGINE MACHINERY.

No. 127211

18/6/53

Date of writing Report 19. When handed in at Local Office 17/6/53 Port of *Spewick* Received at London Office

No. in Survey held at Reg. Book. *Wivenhoe* Date, First Survey 30/4/52. Last Survey 27/3/53. Number of Visits 14.

on the *Single* *Wivenhoe* Screw vessel *Wolfebank Bay "Swallow C"* Tons Gross 71.68 Net 44.69.

Built at *Wivenhoe* By whom built *Jas W. Cook & Co (Wivenhoe) Ltd* Yard No. 1063 When built 1953.

Engines made at *Stamford* 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 *ho*

Nom. Horse Power as per Rule *14.32*. Is Refrigerating Machinery fitted for cargo purposes *ho* Is Electric Light fitted *Yes*

Trade for which vessel is intended *Carrying petroleum in bulk. Canal & estuary service (Aire & Calder).*

OIL ENGINES, &c.—Type of Engines *EVHGR4. 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 *✓*

Flywheel Shaft, diameter *as per Rule* *✓* Intermediate Shafts, diameter *as per Rule* *✓* Thrust Shaft, diameter at collars *as per Rule* *✓*

Tube Shaft, diameter *as per Rule* *✓* Screw Shaft, diameter *as per Rule* *✓* Is the tube screw shaft fitted with a continuous liner *ho. ✓*

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 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**

Propeller, dia. *54"* Pitch *34 1/2* No. of blades *4* Material *Brass* whether Moveable *ho.* 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 *Lubex*

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 pumps to hold tanks & Peak 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 1/8* 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 Report No. S.C. 2538.*

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. *-* Cubic capacity of each *-* Internal diameter *-* thickness *-*

Seamless, lap welded or riveted longitudinal joint *-* Material *-* Range of tensile strength *-* Working pressure by Rules *-*

Starting Air Receivers, No. *3.* Total cubic capacity *15 cu ft.* Internal diameter *17 3/8* thickness *5/16*

Seamless, lap welded or riveted longitudinal joint *-* Material *Steel* Range of tensile strength *-* Working pressure by Rules *300/60.*

See Ship's Certificate C. 11219. 11249 & 11255.

2.7.53

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014372-014381-0059

IS A DONKEY BOILER FITTED?

ho.

If so, is a report now forwarded?

PLANS. Are approved plans forwarded herewith for Shafting *20/12/51* Receivers

(If not, state date of approval)

Separate Tanks

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 20/12/51*
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 fitting sea connections *6/2/52* 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 *6.17.11229 WH*

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 steamworking compressor No. 89/50 supplied with the Aux Pumping & Comp Set by Kestel Marine Sales was found to be not a Lloyds Trialer Compressor. The vessel has now been towed to Hull, where it is the Owners intention to obtain & fit an L.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 L.R. attached.

Seismic / 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 ... £ : :
Travelling Expenses (if any) £ *See Hull* When received, 19

Committee's Minute

Assigned + LMC 3.53 Oil Eng. Subject

OG.

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



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