

REPORT ON STEAM RECIPROCATING ENGINE MACHINERY.

Received at London Office

18 OCT 1933

Date of writing Report 19 *17 OCT 1933* When handed in at Local Office *Hull* Port of *Hull*

No. in Survey held at *Hull* Date, First Survey *30. 6. 32* Last Survey *5. 10. 1933*

Reg. Book. *17720* on the *Steam Trawler "ARAB"* (Number of Vests *20*) Gross Tons *421.9* Net Tons *161.74*

Built at *Beverly* By whom built *Cook, Nelson & Furness Ltd* Yard No. *578* When built *1933*

Engines made at *Hull* By whom made *Charles Holmes & Co Ltd* Engine No. *1441* When made *1933*

Boilers made at *Hull* By whom made *do* Boiler No. *1441* When made *1933*

Registered Horse Power *111* Owners *Hellyer Bros Ltd* Port belonging to *Hull*

Horse Power as per Rule *111* Is Refrigerating Machinery fitted for cargo purposes *No* Is Electric Light fitted *Yes*

Use for which Vessel is intended *Fishing*

DETAILS OF ENGINES, &c.—Description of Engines *Triple Expansion* Revs. per minute *3*

No. of Cylinders *3* Length of Stroke *24* No. of Cranks *3*

Crank shaft, dia. of journals *4.67* as per Rule *4.67* as fitted *4.67* Crank pin dia. *4.67* Crank webs Mid. length breadth *4.67* Mid. length thickness *5* Thickness parallel to axis *5* Thickness around eye-hole *3.5*

Intermediate Shafts, diameter as per Rule *4.3* as fitted *4.3* Thrust shaft, diameter at collars as per Rule *4.67* as fitted *4.67*

Propeller Shafts, diameter as per Rule *4.3* as fitted *4.3* Screw Shaft, diameter as per Rule *4.3* as fitted *4.3* Is the tube shaft fitted with a continuous liner *Yes*

Liner Liners, thickness in way of bushes as per Rule *9/16* as fitted *9/16* Thickness between bushes as per Rule *9/16* as fitted *9/16* Is the after end of the liner made watertight in the stern tube *Yes*

If the liner is in more than one length are the junctions made by fusion through the whole thickness of the liner *Yes*

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 *Yes*

Are the liners are fitted, is the shaft lapped or protected between the liners *Yes* Is an approved Oil Gland or other appliance fitted at the after end of the tube *Yes*

If so, state type *Oil Gland* Length of Bearing in Stern Bush next to and supporting propeller *36*

Propeller, dia. *10'-3"* Pitch *10'-10 1/2"* No. of Blades *4* Material *Cast Iron* whether Movable *No* Total Developed Surface *38* sq. feet

Main Pumps worked from the Main Engines, No. *One* Diameter *3"* Stroke *15"* Can one be overhauled while the other is at work *Yes*

Auxiliary Pumps worked from the Main Engines, No. *One* Diameter *3"* Stroke *15"* Can one be overhauled while the other is at work *Yes*

Water Pumps, No. and size *One 6" x 3 1/2" x 6"* Pumps connected to the Main Bilge Line { No. and size *One 7" x 5" x 6"* How driven *Steam*

Oil Pumps, No. and size *One 7" x 5" x 6"* Lubricating Oil Pumps, including Spare Pump, No. and size *One 7" x 5" x 6"*

Are there any independent means arranged for circulating water through the Oil Cooler *Yes* Suctions, connected to both Main Bilge Pumps and Auxiliary Pumps;—In Engine and Boiler Room *2 @ 2"* In Holds, &c. *5 @ 2" in holds 1 @ 2" aft peak*

Water Circulating Pump Direct Bilge Suctions, No. and size *One 3 1/4"* Independent Power Pump Direct Suctions to the Engine Room Bilges, No. and size *One 3"* Ejector *Yes* 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 *Both*

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*

Do the Pipes pass through the bunkers *Forward suction* How are they protected *Wood casing*

Do the pipes pass through the deep tanks *Yes* Have they been tested as per Rule *Yes*

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 *Yes* Is it fitted with a watertight door *Yes* worked from *Yes*

MAIN BOILERS, &c.—(Letter for record *S.*) Total Heating Surface of Boilers *1940* Sq. feet

Is a forced Draft fitted *No* No. and Description of Boilers *1 Single ended* Working Pressure *210* lbs.

IS A REPORT ON MAIN BOILERS NOW FORWARDED? *Yes*

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

Is a donkey boiler intended to be used for domestic purposes only *No*

APPROVALS. Are approved plans forwarded herewith for Shafting *Yes* Main Boilers *Yes* Auxiliary Boilers *Yes* Donkey Boilers *Yes*

(If not state date of approval)

Heaters *Yes* General Pumping Arrangements *Yes* Oil fuel Burning Piping Arrangements *Yes*

SPARE GEAR.

Is the spare gear required by the Rules been supplied *Yes*

What is the principal additional spare gear supplied *Safety valve spring, Main & donkey check valves, Feed pump ram, Impeller shaft for centrifugal pump*

The foregoing is a correct description,
FOR CHARLES D. HOLMES & CO., LTD,
J. D. Cooper

Manufacturer.

RETAIN



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W414-0047

1933.
 During progress of work in shops - - June 30, July 17, Aug. 14, 15, 10, 15, 21, 22, 29, Sep. 4, 5, 12, 15, 20, 27, 28, 29 Oct. 4, 5
 Dates of Survey while building - - -
 During erection on board vessel - - -
 Total No. of visits 20

Dates of Examination of principal parts—Cylinders 29.8.33 Slides 12.9.33 Covers 29.8.33
 Pistons 12.9.33 Piston Rods 4.9.33 Connecting rods 4.9.33
 Crank shaft 4.9.33 Thrust shaft 15.8.33 Intermediate shafts 29.8.33
 Tube shaft ✓ Screw shaft 21.8.33 Propeller 21.8.33
 Stern tube 21.8.33 Engine and boiler seatings 27.9.33 Engines holding down bolts 27.9.33
 Completion of fitting sea connections 5.9.33
 Completion of pumping arrangements 4.10.33 Boilers fixed 27.9.33 Engines tried under steam 4.10.33
 Main boiler safety valves adjusted 4.10.33 Thickness of adjusting washers 3/8" or 3/8"
 Crank shaft material Steel Identification Mark Lloyd's 826 Thrust shaft material Steel Identification Mark Lloyd's 826
 Intermediate shafts, material Steel Identification Marks Lloyd's 826 Tube shaft, material Steel Identification Mark
 Screw shaft, material Steel Identification Mark Lloyd's 826 Steam Pipes, material S. 5. Slipped Test pressure 420 lbs. Date of Test 28.9.33.
 Is an installation fitted for burning oil fuel ✓ 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 ✓ 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 machinery of this vessel has been built under special survey & the materials and workmanship are sound & good. It has been satisfactorily fitted on board, tried under steam & found good. It is eligible in my opinion to have marks of + Blue. 10.33 C.L.

Various handwritten notes and signatures scattered across the page, including "John Mackay" and "11-10-33".

The amount of Entry Fee ... £ 3 : : : When applied for,
 Special ... £ 27 : 15 : : 11.10.19 33
 Donkey Boiler Fee ... £ : : : When received,
 Travelling Expenses (if any) £ : : : 1-11-33

John Mackay
 Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute TUE, 24 OCT 1938
 Assigned + Lincs 10.33
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