

REPORT ON STEAM RECIPROCATING ENGINE MACHINERY.

Received at London Office 13 SEP 1930

Date of writing Report 19 When handed in at Local Office 12. 9. 1930 Port of **HULL**

No. in Survey held at **HULL** Date, First Survey **May 10th** Last Survey **Sept. 5th** 1930
 Reg. Book. on the **STEAM TRAWLER "ARKWRIGHT"** (Number of Visits 18) Tons } Gross 369.48
 Net 148.90

Built at **Beverley** By whom built **Book, Welton & Gemmell Ltd.** Yard No. **549** When built **1930**

Engines made at **Hull** By whom made **Charles D. Holmes & Co. Ltd.** Engine No. **1404** When made **1930**

Boilers made at **Hull** By whom made **Charles D. Holmes & Co. Ltd.** Boiler No. **1404** When made **1930**

Registered Horse Power **96** Owners **J & T. Ross Ltd.** Port belonging to **Hull**

Nom. Horse Power as per Rule **96** Is Refrigerating Machinery fitted for cargo purposes Is Electric Light fitted **Yes**

Trade for which Vessel is intended **Fishing**

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

Dia. of Cylinders **13" . 23" . 37"** Length of Stroke **26** No. of Cylinders **3** No. of Cranks **3**

Crank shaft, dia. of journals as per Rule **4.7"** as fitted **4.7"** Crank pin dia. **4.7"** Crank webs Mid. length breadth **4.4"** Thickness parallel to axis **4.7/8"**
 as fitted **4.7"** Mid. length thickness **4.7/8"** shrunk Thickness around eye-hole **3.7/8"**

Intermediate Shafts, diameter as per Rule **none** as fitted **none** Thrust shaft, diameter at collars as per Rule **7.2"** as fitted **7.2"**

Tube Shafts, diameter as per Rule **4.7"** as fitted **4.7"** Screw Shaft, diameter as per Rule **8.7"** as fitted **8.7"** Is the **tube** shaft fitted with a continuous liner **Yes**

Bronze Liners, thickness in way of bushes as per Rule **1/16"** as fitted **1/16"** Thickness between bushes as per Rule **3/8"** as fitted **3/8"** 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 shaft If so, state type Length of Bearing in Stern Bush next to and supporting propeller **36"**

Propeller, dia. **10'-0"** Pitch **10'-6"** No. of Blades **4** Material **C.I.** whether Movable **no** Total Developed Surface **37.5'** sq. feet

Feed Pumps worked from the Main Engines, No. **One** Diameter **2 5/8"** Stroke **14 3/4"** Can one be overhauled while the other is at work

Bilge Pumps worked from the Main Engines, No. **One** Diameter **2 5/8"** Stroke **14 3/4"** Can one be overhauled while the other is at work

Feed Pumps { No. and size **6" x 3 1/2" x 6"** Pumps connected to the { No. and size **6" x 4 1/4" x 6" & 3" ejector**
 How driven **Steam** Main Bilge Line How driven **Steam**

Ballast Pumps, No. and size **One 3 1/2"** Lubricating Oil Pumps, including Spare Pump, No. and size **One 3 1/2"**

Are two independent means arranged for circulating water through the Oil Cooler Suctions, connected to both Main Bilge Pumps and Auxiliary Bilge Pumps;—In Engine and Boiler Room **2 @ 2"** In Pump Room **5 @ 2"**

Main Water Circulating Pump Direct Bilge Suctions, No. and size **One 3 1/2"** Independent Power Pump Direct Suctions to the Engine Room Bilges, No. and size **One 3" ejector** 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 & strum**

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**

What Pipes pass through the bunkers **Forward Suctions** How are they protected **Wood casing**

What pipes pass through the deep tanks 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 Is it fitted with a watertight door worked from

MAIN BOILERS, &c.—(Letter for record **S**) Total Heating Surface of Boilers **1698 Square feet**

Is Forced Draft fitted **no** No. and Description of Boilers **One Single Ended Working Pressure 200#**

IS A REPORT ON MAIN BOILERS NOW FORWARDED? **Yes** **15B**

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

Is the donkey boiler intended to be used for domestic purposes only

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

(If not state date of approval)

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

SPARE GEAR.

Has the spare gear required by the Rules been supplied

State the principal additional spare gear supplied

Two bolts & nuts for top ends, bottom ends & main bearings.
Set of coupling bolts & nuts. Spare valves for air, feed, bilge & donkey pumps.
Safety valve spring. Main & donkey check valves & seats
Circulating pump impeller & spindle.
Feed pump ram. Bolts & iron of various sizes.

The foregoing is a correct description,
 For CHARLES D. HOLMES & CO., LTD.

J. Ross

Manufacturer.



09116

During progress of work in shops -- 1930. May 10. 12. 16. Jun. 2. 5. 12. 19. 23. July. 1. 5. 14. 29. Aug. 6. 4. 13. 18
 Sept. 2. 3. 5.

Dates of Survey while building During erection on board vessel --

Total No. of visits 19

Dates of Examination of principal parts—Cylinders 12-6-30 Slides 14-5-30 Covers 12-6-30
 Pistons 12-6-30 Piston Rods 14-5-30 Connecting rods 12-6-30
 Crank shaft 1-7-30 Thrust shaft 10-5-30 Intermediate shafts ✓
 Tube shaft ✓ Screw shaft 16-5-30 Propeller 16-5-30
 Stern tube 16-5-30 Engine and boiler seatings 2-9-30 Engines holding down bolts 2-9-30
 Completion of fitting sea connections 29-4-30
 Completion of pumping arrangements 5-9-30 Boilers fixed 2-9-30 Engines tried under steam 5-9-30
 Main boiler safety valves adjusted 5-9-30 Thickness of adjusting washers F 5/16" A 1/32"
 Crank shaft material Steel Identification Mark *Lloyds No* Thrust shaft material Steel Identification Mark *Lloyds No*
 Intermediate shafts, material ✓ Identification Marks ✓ Tube shaft, material ✓ Identification Mark ✓
 Screw shaft, material Steel Identification Mark *Lloyds No* Steam Pipes, material *SD Copper* Test pressure 400# □ Date of Test 3-9-30
 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 *Yes* If so, state name of vessel "Welsback"

General Remarks (State quality of workmanship, opinions as to class, &c. The machinery of this vessel has been built under special survey and the materials and workmanship are sound and good. It has been satisfactorily fitted on board, tried under steam and found in good order. It is eligible, in my opinion, to have the record of L.M.C. 9.30 C.L.

It is submitted that this vessel is eligible for THE RECORD. + L.M.C. 9.30. C-L.

J. 13/9/30

The amount of Entry Fee ... £ 2 : 0 :
 Special ... £ 24 : 0 :
 Donkey Boiler Fee ... £ : :
 Travelling Expenses (if any) £ : :
 When applied for, 12. 19. 30
 When received, 2/10/30

b. Moffatt
 Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute FRI. 19 SEP 1930
 Assigned + L.M.C. 9.30 C.L.

CERTIFICATE WRITTEN

