

REPORT ON STEAM RECIPROCATING ENGINE MACHINERY.

26 NOV 1934

Received at London Office

27 NOV 1934

Date of writing Report 10 When handed in at Local Office 10 Port of **HULL**

No. in Survey held at **Hull** Date, First Survey **24 August 1934** Last Survey **22nd Nov. 1934**
 Reg. Book. on the **Steel S.S.K. "Pentland Firth"** (Number of Vests **24**) Tons } Gross **484.92**
 Net **189.08**

Built at **Beverley** By whom built **Hook, Welton & Gemmell Ltd** Yard No. **577** When built **1934-11**

Engines made at **Hull** By whom made **Charles D. Holmes & Co. Ltd** Engine No. **1467** When made **1934**

Boilers made at **Hull** By whom made **Charles D. Holmes & Co. Ltd** Boiler No. **1467** When made **1934**

Registered Horse Power Owners **Firth Steam Trawling Co. Ltd.** Port belonging to **Hull**

Nom. Horse Power as per Rule **154** Is Refrigerating Machinery fitted for cargo purposes **no.** Is Electric Light fitted **Yes.**

Trade for which Vessel is intended **Fishing P.P.**

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

Dia. of Cylinders **14 3/4", 25", 41"** Length of Stroke **27"** No. of Cylinders **3** No. of Cranks **3**

Crank shaft, dia. of journals as per Rule **8.15"** Crank pin dia. **8.375"** Crank webs Mid. length breadth **15 5/8"** Thickness parallel to axis **5 3/8"**
 as fitted **8.375"** Mid. length thickness **5 1/8"** shrunk Thickness around eye-hole **3 5/8"**

Intermediate Shafts, diameter as per Rule **7.76"** Thrust shaft, diameter at collars as per Rule **8.15"**
 as fitted **7.875"** as fitted **8.375"**

Tube Shafts, diameter as per Rule **8.646"** Is the screw shaft fitted with a continuous liner **Yes**
 as fitted **8.875"**

Bronze Liners, thickness in way of bushes as per Rule **18/32"** Thickness between bushes as per Rule **13-5/32"** Is the after end of the liner made watertight in the propeller boss **Yes**
 as fitted **19/32"** as fitted **15/32"**

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 **no** If so, state type **✓** Length of Bearing in Stern Bush next to and supporting propeller **40"**

Propeller, dia. **10' 7 1/2"** Pitch **10' 10"** No. of Blades **4** Material **C.I.** whether Moveable **no** Total Developed Surface **41.5** sq. feet

Feed Pumps worked from the Main Engines, No. **2** Diameter **2 3/4"** Stroke **15"** Can one be overhauled while the other is at work **Yes**

Bilge Pumps worked from the Main Engines, No. **2** Diameter **2 3/4"** Stroke **15"** Can one be overhauled while the other is at work **Yes**

Feed Pumps } No. and size **2 @ 7x5x6 duplex** Pumps connected to the } No. and size **1 @ 7x5x6 duplex + ejector 3" bore.**
 How driven **Steam** Main Bilge Line } How driven **Steam.**

Ballast Pumps, No. and size **✓** Lubricating Oil Pumps, including Spare Pump, No. and size **✓**

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" dia**

In Pump Room **✓** In Holds, &c. **5 @ 2"**

Main Water Circulating Pump Direct Bilge Suctions, No. and size **1 @ 4 3/4" dia** Independent Power Pump Direct Suctions to the Engine Room Bilges, No. and size **Ejector 3" 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 **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 casings.**

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 **✓** 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 **2402**

Is Forced Draft fitted **Yes** No. and Description of Boilers **One Single Ended.** Working Pressure **215 lb/sq"**

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 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 **Yes.** General Pumping Arrangements **✓** Oil fuel Burning Piping Arrangements **✓**

SPARE GEAR.

Has the spare gear required by the Rules been supplied **Yes.**

State the principal additional spare gear supplied **Air feed, bilge and duplex pump valves, main + donkey check valves, centrifugal pump impeller shaft, feed pump plunger**

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

Manufacturer.



© 2021 Lloyd's Register Foundation

W1353-0169

NOTE.—The words which do not apply should be deleted.

89224

During progress of work in shops - - 1934
 Dates of Survey while building - - - - -
 During erection on board vessel - - - - -
 Total No. of visits 24

Dates of Examination of principal parts—Cylinders 30-10-34 Slides 30-10-34 Covers 30-10-34
 Pistons 30-10-34 Piston Rods 30-10-34 Connecting rods 30-10-34
 Crank shaft 3-10-34 Thrust shaft 4-10-34 Intermediate shafts 4-10-34
 Tube shaft ✓ Screw shaft 19-9-34 Propeller 26-9-34
 Stern tube 26-9-34 Engine and boiler seatings 7-11-34 Engines holding down bolts 8-11-34

Completion of fitting sea connections 26-9-34
 Completion of pumping arrangements 13-11-34 Boilers fixed 7-11-34 Engines tried under steam 17-11-34
 Main boiler safety valves adjusted 17-11-34 Thickness of adjusting washers P 3/8" S 3/8" Superheater 5/16"
 Crank shaft material Steel Identification Mark LLOYD No 884 Thrust shaft material Steel Identification Mark LLOYD 884
 Intermediate shafts, material Steel Identification Marks LLOYD 884 Tube shaft, material ✓ Identification Mark ✓
 Screw shaft, material Steel Identification Mark LLOYD 884 Steam Pipes, material A.D. Steel Test pressure 645 lbs Date of Test 31-10-34 (at Sheffield)

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 no 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 and the materials and workmanship are sound and good. It has been satisfactorily fitted on board, tried under steam and found good.
 It is eligible in my opinion to have record of L.M.C. 11, 34 C.L.

The amount of Entry Fee ... £ 3 : 0 : ✓
 Special ... £ 38 : 10 : ✓
 Donkey Boiler Fee ... £ : : ✓
 Travelling Expenses (if any) £ : : ✓
 When applied for, 26 NOV 1934
 When received, 1-1-34

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

Committee's Minute FRI. 30 NOV 1934

Assigned + d.m.b. 11.34
 J.D., L.
 CERTIFICATE WRITTEN



The Surveyors are requested not to write on or below the space for Committee's Minute.