

REPORT ON STEAM RECIPROCATING ENGINE MACHINERY.

Date of writing Report 10 When handed in at Local Office 23 SEP 1939 10 Port of **HULL** Received at London Office 2 OCT 1939

No. in Survey held at **Selby & Hull** Date, First Survey **7th July** Last Survey **22nd Sept 1939**
 Reg. Book. **18103** on the **Chorn Se. Tug. REVUE** (Number of Visits **13**) Tons { Gross **245** Net **111**

Built at **Selby** By whom built **Cochrane & Sons Ltd** Yard No. **1202** When built **1939-9**

Engines made at **Newbury** By whom made **Stenly & Sons Ltd** Engine No. **2771** When made **do.**

Boilers made at **Glasgow** By whom made **Farley Castle** Boiler No. **38-13** When made **do.**

Registered Horse Power Owners **Bera Works Ltd** Port belonging to **London**

Nom. Horse Power as per Rule **339.197** Is Refrigerating Machinery fitted for cargo purposes **No** Is Electric Light fitted **Yes**

Trade for which Vessel is intended **Stowing & Dredging Work**

ENGINES, &c.—Description of Engines **Triple Expansion - Surface Condensing - Vertical** Revs. per minute **145**

Dia. of Cylinders **11 3/4" - 19 1/2" - 33 1/2"** Length of Stroke **32** No. of Cylinders **6** No. of Cranks **6**

Crank shaft, dia. of journals as per Rule **App'd** as fitted **6 1/2"** Crank pin dia. **6 1/2"** Crank webs Mid. length breadth **12 1/4"** Thickness parallel to axis **2 3/8"**
 as fitted **6 1/2"** Crank webs Mid. length thickness **4 1/4"** shrunk Thickness around eye-hole **2 3/8"**

Intermediate Shafts, diameter as per Rule **App'd** as fitted **6 5/8"** Thrust shaft, diameter at collars as per Rule **App'd** as fitted **6 1/2"**

Tube Shafts, diameter as per Rule **App'd** as fitted **7 1/8"** Is the { tube } shaft fitted with a continuous liner { **No** }

Screw Shaft, diameter as per Rule **App'd** as fitted **7 1/8"** Is the { screw }

Bronze Liners, thickness in way of bushes as per Rule **App'd** as fitted **1/8"** Thickness between bushes as per Rule **App'd** as fitted **1/8"** 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 **Yes**

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 **Yes**

If two 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 shaft **Yes** If so, state type **Stewart** Length of Bearing in Stern Bush next to and supporting propeller **30"**

Propeller, dia. **97"** Pitch **10'-0"** No. of Blades **4** Material **C.I.** whether Moveable **No** Total Developed Surface **28** sq. feet

Feed Pumps worked from the Main Engines, No. **1 ea Super** Diameter **2 1/2"** Stroke **10"** Can one be overhauled while the other is at work **Yes**

Bilge Pumps worked from the Main Engines, No. **do.** Diameter **do.** Stroke **do.** Can one be overhauled while the other is at work **Yes**

Feed Pumps { No. and size **One 5 x 3 1/2 x 6"** Pumps connected to the { No. and size **One 5 x 5 x 6"** }
 How driven **Independent Steam** Main Bilge Line How driven **Independent Steam** } **The two main super pumps**

Ballast Pumps, No. and size **the above feed pump** Lubricating Oil Pumps, including Spare Pump, No. and size **None**

Are two independent means arranged for circulating water through the Oil Cooler **None** Suctions, connected to both Main Bilge Pumps and Auxiliary Bilge Pumps;—In Engine and Boiler Room **2 2 2" dia** **One 2 1/2" dia**

In Pump Room **Yes** In Holds, &c. **Fore & after compartments one each 2 2" dia**

Are the fore & after peaks used for feed water are connected direct to the feed pump. Suctions one each 2 2" dia **Yes**

Main Water Circulating Pump Direct Bilge Suctions, No. and size **One 7" dia** Independent Power Pump Direct Suctions to the Engine Room Bilges, No. and size **One 2 1/2" dia (included above)** 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 **Yes**

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 **None** How are they protected **None**

What pipes pass through the deep tanks **None** 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 **None** Is it fitted with a watertight door **None** worked from **None**

MAIN BOILERS, &c.—(Letter for record **S**) Total Heating Surface of Boilers **3229 sq ft**

Forced Draft fitted **No** No. and Description of Boilers **One S.B.** Working Pressure **200 lbs/sq in**

IS A REPORT ON MAIN BOILERS NOW FORWARDED? **Herewith.**

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

the donkey boiler intended to be used for domestic purposes only **Yes**

PLANS. Are approved plans forwarded herewith for Shafting **27.4.39** Main Boilers **22.12.38** Auxiliary Boilers **Yes** Donkey Boilers **Yes**

(If not state date of approval)

Superheaters **Yes** General Pumping Arrangements **11.5.39** Oil fuel Burning Piping Arrangements **Yes**

SPARE GEAR.

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

Is the principal additional spare gear supplied **2 spare sets of shaft coupling bolts & nuts. One C.I propeller.**

The foregoing is a correct description.

Manufacturer.



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During progress of work in shops - -

Dates of Survey while building } 1939
 During erection on board vessel - - } July 7, 18, 19, 27, Aug 17, 25, 29, 31, Sep. 9, 13, 19, 21, 22
 Total No. of visits } 13

Dates of Examination of principal parts—Cylinders *See Lon Rpt* Slides *Lon Rpt* Covers *Lon Rpt*
 Pistons *Lon Rpt* Piston Rods *Lon Rpt* Connecting rods *Lon Rpt*
 Crank shaft *Lon Rpt* Thrust shaft *Lon Rpt* Intermediate shafts *Lon Rpt*
 Tube shaft ✓ Screw shaft *Lon Rpt* + 7/7/39 Propeller *Lon Rpt* + 7/7/39
 Stern tube *Lon Rpt* + 7/7/39 Engine and boiler seatings 18/7/39 Engines holding down bolts 17/8/39
 Completion of fitting sea connections 18/7/39
 Completion of pumping arrangements 19.9.39 Boilers fixed 17/8/39 Engines tried under steam 21-9-39
 Main boiler safety valves adjusted 21-9-39 Thickness of adjusting washers Port. 3/8" Star 15/32"
 Crank shaft material *Steel* Identification Mark *S 4220, T.D.S. 4221, 303-39* Thrust shaft material *Steel* Identification Mark *4291, 4293, T.D.*
 Intermediate shafts, material *Steel* Identification Marks *P 4290, S 4292, T.D.* Tube shaft, material *None* Identification Mark ✓
 Screw shaft, material *Steel* Identification Mark *S 4288, P 4289, T.D.* Steam Pipes, material *Steel* Test pressure 200 lb. Date of Test
 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 ✓ 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 *No*
 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 fitted on board in accordance with the approved plans & the Rules & under Special Survey. The workmanship & materials are good & when tried under working conditions it was found satisfactory in every respect. It is eligible, in my opinion, to be classed with the records of *L.M.C. 939 + O.G. 939* & to have the notations *T. 6 Cy. 11 3/4", 19 1/2", & 33 1/2" - 22" . 200 lb. 339 N.H. I.S.B. 4 cf. G.S. 75. H.S. 3229. F.D.*

The amount of Entry Fee ... £ 9:17 = } When applied for,
 Special *in full* ... £ 24:0/2 } 29 SEP 1939
 Donkey Boiler Fee ... £ : : } When received,
 Travelling Expenses (if any) £ : : } 19.10.39

D. J. J. J. J.
 Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute

Assigned *+ Lmb. 9.39*
J.D., O.G.



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