

Rpt. 4.
D.O.

No. 112592

REPORT ON STEAM RECIPROCATING ENGINE MACHINERY.

Date of writing Report 23-2-1945. When handed in at Local Office 6 MAR 1945. Port of *Edinburgh*

No. in Survey held at *Garmonth.* Date, First Survey *10-10-44* Last Survey *23-2-1945*
Reg. Book *Vic 99* (Number of Visits *72*) Tons {Gross
Net

Built at *Knottingley* By whom built *John Harker & Son Ltd.* Yard No. *184* When built *1945*
Engines made at *Garmonth.* By whom made *Crabtree (1931) Ltd.* Engine No. *682* When made *1945*

Boilers made at *✓* By whom made *✓* Boiler No. *✓* When made *✓*
Registered Horse Power *✓* Owners *Trinidadian War Transport* Port belonging to *✓*

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

Trade for which vessel is intended *Coasting*

ENGINES, &c.—Description of Engines *Compound Reciprocating* Revs. per minute *150*
Dia. of Cylinders *10 1/2" - 22"* Length of Stroke *14"* No. of Cylinders *Two* No. of Cranks *Two*

Crank shaft, dia. of journals *as per Rule 4 3/8"* Crank pin dia. *4 3/8"* Crank webs *✓* Mid. length breadth *✓* Thickness parallel to axis *2 7/8"*
as fitted 4 3/8" Mid. length thickness *✓* Thickness around eye-hole *2"*

Intermediate Shafts, diameter *as per Rule 4 26"* Thrust shaft, diameter at collars *as fitted 4 3/8"*
as fitted 4 3/8"

Tube Shafts, diameter *as per Rule 4 7/8"* Screw Shaft, diameter *as fitted 4 7/8"* Is the *screw* shaft fitted with a continuous liner *✓*
as fitted 4 7/8"

Bronze Liners, thickness in way of bushes *as per Rule 20"* Thickness between bushes *as fitted 20"* Is the after end of the liner made watertight in the
as fitted 20" 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
at *✓* If so, state type *✓* Length of Bearing in Stern Bush next to and supporting propeller *20"*

Propeller, dia. *66"* Pitch *86"* No. of Blades *4* Material *C.I.* whether Moveable *no* Total Developed Surface *11-6* sq. feet
Feed Pumps worked from the Main Engines, No. *6* Diameter *2 1/8"* Stroke *6"* Can one be overhauled while the other is at work *✓*
Bilge Pumps worked from the Main Engines, No. *6* Diameter *2 1/8"* Stroke *6"* Can one be overhauled while the other is at work *✓*

Feed Pumps { No. and size *✓* Pumps connected to the Main Bilge Line { No. and size *✓*
How driven *✓* How driven *✓*

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 both to Main Bilge Pumps and Auxiliary
Bilge Pumps:—In Engine and Boiler Room *✓* In Holds, &c. *✓*

Main Water Circulating Pump Direct Bilge Suctions, No. and size *✓* Independent Power Pump Direct Suctions to the Engine and/or Boiler Room Bilges,
No. and size *✓* Are all the Bilge Suction Pipes in holds and tunnel well fitted with strum-boxes *✓*

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. *✓*
Are all Sea Connections fitted direct on the skin of the ship *✓* Are they fitted with Valves or Cocks *✓*

Are they fixed sufficiently high on the ship's side to be seen without lifting the stokehold plates *✓* Are the Overboard Discharges above or below the deep water line *✓*
Are they each fitted with a Discharge Valve always accessible on the plating of the vessel *✓* Are the Blow Off Cocks fitted with a spigot and brass covering plate *✓*

What Pipes pass through the bunkers *✓* How are they protected *✓*
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 *✓*
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 *✓*) Total Heating Surface of Boilers *✓*
Which Boilers are fitted with Forced Draft *✓* Which Boilers are fitted with Superheaters *✓*
No. and Description of Boilers *✓* Working Pressure *✓*

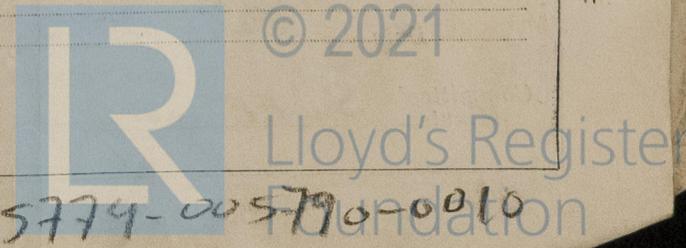
IS A REPORT ON MAIN BOILERS NOW FORWARDED? *✓*
IS A DONKEY BOILER FITTED? *✓* If so, is a report now forwarded? *✓*

Can the donkey boiler be used for other than domestic purposes *✓*
PLANS. Are approved plans forwarded herewith for Shafting *28-10-41* Main Boilers *✓* Auxiliary Boilers *✓* Donkey Boilers *✓*
(If not state date of approval)

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

SPARE GEAR.
Has the spare gear required by the Rules been supplied *✓*
State the principal additional spare gear supplied *✓*

The foregoing is a correct description.
FOR CRABTREE (1981) LTD.
J. Smith Manufacturer.



005779-0057900010

10:10.44, 27:10.44, 29:11.44, 29:11.44, 29:12.44
 7.11.44, 24.11.44, 6.12.44, 29.1.45, 9.1.45, 18.1.45, 23.2.45

Dates of Survey while building
 During progress of work in shops - -
 During erection on board vessel - - -
 Total No. of visits. 12 (in shops)

Dates of Examination of principal parts—Cylinders 9.1.45 Slides 24.11.44 Covers 9.1.45
 Pistons 24.11.44 Piston Rods 6.12.44 Connecting rods 6.12.44
 Crank shaft 29.1.45 Thrust shaft 29.1.45 Intermediate shafts ✓
 Tube shaft ✓ Screw shaft 24.11.44 Propeller 24.11.44
 Stern tube 24.11.44 Engine and boiler seatings ✓ Engines holding down bolts ✓
 Completion of fitting sea connections ✓
 Completion of pumping arrangements ✓ Boilers fixed ✓ Engines tried under steam ✓
 Main boiler safety valves adjusted ✓ Thickness of adjusting washers ✓
 Crank shaft material Steel Identification Mark ✓ Thrust shaft material Steel Identification Mark ✓
 Intermediate shafts, material ✓ Identification Marks ✓ Tube shaft, material ✓ Identification Mark ✓
 Screw shaft, material Steel Identification Mark ✓ Steam Pipes, material ✓ Test pressure ✓ Date of Test ✓
 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 ✓

duplicate of a previous case No If so, state name of vessel Tand 72665

marks (State quality of workmanship, opinions as to class, &c.)
 The engine has not been constructed in accordance with the requirements of the Society's Rules but has been constructed under the supervision of the Society.
 The scantlings are in accordance with the Society's Rules.
 The workmanship is of good description.
 The engine, in my opinion will be eligible for record of L.M.C. (with date) when efficiently installed on board a classed vessel.

Above main engine installed in 'Vic 99' at Knottingly - see separate report 4 on same. W.S. Shields
 Done

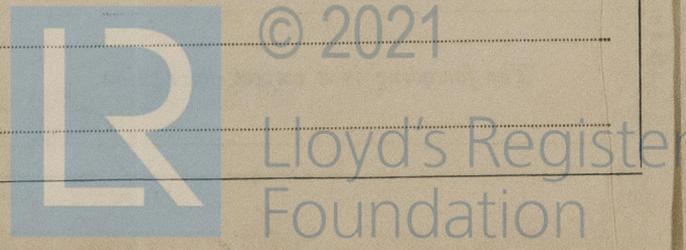
Certificate to be sent to...
 (The Surveyors are requested not to write on or below the space for Committee's Minute.)

The amount of Entry Fee	£	:	:	When applied for,
Special	8	:	0	6 MAR 1945
Donkey Boiler Fee	£	:	:	When received,
Travelling Expenses (if any)	£	1	13 : 0	19

Date FRI. 7 SEP 1945

Committee's Minute See F.E. machy opt.

W.S. Shields
 Engineer/Surveyor to Lloyd's Register of Shipping.



If not, state whether, and when, one will be sent? No
 Is a Report also sent on the Hull of the Ship? No
 [Im. 3.25 - Copyable Ink.]