

# REPORT ON STEAM RECIPROCATING ENGINE MACHINERY.

84 MAR 1944

Received at London Office

27 MAR 1944

Date of writing Report 19... When handed in at Local Office 19... Port of HULL

No. in Survey held at HULL Date, First Survey 16. 9. 43. Last Survey 16. 3. 1944  
 Reg. Book on the H.M. TRAWLER **ORONSAY** J. 2686. (Number of Visits 24) Tons {Gross 458.6  
 Net 143.9

Built at SELBY By whom built Messrs. Cochrane & Son. Ltd Yard No. 1277. When built 1944

Engines made at HULL By whom made Amos & Smith Ltd Engine No. 735 When made

Boilers made at BIRKENHEAD By whom made CANNELL LAIRD Boiler No. 2252 When made

Registered Horse Power Owners THE ADMIRALTY. Port belonging to

Nom. Horse Power as per Rule 156 ✓ Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted YES ✓

Trade for which vessel is intended Government Service

ENGINES, &c.—Description of Engines Triple Expansion CONTRACT Revs. per minute 150 ✓

Dia. of Cylinders 13 1/2", 23", 38" Length of Stroke 24" No. of Cylinders 3 No. of Cranks 3

Crank shaft, dia. of journals as per Rule 7.5 ✓ as fitted 7 7/8" Crank pin dia. 7 7/8" Crank webs Mid. length breadth ✓ Thickness parallel to axis 4 13/16" ✓  
 as fitted 7 7/8" Crank pin dia. 7 7/8" Crank webs Mid. length thickness ✓ shrunk Thickness around eye-hole 3 15/16" ✓

Intermediate Shafts, diameter as per Rule 7.15 ✓ as fitted 7 1/4" Thrust shaft, diameter at collars as per Rule 7.5 ✓ as fitted 7 7/8" ✓

Tube Shafts, diameter as per Rule ✓ as fitted ✓ Screw Shaft, diameter as per Rule 8.2 ✓ as fitted 8 1/4" Is the ~~tube~~ screw shaft fitted with a continuous liner { No ✓

Bronze Liners, thickness in way of bushes as per Rule ✓ as fitted ✓ Thickness between bushes as per Rule ✓ as fitted ✓ Is the after end of the liner made watertight in the 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

shaft yes If so, state type NEWARK Length of Bearing in Stern Bush next to and supporting propeller 36 1/2" ✓

Propeller, dia. 105" Pitch 9'-4" No. of Blades 3 Material C1 whether Moveable Solid Total Developed Surface 30 sq. feet

Feed Pumps worked from the Main Engines, No. 2 Diameter 2 1/2" Stroke 15 Can one be overhauled while the other is at work yes ✓

Bilge Pumps worked from the Main Engines, No. 2 Diameter 2 1/2" Stroke 15 Can one be overhauled while the other is at work yes ✓

Feed Pumps { No. and size One 4 x 6 x 12 Weirs ✓ Pumps connected to the { No. and size One 6 x 5 1/2 x 15 Weirs ✓  
 How driven Independent Steam Main Bilge Line How driven Independent Steam also DOWN TON ✓

Ballast Pumps, No. and size none 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 Eng. room 2 @ 2" dia, one at 3 1/2" dia ✓ Stakehold 2 @ 2" dia ✓

In Pump Room NONE In Holds, &c. One @ 2" dia in each of the following:— ✓  
 Storepeak chain locker, arctic space, magazine spirit room, bunkers, shaft space, and afterpeak

Main Water Circulating Pump Direct Bilge Suctions, No. and size One @ 5" Independent Power Pump Direct Suctions to the Engine Room Bilges, No. and size One @ 3 1/2" (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 at w.t. ✓

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 No ✓

What Pipes pass through the bunkers Feed tank suction ✓ How are they protected. Wood casing ✓

What pipes pass through the deep tanks none ✓ 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 <sup>space</sup> ~~tunnel~~ watertight. yes ✓ Is it fitted with a watertight door. Access ~~worked~~ from flat above ✓

MAIN BOILERS, &c.—(Letter for record S. ✓ Total Heating Surface of Boilers 2650 sq. ft. ✓

Which Boilers are fitted with Forced Draft all ✓ Which Boilers are fitted with Superheaters none ✓

No. and Description of Boilers One S.B. ✓ Working Pressure 200 lbs. ✓

IS A REPORT ON MAIN BOILERS NOW FORWARDED? Yes ✓

IS A DONKEY BOILER FITTED? no ✓ If so, is a report now forwarded? ✓

Can the donkey boiler be used for domestic purposes only

PLANS. Are approved plans forwarded herewith for Shafting 17-7-39. Main Boilers 17-7-39. Auxiliary Boilers NONE Donkey Boilers NONE

(If not state date of approval)

Superheaters ✓ General Pumping Arrangements 17-10-39. 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. See attached list.

The foregoing is a correct description.

AMOS & SMITH LTD.

W. C. Brown.

Manufacturer.

DIRECTOR



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Lloyd's Register Foundation

003640-003648-0269

1943. Sept 16, 25. Dec 17, 22, 29, 30. 1944. Jan. 1, 3, 11, 28. Mar. 1.

Dates of Survey while building { During progress of work in shops - - }  
 { During erection on board vessel - - - }

Total No. of visits 24

Dates of Examination of principal parts—Cylinders 22/12/43. 30/12/43. 3/1/44. Slides 3/1/44. 28/1/44. Covers 22/12/43. 30/12/43. 3/1/44.

Pistons 3/1/44. Piston Rods 1/1/44. Connecting rods 28/1/44.

Crank shaft 17-12-43. Thrust shaft 16-9-43. Intermediate shafts 16-9-43.

Tube shaft None. Screw shaft 25-9-43. Propeller 31-2-44.

Stern tube 23-10-43. Engine and boiler seatings 4-2-44. Engines holding down bolts 21-2-44.

Completion of fitting sea connections 23-10-43.

Completion of pumping arrangements 4-9-44. Boilers fixed 21-2-44. Engines tried under steam 3-3-44. 10-3-44.

Main boiler safety valves adjusted 3/3/44. Thickness of adjusting washers P. 5/16". S. 1/32"

Crank shaft material F. 1. Steel Identification Mark 3006 T.T. Thrust shaft material F. 1. Steel Identification Mark 3090 T.T. 27-8-43.

Intermediate shafts, material F. 1. Steel Identification Marks 3090 T.T. 27-8-43. Tube shaft, material None Identification Mark —

Screw shaft, material F. 1. Steel Identification Mark 3006 T.T. Steam Pipes, material Steel. Test pressure 600 lb. Date of Test 1-3-44.

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 "LONGA"

General Remarks (State quality of workmanship, opinions as to class, &c.)

The machinery of this vessel has been constructed in accordance with the approved Admiralty plans, the specification & the Society's Rules of tested material supplied by firms approved by the Society. The workmanship and materials are good.

The Machinery & Auxiliaries have been fitted aboard and when tried under steam at as near full power as practicable in the basin, were found satisfactory in every respect.

This vessel is eligible, in our opinion, when classed, to have the records of 1/2 LMC 3-44. and O.G. and the notation T. 3 Cq. 13 1/2", 23", 38", — 27" 156 N.H.P. 2000 lbs. 3 cf. G.S. 63. H.S. 2650. F-9.

\* LMC NHP 156 at 5/- = £39.  
 agreed fee { \* LMC = £39.  
 Specification = £36.

The amount of Entry Fee	£	23 - 8	When applied for, 24 MAR 1944
3/5 LMC (Eng & H.A. Out)	£	21 - 12	When received, 5 APR 44
Special	£	14 - 8	
3/5 Specification	£		
Donkey Boiler Fee	£		
London balance	£		
Travelling Expenses (if any)	£		

W. Shields & J. Philson  
 Engineer Surveyors to Lloyd's Register of Shipping.  
 ADMIRALTY  
 A/c rendered from London 5 APR 44

TUES. 4 APR 1944

Committee's Minute  
 Assigned + LMC 3-44

