

VST 3018

# REPORT ON STEAM RECIPROCATING ENGINE MACHINERY.

Date of writing Report 19... When handed in at Local Office 1 FEB 1946 Port of Sunderland Received at London Office 2 FEB 1946

No. in Survey held at Sunderland Date, First Survey 1<sup>st</sup> Dec 43 Last Survey 20 Dec 1944  
Reg. Book J.14052 (Number of Visits 41)

Built at... By whom built Hawthorn Leslie & Co L<sup>td</sup> Yard No. 680 Tons { Gross... Net... }  
Engines made at Sunderland By whom made G. Clark (1938) L<sup>td</sup> Engine No. 1316-1335 When built 1945  
Boilers made at... By whom made... Boiler No. ... When made...  
Registered Horse Power... Owners The Admiralty 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 Government Service

ENGINES, &c.—Description of Engines Triple Expansion (Twin Screw)

Dia. of Cylinders 18 1/2 - 31 - 38 1/2 (2) Length of Stroke 30" No. of Cylinders 8 Revs. per minute...  
Crank shaft, dia. of journals as per Rule 10.039 as fitted 10 1/2" Crank pin dia. 10 1/2" Crank webs Mid. length breadth 16 3/4" Mid. length thickness 6 1/2" No. of Cranks 8  
Intermediate Shafts, diameter as per Rule... as fitted N.W.C. Rpt. Thrust shaft, diameter at collars as per Rule... as fitted N.W.C. Rpt.  
Tube Shafts, diameter as per Rule... as fitted... Screw Shaft, diameter as per Rule... as fitted N.W.C. Rpt. Is the { tube / screw } shaft fitted with a continuous liner { ... }  
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 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...

Propeller, dia. Pitch No. of Blades Material whether Moveable Total Developed Surface... sq. feet

Feed Pumps worked from the Main Engines, No. none Diameter — Stroke — Can one be overhauled while the other is at work —

Bilge Pumps worked from the Main Engines, No. none Diameter — Stroke — Can one be overhauled while the other is at work —

Feed Pumps { No. and size / How driven } Pumps connected to the Main Bilge Line { No. and size / 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 to both Main Bilge Pumps and Auxiliary In Pump Room... In Holds, &c.

Main Water Circulating Pump Direct Bilge Suctions, No. and size... Independent Power Pump Direct Suctions to the Engine 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 bunker... 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? Yes. ( Liverpool Rpt. 122502. )  
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... Main Boilers... Auxiliary Boilers... Donkey Boilers...  
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.

GEORGE CLARK (1938) LTD

*George J. Clark*  
DIRECTOR GENERAL MANAGER

Manufacturer.



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Dates of Survey while building

During progress of work in shops - - { 1943. Dec. 21, 29, 1944. Jan. 10, 17, 20, 28, Feb. 1, 4, 28, Oct. 19, 26, Nov. 16, 23, 26, Dec. 6, 28  
 12, 20, 23, 26, Feb. 11, 21, Aug. 2, 24, Sep. 4, 7, 19, Oct. 4, 17, 20, 26, Nov. 27, 14, 28

During erection on board vessel - - - { Dec. 4, 6, 11, 14, 20

Total No. of visits... 41

Dates of Examination of principal parts - Cylinders

Pistons 1316. 21/12/43 10/1/44 29/12/43 20/1/44 1/3/44 1316 1/3/44  
 1335. 4/9/44 19/9/44 7/9/44 24/9/44 19/4/44 1335. 26/10/44 Covers 22 Cyls.

Piston Rods 1316. 20/1/44 1335. 4/10/44 Connecting rods 1316. 28/2/44 1335. 19/9/44

Crank shaft 1316. 17/1/44 1335. 22/6/44 Thrust shaft - Intermediate shafts -

Tube shaft - Screw shaft - Propeller -

Stern tube - Engine and boiler seatings - Engines holding down bolts -

Completion of fitting sea connections - Boilers fixed - Engines tried under steam -

Completion of pumping arrangements -

Main boiler safety valves adjusted - Thickness of adjusting washers -

Crank shaft material Ingot Steel Identification Mark 1316. N 1316 W H F. 17/1/44 Thrust shaft material - Identification Mark -

Intermediate shafts, material - Identification Marks - Tube shaft, material - Identification Mark -

Screw shaft, material - 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 -

Is this machinery duplicate of a previous case... If so, state name of vessel -

General Remarks (State quality of workmanship, opinions as to class, &c.) *This machinery has been built under Special Survey in accordance with the approved plans, specification & the rules of the Society. The materials & workmanship are good.*

*These Engines & boilers have been placed on board but final securing & shaft alignment have not been examined owing to incompleteness. The auxiliary machinery is partially installed.*

*Owing to cancellation of the Contract further work has ceased & the vessel has been towed away to Rosyth by Admiralty instruction.*

To be sent to the Surveyors requested not to write on or below the space for Committee's Minute.

The amount of Entry Fee ... £ : : When applied for, 1 FEB 1946

Special Inspection (12 times) ... £ 45 : : When received, 16.12.45

Donkey Boiler Fee ... £ 15 : : London 15.2.46

Part Installation ... £ 12 : : London 15.2.46

Travelling Expenses (if any) £ : :

*J. H. Brown*  
 Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute ... FRI. 8 AUG 1947

Assigned ... See F.E. Melby, rpt.

