

## REPORT ON STEAM RECIPROCATING ENGINE MACHINERY.

Received at London Office

AUG - 8 - 1940

Date of writing Report 19-7-1940 When handed in at Local Office 24 JUL 1940 10 Port of Hull  
 No. in Survey held at Hull Date, First Survey 5. 9. 39. Last Survey 18. 7. 1940.  
 Reg. Book. on the Steam Trawler "ST ZENO" (Number of Visits 52)  
 Built at Beverley By whom built Cook, Lefellon & Gammell Ltd. Yard No. 655 Tons Gross 608 Net 207  
 Engines made at Hull By whom made C.D. Holmes & Co. Ltd. Engine No. 1557 when made do.  
 Boilers made at do. By whom made do Boiler No. 1556 when made do.  
 Registered Horse Power Owners The Admiralty Port belonging to  
 Nom. Horse Power as per Rule 165. Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted Yes.  
 Trade for which Vessel is intended Fishing (Now commandeered by the Admiralty)

ENGINES, &c.—Description of Engines Triple Expansion Revs. per minute 125.  
 Dia. of Cylinders 15" - 25" - 42" Length of Stroke 27" No. of Cylinders 3 No. of Cranks 3  
 Crank shaft, dia. of journals as per Rule 8.37" Crank pin dia. 8 1/2" Crank webs Mid. length breadth Thickness parallel to axis 5 1/2"  
 as fitted 8 1/2" Mid. length thickness shrunk Thickness around eye-hole 3 9/16"  
 Intermediate Shafts, diameter as per Rule 7.97" Thrust shaft, diameter at collars as per Rule 8.37"  
 as fitted 8 1/2" as fitted 8 1/2"  
 Tube Shafts, diameter as per Rule Screw Shaft, diameter as per Rule 8.27" Is the tube screw shaft fitted with a continuous liner Yes  
 as fitted 8 1/2" as fitted 9"  
 Bronze Liners, thickness in way of bushes as per Rule 3.66" Thickness between bushes as per Rule 3.11" 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 Solid  
 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 Yes 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 42"  
 Propeller, dia. 10' - 9" Pitch 10-10 1/2" No. of Blades 4 Material C.I. whether Moveable No Total Developed Surface 42 1/2 sq. feet  
 Feed Pumps worked from the Main Engines, No. 2 Diameter 2 3/8" Stroke 16" Can one be overhauled while the other is at work Yes  
 Bilge Pumps worked from the Main Engines, No. 2 Diameter 2 3/8" Stroke 16" Can one be overhauled while the other is at work Yes  
 Feed Pumps No. and size 2 Duplex 7" x 5" x 6" Pumps connected to the Main Bilge Line No. and size 2 Duplex 7" x 5" x 6" How driven Hot Steam ME. Pumps Steam Ejector  
 How driven Hot Steam  
 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 2 @ 2" dia One @ 2 1/2" dia 1 @ 2" dia (hand pump).  
 In Holds, &c. 2" dia to the following:—Fore hold, Fore hold (4" dia) Fore hold (1" dia) Fore hold (1" dia) Fore hold (1" dia)

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 3" Clean Ejector 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 Solid bilge suction How are they protected Above casings  
 What pipes pass through the deep tanks 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 worked from

MAIN BOILERS, &c.—(Letter for record S.) Total Heating Surface of Boilers 9551 sq. ft.  
 Is Forced Draft fitted Yes No. and Description of Boilers One S.B. Working Pressure 225 lbs/sq. in.  
 IS A REPORT ON MAIN BOILERS NOW FORWARDED? Yes  
 IS A DONKEY BOILER FITTED? No If so, is a report now forwarded? Yes  
 PLANS. Are approved plans forwarded herewith for Shafting Duplicate of Lady Main Boilers 31-7-39 Auxiliary Boilers Donkey Boilers  
 (If not state date of approval) Hot Rm 50402.  
 Superheaters Sea Man Rpt. General Pumping Arrangements 2-11-39 Oil fuel Burning Piping Arrangements

SPARE GEAR. State the articles supplied:—  
 One screw shaft for two cranks (ST ARLO & ST ZENO). Marked. 614 LPT. 20-10-39 & 1453. DLHC. 29-2-40.  
 One main engine feed pump plunger, gland & neck ring.  
 One bottom water gauge pipe.  
 Main & donkey check valves & seals.  
 One safety valve spring.

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

Manufacturer.



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014312-014324-0198



1939. Sept. 5, 11, 12, 15, 20, 27. Oct. 3, 5, 11, 17, 24, 26. Nov. 1, 7, 10, 15, 17, 19, 22, 24, 27, 29.  
 During progress of work in shops - - Dec. 6, 6, 7, 7, 9, 14, 18, 20, 21.  
 Dates of Survey while building During erection on board vessel - - 1940. Jan. 5, 10, 12, 15, 18, 26. Feb. 7, 20, 29. Mar. 7, 8, 12, 18, 29, Apr. 8, 16, 22.  
 June 21, 27. July, 18.  
 Total No. of visits 52.

ALL SHAFING STAMPED (144) DLHC & JHM with dates as inspected

Dates of Examination of principal parts—Cylinders 5-24/10/39, 1/11/39 Slides 26/10/39 Covers 18/12/39.  
 Pistons 26/10/39 Piston Rods 26/10/39 Connecting rods 26/10/39.  
 Crank shaft 29/11/39 Thrust shaft 22/11/39 Intermediate shafts 22/11/39  
 Tube shaft ✓ Screw shaft 17/11/39 Propeller 7/2/40.  
 Stern tube 7/2/40. Engine and boiler seatings 7/2/40 Engines holding down bolts 27-6-40  
 Completion of fitting sea connections 7/2/40.  
 Completion of pumping arrangements 18-7-40. Boilers fixed 27-6-40. Engines tried under steam 18.7.40  
 Main boiler safety valves adjusted 16-4-40 Thickness of adjusting washers P. 1 3/32 S 3/8"  
 Crank shaft material Steel Identification Mark 333 - JH. 12-9-39 Thrust shaft material Steel Identification Mark 397. JH. 21-9-39  
 Intermediate shafts, material Steel Identification Marks 331. JH. 21-9-39 Tube shaft, material ✓ Identification Mark ✓  
 Screw shaft, material Steel Identification Mark 312 LOT. 11/8/39 Steam Pipes, material Steel Test pressure 675/24 Date of Test 8/4/40.  
 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 ✓  
 Is this machinery duplicate of a previous case. Yes. If so, state name of vessel ST APOLLO  
 except propeller.

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

The Machinery of this Vessel has been constructed & fitted on board.  
 under Special Survey, in accordance with the approved plans & the Rules.  
 The workmanship & materials are good & when tried under full  
 working condition it was found satisfactory in every respect.  
 It is eligible, in my opinion, to be classed with the record of  
 L.M.C. 7-40 & the notations of T. 3 Cy. 15", 25" & 42" (3) 225/16 I.S.B. (Spt).  
 S. of G.S. 64 H.S. 2551.

The amount of Entry Fee ... £ 3 : 0 :  
 Special ... £ 41 : 5 :  
 Donkey Boiler Fee ... £ : :  
 Travelling Expenses (if any) £ : :  
 When applied for, 3 AUG 1940  
 When received, 25 Sept 1940

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

Committee's Minute

Assigned

See Ind. J.E. 50794  
 L.M.C. 7-40 J.D. C.L.



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