

# REPORT ON STEAM RECIPROCATING ENGINE MACHINERY.

Received at London Office MAY 1930

Date of writing Report 24. 5. 1930 When handed in at Local Office 24. 5. 1930 Port of MIDDLESBROUGH

No. in Survey held at SOUTH BANK ON TEES. Date, First Survey 12 Dec/29 Last Survey 22. 5. 1930.  
 Reg. Book. on the "PORT ALFRED" (Number of Visits)

Built at South Bank By whom built Smiths Dock Co Ltd Yard No. 912. Tons } Gross 4918  
 Engines made at do. By whom made do. Engine No. 381. when made 1930 } Net 3005

Boilers made at Stockton By whom made Blair & Co (1926) Ltd Boiler No. C. 780 when made 1930.

Registered Horse Power Owners The Anticosti Shipping Co. Port belonging to Middlesbrough.

Nom. Horse Power as per Rule 469.6479 Is Refrigerating Machinery fitted for cargo purposes no. Is Electric Light fitted Yes.

Trade for which Vessel is intended Timber carrier

**ENGINES, &c.**—Description of Engines Triple Expansion Revs. per minute 57.

Dia. of Cylinders 25" 42" 70" Length of Stroke 48" No. of Cylinders 3. No. of Cranks 3.

Crank shaft, dia. of journals as per Rule 13.7" Crank pin dia. 14" Crank webs Mid. length breadth 22 1/2" Thickness parallel to axis 8 1/8" shrunk  
 as fitted 14" Mid. length thickness 8 1/8" Thickness around eye-hole 6 1/8"

Intermediate Shafts, diameter as per Rule 13.05" Thrust shaft, diameter at collars as per Rule 13.7" as fitted 13 1/4" 14"

Tube Shafts, diameter as per Rule as fitted Screw Shaft, diameter as per Rule 14.46" Is the tube shaft fitted with a continuous liner } Yes  
 as fitted 3 1/4" as fitted 15 1/2" as fitted 9"

Bronze Liners, thickness in way of bushes as per Rule 3/4" Thickness between bushes as per Rule 7/16" 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 ✓

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 no. If so, state type Length of Bearing in Stern Bush next to and supporting propeller 5' 11 1/2" ✓

Propeller, dia. 17' 0" Pitch 19' 6" No. of Blades 4. Material C.S. whether Moveable no. Total Developed Surface 100 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. 2 Diameter 4" Stroke 28" Can one be overhauled while the other is at work Yes ✓

Feed Pumps } No. and size 2-7" x 9 1/2" x 21" Weir / Steam Pumps connected to the } No. and size 1-10" x 11" x 10" Duplex.  
 How driven 1-6" x 8" x 8" Duplex } Main Bilge Line } How driven Steam

Ballast Pumps, No. and size 1-10" x 11" x 10" Duplex 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 Bilge Pumps;—In Engine and Boiler Room 3-2 1/4" 1-2 1/2" in Tunnel; 1-2 1/2" Tunnel well.

In Holds, &c. 2-3 1/2" in each of Nos 1, 2 & 3 holds.

Main Water Circulating Pump Direct Bilge Suctions, No. and size 1-7 1/2" Independent Power Pump Direct Suctions to the Engine Room Bilges, No. and size 1-4 1/2" 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 Both ✓

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 Forward Bilge Suctions How are they protected Wood ceiling ✓

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 Tunnel watertight Yes ✓ Is it fitted with a watertight door Yes ✓ worked from ER. Indicator Platform

**MAIN BOILERS, &c.**—(Letter for record S.) Total Heating Surface of Boilers 6626 sq ft

Is Forced Draft fitted Yes No. and Description of Boilers 3 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? ✓

**PLANS.** Are approved plans forwarded herewith for Shafting 31. 10. 29 Main Boilers 12. 11. 29 Auxiliary Boilers ✓ Donkey Boilers ✓

(If not state date of approval)

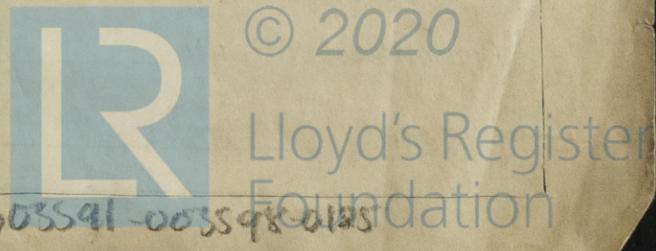
Superheaters app'd to Glasgow 14. 11. 29 General Pumping Arrangements Oil fuel Burning Piping Arrangements ✓

**SPARE GEAR.** State the articles supplied:— As per Rules + 1 tail shaft, 1 C.D. Propeller;

25 CONDENSER TUBES, 24 BOILER TUBES 50 CONDENSER FERRULES, 2 AIR PUMP GUARDS & STUDS, 2 BOLTS & NUTS FOR ECCENTRIC STRAPS, 12 JUNK RING BOLTS, 4 STUDS & NUTS FOR VALVE SANDLE GLANDS, SET STUDS & NUTS FOR AIR & BILGE PUMP GLANDS, 6 CYLR. COVER STUDS, 6 VALVE COVER STUDS, 2 CYLR ESCAPE VALVES & SPRINGS, 2 SAFETY VALVE SPRINGS, FOR CENTRIFUGAL PUMP: 1 PISTON VALVE, 1 SET PISTON RINGS, 1 SLIDE ROD, 1 ECC. STRAP, 1 SET CONNECTING ROD BOLTS & NUTS, 1 MAIN BEARING BOLT & NUT OF EACH SIZE, FOR FAN ENGINE: 1 SET MAIN BEARINGS WITH BOLTS & NUTS, 1 SET CONNECTING ROD BRASSES WITH BOLTS & NUTS, 1 ECCENTRIC & STRAP, 1 PISTON ROD, 1 SLIDE ROD, 1 PISTON WITH RINGS, 2 SETS PISTON RINGS, FOR FEED PUMPS, 1 SHUTTLE VALVE, 1 SET VALVES, SEATS, GUARDS & SPRINGS, FOR BALLAST PUMP: 1 PISTON RING, 1 BUCKET RING, 1/2 SET VALVES & SPRINGS, FOR DONKEY PUMP, 1 PISTON RING, 1 BUCKET RING, 1/2 SET VALVES & SPRINGS.

FOR SMITH'S DOCK COMPANY, LTD. The foregoing is a correct description,

S. Dutton 23/5/30. Manufacturer.



Is a Report also sent on the Matter of the Ship?

[Form 228-Copyable Ink.]

During progress of work in shops -- 1929 Dec 12 18 1930 Jan 13 20 22 29 Feb. 1 10 17 Mar 7 14 18 27 Apr 3 5 10

Dates of Survey while building { During erection on board vessel --- 16 22 May 1 2 7 8 14 15 16 18 19 20 22

Total No. of visits 29

Dates of Examination of principal parts—Cylinders 27. 3. 30. Slides 27. 3. 30 Covers 27. 3. 30

Pistons 14. 3. 30 Piston Rods 7. 3. 30 Connecting rods 3. 4. 30

Crank shaft 29. 1. 30 Thrust shaft 10. 2. 30 Intermediate shafts 22. 4. 30

Tube shaft ✓ Screw shaft 3. 4. 30 Propeller 3. 4. 30

Stern tube 22. 4. 30 Engine and boiler seatings 5. 5. 30 Engines holding down bolts 7. 5. 30

Completion of fitting sea connections 3. 4. 30

Completion of pumping arrangements 20. 5. 30 Boilers fixed 5. 5. 30 Engines tried under steam 22. 5. 30

Main boiler safety valves adjusted 18. 5. 30 Thickness of adjusting washers Port both 13/32; Centre 3/8 p. 5/16 s. Star. both 7/16

Crank shaft material S.M. Steel Identification Mark LLOYDS No 6508 D DDW. M.R Thrust shaft material S.M. Steel Identification Mark LLOYDS No 6508 D DDW. MR

Intermediate shafts, material S.M. Steel Identification Marks LLOYDS No 6508 D DDW. MR Tube shaft, material ✓ Identification Mark ✓

Screw shaft, material S.M. Steel Identification Mark LLOYDS No 6508 D DDW. MR Steam Pipes, material Steel Test pressure 600 lbs. Date of Test 8. 5. 30

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 ✓

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 materials and workmanship are good.

This machinery has been built under special survey in accordance with the Rules and Approved Plans, securely fitted aboard and tested with satisfactory results under steam.

On occasion of first putting steam on main engine (18. 5. 30) the H.P. cylinder casing was cracked. The defect has been repaired by means of patches bolted inside and outside as per drawing attached hereto and arrangements have been made to fit a new H.P. cylinder at the end of the season's work in about 8 months time.

In my opinion, this machinery is eligible for classification with record + L.M.C. 5.30 subject to the H.P. cylinder being renewed as stated above.

The amount of Entry Fee ... £ 5-0-0 When applied for, 20-5-1930

Special *less boilers* ... £ 60-18-0

Donkey Boiler Fee ... £ : : When received, 7-6-30

Travelling Expenses (if any) £ : :

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

Committee's Minute FRI. 6 JUN 1930

Assigned + L.M.C. 5.30 subject

TUE. 30 SEP 1930  
FRI. 23 MAY 1930



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CERTIFICATE WRITING  
C.L.

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