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Rpt. 4.  
18 AUG 1949

No. 23916

# REPORT ON STEAM RECIPROCATING ENGINE MACHINERY.

Received at London Office

28 JUL 1949

Date of writing Report 5<sup>th</sup> July 1949 When handed in at Local Office 11<sup>th</sup> July 1949 Port of GREENOCK

No. in Survey held at GREENOCK Date, First Survey 23<sup>rd</sup> Nov. 1948 Last Survey 30<sup>th</sup> June 1949  
Reg. Book (Number of Visits)

on the S.S. "Pine Land"

Built at DUNOSE By whom built CALEDON S/S & ENG CO L<sup>td</sup> Yard No. 472 When built 1949

Engines made at GREENOCK By whom made JOHN G. KINCAID & CO L<sup>td</sup> Engine No. 795 When made 1949

Boilers made at do By whom made do Boiler No. 795 When made 1949

Registered Horse Power Owners CURRIE LINE L<sup>td</sup> Port belonging to Link

Nom. Horse Power as per Rule 412 Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted Yes

Trade for which vessel is intended Ocean

## ENGINES, &c.—Description of Engines

Triple Expansion ✓

Revs. per minute 105

Dia. of Cylinders 19" 31" 55" Length of Stroke 36" ✓ No. of Cylinders 3 No. of Cranks 3

Crank shaft, dia. of journals as per Rule 10.754" Mid. length breadth 17" Thickness parallel to axis 6 3/4" ✓  
as fitted 10.875" Crank pin dia. 1 1/4" Crank webs shrunk Thickness around eye-hole 4 7/5" ✓  
Intermediate Shafts, diameter as per Rule 10.242" Thrust shaft, diameter at collars as per Rule 10.7541" ✓  
as fitted 10.375" ✓ as fitted 10.875" ✓

Tube Shafts, diameter as per Rule ✓ Screw Shaft, diameter as per Rule 11.802" ✓ Is the screw shaft fitted with a continuous liner No ✓  
as fitted as fitted 12.125" ✓

Bronze Liners, thickness in way of bushes as per Rule ✓ Thickness between bushes as per Rule ✓ Is the after end of the liner made watertight in the propeller boss ✓  
as fitted 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 Yes If so, state type "CEORAVALLI" Length of Bearing in Stern Bush next to and supporting propeller 4' 0 1/2"

Propeller, dia. 13' 0" Pitch 12' 8 1/2" No. of Blades 4 Material MS whether Moveable No Total Developed Surface 55.5 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. Two Diameter 3 1/4" Stroke 21" Can one be overhauled while the other is at work Yes

Feed Pumps No. and size 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 both to Main Bilge Pumps and Auxiliary Bilge Pumps:—In Engine and Boiler Room

In Pump 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 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 5) Total Heating Surface of Boilers 4940<sup>ft</sup> Sup<sup>er</sup> 2020<sup>ft</sup>

Which Boilers are fitted with Forced Draft Both boilers Which Boilers are fitted with Superheaters Both boilers

No. and Description of Boilers Two cylindrical SE Working Pressure 220 lb ✓

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 other than domestic purposes ✓

PLANS. Are approved plans forwarded herewith for Shafting Yes Main Boilers Yes Auxiliary Boilers ✓ Donkey Boilers ✓  
(If not state date of approval)

Superheaters General Pumping Arrangements ENG Room 8-10-45 Oil fuel Burning Piping Arrangements 14-10-45

## SPARE GEAR.

Has the spare gear required by the Rules been supplied Yes

State the principal additional spare gear supplied See separate list

The foregoing is a correct description.

For JOHN G. KINCAID & CO., LIMITED.

Manufacturer.



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Lloyd's Register Foundation

009976-009985-0174

Dates of Survey while building

(1948) Nov. 23. (1949) Jan. 10. 24. Feb. 21. 22. Mar. 14. 15. 18. 25. April 1. 12. 18. 21. 22. 25. May 2. 5. 9. 12. 16. 18. 20. 23.

During progress of work in shops - - - - -  
 June 3. 6. 7. 8. 14. 16. 20. 22. 24. 29. 30.

During erection on board vessel - - - - -

Total No. of visits 34.

Dates of Examination of principal parts—Cylinders 9-5-49 Slides 9-5-49 Covers 9-5-49

Pistons 16-6-49 Piston Rods 14-6-49 Connecting rods 14-6-49

Crank shaft 14-6-49 Thrust shaft 1-4-49 Intermediate shafts 16-5-49

Tube shaft ✓ Screw shaft 12-4-49 Propeller 12-4-49

Stern tube 22-2-49 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 SMS Identification Mark 17731 <sup>LLOYDS</sup> CNH 12/49 Thrust shaft material SMS Identification Mark 17822 <sup>LLOYDS</sup> CNH 1-4-49

Intermediate shafts, material SMS Identification Marks 17731 <sup>LLOYDS</sup> OUT 16/5/49 Tube shaft, material ✓ Identification Mark ✓

Screw shaft, material SMS Identification Mark 17731 <sup>LLOYDS</sup> CNH 12/4/49 Steam Pipes, material SDS Test pressure 660 lbs / sq in Date of Test 3. 14. 30 JUNE '49

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 Yes If so, state name of vessel GPK FE of N° 23847

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

This machinery has been constructed under special survey in accordance with the Rules & approved plans. The materials & workmanship are sound & good. It has now been dispatched to Dundee to be installed in the vessel and will be eligible to be classed in the Register book with Record + LMC with date & notation 2 SB 220 lbs / sq in FD Suppl. Screw shaft 106 & fitted for oil fuel FP above 150° on completion of the installation.

Certificates common to this engine & 797 (Calcutta 9/3 6 468) are forwarded

The above machinery has now been efficiently installed in the S.S. "Pine Wood" (Calcutta 9/3 6 472) as per bundle F.E. Rpt No 9405.

H. Clow, Engineer  
 August 14/49

J.W.P.  
 12.7.49

Certificate to be sent to  
 The amount of Entry Fee ... £ 118 : 18 :  
 1/3 Credit Demand Special ... £ 29 : 14 :  
 Donkey Boiler Fee ... £ : :  
 Travelling Expenses (if any) £ : :  
 Date GLASGOW 27 JUL 1949 14 SEP 1949

The amount of Entry Fee	£ 118 : 18 :	When applied for,
1/3 Credit Demand Special	£ 29 : 14 :	11 <sup>th</sup> July 1949
Donkey Boiler Fee	£ : :	When received,
Travelling Expenses (if any)	£ : :	19

Checked by Humber  
 Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute  
 Referred for completion  
 H.A.

