

# REPORT ON STEAM RECIPROCATING ENGINE MACHINERY.

Received at London Office

15 SEP 1949

Date of writing Report 4/9/49 19 When handed in at Local Office 9/9/49 19 Port of Dundee  
 No. in Survey held at Dundee Date, First Survey 8/4/49 Last Survey 12/8/49 19  
 Reg. Book (Number of Visits 14)  
 on the S.S. "Penzance" Tons { Gross 2459  
 Net 1403  
 Built at Dundee By whom built Caledon S. B. & Eng. Co. Ltd. Yard No. 442 When built 1949  
 Engines made at Greenock By whom made John G. Maccaid & Co. Ltd. Engine No. 498 When made 1949  
 Boilers made at do By whom made do Boiler No. 498 When made 1949  
 Registered Horse Power Owners Currie & Co. Ltd. Port belonging to Leith  
 Nom. Horse Power as per Rule 320 412 = MN Is Refrigerating Machinery fitted for cargo purposes no Is Electric Light fitted yes  
 Trade for which vessel is intended Ocean Going

ENGINES, &c.—Description of Engines Triple Expansion Revs. per minute 105  
 Dia. of Cylinders 19-3/4-55 Length of Stroke 36 No. of Cylinders 3 No. of Cranks 3  
 Crank shaft, dia. of journals as per Rule 10.454 Crank pin dia. 1 1/4 Crank webs Mid. length breadth 14 Thickness parallel to axis 6 3/4  
 as fitted 10.845 Mid. length thickness 6 3/4 shrunk Thickness around eye-hole 4 1/8  
 Intermediate Shafts, diameter as per Rule 10.242 Thrust shaft, diameter at collars as per Rule 10.4541  
 as fitted 10.345 as fitted 10.845  
 Tube Shafts, diameter as per Rule 11.802 Screw Shaft, diameter as per Rule 12.125 Is the tube shaft fitted with a continuous liner { no }  
 as fitted ✓ as fitted ✓  
 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  
 as fitted ✓ as fitted ✓ 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  
 at yes If so, state type Acad Valve Length of Bearing in Stern Bush next to and supporting propeller 4'-0 1/2  
 Propeller, dia. 13'0" Pitch 12.83 No. of Blades 4 Material M.B. 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. 400 Diameter 3 1/4 Stroke 21 Can one be overhauled while the other is at work yes  
 Feed Pumps { No. and size 2 Duplex 8 1/2 x 6 x 18 Stroke: 1 Duplex 9 x 10 x 16: 1 Duplex 8 x 4 x 8 Pumps connected to the { No. and size 2 Rams 3 1/4 DIA x 21 Stroke: 1 Duplex 9 x 10 x 16: 1 Duplex 8 x 4 x 8  
 How driven Independent - Steam Main Bilge Line How driven M. Engine : Independent - Steam  
 Ballast Pumps, No. and size 1 Duplex 9 x 10 x 10 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 1 P.S. x 1/2: 1 x 2 Through Access: 1 P. 15 x 2 1/2 B.L.R.M.: 1 x 2 1/2 Cofferdam: 2 P. 35 x 2 OIL B.T. 1 x 2 1/2 Tunnel W.E.L.  
 In Pump Room ✓ In Holds, &c. No. 1 P.S. x 1/2: No. 2 P.S. x 3: No. 3 P.S. x 3 1/2

Main Water Circulating Pump Direct Bilge Suctions, No. and size 1 x 4 Independent Power Pump Direct Suctions to the Engine and/or Boiler Room Bilges,  
 No. and size 1 x 4 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 ✓ How are they protected ✓  
 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 yes Is it fitted with a watertight door yes worked from Upper Deck

MAIN BOILERS, &c.—(Letter for record 5) Total Heating Surface of Boilers 4940 sq Sup 2020 sq  
 Which Boilers are fitted with Forced Draft Both Which Boilers are fitted with Superheaters Both  
 No. and Description of Boilers Two Cylindrical S.E. Working Pressure 220 LBS/SQ  
 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 ✓ Main Boilers ✓ Auxiliary Boilers ✓ Donkey Boilers ✓  
 (If not state date of approval)  
 Superheaters ✓ General Pumping Arrangements 18.1.48 Oil fuel Burning Piping Arrangements 12.10.48

### SPARE GEAR.

Has the spare gear required by the Rules been supplied yes with additions  
 State the principal additional spare gear supplied one spare C.S. propeller.

FOR AND ON BEHALF OF  
 THE CALEDON SHIPBUILDING & ENGINEERING CO. LTD.  
 The foregoing is a correct description.

[Signature] Manufacturer.



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As per G.R.K. & E. Rpt No 23916

Dates of Survey while building  
 During progress of work in shops - -  
 During erection on board vessel - - -  
 Total No. of visits

1949 Apr. 8, 22. May 24 June 21. July 1, 5, 12, 15, 19. Aug. 3, 5, 8, 10, 12  
 = 14.

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 1-8-49 Propeller 1-8-49  
 Stern tube 22-2-49 Engine and boiler seatings 11<sup>th</sup> + 14<sup>th</sup> / 4/49 Engines holding down bolts 1-4-49  
 Completion of fitting sea connections 10-5-49  
 Completion of pumping arrangements 8-8-49 Boilers fixed 21-6-49 Engines tried under steam 12-8-49  
 Main boiler safety valves adjusted 8-8-49 Thickness of adjusting washers R.B.R. 29/64 : 4/16 : 3/8 S.B.R. 3/8 : 1/2 : 3/8  
 Crank shaft material S.M.S Identification Mark 14431.C.N.H.12.6.49 Thrust shaft material S.M.S Identification Mark 14822.C.N.H.14.49  
 Intermediate shafts, material S.M.S Identification Marks 14431.C.N.H.12.6.49 Tube shaft, material ✓ Identification Mark 3<sup>rd</sup>, 14.2, 30<sup>th</sup>  
 Screw shaft, material S.M.S Identification Mark J.C.B. 26.4.49 Steam Pipes, material SDS Test pressure 600 LBS/P Date of Test JUNE 49  
 Is an installation fitted for burning oil fuel Yes ✓ Is the flash point of the oil to be used over 150° F. ✓ Yes  
 Have the requirements of the Rules for the use of oil as fuel been complied with Yes ✓  
 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 S.S. "WOODLAND" (Glasgow No 468)

General Remarks (State quality of workmanship, opinions as to class, &c. As per Gruncok & E. Rpt No 23916  
 This machinery has now been efficiently installed in the above named vessel, tried under working conditions satisfactorily, and eligible, in our opinion, to be Classed in the Register Book with Record to L.M.C 8.49 and testation 25.3.220 LBS/P "E.D. Sup<sup>th</sup>. Screw shaft O.G. and fitted for oil fuel 8.49. F.P above 150° F

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

The amount of Entry Fee £ 29 : 14 :  
 Special ... .. £ : :  
 Donkey Boiler Fee ... .. £ : :  
 Travelling Expenses (if any) £ : :  
 When applied for, ✓ 19  
 When received, 16/4/ 1949

G. Clib. Juniper & J. McLean  
 Engineer Surveyors to Lloyd's Register of Shipping.

Date GLASGOW 14 SEP 1949

Committee's Minute  
 -+ Linc 8.49 20 P  
 Fitted for oil fuel 8.49 F.P above 150° F

