

REPORT ON STEAM RECIPROCATING ENGINE MACHINERY.

Received at London Office

JUN -5 1940

Date of writing Report 22/5/40 When handed in at Local Office 24/5/40 Port of MIDDLESBROUGH

No. in Survey held at South Bank Date, First Survey Sept. 13, 1939 Last Survey 22/5/1940
Reg. Book: 39924 on the S.S. "LANCASTRIAN PRINCE" (Number of Visits 25) Gross 1913.72 Tons

Built at South Bank By whom built Smiths Dock Co Ltd Yard No. 1067 When built 1940-
Engines made at South Bank By whom made Smiths Dock Co Ltd Engine No. 529 when made 1940

Boilers made at Hartlepool By whom made Richardsons Westgarth Boiler No. D529 when made 1939

Registered Horse Power 394.5 Owners Prince Line Ltd Port belonging to London

Nom. Horse Power as per Rule 394.5 Is Refrigerating Machinery fitted for cargo purposes No. Is Electric Light fitted Yes

Trade for which Vessel is intended Passenger

ENGINES, &c.—Description of Engines Triple Expansion Revs. per minute 85
Dia. of Cylinders 21, 35, 60 Length of Stroke 42 No. of Cylinders 3 No. of Cranks 3
Crank shaft, dia. of journals as per Rule 12.075 Crank pin dia. 12 1/2 Crank webs Mid. length breadth 19 1/4 Thickness parallel to axis 7 13/16
as fitted 12 1/2 Mid. length thickness 7 13/16 shrunk Thickness around eye hole 5 1/2

Intermediate Shafts, diameter as per Rule 11 5/8 Thrust shaft, diameter at collars as per Rule 12.075
as fitted 11 7/8 as fitted 12 1/2

Tube Shafts, diameter as per Rule 13 1/4 Is the screw shaft fitted with a continuous liner Yes
as fitted 13 1/4

Bronze Liners, thickness in way of bushes as per Rule 11/16 Thickness between bushes as per Rule 17/32
as fitted 23/32 as fitted 17/32 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 one length

If the liner does not fit lightly at the part between the bearings in the stern tube, is the space charged with a plastic material insoluble in water and non-corrosive Yes
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 Yes

Propeller, dia. 15'-3" Pitch 16'-6" No. of Blades 4 Material Bronze whether Movable Solid Total Developed Surface 84.2 sq. feet
Feed Pumps worked from the Main Engines, No. 2 Diameter 4" Stroke 21" Can one be overhauled while the other is at work Yes

Bilge Pumps worked from the Main Engines, No. 2 Diameter 4" Stroke 21" Can one be overhauled while the other is at work Yes
Feed Pumps No. and size 2-9 1/2" x 7" x 21" Simplex Pumps connected to the Main Bilge Line (No. and size Ballast Pump)
How driven Steam How driven Steam

Ballast Pumps, No. and size 1-9" 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 4-2 1/2"; Dry Tank 1-2 1/2"

In Holds, &c. No. 1. 2-2 1/2"; No. 2. 2-2 1/2"; No. 3. 2-2 1/2"; No. 4. 4-2 1/2"
Tunnel Well 1-2 1/2"

Main Water Circulating Pump Direct Bilge Suctions, No. and size 1-9" Independent Power Pump Direct Suctions to the Engine Room Bilges, No. and size 1-4"
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 Both
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 Bilge Pipes How are they protected Strong steel 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 Yes Is it fitted with a watertight door Yes worked from Upper platform

MAIN BOILERS, &c.—(Letter for record S) Total Heating Surface of Boilers 5968 sq
Is Forced Draft fitted Yes No. and Description of Boilers 2 S.B Working Pressure 220 lbs / sq

IS A REPORT ON MAIN BOILERS NOW FORWARDED? See Hpl Report
IS A DONKEY BOILER FITTED? No If so, is a report now forwarded? ✓

PLANS. Are approved plans forwarded herewith for Shafting 14/6/39 Main Boilers See Hpl Auxiliary Boilers ✓ Donkey Boilers ✓
(If not state date of approval) 15/4/39

Superheaters 13/4/39 General Pumping Arrangements 13/6/39 Oil fuel Burning Piping Arrangements ✓

SPARE GEAR. State the articles supplied:—1 connecting rod bottom end bearing nuts
1 connecting rod top end bearing nuts; 1 set of coupling bolts; 1 set of propeller valves & seats; 1 set of air pump valves
1 propeller shaft (spare); 1 set valves of each size used for the liquid end of each independent pump; 1 valve lid for main feed check valve; 1 impeller shaft for main circulating pump; 1 set of pads of each band for 1 pad of Michell thrust block; 1 set metallic packing complete for each size of main piston rod; 1 set H.P. Piston rings; 12 boiler tube stoppers; 1 set of five bars for 1 furnace; 2 main bearing bolts; steel bars & plates of various sizes.

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

W. W. W. W. Manufacturer.



W187-0070

Dates of Survey while building
 During progress of work in shops -- Sept. 13, 22, 28, Oct. 5, 14, Dec. 12, Feb. 2, 12, 21, 22.
 During erection on board vessel --- March 11, 12, 14, 20, 28, 29, April 2, 3, 11, 15, 22, 25, 26, May 1, 22.
 Total No. of visits Twenty-five.

Dates of Examination of principal parts—Cylinders 22/1+12/2/40 Slides 12/2/40 Covers 12/2/40
 Pistons 9/2/40 Piston Rods 21/2/40 Connecting rods 22/2/40
 Crank shaft 12/2+15/4/40 Thrust shaft 15/4/40 Intermediate shafts 15/4/40
 Tube shaft ✓ Screw shaft 11+12/3/40 Propeller 12/3/40
 Stern tube 11+12/3/40 Engine and boiler seatings 29/2/40 Engines holding down bolts 15/4/40
 Completion of fitting sea connections 5/3/40
 Completion of pumping arrangements 18/4/40 Boilers fixed 18/4/40 Engines tried under steam 25/4/40
 Main boiler safety valves adjusted 25/4/40 Thickness of adjusting washers P 3/8" S 23/64" Supt 9/32" P 21/64" S 1/32" Supt 5/16" NO 4552
 Crank shaft material S.M. Steel Identification Mark NO 4550 24/10/39 JFC Thrust shaft material S.M. Steel Identification Mark NO 4552 24/10/39 JFC
 Intermediate shafts, material S.M. Steel Identification Marks 4553-57 24/10/39 JFC Tube shaft, material ✓ Identification Mark ✓
 Screw shaft, material S.M. Steel Identification Mark NO 4559 24/10/39 JFC Steam Pipes, material S.D. Steel Test pressure 660 lbs Date of Test 14/3-15/4
 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 carrying and burning oil fuel been complied with ✓
 Is this machinery duplicate of a previous case Yes If so, state name of vessel S/S 'NORMAN PRINCE'

General Remarks (State quality of workmanship, opinions as to class, &c.) The machinery of this vessel has been constructed under Special Survey in accordance with the approved plans, & Rule Reg. The workmanship & materials are good. The machinery found satisfactory under working conditions, & eligible in my opinion to have a vessel of + L.M.C 5,40, notation of Tail shaft (C.L) 5,40, forced draught, & Superheated.

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

The amount of Entry Fee ... £ 5 : - : When applied for,
 Less Boilers Special ... £ 51 : 15 : 4-6-1940
 Donkey Boiler Fee ... £ : : : When received,
 Travelling Expenses (if any) £ : : : 2nd August 1940 R.S.J. 5/8

R. J. Easthope
 Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute
 Assigned + L.M.C 5.40 Spl
 J.D., Cl.



Date of writt
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