

# REPORT ON STEAM RECIPROCATING ENGINE MACHINERY.

6 OCT 1950

Received at London Office

2 OCT 1950

Date of writing Report 19... When handed in at Local Office 19... Port of HULL.

No. in Survey held at HULL. Date, First Survey 30. 3. 50 Last Survey 11. 9. 1950  
 Reg. Book (Number of Visits 29)

95030 on the Steam Trawler "PRINCESS ELIZABETH". Tons: Gross 816 Net 789

Built at Beverley By whom built Cook, Welton & Gemmell, Ltd. Yard No. 824 When built 1950

Engines made at Hull By whom made C.D. Holmes & Co., Ltd. Engine No. 1799 When made -do-

Boilers made at -do- By whom made -do- Boiler No. 1799 When made -do-

Registered Horse Power - Owners St. Andrew's Steam Fishing Co., Ltd. Port belonging to Hull

Nom. Horse Power 183 MN 234 Is Refrigerating Machinery fitted for cargo purposes Yes Is Electric Light fitted Yes

Trade for which vessel is intended Ocean-going trawler.

**ENGINES, &c.**—Description of Engines Steam reciprocating, triple expansion Revs. per minute 130

Dia. of Cylinders 15 1/2", 20", 43" Length of Stroke 27" No. of Cylinders 3 No. of Cranks 3

Crank shaft, dia. of journals as per Rule approx. 8 1/2" Crank pin dia. 8 1/2" Mid. length breadth 16 1/2" Thickness parallel to axis 5 1/2"  
 as fitted 8 1/2" Crank webs 5 1/2" shrunk Thickness around eye-hole 4"

Intermediate Shafts, diameter as per Rule approx. 8 1/2" Thrust shaft, diameter at collars as per Rule approx. 8 1/2"  
 as fitted 8 1/2" as fitted 8 1/2"

Tube Shafts, diameter as per Rule - Screw Shaft, diameter as per Rule approx. 9 1/2" Is the shaft fitted with a continuous liner Yes  
 as fitted - as fitted 9 1/2" T.O.C.

Bronze Liners, thickness in way of bushes as per Rule approx. 5/8" Thickness between bushes as per Rule 1/2" Is the after end of the liner made watertight in the propeller boss Yes  
 as fitted 5/8" as fitted 1/2"

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 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 - If so, state type - Length of Bearing in Stern Bush next to and supporting propeller 42 1/2"

Propeller, dia. 11 1/3" Pitch 8.71/11.16 No. of Blades 4 Material M.B. whether Moveable solid Total Developed Surface 42 sq. feet

Feed Pumps worked from the Main Engines, No. 2 Diameter 3" Stroke 16" Can one be overhauled while the other is at work Yes

Bilge Pumps worked from the Main Engines, No. 2 Diameter 3" Stroke 16" Can one be overhauled while the other is at work Yes

Feed Pumps No. and size 2-3" 16", 2-7" 5x6, 1 1/2" injector Pumps connected to the Main Bilge Line No. and size 2-3" 16"; 1-7" 5x6; 1-3" ejector.  
 How driven M.E. Stn. Stn. ME Steam Steam

Ballast Pumps, No. and size 1 for G.S. 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 2-2" in E.R. 2-2" in B.R. In Pump Room - In Holds, &c. One 2" to each of fore hold, slushwell, forward cofferdam.

Main Water Circulating Pump Direct Bilge Suctions, No. and size 1-5" Independent Power Pump Direct Suctions to the Engine and/or Boiler Room Bilges, No. and size 1-3" steam 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 or to welded box. Are they fitted with Valves or Cocks Yes except 3" ejector direct suction.

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 -

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 - Is it fitted with a watertight door - worked from -

**MAIN BOILERS, &c.**—(Letter for record S.) Total Heating Surface of Boilers 2875 + 1152 = 4027 sq. ft.

Which Boilers are fitted with Forced Draft sole Which Boilers are fitted with Superheaters sole

No. and Description of Boilers 1 S.E. multitubular Working Pressure 225 lb/sq. in.

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 28.2.50 Main Boilers 29.8.49 Auxiliary Boilers - Donkey Boilers -  
 (If not state date of approval)

Superheaters gen. approval General Pumping Arrangements 3.3.50. Oil fuel Burning Piping Arrangements 6.2.50.

### SPARE GEAR.

Has the spare gear required by the Rules been supplied Yes

State the principal additional spare gear supplied No major items

Designed I.H.P. 1100 at 130 R.P.M.  
 Service I.H.P. 1000 at 122 R.P.M.

The foregoing is a correct description.

FOR CHARLES D. HOLMES & CO., LTD.

Manufacturer.

*W.H. Green*  
 Manager



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Dates of Survey while building  
 During progress of work in shops -- 1950. Mar. 30; Apr. 20; May 5, 11, 17, 19, 24, 26. June 2, 5, 6, 13, 15, 19, 21, 26, 28; July 3, 4; Aug 18, 22, 23, 25-31.  
 During erection on board vessel --- 1950. May 25; June 2; Aug 24; Sept. 8, 11.  
 Total No. of visits 29.

Dates of Examination of principal parts—Cylinders 5.5.50. 11.5.50. Slides 13.6.50. Covers 13.6.50.  
 Pistons 13.6.50. Piston Rods 13.6.50. Connecting rods 13.6.50.  
 Crank shaft 13.6.50. Thrust shaft 30.3.50. Intermediate shafts 30.3.50.  
 Tube shaft - Screw shaft 19.5.50. Propeller 2.6.50.  
 Stern tube 25.5.50. Engine and boiler seatings 25.5.50. Engines holding down bolts 24.8.50.  
 Completion of fitting sea connections 2.6.50.  
 Completion of pumping arrangements 8.9.50. Boilers fixed 24.5.50. Engines tried under steam 11.9.50.  
 Main boiler safety valves adjusted 8.9.50. Thickness of adjusting washers P. 7/16", S. 3/8", Spt. 3/16".  
 Crank shaft material SM Steel Identification Mark LLOYD'S 9188/9, 3982, 2399 Thrust shaft material SM Steel Identification Mark LLOYD'S 945 KF  
 Intermediate shafts, material -do- Identification Marks LLOYD'S 977 CP 27.2.50. Tube shaft, material -do- Identification Mark -30.3.50.  
 Screw shaft, material -do- Identification Mark LLOYD'S 9207 KF Steam Pipes, material Steel Test pressure 675lb. Date of Test 18.8.50.  
 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 "LIFEGUARD".

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

The machinery of this vessel has been constructed and installed under Special Survey in accordance with the Secretary's letters, approved plans and the Rules.

The materials and workmanship are good.

On completion the main and auxiliary machinery was examined under working conditions and found in order.

The machinery is eligible in my opinion to have the Notation:-

+IMC 9,50 C.L. 3 cyl. 15 1/2", 26", 43", - 27".  
 225lb. 1 S.B. (spt.)  
 3 cf. H.S. 4027 sq.ft. F.D.  
 Fitted for oil fuel 9,50 F.P. above 150° F.

The amount of Entry Fee ... £ : :  
 Special ... +IMC ... £ 93 : 12 :  
 Donkey Boiler Fee ... £ : :  
 Travelling Expenses (if any) £ : :  
 When applied for 11th OCT 1950  
 When received,

W. Chambers.  
 Engineer Surveyor to Lloyd's Register of Shipping.

Date

FRI. 27 OCT 1950

FIXED FOR OIL FUEL 9.50 FLASH POINT ABOVE 150°F.

F.D. C.L. 15B 225lb Spt.



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Date of writing  
 No. in Survey Reg. Book  
 on  
 Built at  
 Engines made  
 Boilers made  
 Registered  
 Nom. Horse Power  
 Trade for which  
 ENGINES,  
 Dia. of Cylinder  
 Crank shaft, dia.  
 Intermediate  
 Tube Shafts,  
 Bronze Liners,  
 propeller boss  
 If the liner does  
 If two liners are  
 at  
 Propeller, dia.  
 Feed Pumps  
 Bilge Pumps  
 Feed Pumps  
 No. and size  
 How  
 Ballast Pumps  
 Are two independent  
 Bilge Pumps  
 In Pump Room  
 Main Water C  
 No. and size  
 Are the Bilge  
 Are all Sea Co  
 Are they fixed  
 Are they each f  
 What Pipes pa  
 What pipes pa  
 Are all Pipes,  
 Is the arrangem  
 compartment to  
 MAIN BOIL  
 Which Boilers  
 No. and Descri  
 IS A REPC  
 IS A DON  
 Can the donkey  
 PLANS.  
 Superheaters  
 Has the spare  
 State the princ

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