

REPORT ON STEAM RECIPROCATING ENGINE MACHINERY.

Received at London Office

15 AUG 1935

of writing Report 12/8/1935 When handed in at Local Office 14 AUG 1935 Port of Newcastle-on-Tyne

in Survey held at Newcastle

Date, First Survey 16 Apr 1935 Last Survey 23 July 1935

Book. on the steam trawler "WHITE PIONEER"

(Number of Vents)

Tons { Gross 270.5 Net 117.94

built at Aberdeen

By whom built John Lewis & Son Ltd

Yard No. 134

When built 1935

Engines made at Hebburn

By whom made White's Marine Engineering Co. Ltd

Engine No. 3.C

When made 1935

Boilers made at Stockton

By whom made Stockton Chemical Engineers

Boiler No.

When made 1935

Indicated Horse Power SHP 450

Owners White Trawlers Ltd.

Port belonging to Newcastle

Indicated Horse Power as per Rule 97

Is Refrigerating Machinery fitted for cargo purposes No

Is Electric Light fitted Yes

Used for which Vessel is intended

Trawler.

Flexible Coupling fitted between turbine & 1st piston 11/35

GINES, &c.—Description of Engines Compound Recip. with L.P. Exhaust Turbine geared to Main Shaft Revs. per minute 260

No. of Cylinders 9 1/2 - 19 3/4 Length of Stroke 12" No. of Cranks 2

Crank shaft, dia. of journals as per Rule 4.65" as fitted 6" Crank pin dia. 6" Crank webs Mid. length breadth 8" Mid. length thickness 4 1/2" Thickness parallel to axis Thickness around eye-hole

Intermediate Shafts, diameter as per Rule None as fitted Thrust shaft, diameter at collars as per Rule 5.65" as fitted 7 1/2"

Propeller Shafts, diameter as per Rule 6.18" as fitted 7 5/8" Is the shaft fitted with a continuous liner Yes

Bronze Liners, thickness in way of bushes as per Rule 5" as fitted 17/32" Thickness between bushes as per Rule .375" as fitted 13/32" 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

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

Length of Bearing in Stern Bush next to and supporting propeller 30 1/2"

Propeller, dia. 9'-4 1/2" Pitch 11'-13/8" No. of Blades 4 Material 6. Iron whether Movable Solid Total Developed Surface 33 sq. feet

Feed Pumps worked from the Main Engines, No. One Diameter 2 1/4" Stroke 8" Can one be overhauled while the other is at work

Bilge Pumps worked from the Main Engines, No. One Diameter 2 1/4" Stroke 8" Can one be overhauled while the other is at work

Feed Pumps { No. and size 1 General Service 6" x 4" x 6" Pumps connected to the { No. and size Same pumps for general service, How driven One 180 x 2 3/4 x 4 1/2 fitted 11/35 Main Bilge Line How driven 4 feed.

Ballast Pumps, No. and size Same pumps above Lubricating Oil Pumps, including Spare Pump, No. and size 1 - 2 1/2" Rotary Pump on shaft, 1 - 4" x 3 1/2" x 9" Steam Pump.

Are two independent means arranged for circulating water through the Oil Cooler Yes Suctions, connected to both Main Bilge Pumps and Auxiliary

Bilge Pumps;—In Engine and Boiler Room Two 2" dia. In Holds, &c. One 2" from slush well.

In Pump Room

Main Water Circulating Pump Direct Bilge Suctions, No. and size One 3 1/2" Independent Power Pump Direct Suctions to the Engine Room Bilges,

No. and size One 2" & One 2" geyers 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 Strum boxes

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 For. suction How are they protected wood casing.

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

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 1580 sq. ft.

Is Forced Draft fitted No No. and Description of Boilers 1 S.E. Multitubular Working Pressure 220 lb./sq. in.

IS A REPORT ON MAIN BOILERS NOW FORWARDED? No

IS A DONKEY BOILER FITTED? No If so, is a report now forwarded?

Is the donkey boiler intended to be used for domestic purposes only

PLANS. Are approved plans forwarded herewith for Shafting Yes Main Boilers No Auxiliary Boilers No Donkey Boilers No

(If not state date of approval) Superheaters No General Pumping Arrangements No Oil fuel Burning Piping Arrangements No

SPARE GEAR.

Has the spare gear required by the Rules been supplied Yes. See also Secretary's letter 10/7/35.

State the principal additional spare gear supplied 6 pads for main thrust block, 10 condenser tubes & 20 ferrules,

3 boiler tubes, 3 safety valve springs, 2 studs & nuts for rotor bearing, 2 studs & nuts

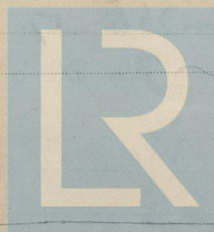
for main gear wheel bearing, 2 studs & nuts for pinion bearings, and 1 set of

pads for turbine Michell thrust bearings.

The foregoing is a correct description.

For White's Marine Engineering Co. Ltd.

Manufacturer.



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Lloyd's Register Foundation

003750-003762-0065

1935
 During progress of work in shops - - - Apr. 16-30 May 14-29 Jun 5-18 Jul. 4-9-12-17-22-23
 Dates of Survey while building During erection on board vessel - - - July 11-23-26 Aug. 1-7-20-28 Sept. 4-5-7
 Total No. of visits 12 + 10

Dates of Examination of principal parts—Cylinders 5-6-35 Slides 18-6-35 Covers 5-6-35
 Pistons 18-6-35 Piston Rods 4-7-35 Connecting rods 4-7-35
 Crank shaft 11-7-35 Thrust shaft 4-7-35 Intermediate shafts None
 Tube shaft None Screw shaft 5-7-35 Propeller 11-7-35
 Stern tube 5-6-35 Engine and boiler seatings 26-7-35 Engines holding down bolts 20-8-35
 Completion of fitting sea connections 26-7-35 Boilers fixed 20-8-35 Engines tried under steam 7-9-35
 Completion of pumping arrangements 7-9-35 Thickness of adjusting washers $P \frac{5}{16}$ S $\frac{3}{8}$
 Main boiler safety valves adjusted 4-9-35 Thrust shaft material Steel Identification Mark 2124 C.H.L.P.
 Crank shaft material Steel Identification Marks ✓ Tube shaft, material None Identification Mark 2123 C.H.L.P.
 Intermediate shafts, material None Identification Marks ✓ Steam Pipes, material S.D. Steel Test pressure 460 lb. Date of Test 23-8-35
 Screw shaft, material Steel Identification Mark 2128 C.B.
 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 ✓
 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 no If so, state name of vessel ✓
 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 approved plans and the Society's Rules. The materials and workmanship are good. This machinery has been forwarded to Aberdeen for installation on board the above vessel. The exhaust steam turbine and gearing has been opened out, examined and found in good order. This part of the machinery was originally constructed as part of Messrs. White's Marine Engineering Co. Ltd. Patent combined engine I.C. (See Secretary's letter dated 24-3-35 and Newcastle letter dated 28-3-35). The machinery when installed on board and satisfactorily tested under working conditions will, in my opinion, be eligible for the record of + L.M.C. (with date). This machinery has now been efficiently installed on board the steam trawler "WHITE PIONEER" & the vessel has now gone to the Tyne, where full power trials will be carried out. On satisfactory completion of trials the machinery will be eligible in my opinion for the record of + L.M.C. C.L. with date. P. Fitzgerald Aberdeen.

N.B. Fee due to Aberdeen for installing would be 1/5 of £24-5-0, applied for 11-9-35.

The amount of Entry Fee ... £ 2 : 0 : 0 When applied for, 14 AUG 1935
 Special Fee on Reciprocating engine ... £ 10 : 10 : 0 When received, 12-10-35
 Donkey Boiler Fee ... £ : : :
 Re-examination of turbine & gearing ... £ : : :
 Travelling Expenses (if any) ... £ : : :
 Installing (as above) £ 4-17-10 11/12 1935

A. W. Riddell
 Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute TUE. 24 SEP 1935 TUE. 10 DEC 1935

Assigned see Nov 92985

NEWCASTLE-ON-TYNE

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