

REPORT ON STEAM TURBINE MACHINERY.

No. 92837
15 AUG 1935

14 AUG 1935

Received at London Office

Writing Report 12/8/10³⁵ When handed in at Local Office

Port of

NEWCASTLE-ON-TYNE

Survey held at Newcastle

Date, First Survey 1st March 1932

Last Survey 23rd July 1935

Book.

(Number of Visits)

on the

Tons } Gross
Net

at Aberdeen

By whom built John Lewis & Son Ltd. Yard No. 1314

When built 1935

engines made at Hebburn

By whom made White's Marine Engine Co. Ltd. Engine No. 3C.

When made 1935

engines made at Stockton

By whom made Stockton Chemical Engineers + Riley Boilers Ltd. Boiler No.

When made

Horse Power at Full Power 5HP 450

Owners White Trawlers Ltd.

Port belonging to

Horse Power as per Rule 97

Is Refrigerating Machinery fitted for cargo purposes

Is Electric Light fitted

Vessel for which intended

Trawler

STEAM TURBINE ENGINES, &c.—Description of Engines

L.P. Exhaust Steam

of Turbines } Ahead Direct coupled, } to propelling shafts. No. of primary pinions to each set of reduction gearing }
 } Astern single reduction geared }
 } double reduction geared }
 coupled to { Alternating Current Generator phase periods per second } rated Kilowatts Volts at revolutions per minute;
 } Direct Current Generator }
 S. Applying power for driving Propelling Motors, Type
 Kilowatts Volts at revolutions per minute. Direct coupled, single or double reduction geared to propelling shafts.

EXPANSION	H.P.			I.P.			L.P.			ASTERN.		
	HEIGHT OF BLADES.	DIAMETER AT TIP.	NO. OF ROWS.	HEIGHT OF BLADES.	DIAMETER AT TIP.	NO. OF ROWS.	HEIGHT OF BLADES.	DIAMETER AT TIP.	NO. OF ROWS.	HEIGHT OF BLADES.	DIAMETER AT TIP.	NO. OF ROWS.
3-8-3							3/4"	15"	5			
"							1 1/6"	15 9/8"	3			
"							1 3/8"	16 1/4"	2			
"							1 7/8"	14 1/4"	2			
"							2 3/8"	18 1/4"	2			
"							3"	19 1/2"	2			
"							3"	19 1/2"	2			
"							3"	19 1/2"	2			

Revolutions per minute at each turbine { H.P. ✓
 { I.P. ✓
 { L.P. 180 ✓
 Pitch Circle Diameter { 1st pinion 3.48" 1st reduction wheel 29.625" Width of Face { 1st reduction wheel 9"
 { 2nd pinion 6.4" main wheel 31" { main wheel 15"
 { Eng. Pinion 13.4" main wheel 26 1/2" 13 1/8"

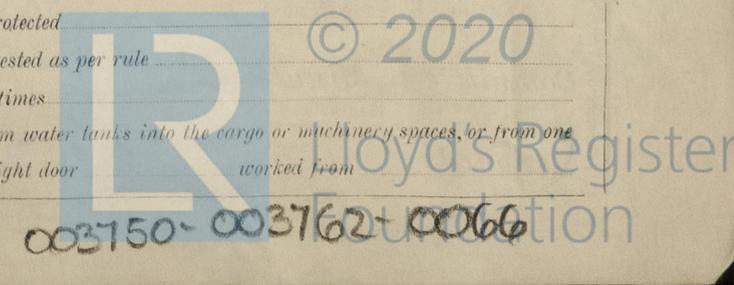
Distance between centres of pinion and wheel faces and the centre of the adjacent bearings { 1st pinion 4 1/2" Forrd 4 1/2" Aft 1st reduction wheel 4 1/2" Forrd 4 7/8" Aft
 { 2nd pinion 11 1/8" 13 1/8" main wheel 26 1/2" 13 1/8"
 External 1st { 2 1/2" 2nd { 5 1/2" 6 1/2" ENGINE
 Internal 1st { 2 1/2" 2nd { 3 1/2" 4 7/8" ENGINE
 Pinion Shafts, diameter at bearings { 1st 5 1/2"
 { 2nd 4" ENGINE
 Wheel Shafts, diameter at bearings { 1st 24.845" Generator Shaft, diameter at bearings
 { main Solid Propelling Motor Shaft, diameter at bearings
 Intermediate Shafts, diameter as per rule
 as fitted
 Thrust Shaft, diameter at collars as per rule
 as fitted

Tube Shaft, diameter as per rule
 as fitted
 Screw Shaft, diameter as per rule
 as fitted
 Is the { tube } shaft fitted with a continuous liner {
 { screw }
 Bronze Liners, thickness in way of bushes as per rule
 as fitted
 Thickness between bushes as per rule
 as fitted
 Is the after end of the liner made watertight in the
 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
 Length of Bearing in Stern Bush next to and supporting propeller

Propeller, diameter Pitch No. of Blades State whether Movable Total Developed Surface square feet.
 RECIP. ENGINE
 Can the H.P. or I.P. Turbine exhaust direct to the
 Condenser Yes No. of Turbines fitted with astern wheels None Feed Pumps { No. and size
 { How driven

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 to both Main Bilge Pumps and Auxiliary Bilge
 Pumps, No. and size:—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 Room
 Bilges, No. and size Are all the Bilge Suction pipes in Holds and Tunnel Well fitted with strum-boxes
 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
 How are they protected
 What pipes pass through the bunkers Have they been tested as per rule
 What pipes pass through the deep tanks
 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



BOILERS, &c.—(Letter for record) Total Heating Surface of Boilers

Is Forced Draft fitted No. and Description of Boilers Working Pressure

Is a Report on Main Boilers now forwarded?

Is { a Donkey } Boiler fitted? If so, is a report now forwarded?
 { an Auxiliary }

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

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

Superheaters General Pumping Arrangements Oil Fuel Burning Arrangements

SPARE GEAR.

Has the spare gear required by the Rules been supplied

State the principal additional spare gear supplied

For White's Marine Engineering Co. Ltd.

The foregoing is a correct description,

Manufactured

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

Dates of Examination of principal parts—Casings Rotors Blading Gearing
 Wheel shaft Thrust shaft Intermediate shafts Tube shaft Screw shaft
 Propeller Stern tube Engine and boiler seatings Engine 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
 Rotor shaft, Material and tensile strength Identification Mark
 Flexible Pinion Shaft, Material and tensile strength Identification Mark
 Pinion shaft, Material and tensile strength Identification Mark
 1st Reduction Wheel Shaft, Material and tensile strength Identification Mark

Wheel shaft, Material Identification Mark Thrust shaft, Material Identification Mark
 Intermediate shafts, Material Identification Marks Tube shaft, Material Identification Marks
 Screw shaft, Material Identification Marks Steam Pipes, Material Test pressure

Date of test 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 a duplicate of a previous case If so, state name of vessel

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

Certificate (if required) 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 ... £	:	:	When applied for,
Special ... £	:	:	
Donkey Boiler Fee ... £	:	:	When received,
Travelling Expenses (if any) £	:	:	

A. H. Riddelee
 Engineer Surveyor to Lloyd's Register of Shipping.

TUE. 24 SEP 1935

TUE. 10 DEC 1935

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Committee's Minute

Assigned

see NWC 9298



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