

REPORT ON STEAM RECIPROCATING ENGINE MACHINERY.

Received at London Office 28 FEB 1946

Writing Report 2nd Feb 1946 When handed in at Local Office 22nd Feb 1946, Port of NEWCASTLE-ON-TYNE
 Survey held at Wallsend on Tyne Date, First Survey (1945) Sept. 20th Last Survey Jan. 28th 1946
 Book "BALAENA" (Number of Visits 14) Tons {Gross / Net}
 on the "BALAENA"
 at Wallsend on Tyne By whom built N.E. Mar. Eng. Co. (1938) Ltd Yard No. 3132 When built 1946
 es/made at Belfast By whom made Harland & Wolff Ltd. Engine No. 1327 When made
 s made at
 29.3 Indicated Horse Power _____ Owners _____ Port belonging to _____
 46 Horse Power as per Rule _____ Is Refrigerating Machinery fitted for cargo purposes _____ Is Electric Light fitted _____
 for which vessel is intended _____

ES, &c.—Description of Engines Two Sets - 3 Cylr Triple Expn (Re-heat type) Revs. per minute ✓
 Cylinders 27, 44, 76" Length of Stroke 51" No. of Cylinders SIX No. of Cranks ✓
 shaft, dia. of journals as per Rule _____ Crank pin dia. _____ Mid. length breadth _____ Thickness parallel to axis _____
 as fitted _____ Crank web _____ Mid. length thickness _____ shrunk _____ Thickness around eye-hole _____
 Intermediate Shafts, diameter as per Rule _____ Thrust shaft, diameter at collars as per Rule _____
 as fitted _____ as fitted _____
 Shafts, diameter as per Rule _____ Screw Shaft, diameter as per Rule _____ Is the {tube / screw} shaft fitted with a continuous liner { _____
 as fitted _____ as fitted _____
 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 _____
 If the liner is in more than one length are the junctions made by fusion through the whole thickness of the liner _____
 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 _____
 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 _____
 If so, state type _____ Length of Bearing in Stern Bush next to and supporting propeller _____
 Pitch _____ No. of Blades _____ Material _____ whether Moveable _____ Total Developed Surface _____ sq. feet
 Pumps worked from the Main Engines, No. _____ Diameter _____ Stroke _____ Can one be overhauled while the other is at work _____
 Pumps worked from the Main Engines, No. _____ Diameter _____ Stroke _____ Can one be overhauled while the other is at work _____
 {No. and size / How driven} Pumps connected to the Main Bilge Line {No. and size / How driven} _____
 Lubricating Oil Pumps, including Spare Pump, No. and size _____
 independent means arranged for circulating water through the Oil Cooler _____ Suctions, connected to both Main Bilge Pumps and Auxiliary _____
 Pumps:—In Engine and Boiler Room _____
 In Holds, &c. _____
 Water Circulating Pump Direct Bilge Suctions, No. and size _____ Independent Power Pump Direct Suctions to the Engine Room Bilges, _____
 size _____ Are all the Bilge Suction Pipes in holds and tunnel well fitted with strum-boxes _____
 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 _____
 Sea Connections fitted direct on the skin of the ship _____ Are they fitted with Valves or Cocks _____
 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 _____
 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 _____
 Pipes pass through the bunkers _____ How are they protected _____
 pipes pass through the deep tanks _____ Have they been tested as per Rule _____
 Pipes, Cocks, Valves, and Pumps in connection with the machinery and all boiler mountings accessible at all times _____
 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 _____
 rtment 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 _____
 Boilers are fitted with Forced Draft _____ Which Boilers are fitted with Superheaters _____
 and Description of Boilers _____ Working Pressure _____
 REPORT ON MAIN BOILERS NOW FORWARDED? _____
 DONKEY BOILER FITTED? _____ If so, is a report now forwarded? _____
 e donkey boiler be used for domestic purposes only _____
 NS. Are approved plans forwarded herewith for Shafting _____ Main Boilers _____ Auxiliary Boilers _____ Donkey Boilers _____
 (If not state date of approval) _____
 eaters _____ General Pumping Arrangements _____ Oil fuel Burning Piping Arrangements _____

SPARE GEAR.

e spare gear required by the Rules been supplied For Piston Rods, Valves + rods, + for Piston Valves, Yes
 he principal additional spare gear supplied
One Piston Rod with nuts
One Guide Shoe complete
One L.P. Valve spindle complete
One set of packing rings + springs for ONE HP piston
One " " " " for each MP
One " " " " for each L.P.
One set wearing parts + springs for each Piston Rod
One " " " " for each HP Valve Rod
conts.
 Poppet Valve Gear:—
2 Valves (1 for HP, 1 for MP)
2 Rollers with pins + 2 Roller Bearings
2 Main Springs (1 for HP, 1 for MP)
2 Roller Springs (" ")
2 Spindles + bushes for spring ends
4 " " for Valve cage covers
2 Poppet guide bushes

The foregoing is a correct description.
 THE NORTH EASTERN MARINE ENGINEERS' CO. (1938) LTD. Manufacturer.
 Director & Resident Manager.
 CONT'D OVER. Ray
 Lloyd's Register
 009557-009561-0727

During progress of work in shops - - (1945) Sept. 20, Nov. 6, 22, 30 Dec. 5, 7, 13, 13, 18, 19, 21. (1946) Jan. 10, 21, 28

Dates of Survey while building { During erection on board vessel - - - }

Total No. of visits 14

Dates of Examination of principal parts—Cylinders 6th/11/45 to 19/12/45 Slides 12-12-45 Covers as cylinders

Pistons 12-12-45 Piston Rods 28-1-46 Connecting rods ✓

Crank shaft ✓ Thrust shaft ✓ Intermediate shafts ✓

Tube shaft ✓ Screw shaft ✓ Propeller ✓

Stern tube ✓ Engine and boiler seatings ✓ Engines 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

Crank shaft material Identification Mark Thrust shaft material Identification Mark

Intermediate shafts, material Identification Marks Tube shaft, material Identification Mark

Screw shaft, material Identification Mark 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 duplicate of a previous case. If so, state name of vessel

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

These Cylinders are intended for Harland & Wolff Co, Belfast for their Engines No 1327. They have been constructed by N.E. MacEwan (1938) Ltd, Wallsend on Tyne under their order Contract No 3132 which comprises the two sets of cylinders for Port & Starboard Engines, viz, HP, MP & LP with covers, pistons & p rods, valves & v rods (the HP & MP being Poppet Valves), together with an 8" C Stl main Engine Stop Valve and Re-heater with fittings for each engine. They have been constructed under survey in accordance with the Society's Rules, and the material and workmanship are good.

After partly dismantling and packing, they are to be dispatched to Belfast to be built into the Harland & Wolff Engines No 1327. Attached are Balance Casting Reports for the Cylinders made by N.E. MacEwan (Rpt 7a. New. Cert. No [22037]), together with Rpt 7a. for other Engines and forgings etc.

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	£	:	:	When applied for,
Special	£	:	:	19
Donkey Boiler Fee	£	:	:	When received,
Travelling Expenses (if any)	£	:	:	19

A Watt,

Engineer Surveyor to Lloyd's Register of Shipping

Committee's Minute FRI 22 NOV 1946

Assigned See F.E. maly rpt.

