

REPORT ON STEAM RECIPROCATING ENGINE MACHINERY.

29 MAY 1945

Received at London Office 30 MAY 1945

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

No. in Survey held at Selby Hull Date, First Survey 18.9.45 Last Survey 9.4.1946
 Reg. Book (Number of Visits 40.)

on the Steam Trawler **NORTHELLA** Tons Gross 579 Net 216

Built at Selby By whom built Cochran Sons Ltd. Yard No. 1311 When built 1946

Engines made at Hull By whom made Amos Smith Engine No. 774 When made

Boilers made at Hull By whom made Amos Smith Boiler No. 774 When made

Registered Horse Power 212 Owners J. Marr Son Ltd. Port belonging to Hull

Nom. Horse Power as per Rule 202 165 Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted YES

Trade for which vessel is intended MN = 212 Ocean going steam trawler

ENGINES, &c.—Description of Engines Triple Expansion Reciprocating Revs. per minute 135

Did. of Cylinders 15", 25", 42" Length of Stroke 27" No. of Cylinders 3 No. of Cranks 3

Crank shaft, dia. of journals as per Rule Appd. as fitted 8 1/2" Crank pin dia. 8 1/2" Crank webs Mid. length breadth 16" Thickness parallel to axis 5 1/2" shrunk Thickness around eye-hole 3 3/4" Mid. length thickness 5 1/4"

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

Tube Shafts, diameter as per Rule Appd. as fitted Screw Shaft, diameter as per Rule Appd. as fitted 9" Is the tube screw shaft fitted with a continuous liner YES

Bronze Liners, thickness in way of bushes as per Rule Appd. as fitted 5/8" Thickness between bushes as per Rule Appd. as fitted 1/2" 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 YES

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 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 at YES If so, state type YES Length of Bearing in Stern Bush next to and supporting propeller 3'-5 1/2"

Propeller, dia. 10.66" Pitch 11.73" No. of Blades 4 Material M.B. whether Moveable No Total Developed Surface 42 sq. feet

Feed Pumps worked from the Main Engines, No. Two Diameter 2 1/2" Stroke 15" Can one be overhauled while the other is at work YES

Bilge Pumps worked from the Main Engines, No. Two Diameter 2 1/2" Stroke 15" Can one be overhauled while the other is at work YES

Feed Pumps No. and size Two 2 1/2" x 15" ONE 7 1/2" x 5" ONE 3" EJECTOR How driven ME IND. STM. Main Bilge Line No. and size Two 2 1/2" x 15" ONE 7 1/2" x 5" ONE 3" EJECTOR How driven ME IND. STM. STM.

Ballast Pumps, No. and size NONE Lubricating Oil Pumps, including Spare Pump, No. and size TECALEMIT BRENTFORD MECHANICAL LUBRICATORS TYPE B.818

Are two independent means arranged for circulating water through the Oil Cooler YES Suctions, connected both to Main Bilge Pumps and Auxiliary Bilge Pumps:—In Engine and Boiler Room Two 2 1/2"

In Pump Room NONE In Holds, &c. ONE 2" TO EACH FOLLOWING — STORE, MAIN FISHROOM, FOR SLUSHWELL, RESERVE FISHROOM, AFT SLUSHWELL

Main Water Circulating Pump Direct Bilge Suctions, No. and size ONE 5" Independent Power Pump Direct Suctions to the Engine and/or Boiler Room Bilges, No. and size ONE 3" Are all the Bilge Suction Pipes in holds and 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 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 STM. & EX. TO WINDLASS & WINCH. FOR SUCTIONS How are they protected STEEL PLATES & LAGGING

What pipes pass through the deep tanks NONE 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 PART E. R. Is it fitted with a watertight door YES worked from YES

MAIN BOILERS, &c.—(Letter for record 5) Total Heating Surface of Boilers 2,555 sq. ft. Superheaters 1036 sq. ft. Total H.S. = 3590 sq. ft.

Which Boilers are fitted with Forced Draft Single boiler Which Boilers are fitted with Superheaters Single boiler

No. and Description of Boilers One Single end cylindrical multitubular Working Pressure 225 lb.

IS A REPORT ON MAIN BOILERS NOW FORWARDED? YES

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

Can the donkey boiler be used for other than domestic purposes YES

PLANS. Are approved plans forwarded herewith for Shafting 20.7.45 Main Boilers 23.5.46 Auxiliary Boilers YES Donkey Boilers YES

(If not state date of approval)

Superheaters 7.2.46 General Pumping Arrangements 31/7/45 2/8/45 Oil fuel Burning Piping Arrangements YES

SPARE GEAR.

Has the spare gear required by the Rules been supplied YES

State the principal additional spare gear supplied As per attached list.

The foregoing is a correct description.

FOR AMOS & SMITH LTD.

W. C. Brown

Manufacturer.

DIRECTOR



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Lloyd's Register Foundation

005118-005131-0138

NORTHELLA

Dates of Survey while building
 During progress of work in shops - - 1945. Sept 18, Oct 5, 6, 10, 25, 30, 31, Nov. 7, Dec. 4, 14.
 1946. Jan. 2, 9, 14, 21, 25, 26, 28, 30. Feb 11, 18, 19, 26. Mar 5.
 During erection on board vessel - - - 1945. Sept 27, Oct 16, 31, Nov 6, 24, Dec 19.
 1946. Jan. 22, Feb. 15, Mar. 6, 7, 14, 23, 27, 30. Apr. 2, 5, 9.
 Total No. of visits 40.

Dates of Examination of principal parts—Cylinders 18.2.46 Slides 14.1.46 Covers 18.2.46
 Pistons 18.2.46 Piston Rods 21.1.46 Connecting rods 21.1.46
 Crank shaft 30.1.46 Thrust shaft 30.10.45 Intermediate shafts 23.3.46
 Tube shaft ✓ Screw shaft 31.10.45 Propeller 24.11.45
 Stern tube 6.11.45 Engine and boiler seatings 24.11.45 Engines holding down bolts 23.3.46
 Completion of fitting sea connections 24.11.45.
 Completion of pumping arrangements 5.4.46. Boilers fixed 23.3.46 Engines tried under steam 30/3/46 5/4/46.
 Main boiler safety valves adjusted 30.3.46 Thickness of adjusting washers F 1/4" A 1/32" Supht. 5/16
 Crank shaft material F.I. STL. Identification Mark 674, FW, 3/8" Capst. Thrust shaft material F.I. STL Identification Mark E 727, FW, 5/10/45 30/10/45 WSS
 Intermediate shafts, material D° Identification Marks B 669, FW, 27.8.45. Tube shaft, material ✓ Identification Mark ✓
 Screw shaft, material D° Identification Mark 27.7.45 Steam Pipes, material STEEL Test pressure 675 lb Date of Test 27.3.46
 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 YES If so, state name of vessel ST BARTHOLOMEW & ST MARK
 General Remarks (State quality of workmanship, opinions as to class, &c.)

The above machinery, constructed under Special Survey in accordance with the Secretary's letters, approved plans and the Rules, has been installed in steam trawler "NORTHELLA", tried under working conditions and found satisfactory on completion of all tests.
 The workmanship and materials are good.
 Eligible in my opinion to be classed in the Register Book
 * LMC 4, 46. CL. 3CY. 15", 25", 42" - 27. MN 202.
 1 SB. 225 lb 3 cf. GS 67.5 FT² HS. 3590 FT². F.D. 212
 Superheat.

The amount of Entry Fee ... £ 3 : 0 :
 Special ... £ 41 : 5 :
 Donkey Boiler Fee ... £ : :
 Travelling Expenses (if any) £ : :
 When applied for, 29 MAY 1946
 When received, 10

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

Date FRI. 14 JUN 1946

Committee's Minute + LMC 4.46
 F.D. C.H. Spt.



Rpt. 5a.
 Date of writing
 No. in Reg. Book.
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 Engines made
 Boilers made
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Certificate to be sent to
 (The Surveyors are requested not to write on or below the space for Committee's Minute.)