

REPORT ON STEAM RECIPROCATING ENGINE MACHINERY.

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Date of writing Report 31st July 1936 When handed in at Local Office 19 Port of BREMEN

No. in Survey held at WESERMÜNDE Date, First Survey 24th Jan. 1936 Last Survey 23rd July 1936
 Reg. Book. 68570 on the STEEL SC. TRAWLER NORTHERN DAWN (Number of Visits 39) Gross Tons 655
 Built at WESERMÜNDE By whom built DEUTSCHE SCHIFF UND MASCHINENBAU AG. WERK: SEEBECK & R.G. WESER Yard No. 548 When built 1936
 Engines made at WESERMÜNDE By whom made DESCHIMAG WERK: SEEBECK Engine No. 1425 When made 1936
 Boilers made at FLENSBURG By whom made FLENSBURGER SCHIFFSBAU GES. Boiler No. 749 When made 1936
 Registered Horse Power 167 Owners MAC LINE LTD. Port belonging to LONDON
 Nom. Horse Power as per Rule 167 Is Refrigerating Machinery fitted for cargo purposes no Is Electric Light fitted yes
 Trade for which Vessel is intended FISHING

ENGINES, &c.—Description of Engines ONE TRIPLE EXPENSION STEAM ENGINE WITH L.P. TURBINE D.R. GEARED Revs. per minute 120
 Dia. of Cylinders 380 x 610 x 1000 Length of Stroke 660 No. of Cylinders 3 No. of Cranks 3
 Crank shaft, dia. of journals as per Rule 209 Crank pin dia. 220 Crank webs Mid. length breadth Thickness parallel to axis 140
as fitted 210 220 shrunk Mid. length thickness Thickness around eye-hole 100
 Intermediate Shafts, diameter as per Rule 206 Thrust shaft, diameter at collars as per Rule 217
as fitted 210 219.5 220 as fitted 220
 Tube Shafts, diameter as per Rule Screw Shaft, diameter as per Rule 230 Is the tube shaft fitted with a continuous liner yes
as fitted 240 222.8 as fitted
 Bronze Liners, thickness in way of bushes as per Rule 14 Thickness between bushes as per Rule 10.5 Is the after end of the liner made watertight in the
as fitted 15 12 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 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
 shaft no If so, state type — Length of Bearing in Stern Bush next to and supporting propeller 1100
 Propeller, dia. 3490 Pitch 3340 No. of Blades 4 Material cast iron whether Movable no Total Developed Surface 46.5 sq. feet
 Feed Pumps worked from the Main Engines, No. 2 Diameter 80 Stroke 325 Can one be overhauled while the other is at work yes
 Bilge Pumps worked from the Main Engines, No. 2 Diameter 80 Stroke 325 Can one be overhauled while the other is at work yes
 Feed Pumps { No. and size 1 hor. displ 190 x 127 Pumps connected to the { No. and size 1 hor. displ 152 x 152 1 Ejector
 { How driven steam 152 Main Bilge Line { How driven steam 152
 Ballast Pumps, No. and size — Lubricating Oil Pumps, including Spare Pump, No. and size 1 hor. displ 150 x 150 200
 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 1 of 60; 1 of 70 from Ejector
 In Pump Room — In Holds, &c. In spare fish hold 1 of 60 & 1 of 70; in main fish hold
1 of 60 & 1 of 70

MAIN WATER CIRCULATING PUMP DIRECT BILGE SUCTIONS, No. and size 1 of 150 **EJECTOR** **INDEPENDENT POWER PUMP DIRECT SUCTIONS** to the Engine Room Bilges,
 No. and size 1 of 70 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 steel valve down Are they fitted with Valves or Cocks valves & cocks
 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 none How are they protected —
 What pipes pass through the deep tanks none 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 none Is it fitted with a watertight door — worked from —

MAIN BOILERS, &c.—(Letter for record 5) Total Heating Surface of Boilers 250 m² 7691 ft²
 Is Forced Draft fitted no No. and Description of Boilers 1 multib. Main Boiler Working Pressure 228 lbs
IS A REPORT ON MAIN BOILERS NOW FORWARDED? yes
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 13.11.35; 18.11.35 Main Boilers 8.11.35 Auxiliary Boilers — Donkey Boilers —
 (If not state date of approval) 24.12.35
 Superheaters 24.12.35 General Pumping Arrangements 11.2.36 Oil fuel Burning Piping Arrangements —

SPARE GEAR.

Has the spare gear required by the Rules been supplied. yes
 State the principal additional spare gear supplied 2 bottom end bearings, 1 set of air pump valves;
 6 piston bolts; 6 cylinder cover studs & nuts; 2 safety valve springs

The foregoing is a correct description,

Manufacturer.

Deutsche Schiff- und Maschinenbau Aktiengesellschaft

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Lloyd's Register Foundation

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NOTE.—The records which do not apply should be deleted.

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1936
 During progress of work in shops - - -
 Jan. 24, 28, 30. Feb. 6, 8, 14, 15, 25, 27, 28. March 5, 6, 12, 20, 24, 27, 31. April 6, 24, 28. May 12, 16, 19.
 June 2, 9, 12, 19, 20
 During erection on board vessel - - -
 June 23, 26, 30. July 3, 7, 11, 14, 17, 22, 23
 Total No. of visits 39

Dates of Examination of principal parts—Cylinders 28.4.36 22.5.36 Slides 9.6.36 Covers 28.4.36 22.5.36
 Pistons 2.6.36 Piston Rods 2.6.36 Connecting rods 9.6.36
 Crank shaft 20.3.36 Thrust shaft 29.4.36 Intermediate shafts 31.3.36
 Tube shaft ✓ Screw shaft 6.4.36 Propeller 20.6.36
 Stern tube 6.4.36 Engine and boiler seatings 23.6.36 Engines holding down bolts 3.7.36
 Completion of fitting sea connections 20.6.36 Boilers fixed 7.7.36 Engines tried under steam 22.7.36
 Completion of pumping arrangements 22.7.36
 Main boiler safety valves adjusted 17.7.36 Thickness of adjusting washers port 29.7.26 star 28.9.26 imp. 14.5.26
 Crank shaft material P.M. Steel Identification Mark AC. 20.3.36 Thrust shaft material P.M. Steel Identification Mark G.B. 29.4.
 Intermediate shafts, material P.M. Steel Identification Marks AC. 31.3.36 Tube shaft, material Identification Mark
 Screw shaft, material P.M. Steel Identification Mark AC. 6.4.36 Steam Pipes, material P.M. Steel Test pressure 50 kg/cm² Date of Test 11.7.36
 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 *Ice Strengthening*
 Is this machinery duplicate of a previous case If so, state name of vessel *NORTHERN PRIDE*

General Remarks (State quality of workmanship, opinions as to class, &c. This Machinery has been tried under Special Survey in accordance with the approved plans, the Surveyors letters and in conformity with the requirements of the Rules. The materials used in the construction are made at works recognized by the Committee and tested by the Port Surveyors. Materials and workmanship are of good quality. During an 10 hours trial trip all the machinery has been tested under full working and maneuvering conditions, with and without Exhaust Turbine, and found satisfactory in all respects. This Machinery is digible in my opinion to be classed in the Port Reg. Book with record of * LMC 7.36. and notation of Tail Shaft (cc). Boiler pressure 228 lbs.

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

The amount of Entry Fee ... RM 60
 Special ... \$ 547.
 Boiler Fee for Kamboj 288.
 Travelling Expenses (if any) \$ 120.
 " " for Kamboj 72.
 Committee's Minute TUE. 11 AUG 1936
 Assigned +dml, 7.36
 CL

A. Carstensen
 Engineer Surveyor to Lloyd's Register of Shipping.

