

# REPORT ON STEAM RECIPROCATING ENGINE MACHINERY.

Received at London Office

30 DEC 1936

of writing Report 12<sup>th</sup> Dec. 1936 When handed in at Local Office 19 Port of BREMEN

No. in Survey held at WESERMÜNDE Date, First Survey 27<sup>th</sup> July 36 Last Survey 11<sup>th</sup> Dec. 1936  
 Reg. Book. 18529 on the STEEL SC. TRAWLER NORTHERN ISLES (Number of Visits 28) Gross 655  
 Built at WESERMÜNDE By whom built DEUTSCHE SCHIFF UND MASCHINENBAU A.G. Yard No. 569 When built 1936  
 Engines made at WESERMÜNDE By whom made DESCHIMAG, WERK: SEEBECK Engine No. 1536 When made 1936  
 Boilers made at WESERMÜNDE By whom made DESCHIMAG, WERK: SEEBECK Boiler No. 774 When made 1936  
 Registered Horse Power Owners MAR 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 EXP. STEAM ENG. WITH L.P. TURBINE D.R. GEARED Revs. per minute 120  
 Dia. of Cylinders 380 x 610 x 1070 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 shrunk Thickness parallel to axis 140  
 as fitted 210 Crank webs Mid. length thickness shrunk Thickness around eye-hole 107  
 Intermediate Shafts, diameter as per Rule 206 Thrust shaft, diameter at collars as per Rule 217  
 as fitted 210 as fitted 220  
 Tube Shafts, diameter as per Rule shrunk Screw Shaft, diameter as per Rule 230 Is the { tube } shaft fitted with a continuous liner { yes }  
 as fitted shrunk as fitted 240 as fitted shrunk  
 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 as fitted 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 fit tightly  
 If two liners are fitted, is the shaft lapped or protected between the liners no Is an approved Oil Gland or other appliance fitted at the after end of the tube  
 shaft no If so, state type no 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 Moveable 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 rot. imp. 190 x 127 Pumps connected to the { No. and size 1 rot. imp. 152 x 152 1 Ejector  
 How driven Hand 152 Main Bilge Line How driven steam 152  
 Ballast Pumps, No. and size no Lubricating Oil Pumps, including Spare Pump, No. and size 1 rot. imp. 150 x 150  
 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 2, 1 of 70 2 from Ejector  
 In Pump Room no In Holds, &c. in spare fire hold 1 of 60 2 & 1 of 70 2, in main fire hold  
1 of 60 2, 1 of 70 2  
 Main Water Circulating Pump Direct Bilge Suctions, No. and size 1 of 150 2 Independent Power Pump Direct Suctions to the Engine Room Bilges,  
 No. and size 1 of 70 2 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 Hand valve skin 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 no  
 What pipes pass through the deep tanks none Have they been tested as per Rule no  
 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 no Is it fitted with a watertight door no worked from no

**MAIN BOILERS, &c.**—(Letter for record 5) Total Heating Surface of Boilers 250 m<sup>2</sup> 2091 4  
 Is Forced Draft fitted no No. and Description of Boilers One Multitubular 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? no  
 Is the donkey boiler intended to be used for domestic purposes only no

**PLANS.** Are approved plans forwarded herewith for Shafting yes 13.11.35, 18.11.35 Main Boilers yes 8.11.35 Auxiliary Boilers no Donkey Boilers no  
 (If not state date of approval)  
 Superheaters yes 24.12.35 General Pumping Arrangements yes 11.2.36 Oil fuel Burning Piping Arrangements no

### 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,  
 Deutsche Schiff- und Maschinenbau Aktiengesellschaft  
 ppe Koops H. J. Meyer  
 Manufacturer.



Is a Report also sent on the Hull of the Ship?  
 1m.3.3. 1. The words which do not apply should be deleted.

1936

During progress of work in shops - - July 27, 28, Aug. 4, 7, 14, 21, 25, Sept. 8, 14, 22, Oct. 7, 16, 20, 23, 29, Nov. 3, 6, 10, 13, 17.

Dates of Survey while building During erection on board vessel - - - Nov. 17, 20, 23, 26, 27, 28. Dec. 1, 8, 11.

Total No. of visits 28

Dates of Examination of principal parts—Cylinders 23/10, 29/10, 6.11.36. Slides 13.11.36. Covers 23/10, 29/10, 6.11.36

Pistons 13.11.36. Piston Rods 13.11.36. Connecting rods 6.11.36.

Crank shaft 8.9.36. Thrust shaft 14.9.36. Intermediate shafts 8.9.36.

Tube shaft ✓ Screw shaft 25.8.36. Propeller 10.11.36

Stern tube 14.9.36. Engine and boiler seatings 13.11.36. Engines holding down bolts 23.11.36

Completion of fitting sea connections 10.11.36

Completion of pumping arrangements 8.12.36. Boilers fixed 20.11.36. Engines tried under steam 8.12.36

Main boiler safety valves adjusted 8.12.36. Thickness of adjusting washers Per 26.2.2. Part. 25.5.2. Part. 12.2.2. Lloyd's 665

Crank shaft material P.M. Steel Identification Mark AC. 8.9.36 Thrust shaft material P.M. Steel Identification Mark G.B. 14.9.36

Intermediate shafts, material P.M. Steel Identification Marks AC 8.9.36 Lloyd's MB. 12.12.22.5.36 Lloyd's 607

Screw shaft, material P.M. Steel Identification Mark AC 25.8.36 Lloyd's K.H. 16.35.2. 24.6.36 Tube shaft, material Identification Mark

Steam Pipes, material P.M. Steel Test pressure 50 lbs/cm<sup>2</sup> Date of Test 27.11.36

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 — 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 NORTHERN PRIDE

**General Remarks** (State quality of workmanship, opinions as to class, &c. This Machinery has been built under Special Survey in accordance with the approved plans, the Secretary's 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 Surveyor. Materials and workmanship are of good quality. During a 5 hours trial trip all the machinery has been tested under full working and maneuvering condition, with and without turbine, and found satisfactory in all respects. This machinery is eligible in my opinion to be classed in the Port Reg. Book with records of: \* LMC. 12.36. Tail Shaft CL.

Certificate to be sent to Armen Apr

The amount of Entry Fee ... RM 60.- : When applied for, 17.12.1936

Special ... £ 835.- : When received, 7.1.1937

Donkey Boiler Fee ... £ : 7.1.1937

Travelling Expenses (if any) £ 120.- : 7.1.1937

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

Committee's Minute FRI. JAN 8 1937

Assigned + Lmc 12.36  
At CL

