

## REPORT ON STEAM RECIPROCATING ENGINE MACHINERY.

Received at London Office

15 AUG 1936

Date of writing Report 31<sup>st</sup> July 1936 When handed in at Local Office

Port of BREMEN

No. in Survey held at WESERMÜNDE  
Reg. Book.Date, First Survey 24<sup>th</sup> Jan. 1936 Last Survey 23<sup>rd</sup> July 1936

68570 on the STEEL SC. TRAWLER

NORTHERN DAWN

(Number of Visits 39)

Gross 655

BREMEN &amp;

DEUTSCHE SCHIFF UND MASCHINENBAU AG.

Tons No 243

Built at WESERMÜNDE

By whom built

WERK: SEEBECK &amp; 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

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 2 Length of Stroke 660 2 No. of Cylinders 3 No. of Cranks 3

Crank shaft, dia. of journals as per Rule 209 2 as fitted 210 2 Crank pin dia. 220 2 Crank webs Mid. length breadth shrunk Thickness parallel to axis 140 2 Mid. length thickness Thickness around eye-hole 100 2

Intermediate Shafts, diameter as per Rule 206 2 as fitted 210 2 Thrust shaft, diameter at collars as per Rule 217 2 as fitted 220 2

Tube Shafts, diameter as per Rule as fitted Screw Shaft, diameter as per Rule 230 2 as fitted 240 2 Is the tube shaft fitted with a continuous liner yes

Bronze Liners, thickness in way of bushes as per Rule 14 2 as fitted 15 2 Thickness between bushes as per Rule 10.5 2 as fitted 12 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 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 1400 2

Propeller, dia. 3490 2 Pitch 3340 2 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 2 Stroke 325 2 Can one be overhauled while the other is at work yes

Bilge Pumps worked from the Main Engines, No. 2 Diameter 80 2 Stroke 325 2 Can one be overhauled while the other is at work yes

Feed Pumps No. and size 1 hor. displ 190 x 127 2 Pumps connected to the Main Bilge Line No. and size 1 hor. displ 152 x 152 2 How driven steam

Ballast Pumps, No. and size Lubricating Oil Pumps, including Spare Pump, No. and size 1 hor. displ 150 x 150 2 1 cog wheel 18 m/h attached to Eng.

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 In Holds, &c. In main fish hold 1 of 60 2 & 1 of 70 2, in main fish hold

**MAIN WATER CIRCULATING PUMP DIRECT BILGE SUCTIONS**, No. and size 1 of 150 2 **EJECTOR** 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 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 none

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 m<sup>2</sup> 7691 ft<sup>2</sup>

Is Forced Draft fitted no No. and Description of Boilers 1 multitub. 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?

**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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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  
Pistons 2.6.36 Piston Rods 2.6.36 Covers 28.4.36 22.5.36  
Crank shaft 20.3.36 Thrust shaft 29.4.36 Connecting rods 9.6.36  
Tube shaft 6.4.36 Screw shaft 6.4.36 Intermediate shafts 31.3.36  
Stern tube 6.4.36 Engine and boiler seatings 23.6.36 Propeller 20.6.36  
Completion of fitting sea connections 20.6.36 Engines holding down bolts 3.7.36  
Completion of pumping arrangements 22.7.36 Boilers fixed 7.7.36 Engines tried under steam 22.7.36  
Main boiler safety valves adjusted 17.7.36 Thickness of adjusting washers port 29.7.36 star 28.9.36 mpt. 14.5.36  
Crank shaft material P.M. Steel Identification Mark AC. 20.3.36 Thrust shaft material P.M. Steel Identification Mark 6.28  
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/cm<sup>2</sup> Date of Test 11.7.36  
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 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 no Ice Strengthening  
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 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 Kamlay 288.  
Travelling Expenses (if any) 120.  
" " for Kamlay 74.  
Committee's Minute TUE. 11 AUG 1936  
Assigned +dml 7.36  
CL

When applied for, 30.7.1936  
When received, 24.9.1936

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