

REPORT ON STEAM TURBINE MACHINERY. No. 1811.

COMBINED WITH RECIPROCATING STEAM ENGINE

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Writing Report 31st July 1936 When handed in at Local Office 10 Port of BREMEN
 in Survey held at BREMEN & WESERMÜNDE Date, First Survey 13th Feb. 1936 Last Survey 22nd July 1936
 Book. 70 on the STEEL SC. TRAWLER NORTHERN DAWN
 at WESERMÜNDE By whom built DEUTSCHE SCHIFF UND MASCHINENBAU AG Yard No. 548 When built 1936
 BINE ines made at BREMEN By whom made DESCHIMAG WERK: A.G. WESER Engine No. DT814 When made 1936
 erf made at FLENSBURG By whom made FLENSBURGER-SCHIFFSBAU-GEZ. Boiler No. 749 When made 1936
 ft Horse Power at Full Power 313 Owners MAC LINE LTD. Port belonging to LONDON
 n. Horse Power as per Rule 107 Is Refrigerating Machinery fitted for cargo purposes no Is Electric Light fitted yes
 de for which Vessel is intended FISHING

AM TURBINE ENGINES, &c.—Description of Engines L.P. TURBINE, DOUBLE REDUCTION GEARED, HYDRAULIC COUPLING

of Turbines Ahead 1 Direct coupled, single reduction geared to 1 propelling shafts. No. of primary pinions to each set of reduction gearing 1
 Astern 1 double reduction geared
 t coupled to Alternating Current Generator phase periods per second Direct Current Generator rated Kilowatts Volts at revolutions per minute;
 supplying power for driving Propelling Motors, Type

14.5 Z 628 3.3. 39.4. RBINE ADING. Kilowatts Volts at revolutions per minute. Direct coupled, single or double reduction geared to propelling shafts.

H. P.			I. P.			L. P.			ASTERN.		
HEIGHT OF BLADES.	DIAMETER AT TIP.	NO. OF ROWS.	HEIGHT OF BLADES.	DIAMETER AT TIP.	NO. OF ROWS.	HEIGHT OF BLADES.	DIAMETER AT TIP.	NO. OF ROWS.	HEIGHT OF BLADES.	DIAMETER AT TIP.	NO. OF ROWS.
EXPANSION						35 Z	470 Z	1			
D "						49 "	498 "	1			
H "						63 "	526 "	1			
H "						77 "	554 "	1			
H "						94 "	588 "	1			
H "						112 "	624 "	1			
CH "											
CH "											
CH "											
CH "											

Shaft Horse Power at each turbine { H.P. 313 ✓ I.P. 6066 ✓ L.P. 6066 ✓ 1st reduction wheel 700/675 main shaft 116 ✓

Rotor Shaft diameter at journals { H.P. Pitch Circle Diameter 1st pinion 124.28 Z 1st reduction wheel 1077.00 Z 2nd pinion 201.52 Z main wheel 1178.32 Z Width of Face 1st reduction wheel 110 Z main wheel 340 Z

Distance between centres of pinion and wheel faces and the centre of the adjacent bearings { 1st pinion 112 Z 1st reduction wheel 2nd pinion 269 ~ 585 Z main wheel 380 ~ 250 Z

Flexible Pinion Shafts, diameter { 1st 100 Z 2nd 100 Z Pinion Shafts, diameter at bearings { External 1st 100 Z 2nd 180 ~ 210 Internal 1st 100 Z 2nd 180 ~ 210 diameter at bottom of pinion teeth { 1st 113.27 Z 2nd 191.45 Z

Wheel Shafts, diameter at bearings { 1st 210 Z main 220 Z ✓ diameter at wheel shroud, { 1st 210 Z main 220 Z ✓ Generator Shaft, diameter at bearings Propelling Motor Shaft, diameter at bearings

Intermediate Shafts, diameter as per rule as fitted Thrust Shaft, diameter at collars as per rule 217 Z as fitted 220 Z ✓

Tube Shaft, diameter as per rule as fitted Screw Shaft, diameter as per rule as fitted Is the { tube screw } shaft fitted with a continuous liner

Bronze Liners, thickness in way of bushes as per rule as fitted Thickness between bushes as per rule as fitted Is the after end of the liner made watertight in the

propeller boss. If the liner is in more than one length are the junctions made by fusion through the whole thickness of the liner

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 If so, state type Length of Bearing in Stern Bush next to and supporting propeller

Propeller, diameter Pitch No. of Blades State whether Moveable Total Developed Surface square feet. Can the H.P. or I.P. Turbine exhaust direct to the

If Single Screw, are arrangements made so that steam can be led direct to the L.P. Turbine

Condenser No. of Turbines fitted with astern wheels Feed Pumps { 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

Ballast Pumps, No. and size Are two independent means arranged for circulating water through the Oil Cooler Suctions, connected to both Main Bilge Pumps and Auxiliary Bilge

Pumps, No. and size:—In Engine and Boiler Room In Pump Room

In Holds, &c. Main Water Circulating Pump Direct Bilge Suctions, No. and size Independent Power Pump Direct Suctions to the Engine Room

Bilges, No. and size Are all the Bilge Suction pipes in Holds and Tunnel Well fitted with strum-bores

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

Are all Sea Connections fitted direct on the skin of the ship Are they fitted with Valves or Cocks

Are they 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

Are they 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

What pipes pass through the tankers How are they protected Have they been tested as per rule

What pipes pass through the deep tanks Are all Pipes, Cocks, Valves, and Pumps in connection with the machinery and all boiler mountings accessible at all times

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 Is the Shaft Tunnel watertight Is it fitted with a watertight door worked from

