

## REPORT ON STEAM RECIPROCATING ENGINE MACHINERY.

Received at London Office

12 OCT 1926

Date of writing Report 11<sup>th</sup> Oct 1926 When handed in at Local Office 11<sup>th</sup> Oct 1926 Port of Sunderland  
 No. in Survey held at Sunderland Date, First Survey 1<sup>st</sup> Dec 25 Last Survey 4<sup>th</sup> Oct. 1926  
 Reg. Book. on the new steel S.S. "NIDARNES"  
 Built at Newcastle By whom built Swan Hunter & Wigham Richardson Yard No. 1289 Tons { Gross Net  
 Engines made at Sunderland By whom made MacColl & Pollock Ltd Engine No. 348 When built 1926  
 Boilers made at Sunderland By whom made MacColl & Pollock Ltd Boiler No. 348 when made 1926  
 Registered Horse Power 114 Owners Federiastruelsen Nidaros Port belonging to Oslo  
 (Manager) A. M. Embustad  
 Nom. Horse Power as per Rule 114 Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted Yes

## ENGINES, &amp;c.—Description of Engines

Triple Expansion  
 Dia. of Cylinders 15-25-40 Length of Stroke 27 Revs. per minute 120 No. of Cylinders 3 No. of Cranks 3  
 Dia. of Crank shaft journals as per rule 7.717 as fitted 7.7 Dia. of Crank pin 7.7 Crank webs Mid. length breadth 11.2 Mid. length thickness 5 Thickness parallel to axis 5 Thickness around eye-hole 3.7  
 Diameter of Thrust shaft under collars as per rule 7.717 as fitted 7.845 Diameter of Tunnel shaft as per rule 7.35 as fitted 7.7 Diameter of Screw shaft as per rule 8.266 as fitted 8.2 Is the Screw shaft fitted with a continuous liner the whole length of the stern tube Yes 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 joints burned Yes If the liner does not fit tightly at the part between the bearings in the stern tube, is the space charged with 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 appliance fitted at the after end of the shaft to permit of it being efficiently lubricated Yes Length of Stern Bush 2-10 Diameter of Propeller 11-0  
 Pitch of Propeller 8-8 No. of Blades 4 State whether Moveable No Total Surface 45 square feet.  
 No. of Feed Pumps fitted to the Main Engines 2 Diameter of ditto 2.2 Stroke 14 Can one be overhauled while the other is at work Yes  
 No. of Bilge Pumps fitted to the Main Engines 2 Diameter of ditto 2.2 Stroke 14 Can one be overhauled while the other is at work Yes  
 Total number and size of power driven Feed and Bilge Auxiliary Pumps One 6"x4"x6" Duplex  
 No. and size of Pumps connected to the Main Bilge Line One Ballast Pump  
 No. and size of Ballast Pumps One - 6"x4"x4" Duplex No. and size of Lubricating Oil Pumps, including Spare Pump Yes  
 Are two independent means arranged for circulating water through the Oil Cooler Yes No. and size of suction connected to both Main Bilge Pumps and Auxiliary Bilge Pumps;—In Engine and Boiler Room 3 @ 2.4" dia and in Holds, &c. 40" Hold 2 @ 2.4" dia  
Aft. Hold 4 @ 2.4" dia Tunnel well One @ 2.4"

No. and size of Main Water Circulating Pump Bilge Suctions one @ 4" dia No. and size of Donkey Pump Direct Suctions to the Engine Room Bilges one @ 3.2" 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 connections with the sea direct on the skin of the ship Yes Are they 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 Discharge Pipes above or below the deep water line Below  
 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 (Niche)  
 What Pipes are carried through the bunkers 40" Hold suction pipes How are they protected Lead plates  
 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 Screw Shaft Tunnel watertight Yes Is it fitted with a watertight door Yes worked from Top machinery in Engine Room

MAIN BOILERS, &c.—(Letter for record (5) ) Total Heating Surface of Boilers 2081.46 square feet

Is Forced Draft fitted No No. and Description of Boilers Two - Single ended Working Pressure 180 lbs

IS A REPORT ON MAIN BOILERS NOW FORWARDED? YesIS A DONKEY BOILER FITTED? NoIf so, is a report now forwarded? Yes

PLANS. Are approved plans forwarded herewith for Shafting Yes Main Boilers Yes Auxiliary Boilers Yes Donkey Boilers Yes  
 (If not state date of approval)

General Pumping Arrangements Forwarded with Niche this ship Oil fuel Burning Piping Arrangements Yes

## SPARE GEAR. State the articles supplied:—

2 Main bearing bolts and nuts, 2 Top end bolts and nuts,  
2 Bottom end bolts and nuts, One set of Coupling bolts and nuts  
One set of Feed pump valves and seats, One set of Bilge pump valves and seats  
One main feed check valve lid, One aux. feed check valve lid.  
3 Boiler tubes. One safety valve spring  
24 Bolts and nuts, assorted, Iron of various sizes  
One C.I. Propeller.

The foregoing is a correct description,  
 PER PRO MACCOLL & POLLOCK LTD

J. H. Pulling

Manufacturer.



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1010-0190



1925 Dec. 1, 2, 4, 18, 1926 Jan. 7, 19 Feb. 1, 8, 15, 19, Mar. 2, 4, 19, Apr. 12, 15, 22, 23, May  
 During progress of work in shops -- 3, 13, 17, 22 June, 2, 12, 18, July, 5, 14, 16 Aug. 12, 12, 30 Sep. 10  
 During erection on board vessel --- Sep. 23, 27, 28, 29, 30, Oct. 1, 3, 5, 6, 7.  
 Total No. of visits 41

Dates of Examination of principal parts - Cylinders	13-5-26	Slides	20-5-26
Covers	1-2-26	Pistons	2-6-26
Connecting rods	18-6-26	Crank shaft	20-1-26 (Leith)
Tunnel shafts	5-7-26	Screw shaft	16-7-26
Stern tube	12-6-26	Engine and boiler seatings	28-9-26
Completion of pumping arrangements	6-10-26	Boilers fixed	28-9-26
Completion of fitting sea connections	N'le	Stern tube	N'le
Main boiler safety valves adjusted	6-10-26	Thicknes of adjusting washers	At 13 1/2 5/32 Star 13 1/2 5/32
Material of Crank shaft	Ingot Steel	Identification Mark on Do.	LLOYDS NO. 1299 A.T.T. 20-1-26
Material of Thrust shaft	Ingot Steel	Identification Mark on Do.	LLOYDS NO. 4033 G.A. 5-7-26
Material of Tunnel shafts	Ingot Steel	Identification Marks on Do.	LLOYDS NO. 7053-7056-7058-7060-7531 G.A. 5-7-26
Material of Screw shafts	Ingot Steel	Identification Marks on Do.	Working LLOYDS NO. 7530 G.A. 16-7-26
Material of Steam Pipes	Solid drawn Copper	Test pressure	360 lbs
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 carrying and burning oil fuel been complied with	✓		
Is this machinery duplicate of a previous case	No	If so, state name of vessel	✓

General Remarks (State quality of workmanship, opinions as to class, &c.)

The materials and workmanship are good.  
 The machinery has been constructed under special survey and is eligible  
 in my opinion for classification and the records of + L.M.C. 10-26

It is submitted that  
 this vessel is eligible for  
 THE RECORD. + LMC. 10.26. CL.

Cms JWD.  
 13/10/26

The amount of Entry Fee ... £ 3 : 0 :  
 Special ... £ 28 : 10 :  
 Donkey Boiler Fee ... £ : :  
 Travelling Expenses (if any) £ : :

When applied for,

11 OCT 1926

When received,

2-11-26

FRI. 5 NOV 1926

Committee's Minute

Assigned

+ LMC 10:26

CL

CERTIFICATE WRITTEN



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