

REPORT ON STEAM RECIPROCATING ENGINE MACHINERY.

Received at London Office

16 MAR 1931

Date of writing Report 7 March 1931 When handed in at Local Office 19 Port of Rotterdam
 No. in Survey held at Rotterdam Date, First Survey 28 Aug 1930 Last Survey 3 March 1931
 Reg. Book. on the Steel Screw Tug "EBRO" (Number of Visits 29)
 Built at Rotterdam By whom built Maatschappij Scheepswerk v. P. Smit Jr. Yard No. 475 Tons { Gross 268.41
 Engines made at ditto By whom made ditto Engine No. 478 Net 33.77 When built 1930-31
 Boilers made at ditto By whom made ditto Boiler No. 611 when made 1930-31
 Registered Horse Power 106 Owners N.V. Internationale Sleepdienst Port belonging to Rotterdam
 Nom. Horse Power as per Rule 107.87 Is Refrigerating Machinery fitted for cargo purposes no Is Electric Light fitted yes
 Trade for which Vessel is intended Ocean going

ENGINES, &c.—Description of Engines Triple expansion Revs. per minute 150
 Dia. of Cylinders 318-534-889 Length of Stroke 650 No. of Cylinders 3 No. of Cranks 3
 Crank shaft, dia. of journals 185 as per Rule 179 Crank pin dia. 185 Crank webs Mid. length breadth 270 Thickness parallel to axis 115
 as fitted 185 Mid. length thickness 115 shrunk Thickness around eye-hole 82.5
 Intermediate Shafts, diameter as per Rule 170.5 Thrust shaft, diameter at collars as per Rule 179
 as fitted 175 as fitted 185
 Tube Shafts, diameter as per Rule 179 Screw Shaft, diameter as per Rule 195 Is the { tube } shaft fitted with a continuous liner { yes }
 as fitted 175 as fitted 195
 Bronze Liners, thickness in way of bushes as per Rule 137 Thickness between bushes as per Rule 179 Is the after end of the liner made watertight in the
 as fitted 15 as fitted 195 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 tight all over
 If two liners are fitted, is the shaft lapped or protected between the liners yes Is an approved Oil Gland or other appliance fitted at the after
 end of the tube shaft no Length of Bearing in Stern Bush next to and supporting propeller 900
 Propeller, dia. 2600 Pitch 3400 No. of Blades 4 Material cast iron whether Moveable no Total Developed Surface 31 sq. feet
 Feed Pumps worked from the Main Engines, No. 1 Diameter 65 Stroke 300 Can one be overhauled while the other is at work yes
 Bilge Pumps worked from the Main Engines, No. 1 Diameter 65 Stroke 300 Can one be overhauled while the other is at work yes
 Feed Pumps { No. and size 2. 5x7x12-6x4x6 Pumps connected to the { No. and size 2. 65x300-6x4x6 }
 How driven Steam Main Bilge Line { How driven M.E. and steam }
 Ballast Pumps, No. and size 6x4x6 Lubricating Oil Pumps, including Spare Pump, No. and size none
 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 4; 3x2" and 1x2 1/2"
 In Holds, &c. 1x2"

Main Water Circulating Pump Direct Bilge Suctions, No. and size 1x3 1/2" Independent Power Pump Direct Suctions to the Engine Room Bilges,
 No. and size 1x2 1/2" 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 yes Are they fitted with Valves or Cocks both
 Are they fixed sufficiently high on the ship's side to be seen without lifing the stowhold 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 yes
 What pipes pass through the deep tanks none Have they been tested as per Rule yes
 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 yes Is it fitted with a watertight door no worked from yes

MAIN BOILERS, &c.—(Letter for record 5) Total Heating Surface of Boilers 17080 Working Pressure 200 lbs
 Is Forced Draft fitted yes No. and Description of Boilers One multitubular
 IS A REPORT ON MAIN BOILERS NOW FORWARDED? yes
 IS A DONKEY BOILER FITTED? no If so, is a report now forwarded? no

PLANS. Are approved plans forwarded herewith for Shafting 3-10-30 Main Boilers 1-8-30 Auxiliary Boilers yes Donkey Boilers yes
 (If not state date of approval)
 Superheaters yes General Pumping Arrangements 1-1-31 Oil fuel Burning Piping Arrangements yes

SPARE GEAR. State the articles supplied:— 2 connecting rod bottom ends, two connecting rod top end bolts, 2 main bearing bolts and nuts, 1 set of coupling bolts, 1 set of feed and bilge pump valves, a quantity of assorted bolts and nuts, iron of various sizes, 1 friction spring, one of Pruehly patent, one set of top end brasses, one set of bottom end brasses, one tail shaft, one propeller, 12 boiler tubes, 24 condenser tubes, 40 ferrules, 6 gunking bolts, 1 set of air pump valves

The foregoing is a correct description,
 N.V. MACHINEFABRIEK & SCHEEPSWERF
 P. SMIT JR., ROTTERDAM

Manufacturer.



002725-002735-0065

If not, state whether; and when, one will be sent?
 Is a Report also sent on the Hull of the Ship?
 NOTE.—The words which do not apply should be deleted.

Dates of Survey while building

During progress of work in shops -- { 28/8 - 5-6-27/9 22-27 31/10 5-10-14-15-26/11 30-17-31/12 - 3-7-22-14/1 }

During erection on board vessel --- { 21-23-27/1 - 2-5-9-10-14-26/2 - 4/3 }

Total No. of visits 29.

Dates of Examination of principal parts—Cylinders 5-11-30. 31-10-30 Slides 3-12-30 Covers 3-12-30.
 Pistons 3-12-30. Piston Rods 3-12-30. Connecting rods 3-12-30.
 Crank shaft 10-11-30 - 31-12-30 Thrust shaft 14-11-30 - 31-12-30 Intermediate shafts 10-11-30 - 31-12-30
 Tube shaft ✓ Screw shaft 14-11-30. 17-12-30. Propeller 7-7-31.
 Stern tube 7-1-31. Engine and boiler seatings 12-1-31. Engines holding down bolts 27-2-31.
 Completion of fitting sea connections 21-1-31
 Completion of pumping arrangements 3-2-31 Boilers fixed 27-1-31 Engines tried under steam 14-2-31.
 Main boiler safety valves adjusted 14-2-31. Thickness of adjusting washers 14.5 mm / 13.5 mm
 Crank shaft material Sell Identification Mark 190KK31-12-10 Thrust shaft material Sell Identification Mark 191KK31-12-10
 Intermediate shafts, material Sell Identification Marks 192KK31-12-10 Tube shaft, material ✓ Identification Mark ✓
 Screw shaft, material Sell Identification Mark 193KK31-12-10 Steam Pipes, material Copper Test pressure 400 lbs Date of Test 10-2-31.
 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 ✓
 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 machinery has been built and fitted in accordance with the approved plans and Secretary's letters; material tested as required engines tested under full working conditions during a trial trip and found working and manoeuvring satisfactorily.

The amount of Entry Fee ... £ 36.00
 Special ... £ 324.00
 Donkey Boiler Fee ... £ :
 Travelling Expenses (if any) £ 11.00

When applied for, 19
 When received, 25-3-31

AMM
Elp

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

Committee's Minute WED. 8 APR 1931
 Assigned + L.M.C. 3.31

CERTIFICATE WRITTEN
 C.L.



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

Is a Report also sent on the Hull of the Ship? If not, state whether, and when, one will be sent?