

REPORT ON OIL ENGINE MACHINERY.

Received at London Office 26 NOV 1934

Date of writing Report 10-11-1934 when handed in at Local Office

Port of Rotterdam

No. in Survey held at Flushing
Reg. Book.

Date, First Survey 18-1-34 Last Survey 17 Oct 1934

Number of Visits 31

Single
Twin
Triple
Quadruple

Screw vessel

BOSCHFONTEIN

Tons { Gross
Net

Built at ROTTERDAM By whom built P. SMIT, JR. Yard No. When built 1928

Engines made at FLUSHING By whom made KON. MR. DE SCHELDE Engine No. 444 When made 1934

Boilers made at ROTTERDAM By whom made P. SMIT, JR. Boiler No. 528 When made 1928

Brake Horse Power 2 x 4200 Owners Verenigde Nederlandsche Scheepvaart Maatschappij Port belonging to Copenhagen

Nom. Horse Power as per Rule 1705 Is Refrigerating Machinery fitted for cargo purposes Yes Is Electric Light fitted Yes

Trade for which vessel is intended General

OIL ENGINES, &c.—Type of Engines Schelde, Federal Diesel 2 or 4 stroke cycle 2 Single or double acting single

Maximum pressure in cylinders 42 kg/cm² Diameter of cylinders 560 mm Length of stroke 840 mm No. of cylinders 2 x 10 No. of cranks 2 x 10

Mean Indicated Pressure 75 kg/cm² Span of bearings, adjacent to the Crank, measured from inner edge to inner edge 650 mm Is there a bearing between each crank Yes

Revolutions per minute 215 Flywheel dia. 380 mm Weight 3800 kg Means of ignition Compression Kind of fuel used Diesel oil

Crank Shaft, dia. of journals 380 mm Crank pin dia. 380 mm Crank Webs Mid. length breadth 510 mm Thickness parallel to axis 2

Flywheel Shaft, diameter 430 mm Intermediate Shafts, diameter 430 mm Thrust Shaft, diameter at collars 560 mm

Tube Shaft, diameter 490 mm Screw Shaft, diameter 490 mm Is the shaft fitted with a continuous liner No liner

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

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

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 Yes

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 Yes If so, state type Cedervalls patent Length of Bearing in Stern Bush next to and supporting propeller 1960 mm

Propeller, dia. 5500 mm Pitch 5450 No. of blades 4 Material Brass whether Moveable No Total Developed Surface 10.26 m²

Method of reversing Engines Camshaft Is a governor or other arrangement fitted to prevent racing of the engine when declutched Yes Means of lubrication

Forced Thickness of cylinder liners Yes Are the cylinders fitted with safety valves Yes Are the exhaust pipes and silencers water cooled or lagged with

non-conducting material Yes If the exhaust is led overboard near the waterline, what means are arranged to prevent water from being syphoned back to the engine funnel and waste heat boiler

Cooling Water Pumps, No. 5 1 engine driven centrifugal 2200 rpm 1 steam driven 1500 rpm 1 motor driven 1500 rpm Is the sea suction provided with an efficient strainer which can be cleared within the vessel Yes

Bilge Pumps worked from the Main Engines, No. 2 1 engine driven 1500 rpm 1 steam driven 1500 rpm Can one be overhauled while the other is at work Yes

Pumps connected to the Main Bilge Line No. and Size 1 in 254 x 280 x 254 Main engine driven plunger pump (original) 150 x 200 mm

How driven steam driven Is the cooling water led to the bilges No If so, state what special arrangements are made to deal with this water in addition to the ordinary bilge pumping

arrangements Yes Ballast Pumps, No. and size 1 in 254 x 280 x 254 Power Driven Lubricating Oil Pumps, including Spare Pump, No. and size 1 in 100 x 100 x 100

Are two independent means arranged for circulating water through the Oil Cooler Yes Suctions, connected to both Main Bilge Pumps and Auxiliary Bilge

pumps, No. and size:—In Machinery Spaces 1 in 125 mm 6 in 182.5 mm In Pump Room 1 in 125 mm

in Holds, &c. Original 1 in 125 mm Are all the Bilge Suction pipes in Holds and Tunnel Well fitted with strum-boxes Yes Are the Bilge Suctions in the Machinery Spaces

and 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 lifting the platform plates Yes Are the Overboard Discharges above or below the deep water line Both

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

apartment to another Yes Is the Shaft Tunnel watertight Yes Is it fitted with a watertight door Yes worked from Upper platform

On a wood vessel, what means are provided to prevent leakage of either fuel oil or of lubricating oil from saturating the woodwork Yes

Main Air Compressors, No. 1 No. of stages 1 Diameters 100 mm Stroke 100 mm Driven by Steam

Auxiliary Air Compressors, No. 2 No. of stages 2 Diameters 252 x (217-224) Stroke 160 mm Driven by Steam

Small Auxiliary Air Compressors, No. 1 No. of stages 2 Diameters 100 x (100-142) Stroke 120 mm Driven by Steam

Exhausting Air Pumps, No. 2 x 2 Diameter 960 x 955 Stroke 210 540 mm Driven by Main engine

Auxiliary Engines crank shafts, diameter as per Rule 110 mm Please see Hetchin report N° 1064 returned herewith

AIR RECEIVERS:—Is each receiver, which can be isolated, fitted with a safety valve as per Rule. *Yes*

Can the internal surfaces of the receivers be examined and cleaned *Yes* Is a drain fitted at the lowest part of each receiver *Yes*

High Pressure Air Receivers, No. *2* Cubic capacity of each *150 litres* Internal diameter *1700* thickness *26*

Seamless, lap welded or riveted longitudinal joint *Material S.M. Steel* Range of tensile strength *17-1-34* Working pressure by Rules *24.6 kg* Actual *26 kg*

Starting Air Receivers, No. *2* Total cubic capacity *1500* Internal diameter *1700* thickness *26*

Seamless, lap welded or riveted longitudinal joint *Riveted* Material *S.M. Steel* Range of tensile strength *17-1-34* Working pressure by Rules *24.6 kg* Actual *26 kg*

IS A DONKEY BOILER FITTED? *Waste Heat* If so, is a report now forwarded? *Yes*

Is the donkey boiler intended to be used for domestic purposes only *Original boiler refitted*

PLANS. Are approved plans forwarded herewith for Shafting *Retained* Receivers *17-1-34* Separate Tanks *0-9-34*

Waste Heat (If not, state date of approval) *16.10.33*

Donkey Boilers *28-6-34* General Pumping Arrangements *14-8-34* Oil Fuel Burning Arrangements *6-9-34*

SPARE GEAR.

Has the spare gear required by the Rules been supplied *Yes*

State the principal additional spare gear supplied *One screw shaft, One propeller, One intercooler for lubricating oil & Cooling*

A complete set of spare parts for every pump and other auxiliary engine

One crosshead with guides for main engine, One complete set of internal parts of main engine driven Helbed & Pitt, One and Begeman pump. A complete set of chains and toothwheels for pumps and shaft.

The foregoing is a correct description,
p. proc. *N.V. KON. M.Y. "DE SCHELDT"*

Manufacturer.

Dates of Survey while building	During progress of work in shops--	18/11	15/12	16/13	6/14	11/14	16/14	3/15	9/15	11/16	28/16	12/17	18/17	19/17	24/17	2/18	8/18	16/18	23/18	30/18	7/19	
	During erection on board vessel--	19/9	27/9	10/10	16/10	19/10	31/10	8/10	18/10	14/10	16/10	17/10										
	Total No. of visits	<i>31</i>																				
Dates of Examination of principal parts—Cylinders		16/3	11/12	18/24	16/16	Covers		13/17	19/17	Pistons	2/16	23/18	Rods	3/18	25/18	Connecting rods		16/6	11/14			
Crank shaft		<i>Made in Jamaica</i>				Wheel shaft	Thrust shaft		Intermediate shafts		12/17	17/17	Tube shaft									
Screw shaft		2/25	11/16	28/16	Propeller	13/17	Stern tube	6/14	3/15	9/15	Engine seatings	23-8-34	Engines holding down bolts	<i>19-10-34</i>								
Completion of fitting sea connections		<i>19-10-34</i>										Completion of pumping arrangements										
Crank shaft, Material <i>S.M. Steel</i>		Identification Mark		<i>LL0405</i>		Flywheel shaft, Material		Identification Mark		<i>LL0405</i>		Intermediate shafts, Material <i>S.M. Steel</i>		Identification Marks		<i>J.S. 199.420</i>						
Thrust shaft, Material <i>S.M. Steel</i>		Identification Mark		<i>LL0405</i>		Screw shaft, Material <i>S.M. Steel</i>		Identification Mark		<i>LL0405</i>		<i>J.S. 199.420</i>										

Is the flash point of the oil to be used over 150° F. *Yes*

Have the requirements of the Rules for oil fuel pipes and tank fittings been complied with *Yes* Bernoski patent valves fitted

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 *Yes*

If the notation for Ice Strengthening is desired, state whether the requirements in this respect have been complied with *Not desired*

Is this machinery duplicate of a previous case *No* If so, state name of vessel *Yes*

General Remarks (State quality of workmanship, opinions as to class, &c. *The engines have been made and fitted under special survey in accordance with the Society's Rules, Secretary's letters and approved plans, materials tested as required and workmanship good. The whole was found in a good working and maneuvering condition during a trial trip on the North Sea and I am of opinion that the vessel is eligible to be recorded in the Society's Register Book with *LMC 11.34.09. MBS. 11.34. (SINGLE REDUCTION GEARING WITH VULCAN COUPLING.) fitted for oil burning.*

The amount of Entry Fee .. £ 72.00

Special .. £ 111.50

Hull survey fee .. £ 100.00

Travelling Expenses (if any) £ 409.00

When applied for, *19*

When received, *12-12-34*

J. J. Schoo
Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute *TUE 27 NOV 1934*

Assigned



Rotterdam Surveyors

