

REPORT ON MACHINERY.

No. 12

MUN. APR. 10 1922

Received at London Office

Date of writing Report

19

When handed in at Local Office

19

Port of

Prague

No. in Survey held at
Reg. Book.

Prague - Smichov Date, First Survey 31.12.1921 Last Survey 26th July 1921

(Number of Visits 20)

on the

S. S. 111

Master

Built at Monfalcone

By whom built Cantiere Navale Triestino

Tons

Gross

Net

When built 1921.7

Engines made at

Smichov

By whom made

United Machine Factories Ltd

when made 1921.7

Boilers made at

Königgrätz

By whom made

do

do

do

when made 1921.7

Registered Horse Power

Owners Fratelli Cosulich & Co. Ltd

Port belonging to Trieste

Nom. Horse Power as per Section 28

494

Is Refrigerating Machinery fitted for cargo purposes

Is Electric Light fitted

ENGINES, &c.—Description of Engines Triple Expansion

No. of Cylinders 3

No. of Cranks 3

Dia. of Cylinders 670 mm 1070 mm 1780 mm Length of Stroke 1220 mm

Revs. per minute 75

Dia. of Screw shaft

as per rule 374

as fitted 380

Material of B. M. Steel

screw shaft

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 water tight

Is 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 a plastic material insoluble in water and non-corrosive

If two

liners are fitted, is the shaft lapped or protected between the liners

Length of stern bush 1550 mm bush 500 mm

Dia. of Tunnel shaft

as per rule 332

as fitted 335

Dia. of Crank shaft journals

as per rule 348

as fitted 355

Dia. of Crank pin 355

Size of Crank webs

225 mm

Dia. of thrust shaft under

Collars 355

Dia. of screw

Pitch of Screw

No. of Blades

State whether moveable

Total surface

No. of Feed pumps 2

Diameter of ditto 105 mm

Stroke 600 mm Can one be overhauled while the other is at work

Yes

No. of Bilge pumps 2

Diameter of ditto 115 mm

Stroke 600 mm Can one be overhauled while the other is at work

Yes

No. of Donkey Engines 4

Sizes of Pumps

265 x 305 x 350 Ballast

220 x 220 x 300 Circulating

250 x 100 x 150 Donkey

No. and size of Suctions connected to both Bilge and Donkey pumps

In Engine Room

In Holds, &c.

No. of Bilge Injections 2

sizes 175-90

Connected to condenser, or to circulating pump

Is a separate Donkey Suction fitted in Engine room & size

Yes

Are all the bilge suction pipes fitted with roses

Are the roses in Engine room always accessible

Are the sluices on Engine room bulkheads always accessible

Are all connections with the sea direct on the skin of the ship

Are they Valves or Cocks

Are they fixed sufficiently high on the ship's side to be seen without lifting the stokehold plates

Are the Discharge Pipes 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 are carried through the bunkers

How are they protected

Are all Pipes, Cocks, Valves, and Pumps in connection with the machinery and all boiler mountings accessible at all times

Are the Bilge Suction Pipes, Cocks, and Valves arranged so as to prevent any communication between the sea and the bilges

Is the Screw Shaft Tunnel watertight

Is it fitted with a watertight door

worked from

BOILERS, &c.—(Letter for record S)

Manufacturers of Steel Nitkowitz Berg a. Eisenwerke A.G. & Selsen Riehen Berg A.G. & Selsen

Total Heating Surface of Boilers 722397

Is Forced Draft fitted

Yes

No. and Description of Boilers 3 S. B. Nos 10005, 10006 & 10007

Working Pressure 18 lbs

Tested by hydraulic pressure to

Date of test

No. of Certificate

Can each boiler be worked separately

Yes

Area of fire grate in each boiler 49.2986

No. and Description of Safety Valves to

Each boiler 2 x 3.1496

Area of each valve 7.7912

Pressure to which they are adjusted

Are they fitted with easing gear

Yes

Smallest distance between boilers or uptakes and bunkers or woodwork

Mean dia. of boilers 184.22 Length 140.94 Material of shell plates S. M. Steel

Thickness 1.220 Range of tensile strength 44-50 kg/mm

Are the shell plates welded or flanged

Descrip. of riveting: cir. seams Double lap.

Long. seams Viable II B

Diameter of rivet holes in long. seams 1.299

Pitch of rivets 8.66

Lap of plates or width of butt straps 19.5275

Percentages of strength of longitudinal joint

rivets 93.27%

plate 85.6%

Working pressure of shell by rules 180.875 lbs Size of manhole in shell end plate 11.81 x 15.748

Size of compensating ring

No. and Description of Furnaces in each boiler 3 Harisons

Material Steel Outside diameter 47.244

Length of plain part

top 6.102

Thickness of plates

crown 6.102

Description of longitudinal joint Welded

No. of strengthening rings

Working pressure of furnace by the rules 181.613 lbs

Combustion chamber plates: Material S. M. Steel Thickness: Sides 6.299 Back 6.299 Top 6.299 Bottom 8.267

Pitch of stays to ditto: Sides 8.444

Back 8.858

Top 7.866

Bottom 8.464

If stays are fitted with nuts or riveted heads nuts & washers

Working pressure by rules 190.076 lbs.

Material of stays S. M. Steel

Area at smallest part 1.726

Area supported by each stay 69.316

Working pressure by rules 199.107 lbs

Material of stays S. M. Steel

Material S. M. Steel

Thickness 1.023

Pitch of stays 15.748

How are stays secured with nuts

Working pressure by rules 200.089 lbs

Material of stays S. M. Steel

Area at smallest part 5.049

Area supported by each stay 248

Working pressure by rules 211.29 lbs

Material of Front plates at bottom S. M. Steel

Thickness 9.448

Material of Lower back plate S. M. Steel

Thickness 8.267

Greatest pitch of stays 13.267

Working pressure of plate by rules 190.758 lbs

Diameter of tubes 299

Pitch of tubes 4.075

Material of tube plates Steel

Thickness: Front 9.448

Back 7.874

Mean pitch of stays 8.149

5.03

Pitch across wide water spaces 13.582

Working pressures by rules 185.837 lbs

Girders to Chamber tops: Material S. M. Steel

Depth and

Thickness of girder at centre 9.448

Length as per rule 36.574

Distance apart 7.874

Number and pitch of stays in each 3 at 8.464

Working pressure by rules 194.538

Steam dome: description of joint to shell

% of strength of joint

Diameter

Thickness of shell plates

Material

Description of longitudinal joint

Diam. of rivet holes

Pitch of rivets

Working pressure of shell by rules

Crown plates

Thickness

How stayed

SUPERHEATER. Type Schmidt

Date of Approval of Plan

Tested by Hydraulic Pressure to 50 Atmospheres.

Date of Test 6th December 1921

Is a Safety Valve fitted to each Section of the Superheater which can be shut off from the Boiler

Diameter of Safety Valve

Pressure to which each is adjusted

Is Easing Gear fitted

010294 - 010299 - 0244

IS A DONKEY BOILER FITTED?

No

If so, is a report now forwarded? ✓

SPARE GEAR. State the articles supplied:— Two bottom end bolts and nuts, four top end bolts & nuts, two main bearing bolts & nuts, 1 set coupling bolts & nuts, 1 set of bilge & feed pump Valves, 1 Propeller, 1 Spare propeller shaft, 1 Spare Spring for all Safety Valves on Boilers & Engines, 1 Valve spindle rod interchangeable for each Engine, 1 set crank pin & 1 set of Crosshead bearings, 1 Air pump rod, 1 set air and circulating pump Valves, 1 set of piston springs for each cylinder, and an assortment of bolts, nuts, bar and sheet iron etc.

The foregoing is a correct description,

Spojeno strojeny akciová společnost
číslo 1800, Praha, Brumovský a Křížovský
Komerční Městoletství:

Manufacturer.

Dates of Survey while building { During progress of work in shops - - - 31.12.1920, 12.1.1921, 15/1, 11/2, 22/2, 25/2, 5/3, 10/3, 11/3, 14/3, 29/3, 5/4, 7/4, 25/4, 30/5, 22/6, 4/7, 14/7, 18/7, 26/7.
During erection on board vessel - - -
Total No. of visits 20 in Shop.

Is the approved plan of main boiler forwarded herewith Yes

" " " donkey " " " ✓

Dates of Examination of principal parts—Cylinders 22.2.21 Slides 22.6.21 Covers 22.2.21 Pistons 30.4.21 Rods 30.4.21

Connecting rods 30.4.21 Crank shaft 2.2.21 Thrust shaft 22.2.21 Tunnel shafts 14.7.21 Screw shaft sent direct Propeller ✓

Stern tube Steam pipes tested Engine and boiler seatings Engines holding down bolts

Completion of pumping arrangements Boilers fixed Engines tried under steam

Completion of fitting sea connections Stern tube Screw shaft and propeller

Main boiler safety valves adjusted Thickness of adjusting washers

Material of Crank shaft Steel Identification Mark on Do. 4835 MK Material of Thrust shaft Steel Identification Mark on Do. 4836 MK

Material of Tunnel shafts Steel Identification Marks on Do. 134, 135, 136, 137 } 2-20 Material of Screw shafts Steel Identification Marks on Do.

Material of Steam Pipes Test pressure

Is an installation fitted for burning oil fuel

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

Have the requirements of Section 49 of the Rules been complied with

Is this machinery duplicate of a previous case Yes If so, state name of vessel Cantiere Navale Triestino N° 67 Duplicate

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

The Main Boilers were partly built at Königgrätz, all marked off drilled and bolted together, the combustion chambers were built rivetted up & caulked, complete, bolted in position with furnaces, all ready for riveting & caulking. All combustion chambers and Main stays completed and tried; tubes, stay tubes tried in position.

The Material and Workmanship of the Engines and Boilers are of good description. The Main Boilers have been Marked N° 112 C.R.H. for identification.

The Machinery of this Vessel was found to be in accordance with the Requirements of the Rules, and when completed and placed on board and tested, will be eligible in my opinion for notation L.M.C. in red.

The amount of Entry Fee ... £ 1400.00 When applied for.
Special ... £ 4/5 23072.00 19.
Donkey Boiler Fee ... £ : : When received,
Travelling Expenses (if any) £ 412.00 5/11/21
24884.00

Committee's Minute

FRI. 5 MAY. 1922

Assigned

C. R. Hughes

Engineer Surveyor to Lloyd's Register of Shipping.



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