

REPORT ON MACHINERY.

No. 2919

Received at London Office THU.-6 MAR. 1919

Date of writing Report Nov 10 1918 When handed in at Local Office

Port of SAN FRANCISCO, CALIFORNIA

No. in Survey held at Oakland, California

Date, First Survey August 27th Last Survey November 7 1918

Reg. Book.

(Number of Visits 10)

on the Twin Set Diesel Oil Engines #3500 and 3501 Cap Horn

Tons { Gross 1468.10

Master

Built at North Vancouver By whom built William Lall, Shipbuilding Co

When built 1918

Engines made at Oakland, California

By whom made Atlas Imperial Engine Co

when made 1918

Boilers made at Winnipeg

By whom made Dominion Bridge Co

when made 1918

Brake

Registered Horse Power 175 each

Owners Societe d'Armement, Van Heineyck

Port belonging to Vancouver, B.C.

Nom. Horse Power as per Section 2836.17 each Is Refrigerating Machinery fitted for cargo purposes No

Is Electric Light fitted Yes

ENGINES, &c.—Description of Engines 2 Four cylinder 4 cycle Diesel Eng. No. of Cylinders 4

No. of Cranks 4

Dia. of Cylinders 11.5"

Length of Stroke 15"

Revs. per minute 250

Dia. of Screw shaft

as per rule 6.45

Material of steel

Is the screw shaft fitted with a continuous liner the whole length of the stern tube

Is the after end of the liner made water tight

In the propeller boss Yes If the liner is in more than one length are the joints burned

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

Dia. of Tunnel shaft as per rule

Dia. of Crank shaft journals as per rule 6.5 7"

as fitted 6.625"

Dia. of Crank pin 6.625"

Size of Crank webs

Dia. of thrust shaft under

Collars 6.5"

Dia. of screw

Pitch of Screw

No. of Blades 3

State whether moveable Yes

Total surface

No. of Feed pumps 4 to

Diameter of ditto 3"

Stroke 4"

Can one be overhauled while the other is at work

No. of Bilge pumps 4

Diameter of ditto 3"

Stroke 4"

Can one be overhauled while the other is at work Yes

Connected to independent 16 B.H.P. distillate engine.

No. of Donkey Engines

Sizes of Pumps

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

In Engine Room

In Holds, &c.

No. of Bilge Injections

sizes

Connected to condenser, or to circulating pump

Is a separate Donkey Suction fitted in Engine room & size

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

Dates of examination of completion of fitting of Sea Connections

of Stern Tube

Screw shaft and Propeller

Is the Screw Shaft Tunnel watertight

Is it fitted with a watertight door

worked from

OILERS, &c.—(Letter for record) Manufacturers of Steel

Total Heating Surface of Boilers

Is Forced Draft fitted

No. and Description of Boilers

Working Pressure

Tested by hydraulic pressure to

Date of test

No. of Certificate

Can each boiler be worked separately

Area of fire grate in each boiler

No. and Description of Safety Valves to

Each boiler

Area of each valve

Pressure to which they are adjusted

Are they fitted with easing gear

Smallest distance between boilers or uptakes and bunkers or woodwork

Mean dia. of boilers

Length

Material of shell plates

Thickness

Range of tensile strength

Are the shell plates welded or flanged

Descrip. of riveting: cir. seams

Long. seams

Diameter of rivet holes in long. seams

Pitch of rivets

Lap of plates or width of butt straps

Per centages of strength of longitudinal joint

rivets

Working pressure of shell by rules

Size of manhole in shell

Size of compensating ring

No. and Description of Furnaces in each boiler

Material

Outside diameter

Length of plain part

top

bottom

Thickness of plates

crown

bottom

Description of longitudinal joint

No. of strengthening rings

Working pressure of furnace by the rules

Combustion chamber plates: Material

Thickness: Sides

Back

Top

Bottom

Pitch of stays to ditto: Sides

Back

Top

If stays are fitted with nuts or riveted heads

Working pressure by rules

Material of stays

Diameter at smallest part

Area supported by each stay

Working pressure by rules

End plates in steam space:

Material

Thickness

Pitch of stays

How are stays secured

Working pressure by rules

Material of stays

Diameter at smallest part

Area supported by each stay

Working pressure by rules

Material of Front plates at bottom

Thickness

Material of Lower back plate

Thickness

Greatest pitch of stays

Working pressure of plate by rules

Diameter of tubes

Pitch of tubes

Material of tube plates

Thickness: Front

Back

Mean pitch of stays

Pitch across wide water spaces

Working pressures by rules

Girders to Chamber tops: Material

Depth and

Thickness of girder at centre

Length as per rule

Distance apart

Number and pitch of stays in each

Working pressure by rules

Superheater or Steam chest; how connected to boiler

Can the superheater be shut off and the boiler worked

separately

Diameter

Length

Thickness of shell plates

Material

Description of longitudinal joint

Diam. of rivet

holes

Pitch of rivets

Working pressure of shell by rules

Diameter of flue

Material of flue plates

Thickness

If stiffened with rings

Distance between rings

Working pressure by rules

End plates: Thickness

How stayed

Working pressure of end plates

Area of safety valves to superheater

Are they fitted with easing gear

Lloyd's Register

Foundation

W1523-0024

If so, is a report now forwarded?

The foregoing is a correct description,

ATLAS IMPERIAL ENGINE CO.
A. Wareskyold Manufacturer.

Dates of Survey while building	{	During progress of work in shops - -	Aug. 27 - Sept. 4-9-13-28. Oct. 2-11-22-29. Nov. 7.
		During erection on board vessel - - -	
		Total No. of visits	10

Is the approved plan of main

Is the approved plan of main boiler forwarded herewith

Dates of Examination of principal parts—Cylinders ^{Oct. 11} ~~Sept. 28~~ Slides — Covers ^{Oct. 29} ~~Oct. 29~~ Pistons ^{Oct. 2} ~~Oct. 2~~ Rods —
Connecting rods ^{Oct. 29} ~~Oct. 29~~ Crank shaft ^{Sept. 4} ~~Sept. 4~~ Thrust shaft ^{Oct. 2} ~~Sept. 28~~ Tunnel shafts — Screw shaft — Propeller —
Stern tube — Steam pipes tested 13th Engine and boiler seatings Engines holding down bolts
Completion of pumping arrangements Boilers fixed Engines tried under ^{power} ~~steam~~ Oct. 22 & Nov
Main boiler safety valves adjusted Thickness of adjusting washers

Material of Crank shaft steel	Identification Mark on Do.	✱	Material of Thrust shaft steel	Identification Mark on Do.	✱
Compd.			Aux. engine		
Material of Tunnel shafts steel	Identification Marks on Do.	✱	Material of Screw shafts steel	Identification Marks on Do.	✱
Material of Steam Pipes	2100# hydrostatic		Test pressure applied to air and spray bottles		

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 Cap Ford

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

This twin set of oil engines and Aux. 16 B.H.P. distillate engine with pumps, have been built under special survey of materials tested in accordance with the rules and the workmanship was found good throughout. On completion both engines and Aux. distillate engine were tried out under working conditions on the test stand and found satisfactory.

These engines have now been shipped to the Lyall Shipbuilding Co. of Vancouver B.C. for installation in the vessel and to complete the survey it remains to test same under various work conditions and spare gear as per Rules to be supplied and placed aboard. For identification the shafts were marked as follows:.

Engine No. 3500				Engine No. 3501.					
Lloyd's		Lloyd's		Lloyd's		Lloyd's			
Crank	No. 682	Thrust	No. 639	Comp.	No. 690	Crank	No. 671	Thrust	No. 631
F.G.A.27	-8-18	A.W.L.16	-5-18	A.W.L.18	-9-18	A.W.L.15	-8-18	A.W.L.27	-4-18
				Lloyd's Comp. No. 641 A.W.L. 19-7-18					

The amount of Entry Fee ... £ 10.00 : When applied for,
Special ... £ 75.00 : Nov. 29, 1918
Donkey Boiler Fee ... £ : When received,
Travelling Expenses (if any) £ : 10/6/19
Forging \$70.00 FRI 14 MAR 1919
Committee's Minute
Assigned See Vcr. for rpt

Engineer Surveyor to Lloyd's Register of British & Foreign Shipping.

© 2021

Lloyd's Register
Foundation