

# REPORT ON MACHINERY.

No. 64

Received at London Office

Port of DULUTH, MINN. U.S.A.

Date of writing Report JULY 20 1920 When handed in at Local Office

No. in Survey held at DULUTH, MINN.

Date, First Survey 4<sup>th</sup> Dec. 1919Last Survey 17<sup>th</sup> July 1920

Reg. Book.

on the

Steel Screw Steamer "Julius Kessler"

Tons

Gross 2359

Net 1423

When built 1920

Master

J. N. Sutherland

Built at

Duluth, Minn.

By whom built

McDonnell Duluth Shipbuilding Co.

Engines made at

Duluth, Minn.

By whom made

McDonnell Duluth Shipbuilding Co.

when made 1920

Boilers made at

By whom made

"

"

"

when made 1920

Registered Horse Power

Owners

Sugar Products Co.

Port belonging to S<sup>t</sup> JOHN, N.B.

Horse Power as per Section 28 262

Is Refrigerating Machinery fitted for cargo purposes No.

Is Electric Light fitted Yes.

ENGINES, &amp;c.—Description of Engines

Triple Expansion Reciprocating

No. of Cylinders 3

No. of Cranks 3

No. of Cylinders 19-32 1/2-54

Length of Stroke 40"

Revs. per minute 88

Dia. of Screw shaft

as per rule 11 1/4"

Material of S.

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

The propeller boss

If the liner is in more than one length are the joints burned

No joints

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

Length of stern bush 4'-5"

If the shaft is lapped or protected between the liners

No. of Tunnel shaft

as per rule 10-2 10-15

Dia. of Crank shaft journals

as per rule 10-7 10-65

Dia. of Crank pin 11 3/4"

Size of Crank web 12 1/2 x 7 1/2"

Dia. of thrust shaft under

No. of blades 4

State whether moveable No.

Total surface 67-75 sq ft

No. of Feed pumps

None attached

Diameter of ditto

Stroke

Can one be overhauled while the other is at work

No. of Bilge pumps 2

Diameter of ditto 4 1/2"

Stroke 20"

Can one be overhauled while the other is at work

Yes.

No. of Donkey Engines 4

Sizes of Pumps

2 V.S. 10 x 6 x 16"

1 V.D. 6 x 5 x 6"

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

In Holds, &amp;c. 2-3" in 18 1/2" hold. 2-3" in 18 1/2" hold. 1-2" at well.

Engine Room 4-3"

3" Tunnel well

No. of Bilge Injections 1

sizes 7"

Connected to condenser, or to circulating pump

Is a separate Donkey Suction fitted in Engine room &amp; size 1-3"

All the bilge suction pipes fitted with roses

Yes

Are the roses in Engine room always accessible

Yes

Are the sluices on Engine room bulkheads always accessible

None

All connections with the sea direct on the skin of the ship

Yes

Are they Valves or Cocks

Both

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

Both

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

At pipes are carried through the bunkers

None

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

Yes

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

Yes

The Screw Shaft Tunnel watertight

Yes

Is it fitted with a watertight door

Yes

Worked from

Main deck

MIDVALE STEEL CO

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IS A DONKEY BOILER FITTED? *No.*

If so, is a report now forwarded? ☒

Rpt. 13.

SPARE GEAR. State the articles supplied:—2. Connecting rod top end bolts and nuts, 2 connecting rod bottom end bolts and nuts, 2 main bearing bolts, 1 set of coupling bolts, 1 set of feed and bilge pump valves, 1 set of piston springs, a quantity of assorted bolts and nuts, iron of various sizes, one spare propeller, 2 eccentric strap bolts and nuts, one set of crank pin and crosshead bearings, one valve spindle complete, spare parts for auxiliary machinery, a number of plain boiler tubes and condenser tubes with ferrules, studs for cylinder covers etc.

The foregoing is a correct description,

McDougall-Duluth Shipbuilding Co.,

Manufacturer.

Dates of Survey while building  
During progress of work in shops -- *DEC. 4-15-17-23-29. JAN. 7-9-14-21-26-28-30. FEB. 4-9-11-14-20-25. MARCH 2-4-8-13-18-21-23-24-30. APRIL 6-13-21-23-26-27.*  
During erection on board vessel --- *MAY 6-10-14-20. MAY 22- JUNE 7-10-14-24-26-28. JULY 1-5-9-12-13-15-17.*  
Total No. of visits *51*

Is the approved plan of main boiler forwarded herewith *sketch*

Dates of Examination of principal parts—Cylinders *6-4-20* Slides *13-4-20* Covers *6-4-20* Pistons *6-5-20* Rods *6-5-20*  
Connecting rods *30-3-20* Crank shaft *23-4-20* Thrust shaft *4-3-20* Tunnel shafts *23-3-20* Screw shaft *26-4-20* Propeller *28-6-20*  
Stern tube *6-4-20* Steam pipes tested *26-6-20* Engine and boiler seatings *18-3-20* Engines holding down bolts *1-7-20*  
Completion of pumping arrangements *12-7-20* Boilers fixed *10-5-20* Engines tried under steam *15-7-20*  
Completion of fitting sea connections *14-5-20* Stern tube *14-5-20* Screw shaft and propeller *1-7-20*  
Main boiler safety valves adjusted *28-6-20* Thickness of adjusting washers *No washers fitted.*

Material of Crank shaft *S.* Identification Mark on Do. *LLOYD'S NO. 182 1920 G.T.* Material of Thrust shaft *S.* Identification Mark on Do. *LLOYD'S NO. 182 1920 G.T.*  
Material of Tunnel shafts *S.* Identification Marks on Do. *LLOYD'S NO. 182 1920 G.T.* Material of Screw shafts *S.* Identification Marks on Do. *LLOYD'S NO. 182 1920 G.T.*

Material of Steam Pipes *Lap welded steel.* Test pressure *570 lb.*  
Is an installation fitted for burning oil fuel *Yes.* Is the flash point of the oil to be used over 150°F. *Yes.*

Have the requirements of Section 49 of the Rules been complied with *Yes.*

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.)

*These engines and boilers have been constructed under special survey and in accordance with the rules and approved plans. The materials employed in their construction and workmanship are sound and good. Both engines and boilers have been satisfactorily installed, proving efficient under tests and in my opinion are eligible to receive the notation + L.M.C. 7-20. Fitted for oil fuel. F.P. above 150°F. Electric light, 16 lamps.*

It is submitted that  
this vessel is eligible for  
THE RECORD. + L.M.C. 7.20 F.D.

Fitted for oil fuel 7-20 FP above 150°F

*Retl*  
*24/8/20*

*G.R.*

The amount of Entry Fee ... £ *10.00* :  
Special ... £ *166.00* :  
Donkey Boiler Fee *✓* ... £ :  
Travelling Expenses (if any) £ *5.00* :  
When applied for, *22-7-1920.*  
When received, *15/8/20*

*Geo. Tully*

Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute

Assigned

*+ L.M.C. 7.20*

MACHINERY CERT.  
WRITTEN *17/8/20*

REPORT

Port of *DULUTH*

No. in Reg. Book

Built at *Sugar*

Card No. *37*

DESCRIPTION OF DYNAMO

*One General*  
*6 1/2" x 5" x 4"*

Capacity of Dynamo

Where is Dynamo fixed

Position of Main Switch

Positions of auxiliary switches *4 switches*

If fuses are fitted on circuits *Yes.*

If vessel is wired on the

Are the fuses of non-oxidizing

Are all fuses fitted in enclosures

are permanent installations

Are all switches and fuses

Total number of lights *16*

A *Caplains & Officer's*

B *Stowage*

C *Engine room*

D *" Tunnel*

E *Boiler room*

*one* Mast head light

*2* Side lights

*16*

If arc lights, what protection

Where are the switches

DESCRIPTION OF CABLES

Main cable carrying

Branch cables carrying

Branch cables carrying

Leads to lamps carrying

Large light cables carrying

DESCRIPTION OF INTERIOR

*Rubber cover*

*In cabins*

*the Nation*

oints in cables, how many

boxes when

are all the joints of cable

positions, none being

are there any joints in

How are the cables led



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