

## REPORT ON MACHINERY.

No. 378

Received at London Office

-9 MAY 1927

Date of writing Report

When handed in at Local Office

Port of

No. in Survey held at  
Reg. Book.

Date, First Survey 10 Sept 1926 Last Survey 31 March 1927

on the S/s "ROBERT HOBSON"

(Number of Visits 28)

Master

Built at Lorain

By whom built American S. B. Co.

Tons { Gross 8024  
Net 6315

When built 1927

Engines made at Lorain

By whom made American S. B. Co.

when made 1927-3

Boilers made at Bayonne N.J.

By whom made Babcock &amp; Wilcox Co.

when made 1927-3

Registered Horse Power 2200

Owners Interlake S. S. Co.

Port belonging to Fairport

Nom. Horse Power as per Section 28 493

Is Refrigerating Machinery fitted for cargo purposes No.

Is Electric Light fitted Yes.

## ENGINES, &amp;c.—Description of Engines

Triple expansion Vertical

No. of Cylinders 3

No. of Cranks 3

Dia. of Cylinders 24 1/2", 41", 65"

Length of Stroke 42"

Revs. per minute 95

Dia. of Screw shaft

as per rule 13-86

Material of Off. steel

Is the screw shaft fitted with a continuous liner the whole length of the stern tube No.

Is the after end of the liner made water tight

the propeller boss

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

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

Length of stern bush 4'-10"

Dia. of Tunnel shaft

as per rule 12-26

Dia. of Crank shaft journals

as per rule 12-66

Dia. of Crank pin 12 3/4"

Size of Crank webs 24 x 8 1/2"

Dia. of thrust shaft under

Walls 13"

Dia. of screw 15'-0"

Pitch of Screw 14'-8"

No. of Blades 4

State whether moveable Yes

Total surface 84 sq. ft.

No. of Feed pumps 2

Diameter of ditto 12" x 6" x 12" Duplex

Stroke 14" x 7" x 16" Duplex

Can one be overhauled while the other is at work Yes

No. of Bilge pumps 3

Diameter of ditto 3/2" x 5"

Stroke 13 1/4"

Can one be overhauled while the other is at work Yes

No. of Donkey Engines 2

Sizes of Pumps 2-8" x 12" x 14" Duplex

1-7 1/2" x 5" x 6"

No. and size of Suctions connected to both Bilge and Donkey pumps 20

Engine Room 2-6" x 2-4"

In Holds, &amp;c. 2-8" after end.

1 steam

No. of Bilge Injections 3

in fore peak.

2 steam syphons

3" in dark hold.

Are 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

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

Are they Valves or Cocks Both

Are 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 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 No.

Are the pipes carried through the bunkers Windlass, fire, etc.

How are they protected

No placed as to be fire from damage

Are 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.

Is the Screw Shaft Tunnel watertight

Is it fitted with a watertight door

worked from

## BOILERS, &amp;c.—(Letter for record S)

Manufacturers of Steel

See N.Y. Rpt. No. 2668

Total Heating Surface of Boilers 7965

Is Forced Draft fitted Yes

No. and Description of Boilers 3 B.W. 3 water tube boilers

Working Pressure 200

Tested by hydraulic pressure to 400

Date of test 2/8/26

No. of Certificates 499,500,501

Can each boiler be worked separately Yes.

Area of fire grate in each boiler 63

No. and Description of Safety Valves to 180

No. of boiler 3 Duplex

Area of each valve 7.068

Pressure to which they are adjusted 180

Are they fitted with easing gear Yes.

Greatest 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

No. of seams

Diameter of rivet holes in long. seams

Pitch of rivets

Lap of plates or width of butt straps

Percentages of strength of longitudinal joint

rivets

Working pressure of shell by rules

Size of manhole in shell

No. of compensating ring

No. and Description of Furnaces in each boiler

Material

Outside diameter

Length of plain part

Thickness of plates

Description of longitudinal joint

No. of strengthening rings

Working pressure of furnace by the rules

Combustion chamber plates: Material

Thickness: Sides

Back

Top

Bottom

No. of stays to ditto: Sides

Back

Top

If stays are fitted with nuts or riveted heads

Working pressure by rules

Material of stays

Area 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

Area 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

Height 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

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

No. of rivets

Working pressure of shell by rules

Crown plates

Thickness

How stayed

## SUPERHEATER.

Type B.W.

Date of Approval of Plan July 11-1926

Tested by Hydraulic Pressure to

Date of Test 27/8/26

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

Diameter of Safety Valve 1"

Pressure to which each is adjusted 180

Is Easing Gear fitted Yes.

005644-005655-0046



IS A DONKEY BOILER FITTED?

No.

If so, is a report now forwarded?

SPARE GEAR. State the articles supplied:—

Two propeller blades, with spare nuts & studs. Set of valves, suction & discharge, for main feed & auxiliary ballast pumps. Boiler handhole plates with nuts & yokes. Boilers & condensers tubing etc.

The foregoing is a correct description,

The American Ship Bldg Co. Manufacturer.

Dates of Survey while building  
During progress of work in shops -- 1926. Sept. 10. 14. 19. 20. 24. 29. 30. Oct 4. 7. 11. 15. 16. 20. 23. 26. 30 Nov. 2. 4  
During erection on board vessel -- 1926 Nov 11. 12. 13. 17. 18. 19. 22. 23. 29 1927. March 31.  
Total No. of visits 28.

Is the approved plan of main boiler forwarded herewith Yes

Dates of Examination of principal parts—Cylinders 26/10/26 Slides 26/10/26 Covers 11/10/26 Pistons 16/10/26 Rods 14/10/26  
Connecting rods 11/10/26 Crank shaft 16/10/26 Thrust shaft 16/10/26 Tunnel shafts 16/10/26 Screw shaft 16/10/26 Propeller 30/10/26  
Stern tube 16/10/26 Steam pipes tested 23/10/26 Engine and boiler seatings 23/10/26 Engines holding down bolts 23/10/26  
Completion of pumping arrangements 31/3/27 Boilers fixed 23/10/26 Engines tried under steam 31/3/27  
Completion of fitting sea connections 30/10/26 Stern tube 30/10/26 Screw shaft and propeller 30/10/26  
Main boiler safety valves adjusted 31/3/27 Thickness of adjusting washers Lock nuts fitted  
Material of Crank shaft Off steel Identification Mark on Do. Material of Thrust shaft Off steel Identification Mark on Do.  
Material of Tunnel shafts Off steel Identification Marks on Do. Material of Screw shafts Off steel Identification Marks on Do.  
Material of Steam Pipes Steel, lap welded Test pressure 600# per sq in.  
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 Section 49 of the Rules been complied with ✓

Is this machinery duplicate of a previous case Yes If so, state name of vessel S/S "SAMUEL MATHER"

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

The above engines & boilers have been built under special survey. The materials & workmanship employed in their construction are sound & efficient. They have been fitted on board in a satisfactory manner, & found to work well under running conditions. The vessel is eligible in my opinion for record of F.L.M.C. 3-27. in the Register.

It is submitted that this vessel is eligible for THE RECORD. + L.M.C. 3-27. F.D.

3 Watertube boilers. 20075.

The amount of Entry Fee ... \$25.00

Special Credit 2/5 fee B.N.Y.C. \$435.50

Donkey Boiler Fee ... \$

Travelling Expenses (if any) \$

Committee's Minute \$460.50

Assigned + L.M.C. 3-27

Note: W.T.B. Steam Pressure 200 lb

F.D.

Electric Light

When applied for,

15 April 1927

When received,

13/5/27

APR 27 1927

NEW YORK

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Engineer Surveyor to Lloyd's Register of Shipping



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