

REPORT ON STEAM RECIPROCATING ENGINE MACHINERY.

No. 4050

Date of writing Report 1915

1933

When handed in at Local Office

1915

1933 Port of

Received at London Office

22 MAY 1933

No. in Survey held at

Fredrikstad

Reg. Book.

76913 on the

Steamer "HELLE"

Date, First Survey

12.1932

Last Survey

1915

1933

(Number of Visits 15)

Built at

By whom built

Pusey & Jones

Yard No.

Tons

2467

Engines made at

Fredrikstad

By whom made

Fredrikstad msk. (H. K. K.)

Engine No.

When built

5.1918

Boilers made at

By whom made

Boiler No.

When made

1933

Registered Horse Power

Owners Himmels (Thorsolf Kalla)

Port belonging to

Porsgrund

Nom. Horse Power as per Rule

247.7

Is Refrigerating Machinery fitted for cargo purposes

no

Is Electric Light fitted

yes

Trade for which Vessel is intended

ENGINES, &c.

Description of Engines

Double compound, Fredrikstad Steam engine

Revs. per minute

82

Dia. of Cylinders

Two 365, Two 820

Length of Stroke

775

No. of Cylinders

4

No. of Cranks

4

Crank shaft, dia. of journals

as per Rule 256.7

as fitted 258

Crank pin dia.

260

Crank webs

Mid. length breadth

490

Thickness parallel to axis

164

Intermediate Shafts, diameter

as per Rule

as fitted 266

Thrust shaft, diameter at collars

as per Rule

as fitted 266

279 at collar

Tube Shafts, diameter

as per Rule

as fitted

Screw Shaft, diameter

as per Rule

as fitted 317

Is the tube

screw

shaft fitted with a continuous lining

no, 2 liners

Bronze Liners, thickness in way of bushes

as per Rule

as fitted

Thickness between bushes

as per Rule

as fitted

Is the after end of the liner made watertight in the

propeller boss

yes

If the liner is in more than one length are the junctions made by fusion through the whole thickness of the liner

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

If so, state type

protected

Is an approved Oil Gland or other appliance fitted at the after end of the tube

Propeller, dia.

13'-9 1/2"

Pitch

11'-6"

No. of Blades

4

Material

Bronze

Length of Bearing in Stern Bush next to and supporting propeller

Feed Pumps worked from the Main Engines, No.

no.

Diameter

Stroke

whether Movable

no

Total Developed Surface

60 sq. feet

Bilge Pumps worked from the Main Engines, No.

no.

Diameter

Stroke

Can one be overhauled while the other is at work

no

Can one be overhauled while the other is at work

Feed Pumps { No. and size

2 off, 10" x 6" x 24"

How driven

Steam

Pumps connected to the

Main Bilge Line

No. and size

one, 9" x 7 1/2" x 10', one 7" x 7 1/2" x 8 1/2' as original

Ballast Pumps, No. and size

one 9" x 7 1/2" x 10'

one 7" x 7 1/2" x 8 1/2'

How driven

Steam

Lubricating Oil Pumps, including Spare Pump, No. and size

no.

Are two independent means arranged for circulating water through the

Bilge Pumps;—In Engine and Boiler Room

one 3 1/2"

3 off 3"

In Pump Room

Suctions, connected to both Main Bilge Pumps and Auxiliary

In Holds, &c.

as originally fitted

Main Water Circulating Pump Direct Bilge Suctions, No. and size

No. and size

Independent Power Pump Direct Suctions to the Engine Room Bilges,

Are the Bilge Suctions in the Machinery Space led from easily accessible mud-boxes, placed above the level of the working floor, with straight tail pipes to the bilges

Are all Sea Connections fitted direct on the skin of the ship

Are they fitted with Valves or Cocks

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

Are the Overboard Discharges 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 pass through the bunkers

How are they protected

What pipes pass through the deep tanks

Have they been tested as per Rule

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

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

compartment to another

Is the Shaft Tunnel watertight

Is it fitted with a watertight door

worked from

MAIN BOILERS, &c.—(Letter for record)

Total Heating Surface of Boilers

Is Forced Draft fitted

yes, see attached report

IS A REPORT ON MAIN BOILERS NOW FORWARDED?

Working Pressure 200 lb

IS A DONKEY BOILER FITTED?

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

If so, is a report now forwarded?

PLANS. Are approved plans forwarded herewith for Shafting

(If not state date of approval)

Main Boilers

Auxiliary Boilers

Donkey Boilers

Superheaters

approved 24.12.1932

General Pumping Arrangements

approved 9.12.32.

Oil fuel Burning Piping Arrangements

Has the spare gear required by the Rules been supplied

SPARE GEAR.

State the principal additional spare gear supplied

25 condenser tubes & 50 ferrules

50 fire bars

One cast iron propeller

The foregoing is a correct description,

Manufacturer.

Fredrikstad msk. (H. K. K.)
Vill. Olsen

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Lloyd's Register
Foundation

W1293-0152

Dates of Survey while building
 During progress of work in shops - - 1/12, 16/12, 28/12-1932
 20/1, 3/2, 8/2, 9/2, 15/2, 16/3, 17/3, 24/3, 25/3. 1933.
 During erection on board vessel - - - 20/4, 23/4, 29/4. 1933.
 Total No. of visits 15.

Dates of Examination of principal parts—Cylinders 8/2, 6/3, 14/3, 27/3-33 Slides 25/3. 1933 Covers 25/3. 1933.
 Pistons 27/3. 1933. Piston Rods 27/3. 1933 Connecting rods 27/3. 1933
 Crank shaft 25/3. 1933. Thrust shaft 25/3. 1933 (original shaft) Intermediate shafts 25/3. 1933. (original shaft)
 Tube shaft 25/3. 1933 (original shaft) Screw shaft 25/3. 1933 (original shaft) Propeller 25/3. 1933.
 Stern tube 25/3. 1933 (original tube) Engine and boiler seatings 25/3. 1933 Engines holding down bolts 29/4. 33.
 Completion of fitting sea connections 20/4. 1933. Boilers fixed Engines tried under steam 29/4. 1933.
 Completion of pumping arrangements 20/4. 1933. Main boiler safety valves adjusted 29/4. 1933. Thickness of adjusting washers
 Crank shaft material S.M. steel Identification Mark 6.1.33. A.P. Thrust shaft material Identification Mark
 Intermediate shafts, material Identification Marks Tube shaft, material Identification Mark
 Screw shaft, material Identification Mark Steam Pipes, material steel Test pressure 600 Date of Test 17/3.33.
 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 the Rules for the use of oil as fuel been complied with.
 Is the vessel (not being an oil tanker) fitted for carrying oil as cargo. If so, have the requirements of the Rules been complied with.
 If the notation for Ice Strengthening is desired, state whether the requirements in this respect have been complied with.
 Is this machinery duplicate of a previous case. If so, state name of vessel.

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

This machinery has been built and tested in accordance with the Rules.
 The crank shaft has been delivered from approved work and with certificate from Lloyd's Register. The workmanship throughout is of the best description. The machinery has been tried during working condition and found to work satisfactory.
 Certificate for the new screw shaft is attached.
 The remainder of the machinery survey and the B.S. has also been held and we therefore recommend this vessel's machinery to be classed **NE. 4.33 & L.M.C. 4.33**

The amount of Entry Fee ... £ 78.00
 Special ... £ 940.00
 Donkey Boiler Fee ... £ :
 Travelling Expenses (if any) £ 245.-

When applied for, 18/5. 1933
 When received, 6.6. 1933

H. E. J. J. J. J.
 Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute TUE. 13 JUN 1933

TUE. 27 JUN 1933

Assigned



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