

REPORT ON STEAM RECIPROCATING ENGINE MACHINERY.

Received at London Office

Date of writing Report

When handed in at Local Office

15 Feb 1941 Port of

Sunderland.

No. in Survey held at

Sunderland.

Date, First Survey

13 Sep. 14

Last Survey 11 Feb 1941

Reg. Book.

on the S.S. "STANFORD"

(Number of Visits 55)

5969.

Built at Sunderland

By whom built W. Pickering & Son Ltd.

Yard No. 243

Tons { Gross 5969.
Net 3584

When built 1941.

Engines made at Sunderland

By whom made G. Clark (1938) Ltd.

Engine No. 1230

When made 1941.

Boilers made at Sunderland

By whom made G. Clark (1938) Ltd.

Boiler No. 1230

When made 1941.

Registered Horse Power

Owners Stanhope S.S. Co Ltd.

Port belonging to London.

Nom. Horse Power as per Rule

398

Is Refrigerating Machinery fitted for cargo purposes

No.

Is Electric Light fitted

Yes.

Trade for which Vessel is intended

ENGINES, &c.—Description of Engines

Triple Expansion (Poppet valves on H.P. & M.P.)

Revs. per minute 70

Dia. of Cylinders 23½"-38"-66"

Length of Stroke 45"

No. of Cylinders 3

No. of Cranks 3

Crank shaft, dia. of journals as per Rule 13.3"

Crank pin dia. 13¾"

Crank webs

Mid. length breadth 24"

Mid. length thickness 8¾"

Thickness parallel to axis 13.3"

Thickness around eye-hole 13.3"

Intermediate Shafts, diameter as per Rule 13"

as fitted 13"

Thrust shaft, diameter at collars as per Rule 13¾"

as fitted 13¾"

Tube Shafts, diameter as per Rule 14.14"

as fitted 14.14"

Screw Shaft, diameter as per Rule 14.14"

as fitted 14.14"

Is the

tube

screw

shaft fitted with a continuous liner

Yes.

Bronze Liners, thickness in way of bushes as per Rule 3/4"

as fitted 3/4"

Thickness between bushes as per Rule 3/4"

as fitted 3/4"

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 one length.

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

Yes.

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

shaft

No.

If so, state type

Yes.

Length of Bearing in Stern Bush next to and supporting propeller 4'-11"

Propeller, dia. 14'-3"

Pitch 16'-4½"

No. of Blades 4

Material Bronze

whether Moveable

No.

Total Developed Surface 110 sq. feet

Feed Pumps worked from the Main Engines, No. none

Diameter

Stroke

Can one be overhauled while the other is at work

Yes.

Bilge Pumps worked from the Main Engines, No. 2

Diameter 4"

Stroke 24"

Can one be overhauled while the other is at work

Yes.

Feed

Pumps

No. and size

Two 9½" x 4" x 21"

Pumps connected to the

No. and size

1 @ 9" x 11" x 10"

1 @ 4" x 5" x 8"

How driven

Steam

Main Bilge Line

How driven

Steam

Ballast Pumps, No. and size 1 @ 9" x 11" x 10"

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

Are two independent means arranged for circulating water through the Oil Cooler

Suctions, connected to both Main Bilge Pumps and Auxiliary

Bilge Pumps;—In Engine and Boiler Room 3 @ 3" in E.R.

1 @ 2½" in Tunnel well.

In Pump Room

N°4. 3" φ r.s.

N°2A. 2½" φ r.s.

In Holds, &c.

N°1. 3" φ r.s.

N°2. 3½" φ r.s.

N°3. 3" φ r.s.

Main Water Circulating Pump Direct Bilge Suctions, No. and size 1 @ 8"

Independent Power Pump Direct Suctions to the Engine Room Bilges,

No. and size 1 @ 5"

Are all the Bilge Suction Pipes in holds and tunnel well fitted with strum-boxes

Yes.

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

Yes.

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

Yes.

Are they fitted with 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 Overboard Discharges above or below the deep water line

Below.

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

Yes.

What Pipes pass through the bunkers

For hold bilge Suction

How are they protected

Wood casing.

What pipes pass through the deep tanks

No deep tank.

Have they been tested as per Rule

Yes.

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

Yes.

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

Yes.

Is the Shaft Tunnel watertight

Yes.

Is it fitted with a watertight door

Yes.

worked from

Top of Bilge in E. Room.

MAIN BOILERS, &c.—(Letter for record S.)

Total Heating Surface of Boilers

5342 sq. ft.

Is Forced Draft fitted

Both.

No. and Description of Boilers 2 S.B.

Working Pressure 220

IS A REPORT ON MAIN BOILERS NOW FORWARDED? Yes.

IS A DONKEY BOILER FITTED? No.

If so, is a report now forwarded? Yes.

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

PLANS.

Are approved plans forwarded herewith for Shafting

Yes.

Main Boilers

Yes.

Auxiliary Boilers

Yes.

Donkey Boilers

Yes.

Superheaters

Yes.

General Pumping Arrangements

Yes.

Oil fuel Burning Piping Arrangements

Yes.

SPARE GEAR.

Has the spare gear required by the Rules been supplied

Yes.

State the principal additional spare gear supplied

One C. 1. propeller, one propeller Shaft, 2 half bottom end bearings built into Complete, 4 half top end bearings built into Complete, 2 main bearing bolts & nuts, one set Coupling bolts & nuts, 1 set air pump valves, 2 bilge pump valves & seats, 1 complete set of packing rings for H.P. pistons, 1 set bearing parts for 1 piston rod gland packing, 1 set pads for Mitchell block (ahead of).

Poppet Valve gear: 2 valves (1 for H.P. 1 for M.P.) 2x Seats & rings. 2 rollers with pins, 2 roller bearings 2 main springs (1 H.P. 1 M.P.) 2 Spindles & washers for valve Case Covers (1 H.P. 1 M.P.) 2 spindle washers for Spring ends (1 H.P. 1 M.P.)

One set of pump valves & seats for feed pump, General Service & ballast pumps.

One impeller Shaft for Circ. Pump, 1 set Gland packing for 1 piston rod & 1 valve rod for each auxd.

The foregoing is a correct description,

Archd. J. Berry

Manufacturer. LC

003706-003711-0102

Lloyd's Register Foundation

Dates of Survey while building
During progress of work in shops - - - 1940. Sep. 13, 20, 27. Oct. 1, 8, 11, 15, 17, 18, 22, 23, 24, 25, 29, 31. Nov. 1, 5, 7, 8, 10, 15, 18, 19, 20, 22, 25, 26, 29.
Dec. 3, 5, 6, 10, 11, 13, 17, 18, 20, 26, 27, 30, 31. 1941. Jan. 2, 6, 7, 9, 10, 14, 16, 21, 24, 28, 29, 31. Feb. 3, 7, 11.
During erection on board vessel - - -
Total No. of visits 55.

Dates of Examination of principal parts—Cylinders H.P. 3/12/40 M.P. 7/11/40 L.P. 29/10/40 Slides Report valves 18/12/40 L.P. 14/12/40 Covers 14/9/40.
Pistons 6/12/40. Piston Rods 6/12/40. Connecting rods 13/12/40.
Crank shaft 3/12/40 Thrust shaft 3/12/40 Intermediate shafts 30/12/40 & 2/1/41
Tube shaft ✓ Screw shaft 5/12/40 26/12/40 Propeller 30/12/40.
Stern tube 31/10/40 Engine and boiler seatings 24/1/41. Engines holding down bolts 24/1/41.
Completion of fitting sea connections 1/10/40.
Completion of pumping arrangements 3/2/41. Boilers fixed 24/1/41. Engines tried under steam 3/2/41.
Main boiler safety valves adjusted 3/2/41. Thickness of adjusting washers Port Bl. S. 5/16" St. Bl. S. 3/8"
Crank shaft material Ingot Steel Identification Mark 3/12/40. Thrust shaft material Ingot Steel Identification Mark 3/12/40.
Intermediate shafts, material Ingot Steel Identification Marks 3991/5/6 WHF 30/12/40 3992/3/4 WHF 2/1/41 Tube shaft, material Identification Mark ✓
Screw shaft, material Ingot Steel Identification Mark 26/12/40 Steam Pipes, material S.P. Steel Test pressure 660 lbs Date of Test 25/1/41
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 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 No. 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 Not desired.
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 under Special Survey in accordance with the approved plans & the rules of the Society. The materials & workmanship are good. It has been securely fitted on board the vessel & tried under working conditions alongside quay with satisfactory results. It is eligible in my opinion to have notation A.L.M.C. 2.HI., 2SB.F.D. 220 lbs, T.S. (C.L.).

The amount of Entry Fee ... £ 5 : : When applied for, 9 FEB 1941
Special ... £ 84 : 14 : 1
Donkey Boiler Fee ... £ : : When received, 26 FEB 1941
Travelling Expenses (if any) £ : :
Committee's Minute 14 MAR 1941
Assigned + Lmb. 2.41 22, 21.

Signature of Engineer Surveyor to Lloyd's Register of Shipping.