

4a.

REPORT ON STEAM TURBINE MACHINERY

25 AUG 1936
Sld. No. 31892

29 JUN 1936

of writing Report

19

When handed in at Local Office

23/6/1936

Port of

NEWCASTLE-ON-TYNE

in Survey held at

Newcastle on Tyne

Date, First Survey

4 May 1936

Last Survey

17/6/1936

g. Book.

(Number of Visits 7)

on the S/S ST. MARGARET.

It at Sunderland

By whom built J.L. Thompson & Co

Yard No. 574

Tons Gross 4312

Net 2684

Lines made at Newcastle on Tyne

By whom made White Marine Eng Co Ltd

Engine No. 5.C.

When built 1936

Turbine made at ditto

By whom made R.W. Hawthorn, Leslie & Co

Turbine No. 9849

When made 1936

Horse Power at Full Power 640

Owners ST. QUENTIN SHIPPING CO. LD

Port belonging to

Newport

Horse Power as per Rule 304

Is Refrigerating Machinery fitted for cargo purposes

Is Electric Light fitted

de for which Vessel is intended

4M TURBINE ENGINES, &c.—Description of Engines

4 CYL. COMPOUND RECIP. ENG WITH S.R. GEARING, Combined with L.P. TURBINE WITH D.R. GEARING TO ONE SCREW SHAFT.

Ahead ONE COMBINED Direct coupled, single reduction geared

Astern ONE RECIP. double reduction geared

coupled to Alternating Current Generator phase periods per second

Direct Current Generator rated

Kilowatts Volts at revolutions per minute

Kilowatts Volts at revolutions per minute

Kilowatts Volts at revolutions per minute

Kilowatts Volts at revolutions per minute

Kilowatts Volts at revolutions per minute

Kilowatts Volts at revolutions per minute

Kilowatts Volts at revolutions per minute

Kilowatts Volts at revolutions per minute

Kilowatts Volts at revolutions per minute

Kilowatts Volts at revolutions per minute

Kilowatts Volts at revolutions per minute

Kilowatts Volts at revolutions per minute

Kilowatts Volts at revolutions per minute

Kilowatts Volts at revolutions per minute

Kilowatts Volts at revolutions per minute

Kilowatts Volts at revolutions per minute

Kilowatts Volts at revolutions per minute

Kilowatts Volts at revolutions per minute

Kilowatts Volts at revolutions per minute

Kilowatts Volts at revolutions per minute

Kilowatts Volts at revolutions per minute

Kilowatts Volts at revolutions per minute

Kilowatts Volts at revolutions per minute

Kilowatts Volts at revolutions per minute

Kilowatts Volts at revolutions per minute

Kilowatts Volts at revolutions per minute

Kilowatts Volts at revolutions per minute

Kilowatts Volts at revolutions per minute

Kilowatts Volts at revolutions per minute

Kilowatts Volts at revolutions per minute

Kilowatts Volts at revolutions per minute

Kilowatts Volts at revolutions per minute

Kilowatts Volts at revolutions per minute

Kilowatts Volts at revolutions per minute

Kilowatts Volts at revolutions per minute

Kilowatts Volts at revolutions per minute

Kilowatts Volts at revolutions per minute

Kilowatts Volts at revolutions per minute

Kilowatts Volts at revolutions per minute

Kilowatts Volts at revolutions per minute

Kilowatts Volts at revolutions per minute

Kilowatts Volts at revolutions per minute

Kilowatts Volts at revolutions per minute

Kilowatts Volts at revolutions per minute

Kilowatts Volts at revolutions per minute

Kilowatts Volts at revolutions per minute

Kilowatts Volts at revolutions per minute

Kilowatts Volts at revolutions per minute

Kilowatts Volts at revolutions per minute

Kilowatts Volts at revolutions per minute

Kilowatts Volts at revolutions per minute

Kilowatts Volts at revolutions per minute

Kilowatts Volts at revolutions per minute

Kilowatts Volts at revolutions per minute

Kilowatts Volts at revolutions per minute

Kilowatts Volts at revolutions per minute

Kilowatts Volts at revolutions per minute

Kilowatts Volts at revolutions per minute

Kilowatts Volts at revolutions per minute

Kilowatts Volts at revolutions per minute

Kilowatts Volts at revolutions per minute

Kilowatts Volts at revolutions per minute

Kilowatts Volts at revolutions per minute

Kilowatts Volts at revolutions per minute

Kilowatts Volts at revolutions per minute

Kilowatts Volts at revolutions per minute

Horse Power at each turbine

H.P. —

Revolutions per minute, at full power, of each Turbine Shaft

I.P. —

L.P. 640 ✓

Shaft diameter at journals

H.P. —

I.P. —

L.P. 4"

Pitch Circle

Diameter

1st pinion

2nd pinion

1st reduction wheel

main wheel

H.P. —

I.P. —

L.P. 3500

main shaft

EXHAUST TURBINE

Width of Face

1st reduction wheel

1st reduction wheel

main wheel

main wheel

main wheel

main wheel

main wheel

main wheel

main wheel

main wheel

main wheel

main wheel

main wheel

main wheel

main wheel

main wheel

main wheel

main wheel

main wheel

main wheel

main wheel

main wheel

main wheel

main wheel

main wheel

main wheel

main wheel

main wheel

main wheel

main wheel

main wheel

main wheel

main wheel

main wheel

main wheel

main wheel

main wheel

main wheel

main wheel

main wheel

main wheel

main wheel

main wheel

main wheel

main wheel

main wheel

main wheel

main wheel

main wheel

Horse Power at each turbine

H.P. —

Revolutions per minute, at full power, of each Turbine Shaft

I.P. —

L.P. 640 ✓

Shaft diameter at journals

H.P. —

I.P. —

L.P. 4"

Pitch Circle

Diameter

1st pinion

2nd pinion

1st reduction wheel

main wheel

H.P. —

I.P. —

L.P. 3500

main shaft

EXHAUST TURBINE

Width of Face

1st reduction wheel

1st reduction wheel

main wheel

main wheel

main wheel

main wheel

main wheel

main wheel

main wheel

main wheel

main wheel

main wheel

main wheel

main wheel

main wheel

main wheel

main wheel

main wheel

main wheel

main wheel

main wheel

main wheel

main wheel

main wheel

main wheel

main wheel

main wheel

main wheel

main wheel

main wheel

main wheel

main wheel

main wheel

main wheel

main wheel

main wheel

main wheel

main wheel

main wheel

main wheel

main wheel

main wheel

main wheel

main wheel

main wheel

main wheel

main wheel

main wheel

main wheel

Horse Power at each turbine

H.P. —

Revolutions per minute, at full power, of each Turbine Shaft

I.P. —

L.P. 640 ✓

Shaft diameter at journals

H.P. —

I.P. —

L.P. 4"

Pitch Circle

Diameter

1st pinion

2nd pinion

1st reduction wheel

main wheel

H.P. —

I.P. —

L.P. 3500

main shaft

EXHAUST TURBINE

Width of Face

1st reduction wheel

1st reduction wheel

main wheel

main wheel

main wheel

main wheel

main wheel

main wheel

main wheel

main wheel

main wheel

main wheel

main wheel

main wheel

main wheel

main wheel

main wheel

main wheel

main wheel

main wheel

main wheel

main wheel

main wheel

main wheel

main wheel

main wheel

main wheel

main wheel

main wheel

main wheel

main wheel

main wheel

main wheel

main wheel

main wheel

main wheel

main wheel

main wheel

main wheel

main wheel

main wheel

main wheel

main wheel

main wheel

main wheel

main wheel

main wheel

main wheel

main wheel

Horse Power at each turbine

H.P. —

Revolutions per minute, at full power, of each Turbine Shaft

I.P. —

L.P. 640 ✓

Shaft diameter at journals

H.P. —

I.P. —

L.P. 4"

Pitch Circle

Diameter

1st pinion

2nd pinion

1st reduction wheel

main wheel

H.P. —

I.P. —

L.P. 3500

main shaft

EXHAUST TURBINE

Width of Face

1st reduction wheel

1st reduction wheel

main wheel

main wheel

main wheel

main wheel

main wheel

main wheel

main wheel

main wheel

main wheel

main wheel

main wheel

main wheel

BOILERS, &c.—(Letter for record) Total Heating Surface of Boilers

Is Forced Draft fitted

No. and Description of Boilers

Working Pressure

Is a Report on Main Boilers now forwarded?

Is { a Donkey
(an Auxiliary) } Boiler fitted?

If so, is a report now forwarded?

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

Plans. Are approved plans forwarded herewith for Shafting
(If not state date of approval)

Main Boilers

Auxiliary Boilers

Donkey Boilers

Superheaters

General Pumping Arrangements

Oil Fuel Burning Arrangements

Has the spare gear required by the Rules been supplied

SPARE GEAR.

State the principal additional spare gear supplied

2 Main Bearing Bushes; One Complete Carbon Ring for Cylinders;
One Set "Michell" Thrust Pads; one Set Liners for forward side of Thrust Block's
2 Springs for Carbon Rings; One Relief Valve Spring; One Spring for Governor;
2 Studs & nuts for Bearings Keeps; one Stud, one Bolt & one fitter Bolt (each with nut) for
Cylinder horizontal joint.

The foregoing is a correct description,

R. & W. HAWTHORN, LESLIE & CO., LIMITED
L.P. TURBINE-
Manufacturer.
DIRECTOR

Dates of Survey while building
During progress of work in shops --
During erection on board vessel ---
Total No. of visits

1936
May 4.5.8.28 Jun 8.16.17

7+

Dates of Examination of principal parts—Casings

5/5/36

Rotors

4/5/36

Blading

17/6/36

Gearing

Wheel shaft

✓

Thrust shaft

✓

Intermediate shafts

✓

Tube shaft

✓

Screw shaft

✓

Propeller

✓

Stern tube

✓

Engine and boiler seatings

✓

Engine holding down bolts

✓

Completion of fitting sea connections

✓

Completion of pumping arrangements

✓

Boilers fixed

L.P. TURBINE

Engine tried under steam

15.6.36

Main boiler safety valves adjusted

✓

Thickness of adjusting washers

✓

Rotor shaft, Material and tensile strength

S.M. STEEL

55.2 Kg./mm² (35 tons/□)

Identification Mark

LLOYDS 852

EB 18-1-36

AW 17-6-36

Flexible Pinion Shaft, Material and tensile strength

✓

Identification Mark

✓

Pinion shaft, Material and tensile strength

✓

Identification Mark

✓

1st Reduction Wheel Shaft, Material and tensile strength

✓

Identification Mark

✓

Wheel shaft, Material

✓

Identification Mark

✓

Thrust shaft, Material

✓

Identification Mark

✓

Intermediate shafts, Material

✓

Identification Marks

✓

Tube shaft, Material

✓

Identification Marks

✓

Screw shaft, Material

✓

Identification Marks

✓

Steam Pipes, Material

✓

Test pressure

✓

Date of test

✓

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 a duplicate of a previous case

Yes.

If so, state name of vessel

S/S ST. HELENA. Twp. Apt. 93812

General Remarks

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

This L. P. Turbine has been constructed under special survey in accordance with the Rules. The materials and workmanship are good. The Turbine was satisfactorily tested in the shop, then set up with the DR/SR Gearing, and dispatched to Sunderland to be fitted in Messrs J. L. Thompson's Ship No 574

The amount of Entry Fee ... £

Special ... £

Donkey Boiler Fee ... £

Travelling Expenses (if any) £

When applied for,

19

When received,

19

Committee's Minute

FRI. 28 AUG 1936

Assigned

See Sd J.E. 31892

A. Latt.

Engineer Surveyor to Lloyd's Register of Shipping.



© 2019

Lloyd's Register
Foundation