

Rpt. 4.

No. 46633

## REPORT ON STEAM RECIPROCATING ENGINE MACHINERY.

Received at London Office

17 MAY 1927

Date of writing Report

10

When handed in at Local Office

5-5

10-27 Port of

Glasgow

No. in Survey held at

Glasgow

Date, First Survey

26-10-26

Last Survey

5-5-1927

Reg. Book.

on the new steel 315 "CALEDON".

(Number of Visits 48)

Built at Buntisland

By whom built

Buntisland S.B.Co

Yard No. 140

Tons } Gross  
Net

When built 1924

Engines made at

Glasgow

By whom made

David Rowan &amp; Co. Ltd

Engine No. 849

when made 1924

Boilers made at

Glasgow

By whom made

David Rowan &amp; Co. Ltd

Boiler No. 849

when made 1924

Registered Horse Power

Owners

Howard Smith Ltd

Port belonging to Sydney N.S.W.

Nom. Horse Power as per Rule

154

Is Refrigerating Machinery fitted for cargo purposes

no

Is Electric Light fitted

yes

Trade for which Vessel is intended

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

Triple expansion

Revs. per minute 93

Dia. of Cylinders

16"-26"-43"

Length of Stroke

35"

No. of Cylinders

3

No. of Cranks

3

Crank shaft, dia. of journals

as per Rule 8.623"

as fitted 8.5"

Crank pin dia.

8.212"

Crank webs

Mid. length breadth 13"

Mid. length thickness 5.16"

Thickness parallel to axis 5.16"

Thickness around eye-hole 4.16"

Intermediate Shafts, diameter

as per Rule 8.212"

as fitted 8.4"

Thrust shaft, diameter at collars

as per Rule 8.623"

as fitted 8.48"

Tube Shafts, diameter

as fitted

Screw Shaft, diameter

as per Rule 9.212"

as fitted 9.3/4"

Is the ~~tube~~ screw shaft fitted with a continuous liner

yes

Bronze Liners, thickness in way of bushes

as per Rule 5.77"

as fitted 5.8"

Thickness between bushes

as per Rule 5/8"

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

yes

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

Tight tightly whole length

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

Length of Bearing in Stern Bush next to and supporting propeller

3-3"

Propeller, dia.

12-0"

Pitch

12-0"

No. of Blades

4

Material

Bronze

whether Movable

no

Total Developed Surface

48

sq. feet

Feed Pumps worked from the Main Engines, No.

2

Diameter

2 3/4"

Stroke

18"

Can one be overhauled while the other is at work

yes

Bilge Pumps worked from the Main Engines, No.

2

Diameter

2 3/4"

Stroke

18"

Can one be overhauled while the other is at work

yes

Feed Pumps

No. and size General donkey 8 1/2 x 9"

Pumps connected to the

Main Bilge Line

No. and size

Ballast 8 1/2 x 9" (as below)

How driven

Steam

How driven

Steam

Ballast Pumps, No. and size

one at 8 1/2 x 9" duplex

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

no

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

yes

Suctions, connected to both Main Bilge Pumps and Auxiliary

Bilge Pumps;—In Engine and Boiler Room

3 @ 2 1/2"

Ind. Bilge 3"

In Holds, &amp;c.

N° 2 Hold 2-2 1/2"

N° 5 Hold 2-2 1/2"

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

One 6"

Independent Power Pump Direct Suctions to the Engine Room Bilges,

No. and size

one 3"

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 stowhold plates

yes

Are the Overboard Discharges above or below the deep water line

Both

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

Bilge Pipes (Iron)

yes

How are they protected

Wood Ceiling

What pipes pass through the deep tanks

yes

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

none

Is it fitted with a watertight door

yes

worked from

yes

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

Total Heating Surface of Boilers

2904 sq ft

Is Forced Draft fitted

no

No. and Description of Boilers

two single ended

Working Pressure

180

IS A REPORT ON MAIN BOILERS NOW FORWARDED?

yes

IS A DONKEY BOILER FITTED?

no

If so, is a report now forwarded?

no

## PLANS.

Are approved plans forwarded herewith for Shafting

no

Main Boilers

yes

Auxiliary Boilers

no

Donkey Boilers

no

(If not state date of approval)

Superheaters

none

General Pumping Arrangements

no

Oil fuel Burning Piping Arrangements

none

## SPARE GEAR. State the articles supplied:—

all to make requirements also:— 1. Bottom end bush

1 top end. Air Pump Bucket. Valve spindle. Impeller for centrifugal pump. Impeller shaft.

1 set of Rings &amp; Springs. Air Pump Rod. 1 Tail Shaft

110YDS (P.L.)

1 spare cast iron Propeller

16-11

A.F.

16-2-27

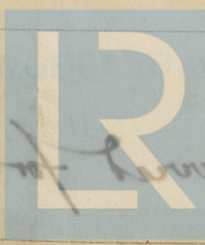
L.C.D.

13-4-27

The foregoing is a correct description,

For David Rowan & Co. Ltd  
Archd. W. Grierson,

Manufacturer.



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Lloyd's Register  
Foundation

002085-002093-0013



1926 Oct 26 29 Nov 11 Dec 6 15 16 23 27 (1927) Jan 13 21 26 Feb 1 3 7 9 11 16 18 21 24 Mar 3 4 8 9 10 11 14  
During progress of work in shops - -  
16 18 22 23 27 28 29 Apr 1 4 6 7 8 14 15 19 20 21 28 29 May 4 5  
Dates of Survey while building  
1927 April 21, 30. May 11, 12, 17, 26, 30  
June 9, 14, 23, 27  
Total No. of visits 48 & 11

Dates of Examination of principal parts—Cylinders 6-12-26. Replaces 12-27 Slides 26-1-27 Covers 13-1-27  
Pistons 14-3-27 Piston Rods 14-4-27 Connecting rods 21-2-27  
Crank shaft 4-4-27 Thrust shaft 28-3-27 Intermediate shafts none  
Tube shaft none Screw shaft 15-4-27 Propeller 7-4-27  
Stern tube 21-4-27 Engine and boiler seatings 21-4-27 Engines holding down bolts 30-5-27  
Completion of fitting sea connections 30-4-27  
Completion of pumping arrangements 27-6-27 Boilers fixed 26-5-27 Engines tried under steam 27-6-27  
Main boiler safety valves adjusted 9-6-27 Thickness of adjusting washers Port Bk. P.Y. 5/16 S.V. 5/16 Stand. Bk. P.Y. 1/32 S.V. 5/16  
Crank shaft material 9. steel Identification Mark LLOYD'S NO 1611 L.C.D. 4-4-27 Thrust shaft material 9. steel Identification Mark LLOYD'S NO 1611 L.C.D. 28-3-27  
Intermediate shafts, material ✓ Identification Marks LLOYD'S NO 1611 L.C.D. 15-4-27 Tube shaft, material ✓ Identification Mark LLOYD'S NO 1611 L.C.D. 28-3-27  
Screw shaft, material 9. steel Identification Mark LLOYD'S NO 1611 L.C.D. 15-4-27 Steam Pipes, material lapid uranium Test pressure 540 lb. Date of Test 24-5-27  
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 carrying and burning oil fuel been complied with ✓  
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.)

The materials and workmanship are good.  
The machinery has been constructed under special survey in accordance with the Rules and has been sent to Burntisland to be fitted in the vessel. Smith Surveyor advised.

Upon satisfactory completion of fitting, the machinery will be eligible in our opinion for classification and a record of + L.M.C. with date.

The machinery has now been satisfactorily fitted in the vessel, tried under full working conditions and found satisfactory.

The machinery is now in a good and safe working condition, which renders the vessel eligible in our opinion to have the notation + L.M.C. 6.27

It is submitted that  
this vessel is eligible for  
+ L.M.C. 6.27 C.L.

The amount of Entry Fee ... £ 3 : - :  
Special 4.50 ... £ 30 : 16 :  
Donkey Boiler Fee ... £ 7 : 14 :  
Travelling Expenses (if any) £ : :  
When applied for, 6/5/27.  
When received, 11-5-27.

S. C. Davis  
Engineer Surveyor to Lloyd's Register of Shipping.

TUES. 19 JUL 1927

Committee's Minute GLASGOW 10 MAY 1927

Assigned Defered for complen

CERTIFICATE WRITTEN

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