

# Report of Survey for Repairs, &c., of Engines and Boilers.

Date of writing Report 1st June 1942 When handed in at Local Office 19 (Received at London Office 9 JUL 1942)  
 No. in Survey held at CAPE TOWN Port of CAPE TOWN  
 eg. Book. 488 on the Machinery of the Twin Is. M. V. "CHILE" Date, First Survey 1st April 1941 Last Survey 19th May 1942  
 (No. of Visits 8)

Gross 6956 Vessel built at Copenhagen By whom Aht. Burmeister & Wain Year. Month. 1915 12  
 Net 4429 Engines made at Do By whom Do When 1915  
 Main Boilers ✓ Boilers, when made (Main) ✓ (Donkey) N.D.B. 1940.  
 Donkey Boilers 1 Owners Ministry of War Transport Owners' Address (if not already recorded in Appendix to Register Book.)  
 Main Boilers ✓ Managers United Baltic Corporation Port London Voyage United Kingdon  
 Donkey Boilers 114lb. If Surveyed Afloat yes (State Name of Dock.) yes

Report No. Port Particulars of Classification (which must be inserted precisely as in Register Book and Supplements).

Particulars of Examination and Repairs (if any) Damage and C.S.  
 Special Surveys, when held, must be reported in detail and serially in the terms of the Rules. State clearly the nature of Repairs, if any, and, in detail, the nature and extent of Examinations and subsequent Repairs. Repairs on count of Damage (the cause of which must be stated) should be separated from Repairs due to other causes; and sides being detailed in the body of the report, should be briefly summarised at the end of the report. State also the dates and initials of any letters respecting this case.

In cases, where the Surveyor has not made a special damage report, he is required to state whether he offered his services for this purpose, and why they were declined attached  
 damage report made by anyone else? If so, by whom? ✓  
 Surveyor personally go inside each Main Boiler separately and make a thorough examination at this time?  
 Surveyor personally go inside each Donkey Boiler separately and make a thorough examination at this time?

was not done, state for what reasons?  
 What parts of the Boilers could not be thus thoroughly examined?  
 What special means, in the absence of internal examination, were adopted by the Surveyor to assure himself of the thorough efficiency of those parts of each Boiler?

Test date of internal examination of each boiler  
 Surveyor examine the Safety Valves of the Main Boiler? To what pressure were they afterwards adjusted under steam?  
 Surveyor examine the Safety Valves of Donkey Boiler? To what pressure were they afterwards adjusted under steam?  
 Surveyor examine all the manholes, doors and their fastenings of the Main Boilers? and of the Donkey Boilers?  
 Surveyor examine the drain plugs of the Main Boilers? and of the Donkey Boilers?  
 Surveyor examine all the mountings of the Main Boilers? and of the Donkey Boilers?

How shaft now been drawn and examined? Is it fitted with continuous liner? Is an approved appliance fitted at the after end of the shaft to permit of it being efficiently lubricated?  
 Has it now been changed? If so, state reasons.

Has shaft now fitted been previously used? Has it a continuous liner? Is an approved appliance fitted at the after end of the shaft to permit of it being efficiently lubricated?  
 Date of examination of Screw Shaft State the distance between lignum vitae or bearing metal of stern bush and top of after bearing of screw shaft

Engine parts, when referred to by numbers, should be counted from forward.  
 Has the Surveyor examine the generators, motors, switchgear, cables and fuses? Is electric light and/or power fitted?  
 Insulation resistance of the generators, circuits and apparatus been tested and found to be not less than 100,000 ohms?

Survey is not complete, state what arrangements have been made for its completion and what remains to be done C.S. Now done -

Port Main Engine - N°1 cylinder cover, liner and piston; valves and valve gear. Crosshead pins, bearings and bolts; guide and guide shoe.  
Starboard Main Engine - N°4 cylinder cover, liner and piston; valves and valve gear. Crosshead pins, bearings and bolts, guide and guide shoe.  
 N°5 crosshead pins, bearings and bolts, guide and guide shoe. N°2 cyl. cover, liner, piston & rod. Crosshead pins, bearings & bolts, guide & guide shoe.

The above examined and found or placed in good condition.  
Due to wear and tear. Starboard Main Engine N°5 crosshead pins P.T.O.

General Observations, Opinion, and Recommendation: The Machinery of this Vessel  
 State clearly what alteration, if any, is suggested to be made in the existing classification of the vessel's machinery in the Register Book, consequent upon this survey, and also any alteration required to be made in the records of the vessel's machinery, boilers, working pressures, etc.; thus, for example, B.S. 9,11, B. & M.S. 9,11, L.M.C. 9,11, or L.M.C. 140 lb., F.D., etc.) CS 3,34.

Eligible, in my opinion, to remain as classed without record  
subject to the compressor crank shaft of Port Main Engine  
being dealt with.

Is a Certificate required? If so, to be sent to

Damage & Repair Fee (if any) (per Section 29.) £21 0 0  
 Expenses (if chargeable) £1 4 6  
 Received by me, T. H. Noël  
 19 1942  
 T. H. Noël  
 Adv. Engineer Surveyor to Lloyd's Register of Shipping.

As now Subject

TUE 28 JUL 1942

1000/5/41

Lloyd's Register Foundation

W155-0087



Machined and bearings remetalled. Guide shoe re-metalled.

### Damage Repairs -:

Damage stated to have been sustained through N°1 Port-Main Engine piston rod breaking on 26<sup>th</sup> March, 1942, whilst on a voyage from Cape Town to the United Kingdom.

It is further stated that on 27<sup>th</sup> March, 1942, a heavy knock was heard in N°4 starboard Main Engine and on examination it was found that N°4 piston rod was broken.

On examination the undersigned found the following damage and made recommendations for repairs as under -:

#### FOUND

#### 1<sup>st</sup> DAMAGE.

#### Port Main Engine N°1 Cylinder.

- (1) Piston rod broken.
- (2) After crosshead pin fractured at radius.
- (3) Crosshead bearing metal damaged and bolts bent.
- (4) Connecting rod bent.
- (5) N°1 cylinder cover fractured and exhaust and air inlet valves, spindles and housing damaged.
- (6) Guide shoe metal fractured and slack.
- (7)

Spare piston rod to be fitted, flange to be machined and a steel compensating liner to be fitted between piston and rod.  
Crosshead to be renewed.

Bearings to be re-metalled and bolts renewed.

To be straightened.

Spare cover and valve housings to be fitted, valves and spindles to be renewed.

To be re-metalled.

N°1 Engine to be checked for alignment, crankshaft gauged and thrust checked for clearance.

#### SECOND DAMAGE.

#### Starboard Main Engine N°4 Cylinder.

- (1) Piston rod broken at neck of shoulder taking crosshead block.
- (2) Crosshead block fractured in bore taking piston rod.
- (3) Crosshead bearing metal damaged and bolts damaged.
- (4) Connecting rod bent.
- (5) Exhaust & air inlet valve spindles bent slightly and exhaust valve housing fractured slightly and air inlet valve housing completely shattered.
- (6) Guide shoe metal fractured & cracked.
- (7)

Spare piston rod to be fitted, flange machined and a steel compensating <sup>liner</sup> ~~pin~~ fitted between piston and rod.

Crosshead to be renewed.

Bearings to be re-metalled and bolts renewed.

To be straightened

Valve spindles to be straightened, exhaust valve housing to be repaired and spare inlet valve housing to be fitted.

To be re-metalled

N°4 engine to be checked for alignment, crankshaft gauged & thrust checked for clearance.

The above repairs and examinations have been efficiently carried out. The after guide of the P. Main Engine fuel pump, as per S.R.L. was examined and found efficient. Nothing was done at this time to the P.M. Engine compressor crankshaft as per S.R.L. It is stated that the S.M. engine compressor crankshaft was attended to in December 1941 at Bombay.

T. H. Noël