

# REPORT OF SURVEY FOR REPAIRS, &c., OF ENGINES AND BOILERS

(Received at London Office 4 APR 1950)

NEWCASTLE-on-TYNE

Date of writing Report.....19..... When handed in at Local Office..... 3 - APR 1950..... Port of

No. in Survey held at Hebburn-on-Tyne Date. First Survey 17/1/50 Last Survey 20<sup>th</sup> March 1950  
Reg. Book. 07782 on the Machinery of the Wood, Iron or Steel M/V "ECHODALE" (No. of Visits.....13.....)

Tonnage { Gross 8212 Vessel built at Newcastle By whom Hawthorn Leslie & Co. Ltd When 1941 3  
Net 4805 Engines made at do By whom do When 1941  
Nominal Horse Power 502 MN Boilers, when made (Main) (Donkey) 1941  
No. of Main Boilers ✓ Owners The Admiralty Owners' Address ✓  
No. of Donkey Boilers 1 DB Managers ✓ (If not already recorded in Appendix to Register Book.)  
Steam Pressure in Main Boilers ✓ Port London Voyage ✓  
in Donkey Boilers 180 lb. If Surveyed Afloat or in Dry Dock Afloat & in dry dock  
(State name of Dock.) at Holmes-Hebburn Co. Ltd. Hebburn

Last Report No. \_\_\_\_\_ Port \_\_\_\_\_

Particulars of Examination and Repairs (if any) C.S., D.B.S.; OWNER'S ALTERATIONS.  
(Periodical Surveys, when held, must be reported in detail and serially in the terms of the Rules. State clearly the cause of Repairs, if any, and, in detail, the nature and extent of Examinations and subsequent Repairs. Repairs on account of Damage (the cause of which must be stated) should be separated from Repairs due to other causes; and besides 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.)

CHARACTER for Special Survey, Date of last Survey and of Periodical Surveys.	Years assigned now expired	Machinery and Boiler Surveys (including date of N.B., if any)
<u>F 100 A1</u>		<u>+LMC(CS) 12,46</u>
<u>3,49</u>		<u>12,48</u>
<u>55 Pts. - 12,46</u>		<u>DBS 12,48.</u>
<u>Oil engine</u>		<u>CL 12,48.</u>
<u>Carrying petroleum in bulk</u>		

In damage 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 ✓

Was a damage report made by anyone else? If so, by whom? ✓

Did the Surveyor personally go inside each Main Boiler separately and make a thorough examination at this time? ✓

Donkey " " " " Yes

If not, 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? ✓

State latest date of internal examination of each boiler 13/2/50 Present condition of funnel Efficient

Did the Surveyor examine the Safety Valves of the Main Boilers? ✓ To what pressure were they afterwards adjusted under steam? ✓

Did the Surveyor examine the Safety Valves of the Donkey Boiler? Yes To what pressure were they afterwards adjusted under steam? 180 lb.

Did the Surveyor examine all the manholes, doors and their fastenings of the Main Boilers? ✓, and of the Donkey Boilers? Yes

Did the Surveyor examine the drain plugs of the Main Boiler? ✓, and of the Donkey Boilers? ✓

Did the Surveyor examine all the mountings of the Main Boilers? ✓, and of the Donkey Boiler? Yes

Has the screw shaft now been drawn and examined? No Has it a continuous liner? ✓ Is an approved oil retaining appliance fitted at the after end? No

Has shaft now been changed? ✓ If so, state reasons ✓ Has the shaft now fitted been previously used? ✓ Has it a continuous liner? ✓

Is an approved oil retaining appliance fitted at the after end? ✓ State date of examination of Screw Shaft ✓ State the wear down in the stern bush 0.157" Is electric light and/or power fitted? Yes If so, did the Surveyor examine the generators, motors, switchgear, cables and fuses? No

Has the insulation resistance of the generators, circuits and apparatus been tested and found to be not less than 100,000 ohms? No

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

Now done:- Vessel in dry dock:- Led propeller, aft end of stern tube; outside fastenings of the sea connections; sea valves & cocks opened up; all found or placed in efficient condition.

D.B.S:- The donkey scotch boiler examined in its entirety with the mountings opened up and found or placed in safe working order. On the completion of repairs the boiler examined under steam and the safety valves adjusted to the above pressure. The oil fuel & steam smothering installations tested under working conditions & a general examination made of the deck control gear & oil discharge pipes between the pumps & burners

C.S:- Led opened up:- Main engine - all cylinders; covers; liners; valves; pistons & rods; crossheads; top & bottom end bearings; main bearings; crankshaft complete; attached H.P. Fuel Pumps, lubricating oil, F.W. cooling & S.W. Cooling pumps; and sanitary pumps. Aux:- Aux Condenser, Diesel compressor engine; Diesel & steam gens. engines; steering gear engine and hyd pump. (See Continuation Sheet)

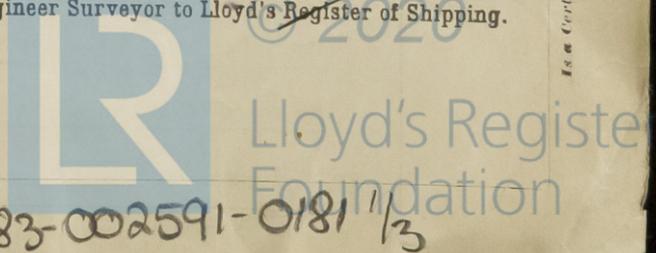
General Observations, Opinion, and Recommendation: The machinery of this vessel is eligible in  
(State clearly what alteration, if any, is suggested to be made in the existing classification of the vessel's machinery in the Register Book, consequent upon this survey, and also any alteration required to be made in the records of the vessel's machinery, boilers, working pressures, &c.; thus, for example, BS 9,11, BMS 9,11 \*LMC 9,11 or \*LMC 140 lb., FD, &c.)

my opinion to remain as classed and to have fresh records of D.B.S. 3,50, and +LMC(CS) with date when the survey has been completed.

Survey Fee (per Section 29)..... D.B.S. 3 : 0 : 0 Fees applied for 3 APR 1950  
Special Damage Repair Fee (if any)..... CS 216 : 0 : 0  
(per Section 29.) ALTERATIONS 10 : 10 : 0 Received by me, R Boltm  
Travelling expenses (if chargeable)..... £ : : 19

Committee's Minute FRI. 19 MAY 1950

Assigned As now  
DBS. 3.50



002583-002591-0181/13

If so, as the Report sent now, or when will it be sent?

ENCLOSURE

The Surveyors are to be inserted in the space for Committee's Minute

Insert Character of Ship and Machinery precisely as in the Register Book

M/V "ECHODALE"SHEET N<sup>o</sup> 2

Repairs W&T:- All main engine piston flanges lightly skimmed, ring grooves machined to a standard size and rings renewed.  
 All liners - ridges ground off.  
 Nos. 6 & 7 bottom end bearings re-metalled.  
 No. 1 top end bearing re-metalled.  
 Attached Salt Water & Sanitary Pump sent to makers Messrs Stothert & Pitt and reconditioned.  
 Attached Fresh Water, ~~Sanitary Pumps~~ gland sleeves on spindles renewed.  
 H.P. Fuel pumps sent to makers Messrs Hawthorn Leslie & Co Newcastle and overhauled and reconditioned in connection with burning boiler oil.

Aux:- Aux condenser retubed & fitted with Crane's packing, and the water box castings renewed.

Diesel generator engine - 1 main bearing kept renewed, aft cylinder block renewed complete.

Steam generator engine - Piston & valve rods renewed  
 Governor valve spindle & sleeve renewed

Steering engine - Steam cylinder bored & a new piston & rings fitted. Piston & valve rods renewed.  
 One ball race renewed in Hele-Shaw pump.

Donkey Boiler - 8 bottom rows of tubes expanded in centre cc.  
 Cast Steel safety valve chest removed from shell & eroded casting in way of seats built up with E.W, annealed, machined new seats fitted, casting hyd. tested & found efficient & refitted.

Owner's Alterations:- The Owners have now fitted an installation to the vessel to enable boiler oil to be burned in the main engines in the place of Diesel Oil in accordance with the attached plans previously submitted for consideration.

The existing port side settling tank now fitted with heating coils and used for storage of purified boiler oil. The existing starboard side settling tank now subdivided into two compartments, the outboard compartment being used for carrying Diesel oil, and the inboard compartment now fitted with heating coils & used for storing unpurified boiler oil.

A De Laval purifying & clarifying installation fitted in stard tween deck for conditioning the boiler oil together with an Oil Fuel Heater marked "Heatrae Heater Size A150. Ref No. 04092." for heating the oil before purifying.

A Swinney type oil fuel heater fitted for heating the the purified boiler oil before injection Lloyd's No 19977. Copy of Certificate attached.

The existing Diesel oil transfer pump now connected up to transfer boiler oil to unpurified oil tank.

See Continuation Sheet 3

M/V "ECHODALE."

SHEET N<sup>o</sup> 3.

Owner's Alterations:- A new Hayward Tyler pump No 43212, 6" x 5" x 6" now fitted to act as the Diesel oil transfer pump and arranged to be controlled from deck.  
Continued. The fuel valve cooling system modified and a new pump Hayward Tyler No 43184, 3" x 2 3/4" x 3" fitted for circulating fresh water through these valves

On the conclusion of the repairs and the alterations the main engine was examined during a mooring trial operating on both Diesel oil & boiler oil (stated to be Admiralty Bunker D quality) and found to be efficient

The following Approved Plans attached

(2 Sheets)

Arrgt of Suctions & discharges for main Engine Diesel & Heavy Oil Supply

Heating Coils in cross bunker.

Heating Coils

Fuel Valve Heating & Cooling System (Original & as Fitted)

Diagrammatic Arrangement of Oil Fuel Pipes

Steam & Exhaust Piping

R. R. Bolton  
 SURVEYOR TO LLOYD'S REGISTER.  
 NEWCASTLE-ON-TYNE.



© 2020

Lloyd's Register

Foundation