

14 SEP 1953
No. 711

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

(Received at London Office)

Date of writing Report 2nd Sept. 53 When handed in at Local Office _____ 19____ Port of Bremen

No. in Book 188 Survey held at Bremerhaven Date. First Survey 17th April Last Survey 11th August 53
(No. of Visits 28)

on the Machinery of the ~~XXXXXX~~ Steel S.S. "ESSO BELFAST"

Age { Gross 13074 Vessel built at Kearny N.J. By whom Federal S.B. & D.D. Co. When 1930 Month -
 Net 7864 Engines made at Trenton N.J. By whom De Laval Steam Turb. Co. When 1930 Month -
 Nominal Power { Boilers, when made (Main) 1930 (Donkey) -
 Main Boilers 2 WTB Owners Esso Petroleum Co. Ltd. Owners' Address -
 Donkey Boilers - Managers - Port London Voyage -
 Pressure 420 If Surveyed Afloat or in Dry Dock Both
 Main Boilers - (State name of Dock.) (Norddeutscher Lloyd)

Report No. _____ Port _____
Particulars of Examination and Repairs (if any) Compln. MS, Part Classn.

Special Surveys, when held, must be reported in detail and serialim in the terms of the Rules. State clearly 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 details of such repairs should be briefly summarised at the end of the report. State also the dates and nature of any letters respecting this case.

CHARACTER * for Special Survey. Date of last Survey and of Periodical Surveys.	Years elapsed since last survey	Machinery and Boiler Surveys (including date of N.H. survey)
<u>100 (Classification contemplated 1.53)</u>		<u>TS CL 8.51</u> <u>Examined 9.52</u> <u>BS 9.52 (420 lbs)</u>
<u>Fitted for oil fuel</u>		<u>WTB</u>
<u>Carrying petroleum</u>		<u>in bulk</u>

In those 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.

Has a damage report been made by anyone else? If so, by whom? _____

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

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? _____

What is the latest date of internal examination of each boiler? _____ Present condition of funnel? Efficient 420 lbs. / 10"

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

Did the Surveyor examine the Safety Valves of the Donkey Boilers? yes To what pressure were they afterwards adjusted under steam? efficient

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

Did the Surveyor examine the drain plugs of the Main Boilers? yes and of the Donkey Boilers? _____

Did the Surveyor examine all the mountings of the Main Boilers? yes and of the Donkey Boilers? _____

Has the screw shaft now been greased and examined? _____ Has it a continuous liner? _____ Is an approved oil retaining appliance fitted at the after end? _____

Has the shaft now been changed? no 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? _____ States date of examination of Screw Shaft _____ State the wear down in the bush 3 mm Is electric light and/or power fitted? yes If so, did the Surveyor examine the generators, motors, switchgear, cables and fuses? yes

Has the insulation resistance of the generators, circuits and apparatus been tested and found to be not less than 100,000 ohms? yes

Parts, when referred to by numbers, should be counted from forward. Auxiliary machinery should be referred to by position in Machinery Space.

If the survey is not complete, state what arrangements have been made for its completion and what remains to be done. The L.P. turbine remains to be examined and dealt with. The Owners' Superintendent states that no decision has been made regarding the reblading of Nos. 6 & 7 rows of this turbine which remains efficient at a propeller speed of _____ RPM.

The following items were examined in September, 1952, (see Bmn.Rpt.No.502) and it is submitted that these be credited to the part M.S. survey held.

H.P. and L.P. turbines, L.P. first pinions and gear wheel. Both aux. turbines.

WORK DONE: - Vessel placed in dry-dock, examined propeller and outside fastenings, sea valves (opened). Towards M.S.: -

Examined opened up H.P. and L.P. gearing, shafts and bearings, thrust and intermediate shafts and bearings, main and aux. condensers (tested), main and aux. circulating pumps, main and aux. feed pumps, all feed heaters (tested), both lub. oil pumps and coolers (tested), and circulating pump, all bilge and fire pumps and pumping arrangements, boiler fans and motors, steam pipes (tested to Rule requirements), air compressor, steering gear, windlass, O.F. transfer and pressure gear.

General Observations, Opinion, and Recommendation. — The machinery of this vessel CONTINUED/.....

(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 0,11, D&MS 0,11, *LMC 0,11 or *LMC 140 lb., FD, &c.)

in good order and eligible in my opinion to remain as classed in the Register Book with fresh record of MS 8.53 and BS 8.53.

Signature: G. Markes
Engineer Surveyor to Lloyd's Register of Shipping.

Signature: W. L. Hallam

Signature: See Bmn. Rpt. 4a.

Stamp: A/c rendered from Fees applied for London 12.11.53

Stamp: FRIDAY 20 NOV 1953



Lloyd's Register Foundation

002858-002869-0047 1/3

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

S.S. "ESSO BELFAST"

pumps and heaters, electrical installation.

Forward and aft boilers examined in their entirety with superheaters, mountings, doors and fastenings. Boilers examined under steam and safety valves adjusted to 420 lbs. O.F. installation examined under working conditions, fire extinguishing apparatus examined. CO2 bottle weights checked. (Weight list attached). Deck controls to O.F. and steam valves tested and examined.

Note: - Bunker tanks are used as settling tanks. Settling tanks not fitted.

Repairs: -

Thrust collar removed and skimmed and all pads remetalled (scored).

L.P. second pinion shaft bearings re-white metalled, (wear) and shaft bedded and re-aligned satisfactorily. Teeth of pinion honed smooth.

Main feed pump spindle skimmed and bearings re-metalled. Clearance rings renewed.

Aux. feed pump connecting rod renewed and crank ease bottom satisfactorily fitted with steel plate secured by set screws in way of crack about 18" long. (conn. rod broken as a result of overload on pump).

Water ends of both lub. oil coolers renewed (corrosion).

All pumps generally overhauled and placed in good order.

All bilge valves, strainers and lines overhauled (about 20 ft. of bilge line renewed (corrosion)).

Bottom of shell of evaporator cropped (about 9") and renewed and bottom plate renewed (all welded). (Corrosion of plate and rivet holes). Evaporator tested hydraulically on completion and found satisfactory.

Boiler Repairs: -

P. and s. boiler gauge-glass cocks renewed (wear). P. and s. boiler air heaters partly retubed.

All four safety valve lids and springs renewed (lids worn, springs ~~renewed~~ ^{fatigued}).

On completion of repairs quayside trials of main engines and auxiliaries carried out with satisfactory results.

Note: - Repairs were delayed on this vessel due to a strike in the shipyard from 26.4.53 to 10.6.53.

ELECTRICAL INSTALLATION

2 - 300 KW, turbo-dynamos.

1 - 165 KW attached dynamo.

Note: Attached dynamo disconnected and not used.

Both turbo-dynamos cleaned and re-varnished, commutators and brush gear overhauled.

Main circ. pump motor armature rewound.

Aux. circ. pump motor field coils part rewound.

Bilge pump motor field coils part rewound.

Wiring and switch board with warning indicators on bridge to navigation, (double) mast and stern lights renewed.

Five main cables to bridge and accommodation cropped and renewed in centre

Continued/.....

S.S. "ESSO BELFAST"

castle space connected by junction boxes (fire damage).

Forward pump room lamp points renewed with explosion-proof glass covers and strong metal guards and lamp switch fitted in fore peak space away from pump-room.

Centre castle lamp points renewed with explosion-proof glass covers and strong metal guards and lamp switches fitted in accommodation above. All old switches and cable sockets removed from centre castle space.

O.F. pressure pump motors fitted with additional push-switch on main deck level in engineer's alleyway.

Both turbo-dynamos examined under load conditions, governing tested and all found satisfactory.

W. J. M.



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