

# REPORT ON OIL ENGINE MACHINERY.

No. 40331  
10 JUN 1953

Received at London Office

of writing Report 30<sup>th</sup> May 1953 When handed in at Local Office 3.6.1953 Port of Glasgow

in Survey held at Glasgow Date, First Survey 24<sup>th</sup> Jan: 1952 Last Survey 12<sup>th</sup> May 1953  
Book. Number of Visits 134

255.S. on the Single Screw vessel "M.V. Blandford" Tons Gross 12514 Net 7385

at Glasgow By whom built Messrs Harland & Wolff Ltd Yard No. 1154 When built 1953

ines made at Glasgow By whom made Messrs Harland & Wolff Ltd Engine No. 1154 When made 1953

key Boilers made at Belfast By whom made Messrs Harland & Wolff Ltd Boiler No. 1154 When made 1953

ke Horse Power 8700 Owner Blandford Shipping Co Ltd Port belonging to London

V. Power as per Rule 1740 Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted Yes

de for which vessel is intended Oil tanker

ENGINES, &c. —Type of Engines Opposed piston, eccentric crosshead 2 or 4 stroke cycle 2 Single or double acting Single

imum pressure in cylinders 700 lb/sq in Diameter of cylinders 750 mm Length of stroke 1500+500 mm No. of cylinders 7 No. of cranks 7

an Indicated Pressure 6.5 kg/cm<sup>2</sup> Ahead Firing Order in Cylinders 1-7-2-5-4-3-6 Span of bearings, adjacent to the crank, measured

m inner edge to inner edge 1532 mm Is there a bearing between each cranks Yes Revolutions per minute 120

lywheel dia 2773.17 mm Weight 13030 kg Moment of inertia of flywheel (kg.cm<sup>2</sup>) 64,300 Means of ignition Compression Kind of fuel used Heavy oil

ank dia. of journals as per Rule As app. Crank pin dia. 575 mm Crank webs Mid. length breadth 1340 mm Thickness parallel to axis

lywheel Shaft, diameter as per Rule As app. Intermediate Shafts, diameter as per Rule As app. Thrust Shaft, diameter at collars as fitted 550 mm

be Shaft, diameter as per Rule As app. Screw Shaft, diameter as per Rule As app. Is the screw shaft fitted with a continuous liner Yes

onze Liners, thickness in way of bushes as per Rule As fitted 1" Thickness between bushes as per Rule As fitted 13/16" Is the after end of the liner made watertight in the

opeller boss Yes If the liner is in more than one length are the junctions made by fusion through the whole thickness of the liner One length

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-

orrosive Shrinked; two liners are fitted, is the shaft lapped or protected between the liners One liner Is an approved Oil Gland or other appliance fitted at the after

d of tube shaft No If so, state type Length of bearing in Stern Bush next to and supporting propeller 7'0"

opeller, dia 17'6" Pitch 15'3" No. of blades 4 Material Bronze whether moveable No Total developed surface 125 sq. feet

ment of inertia of propeller (lbs.in<sup>2</sup> or Kg.cm<sup>2</sup>) 23600 kg.m<sup>2</sup> Kind of damper, if fitted

ethod of reversing Engines Direct Is a governor or other arrangement fitted to prevent racing of the engine when declutched Yes Means of

brication forced Thickness of cylinder liners 59 mm Are the cylinders fitted with safety valves Yes Are the exhaust pipes and silencers water cooled

agged with non-conducting material lagged If the exhaust is led overboard near the waterline, what means are arranged to prevent water from being syphoned

ck to the engine funnel exhaust Cooling Water Pumps, No. 1 S.W. Ballast pump. Is the sea suction provided with an efficient strainer which can be cleared within the vessel Yes

ilge Pumps worked from the Main Engines, No. None Diameter Stroke Can one be overhauled while the other is at work

umps connected to the Main Bilge Line (No. and size Bilge (7'x8'x8") Gun service (16'x10'x16") Ballast (11'x14'x15")

How driven Steam Steam Steam the cooling water led to the bilges No If so, state what special arrangements are made to deal with this water in addition to the ordinary bilge pumping

rangements

allast Pumps, No. and size 1 of 11'x14'x15" Power Driven Lubricating Oil Pumps, including spare pump, No. and size 260 T/Hr. 2-Long driven 2-Stand by

re two independent means arranged for circulating water through the Oil Cooler Yes Suctions, connected to both main bilge pumps and auxiliary

lge pumps, No. and size:—In machinery spaces 1 of 10" 5 of 7" x 2 of 4" In pump room 1 of 16"

olds, &c. 2 of 8" 3 of 4" 1 of 4" 1 of 5" 1 of 3" Cofferdam

ndependent Power Pump Direct Suctions to the engine room bilges, No. and size 1 of 3" x 2 of 2 1/2"

re all the bilge suction pipes in holds and tunnel well fitted with strum-boxes Yes Are the bilge suction in the machinery spaces led from easily

ccessible mud-boxes, placed above the level of the working floor, with straight tail pipes to the bilges Yes

re all Sea Connections fitted direct on the skin of the Ship Yes Are they fitted with valves or cocks Valves Are they fixed

efficiently high on the ship's side to be seen without lifting the platform plates Yes Are the overboard discharges above or below the deep water line Above

re 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

That pipes pass through the bunkers How are they protected

That pipes pass through the deep tanks Have they been tested as per Rule

re all pipes, cocks, valves and pumps in connection with the machinery and all boiler mountings accessible at all times Yes

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

aces, or from one compartment to another Yes Is the shaft tunnel watertight No funnel Is it fitted with a watertight door worked from

f a wood vessel, what means are provided to prevent leakage of either fuel oil or of lubricating oil from saturating the woodwork

ain Air Compressors, No. 3 No. of stages 2 diameters 280x245 stroke 130 driven by Steam

uxiliary Air Compressors, No. 1 Alarm only by 22.82. No. of stages 2 Capacity diameters 5 1/2" stroke driven by Electric motor

mall Auxiliary Air Compressors, No. No. of stages diameters stroke driven by

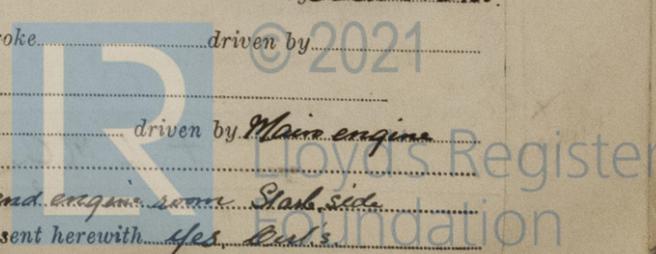
That provision is made for first charging the air receivers Steam driven air compressor

avenging Air Pumps, No. 2 Rootes blowers capacity 414.4 m<sup>3</sup>/min 2 413.5 RPM stroke driven by Main engine

uxiliary Engines crank shafts, diameter as per Rule As app. No. 2 Position Land end engine room Starboard

ave the auxiliary engines been constructed under special survey Yes Is a report sent herewith Yes

23-6-53



AIR RECEIVERS:—Have they been made under survey. Yes State No. of report or certificate X 533

Is each receiver, which can be isolated, fitted with a safety valve as per Rule Yes

Can the internal surfaces of the receivers be examined and cleaned Yes Is a drain fitted at the lowest part of each receiver Yes

Injection Air Receivers, No. ✓ Cubic capacity of each ✓ Internal diameter ✓ thickness ✓

Seamless, welded or riveted longitudinal joint ✓ Material ✓ Range of tensile strength ✓ Working pressure ✓

Starting Air Receivers, No. Two Total cubic capacity 650 cu ft Internal diameter 6' 6 1/2" thickness 1 3/16"

Seamless, welded or riveted longitudinal joint Welded Material Steel Range of tensile strength 29/33 1/2 Working pressure Actual 356 lb

~~IS A DONKEY BOILERS FITTED~~ Yes If so, 2 reports now forwarded Yes

Is the donkey boiler intended to be used for domestic purposes only No

PLANS. Are approved plans forwarded herewith for shafting Yes Receivers No Separate fuel tanks Yes

Donkey boilers Yes General pumping arrangements Yes Pumping arrangements in machinery space Yes

Oil fuel burning arrangements Yes

Have Torsional Vibration characteristics been approved Yes Date of approval 13 March 1953

SPARE GEAR.

Has the spare gear required by the Rules been supplied Yes

State the principal additional spare gear supplied None

The foregoing is a correct description,

FOR HARLAND AND WOLFE, LIMITED

Manufacturer.

Dates of Survey while building	During progress of work in shops - -	1952 Jan 24. Mar 11. 12. Apr 4. 25. May 14. June 2. 5. 19. 24. July 1. Aug 8. 12. Sep 8. 11. 19. 22. 24. 26. 30. Oct 1. 2. 3. 6. 7. 8. 9. 10. 14. 15. 16. 17. 20. 21. 22. 23. 24. 27. 28. 30. 31. Nov. 4. 5. 6. 7. 12. 13. 14. 17. 18. 19. 20. 21. 24. 25. Dec. 3. 5. 8. 9. 12. 16. 17. 18. 19. 22. 23. 24. 30.
	During erection on board vessel - -	(1953) Jan 6. 7. 8. 9. 15. 20. 21. 23. 26. 27. 28. Feb 5. 6. 9. 10. 11. 17. 26. 27. Mar 2. 3. 5. 6. 9. 10. 11. 12. 13. 16. 17. 18. 19. 20. 23. 24. 25. 26. 27. 30. 31. Apr. 1. 2. 3. 4. 9. 10. 12. 14. 15. 16. 17. 20. 21. 22. 23. 24. 27. 28. 29. 30. May. 6. 11. 12. 14.
	Total No. of visits	134

Dates of examination of principal parts—Cylinders 21/10/52 Covers 21/10/52 Pistons 27/10/52 Rods 27/10/52 Connecting rods 6/11/52

Crank shaft 20/10/52 Flywheel shaft ✓ Thrust shaft 17/10/52 Intermediate shafts 17/10/52 Tube shaft ✓

Screw shafts Span 24/11/52 Propeller 9/12/52 Stern tube 24/11/52 Engine seatings 23/3/53 Engine holding down bolts 23/3/53

Completion of fitting sea connections 8/11/53 Completion of pumping arrangements 12/5/53 Engines tried under working conditions 14/5/53

Crank shaft, material S.M.O.H. Identification mark LLOYDS 66 10/10/52 Flywheel shaft, material ✓ Identification mark ✓

Thrust shaft, material S.M.O.H. Identification mark S.1756 S. 2/11/51 Intermediate shafts, material S.M.O.H. Identification marks EB 3343 9/5/52

Tube shaft, material ✓ Identification mark ✓ Screw shaft, material S.M.O.H. Identification mark EB 3772 5/5/52

Identification marks on air receivers No 573 & 574 LLOYDS TEST 584 W.P. 356 lb J.B.S. 18-12-52

Welded receivers, state Makers' Name New Zealand & Wolff La Beepel

Is the flash point of the oil to be used over 150°F Yes

Have the requirements of the Rules for oil fuel pipes and tank fittings been complied with Yes

Description of fire extinguishing apparatus fitted Steam smothering, Minimax extinguishers, Air outlets fitted with fire flaps

Is the vessel (not being an oil tanker) fitted for carrying oil as cargo Tanker 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 duplicate of a previous case Yes If so, state name of vessel Bolleta

General Remarks (State quality of workmanship, opinions as to class, &c. The machinery of this vessel has been built under

Special Survey in accordance with the approved plans, & Secretary's Letter. Materials & workmanship

are good. The machinery has been efficiently installed on board the vessel, tried under

working conditions with satisfactory results.

The machinery is eligible in my opinion to be classed in the Register Book with the

record of L.M.C. 5/53, also notation of T.S.C.L. 5/53

The amount of Entry Fee ... £ 277 -

Installation ... £ 153 10

Special ... £ : : When applied for 19

Donkey Boiler Fee... £ : : When received 19

Travelling Expenses (if any) £

Committee's Minute

Assigned + L.M.C. 5, 53 Oil Engine

3 DB-180 lb

GLASGOW 9 JUN 1953

E. C. Cameron  
Engineer Surveyor to Lloyd's Register of Shipping.



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Lloyd's Register  
Foundation

21/6/53

Certificate (if required) to be sent to... The Surveyors are requested not to write on or below the space for Committee's Minute.