

## REPORT ON STEAM RECIPROCATING ENGINE MACHINERY.

Received at London Office.

Date of writing Report 26-7-43. 5. When handed in at Local Office SEP 1943 19 Port of HULL  
 No. in Survey held at Reg. Book on the H.M. STEAM TRAWLER **BRYHER** 12703  
 Built at BEVERLEY By whom built Colk Weller & Gemmell Ltd Yard No. 712 When built 1943  
 Engines made at HULL By whom made Chas. D. Holmes & Co. Engine No. 1649 When made "  
 Boilers made at HULL By whom made Chas. D. Holmes & Co. Boiler No. 1649 When made "  
 Registered Horse Power Owners Admiralty Port belonging to  
 Nom. Horse Power as per Rule 156. Is Refrigerating Machinery fitted for cargo purposes No. Is Electric Light fitted Ye.  
 Trade for which vessel is intended Government Service

ENGINES, &c.—Description of Engines Triple Expansion CONTRACT Revs. per minute 150.  
 Dia. of Cylinders 13½", 23", 38" Length of Stroke 27" No. of Cylinders 3 No. of Cranks 3  
 Crank shaft, dia. of journals as per Rule 7.5" as fitted 7¾" Crank pin dia. 7¾" Crank webs Mid. length breadth — Mid. length thickness — Thickness parallel to axis 4 13/16" shrunk Thickness around eye-hole 3 15/16"  
 Intermediate Shafts, diameter as per Rule 7.15" as fitted 7¼" Thrust shaft, diameter at collars as per Rule 7.5" as fitted 7¾"  
 Tube Shafts, diameter as per Rule — as fitted — Screw Shaft, diameter as per Rule 8.2" as fitted 8¼" Is the { tube screw } shaft fitted with a continuous liner { No.  
 Bronze Liners, thickness in way of bushes as per Rule — as fitted — Thickness between bushes as per Rule — as fitted — Is the after end of the liner made watertight in the propeller boss. — If the liner is in more than one length are the junctions made by fusion through the whole thickness of the liner. —  
 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. —  
 If two liners are fitted, is the shaft lapped or protected between the liners. — Is an approved Oil Gland or other appliance fitted at the after end of the tube shaft. Ye. If so, state type NEWARK Length of Bearing in Stern Bush next to and supporting propeller 36½"  
 Propeller, dia. 105" Pitch 9'-4" No. of Blades 3 Material C-1 whether Moveable Solid Total Developed Surface 30 sq. feet  
 Feed Pumps worked from the Main Engines, No. 2 Diameter 2½" Stroke 15" Can one be overhauled while the other is at work Ye.  
 Bilge Pumps worked from the Main Engines, No. 2 Diameter 2½" Stroke 15" Can one be overhauled while the other is at work Ye.  
 Feed Pumps { No. and size One 4" x 6" x 12" Weir How driven Independent stream Pumps connected to the Main Bilge Line { No. and size One 6" x 5½" x 15" Weir How driven Independent stream ALSO Danvers  
 Ballast Pumps, No. and size None Lubricating Oil Pumps, including Spare Pump, No. and size None  
 Are two independent means arranged for circulating water through the Oil Cooler None Suctions, connected to both Main Bilge Pumps and Auxiliary Bilge Pumps:—In Engine and Boiler Room Eng. Rm 2 @ 2" Dia. one @ 3½" Dia. Boiler Rm 2 @ 2" Dia.  
 In Pump Room NONE In Holds, &c. One @ 2" Dia. in each of the following:—Fore peak Chain locker, ASDIC Space, Magazine, Spirit Room, Bunker, Sharp Space and After-peak  
 Main Water Circulating Pump Direct Bilge Suctions, No. and size One @ 5" Dia. Independent Power Pump Direct Suctions to the Engine Room Bilges, No. and size One @ 3½" Dia. (Incl. donkey) Are all the Bilge Suction Pipes in holds and tunnel well fitted with strum-boxes Ye.  
 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. Ye.  
 Are all Sea Connections fitted direct on the skin of the ship Ye. Are they fitted with Valves or Cocks Ye.  
 Are they fixed sufficiently high on the ship's side to be seen without lifting the stokehold plates Ye. Are the Overboard Discharges above or below the deep water line at W.L.  
 Are they each fitted with a Discharge Valve always accessible on the plating of the vessel Ye. Are the Blow Off Cocks fitted with a spigot and brass covering plate No.  
 What Pipes pass through the bunkers Feed tank suction. How are they protected Wood casing  
 What pipes pass through the deep tanks None Have they been tested as per Rule Ye.  
 Are all Pipes, Cocks, Valves, and Pumps in connection with the machinery and all boiler mountings accessible at all times Ye.  
 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 Ye. Is the Shaft space watertight Ye. Is it fitted with a watertight door Access worked from flat above

MAIN BOILERS, &c.—(Letter for record S) Total Heating Surface of Boilers 2650 sq. ft.  
 Which Boilers are fitted with Forced Draft All Which Boilers are fitted with Superheaters None  
 No. and Description of Boilers One S.B. Working Pressure 200 lb./sq. in.  
 IS A REPORT ON MAIN BOILERS NOW FORWARDED? Yes  
 IS A DONKEY BOILER FITTED? No If so, is a report now forwarded? —  
 Can the donkey boiler be used for domestic purposes only Ye.  
 PLANS. Are approved plans forwarded herewith for Shafting 17-7-39 Main Boilers 17-7-39 Auxiliary Boilers None Donkey Boilers None  
 (If not state date of approval)  
 Superheaters None General Pumping Arrangements 17-10-39 Oil fuel Burning Piping Arrangements None

## SPARE GEAR.

Has the spare gear required by the Rules been supplied Ye.  
 State the principal additional spare gear supplied See attached list.

The foregoing is a correct description.  
 FOR CHARLES D. HOLMES & CO., LTD.

W. R. Evans

Manufacturer.



"BRYHER."

1942. 1943.  
During progress of work in shops - - Nov. 11.25 Dec. 17.28 Jan. 1.15 22.29 Feb. 5.12 16.19 26.27 Mar. 2.4.5.9.10.12.24.26 Apr. 2.8.9.16.21.  
May 4.19.26 June 10.11.15.19.30 July 2.6.  
Dates of Survey while building During erection on board vessel - - 1943 Apr 5.14 May 5.19 Jun 4.7.11.15.23.28 JULY 1.6.12.13.19.20.22.26.30.  
AUG 5.9.19.23.24.25.29.30.31 Sept 1.  
Total No. of visits 66.

Dates of Examination of principal parts - Cylinders 2/3/43 4/3/43 27/2/43 Slides 26-3-43 Covers 2/3/43 4/3/43 27/2/43  
Pistons 17/4/43 4/5/43 Piston Rods 2/4/43 Connecting rods 2/4/43  
Crank shaft 26-3-43 Thrust shaft 16-2-43 Intermediate shafts 26/3/43 5/3/43  
Tube shaft NONE Screw shaft 26-3-43 Propeller 4/6/43  
Stern tube 5-4-43 Engine and boiler seatings 23-6-43 Engines holding down bolts 23-6-43  
Completion of fitting sea connections 5-4-43  
Completion of pumping arrangements 6-7-43 Boilers fixed 23-6-43 Engines tried under steam 6-7-43 31.8.43  
Main boiler safety valves adjusted 6-7-43 Thickness of adjusting washers P 7/16" S 25/64"  
Crank shaft material F-1 Steel Identification Mark 352 F.W. Thrust shaft material F-1 Steel Identification Mark 9956 Co  
Intermediate shafts, material F-1 Steel Identification Marks 9954 CP 5-1-43 Tube shaft, material NONE Identification Mark 7-1-43  
Screw shaft, material F-1 Steel Identification Mark 360 F.W. Steam Pipes, material Steel Test pressure 600 lb Date of Test 2.7.43  
Is an installation fitted for burning oil fuel No Is the flash point of the oil to be used over 150° F. ✓  
Have the requirements of the Rules for the use of oil as fuel been complied with ✓  
Is the vessel (not being an oil tanker) fitted for carrying oil as cargo NO 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 HMT BIRCH Hull Rpt. No 50672

General Remarks (State quality of workmanship, opinions as to class, &c.)  
The Machinery of this Vessel has been constructed in accordance with the approved Admiralty plans, the Specification, and the Society's Rules; of Varked materials supplied by firms approved by the Society. The Workmanship and materials are good.  
The Machinery and auxiliaries have been fitted on board and, when tried under steam at as far as full power as practicable in the basin, were found satisfactory in every respect.  
The Vessel is eligible, in our opinion, when classed, to have the records of LMC 8.43 and O.G. and the notation T3 Cy 13 1/2" 23" 38" - 27".  
156 N.H.P. 200 B. 15 B. 3. Cf. G. 5. 63. H.S. 2650. F. D.

Fla  
Bott  
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Bilg  
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Side  
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Upper  
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Upper  
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Stral  
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Stral  
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Poop  
Bridge  
Forec  
Total

Certificate to be sent to  
The amount of Entry Fee ... £ : :  
Special Sur. SPEC 39 : 0 :  
Donkey Boiler Fee ... £ : :  
Travelling Expenses (if any) £ : :  
When applied for, SEP 1943  
When received, 19  
Committee's Minute  
Assigned  
FRI. 17 SEP 1943  
+ LMC 9.43 3.0.00