

REPORT ON STEAM RECIPROCATING ENGINE MACHINERY.

Received at London Office

DEC 1941

Date of writing Report 10.2.41 When handed in at Local Office 10.2.41 in Port of Hull

No. in Survey held at Reg. Book. 108 Date, First Survey 10.2.41 Last Survey 26.11.1941
(Number of Visits 42)

on the H.M.T. SHIANT Tons } Gross 452
Net 142

Built at GOOLE By whom built Messrs. the Goole Shipbuilding & Repairing Yard No. 363 When built 1941-11

Engines made at HULL By whom made Messrs. Amos & Smith Ltd Engine No. 694 When made do

Boilers made at HULL By whom made Messrs. Amos & Smith Ltd Boiler No. 694 When made do

Registered Horse Power 156 Owners THE ADMIRALTY Port belonging to do

Nom. Hors. Power as per Rule 156 Is Refrigerating Machinery fitted for cargo purposes no Is Electric Light fitted Yes

Trade for which Vessel is intended do

ENGINES, &c.—Description of Engines Triple Expansion CONTRACT Revs. per minute 160

Dia. of Cylinders 13 1/2" 23" 38" Length of Stroke 27" No. of Cylinders 3 No. of Cranks 3

Crank shaft, dia. of journals as per Rule 7.5 Crank pin dia. 7 7/8 Crank webs Mid. length breadth 4 1/2" Thickness parallel to axis 3 1/16"
as fitted 7 7/8 Mid. length thickness 7 7/8 Thickness around eye-hole 3 1/16"

Intermediate Shafts, diameter as per Rule 7.15 Thrust shaft, diameter at collars as per Rule 7.5
as fitted 7 1/4" as fitted 7 7/8"

Tube Shafts, diameter as per Rule 8.2 Screw Shaft, diameter as per Rule 8 1/4" Is the screw shaft fitted with a continuous liner No
as fitted 8 1/4" as fitted 8 1/4"

Bronze Liners, thickness in way of bushes as per Rule do Thickness between bushes as per Rule do Is the after end of the liner made watertight in the propeller boss Yes
If the liner is in more than one length are the junctions made by fusion through the whole thickness of the liner Yes
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 Yes
If two liners are fitted, is the shaft lapped or protected between the liners Yes Is an approved Oil Gland or other appliance fitted at the after end of the tube Yes

Propeller, dia. 105" Pitch 9'-4" No. of Blades 3 Material C.I. whether Movable Solid Total Developed Surface 30 sq. feet
Length of Bearing in Stern Bush next to and supporting propeller 36 1/2"

Feed Pumps worked from the Main Engines, No. 2 Diameter 2 1/2" Stroke 15" Can one be overhauled while the other is at work Yes

Bilge Pumps worked from the Main Engines, No. 2 Diameter 2 1/2" Stroke 15" Can one be overhauled while the other is at work Yes

Feed Pumps { No. and size One 4" x 6" x 12" Weir Pumps connected to the { No. and size One 6" x 5 1/2" x 15" Weir
How driven Independent Beam Main Bilge Line How driven Independent Beam ALSO Donkey

Bilge 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 at 3 1/2" dia. Stroke 1 1/2" 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, Shaft Space & after peak

Main Water Circulating Pump Direct Bilge Suctions, No. and size One @ 5" Independent Power Pump Direct Suctions to the Engine Room Bilges,
No. and size One @ 3 1/2" (included above) Are all the Bilge Suction Pipes in holds and tunnel well fitted with strum-bones Yes

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 Yes

Are all Sea Connections fitted direct on the skin of the ship Yes Are they fitted with Valves or Cocks Yes

Are they fixed sufficiently high on the ship's side to be seen without lifting the stowhold plates Yes 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 Yes 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 Casings

What pipes pass through the deep tanks None Have they been tested as per Rule Yes

Are all Pipes, Cocks, Valves, and Pumps in connection with the machinery and all boiler mountings accessible at all times Yes

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 Yes Is the Shaft Space watertight Yes Is it fitted with a watertight door Acan worked from flat above

MAIN BOILERS, &c.—(Letter for record 5) Total Heating Surface of Boilers 2650

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"

IS A REPORT ON MAIN BOILERS NOW FORWARDED? Yes

IS A DONKEY BOILER FITTED? No If so, is a report now forwarded? Yes

Can the donkey boiler be used for domestic purposes only Yes

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 Yes

State the principal additional spare gear supplied See Attached List.

The foregoing is a correct description.

For AMOS & SMITH LTD.

W. E. Brown Manufacturer.

Manufacturer.



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NOTE.—The words which do not apply should be deleted. If not, state whether, and when, one will be sent? Is a Report also sent on the Hull of the Ship? Yes

SHIANT

1941 Feb 10. May 6. Jul 11. 23. 24. 25. 30. 31. Aug 2. 6. 8. 12. 15. 16. 19. 20. 21. 22. 26. 29. Sep 10. 15. 17. 18. 22.

During progress of work in shops - -

Oct 1. 2. 8. 15. 16. 20. 27. 28. Nov. 5. 11. 13. 19. 20. 21. 25. 26

Dates of Survey while building

During erection on board vessel - - -

Total No. of visits

42

Dates of Examination of principal parts - Cylinders

23/7/41. 24/7/41. 2/8/41 Slides

25/7/41

Covers

23/7/41. 24/7/41. 2/8/41

Pistons

25/7/41

Piston Rods

25/7/41

Connecting rods

15/8/41

Crank shaft

19/8/41

Thrust shaft

14/2/41

Intermediate shafts

1/5/41

Tube shaft

-

Screw shaft

26/8/41. 12/7/41

Propeller

6. P. 41

Stern tube

30. 7. 41

Engine and boiler seatings

6. 8. 41

Engines holding down bolts

22-9. 41

Completion of fitting sea connections

26. 8. 41

Completion of pumping arrangements

5/11/41

Boilers fixed

22-9. 41

Engines tried under steam

21-11-41

Main boiler safety valves adjusted

5/11/41

Thickness of adjusting washers

3/8 P. 1/32 S.

Crank shaft material

M.S.

Coupling CON 2. Piston James CON 5. M.C. 73. Identification Mark L.R. 15/1/41. 12/1940.

Thrust shaft material

M.S.

8349/3. Con 4. 14/2/41. Identification Mark

Intermediate shafts, material

M.S.

396. T. 207. 24/3/41. 351 T. 159. Identification Marks 22-1-41.

Tube shaft, material

-

Identification Mark -

Screw shaft, material

M.S.

8349. Con 5. 1844 L.M.R. Identification Mark 9-1-41.

Steam Pipes, material

Steel

Test pressure

6000 lb. Date of Test 18/8/41

Is an installation fitted for burning oil fuel

e/o

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

e/o

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

e/o

Is this machinery duplicate of a previous case

-

If so, state name of vessel

H.M.T. BIRCH

General Remarks (State quality of workmanship, opinions as to class, &c.)

The Machinery of this Vessel has been constructed and fitted a board in accordance with the approved Admiralty plans, the Specification, & the Society's Rules.

The Workmanship and Materials are good and, when tried at a heavy full power as practicable in the basin it was found satisfactory in every respect.

The Vessel is eligible in our opinion, when classed, to have the records of LMC 1941-11. and O.G. and the Notation T. 3 Cy 13 1/2, 23, 38 - 27". 156 N.H.P. 200 lb. 15 B. 3 cf. G.S. 63. H.S. 2650 F.D.

Stall

The amount of Entry Fee	£	:	:	When applied for,
Special	£	75	0	1. 12. 1941
Donkey Boiler Fee	£	:	:	When received,
Travelling Expenses (if any)	£	:	:	19

Dykes & Partners Engineer Surveyors to Lloyd's Register of Shipping.

Committee's Minute Assigned TUE 9 DEC 1941 + d.m.b. 11. 41 22. 09.

