

Rpt. 4.

No. 52119

## REPORT ON STEAM RECIPROCATING ENGINE MACHINERY.

Date of writing Report

28-7-43

19

When handed in at Local Office

SEP 1943

19

Port of HULL

Received at London Office

9 SEP 1943

No. in Survey held at

HULL

Date, First Survey

5.10.42

Last Survey

17.8.

1943

Reg. Book

(Number of Visits)

35

on the S.M. Tug

EMPIRE MUSTANG

Tons

Gross 242

Net nil

Built at GAINSBOROUGH

By whom built

J.S. Watson &amp; Co.

Yard No. 1534

When built 1943

Engines made at HULL

By whom made

Chas. D. Holmes &amp; Co.

Engine No. 1686

When made 1943

Boilers made at HULL

By whom made

Chas. D. Holmes &amp; Co.

Boiler No. 1631

When made 1943

Registered Horse Power

Owners Ministry of War Transport

Port belonging to

Nom. Horse Power as per Rule

177

Is Refrigerating Machinery fitted for cargo purposes

No

Is Electric Light fitted

Yes

Trade for which vessel is intended

Towing Services

ENGINES, &amp;c.—Description of Engines

Triple Expansion

Contract Revs. per minute 116

Dia. of Cylinders

16", 26", 43"

Length of Stroke

30"

No. of Cylinders

3

No. of Cranks

3

Crank shaft, dia. of journals

as per Rule 8.8"

as fitted 9 1/8"

Crank pin dia.

9 1/8"

Crank webs

Mid. length breadth

Mid. length thickness

Thickness parallel to axis

5 3/4"

shrunken

Thickness around eye-hole

4 1/16"

Intermediate Shafts, diameter

as per Rule 8.38"

as fitted 8.58"

Thrust shaft, diameter at collars

as per Rule 8.8"

as fitted 9 1/8"

Tube Shafts, diameter

as per Rule

as fitted None

Screw Shaft, diameter

as per Rule 9.7"

as fitted 9 1/8"

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

If so, state type

NEWARK

Length of Bearing in Stern Bush next to and supporting propeller

42"

Propeller, dia.

11'-0"

Pitch 11'-8"

No. of Blades

4

Material

whether Moveable

Solid

Total Developed Surface

46

sq. feet

Feed Pumps worked from the Main Engines, No.

2

Diameter

3"

Stroke

18"

Can one be overhauled while the other is at work

Yes

Bilge Pumps worked from the Main Engines, No.

2

Diameter

3"

Stroke

18"

Can one be overhauled while the other is at work

Yes

Feed Pumps

No. and size One 7" x 5" x 6" Duplex

Pumps connected to the

No. and size One 7" x 7" x 8" Duplex

How driven

Ind. Stm.

M.E.

Ballast Pumps, No. and size

One 7" x 7" x 8" Duplex

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

2 @ 2"

2 @ 2 1/4"

In Pump Room

In Holds, &amp;c. One @ 2" Dia in each of the following:—Fore Peak

Forward Bilge, After Peak

Main Water Circulating Pump Direct Bilge Suctions, No. and size

One 5 1/2"

Independent Power Pump Direct Suctions to the Engine Room Bilges,

No. and size One @ 2 1/4" One @ 2 1/4" in B.R. Are all the Bilge Suction Pipes in holds and tunnel well fitted with strum-boxes

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

On Plated Bow

Are they fitted with Valves or Cocks

Yes

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

Yes

Are the Overboard Discharges above or below the deep water line

Above

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

Yes

What Pipes pass through the bunkers

None

How are they protected

What pipes pass through the deep tanks

None

Have they been tested as per Rule

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 Tunnel watertight

No

Is it fitted with a watertight door

worked from

MAIN BOILERS, &amp;c.—(Letter for record

S)

Total Heating Surface of Boilers

2778

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

210 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

PLANS. Are approved plans forwarded herewith for Shafting

3-1-41

Main Boilers

8-8-40

Auxiliary Boilers

Donkey Boilers

(If not state date of approval)

Superheaters

General Pumping Arrangements

1-11-40

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

As Specification

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

W.R. Evans

Manufacturer.



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Lloyd's Register

011545-011602-0226



# EMPIRE MUSTANG.

Mar. Oct 5. Dec. 14.

1943. Apr. 9. 16. 29. 30. May 4. 12. 14. 20. 21. 22. 29. June 7. 10. 11. 19. July 2.

Dates of Survey while building

During progress of work in shops - -

During erection on board vessel - - -

Total No. of visits

1943 MAY 28, JULY 16, 19, 22, 23, 29. AUG. 3, 9, 10, 11, 13, 17.

35.

Dates of Examination of principal parts - Cylinders 11/5/43. 20/5/43. 19/5/43. Slides 10-5-43. Covers 11/5/43. 20/5/43. 19/5/43.  
Pistons 8/6/43. 10/6/43. Piston Rods 21/5/43. Connecting rods 27/5/43.  
Crank shaft 29.5-43. Thrust shaft 11/4/43. Intermediate shafts 17/12/42.  
Tube shaft ✓ Screw shaft 5/10/42. Propeller 28.5-43.  
Stern tube 28.5-43. Engine and boiler seatings 16.7-43. Engines holding down bolts 16.7-43.  
Completion of fitting sea connections 28.5-43.  
Completion of pumping arrangements 10.8-43. Boilers fixed 16.7-43. Engines tried under steam 10.8-43.  
Main boiler safety valves adjusted 10.8-43. Thickness of adjusting washers F 7/16" A 13/32".  
Crank shaft material F.1. Steel Identification Mark 467. CP. 4-5-43. Jaw. CP. 468 2/4/43. Thrust shaft material F.1. Steel Identification Mark 126AWJ. 19-12-41 C.P.  
Intermediate shafts, material F.1. Steel Identification Marks 8956 CP. 26/8/42. Tube shaft, material None Identification Mark -  
Screw shaft, material F.1. Steel Identification Mark 8655 AC. Steam Pipes, material Steel Test pressure 630 lb Date of Test 3.8-43.  
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. No If so, state name of vessel. S. Tug. EMPIRE BIRCH HUL. Rpt. 51472.

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

The Machinery of this Vessel, has been constructed in accordance with the approved plans, the Rules, and the Specification, of boiler material made by firms accredited 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 near full power as practicable in the basin, were found satisfactory in every respect.  
It is eligible, in our opinion, when classed to have records of  
L.M.C. 8.43. and O.G. and notation T. 3 Cy. 16", 26", 43", - 30". 177NH  
One S.B. 210 lb 1/4" 3. Cy. G.S. 64 # HS. 2778 # F.D.

Certificate to be sent to

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

The amount of Entry Fee ... £ 3 : : When applied for  
Special ... CLASIF. £ 44 : 5 : : 6 SEP 1943  
Donkey Boiler Fee ... £ 11 : 1 : :  
Travelling Expenses (if any) £ : : : When received,  
: : : 19

Committee's Minute ... FRI 17 SEP 1943

Assigned ... + LMC 8.43 J.A. 09

J. P. ... W. S. Shields  
Engineer Surveyor to Lloyd's Register of Shipping.