

# REPORT ON STEAM RECIPROCATING ENGINE MACHINERY.

No. 104651

Date of writing Report 15<sup>th</sup> - 7 - 1947 When handed in at Local Office 7. 8. 47

Received at London Office

No. in Survey held at Wallsend

Date, First Survey 6 - 8 - 46

Port of NEWCASTLE-ON-TYNE

on the s/s. "ASHANTIAN"

(Number of Visits 6)

Tons { Gross 5123  
Net 2855

Built at Walker (Nwc.)

By whom built Shipbldg. Corpn. (Tyne Branch).

Yard No. 14.

When built 1947-7 mo

Engines made at Wallsend

By whom made N.E. MAR. E. Co. (1938) LD. Engine No. 3121

When made 1947.

Boilers made at C. Y. &amp; B. A. M. K.

By whom made JOHN BROWN &amp; CO. LD. Boilers No. A63.

When made 1943.

AUX. BOILER "WALLSEND"

Owners "N.E. MAR. E. Co. (1938) LD. " "3121."

When made 1946.

Registered Horse Power

Is Refrigerating Machinery fitted for cargo purposes No

Port belonging to

Nom. Horse Power as per Rule NEW MN. 627.

Is Refrigerating Machinery fitted for cargo purposes No

Is Electric Light fitted YES.

Trade for which vessel is intended

OCEAN GOING.

ENGINES, &amp;c.—Description of Engines

3. Cylr. Triple Expn. Recip.

Dia. of Cylinders 24 $\frac{1}{2}$ , 39, 70"

Length of Stroke 48"

No. of Cylinders 3.

Revs. per minute 76.

Crank shaft, dia. of journals as per Rule 13.98"

as fitted 14 $\frac{1}{2}$ "Crank pin dia. 14 $\frac{1}{2}$ "

Mid. length breadth

No. of Cranks 3.

Thick. parallel to axis 9"

HP &amp; LP 9"

Intermediate Shafts, diameter as per Rule 13.32"

as fitted 13 $\frac{5}{8}$ "

Crank webs

Mid. length thickness

Thrust shaft, diameter at collars as per Rule 13.98"

as fitted 14 $\frac{1}{2}$ "Thick. around eye-hole 6 $\frac{3}{8}$ "

Tube Shafts, diameter as per Rule

as fitted

Screw Shaft, diameter as per Rule 14.84"

as fitted 15 $\frac{1}{4}$ "

Is the screw shaft fitted with a continuous liner Yes

Bronze Liners, thickness in way of bushes as per Rule 24/32"

as fitted 13/16"

Thickness between bushes as per Rule 18/32"

as fitted 21/32"

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 In one piece.

If two liners are fitted, is the shaft lapped or protected between the liners

Shaft No

Is an approved Oil Gland or other appliance fitted at the after end of the tube

If so, state type

Propeller, dia. 17 $\frac{1}{2}$  Pitch 17 $\frac{1}{2}$  max

No. of Blades 4

Material BRZE

Length of Bearing in Stern Bush next to and supporting propeller 61"

Feed Pumps worked from the Main Engines, No. Nil.

Diameter

Stroke

Total Developed Surface 117. sq. feet

Bilge Pumps worked from the Main Engines, No. 2

Diameter 4"

Stroke 27"

Can one be overhauled while the other is at work

No. and size 29 $\frac{1}{2}$  x 21" G.S.P. 7 $\frac{1}{2}$  x 21"

Pumps connected to the

Main Bilge Line

No. and size Ball. pp. 250 ton/m; G.S.P. 40 ton/m 29 $\frac{1}{2}$  x 27"

Pumps How driven by steam

How driven

by steam In each 20 ton/m by Main ENG.

Ballast Pumps, No. and size One 210 $\frac{1}{2}$ , 13 x 24"

Lubricating Oil Pumps, including Spare Pump, No. and size

Are two independent means arranged for circulating water through the Oil Cooler

Bilge Pumps:—In Engine and Boiler Room 3 2 3 in E. Rm., 2 2 3 in B. Rm., 1 2 3 in Tunnel Well.

In Pump Room

Main Water Circulating Pump Direct Bilge Suctions, No. and size One 29" on Port side

Independent Power Pump Direct Suctions to the Engine Room Bilges,

No. and size One 29" on Port side

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

Are all Sea Connections fitted direct on the skin of the ship Yes

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

Are they each fitted with a Discharge Valve always accessible on the plating of the vessel

What Pipes pass through the bunkers

What pipes pass through the deep tanks

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

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

Is the Shaft Tunnel watertight

4 IN BOILERS, &amp;c.—(Letter for record S.)

Total Heating Surface of Boilers 2 MAIN BLRS 5920 sq. ft. PLUS SPRT. SURF. 2210 sq. ft.

Which Boilers are fitted with Forced Draft 2 main &amp; 1 auxy.

No. and Description of Boilers 2 SB (3 ft) &amp; 1 auxy. SB.

Which Boilers are fitted with Superheaters 2 main Boilers

Working Pressure 220 LBS/SAQ. IN.

SA REPORT ON MAIN BOILERS NOW FORWARDED? Yes

AUXILIARY BOILER FITTED? Yes

Can the donkey boiler be used for domestic purposes only

If so, is a report now forwarded? Yes

PLANS. Are approved plans forwarded herewith for Shafting

(If not state date of approval)

Superheaters N.E. Mar. Standard

General Pumping Arrangements 29-6-46

Pumping Arrangements in E. &amp; B. Spaces 2-6-47.

Oil fuel Burning Piping Arrangements 10<sup>th</sup>-2-1947

Is the spare gear required by the Rules been supplied

Is the principal additional spare gear supplied

As Specified.

SPARE GEAR.

The foregoing is a correct description.

THE NORTH EASTERN MARINE ENGINEERING CO. (1938) LTD.

DIRECTOR

Manufacturer.

003549-003555-0007

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Lloyd's Register

Foundation



Total No. of visits.....

May 1, 2, 6, 16, 20, 28, June 10 July 9, 10, 11, 14, 15

Total No. of visits.....62

Dates of Examination of principal parts—Cylinders 6-8-46 Slides 16-8-46 Covers 6-8-46  
Pistons 16-8-46 Piston Rods 16-8-46 Connecting rods 16-8-46  
Crank shaft 9-11-45 Thrust shaft 23-10-45 Intermediate shafts 1-10-46  
Tube shaft ✓ Screw shaft 23-10-45 Propeller at ship 3-4-47  
Stern tube at ship 18-11-46 Engines holding down bolts 24-4-47  
Completion of fitting sea connections 21-3-47 Boilers fixed 24-4-47 Engines tried under steam at sea 11-7-47.  
Completion of pumping arrangements 10-6-47 Thickness of adjusting washers PORT BLR P.V. 3/8 S.V. 3/8 Spc 3/16 AUXY PORT V. STD V. 3/8  
Main boiler safety valves adjusted 2-5-47 Identification Marks ENA N° 3121 LLOYDS AW 28-10-45 THRUST SHAFT MATERIAL M. STL IDENTIFICATION MARK NA. 296  
Crank shaft material forged steel Identification Marks LLOYDS 3526 REG. 10895 L.C.D. PANER. STL IDENTIFICATION MARK NA. 450, 462, 464.  
Intermediate shafts, material M. STL Identification Marks LLOYDS 10895 Test pressure 660 lbs. Date of Test 25-10-46  
Screw shaft, material M. STL Identification Marks G.H.M. Steam Pipes, material S.D. STL Test pressure 660 lbs. Date of Test 25-10-46  
Is an installation fitted for burning oil fuel Yes ✓ Is the flash point of the oil to be used over 150° F. Yes ✓  
Have the requirements of the Rules for the use of oil as fuel been complied with Yes ✓  
Is the vessel (not being an oil tanker) fitted for carrying oil as cargo Yes ✓ If so, have the requirements of the Rules been complied with Yes ✓  
If the notation for Ice Strengthening is desired, state whether the requirements in this respect have been complied with Not desired ✓  
Is this machinery duplicate of a previous case? No ✓ If so, state name of vessel.

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

eral Remarks (State quality of workmanship, opinions as to class, &c. and fitted  
The Machinery of this Vessel has been constructed under  
Special Survey in accordance with the approved plans and  
the Society's Rules. and the materials and workmanship are good.

The Thrust Shaft and four lengths of Intermediate Shafting are American Steel and were check tested for Brinell Hardness by POOL MACHINE and found satisfactory. Copy of Test Results are enclosed.

The machinery was tested satisfactorily at sea under working conditions and is eligible, in my opinion, for record  $\nabla$  LMC. 7.47, and the notation 2 SB (Spt) + 1 auxy SB. 220 lbs. FD. Fitted for oil fuel 7.47, FP above 150' F. TS. CL

The amount of Entry Fee	...	£	—	:	:	When applied for,
Special	plus 25% for	£	131-16-6	:	:	19
	Specif. Super.					
Donkey Boiler Fee	...	£	:	:	:	When received,
Travelling Expenses (if any)		£	:	:	:	19

Arbath:

*Engineer Surveyor to Lloyd's Register of Shipping.*

Committee's Minute ..... **FRI. 19 SEP 1947**

Assigned +LMC 7.47

Assigned .....  
 FITTED FOR OIL FUEL 7.47 FLASH POINT ABOVE 100°F. F.D. C.L.

2. SB 22016 (Spt) 1 Aux SB 22016.