

REPORT ON STEAM RECIPROCATING ENGINE MACHINERY.

Received at London Office

15 JAN 1947

Date of writing Report

19

When handed in at Local Office

19

Port of SYDNEY N.S.W.

No. in Survey held at
Reg. Book.

SYDNEY N.S.W.

Date, First Survey

15-8-46

Last Survey

30-10-1946

on the STEEL SINGLE SCREW STEAM TRAWLER MALDANNA

(Number of Visits 10)

Tons } Gross 284
Net 164

Built at PITCHALMERS N.Z. By whom built MESSRS STEVENSON AND COOK.

Yard No. ✓

When built 1943

Engines made at THAMES N.Z. By whom made MESSRS H & G PRICE LTD

Engine No. ✓

when made 1943

Boilers made at DUKINFIELD ENG. By whom made D ADAMSON & CO. LTD

Boiler No. 10272

when made 1942

Registered Horse Power 480 I.H.P.

Owners RED FUNNEL TRAWLERS PTY LTD Port belonging to SYDNEY N.S.W.

Nom. Horse Power as per Rule 87

Is Refrigerating Machinery fitted for cargo purposes No

Is Electric Light fitted YES.

ENGINES, &c.—Description of Engines

TRIPLE EXPANSION

Dia. of Cylinders $12\frac{1}{2}$, $21\frac{1}{2}$, 35 " Length of Stroke 26" Revs. per minute 108 No. of Cylinders 3 No. of Cranks 3

Dia. of Crank shaft journals as per rule $7\frac{1}{8}$ " as fitted $7\frac{1}{8}$ " Dia. of Crank pin $7\frac{1}{8}$ " Crank webs Mid. length breadth $10\frac{3}{4}$ " Mid. length thickness $4\frac{1}{2}$ " Thickness parallel to axis $5\frac{1}{2}$ " Thickness around eye-hole $3\frac{1}{2}$ "

Diameter of Thrust shaft under collars as per rule $7\frac{1}{8}$ " as fitted $7\frac{1}{8}$ " Diameter of Tunnel shaft as per rule $4\frac{9}{16}$ " as fitted $4\frac{9}{16}$ " Diameter of Screw shaft as per rule $7\frac{5}{8}$ " as fitted $7\frac{5}{8}$ " Is the Screw shaft

fitted with a continuous liner the whole length of the stern tube Yes 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 joints burned No, soldered joints. If the liner does not fit tightly at the part

between the bearings in the stern tube, is the space charged with 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 appliance fitted at the after end of the shaft to permit

of it being efficiently lubricated No Length of Stern Bush 2' 10" Diameter of Propeller 9' 6"

Pitch of Propeller 11' 12" No. of Blades Four State whether Moveable Not moveable Total Surface 35.5 square feet.

No. of Feed Pumps fitted to the Main Engines One Diameter of ditto $2\frac{3}{4}$ " Stroke 12" Can one be overhauled while the other is at work ✓

No. of Bilge Pumps fitted to the Main Engines One Diameter of ditto $2\frac{3}{4}$ " Stroke 12" Can one be overhauled while the other is at work ✓

Total number and size of power driven Feed and Bilge Auxiliary Pumps Aux. Feed (Bartholomew Duplex) $4\frac{1}{2} \times 3 \times 6$

No. and size of Pumps connected to the Main Bilge Line General Service (Bartholomew Duplex) $5 \times 11 \times 6$

No. and size of Ballast Pumps No. and size of Lubricating Oil Pumps, including Spare Pump ✓

Are two independent means arranged for circulating water through the Oil Cooler No. and size of suction connected to both Main Bilge Pumps and Auxiliary

Bilge Pumps;—In Engine and Boiler Room 2-2" and in Holds, &c. 2-2" in Hold space ✓

and 1-2" in Fore Peak tank.

No. and size of Main Water Circulating Pump Bilge Suctions One 3" No. and size of Donkey Pump Direct Suctions

to the Engine Room Bilges One ejector - 2" 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 connections with the sea direct on the skin of the ship Yes Are they Valves or Cocks, Valves and Cocks

Are they fixed sufficiently high on the ship's side to be seen without lifting the stokehold plates Yes Are the Discharge Pipes 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 are carried through the bunkers Bilge Suctions to Hold Fore Peak How are they protected Wood cover boards.

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 Screw Shaft Tunnel watertight Is it fitted with a watertight door worked from

MAIN BOILERS, &c.—(Letter for record)

Total Heating Surface of Boilers 1600 square feet

Is Forced Draft fitted No No. and Description of Boilers One Scotch Type

Working Pressure 150 LB/SQ

IS A REPORT ON MAIN BOILERS NOW FORWARDED? No

IS A DONKEY BOILER FITTED? ✓

If so, is a report now forwarded? ✓

PLANS. Are approved plans forwarded herewith for Shafting

Main Boilers

Auxiliary Boilers

Donkey Boilers

(If not state date of approval)

General Pumping Arrangements

Oil fuel Burning Piping Arrangements

SPARE GEAR. State the articles supplied:—

Main Engine: Top and Bottom end Bearings, complete with Bolts, set of coupling Bolts. Complete set of valves for air pump, set of valves and seats for feed and bilge pumps.

Boiler: Four (4) tube stoppers complete, spare manhole door joints, spare gauge glasses and rings.

Auxiliary Pumps: Set of piston and bucket rings and set of valves of each size for the liquid end of the Aux. feed and General Service pumps.

Quantity of packing and jointing of various sizes.

Quantity of assorted Bolts and nuts of various sizes.

1 bar each of $\frac{1}{2}$ ", $\frac{3}{8}$ ", $\frac{1}{4}$ ", $\frac{3}{16}$ " and 1" round mild steel.

1 cwt of $\frac{1}{8}$ ", $\frac{1}{4}$ " and $\frac{3}{8}$ " mild steel plate

The foregoing is a correct description,

Manufacturer.



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004971-004981-0086

Dates of Survey while building

During progress of work in shops - -

During erection on board vessel - - -

Total No. of visits

Dates of Examination of principal parts - Cylinders

Slides

Covers

Pistons

Rods

Connecting rods

Crank shaft

Thrust shaft

Tunnel shafts

Screw shaft

Propeller

Stern tube

Engine and boiler seatings

Engines holding down bolts

Completion of pumping arrangements

Boilers fixed

Engines tried under steam

Completion of fitting sea connections

Stern tube

Screw shaft and propeller

Main boiler safety valves adjusted 22nd October 1946

Thickness of adjusting washers Port 360" Starboard 355"

Material of Crank shaft Steel

Identification Mark on Do. ✓

Material of Thrust shaft Steel

Identification Mark on Do. ✓

Material of Tunnel shafts ✓

Identification Marks on Do. ✓

Material of Screw shafts Steel

Identification Marks on Do. ✓

Material of Steam Pipes Steel

Test pressure 360 LB/□

Date of Test 3rd October 1946

Is an installation fitted for burning oil fuel ✓

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

Have the requirements of the Rules for carrying and burning oil fuel been complied with ✓

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.)

This vessel is one of a series built in New Zealand to the order of the N.Z. Government and used as an Auxiliary Naval vessel during the war. The main boiler was made by Messrs D. Adamson and Co. Ltd. and is marked on the front plate D. ADAMSON & CO LTD, 10272, and the main engine was made by Messrs A. G. Price and Co. at Thames N.Z. and all the auxiliary machinery, feed pump, general service pump, circulating water pump, steam dynamo engine with its electric generator the steam steering engine and the windlass were imported from the U.K. The boiler and the main engines with all auxiliaries were now opened out and examined as required for Special Survey, all parts were found in good condition and the workmanship and materials appear sound and satisfactory. This machinery installation is now in good condition and in my opinion eligible to be classed with this Society, with the records of L.M.C 1046 and Propeller shaft seen 10-46 noted in the Register Books.

NO 102
LLOYDS TEST
320 LB
WP 130 LB
9.10.42 W.T.M.

The following plans are forwarded herewith:-

Crankshaft, Stern tube and shafting, Pipe arrangement and the Main Boiler.

The amount of Entry Fee ... £

Special ... £

Doukey Boiler Fee ... £

Travelling Expenses (if any) £

When applied for, 13/11/1946

When received, 19

W. B. E. Eden
Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute

FIL 18 APR 1947

Assigned LMC 10,46 Subject S 10,46 CL.

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