

URMSTON GRANGE

and to the Centre Boiler.

However in view of delays caused by cracked Scamshaft, and the very extensive repairs required to the main boilers, the Owners decided to fit two new Boilers.

Two Boilers, built under special survey for the Admiralty in 1944, and unused, were fitted in place of the existing Port and Starboard Boilers, now removed ashore for scrap.

These new boilers are numbered as follows:-

PORT. Cammell Laird & Co No. 2259. Lloyd's Test No. 2625. Liv. Rpt No. 120674.
STAR. do No. 2264. do No. 2644. Liv. Rpt No. 121374.

Reports attached herewith.

The working pressure of these boilers is 200 lb/sq in, and the pressure of the Centre (Auxiliary) boiler reduced to the same pressure to suit.

The CENTRE BOILER examined and found to have some local corrosion of back tube plates, at knuckles, on furnaces, and the tubes badly wasted. This boiler removed ashore, repaired as under, refitted and hydraulically tested to 250 lb/sq in.

Repairs to centre boiler:-

Wastage on corrugations of all three furnaces in line of bars and on tops now built up by welding.

30 rivets removed on Starb. c.c. wrapper landing, seams welded about 5 ft where wasted, rivets renewed.

About 26 rivets removed on port c.c. wrapper landing, plate built up about 4'-9" where wasted, rivets renewed.

All stay-tubes and all plain tubes renewed.

16 rivets removed from Starb. furnace mouth, re-riveted and caulked.

18 stays renewed between Port & centre chambers.

20 stays renewed between Starb & centre chambers.

Several stays caulked & rivets renewed.

81 air tubes renewed.

Local welding & caulking as necessary.

Minor repairs effected.

This vessel is now fitted for oil burning (see hull report), in accordance with the Rules and the approved plans.

A WallSEND O.F. Duplex unit No. O.B. 8917, and Weir's Transfer Pump No. 206806 (Lloyd's tested) size 7" x 6 1/2" x 5" now fitted, and controlled from deck, also a starting-up unit. New furnace fronts fitted to centre boiler.

CONTINUED

URMSTON GRANGE

The oil-pressure pipes (solid drawn steel) fitted and tested to rule requirements.

The fittings on the storage and settling tanks in accordance with the Rules; approved (Malone's) Indicators fitted.

Suitable drip trays and gutterways fitted.

The Screen bulkhead between engines & boilers removed.

Funnel damper removed.

A new outer casing for funnel fitted.

Steam heating coils in storage tanks (deeptank & double bottoms) examined under test (twice working pressure) after fitting, and found satisfactory.

An observation tank for fuel heater drains fitted. Water hydrants fitted in engine room & boiler room, one connected to G.S. pump, and one to ballast pump.

Steam smothering pipes fitted in boiler room, and tested under working conditions. (Controlled from deck).

A 33 gall. foamite and 8-2 gall. Portable extinguishers fitted in Machining space, also a (12 cu ft) Sand-box in stokehold.

All lead pipes in engine room & boiler room, & oil tanks replaced by wrought iron or steel pipes.

The main and auxiliary steam pipes altered or renewed to suit new boilers. New and altered pipes tested to rule requirements, adjacent pipes examined internally.

Pipe line amended to improve drainage on refrigeration steam line, additional drains fitted.

Feed pipes to wing boilers renewed and tested.

New mountings, additional to those supplied, tested and fitted as follows:-

Port & Starboard Boilers: main stop valves,
aux. stop valves,
Water gauge fittings,
Scum valves,
2" G.M. aux. steam to fuel units.
With Drain corks.

An oily-water separator (Ferguson & Simpson 'Victor') supplied and fitted, circulated from ballast pump discharge.

A secondary fuel heater supplied & fitted, to work with I.P. steam, and 1" bore supplementary line for working in port. (Max Pressure 100 lb./sq. in.).

Reducing valves fitted on steam lines to Ballast & Aux. condenser circulating pumps.

G.S. Pump blanked off from bilge main, & main connected to Transfer Pump (Secretary's letter 30.9.46)

(CONTINUED)

URMSTON GRANGE

The Grompton Ash Hoist removed.

Boiler lagging and pipe lagging renewed.

The Vessel placed in dry dock: the propeller and fastenings examined.

The screwshaft drawn and examined: the cone found "chattered" and cracked, & two pieces broken out at aft end of keyway. The propeller bars hammered & slack on cone.

The tube blanked off, vessel undocked, a new screwshaft & propeller made, vessel redocked, the shaft & propeller fitted.

The new screwshaft (continuous line) marked

LLOYDS
7010
C.P.
3.10.46

See forging report attached.

Stem-bush rewooded lower half and outer portion of the top half.

Sea connections examined.

Ash cork (ships side) removed & spigoted blank fitted, riveted & welded.

(SRL) The main injection valve chest replaced by a new chest (tested).

LMC: It was pointed out to the Owner's Superintendent that the vessel was due for special survey, but they did not desire any parts to be specially opened out for survey.

The following items opened out for Owners and examined:-

Examined H.P. cylinder, piston, valves & valve gear.

Thrust and tunnel shafting.

Steering engine.

Widlar.

Main condenser (tested).

Aux. condenser (tested) and its pump.

Sea connections.

Pumping arrangements.

Selected steam & feed pipes tested.

Oil fuel unit & transfer pump.

Main feed pumps.

Dynamo engines

Electric installation

(CONTINUED)

© 2020

Lloyd's Register
Foundation

URMSTON GRANGE

On completion the main engines and steering engine examined under working conditions with satisfactory results.

The boilers (Main & auxiliary) examined under steam and all safety valves adjusted to 200 lbs/sq inch; and a satisfactory accumulation test held on new boiler.

The oil burning & steam smothering apparatus examined under working conditions.

Machinery Repairs:

H.P. valve gear renewed, valve spindles, levers, pins and bushes renewed. Cams recut & adjusted.

Bearings renewed & mechanical lubricator fitted.

L.P. crosshead pins machined, bearings retightened.

L.P. guide shoe retightened.

Main condenser: 5 tubes renewed. Tested.

Main thrust block lifted, & shafting aligned up to crankshaft.

Main feed pumps: after pump valve seat landing machined & seat renewed.

Bucket rod renewed.

Dynamo engines overhauled.

No. 1 & 2 fitted with new piston-valves, bearings adjusted.

All three governor valve spindles renewed.

Reversing & turning engine master steam valves overhauled.

New spindle fitted to Ballast pump overboard discharge valve; & branch line fitted for oily separator.

Main feed pump float control gear overhauled.

Winders piston rods skimmed & rebushed.

Some caulking, & expanding of tubes, in new boiler after steaming.

Zinc plates & studs fitted to all boilers.

Minor repairs effected.

Licence checked.

C. R. Sed

Electrical Equipment, examined started under working conditions. Generator, switchboard, fittings, fuses, cables etc examined. Circuit breakers tested & operated on reverse current. Insulation test carried out. All found satisfactory.

Repairs. Boiler Room & hull, part of engine room renewed. Generator cleaned & overhauled. Switchboard overhauled. Wiring throughout vessel examined & faults made good. Low insulation faults located & repaired.