



S.S. "MARWARRI"

M.S.

turbo main fuel pumps, air pump, sanitary pump, condensate pump, fresh water pump, auxiliary feed pump, general service pump, ballast pump, bilge pump, main engine driven lubricating oil pump, auxiliary lubricating oil pump, lubricating oil cooler, evaporator & pumping arrangements. All steam pipes 3" bore & over examined under hydraulic test, 500 lbs/A & found satisfactory.

M.S. REPAIRS:-

Main Condenser:- New cast iron water end fitted, 640 tubes renewed & two new header plates fitted. Condenser tested after repairs & found satisfactory. Auxiliary Condenser:- 10 new tubes fitted, condenser tested & found satisfactory. Main Circulating Pump:- Impeller shaft built up where worn in way of bearings & bearings renewed. New seal rings fitted. Wiro Main Feed Pump:- Shuttle valve overhauled & new bucket rings fitted. Wiro Turbo Feed Pump:- Sent ashore to makers & overhauled. After reinstallation the pump was examined under working conditions & found satisfactory. Air pump:- Shuttle valve overhauled & new bucket rings fitted. Fan Engines:- Piston valve chambers bored out & new piston valves fitted. Sanitary Pump:- New bucket chamber liner & bucket & rod fitted. Condensate Pump:- Pridges on bucket liner removed, new bucket rings fitted & shuttle valve overhauled.

Steam Generators:- The two 15 KW steam generating set were removed from the ship & 2 - 20 KW used steam generating sets installed. These generating sets were obtained from the Admiralty & were made by E. Reader & Sons their Nos being 20940 & 20941. The steam engines were examined in their entirety & found in good condition. These generators were installed at the burners in

STEERING GEAR:-

Steering gear steam engine examined in its entirety & found or placed in good condition

REPAIRS:-

New junk ring pins fitted to both pistons, new holes drilled in pistons for pins

WINDLASS:-

Windlass examined in its entirety & found in good condition.

B.S.:

The forward port & starboard & the after port & starboard boilers examined internally & externally with mountings, fastenings superheater elements & safety valves & found or placed in good condition.

All the safety valves of the boilers were adjusted under steam

BS REPAIRS:-

Forward Port Boiler: Starboard High combustion chamber: 4 screwed stays coned; Starboard Low combustion chamber, 5 screwed stays coned.

Notice, New conversion of oil fuel.

L. G. 12/4/48.

12/4/48

Table with columns for measurements and dates, including '12/4/48' and '15/3/48'.

12/4/48

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B.S. Forward Port Boiler:- Auxiliary check valve seat & valve lid renewed & salinometer cock renewed

Forward Starboard Boiler:- Auxiliary check valve seat & valve lid renewed, salinometer cock renewed

After Port Boiler:- Port low combustion chamber:- 4 screwed stays coned

Starboard low combustion chamber:- 4 screwed stays coned

Auxiliary check valve seat & valve lid renewed. Safety valves, seats & valve lids renewed.

After Starboard Boiler:- Starboard low combustion chamber:- 4 screwed stays coned

Port low combustion chamber:- 4 screwed stays coned

Port High combustion chamber:- 6 screwed stays coned

Starboard High combustion chamber:- 6 screwed stays coned.

Auxiliary check valve seat & valve lid renewed. The superheater elements of this boiler were renewed at this time at Owners initiative. The elements were hydraulically tested in place to 500 lbs/sq. & found satisfactory

## CONVERSION FROM COAL TO OIL FUEL BURNING:

A Clyde Fuel Systems Duplex pumping & heating unit N° 214090 & N° 214091 & a Wier's oil fuel transfer pump N° 215543 installed in the engine room. All furnace fronts renewed & no funnel damper fitted. Nos 1, 2, 3, 4, & 4 double bottom tanks fitted for oil fuel. Port & starboard coal bunkers in stowhold converted into port & starboard oil fuel side bunkers & settling tanks.

Solid drawn steel oil fuel heating coils fitted to all oil fuel tanks & hydraulically tested in place to 500 lbs/sq. All heating coil drains return to observation tank fitted in engine room. The feed pumps & fresh water tanks are isolated from fuel, bilge & ballast connections. No wood bearers or lead pipes fitted. Oil gutterways fitted in way of side bunkers & settling tanks & provision for drainage arranged.

Oil fuel discharge pipes & fittings hydraulically tested to 400 lbs/sq. suction pipes tested to 100 lbs/sq. Steam fire extinguishing pipes fitted under boilers. Foam fire extinguishing apparatus fitted to convenient positions in engine room & boiler room spaces.

All fittings & pipes were installed & tested in accordance with approved plans & to the Society's Rules & Requirements. Approved plans attached herewith.

On completion of repairs & conversion to oil burning the main & auxiliary machinery, pumps & pumping arrangements were tried under working conditions & found satisfactory.

Heating coil returns, unit controls & extended spindles tried & found satisfactory.

A Comyns Oil Separator N° 360 fitted in port tween deck.

Glasgow

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## ELECTRICAL EQUIPMENT.

A Special Survey of the electrical equipment carried out. The following repairs were effected:- Two 15 KW. generators removed & replaced by two 20 KW used generating sets generators manufactured by Campbell & Isherwood Nos 14804 & 14808, 20 KW 110 V. 182A 300rpm. New generator switches & fuses of adequate size fitted to switchboard; generator cables also renewed.

Stokehold, workshop & Engineers smokeroom rewired & numerous minor repairs effected to other circuits. Four small pumps & four fans fitted to galley oil burning equipment

On completion of repairs, generators tested under full load conditions, all circuits examined & tried under working conditions & I.R. tests taken.

All found in satisfactory condition.

b. Hafner.