



of Cardiff

Continuation of Report No. 58,390. dated 16 July, 1953

on the

## S.S. "BEATUS".

The electrical installation examined and tested under working conditions; fittings on the main and sub-distribution boards examined; the cables examined about dismantling; the insulation resistance of the generators, cables and other things tested under, after necessary minor repairs, the installation found satisfactory.

Work done for S.S. (Hull): - The steering engine and starting engine opened out under minor repairs found satisfactory.

Work done for Oil Fuel Conversion: - Oil burning unit, supplied by Messrs Todd & Burners Limited, installed at the starboard side of the engine room with all necessary piping and fittings required by the Rules and in accordance with approved plans. (Please see Glasgow certificates Nos. C.90567 and C.97835 and London certificate No. D.31877, which are attached hereto.)

High pressure oil piping tested in place to 400 lbs/sq" and low pressure oil piping tested in place to 50 lbs/sq"

For tank strappings &c., please see Report B which is forwarded herewith.

Steam heating coils fitted and tested as required by the Rules; short landing pipes in machinery spaces fitted with parallel bodied self-closing valves. Steam smothering fitted as required by the Rules.

Soot funnel dampers fitted. Sand box and drip trays under funnels fitted. Extended control (rod, lever gear & universal joint type) fitted to ship and king tank sections, oil fuel unit, oil fuel transfer pump, fan engine and steam smothering connections. Fire fighting equipment as in attached certificate. An emergency fire pump fitted at after end of tunnel, starboard side; a connection fitted in accordance with Rule Requirements; pump discharge connected to the main wash duct line. Russell Rotary Engine No. 10F 7703 used to Hamworthy Pump No. 3002 B.

The fuel transfer pump has been connected to the main bilge line as commended in your letter E.L.G. 21/4/53. With reference to the 3<sup>rd</sup> and 4<sup>th</sup> paragraphs of the letter, a plan of the pumping arrangements is forwarded herewith and the arrangements have been checked and found to agree with the plan. The spectacle blank at the connection of the G.S. pump to the return line and the two spectacle blanks at the suction valve shut at the head end of No. 6 (Boiler Feed) tank are kept permanently in the closed position and the Owner's Representatives state that this arrangement will not be altered as long as the tank is used for boiler feed water; the suction valves have not been altered to S.D.R. valves as indicated on the approved plan and this arrangement has been agreed to subject to final approval by the Committee. The other pumping arrangements in accordance with the approved plan.

The installation examined and tested under working conditions and found satisfactory.

Work done for D.G.: - The vessel now fitted with "Degaussing" to Admiralty requirements and in accordance with Rule Requirements; coils fitted in hull deck spaces and suitably protected; no extra current supply fitted.

Work done for T.G.: - (Please see Newcastle, N.S.W. Report No. 6008)

The propeller shaft referred to in this report was taken ashore for re-conditioning; it was found to be cracked at both sides of the keyway, forward of the propeller, and it has been scrapped. (Please see Continuation Sheet) J.H.P.

CEB  
plans  
agreed  
by HRC  
J.H.P.  
14/8/53

Port of Cardiff

S.S. "BEATUS"

Work done for wear and tear:-

Fastenings of all sea suction valves and ship's side blow down valves removed, G.S. pump ship's side suction valve removed (High pressure tested G.M. valve) Crankshaft lifters; top and bottom half main bearings removed; these bottom end bearings reinstalled; scotch, thrust and intermediate shafting re-aligned. H.P., M.P., and L.P. piston rods and crosshead pins re-machined; H.P., M.P., and L.P. guide shoes reinstalled; L.P. top and bottom removed.

Star pump line and bucket ring removed; forward ram pump removed; star body pins of after ram pump removed; pump link nesting shaft journals re-machined; pump line back link pin removed; pump line front link pins removed; pump line journals built-up by E.S. process, which are normalised and journals re-machined. Circulating pump impeller shaft removed.

Circulating pump engine, two exhaust engines and fan engine completely overhauled - cylinders rebored, pistons removed, piston rods skinned and new packing fitted.

Fuel pumps, G.S. pump and ballast pump over, pistons, buckets and valves overhauled as necessary.

Superheater safety valves removed on all boilers (3 off 1 1/2" valves removed and attached certificate V. 3359); valves tested hydraulically to 450 lbs/ sq. in. after fitting; bottom covers removed from all superheaters and deposit removed; all superheaters checked and repaired as necessary (Please see London certificate B.C. 2463.); all superheater header drains removed.

Port main boiler - 2 C.C. top stays removed; 2 longitudinal water space (using C.C.) stays removed. Sundry minor repairs.

Starboard main boiler - 12 C.C. side and back stays removed; 2 longitudinal stays (as above) removed. Sundry minor repairs.

Starboard main boiler - 62 C.C. side and back stays removed; 2 longitudinal stays (as above) removed; main fast shut and blow-down valves checked and repaired. Sundry minor repairs. All boilers tested hydraulically to W.P. after repairs.

Sea evaporator and new feed water heater fitted. (Please see London certificate D. 20000 and heads certificate C. 19894.)

Starboard journal of winlass cable lifter, port side, machine and shaft overhauled (badly worn and no arrangements for adjustment).

Sundry minor repairs. Main and auxiliary machinery examined and tested, on completion of repairs, under running conditions, found satisfactory.

Summary Remarks:- The Run's Superintendent states that the I.H.P. of the engine is 2,500 at 76 r.p.m.

J. H.

