





machinery of the 5/5 "BENGKALIS"

The main engine has been entirely opened out; all parts as cylinders with cyl. covers, pistons & rods, slide valves & rods with valve chests, connecting rods with top & bottom ends, guides & guide shoes, link motion - & reverse gear, crankshaft with eccentric sheaves & straps and main bearings examined and found or brought in efficient condition.

The following repairs carried out: HP & LP piston rods (forming one piece with crosshead) renewed (being bent), new crosspins fitted in all 3 connecting rods and top end brasses renewed, HP slide valve chest bored out and slide valve rings renewed, N<sup>o</sup> 5 & 6 main bearings re-metalled. Crankshaft clock gauged and found readings satisfactory.

Thrust block opened out, examined and found with thrust shaft and horse shoes in good condition; both thrust block bearings re-metalled.

Intermediate shafting with bearings examined and found in satisfactory condition; N<sup>o</sup> 7 & 8 plummer blocks re-metalled. Alignment of shafting verified and found good.

All auxiliaries, set forth below, were opened out, all parts examined and found or made in order:

Main circulating centrif. pump with both steam engines - Main condensate pump (Duplex horizontal) - Both Chapman's feed pumps (steam cyl. of Forw. pump bored out & piston renewed) - Steam turbo. feed pump (all blades of Curtis wheel & guide blades renewed) - Duplex Ballast pump - Duplex Sanitary pump (entirely renewed) - Duplex Emergency Bilge pump (being the former vegetable oil pump) - ME driven Bilge pump (ram piston type) - Duplex Fuel oil transfer pump - Both Weir's fuel oil burning pumps - Aft dynamo engine - Centre dynamo engine - Forw. dynamo engine (small turbo-generator) - Both Fan engines.

Main condenser opened out, all tubes & ferrules renewed, hydr. tested, examined and found in good condition. Auxiliary condenser examined, hydr. tested and found in order.

Both fuel oil heaters opened out, examined, coils hydr. tested and found in good condition.

Evaporator dismantled and examined, casing & coils hydr. tested and found in sound condition; evaporator afterwards tried under steam and safety valves adjusted.

All valves and pipes of Bilge-, Ballast- & Oil fuel pumping arrangement examined and found or made in order. A new cast iron main circulating injection pipe has been fitted. Fire extinguishing arrangement examined, found or made in order, and tried on completion.

All 4 main boilers have been examined internally and externally (insulation stripped) and found in a satisfactory state of upkeep. 244 plain tubes renewed in Port Aft boiler (upkeep repairs).

Boilers afterwards hydr. tested with satisfactory results. Their mountings and safety valves were opened out, examined and found or made in order. New insulation has been fitted.

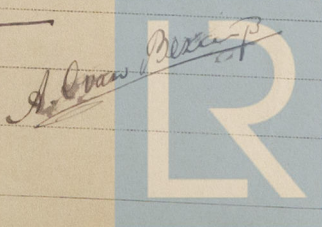
Steel main steam pipes & principal auxiliary steam pipes examined, and tested as per Rule.

On completion the boilers have been tried under steam and found with the fuel oil burning plant in good working condition; the safety valves were adjusted under steam.

ELECTRICAL EQUIPMENT: Please see Report 13.

On completion of the survey the machinery has been tried under steam for several hours and found in good working condition.

*Spierhoo*



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