

The pipes were disconnected and cleaned on both engines, and the port engine re-started, but owing to poor piston cooling circulation was repeatedly stopped for cleaning of pipes etc.

Subsequently the starboard engine was restarted on five cylinders, No.3 being cut-out., and the vessel proceeded at reduced speed, arriving at Alexandria anchorage at 7.45 a.m. on 3rd October, 1953.

It was also stated the construction of these engines was completed in 1947, ship tests having been held on 23rd May, 1947, and were installed on board in 1949. Apart from periodical running for one or two hours for freeing purposes, the engines had not been operated until finally taken over by the present Owners, the Indian Navy, when satisfactory trials were held, but it is understood the engines had not been opened up for examination by the new Owners.

NOW DONE:

Port & Starboard main motors:- (Piston cooling oil system)

All cylinder covers and pistons removed and examined. On all pistons, to greater or less extent on cooling side of head, a carboniferous scale found varying from 1/16" to 1/8" thick covering crowns. This scale now removed, all piston cooling pipes disconnected and removed, cleaned and blown through with air and replaced. All piston cooling discharge valves opened up, several found partially choked with scale and No.3 starboard completely choked. All now cleaned and replaced. Filters examined and found clean. All piston cooling telescopic pipes and collecting chambers examined, cleaned and blown through with air. No.3 collecting chambers found cracked full length, now replaced by new fabricated mild steel chamber, hydraulically tested to 150 lbs per square inch.

On completion of repairs both engines run under working conditions, pressure and temperature normal and piston cooling oil flow in all cases satisfactory.

The log books for the voyage from Castelmari to Alexandria examined and show temperatures and pressures normal.

It is considered the cooling side of the piston head was possibly scaled before the vessel left Italy, and when the engines were stopped for changing of atomisers on 1st October the consequent cooling of the piston heads caused partial cracking and loosening of the scale, which subsequently circulated with the oil and choked the discharge valves.

From the few records available on board, at no time is there any indication of overheating or abnormal temperatures or pressure.

The oil used for the piston cooling is "ESSOMAR 65" " the same being used for lubricating oil.



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