



## ***Combe Mill***

**Repair of Beam Engine main steam stop valve**

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Towards the end of an open steaming day, the engine suddenly stopped for no obvious reason. Steam was being supplied by the steam roller and there was plenty of steam pressure.

It was decided that the problem must lie in the main steam stop valve on the engine.

As soon as we could, the valve was pulled apart and it was found that screw threads in the cone for the retainer holding the end of the valve spindle had stripped allowing the valve cone to be pushed by steam pressure into the closed position. Hence the reason for the engine to stop.

The hand wheel was removed from the spindle and the spindle removed from the top part of the valve. The retainer was removed from the spindle and the valve cone removed from the valve body.

The valve cone and retainer were taken home for repair.

Six stainless steel screws were obtained. The cone and retainer were assembled and drilled to the tapping size and the retainer removed. The cone was tapped to suit the new screws and the retainer drilled clearance size.

The repaired parts were returned to Combe and the valve assembled and fitted to the main body where it has functioned satisfactorily ever since.



Valve top, spindle and cone after repair



Close-up of cone showing the repair with stainless steel screws