

Lancashire & Yorkshire Railway.

Practical Questions

FOR

Enginemen and Firemen.

LOCOMOTIVE DEPARTMENT,

HORWICH,

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CHAS. SEVER, Printer, King St. West, Manchester.

A.—Push it up to one end of the cylinder and then put a piece of wood between the slide blocks and end of the slide bars, and tie it there, so as to secure the cross-head and piston. It is generally better to pull the cross-head out as far as it will come, and then put the blocking in between the cylinder cover and back of the slide-blocks.

81. *Q.*—How can you tell whether the valve is properly set so as to cover all three ports?

A.—By putting on a little steam; if it blows badly the valve is not right and must be shifted either further in or out. A thoughtful driver will always have in his tool-box a small piece of iron or wood cut to the right length, so that by putting it against the steam chest and noticing where the back of the valve-spindle cross-head comes when in the middle of its stroke, he will be able to set the valve right at once on the darkest night. It does not take long to prepare such a gauge for any engine when the valves are being examined, and no driver should be without one.

82. *Q.*—Is there any reason why an engine should not be run at full speed when working only one side?

A.—No; of course an engine working one side is only half as strong as she was before; but there is no reason why she should not be put well over and made to work as hard as possible.

83. *Q.*—If a valve spindle gets bent or doubled up so that the valve cannot be shifted, what is to be done then?

A.—Uncouple that side of the engine (as described before), and notice whether the valve-spindle stands *out* or *in*, then lock the piston with the rod either *out* or *in*, the same as the valve-spindle stands. Thus, if the valve-spindle is *out*, the front port is uncovered, then pull the cross-head *out* as far towards the motion-plate as it will go, and lock the piston there by putting a piece of wood between the cylinder cover and the slide blocks.

84. *Q.*—If an eccentric rod breaks, what can be done?

A.—If a back gear rod breaks, the engine can be run in forward gear without taking down anything but the broken rod. Or, if a forward-gear rod breaks, the engine can be run in back gear by simply taking off the broken rod. But

