WESTINGHOUSE

CONDUCTOR'S EMERGENCY VALVES

THE WESTINGHOUSE BRAKE & SAXBY SIGNAL Co LTD.
82 YORK ROAD KING'S CROSS, LONDON, N.1.
Telegrams: "Westinghouse, Kincross, London". Tele. 6432 Terminus
6 Lines
WORKS: CHIPPENHAM.

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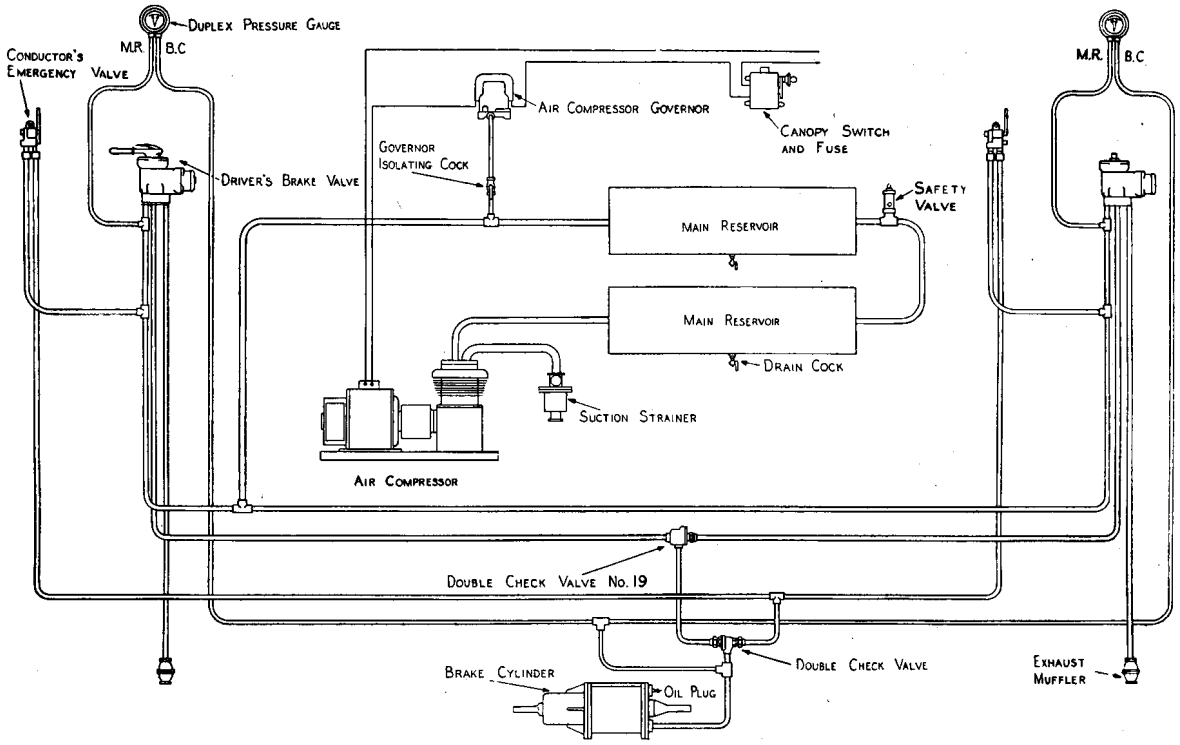


Fig. 1. Diagram of Conductor's Emergency Valve and its connections.

CONDUCTOR'S EMERGENCY VALVE

Patent No. 205356.

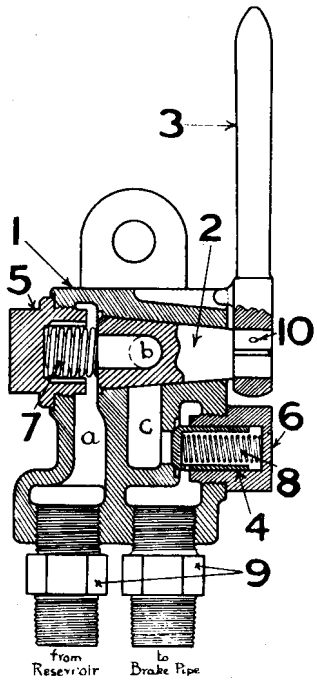


Fig. 2.

The purpose of this valve is to enable the conductor to make an emergency application of the brake independently of the driver, should necessity arise.

An emergency valve is mounted at each end of the car, as shown in Fig. 1 opposite. When either valve is operated, it allows air to flow from the main reservoir pipe line to the brake cylinder through a double check valve.

By reference to Fig 2, showing the conductor's valve in the closed position, it will be seen that when the handle 3 is brought down from the vertical to the horizontal position for an emergency application, air from the reservoir can flow through chamber *a*, port *b* in the cock plug, to chamber *c*, and forcing back spring-loaded valve 4, passes to the double check valve, and thence to the brake cylinder.

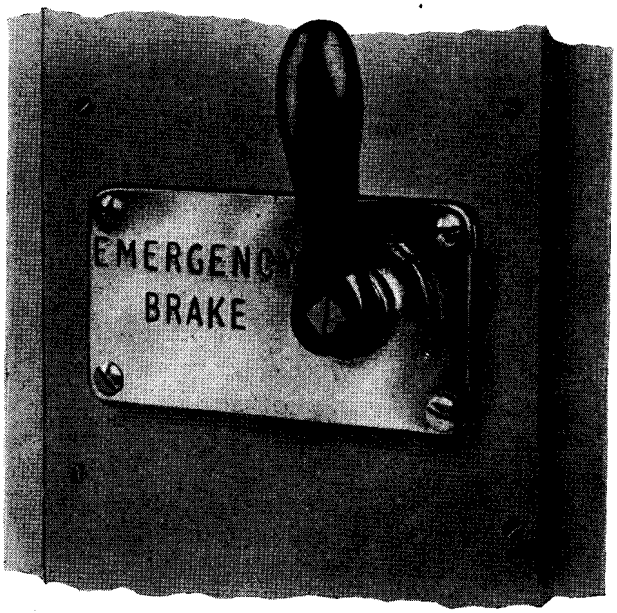
Due to the use of a spring-loaded valve in the conductor's emergency valve, the pressure on the conductor's side of the double check-valve is restricted below the main reservoir pressure by about 15 lbs. per sq. in.

The double check valve, which operates as described elsewhere, transfers, temporarily, control of the brakes from the driver to the conductor, and as long as it is necessary to keep the brakes applied from the conductor's end of the car, the conductor's emergency valve handle should be kept in the horizontal position.

In order to release the brakes the handle of the conductor's valve must be moved back by the conductor to its normal vertical position, after which it is necessary for the driver to co-operate before the brakes can be released, *i.e.*, the driver's brake valve handle must be moved to the full application position, thus admitting full main reservoir pressure to the driver's side of the double check valve. This pressure, being higher than that on the conductor's side, causes the valve to resume its original state, and allows air from the driver's side to flow to the brake cylinder, at the same time allowing the air in the pipe from the conductor's valve to escape from the vent hole in the double check valve. The driver can then release the brakes by moving the handle of the driver's brake valve to the " release " position.

This procedure ensures that the car is under the control of the driver before it can move away after being stopped by the use of the emergency valve.

Where sanding is installed on the car, the conductor's valve also can be so arranged, when the emergency brakes are applied, to operate the sanding gear.



The illustrations above show an alternative type of conductor's emergency valve (panel type), which operates in a similar way; but is designed for mounting behind a panel. It will be noted that by removal of plate 11, the valve portion is revealed for easy maintenance.