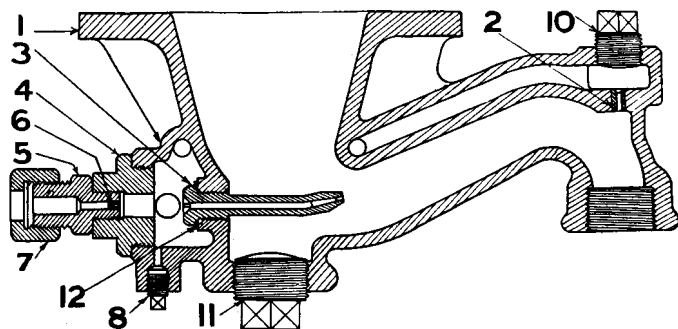




PNEUMATIC SANDING APPARATUS

SAND EJECTOR



This sand ejector should be situated at the lowest point of the sand hopper, the outlet pipe being arranged with as large a radius as possible, and the lower end of the pipe being held such that sand is directed to the point of contact of the wheel and rail. The whole arrangement should preclude the possibility of water getting access to the sand.

Where the hopper is carried upon the truck, iron pipe can be used to carry the sand to the rail, but where it is carried upon the main frame it is necessary to use a rubber hose pipe, so guided to ensure the sand is correctly directed on curves.

Upon the sanding valve being operated, air enters the ejector at nipple 5, passes through choke 6 and then flows by two paths. One path is to main air nozzle 3, and the other is by way of a cored passage to auxiliary air nozzle 2.

Air issuing from nozzle 3 directs the sand up the sloping neck of the ejector, while that issuing from nozzle 2 projects it down the outlet pipe, causing the sand to be blown under the wheel at the point of contact with the rail. The slope of the neck is so constructed that when no air is passing vibration will not cause the sand to flow.

MAINTENANCE INSTRUCTIONS

The only parts of this ejector that need attention are the nozzles 2 and 3 and choke 6. These should be cleaned out by means of a thin wire.

In replacing nozzle 3, care should be taken that it projects upward. Adjusting washers 12 are provided to enable this to be carried out, and a mark is provided at the outside end of the nozzle to indicate when it is correctly positioned.

SANDING VALVES

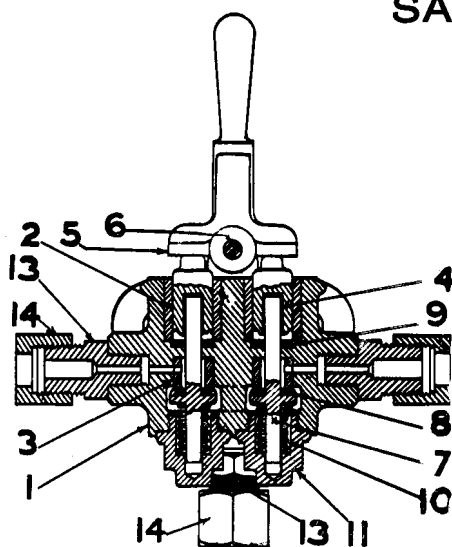
TYPE H. D.

The type H.D. sanding valve comprises two separate and independently operated valves 7. It has a common air inlet and two separate air outlets, the flow of air to each being controlled by one handle 5.

Only one valve can be operated at a time, the handle being moved forward in the one case and backward in the other.

There is a common centre air inlet and two separate side outlets, one outlet going to the forward sanders and the other to the rearward sanders. Consequently it is possible to drop sand in front of the wheels from the same driving position, whatever the direction of travel.

When two such valves are installed on a vehicle, one at each driving position, it is necessary to install a check valve in each sanding pipe, preferably placed close to the valve.



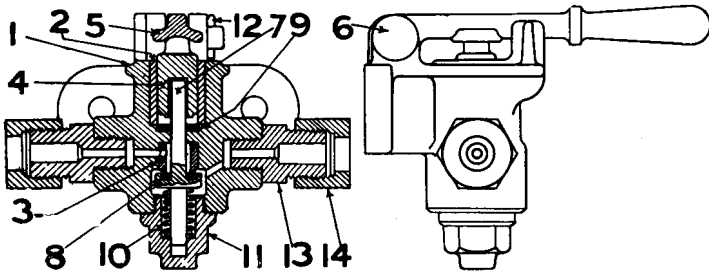
contd.

SANDING VALVES

TYPE H. D.—*continued*

This is to prevent the air admitted at one end from blowing out of the sanding valve at the other end past the stem of the valve and plunger 4.

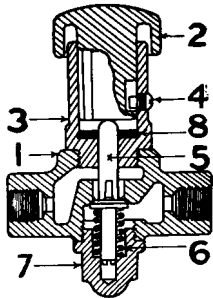
During operation air is prevented from blowing out from the operative valve by means of plunger 4 being seated on its seat 9.



TYPE H. S.

The type H.S. (or hand-operated) sanding valve comprises a small poppet valve 7 held on its seat by the pressure of main reservoir air together with that of a light spring 10.

Upon depressing handle 6, valve 7 is opened, and air flows to the sanders, but it is prevented from flowing to atmosphere past the plunger 4, as the latter seats on gasket 9.



TYPE F.

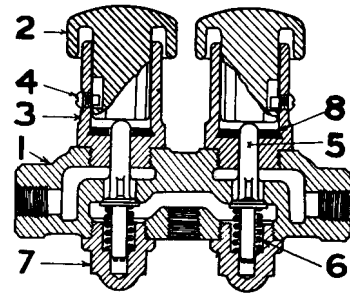
The type F. (or foot-operated) sanding valve comprises a small poppet valve 5 held on its seat by the pressure of main reservoir air, together with that of light spring 6.

Upon depressing plunger 2, valve 5 is opened and air flows to the sanders, but it is prevented from flowing to atmosphere past the plunger, as the latter seats on gasket 8.

TYPE F. D.

The type F.D. sanding valve comprises two valves identical in construction with the type F valve.

It has a common air inlet and two separate air outlets, the flow of air to each being controlled by a separate plunger. The method of connection and operation is similar to the type H.D. valve.



MAINTENANCE INSTRUCTIONS

The valves, seats and passages should be cleaned, and the valve tested for tightness.

Any damaged valve gasket or plunger seat should be replaced.

THE WESTINGHOUSE BRAKE & SAXBY SIGNAL CO. LTD.

LONDON & CHIPPENHAM, ENGLAND