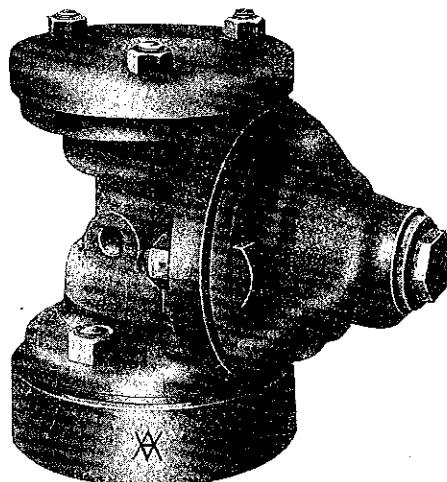


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Westinghouse Traction Brake Company

Pittsburgh, Pa., U. S. A.



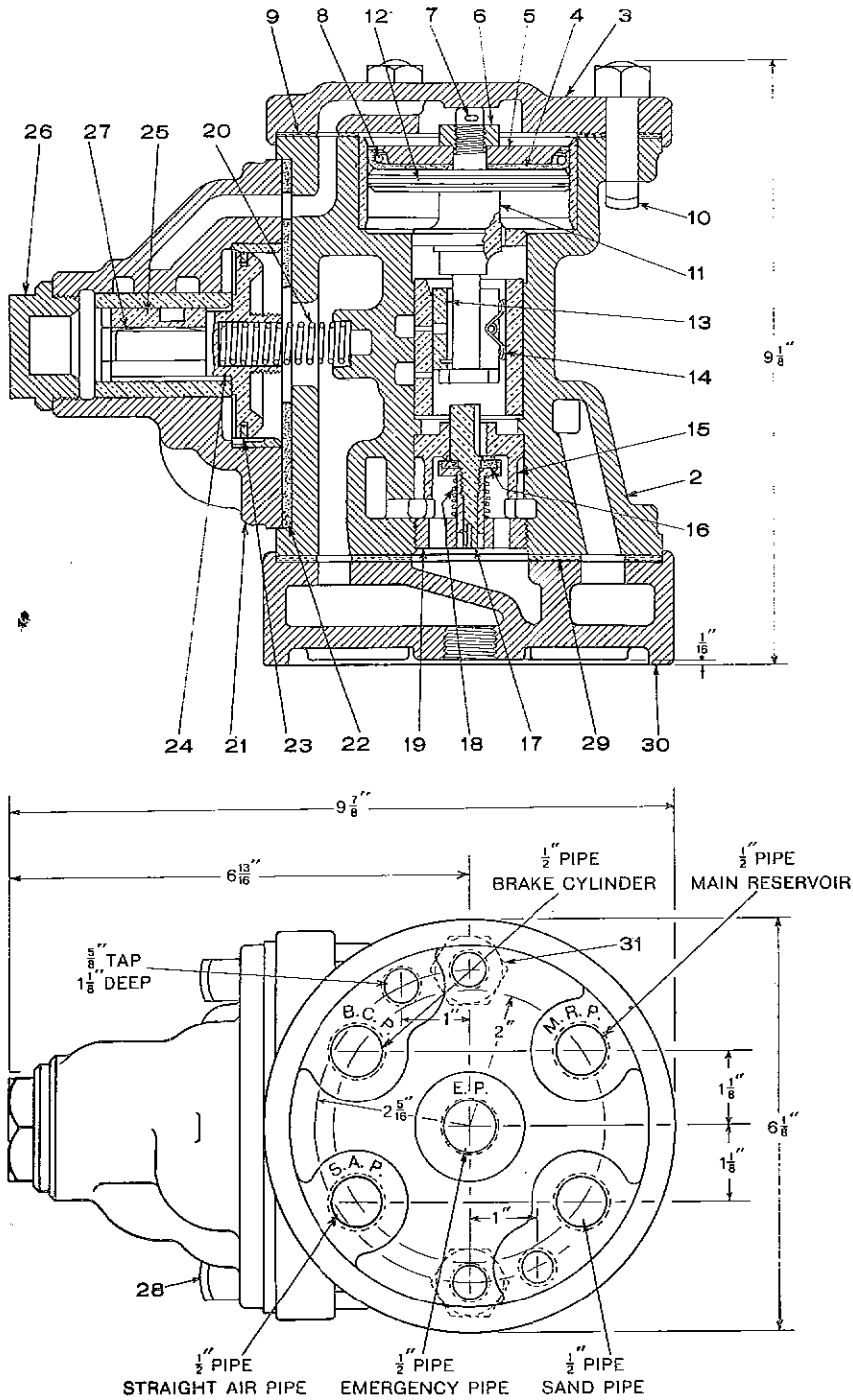
Emergency Valves Types "D" and "A"

Part Catalog No. T 3511-1

July, 1923

(SUPERSEDING ISSUE OF JULY, 1917 and SUPPLEMENTS 2 AND 6 TO T-3511)

TYPE D-1 EMERGENCY VALVE



Net Weight, 41 lbs.

TYPE "D-1" EMERGENCY VALVE

The Type "D-1" Emergency Valve is designed for Two Car Trains and has the following operating characteristics:

- (1) Quick service and release. The Motorman's Valve serves as a pilot valve to operate the Emergency Valve which directly controls admission of air to and from the Brake Cylinder.
- (2) Maintenance of Brake Cylinder pressure against leakage.
- (3) Automatic application of the Brake following exhaust of air from, or rupture of, the Emergency Pipe.

The Emergency Valve contains an Equalising Piston 11, and an Exhaust Slide Valve 13, also an Emergency Piston 24 and Slide Valve 25, communication between the Reservoir and the Brake Cylinder being controlled by Poppet Valve 17, which is opened or closed by movement of the Equalising Piston according to variations of pressure in the Straight Air Pipe and Brake Cylinder, or by the operation of the Emergency portion of the Valve. During service applications the Emergency Piston and Slide Valve are inoperative.

The Emergency Valve is attached directly to a pipe bracket to which all pipe connections are made; consequently the Emergency Valve may be removed for cleaning or repairs without breaking any pipe joints.

In the above sectional view the Emergency Valve is shown in Release Position.

NOTE B--For Spring Identification Table, see page 9.

Prices will be quoted upon application.

Orders must give PIECE NUMBER and NAME of part wanted.

TYPE D-1 EMERGENCY VALVE

The Type D-1 Emergency Valve is regularly furnished as standard for use with the SME Straight Air Brake Equipment with Emergency Feature for two Motor-Car or Motor-Car-Trailer Train Service.

Piece No. 70775—D-1 Emergency Valve with Floor Bracket having Vertical Pipe Connections, complete.

Pc. No.	Ref. No.		Pc. No.	Ref. No.	
46772	2	Body, bushed	17315	19	Check Valve Cage Nut
17322	3	Cylinder Cap	*70748	20	Emergency Piston Spring
17553	4	Packing Leather	46776	21	Emergency Valve Case, bush- ed
17552	5	Piston Follower	47118	22	Emergency Valve Case Gasket
24702	6	Equalizing Piston Nut	18033	23	Emergency Piston Ring
2958	7	Equalizing Piston Cotter	50324	24	Emergency Piston, complete (includes 23)
6808	8	Packing Leather Expander	46739	25	Emergency Slide Valve
17323	9	Cylinder Cap Gasket	17288	26	Emergency Valve Case Cap Nut
4879	10	Bolt and Nut for Cylinder Cap (3 Req'd)	47350	27	Emergency Slide Valve Spring
17536	11	Equalizing Piston, complete (includes 6, 7 and 12)	10846	28	Bolt and Nut for Emergency Valve Case (2 Req'd)
10030	12	Equalizing Piston Ring	12094	29	Floor Bracket Gasket
17781	13	Exhaust Slide Valve, com- plete	70896	30	Floor Bracket, complete (in- cludes two of 31)
66725	14	Exhaust Slide Valve Spring	6352	31	$\frac{5}{8}$ "x2" Stud with Hex. Nut (2 Req'd)
17318	15	Check Valve Cage			
64326	16	Check Valve Seat			
64324	17	Check Valve, complete (in- cludes 16)			
*17320	18	Check Valve Spring			

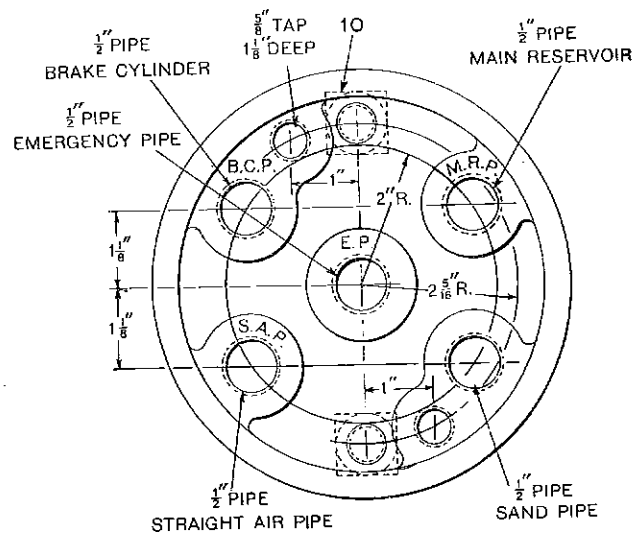
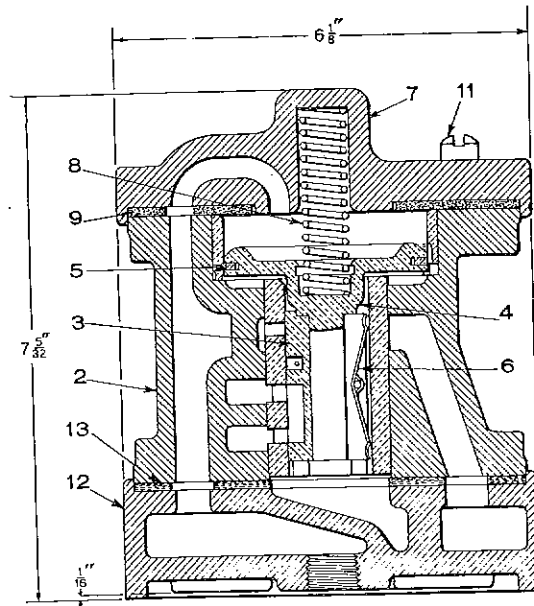
NOTE A—If D-1 Emergency Valve without Floor Bracket is desired, orders should specify Pc. No. 50325.

NOTE B—For Spring Identification Table, see page 9.

Prices will be quoted upon application.

Orders must give PIECE NUMBER and NAME of part wanted.

TYPE A-2 EMERGENCY VALVE



Net Weight, 27 3/4 lbs.

TYPE A-2 EMERGENCY VALVE

The Type A-2 Emergency Valve is regularly furnished as standard for use with the SME Straight Air Brake Equipment with Emergency Feature for Single Car or Motor-Car-Trailer Train Service.

Piece No. 70764. A-2 Emergency Valve with Floor Bracket having Vertical Pipe Connections, complete.

Pc. No.	Ref. No.		Pc. No.	Ref. No.	
12091	2	Body	*10923	8	Piston Spring
12092	3	Slide Valve	.10924	9	Cylinder Cap Gasket
12899	4	Piston (includes 5)	64220	10	Sq. Hd. Cap Screw (2 Req'd)
10030	5	Piston Ring	12898	11	Fil. Hd. Screw (2 Req'd)
6520	6	Slide Valve Spring	63186	12	Floor Bracket
10896	7	Cylinder Cap	12094	13	Floor Bracket Gasket

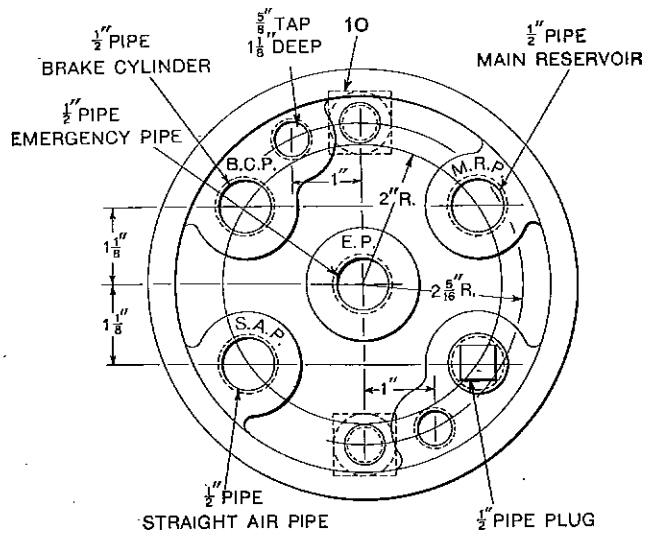
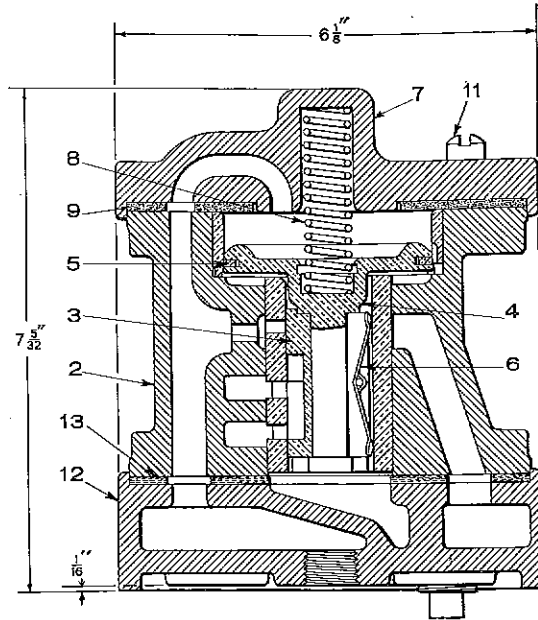
NOTE A—If A-2 Emergency Valve without Floor Bracket is desired, order should specify Pc. No. 12246.

*NOTE B—For Spring Identification Table, see page 9.

Prices will be quoted upon application.

Orders must give PIECE NUMBER and NAME of part wanted.

TYPE A-3 EMERGENCY VALVE



Net Weight, 27 3/4 lbs.

TYPE A-3 EMERGENCY VALVE

The Type A-3 Emergency Valve is regularly furnished for use with Electro-Pneumatic SME Equipment.

Piece No. 64216. A-3 Emergency Valve with Floor Bracket having Vertical Pipe Connections, complete.

Pc. No.	Ref. No.	Description	Pc. No.	Ref. No.	Description
64217	2	Body	10924	9	Cylinder Cap Gasket
64219	3	Slide Valve	64220	10	Sq. Hd. Cap Screw (2 Req'd)
12899	4	Piston (Includes 5)	12898	11	Fil. Hd. Screw (2 Req'd)
10030	5	Piston Ring	63186	12	Floor Bracket
6520	6	Slide Valve Spring	12094	13	Floor Bracket Gasket
10896	7	Cylinder Cap	33310		1/2" Pipe Plug
*10923	8	Piston Spring			

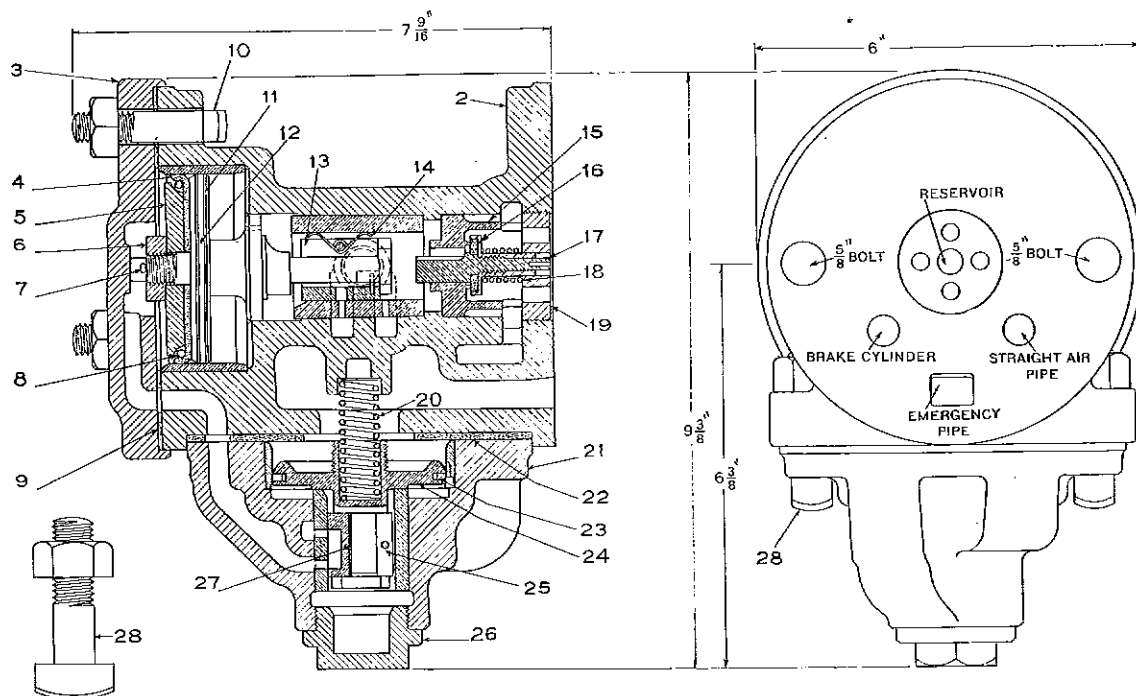
*NOTE—For Spring Identification Table, see page 9.

Prices will be quoted upon application.

Orders must give PIECE NUMBER and NAME of part wanted.

Valves
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TYPE D EMERGENCY VALVE



Net Weight, 33 lbs.

The Type D Emergency Valve has been superseded by the D-1 Emergency Valve and is listed only for convenience in ordering repair parts.

Piece No. 17555. D Emergency Valve, complete.

Pc. No.	Ref. No.	Description	Pc. No.	Ref. No.	Description
17460	2	Body, bushed	*17320	18	Check Valve Spring
17322	3	Cylinder Cap	17315	19	Check Valve Cage Nut
17553	4	Packing Leather	*70748	20	Emergency Piston Spring
17552	5	Piston Follower	17290	21	Emergency Valve Case, bushed
24702	6	Equalizing Piston Nut	47118	22	Emergency Valve Case Gasket
2958	7	Equalizing Piston Cotter	18033	23	Emergency Piston Ring
6808	8	Packing Leather Expander	17559	24	Emergency Piston (includes 23)
17323	9	Cylinder Cap Gasket	17313	25	Emergency Valve
4879	10	Bolt and Nut for Cylinder Cap (3 Req'd)	17288	26	Cap Nut for Emergency Valve
17556	11	Equalizing Piston (includes 6, 7 and 12)	17560	27	Emergency Valve Spring
10030	12	Equalizing Piston Ring	10846	28	Bolt and Nut for Emergency Valve Case (2 Req'd)
17781	13	Exhaust Valve, complete	8415	†	Emergency Valve Gasket
17321	14	Exhaust Valve Spring			
17318	15	Check Valve Cage			
64326	16	Check Valve Seat			
64324	17	Check Valve, complete (includes 16)			

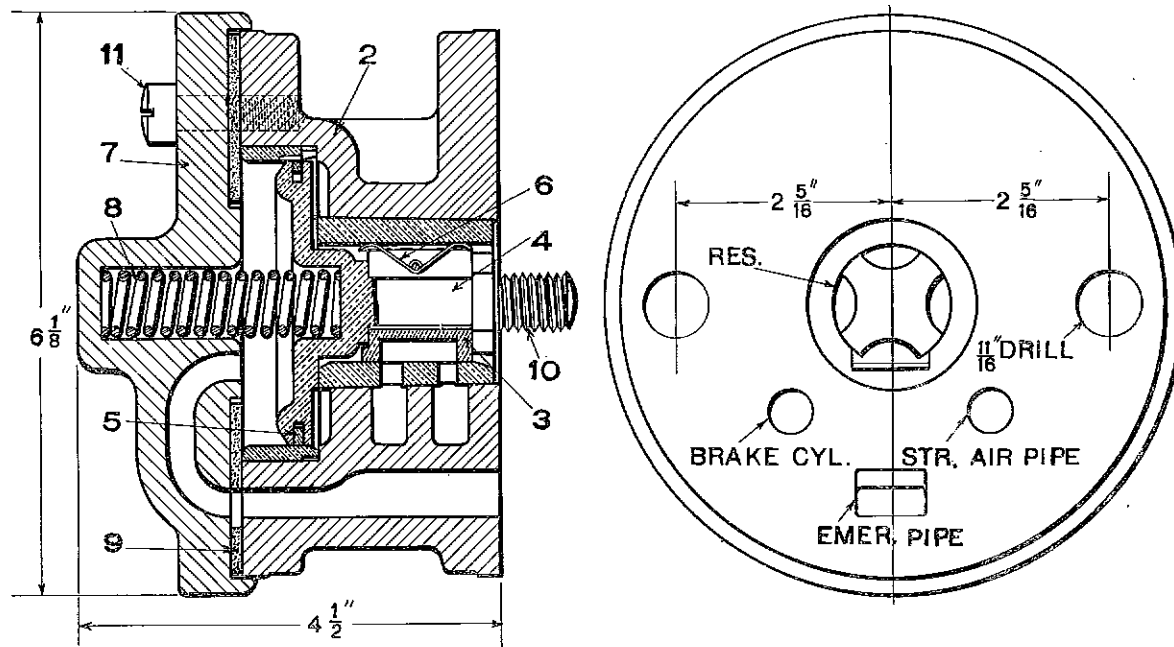
*NOTE A—For Spring Identification Table, see page 9.

†NOTE B—Listed for convenience only. Not included in D Emergency Valve.

Prices will be quoted upon application.

Orders must give PIECE NUMBER and NAME of part wanted.

TYPE A-1 EMERGENCY VALVE



Net Weight, 16½ lbs.

The Type A-1 Emergency Valve has been superseded by the Type A-2 Emergency Valve and is listed only for convenience in ordering repair parts.

Piece No. 10932. A-1 Emergency Valve, complete.

Pc. No.	Ref. No.	Pc. No.	Ref. No.		
10941	2	Body, bushed	#10923	8	Piston Spring
10894	3	Slide Valve	10924	9	Cylinder Cap Gasket
12896	4	Piston (includes 5)	12897	10	Stud and Nut (2 Req'd)
10030	5	Piston Ring	12898	11	Fillister Head Screw (2 Req'd)
8935	6	Slide Valve Spring	8415	†	Emergency Valve Gasket
10896	7	Cylinder Cap			

*NOTE A—The following table is shown to enable railway storekeepers and air brake men to identify the springs used in the Emergency Valves cataloged herein. This table does not represent a specification for the springs in question and should not be used as such. As a further assistance to storekeepers, the springs are packed in small lots with a tag attached to each lot bearing the proper piece number.

Pc. No.	Out. Dia. "A"	Dia. Wire "B"	Free Height "C"	No. Coils	Material	SPRING IDENTIFICATION	
						Name of Spring	Where Used
70748	1 1/2"	.092"	2 3/8"	13	Nickel Steel	Emergency Piston	D and D-1 Emergency Valves
10923	3/8"	.106"	3 3/8"	15	Nickel Steel	Piston Spring	A-1, A-2 and A-3 Emergency Valves
17320	3/4"	3/4"	7/8"	6	Brass	Check Valve	D and D-1 Emergency Valves

†NOTE B—Listed for convenience only. Not included in A-1 Emergency Valve.

Prices will be quoted upon application.

Orders must give PIECE NUMBER and NAME of part wanted.

