

INSTRUCTION LEAFLET

No. 2386

March, 1923

(SUPERSEDES MAY, 1922 ISSUE)

No. 4

BRAKE PIPE
VENT VALVE
TEST CODE

*Property Of
National Museum of Transport
Library*

WESTINGHOUSE AIR BRAKE CO.
PITTSBURGH, PA.

THIS ITEM IS BOTH
PHYSICAL (ON SITE)
AND
DIGITAL (ONLINE)!

[CLICK HERE TO
DOWNLOAD A PDF.](#)



Westinghouse Air Brake Company

Pittsburgh, Pa., U. S. A.

WORKS AT WILMERDING, PA.

OFFICES:

ATLANTA	Candler Building
BOSTON	Exchange Building
CHICAGO	Railway Exchange Building
COLUMBUS	50 South Third Street
DENVER	Gas & Electric Building
HOUSTON, TEX.	4802 Main Street
LOS ANGELES	Pacific Electric Building
MEXICO CITY, MEXICO	4a Puente de Alvarado, No. 100
NEW YORK	165 Broadway
ST. PAUL	Broadway and Tyler Street
ST. LOUIS	Endicott Building
SALT LAKE CITY	McIntyre Building
SAN FRANCISCO	Southern Pacific Building
SEATTLE	Securities Building
TOKYO, JAPAN	644 Marunouchi Building, Marunouchi
TOPEKA	Columbian Building
WASHINGTON, D. C.	Munsey Building



ASSOCIATED COMPANIES:

WESTINGHOUSE TRACTION BRAKE COMPANY, Pittsburgh, Pa.	CANADIAN WESTINGHOUSE COMPANY, LTD., Hamilton, Ontario, Canada.
THE AMERICAN BRAKE COMPANY, St. Louis, Mo.	SOCIÉTÉ ANONYME WESTING- HOUSE, Petrograd, Russia.
THE WESTINGHOUSE BRAKE & SAXBY SIGNAL COMPANY, LTD., London, England.	COMPAGNIE DES FREINS WESTINGHOUSE, Sevran, France.
WESTINGHOUSE PACIFIC COAST BRAKE COMPANY, Emeryville, Calif.	COMPAGNIA ITALIANA WESTINGHOUSE DEI FRENI, Turin, Italy.
WESTINGHOUSE BRAKE COMPANY OF AUSTRALASIA, LTD. Concord West, New South Wales, Australia.	WESTINGHOUSE BREMSSEN GESELLSCHAFT. m.b.H., Hanover, Germany.

P. F. .026-37
2-M-2
Printed in U. S. A.

INSTRUCTION LEAFLET

No. 2386

March, 1923

(SUPERSEDES MAY, 1922 ISSUE)

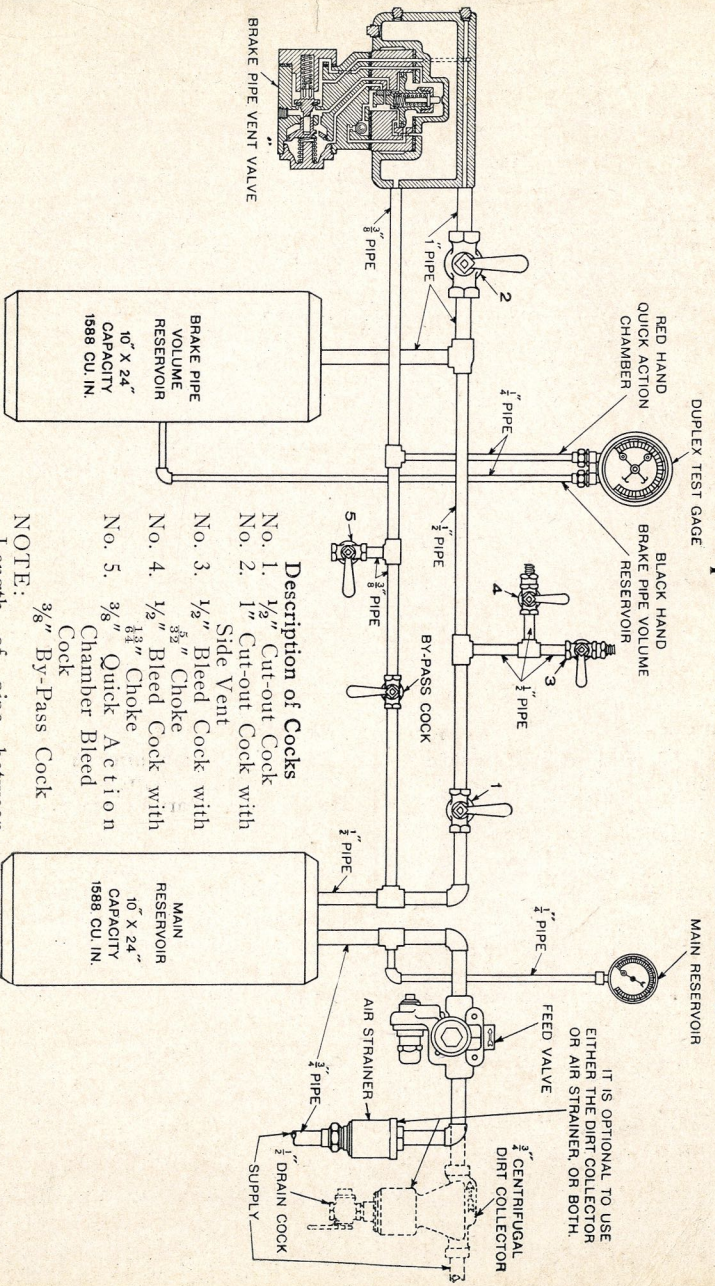
No. 4

BRAKE PIPE VENT VALVE TEST CODE

*Property Of
National Museum of Transport
Library*

WESTINGHOUSE AIR BRAKE CO.
PITTSBURGH, PA.

No. 4 Brake Pipe Vent Valve Test Code



No. 4 Brake Pipe Vent Valve Test Rack (Diagrammatic)

Feed Valve should be set to close at 70 pounds.

Before placing Vent Valve on the rack, determine the friction of the piston and the slide valve by using the friction indicator, which is used for determining friction on triple valves. The resistance to movement should not exceed 6 pounds.

Make certain that the gasket between the valve portion and reservoir is in good condition, then place the Vent Valve on the rack.

CHARGING TEST

Commence test with all cocks closed.

Open cock 1 and charge brake pipe reservoir to 70 lbs., then open cock 2 and note rate of buildup on the gage leading to the quick action chamber. The charging time should be 0 to 65 lbs. in 45 to 80 seconds. If a less time than 45 seconds is required for charging, check the No. 72 drill hole in the bushing underneath the ball check. If this is of the proper size, the faster charging time indicates ring leakage. At the same time, check the $\frac{1}{16}$ " hole in the cylinder bush. Coat the entire valve with soap suds to detect leakage. If material leakage is found, the charging test should be repeated.

SLIDE VALVE AND EMERGENCY VALVE LEAKAGE TEST

After quick action chamber has been charged to 70 pounds, place a bubble over the valve exhaust. Leakage here indicates either slide valve or emergency valve seal leakage. To determine which valve is leaking, open cock 5, which vents quick action chamber pressure to atmosphere. If blow continues, it indicates emergency valve seal leakage.

SERVICE STABILITY TEST

Close cock 5, open by-pass cock, and recharge quick action chamber to 70 pounds. Then recharge, close by-pass cock and cock 1, and open cock 3. This should not produce emergency in a 20 pound drop. If it does, it may be caused by a restricted quick action chamber port in the slide valve, a weak graduating spring, or high friction in the emergency piston. Close cock 3 and place a bubble over the vent valve exhaust. Leakage here indicates that the slide valve is leaking.

EMERGENCY SENSITIVENESS TEST

Open cock 1, by-pass cock, and recharge to 70 pounds. Close cock 1, and by-pass cock. Open cock 4. This should produce emergency, within a 10 pound drop. Failure to produce emergency may be due to a stuck emergency piston and a worn quick action piston ring. When emergency takes place, note the drop on the gage attached to the quick action chamber. This should be from 70 to 5 pounds in not less than 10 seconds nor more than 15 seconds. If less than 10 seconds, it may be due to quick action piston ring leakage. If greater than 15 seconds, it may be caused by a restricted vent hole in the quick action piston. Close cock 4 and open cock 1 slowly, and note that the quick action valve closes after emergency. Failure to close will be indicated by a continuous blow at the quick action exhaust.

DESCRIPTION OF COCKS

- Cock 1. 1/2" Cut-out cock to air supply, Pe. 29725.
- Cock 2. 1" Cut-out cock (with side vent), Pe. 51299, to vent valve.
- Cock 3. 1/2" Bleed cock with 3/32" choke, Pe. 29726, reduces brake pipe volume (1660 cu. in.) from 70 to 50 lbs. in 3 seconds.
- Cock 4. 1/2" Bleed Cock with 3/64" choke, Pe. 29726, reduces brake pipe volume (1660 cu. in.) from 70 to 50 lbs. in 2 seconds.
- Cock 5. 3/8" Bleed cock from quick action chamber volume, Pe. 51302.
- By-pass Cock. 3/8" Cut-out cock used in recharging vent valve reservoir from main reservoir, Pe. 51302.