

operation & maintenance instruction

GOVERNOR PORTION,

Pc.No. 535272 (75 p.s.i. Spring Setting)

Pc. .No. 569923 (65 p.s.i. Spring Setting)

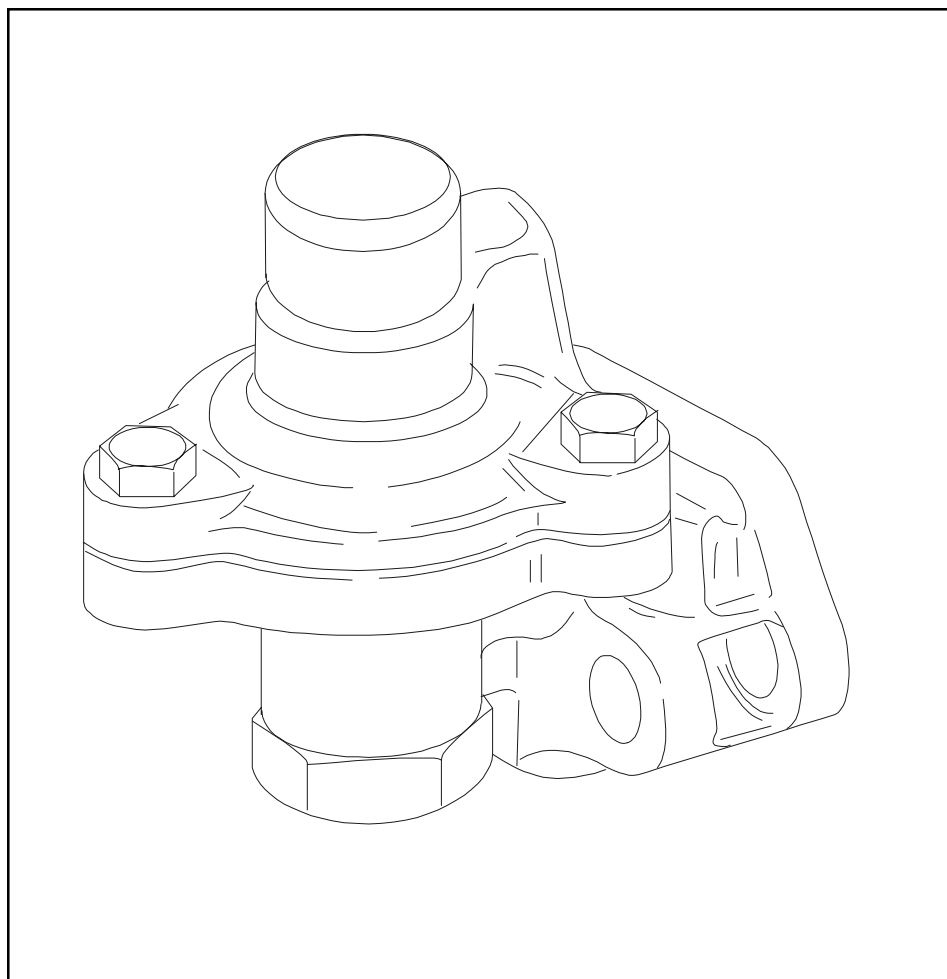
AUGUST, 1985

NOTE: The following description and operation is based on this device and its components being new or this device and its components having been repaired, tested, installed and maintained in accordance with instructions issued by this and any other applicable Wabtec Corporation publications.

⚠ WARNING: At the time any part is replaced in this device, the operation of the complete device must pass a series of tests prescribed in the latest issue of the applicable Wabtec Test Specification. At the time this device is applied to the brake equipment arrangement, a stationary vehicle test must be made to insure that this device functions properly in the total brake equipment arrangement. (Consult your local Wabtec Representative for identity of the test specification, with latest revision date, that covers this device.)

IMPORTANT: Only Wabtec supplied parts are to be used in the repair of this device in order to obtain satisfactory operation. Commercially available non-O.E.M. parts are unacceptable.

NOTE: The part numbers and their associated descriptions are the property of Wabtec Corporation and may not be replicated in any manner or form without the prior sole written consent of an Officer of Wabtec Corporation.



1.0 DESCRIPTION

Designed for use in equipment arrangements where the air pressure does not exceed 150 psig, this diaphragm operated, preset fixed pressure type valve functions to retain a minimal air pressure reserve for use in the equipment arrangement if, for some reason, the demand from an auxiliary control device becomes excessive. The Governor Portion is designed to be mounted on a pipe bracket or laminated pipe bracket portion in such a manner that it can be removed for servicing without disturbing the piping of the equipment arrangement.

Consult your Wabtec Corporation Representative for information as to the correct Governor Portion for specific applications.

2.0 OPERATION

(Figure 2)

Air under pressure entering the supply port of the body of the Governor Portion flows through the strainer and passage 1, and is directed to chamber "A" below the diaphragm assembly. The force of the diaphragm spring prevents the diaphragm assembly from lifting unless the build up of supply air pressure in chamber "A" is approximately the same or greater than the spring force. When the air pressure in chamber "A" builds up and exceeds the force of the spring, the diaphragm assembly will be moved from its seat. Air under pressure will then flow past the diaphragm seat and unseat the check valve. The air flow is then directed through the body to the delivery port.

When the supply air pressure is reduced to a value that is less than the force of the check valve spring, the check valve will be seated to restrict any back flow of air from the delivery port.

When the supply air pressure is reduced to a value that is less than the force of the diaphragm assembly spring, the diaphragm assembly will be seated to close the passage between the supply and delivery ports.

3.0 MAINTENANCE SCHEDULE

IMPORTANT: the Governor Portion should be removed from the equipment arrangement, taken to the shop, be completely disassembled, the parts cleaned, inspected, lubricated, assembled, and the Valve Portion tested according to the following application schedule, or more frequently if service conditions so dictate.

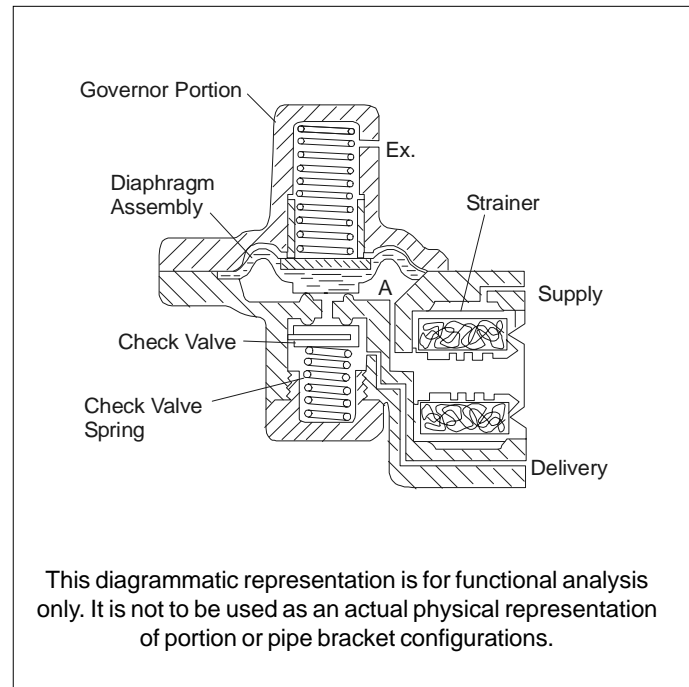


Figure 2 - Diagrammatic View

RECOMMENDED TYPE OF APPLICATION	FREQUENCY - AT LEAST ONCE EVERY
Locomotive	12 Months
Passenger (Interstate)	36 Months
Transit	24 Months

4.0 PARTS CATALOG INFORMATION

When ordering replacement parts for the Governor Portion, refer to the current issue of the Wabtec Corporation Parts Catalog 3209-3.

NOTE: The reference numbers used in this publication and those used in the parts catalog may differ. Use the descriptive parts name and piece number from the Parts Catalog to be sure that the desired parts are ordered.

5.0 SAFETY PROCEDURES & WARNINGS

Regular shop and property safety procedures are to be followed when performing any work on the Governor Portion.

The work area is to be clean.



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⚠ WARNING

The following statements of warning apply all or in part whenever the symbol **⚠** appears in the maintenance procedures. Failure to observe these precautions may result in serious injury to those performing the work and/or bystanders.

- **The use of an air jet, which must be less than 30 p.s.i.g., to blow parts clean or to blow them dry after being cleaned with a solvent will cause particles of dirt and/or droplets of the cleaning solvent to be airborne. Wire brushing may also cause particles of dirt, rust, and scale to become airborne. These conditions may cause skin and/or eye irritation.**
- **When using an air jet, do not direct it toward another person. Improper use of air jet could result in bodily injury.**
- **Personal eye protection must be worn when performing any work on this device or its components parts to avoid any possible injury to the eyes.**
- **The use of solvents as cleaning agents and the use of lubricants can involve health and/or safety hazards. The manufacturers of the solvents and lubricants should be contacted for safety data (such as OSHA Form OSHA-20 or its equivalent). The recommended precautions and procedures of the manufacturers should be followed.**
- **When performing any test or work on devices or equipment while they are on the vehicle (on car test, etc.) special precautions must be taken to insure that vehicle movement will not occur which could result in injury to personnel and/or damage to equipment.**
- **Assembly may be under a spring load. Exercise caution during disassembly so that no parts "Fly Out" and cause bodily injury.**
- **All air supply and/or electric current to this device and/or to any components part must be cut-off before this device and/or any component part is removed from the equipment arrangement.**
- **"Bottled" up air under pressure (even though air supply is cut-off) may cause gaskets and/or particles of dirt to become airborne and an increase in sound level when this device and/or any compo-**

nent part is removed from the equipment arrangement.

- **To prevent receiving electrical shock when performing electrical tests, hands must be clear of electrical components, contacts and housing and the required "in-lab" grounding procedures must be strictly adhered to. A wooden work bench should be used. Failure to heed this WARNING could result in severe injury or death.**

6.0 CLEANING SOLVENT AND LUBRICANT

6.1 The solvent used for cleaning the metal parts of the Governor Portion MUST BE an aliphatic organic solution such as mineral spirits or naphtha, that will dissolve oil or grease and that will permit all parts to be cleaned without abrasion.

6.2 Triple Valve Oil, Wabtec Corporation Specification M-7611-20, is used to lubricate the outer periphery of the Governor Portion diaphragm follower during assembly.

7.0 MAINTENANCE PROCEDURE

IMPORTANT: To obtain satisfactory operation and reliability of this device, ONLY replacement parts supplied by the Wabtec Corporation are to be used in the maintenance of this device.

⚠ 7.1 DISASSEMBLY

IMPORTANT: DO NOT use hard or sharp metal tools to remove the strainer, diaphragm or check valve. Exercise care so that no damage occurs to metal parts.

(Figure 3)

7.1.1 Remove the strainer (11) from the body (12). SCRAP the strainer.

7.1.2 Remove the three hex head cap screws (1) which secure the diaphragm cover (3) to the body (12).

7.1.3 Remove the cover (3), shims (4) if the Portion is so equipped, spring (5), diaphragm follower (6) and diaphragm (7) from the body (12). SCRAP the diaphragm (7).

NOTE: Shims are provided with Governor Portion, Pc.No. 535272 ONLY. Pc.No. 569923 HAS NO SHIMS.

7.1.4 Remove the wasp excluder (2) from the cover (3).

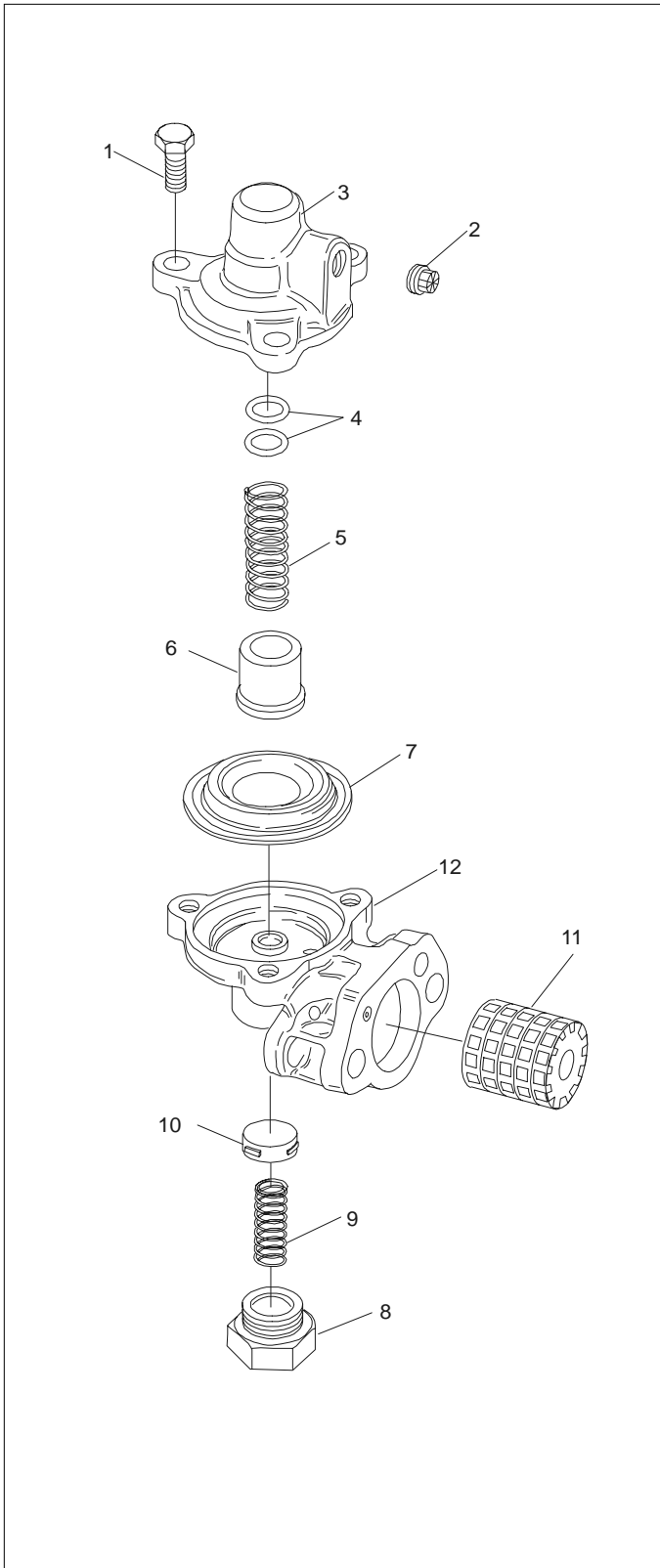


Figure 3 - Exploded View

7.1.5 Remove the check valve cap nut (8), spring (9) and check valve (10) from the body (12). **SCRAP** the check valve (10).

⚠ 7.2 CLEANING & INSPECTING

7.2.1 NON-REUSABLE PARTS

IMPORTANT: The strainer (11), check valve (10), and diaphragm (7) are to be **SCRAPPED** and replaced with **NEW** Wabtec Corporation parts.

7.2.2 REMAINING PARTS

7.2.2.1 Wash all the remaining metal parts using the cleaning solvent described in Section 6.1.

7.2.2.2 Springs may be wire brushed to assist in the removal of any dirt, rust, or scale.

7.2.2.3 If the wasp excluder cannot be easily cleaned by washing in the cleaning solvent, or by using a low pressure jet of clean, dry air to blow it clean, it should be replaced. **DO NOT** use metal or sharp tools to clean the wasp excluder.

7.2.2.4 After cleaning, blow the parts dry. Use a low pressure jet of clean dry air.

7.2.2.5 Inspect the parts.

7.2.2.5.1 Replace any spring that is rusted, pitted, distorted, or if it has taken a permanent set. Refer to the parts catalog listed in Section 4.0 for spring identification and information.

7.2.2.5.2 Replace any part that is cracked, cut, broken excessively worn or that is in such a condition that may result in the unsatisfactory operation of the Governor Portion.

⚠ 7.3 ASSEMBLY (Figure 3)

7.3.1 Install a **NEW** check valve (10), and the check valve spring (9) into the body (12) and secure them in place with the cap nut (8).

7.3.2 Carefully position a **NEW** diaphragm (7) in place in the body (12).

7.3.3 Using Triple Valve Oil, Wabtec Corporation Specification M-7611-20, lightly lubricate the periphery (bearing surface) of the diaphragm follower (6).

7.3.4 Install the spring (5) into the diaphragm follower (6).



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7.3.5 If Governor Portion, Pc.No. 535272, is being assembled, install the shims (4).

NOTE: Governor Portion, Pc.No. 569923, is NOT equipped with shims.

7.3.6 Carefully position the diaphragm follower with spring assembly (6, 5) in place on the diaphragm (7).

7.3.7 Carefully place the diaphragm cover (3) on the body (12) taking care to align the bolt holes.

7.3.8 Secure the cover (3) to the body (12) using the three $\frac{3}{8}$ " x $\frac{3}{4}$ " hex head cap screws (1). Equally tighten the screws.

7.4 TESTING & ADDITIONAL INFORMATION

7.4.1 After the Governor Portion has been assembled, BUT BEFORE it is returned to service, it MUST pass a series of tests following the procedures of the current issue of the Wabtec Corporation Test Specification covering the specific Portion.

7.4.1.1 Governor Portion, Pc.No. 535272, use Test Specification T-1906-O.

7.4.1.2 Governor Portion, Pc.No. 569923, use Test Specification T-1906-O.

7.4.2 **IMPORTANT:** Whenever the Governor Portion is removed from an equipment arrangement for any reason, and it is re-installed or replaced with a NEW or repaired and tested Governor Portion, a stationary vehicle test MUST BE made to be sure that the Portion functions properly in the equipment arrangement.

7.4.3 Consult your Wabtec Corporation Representative if additional information is required.



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