

26-B-1 BRAKE VALVES

Upgrade & Replacement Procedure for the Quadrant Latch Assembly

AUGUST, 1998

(Replaces Service Bulletin 26-21)

This Service Bulletin is being issued to notify customers of an available upgrade to the 26-B-1 Brake Valve Quadrant Latch. Previously, the quadrant latch had been manufactured as a machined steel part. The quadrant latch has been improved by adding an enhanced lubricity coating to the outer surfaces of the latch. This coating, when applied with a lubricant, acts to improve the frictional characteristics of the latch during operation. As a result, forces required to move the 26-B-1 Brake Valve Automatic Handle to various handle positions will be more consistent.

The upgraded latch is available as **Pc. No. 593617** which includes the latch and key. Previously, the latch and key could be ordered separately as Pc. No. 559888 for the latch, and Pc. No. 536397 for the key. The upgraded latch is easily identifiable by the red color of the enhanced lubricity coating. The new assembly is interchangeable with the previous standard latch. **ONLY NEW ENHANCED LUBRICITY COATED LATCHES** are to be used when assembling a cam housing. New latches can be distinguished by the red coating visible on **ALL** external surfaces.

Quadrant Latch Assembly Piece Numbers (refer to Figure 1)

- Latch, Brake Valve: 593617
- Latch Spring: 503941
- Cap Nut: 559889

NOTE: Inspection personnel may require these parts if lost during procedure. Spare part sets should be obtained in advance.

Necessary Equipment

The following represents tools necessary for removal of the latch mechanism from a 26-B-1 Brake Valve:

- One 1 $\frac{1}{8}$ " Combination Wrench
- One Rawhide or equivalent mallet
- One Needle Nose Pliers
- One Small Brush
- One Stencil with letter "A"
- One Metal Hammer
- One Torque Wrench

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Lubricant

Wabtec Corporation Specification M-07689-02; approved source of supply is Nye Rheolube 362F, by Nye Lubricants, Inc.

Inspection Information

All valves, prior to inspection, need pertinent information concerning date of OEM manufacture and/or repair properly recorded. The nameplate with the OEM part number and optional serial number are located on the front face of the brake valve body (see Figure 1). Using the attached form or preprinted envelope, write down the serial number, piece number, COTS date and location, locomotive or cab car number, and customer name. This data may represent an OEM or a repaired valve. This form or envelope, along with the replaced components should be sent to Wabtec Corporation to the attention of:

Patricia Karczewski
Manager of Quality - Locomotive Products Division
1001 Air Brake Ave.
Wilmerding, PA 15148

Inspection Procedure

Request appropriate railroad personnel and employ standard railroad safety operating procedures (i.e. "Blue Flag" procedures). If the valve is currently in service use on a specific locomotive, make sure the brake valve handle is moved into the handle-off position.

Disassembly (refer to Figure 1)

The Brake Valve Latch assembly is located at the side of the brake valve. This portion of the brake valve will be found on the opposite side of the cam housing from the "cut-in / cut-out" valve.

With the 1¹/₈" combination wrench, unscrew the cap nut by turning the nut in a counterclockwise direction.

NOTE: It may be necessary to use the rawhide mallet or equivalent mallet to initially loosen the nut.

Remove cap nut and spring from the cam housing of the brake valve and place in an accessible location.

With needle nose pliers, extract the Brake Valve Latch from the brake valve cam housing.



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Place brake valve latch, Pc. No. 559888, as is, and supporting documentation in proper packaging for return to Wabtec Corporation.

NOTE: Do not remove any excess grease, etc. from the latch before sending.

Stencil the nameplate with the letter "A" after the serial number. This designates the new configuration control level of the brake valve.

Re-Assembly

Reassemble latch assembly items in the 26-B-1 Brake Valve cam housing using a new latch, Pc. No. 593617. Verify that the key is part of the coated latch. Using a small brush, lubricate the latch along the contact radius and the outside diameter of the component with Nye Rheolube 362F (**See Figure 2**). Once latch is properly lubricated, place component in the bore bushing of the cam housing. This is accomplished by aligning the square latch key with the square milled slot in the valve bushing. Once aligned, place into position with needle nose pliers, making sure the quadrant latch and key move freely in the cam housing bushing. Next, place latch spring in the back end of the quadrant latch. Using lubricant Nye Rheolube 362F, dab the threads of the cap nut to reduce thread friction during reassembly. Using 1¹/₈" combination wrench, turn cap nut in a clockwise manner until nut is securely in place flush with mating metal surface. Torque the cap nut to 20 ft-lbs.

Slowly move the 26-B-1 Automatic Brake Valve Handle, approximately 20 times, through the various positions starting in release, and working the handle to the handle-off position. When moving handle through the various positions, the feel is such that the various notches in the CAM can be comfortably felt by the operator. Make sure no abnormally excessive force is required to move the handle between 26-B-1 Brake Valve positions.

IMPORTANT: After modification of the 26-B-1 Brake Valve, a stationary vehicle air brake test **MUST** BE made to be sure that the 26-B-1 Brake Valve functions properly in the Brake Equipment Arrangement.

With the locomotive or cab car coupled to the train consist, an air brake terminal test and running test are to be performed to ensure the air brake system functions as intended.

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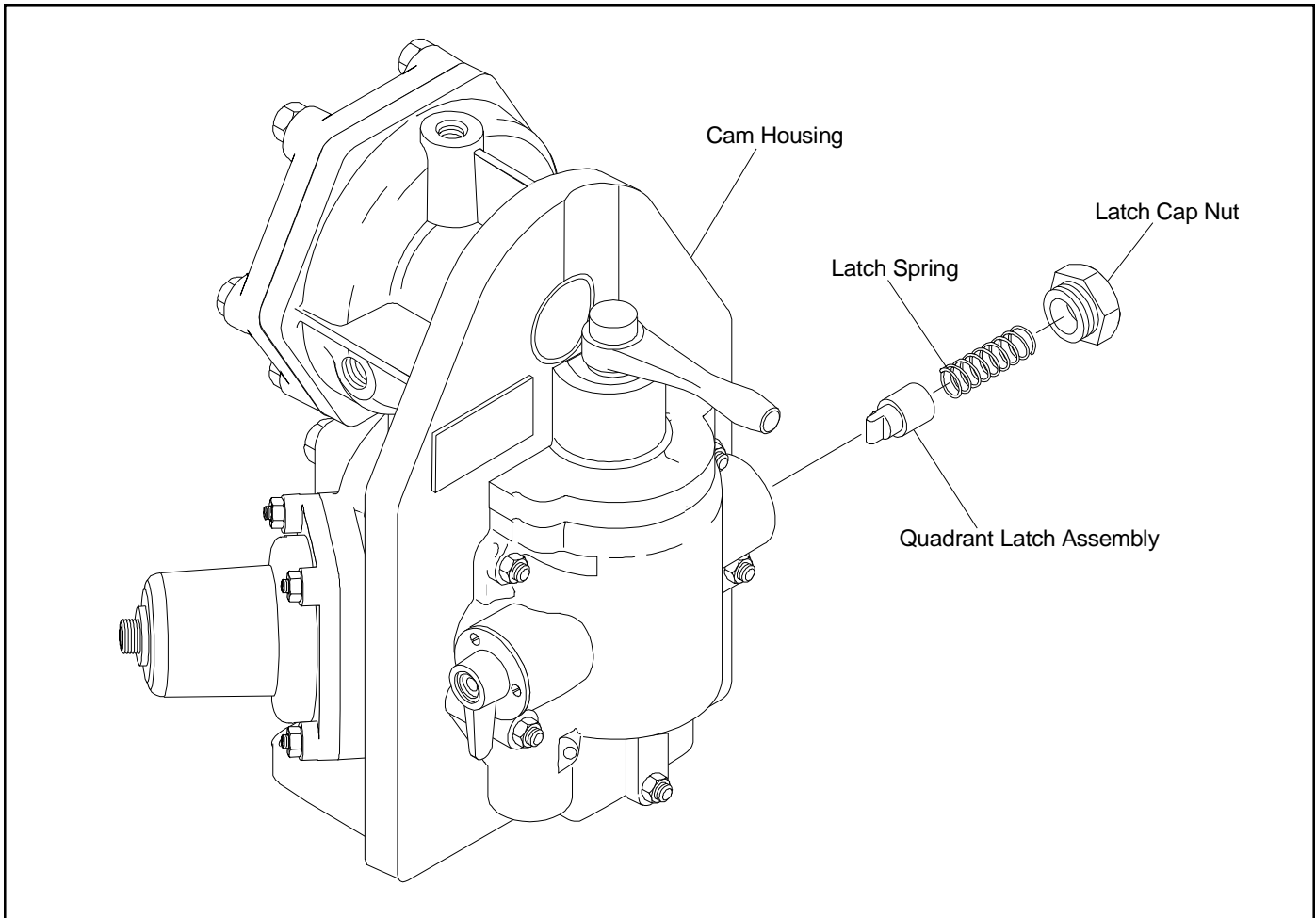


Figure 1 - Assembly View for the 26-B-1 Type Brake Valve Quadrant Latch

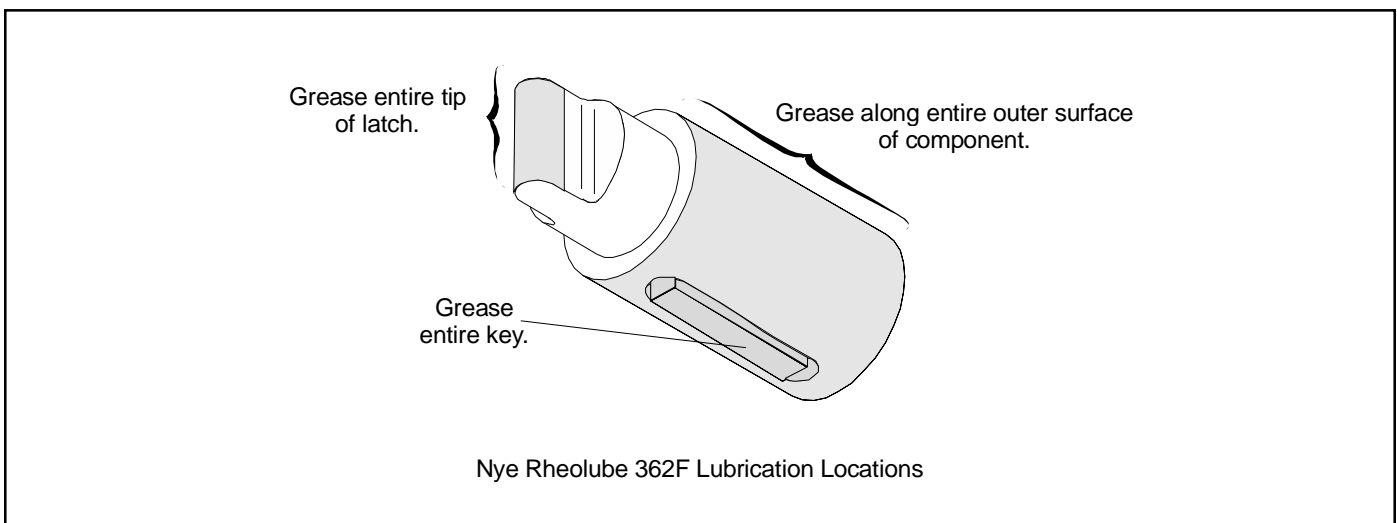


Figure 2 - 26-B-1 Brake Valve Quadrant Latch