

S A F E T Y R E C A L L

SUBJECT: Parking Brake Lever Wear

DATE: 01/26/2015

BULLETIN NO.: RCB-001-15

CAMPAIGN NO.: A9970

AFFECTED MODELS: 2005-2006MY NE8J Conventional Hino Trucks Equipped with Hydraulic Brakes.

NOTE: Refer to the appropriate Vehicle Identification Number (VIN) list to determine vehicle eligibility.

CONDITION:

If the parking brake is not released in accordance with the instructions in the Driver's/Owner's Manual (such as releasing the parking brake lever only by pushing the lever release button, without holding the lever with the hand, until it is completely released), the tension of the brake cable could be released quickly, causing an increase in the friction between the long hole in the slide area and the cable joining pin. In addition, improper adjustment of the parking brake cable that is stretched due to repeated operation of the parking brake could increase the contact force between the cable joining pin and the long hole in the slide area of the parking brake lever during the operation of the parking brake. If the parking brake continues to be operated in such a condition, the long hole in the slide area of the parking brake lever becomes worn and the long hole diameter becomes enlarged.

If that condition occurs, the washer fixed to the cable joining pin can become stuck in the worn and enlarged long hole when the parking brake lever is pulled. This situation may prevent the parking brake lever being pulled to its full stroke, leading to the application of insufficient brake force. In the worst case situation, vibration can cause the washer which is stuck in the worn and enlarged long hole to come off, releasing the parking brake lever and resulting in the vehicle moving.

SUBJECT VEHICLES:

2005 through 2006 MY NE8J Conventional Hino Trucks equipped with hydraulic brakes. These vehicles were assembled at the Williamstown West Virginia, U.S.A. assembly plant.

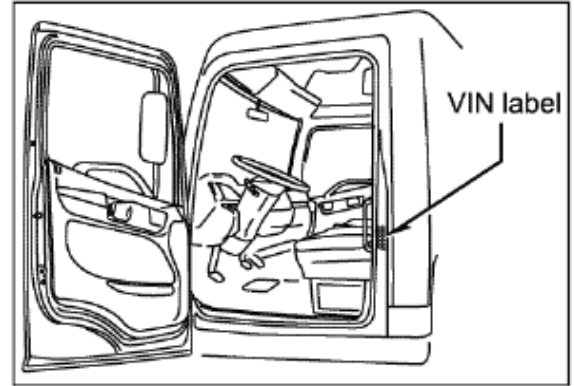
BEFORE YOU BEGIN:

- Read and understand all instructions and procedures before you begin the work.
- Read and follow all **WARNINGS** and **NOTICES** set forth in this publication. These alerts help to avoid damage to components, serious personal injury, or both.
- Park the vehicle on a level and solid surface and apply the parking brake.
- Confirm the starter switch is in the off (LOCK) position, and the key is removed.
- Wear safety glasses to prevent eye injuries.
- Place wheel chocks in front of and behind all wheels.

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Once Recall Is Completed

Complete a recall sticker and affix to the left door jam above the V.I.N. decal.



NOTE: Verify Application and note Kit Part Number from chart below

PART APPLICATION CHART:

PART NUMBER	PART DESCRIPTION	QUANTITY
46210E0114	PARKING BRAKE LEVER	1
04004087E0	SWITCH KIT	1

04004-087E0 SWITCH KIT CONTENTS		
84080E0020	PARKING BRAKE SWITCH	1
S859202840	RELAY	1
S826121120	RELAY COVER	1
46235E0050	RELAY BRACKET	1
SZ23108009	CLEVIS	1
46410E0130	PARKING BRAKE CABLE	1

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VEHICLE PREPARATION:

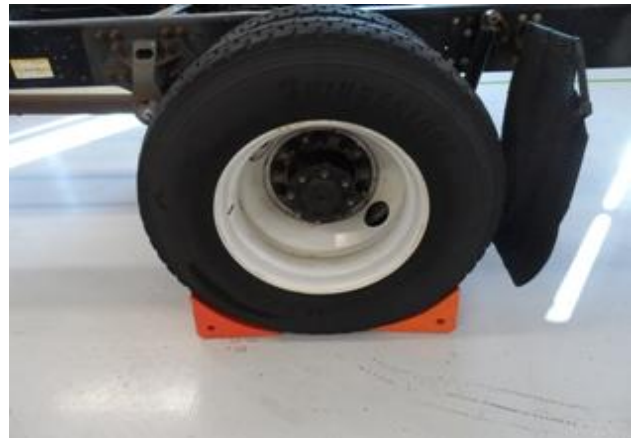
1. Park the vehicle on level ground.
2. Confirm the engine is stopped, the starter switch is in the off (LOCK) position and the key is removed.



3. Apply the parking brake.



4. Chock all of the wheels.

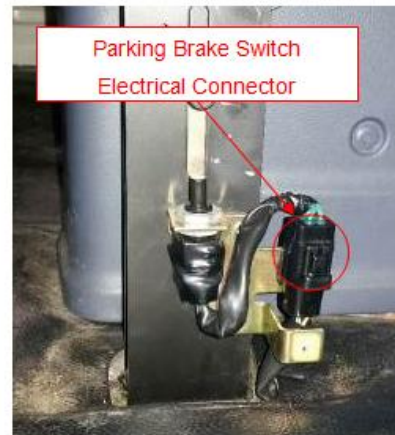


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REPAIR PROCEDURE:

Parking Brake Switch Removal

1. Remove the 2 screws securing the parking brake lever assembly cover and then remove the cover. Retain these parts for reassembly.
2. Disconnect the parking brake switch electrical connector.
3. Remove the 2 bolts securing the parking brake switch to the parking brake lever assembly. Retain these bolts for reassembly.

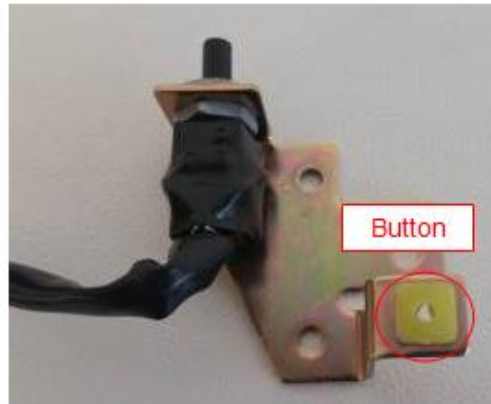


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4. Disconnect the electrical harness clip from the parking brake switch and remove the switch from the vehicle.



5. Remove the button from the parking brake switch and retain for reassembly. Discard the old parking brake switch.



Parking Brake Lever and Cable Removal

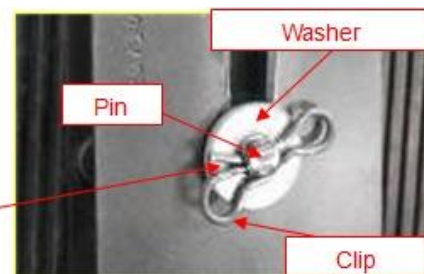
1. With the parking brake lever released, remove the screw and nut for the parking brake lever handle and then remove the handle by pushing the handle toward the front of the vehicle. Retain the screw, nut, and handle grip cover for reassembly.



NOTICE: Vehicles built prior to September 2004 were not equipped with a park brake handle grip cover as depicted in the photos.

SAFETY RECALL

2. Remove the clip from the clevis pin, and then remove the clevis pin that retains the parking brake cable to the parking brake lever. Remove and dispose of the washer, clip and pin.



3. Remove the 4 bolts securing the parking brake lever to the cab. Remove the lever from the vehicle. Remove the plastic button from the lever. Retain the bolts and plastic button for reassembly. Discard the old lever.

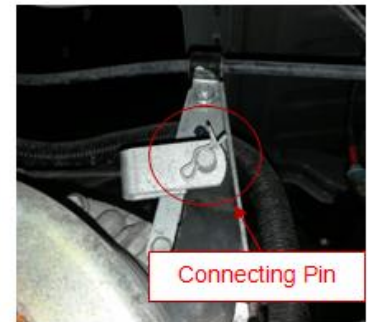


4. Remove the clevis from the parking brake cable and discard. Remove the two nuts securing the cable to the cab. Retain these nuts for reassembly.



SAFETY RECALL

5. Pull the cable out from the underside of the cab. Remove the clip and connecting pin from the drum assembly. Remove the two parking brake cable attachment bolts from the bracket. Retain the bolts, clip, and connecting pin for reassembly. Discard the old cable.



Parking Brake Cable Installation and Adjustment

1. Insert the new parking brake cable (46410-E0130) into the cab and attach to the bracket with two bolts. See photo A on the following page. Reinstall the connecting pin and clip to attach the cable to the drum mechanism. See photo B on the following page. Confirm the cable is inserted into the cab before tightening the two bracket bolts to the specified torque. Refer to photos below C and D on the following page for reference.

Specified Torque: 22Nm (16 lb-ft)

NOTICE: Rotate the parking brake cable 180 degrees at the cab if the cable is misaligned when attempting to install.

SAFETY RECALL

Photo A



Photo B

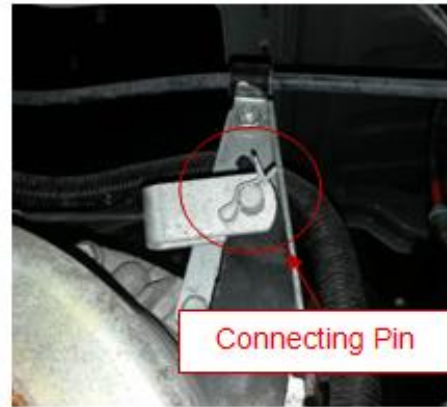


Photo C

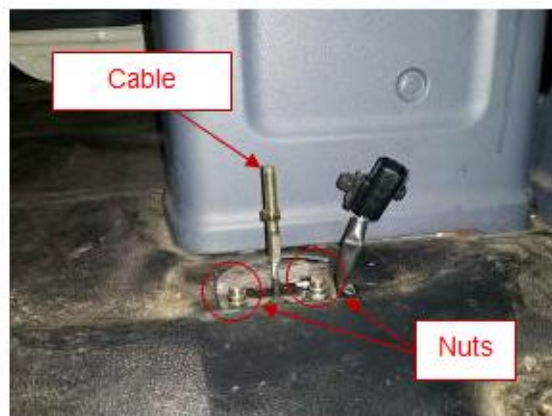


Photo D



2. Secure the cable to the cab floor with two nuts. Tighten to the specified torque.

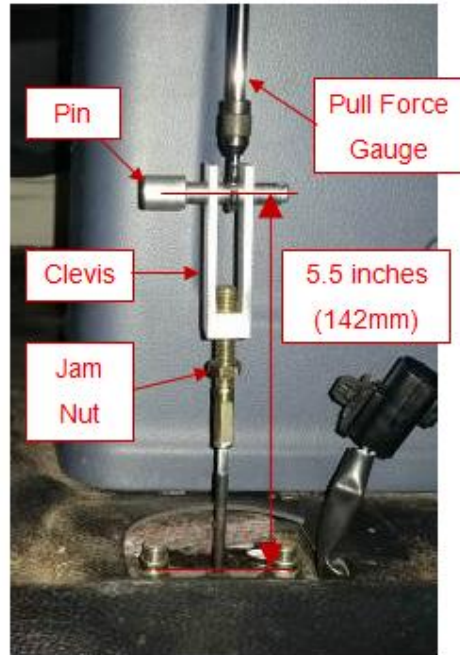
Specified Torque: 51Nm (38 lb-ft)



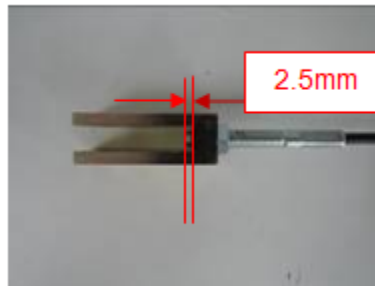
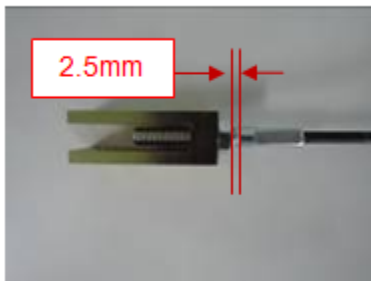
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3. Thread the new clevis (SZ231-08009) on the end of the cable. Insert the new clevis pin through the clevis. Using a pull force gauge, measure the tensile strength required to pull the clevis pin 5.5 inches (142mm) up from the floorboard. Refer to the photograph on the right for reference. Adjust the position of the clevis on the cable so that 44 pounds (196N) is needed to achieve a clevis pin height of 5.5 inches (142mm). Once achieved, tighten the jam nut against the clevis to the specified torque.

Specified Torque: 16 lb-ft (22 Nm)



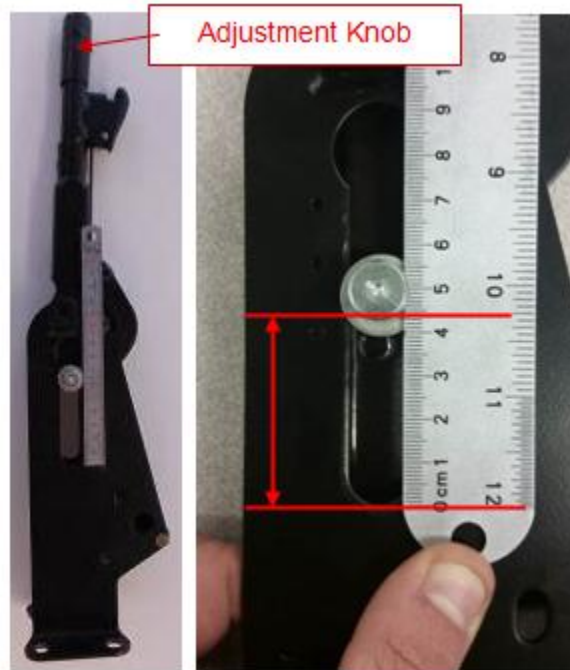
NOTICE: Ensure that after the clevis pin height is set, the minimum dimension for exposed threads on the cable of 2.5mm at both ends is met. Refer to the photographs below for reference. If this cannot be achieved, ensure proper cable installation as outlined in step 1.



SAFETY RECALL

Parking Brake Lever Installation

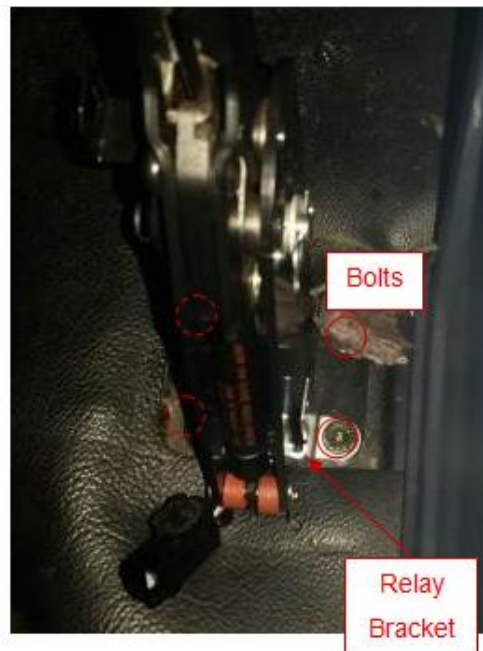
1. Insert the clevis pin through the arm that pulls the parking brake cable on the new lever (46210-E0114). Set the lever to the applied position as depicted in the photo to the right. Set the lever travel adjustment using the adjustment knob on top of the parking brake lever. Rotating the knob clockwise will raise the clevis pin. Rotating the knob counterclockwise will lower the clevis pin. Refer to the photograph on the right for the measurement points. Refer to the specified value.



Specified Value: -1.73 inches (44mm)

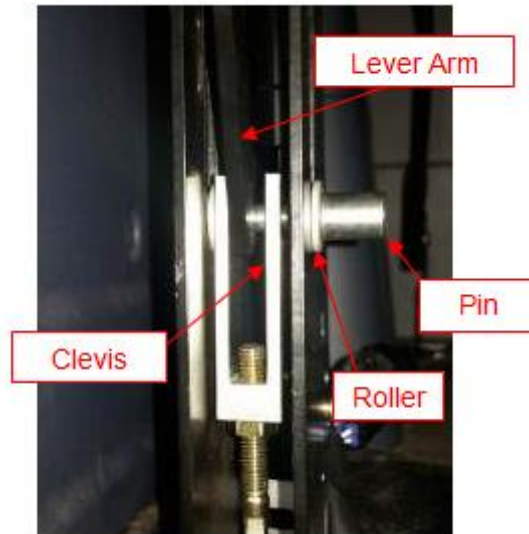
2. Install the new parking brake lever and relay bracket (46235-E0050) in the cab using the 4 bolts removed previously. The relay bracket should be installed under the right rear fastener. Refer to the photograph to the right for reference. Tighten the bolts to the specified torque.

Specified Torque: 52 Nm (39 lb-ft).

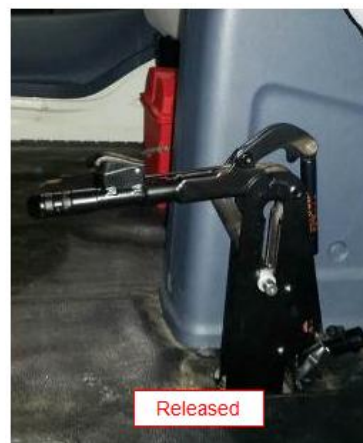


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3. Push the lever down to the “release” position. Remove the retaining clip from the clevis pin on the parking brake lever. Pull out the pin. Connect the cable clevis to the parking brake lever inserting the pin from the left hand side of the truck (the side where the switch is installed). Reinstall the retaining clip. Ensure the pin is inserted through both rollers. Refer to the photograph to the right for reference.



4. Apply and release the parking brake 3 times.



SAFETY RECALL

5. Release the parking brake.



6. Ensure the transmission is in neutral position and the wheels are chocked.



7. From under the vehicle, it should be possible to easily rock the parking brake drum back forth due to the backlash in the rear axle. If the drum does not easily move by hand, the parking brake cable clevis is adjusted too tight. Follow the “Parking Brake Cable Installation and Adjustment” procedure above and re-evaluate.



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Parking Brake Switch Installation

1. Install the previously removed button onto the new parking brake switch (84080-E0020).



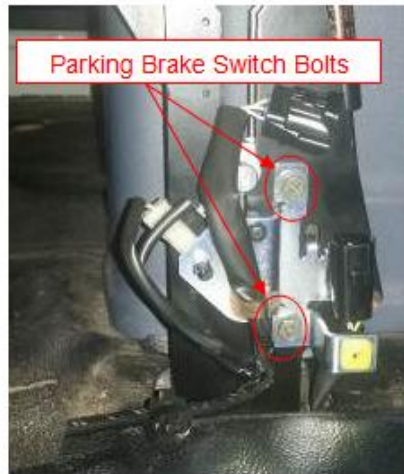
2. Connect the parking brake electrical harness clip to the new parking brake switch.



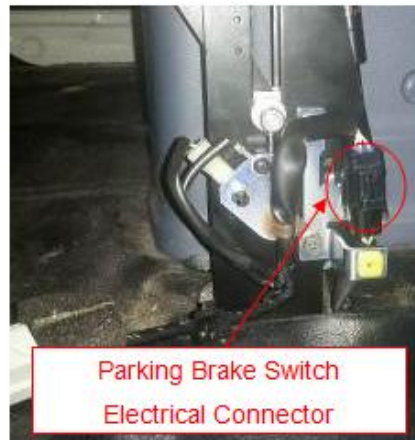
SAFETY RECALL

3. Install the new parking brake switch on the parking brake lever assembly. Install the 2 previously removed mounting bolts and tighten the bolts to the specified torque.

Specified Torque: 3.3 lb-ft (4.5 Nm)



4. Connect the parking brake switch electrical connector.



5. Wrap the relay harness of the parking brake switch around the back of the parking brake lever and clip the harness retainer into the relay bracket.



SAFETY RECALL

6. Slide the relay assembly onto the relay bracket.



7. Place the waterproof cover over the relay.



8. Turn the starter switch to the "ON" position to validate proper parking brake warning lamp operation.



S A F E T Y R E C A L L

9. Apply and release the parking brake several times. Validate that the parking brake warning lamp is off in the released position. If the warning lamp fails to turn off in the released position, ensure the lever or cable are not binding and that the switch is properly installed.



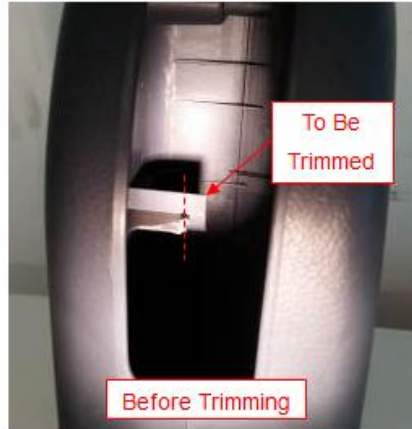
10. Turn the starter switch to the off (LOCK) position, and remove the key. Apply the parking brake, proceed to the "Parking Brake Console Installation".



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Parking Brake Console Installation

1. Place the console cover on a work bench with the lever opening facing towards you. In the left side of the opening, trim the alignment rib using side cutters or a utility knife. This will allow the cover to fit over the new parking brake lever. Refer to the photographs for reference.



2. Install the previously removed button onto the new parking brake lever.



S A F E T Y R E C A L L

3. Install the parking brake lever cover and 2 screws securing the cover. Tighten the 2 screws to the specified torque.

Specified Torque: 1.5 lb-ft (2.0 Nm)



4. Go to the procedure for "Setting The Parking Brake Lever Pull Force."

Setting the Parking Brake Lever Pull Force

1. Release parking brake.



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- Using a pull gauge, check the pull force of the parking brake lever and compare to the specification. Does the parking brake lever pull force meet the specification?
 - **Yes**, the pull force meets the specification. Proceed to step 4 in this section.
 - **No**, the pull force does not meet the specification. Proceed to step 3 in this section.**Pull Force Specification:** 74.5 – 85.5 lb (332 - 380 N)



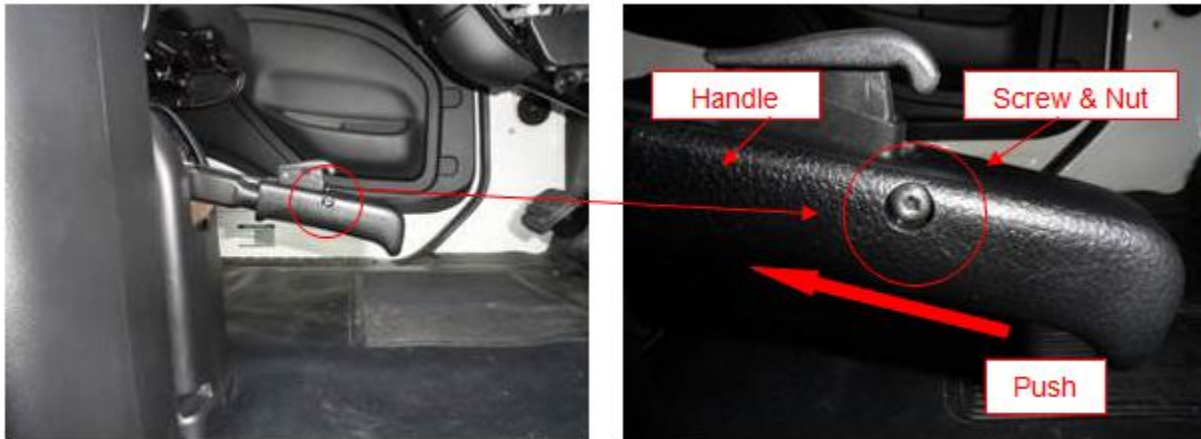
- Rotate the adjustment knob on the parking brake lever clockwise to increase the pull force and counterclockwise to decrease the pull force. Set the parking brake lever pull force to the specification set forth in step 2 in "Setting Parking Brake Lever Pull Force" procedure, above.



S A F E T Y R E C A L L

4. If equipped, install the parking brake lever handle with the screw and nut. Tighten the screw to the specified torque.

Specified Torque: 1.1 lb-ft (1.5 Nm)



5. Apply the parking brake.



6. Proceed to the "Final Inspection" procedure.

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FINAL INSPECTION:

To complete this campaign procedure, review the campaign and confirm the following:

- The parking brake lever pull force is within specification.
- The parking brake cable turnbuckle locknut is torqued to specification.
- All components that were removed and/or replaced have been properly installed and fasteners torqued to their specification.
- The parking brake lamp works correctly with the parking brake lever in the applied and unapplied positions.

Claim Application:

- a) Recall No.: A9970
- b) Labor charge: Reference chart below
- c) Warranty code: 33310
- d) Trouble code: 98
- e) Operation code: Reference chart below
- f) Original failed part number: 9999999999

	Operation Code	Labor
Lever, Switch and Cable Replacement	33150AOT	2.7hr