



**Service Information System**

**Service Letter**

**PRODUCT IMPROVEMENT PROGRAM FOR REPLACING THE SPRING BRAKE CHAMBERS ON CERTAIN CAT CT660 AND CT681 VOCATIONAL TRUCKS**

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**SERVICE LETTER**

25Jun2015

U-333

*Safety*

**PRODUCT IMPROVEMENT PROGRAM FOR REPLACING THE SPRING BRAKE CHAMBERS ON CERTAIN CAT CT660 AND CT681 VOCATIONAL TRUCKS**

7000

PI11033

NOTE:

Caterpillar's obligations under this Service Letter are subject to, and shall not apply in contravention of, the laws, rules, regulations, directives, ordinances, orders, or statutes of the United States, or of any other applicable jurisdiction, without recourse or liability with respect to Caterpillar.

**NOTE:**

This Program must be administered as soon as possible. When reporting the repair, use "PI11033" as the Part Number and "7751" as the Group Number, "56" as the Warranty Claim Description Code and "T" as the SIMS Description Code. Exception: If the repair is done after failure, use "PI11033" as the Part Number, "7751" as the Group Number, "96" as the Warranty Claim Description Code, and "Z" as the SIMS Description Code.

**PROBLEM**

The spring brake chambers need to be replaced on certain CAT CT660 and CT681 Vocational Trucks. A diaphragm in the spring brake chamber may not be seated fully into the pressure plate and may cause internal leakage in the chamber, resulting in the parking brake to not fully release and drag. Parking brakes that may not fully release and drag, could potentially overheat. This may, in conjunction with other factors or circumstances, result in a risk of personal injury or death. It is violation of Federal law for a dealer to deliver a new motor vehicle covered by this notification under a sale or lease until the defect has been remedied.

**AFFECTED PRODUCT**

<b>Model</b>	<b>Identification Number</b>
*****Group 1*****	
CT660	TEP00817-00818, 822, 824-827, 832-833, 836, 856, 876-877, 903, 952, 959, 969-970, 981, 988, 995, 1004, 1008, 1183
*****Group 2*****	
CT660	TEJ00224 TEP00843, 879, 923, 979, 999, 1045, 1047, 1096-1097, 1124
*****Group 3*****	
CT660	TEP01044, 1050
*****Group 4*****	
CT660	TEP00831, 859, 947, 961-962, 982, 984, 992, 1016, 1020, 1098, 1101-1102, 1118, 1149, 1180, 1182
CT681 SG	TWJ00136, 158-159

**PARTS NEEDED**

Qty	Part Number	Description
*****Group 1*****		
1	4832591	KIT-BK CHAMBER 3 (Before Failure Only)
<p>In order to allow equitable parts availability to all participating dealers, please limit your initial parts order to not exceed 45% of dealership population. This is an initial order recommendation only, and the ultimate responsibility for ordering the total number of parts needed to satisfy the program lies with the dealer.</p>		
*****Group 2*****		
1	4832592	KIT-BK CHAMBER 4 (Before Failure Only)
<p>In order to allow equitable parts availability to all participating dealers, please limit your initial parts order to not exceed 45% of dealership population. This is an initial order recommendation only, and the ultimate responsibility for ordering the total number of parts needed to satisfy the program lies with the dealer.</p>		
*****Group 3*****		
1	4832593	KIT-BK CHAMBER 5 (Before Failure Only)
<p>In order to allow equitable parts availability to all participating dealers, please limit your initial parts order to</p>		

not exceed 45% of dealership population. This is an initial order recommendation only, and the ultimate responsibility for ordering the total number of parts needed to satisfy the program lies with the dealer.

\*\*\*\*\*Group 4\*\*\*\*\*

1	4832594	KIT-BK CHAMBER 6 (Before Failure Only)
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In order to allow equitable parts availability to all participating dealers, please limit your initial parts order to not exceed 45% of dealership population. This is an initial order recommendation only, and the ultimate responsibility for ordering the total number of parts needed to satisfy the program lies with the dealer.

## ACTION REQUIRED

Refer to the attached Rework Procedure.

## OWNER NOTIFICATION

Owners in the following countries will receive the attached Owner Notification:

- US
- Canada
- Mexico

## SERVICE CLAIM ALLOWANCES

Caterpillar		Dealer Suggested		Customer Suggested	
Parts %	Labor Hrs%	Parts %	Labor Hrs%	Parts %	Labor Hrs%
100%	100%	0%	0%	0%	0%

NOTE: This is a 1.6-hour job for Group 1

Caterpillar		Dealer Suggested		Customer Suggested	
Parts %	Labor Hrs%	Parts %	Labor Hrs%	Parts %	Labor Hrs%
100%	100%	0%	0%	0%	0%

NOTE: This is a 3.3-hour job for Group 2

Caterpillar		Dealer Suggested		Customer Suggested	
Parts %	Labor Hrs%	Parts %	Labor Hrs%	Parts %	Labor Hrs%
100%	100%	0%	0%	0%	0%

NOTE: This is a 3.3-hour job for Group 3

Caterpillar		Dealer Suggested		Customer Suggested	
Parts %	Labor Hrs%	Parts %	Labor Hrs%	Parts %	Labor Hrs%
100%	100%	0%	0%	0%	0%

NOTE: This is a 3.3-hour job for Group 4

## PARTS DISPOSITION

Handle the parts in accordance with your Warranty Bulletin on warranty parts handling.

MAKE EVERY EFFORT TO COMPLETE THIS PROGRAM AS SOON AS POSSIBLE.

IMPORTANT SAFETY RECALL

THIS NOTICE APPLIES TO YOUR VEHICLE(S) LISTED AT THE END OF THIS NOTIFICATION LETTER

SAFETY - RECALL -Defect in Brake Actuator, NHTSA Recall #14V-814

MODELS INVOLVED - CERTAIN 2015 CT660 and CT681 ON-HIGHWAY TRUCKS

Dear Cat Product Owner:

This notice is sent to you in accordance with the National Traffic and Motor Vehicle Safety Act. Caterpillar has decided that a defect which relates to motor vehicle safety exists on some Caterpillar 2015 CT660and CT681 On-Highway Trucks equipped with certain brake actuators.

You may have received a previous notice on this matter indicating parts were not available. This letter is to inform you parts are now available.

Certain Haldex Life Seal Type 30/30 Long Stroke Air Brake Actuators manufactured January 9, 2014, to October 28, 2014 may be defective. The affected actuators may have an incomplete attachment of the internal rubber diaphragm to the actuation mechanism of the parking brake section of the Life Seal actuator. If the diaphragm is not completely attached, there may be internal leakage from the service section past the diaphragm, potentially trapping air pressure in the parking brake section. This air pressure in turn, if not vented, may prevent full release of the actuator unit, and may induce brake drag and may result in overheated wheelend service brakes. Vehicle drivers may notice overheated wheel ends during pre or post-trip walk-around inspections. Mechanics may notice overheated wheel ends during routine or periodic maintenance. This increases the risk of a fire and may result in smoke and thermal damage to the vehicle as well as possible injury to persons outside the vehicle.

Caterpillar will replace the brake assemblies. Estimated repair time is 1.6 hours. Caterpillar will perform this service for you free of charge.

If you are a lessor of these vehicles, you must forward this letter to your lessee within ten days. If you no longer own the vehicle, please contact Caterpillar at this toll free number 1-800-447-4986.

If you have any questions, please contact:

Caterpillar Inc.  
Peoria, IL 61629-2490

Attn: Americas Distribution Services Division

Truck Call Center  
Telephone: 1-800-447-4986

You may contact the following to submit a complaint:

In the U.S.  
Administrator  
National Highway Traffic Safety Administration  
1200 New Jersey Avenue, S.E.  
Washington, D.C. 20590  
Telephone: 1-888-327-4236 (TTY:1-800-424-9153) or go to  
<http://www.safercar.gov>

SERIAL/PIN / VIN # ABC00123 1HSJKTLT7DJ123456  
(Example) (Example) Please refer the dealer to their Service Letter  
dated 25Jun2015 when scheduling this service.

We regret the inconvenience this may cause you, but urge you to have  
this service performed for your safety and satisfaction.

Caterpillar Inc.

Identification #(s)

Attached to 25Jun2015 Service Letter

### **Rework Procedure**

1. Park vehicle on a flat surface with wheels straight ahead.
2. Shift the transmission to Park or Neutral and set the parking brakes.
3. Install wheel chocks.
4. Verify adequate vehicle air system pressure and move hand valve on dash to release parking brake.
5. Fully cage all spring brake chambers requiring replacement on the vehicle. Refer to Haldex Service Bulletin L55391 for procedures.
6. Move hand valve on dash to set parking brake.

NOTE: Only Life Seal spring brake chambers require replacement under this recall.

7. Inspect the rear axle brake chambers to determine if they are involved in this campaign by locating the following:

- A life seal chamber will be equipped with cage bolt (1) and square ports (2). Refer to Image1.2.1.

- A non-life seal chamber will be equipped with mold (1) used for storing the caging tool. Refer to Image1.2.2.

NOTE: Be sure to label air line to air inlet port marked "Spring" for installation reference.

8. Beginning on driver side of vehicle, note and record orientation of spring brake chamber to chassis. Note and record orientation of air inlet ports on chamber to air system valves.



Life Seal Chamber

- 1. Cage Bolt
- 2. Square port (2)

Image1.2.1



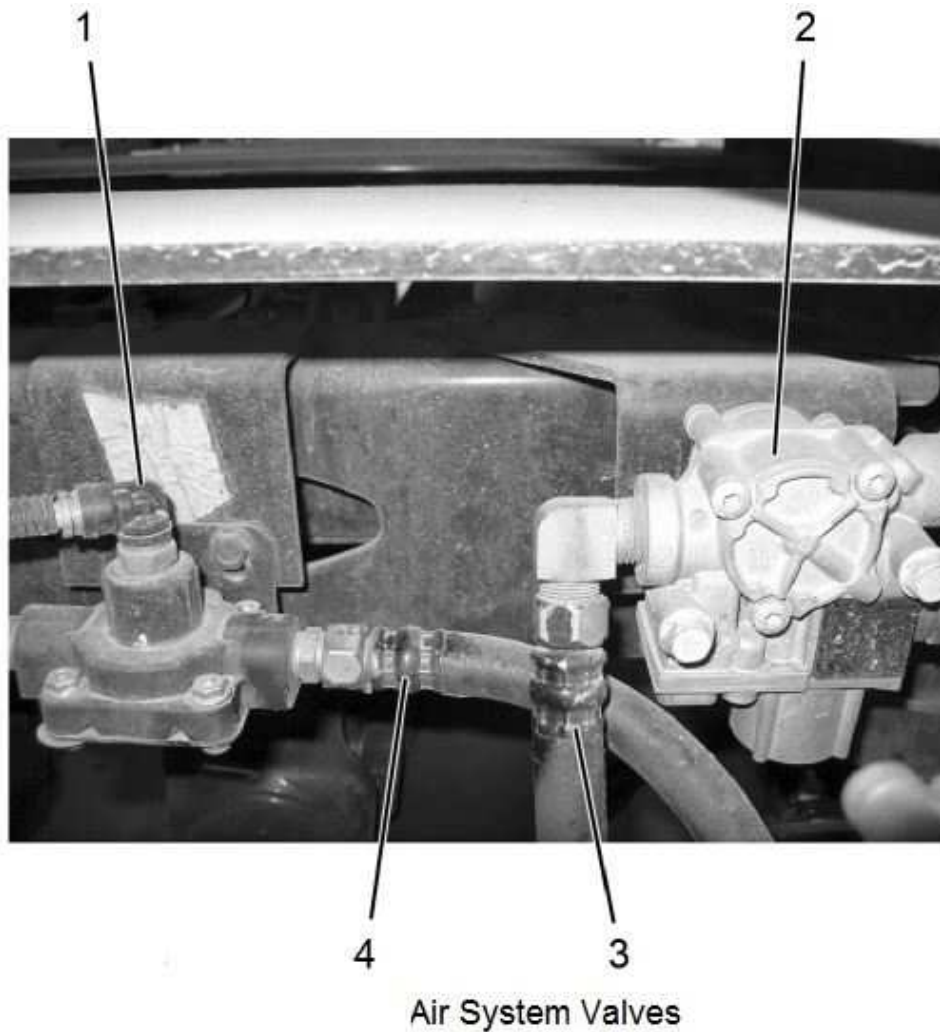
### Non-Life Seal Chamber

1. Caging tool mold for non-life seal chamber

Image1.2.2

9. Disconnect chamber spring brake hose (4) from quick release valve (1). Refer to Image1.3.1.

10. Disconnect chamber service brake hose (3) from ABS modulator valve (2). Refer to Image1.3.1.



- 1. Quick release valve
- 2. ABS modulator valve
- 3. Chamber service brake hose
- 4. Chamber spring brake hose

Image1.3.1

NOTE: There may only be one clevis pin and clip equipped, dependent on the type of slack adjuster the vehicle is equipped with.

NOTE: Save clevis pins and clips for reuse.

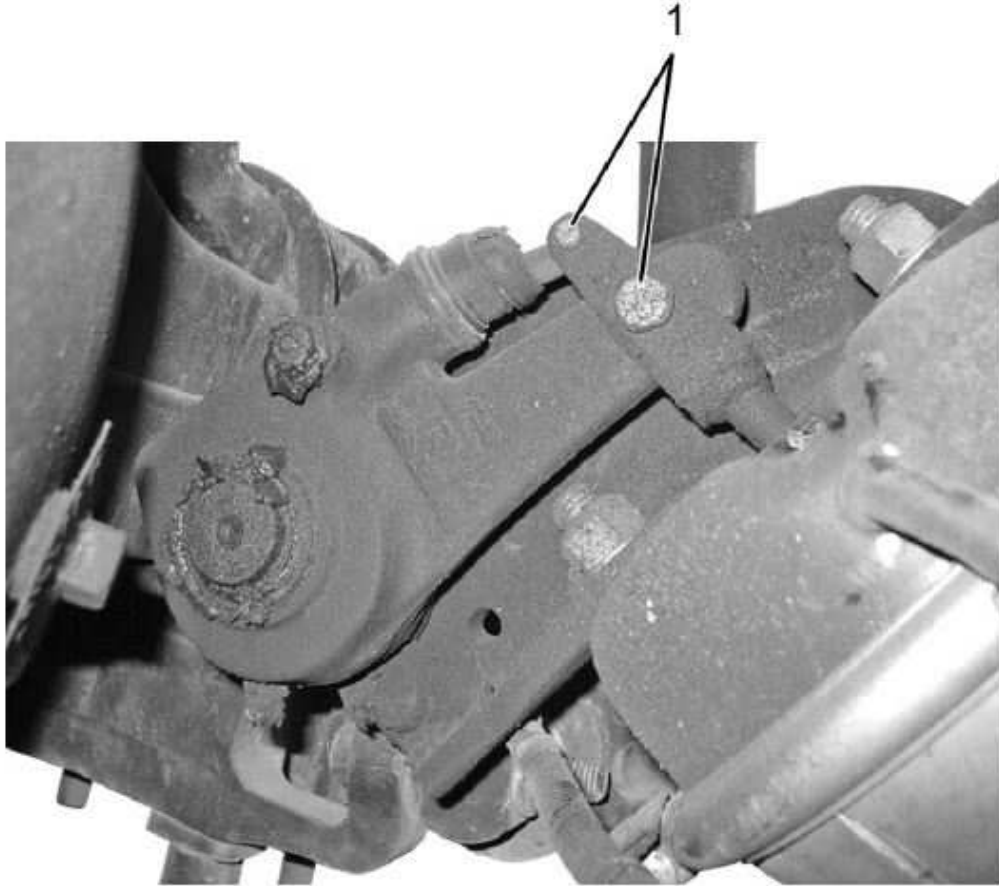
11. Remove two clips and clevis pins (1) from yoke. Refer to Image1.4.1.

12. Adjust slack adjuster nut until slack adjuster is free from spring brake chamber yoke.

13. Remove two spring chamber mounting hex nuts from spring brake assembly, and remove spring brake chamber assembly from chassis.

14. Remove spring brake and service brake hoses from spring brake chamber assembly.

15. Apply thread sealant to brake hose threads on both hoses.



**Clevis Pins**

1. Clevis pin (2)

Image1.4.1

NOTE: Some applications may require an MGM chamber as the replacement chamber. It is mandatory to position chamber so the breather tube is away from the road surface. Failure to comply may result in the chamber not working correctly and will void the brake warranty on these models.

NOTE: If the replacement chamber is not caged, it must be caged prior to installing the chamber.

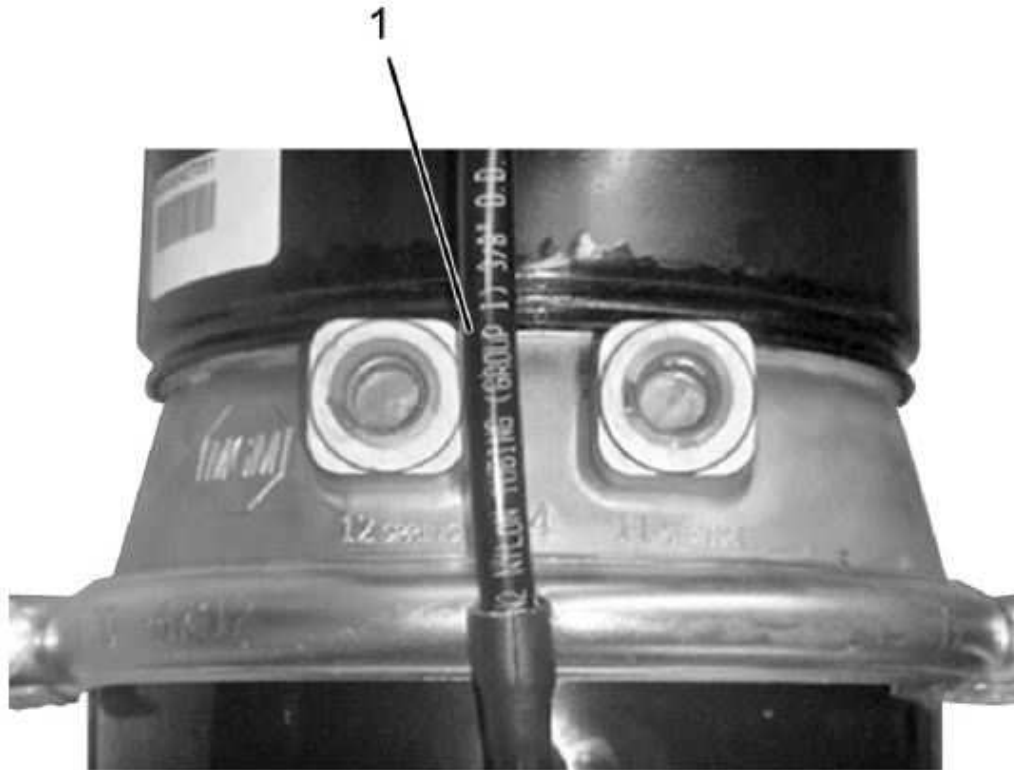
NOTE: DO NOT use an impact wrench to tighten retaining nuts to brake chambers.

16. Select new spring brake chamber that matches orientation to chassis, and air inlet ports to brake system valves previously noted and recorded in Step 8. Install spring brake and service brake hoses to their appropriate ports.

17. Install spring brake chamber onto chassis while properly aligning the position of the chamber to the chassis and the air inlet ports with the brake system valves as noted in Step 8. If necessary, and if equipped, position chamber in a position that breather tube (1) is away from the road surface. Refer to Image1.5.1. Install two washers and new hex nuts onto spring brake chamber assembly. Tighten nuts to a specified torque of 145-175 lb-ft (197-237 N.m).

18. Adjust slack adjuster until aligned with spring brake chamber yoke.

NOTE: There may only be one clevis pin and clip equipped, dependent on the type of slack adjuster the vehicle is equipped with.



**Breather Tube**

1. Breather tube

Image1.5.1

19. Install previously removed clevis pins (1) and clips. Refer back to Image1.4.1.

20. Adjust brake shoe to drum clearance by referring to slack adjuster manufacturer's procedures.

21. Install chamber service brake hose (3) to ABS modulator valve (4).

Refer back to Image1.3.1.

22. Install chamber spring brake hose (4) to quick release valve (1).  
Refer back to Image1.3.1.

23. Verify adequate vehicle air system pressure and move hand valve on dash to release parking brake.

24. Uncage all newly installed spring brake chambers according to the chamber manufacturer's procedures.

25. Move hand valve on dash to set parking brake.

26. Remove wheel chocks.

27. Properly tag and store any brake chambers that have been replaced.

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