



Recall Bulletin



PRODUCT SAFETY RECALL

SUBJECT: Air Compressor Does Not Build Air Pressure

MODELS: 2007 Chevrolet Kodiak, T-Series
 2007 GMC TopKick, T-Series
 7500/8500 Series with 7.8L Diesel Engine (RPO LG4), Air Brakes (RPO JE4), and Air Compressor (RPO KK3)

CONDITION

General Motors has decided that a defect, which relates to motor vehicle safety, exists in certain 2007 model year 7500/8500 Series Chevrolet Kodiak and T-Series; and GMC TopKick and T-Series vehicles equipped with a 7.8L diesel engine (RPO LG4), air brakes (RPO JE4), and air compressor (RPO KK3). The air compressor in some of these vehicles may not build enough air pressure to support the air brake system. If this condition were to occur while the vehicle was stationary (brakes applied), the air brakes would remain applied and prevent the vehicle from moving.

If this condition were to occur while the vehicle was in motion, the dual system air pressure gauges would register a drop in pressure. If the pressure continued to drop, the low air pressure warning buzzer and warning lamp would activate as designed, warning the driver to move the vehicle to a safe location. If the driver ignores these warnings and continues to drive the vehicle, and if there was a continued loss of pressure, the rear spring parking brakes would automatically apply, preventing the truck from being driven.

CORRECTION

Dealers are to inspect the air compressor for its ability to build air pressure, and either modify the air compressor or replace the air compressor assembly.

VEHICLES INVOLVED

Involved are **certain** 2007 model year 7500/8500 Series Chevrolet Kodiak and T-Series; and GMC TopKick and T-Series vehicles equipped with a 7.8L diesel engine (RPO LG4) and air brakes (RPO JE4), and built within these VIN breakpoints:

Year	Division	Model	From	Through
2007	Chevrolet	Kodiak	7F400032	7F420249
2007	Chevrolet	T-Series	7F400491	7F418915

VEHICLES INVOLVED, Cont'd.

Year	Division	Model	From	Through
2007	GMC	TopKick	7F400002	7F420445
2007	GMC	T-Series	7F400000	7F420451

Important: Dealers are to confirm vehicle eligibility prior to beginning repairs by using the GM Vehicle Inquiry System (GMVIS). Not all vehicles within the above breakpoints may be involved.

For dealers with involved vehicles, a listing with involved vehicles containing the complete vehicle identification number, customer name, and address information has been prepared and will be provided through the applicable system listed below. Dealers will not have a report available if they have no involved vehicles currently assigned.

The listing may contain customer names and addresses obtained from Motor Vehicle Registration Records. The use of such motor vehicle registration data for any purpose other than follow-up necessary to complete this recall is a violation of law in several states/provinces/countries. Accordingly, you are urged to limit the use of this report to the follow-up necessary to complete this recall.

PARTS INFORMATION

Parts required to complete this recall are to be obtained from General Motors Service and Parts Operations (GMSPO). Please refer to your "involved vehicles listing" before ordering parts. Normal orders should be placed on a DRO = Daily Replenishment Order. In an emergency situation, parts should be ordered on a CSO = Customer Special Order.

Part Number	Description	Quantity/Vehicle
20845724*	Compressor Asm – Air	1 (If Req'd)

* Very few vehicles are expected to require replacement of the air compressor assembly. Do not order parts for shelf stock. All removed air compressors are to be returned to the Warranty Parts Center (WPC) for inspection. Hold compressors until the WPC request is received.

SERVICE PROCEDURE**Preparation - Air Brake System Inspection**

Before proceeding to the air brake compressor inspection procedure in this bulletin, check the vehicle for leaking, damaged, kinked or restricted air brake system components.

Air Brake Compressor Inspection (RPO JE4)Tools Required

- Stop Watch
1. Use the brake application valve to bleed the air system until 0 psig is shown on the in-dash air gauge indicator needles.
 2. At engine **idle** speed (air conditioning & all other accessories off), measure the time it takes to charge the air system from 0 psig to 100 psig using the in-dash air gauge. Begin the clock when the engine has started, and stop when 100 psig is reached. Record the time in the dealer comment section of the repair order (RO).

Note: The air gauge primary indicator needle may charge past 100 psig before the secondary indicator needle begins to show a charge. Both indicator needles will begin to equalize at approximately 90 psig and continue to charge to 100 psig.

Compressor Modification

- If the measured air system charge time is at or below the normal charge times specified below, remove the backflow suppression valve (BSV) from the compressor head inlet port. Refer to *BSV Check Valve Removal* in this bulletin.
- If the measured air system charge time is above the normal charge times specified below, replace the air brake compressor. Refer to *Air Brake Compressor Replacement* in this bulletin. You will receive a request from the Warranty Parts Center (WPC) to return the air compressor.

Normal Charge Times:

Chevrolet Kodiak, GMC TopKick

- Single Axle: 5 min 30 sec
- Tandem Axle: 10 min 15 sec

Chevrolet, GMC T-Series

- Single Axle: 6 min 30 sec
- Tandem Axle: 8 min 30 sec

AIR BRAKE COMPRESSOR REPLACEMENT

Note: All removed air compressors are to be returned to the Warranty Parts Center (WPC) for inspection. Hold compressors until the WPC request is received.

Tools Required

- J-42971
- J-45666
- J-45275 or equivalent

Caution:

- Turn the engine off when working on a vehicle. Always block the vehicle wheels to prevent a fore or aft roll. Bleeding off system pressure may cause the vehicle to roll. Keep hands away from the brake chamber push rods and brake adjusters; they may apply as system pressure drops.
- Never connect or disconnect a hose or line containing air pressure. It may whip as air escapes. Never remove a component or a pipe plug unless you are certain all system air pressure has been exhausted.
- Never exceed the recommended working air pressure and always wear safety glasses when working with air pressure. Never look directly into the component ports or direct a pressurized air flow at anyone.
- Never attempt to disassemble a component until you have read and understood all recommended procedures. Some components contain powerful springs and injury can

result if not properly disassembled. Use only proper tools and observe all precautions pertaining to the use of those tools.

1. Apply the parking brake.
2. Block the wheels.
3. C-Models: Open the hood.
4. Remove the right-side splash shield. Refer to *Splash Shield Replacement — Wheelhouse* in SI.
5. Remove the engine cover. Refer to *Engine Cover Replacement* in SI.
6. T-Models: Tilt the cab forward according to the Owner's Manual cab tilting and lowering instructions.
7. Drain all of the air reservoirs. Refer to *Draining Reservoirs in Air Brakes* in SI.
8. Drain the engine coolant to below the level of the air compressor. Refer to *Cooling System Draining and Filling* in SI.
9. Remove the air compressor discharge pipe at the air compressor.
10. Remove the air compressor governor line at the air compressor.
11. Remove the power steering pump. Refer to *Power Steering Pump Replacement* in SI.
12. Remove the air compressor inlet hose at the air compressor.
13. Remove the air compressor water inlet hose at the air compressor.
14. Remove the air compressor water outlet hose at the air compressor.
15. Remove the air compressor oil inlet hose at the engine block.
16. Remove the air compressor.
 - 16.1 Support the air compressor.
 - 16.2 Remove the air compressor mounting stud nuts.
 - 16.3 Remove the air compressor from the vehicle.
17. Install the air compressor. Tighten the bolts.

Tighten
Tighten the air compressor bolts to 60 N·m (44 lb ft)

 - 17.1 Install the air compressor oil inlet hose at the air compressor.
 - 17.2 Install the air compressor water outlet hose at the air compressor.
 - 17.3 Install the air compressor water inlet hose at the air compressor.
 - 17.4 Install the air compressor air inlet hose at the air compressor.
 - 17.5 Install the air compressor discharge front pipe and governor line at the air compressor.
18. Install the power steering pump, if required. Refer to *Power Steering Pump Replacement in Power Steering System* in SI.
19. Fill the engine cooling system. Refer to *Cooling System Draining and Fillings* in SI.
20. Inspect the air compressor for air leaks. Refer to *Air Brake System Testing* in SI.
21. Inspect for brake system for proper operation.
22. Proceed to *Operational Checks for Air Brake Compressor Replacement* below.

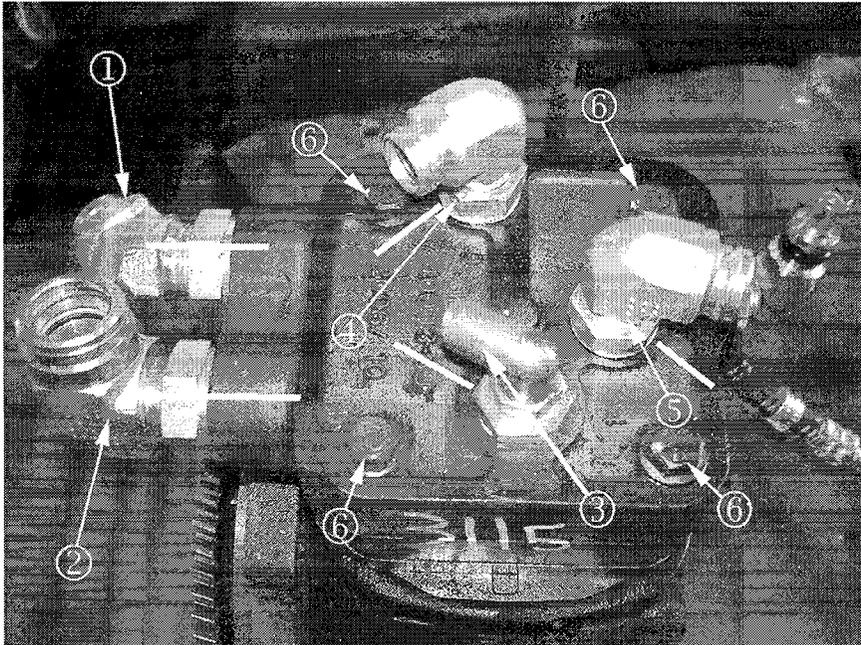
Operational Checks for Air Brake Compressor Replacement

After repairs are completed and all of the air and coolant lines are properly connected, start the engine. Shut the engine off after the system pressure has reached its cut-out pressure. (This is typically noted by an audible purge at the air dryer.)

- Check for air leaks at the Control and Air Discharge of the air compressor.
 - Check for coolant leaks at the cylinder head assembly and fittings. Correct any leakage problems.
 - Check for possible problems with the air dryer purge (check for flow at air dryer purge after starting the engine and while building system pressure). If there is air flow at the air dryer purge, the air dryer needs to be repaired or replaced. Refer to *Air Brake Dryer Constantly Cycling or Purging, Air Brake Dryer Safety Valve Exhausting Air, Air Brake Dryer Does Not Purge or Exhaust, and Desiccant Being Expelled From Purge Valve Exhaust* in SI as applicable.
23. C-Models: Install engine cover. Refer to Engine Cover Replacement in SI.
 24. Install the right-side splash shield. Refer to *Splash Shield Replacement — Wheelhouse* in SI.
 25. Close the hood.
 26. T-Models: Lower the tilt cab according to Owner's Manual cab tilting and lowering instructions.

BSV CHECK VALVE REMOVAL

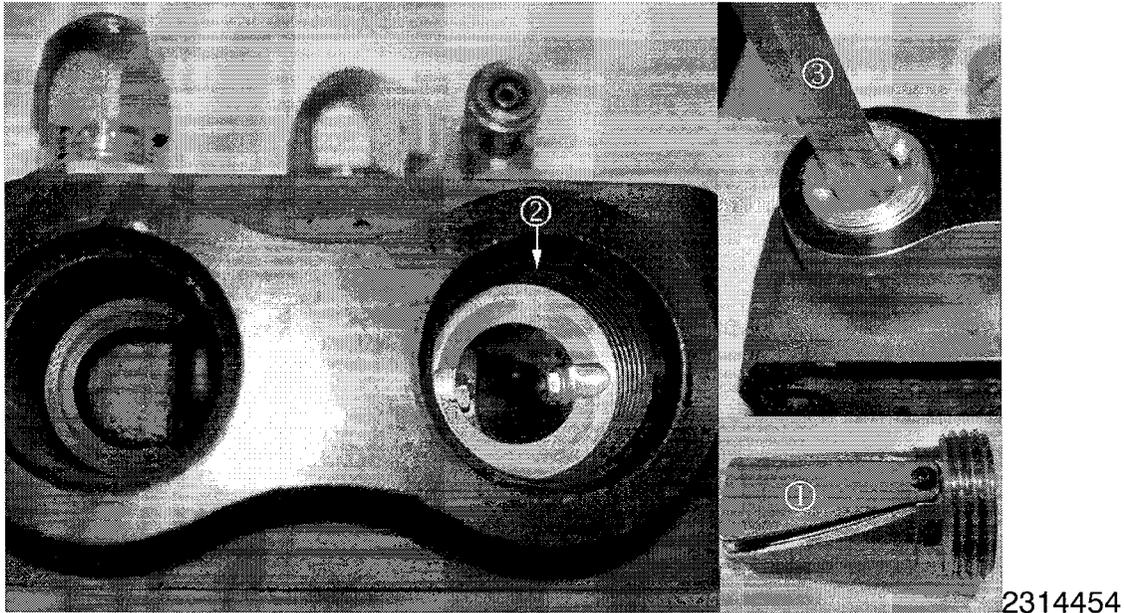
1. Drain all of the air brake reservoirs. Refer to *Air Brake Reservoir Draining* in SI.
2. Remove the engine cover. Refer to *Engine Cover Replacement* in SI.



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**Illustration of air compressor out of vehicle for reference purposes only.
(1) Air Discharge Fitting (2) Air Supply Fitting**

3. Note the location and orientation of the air discharge fitting (1) and air supply fitting (2) on the cylinder head of the air compressor. Mark the location and orientation of these fittings with a white marker. Mark both the fittings and the cylinder head. These alignment marks will ensure the fittings are properly aligned during fitting installation.
4. Remove the air compressor discharge pipe at the air compressor.
5. Remove the air discharge fitting (1) from the cylinder head.
6. Remove the air compressor inlet hose at the air compressor.
7. Remove the air supply fitting (2) from the cylinder head.



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Note: The BSV check valve (1) is threaded into the inlet port (2) of the cylinder head. Use a ½ inch (13 mm) chisel (3) that is about six inches (152 mm) in length (or equivalent) to remove the BSV check valve from the cylinder head. The BSV check valve will not be re-installed into the cylinder head. Discard the check valve.

8. Remove and **discard** the BSV check valve (1) from the cylinder head. The BSV check valve (1) is located in the side of the cylinder head where the air supply fitting was removed. Refer to illustration.
9. Install the air supply fitting into the cylinder head. Tighten the fitting to 130-151 N·m (96-111 lb-ft).
10. Install the air discharge fitting into the cylinder head. Tighten the fitting to 130-151 N·m (96-111 lb-ft).
11. Install the air compressor inlet hose at the air compressor.
12. Install the air compressor discharge pipe at the air compressor.
13. Refer to *Operational Checks* below in this bulletin.
14. Install the engine cover. Refer to *Engine Cover Replacement* in SI.

Operational Checks for BSV Check Valve Removal

After the repairs are completed, start the engine. Shut the engine off after the air brake system pressure has reached its cut-out pressure, which is typically noted by an audible purge at the air dryer.

- Check for air leaks at the Control and Air Discharge of the air compressor.
- Check for coolant leaks at the cylinder head assembly and fittings. Correct any leakage problems.
- Check for possible problems with air dryer purge (check for flow at air dryer purge after starting the engine and while building system pressure). If there is air flow at the air dryer purge, the air dryer needs to be repaired or replaced. Refer to *Air Brake Dryer Constantly Cycling or Purging, Air Brake Dryer Safety Valve Exhausting Air, Air Brake does Not Purge or Exhaust, and Desiccant Being Expelled from Purge Valve Exhaust* in SI as applicable.

CUSTOMER REIMBURSEMENT – For GM US

All customer requests for reimbursement of previously paid repairs for the recall condition will be handled by the Customer Assistance Center, not by dealers.

A General Motors Customer Reimbursement Procedure and Claim Form is included with the customer letter.

IMPORTANT: (For GM US Only) Refer to the GM Service Policies and Procedures Manual, section 6.1.12, for specific procedures regarding customer reimbursement and the form.

CUSTOMER REIMBURSEMENT – For Canada and Export

Customer requests for reimbursement of previously paid repairs for the recall condition are to be submitted to the dealer by September 30, 2010.

All reasonable customer paid receipts should be considered for reimbursement. The amount to be reimbursed will be limited to the amount the repair would have cost if completed by an authorized General Motors dealer.

When a customer requests reimbursement, they must provide the following:

- Proof of ownership at time of repair.
- Original paid receipt confirming the amount of repair expense(s) that were not reimbursed, a description of the repair, and the person or entity performing the repair.

Claims for customer reimbursement on previously paid repairs are to be submitted as required by WINS.

IMPORTANT: Refer to the GM Service Policies and Procedures Manual, section 6.1.12, for specific procedures regarding customer reimbursement verification.

CLAIM INFORMATION – For dealers using WINS

Submit a Product Recall Claim with the information indicated below:

Repair Performed	Part Count	Part No.	Parts Allow	CC FC	Labor Op	Labor Hours	Net Item
Inspection & BSV Check Valve Removal	N/A	N/A	N/A	MA-96	V2114	1.5	N/A
Inspection & Air Compressor Replacement	1	---	*	MA-96	V2115	3.5	N/A
Customer Reimbursement (Canadian & Export Dealers/US CAC)	N/A	N/A	N/A	MA-96	V2116	0.2	**

* The "Parts Allowance" should be the sum total of the current GMSPO Dealer net price plus applicable Mark-Up or Landed Cost Mark-Up (for Export) for the air compressor needed to complete the repair.

** The amount identified in the "Net Item" column should represent the dollar amount reimbursed to the customer.

Refer to the General Motors WINS Claims Processing Manual for details on Product Recall Claim Submission.

CLAIM INFORMATION – For dealers using GWM

1. To receive credit, submit a claim with the information below.

Labor Operation	Description	Labor Time
V2114	Inspection & BSV Check Valve Removal	1.5
V2115	Inspection & Air Compressor Replacement	3.5
V2116	Customer Reimbursement	0.2

2. Submit courtesy transportation as a net item.

CUSTOMER NOTIFICATION – For US and Canada

General Motors will notify customers of this recall on their vehicle (see copy of customer letter included with this bulletin).

CUSTOMER NOTIFICATION – For Export

Letters will be sent to known owners of record located within areas covered by the US National Traffic and Motor Vehicle Safety Act. For owners outside these areas, dealers should notify customers using the attached sample letter.

DEALER RECALL RESPONSIBILITY – For US and Export (US States, Territories, and Possessions)

The US National Traffic and Motor Vehicle Safety Act provides that each vehicle that is subject to a recall of this type must be adequately repaired within a reasonable time after the customer has tendered it for repair. A failure to repair within sixty days after tender of a vehicle is prima facie evidence of failure to repair within a reasonable time. If the condition is not adequately repaired within a reasonable time, the customer may be entitled to an identical or reasonably equivalent vehicle at no charge or to a refund of the purchase price less a reasonable

allowance for depreciation. To avoid having to provide these burdensome remedies, every effort must be made to promptly schedule an appointment with each customer and to repair their vehicle as soon as possible. In the recall notification letters, customers are told how to contact the US National Highway Traffic Safety Administration if the recall is not completed within a reasonable time.

DEALER RECALL RESPONSIBILITY – All

All unsold new vehicles in dealers' possession and subject to this recall must be held and inspected/repaired per the service procedure of this recall bulletin before customers take possession of these vehicles.

Dealers are to service all vehicles subject to this recall at no charge to customers, regardless of mileage, age of vehicle, or ownership, from this time forward.

Customers who have recently purchased vehicles sold from your vehicle inventory, and for which there is no customer information indicated on the dealer listing, are to be contacted by the dealer. Arrangements are to be made to make the required correction according to the instructions contained in this bulletin. A copy of the customer letter is provided in this bulletin for your use in contacting customers. Recall follow-up cards should not be used for this purpose, since the customer may not as yet have received the notification letter.

In summary, whenever a vehicle subject to this recall enters your vehicle inventory, or is in your dealership for service in the future, you must take the steps necessary to be sure the recall correction has been made before selling or releasing the vehicle.

