



Reliability Driven™

Service Bulletin No. 424B

<i>MODEL</i>	D / J4500 Series	<i>TYPE</i>	Field Change Program	<i>SECTION/GROUP</i>	8-Engine	<i>DATE</i>	Aug. 27, 2015
<i>SUBJECT</i>	CUMMINS ISX LUBRICATING OIL FILTER BYPASS VALVE						
<i>CONDITIONS</i>							

THIS BULLETIN SUPERCEDES SERVICE BULLETIN 424 IN ITS ENTIRETY.

CUSTOMERS WHO HAVE PARTICIPATED IN FIELD SERVICE BULLETIN 424, NO FURTHER ACTION IS REQUIRED.

CUSTOMERS WHO HAVE NOT PARTICIPATED IN FIELD SERVICE BULLETIN 424, SHOULD PERFORM FIELD SERVICE BULLETIN 424B.

Customer Complaint:

Cummins Inc. has notified Motor Coach Industries ("MCI") that it has issued a campaign to address the ISX lubricating oil filter bypass valve, in addition to the previous fuel pump repair actions outlined in MCI FCP Bulletin 424 and Cummins Field Campaign C1556.

The new bypass valve has more effective sealing capability and provides better protection to fuel pump lubricated components.

Cause:

Vendor installation.

Corrective Action:

MCI strongly encourages owners of the coaches listed in the table below to implement the steps in this procedure as soon as possible.

12604 to 12615	12617 to 12682	12684 to 12706	12708 to 12741	12743 to 12755
12757 to 12847	12901 to 12919	12921 to 13292	13294 to 13417	13419 to 13471
13473 to 13480	13482 to 13530	13532 to 13603	13650 to 13665	13721 to 13732
13734	13752 to 13762	13773 to 13774	13792	13794 to 13862
13863 to 13883	58195	59654	59742	59764 to 59786
59788 to 59789	59829 to 59845	59861 to 59894	59896 to 59906	59923
59989 to 59992	65758	65782 to 65783	65791 to 65792	65801 to 65806
65877	65917 to 65919	65923	65956 to 66007	66009 to 66022
66024 to 66031	66033 to 66073	66075 to 66077	66079 to 66081	66083 to 66084
66086	66088 to 66131	66134 to 66146	66148 to 66178	66185 to 66186
66189 to 66194	66201	66208	66211 to 66221	66225 to 66238
66241 to 66278	66284 to 66294	66301 to 66304	66308	66311 to 66317



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66320 to 66341	66349 to 66381	66383 to 66408	66410 to 66412	66417 to 66428
66440	66443	66444	66447	66454 to 66459
66461 to 66502	66510	66524 to 66525	66530	66535 to 66539
66542 to 66578	66580 to 66647	66649 to 66697	66704	66725 to 66727
66729 to 66734	66739 to 66758	66763 to 66785	66789 to 66790	66793 to 66805
66808 to 66815	66823 to 66849	66852	66854	66856 to 66874
66888 to 66924	66930 to 66947	66953 to 66959	66967 to 66969	66971 to 66978
66982 to 66999	67002 to 67023	67029 to 67045	67051 to 67059	67081
67082	67087 to 67093	67095 to 67099	67101 to 67105	67108 to 67110
67122 to 67124	67133 to 67135	67141 to 67146	67161 to 67162	67171 to 67173
67175 to 67197	67199	67207 to 67210	67214 to 67216	67220 to 67230
67235 to 67236	67239 to 67243	67249 to 67258	67260	67264 to 67269
67272	67276 to 67277	67279	67282 to 67284	67292

Parts

Qty.	New P/N	Description
1	T04-1456	Kit, Valve, Relief Pressure

Service Procedure:



Read this entire procedure before beginning work.
Use Safe Shop Practices At All Times.



To avoid personal injury, never enter or perform work in the engine compartment prior to positioning the ENGINE RUN and ENGINE START switches on the engine compartment remote control box to the OFF position. Allow enough time for components to cool down prior to working in the engine compartment.

1. Turn the main battery disconnect switch to the OFF position.
2. Chock both sides of the tires.

NOTICE

The lubricating oil filter bypass valve retaining plug *MUST* be inspected prior to starting this repair. If the face of retaining plug is painted with highly visible paint, *STOP*, do *NOT* perform this retrofit. The painted retaining plug indicates that the new bypass valve is already installed. *DO NOT* proceed any further. Procedure Complete.

If the face of retaining plug is *NOT* painted with highly visible paint, proceed to Step 3.

3. Proceed with Step 1 of the attached Cummins Installation Instruction Number 4908439 / Lubricating Oil Filter Bypass Valve Procedure, following all warnings and cautions therein.

NOTICE

Refer to the attached link below to view the Cummins lubricating oil filter bypass valve video located on Cummins QuickServe;

<https://quickserve.cummins.com/bpv/ISXBypassFinal.mp4>

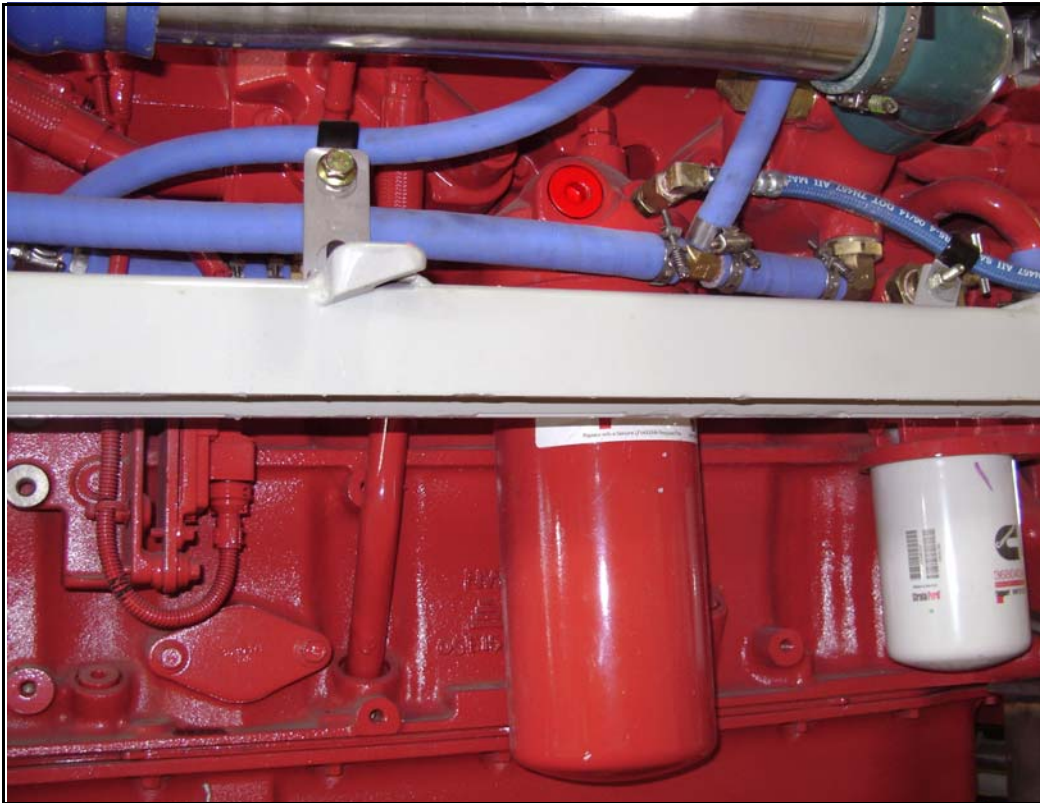


Figure 1. Location of lubricating oil filter bypass valve on roadside of engine.

4. Upon completion of the attached Cummins Installation Instruction Number 4908439 / Lubricating Oil Filter Bypass Valve Procedure, perform a road test on the coach.

Procedure Complete.



Mail or fax the completed limited warranty claim form and verification form to MCI's warranty department, or photocopy and mail to:

MCI Fleet Support
Attn: Warranty Department
7001 Universal Coach Drive
Louisville, KY 40258
Fax Number 1-800-360-8886

to receive credit for the hours used to complete this task. Contact the MCI Fleet Support Technical Center at 1-800-241-2947 for any further information.

Field Change Program Conditions:

The parts required for this change will be supplied without charge.

A labor allowance of 0.5 hours will be granted for the procedure of replacing the lubricating oil filter bypass valve on affected D series and J4500 coaches.

This labor allowance will be credited to your MCI Fleet Support Parts Account on receipt of the attached "MCI Field Change Program Verification Form" and a "Warranty Claim Form" as detailed in your Owner Warranty manual to MCI's Warranty department. A "MCI Field Change Program Verification Form" needs to be submitted for each VIN affected. Photocopy the attached "MCI Field Change Program Verification Form" as required for the number of affected coaches in your fleet.

This program will end on March 16, 2016.

Motor Coach apologizes for any inconvenience resulting from this campaign, but urges you to implement this change as soon as possible.

Sincerely,

Motor Coach Industries



Installation Instruction Number	Date
4908439	27-APR-2015



Installation Instructions

Lubricating Oil Filter Bypass Valve

A new lubricating oil filter bypass valve, Part Number 4357177, has been released.

Product Affected

- All ISX/QSX 11.9 liter engines
- All ISX/QSX 12 liter engines
- All ISX/QSX 15 liter engines

Lubricating oil filter bypass valve, Part Number 4357177, replaced the lubricating oil filter bypass valve, Part Number 3820320.

The new lubricating oil filter bypass valve is backwards compatible with all prior lubricating oil filter cooler housing designs.

Preparatory Steps

Park vehicle on a level surface and in an area where it is safe to idle for an extended period of time.

Turn engine OFF and set vehicle brake(s).

Chock vehicle wheels or use an appropriate anti-roll device to stabilize vehicle.

Open vehicle hood.



Disconnect the batteries. See Original Equipment Manufacturer (OEM) service information.

Locating Component



WARNING

The exhaust and exhaust components can remain hot after the engine has been shut down or secured. To avoid the risk of fire, property damage, burns or other serious personal injury, allow the exhaust system to cool before beginning this procedure or repair and make sure that no combustible materials are located where they might come in contact with hot exhaust or exhaust components

Locate turbocharger on exhaust side of engine.



Locate lubricating oil filter bypass valve retaining plug just below turbocharger.



Inspect face of retaining plug for a highly visible paint marking (such as white or yellow paint).

A paint marking indicates the new lubricating oil filter bypass valve has already

been installed. No further action is necessary.

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- Locate the following items in order to complete the repair:
1. Gloves
 2. Safety glasses
 3. Lint free cloth
 4. Paint marker (white or yellow)
 5. Needle nose pliers
 6. Ratchet wrench and extension
 7. 17 mm Allen® wrench or hex socket
 8. Torque wrench
 9. Clean engine oil
 10. Drip pan or absorbent mat

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Remove

⚠ WARNING ⚠

To reduce the possibility of personal injury, avoid direct contact of hot oil with your skin.

⚠ WARNING ⚠

To reduce the possibility of personal injury, wear protective gloves when handling parts with sharp edges.

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 **WARNING** 

Wear appropriate eye and face protection when using compressed air. Flying debris and dirt can cause personal injury.

 **WARNING** 

To reduce the possibility of personal injury, wear the appropriate eye and face protection when removing the straight threaded o-ring plug holding in the lubricating oil filter bypass valve spring. The spring is under pressure and can cause personal injury.

 **WARNING** 

Some state and federal agencies have determined that used engine oil can be carcinogenic and cause reproductive toxicity. Avoid inhalation of vapors, ingestion, and prolonged contact with used engine oil. If not reused, dispose of in accordance with local environmental regulations.

Place an appropriate drip pan or absorbent mat directly under the oil filter in order to properly contain any lubricating oil that may escape during the repair process.

Clean area around the lubricating oil filter bypass valve plug prior to removal.

Use 17mm Allen® wrench or hex socket to loosen the lubricating oil filter bypass valve plug.

Remove retaining plug (1), spring (2), and plunger (3) from lubricating oil cooler housing.

Spring (2) and plunger (3) **must** be discarded.

Using a clean lint free cloth, clean retaining plug.



Install

Inspect new lubricating oil filter bypass valve to verify two o-rings are correctly installed as shown.

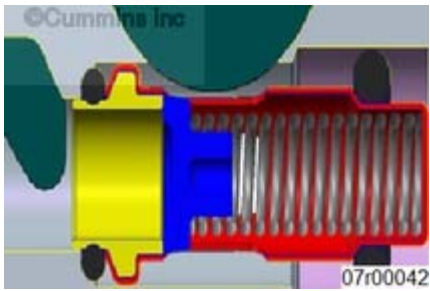



Lubricate the lubricating oil filter bypass valve with clean engine oil.




Insert lubricating oil filter bypass valve into lubricating oil cooler housing. Marking stating "THIS END OUT" **must** be visible.



<p>Fully seat lubricating oil filter bypass valve in lubricating oil cooler housing. Verify o-rings are in proper location.</p>	

<p>Install retaining plug into lubricating oil cooler housing.</p> <p>Tighten retaining plug.</p> <p>Torque Value: 45 n.m [[33] ft-lb]</p>	
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<p>If installing new lubricating oil filter bypass valve for the first time, clearly mark entire face of retaining plug using a high quality paint marker that is highly visible (such as yellow or white). Liberally apply paint marking.</p>	
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Finishing Steps

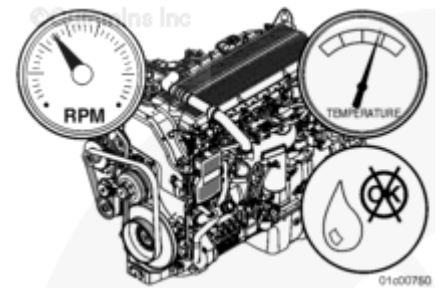
<p>Connect the batteries. See OEM service information.</p>	
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Verify the vehicle brake(s) are set.

Start engine and operate to normal operating temperature. Check for leaks.

If leaks are found, turn engine OFF and verify proper torque procedure was followed.

If leak persists remove plug and inspect plug o-ring and plug for damage.



If no problem is found and oil leak persists please contact a Cummins® certified repair location.

Turn engine OFF and set vehicle brake(s).

Close vehicle hood.

Remove wheel chocks or other anti-roll device.



Last Modified: 11-May-2015

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Reliability Driven™

MCI FIELD CHANGE PROGRAM (FCP) VERIFICATION

CONTACT INFORMATION	
CUSTOMER NAME: _____	
<small>(PLEASE PRINT)</small>	
FCP INFORMATION – ONE FORM PER UNIT	
FCP#: _____	Coach Model _____ Model Year _____
COACH SERIAL #: <small>(At least the last 5 digits)</small>	DATE COMPLETED __ / __ / __
MILEAGE:	
<u>IMPORTANT:</u> TO RECEIVE CREDIT FOR ANY ALLOWABLE LABOR CHARGES, THIS VERIFICATION FORM MUST BE RETURNED TO MCI UPON COMPLETION OF THE FCP.	
SUBMITTED BY: (Please Print) _____	
	DATE __ / __ / __
TITLE: (Please Print) _____	
SIGNATURE: _____	
COMMENTS: 	

FAX TO: 800-360-8886

MAILING ADDRESS:

**MOTOR COACH INDUSTRIES
ATTN: WARRANTY DEPT.
7001 UNIVERSAL COACH DRIVE
LOUISVILLE, KY 40258**