



Technical Service Bulletin

Technical Service Bulletin: TSB150033	Released Date: 17-Sep-2018
New Fuel Pump Short Block Service Kits	

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Warranty Statement

The information in this document has no effect on present warranty coverage or repair practices, nor does it authorize TRP or Campaign actions.

Contents

This document announces the release of a fuel pump short block.

Product Affected

- ISX15 CM2250
- ISX15 CM2250 SN
- ISX15 CM2350 X101
- PowerGen QSX15 CM2250
- PowerGen QSX15 CM2250 ECF
- QSX15 CM2250 X115
- QSX15 CM2350 X105
- QSX15 CM2350 X106
- X15 CM2350 X114B

Description of Change

Fuel pump short block service kits have been released. The short block fuel pump allows for the reuse of the existing fuel pump head and fuel pump gear pump to make a complete fuel pump.



Reason for Change

To create an additional repair option.

Service Instructions

Below are a list of fuel pump malfunctions where the fuel pump short block service kit can be used to repair the fuel pump:

- Fuel pump camshaft damage
- Front and/or rear fuel pump camshaft bushing damage
- Stripped fuel pump mounting threads
- Stripped fuel pump gear pump mounting threads
- Stripped fuel pump head mounting threads
- Fuel pump roller tappet damage

For fuel pump short block installation instructions. Reference Installation Instruction, Fuel Pump Short Block Service Kit Installation Instructions, Bulletin 4908436.

In the event of a fuel pump plunger malfunction causing fuel pump tappet or fuel pump tappet roller damage, see Technical Service Bulletin, Fuel Pump - Ceramic Plunger and Tappet Roller Inspection and Repair, TSB140019 for repair direction.

Service Parts Availability

See Table 1 for fuel pump short block part numbers.

Table 1, Fuel Pump Short Block Service Kits		
Engine Control Module	Part Number	Part Quantity
CM2250	2872658PX	1
CM2350	4307049PX	1

When ordering the fuel pump short block service kit, Part Number(s) 2872658PX and 4307049PX, the following **must** be done:

- Two of fuel pump diamond-like coated tappet rollers, Part Number 4359134, **must** be ordered if **not** previously installed or **not** within reuse guidelines.
- Use care when handling the roller tappet(s). The diamond-like coated roller pin is free floating and can fall out, resulting in damage to either the tappet roller or the pin. If the tappet roller pin does fall out during installation, but the tappet roller and roller pin are not damaged, the roller pin can be reinserted. Reference Technical Service Bulletin, New Fuel Pump with Diamond-Like Coated Tappet Roller Pin, TSB150113.
- Ceramic plunger and barrel assemblies (white in color) on certain CM2250 fuel pump heads **must** be replaced with steel plunger and barrel assemblies, Part Number 4327258.

Note : Fuel pumps being repaired using a fuel pump short block for any of the malfunctions listed above **must** reuse original fuel pump head, unless one of the following conditions exists:

- Visual leaks from Torx™ plugs on fuel pump head
- Active or recently inactive fault codes related to fuel system performance. Example Fault Codes: 559, 4726, or 4727. Associated fault code troubleshooting procedure(s) **must** be referenced before replacing any fuel system component.
- Complaints/confirmation of excessive fuel in lubricating oil

If any above conditions exist, inspect fuel pump head using reuse guidelines. See corresponding Service Manual. Reference Procedure 005-227 in Section 5. Additionally, video TSB, Fuel Pump - Plunger and Tappet Roller Inspection and Repair, TSB140019, can be referenced for further assessment of fuel pump head assembly. Reference link below

Note : <http://tsb.cumminsvirtualcollege.com/TSB140019.aspx>
(<http://tsb.cumminsvirtualcollege.com/TSB140019.aspx>)

- If a broken tappet spring or spring retainer is found, see Technical Service Bulletin, Fuel Pump Head Barrel Assembly Serviceability - Spring and Spring Retainer, TSB170015 for repair direction.
- If a fuel pump head does **not** meet reuse guidelines, replace fuel pump head assembly.
 - ISX/QSX15 CM2250: Part Number 2872661PX.
 - ISX/QSX15 CM2350 and X15 CM2350: Part Number 4384373RX.
- If fuel pump head meets reuse guidelines, install original fuel pump head onto new fuel pump short block assembly.

Note : Fuel pumps being repaired for broken barrel spring or spring retainers, **must** reuse the fuel pump head with new barrel spring and spring retainers (Table 1), unless Procedure 005-227 reuse guidelines are **not** met.

⚠ CAUTION ⚠

Barrel and plunger assemblies are not interchangeable between the ISX/QSX15 CM2250 and the ISX/QSX15/X15 CM2350 fuel pump head. Installation of incorrect barrel and plunger assembly will result in excess fuel in lubricating oil.

Part Identification

See Figure 2 below for visual barrel and plunger assembly differences.



Figure 2, Fuel Pump Barrel and Plunger Assemblies.

1. ISX/QSX15/X15 CM2350
2. ISX/QSX15 CM2250

Publications Affected

Table 2, Publications Affected					
Manual Type	Engine	Bulletin Number	Procedure Title	Procedure	Section
Service Manual	ISX15 CM2350 X101	4310641	Fuel Pump Head(s)	Refer to Procedure 005-227 (/qs3/pubsys2/xml/en/procedures/173/173-005-227-tr-prix13.html)	5

Table 2, Publications Affected					
Manual Type	Engine	Bulletin Number	Procedure Title	Procedure	Section
	X15 CM2350 X114B	5411181		Refer to Procedure 005-227 (/qs3/pubsyss2/xml/en/procedures/377/377-005-227.html)	
	ISX15 CM2250 SN	4310736		Refer to Procedure 005-227 (/qs3/pubsyss2/xml/en/procedures/175/175-005-227-tr.html)	
	ISX15 CM2250	4022250		Refer to Procedure 005-227 (/qs3/pubsyss2/xml/en/procedures/132/132-005-227-tr-mixar5.html)	

Table 2, Publications Affected					
Manual Type	Engine	Bulletin Number	Procedure Title	Procedure	Section
	PowerGen QSX15 CM2250	4310664		Refer to Procedure 005-227 (/qs3/pubsys2/xml/en/procedures/132/132-005-227-tr-vqyg5na.html)	
	PowerGen QSX15 CM2250 ECF	2883557		Refer to Procedure 005-227 (/qs3/pubsys2/xml/en/procedures/132/132-005-227-tr-vqxi6.html)	
	QSX15 CM2350 X105	4332667		Refer to Procedure 005-227 (/qs3/pubsys2/xml/en/procedures/250/250-005-227.html)	

Table 2, Publications Affected					
Manual Type	Engine	Bulletin Number	Procedure Title	Procedure	Section
	QSX15 CM2350 X106	4332712		Refer to Procedure 005-227 (/qs3/pubsys2/xml/en/procedures/21/221-005-227.html)	
	QSX15 CM2250 X115	4388739		Refer to Procedure 005-227 (/qs3/pubsys2/xml/en/procedures/431/431-005-227.html)	

Document History

Date	Details
2015-3-9	Module Created
2015-4-27	Link to Installation will not work.
2015-10-23	Changed part number 2872226 to part number 4359134.
2016-5-12	Updated Table 1 and Table 2. Modified Service Instruction section.
2016-6-21	Updated title and Product Affected.
2016-9-7	Replaced part number 4307049 with part number 4307049PX. Removed Table 2.

Date	Details
2016-12-20	Added X15 CM2350 X114B. Added clarification about the inspection, reuse, and replacement of the fuel pump head.
2017-2-1	Updated with information for the release of Fuel Pump Head Barrel Assembly Serviceability - Spring and Spring Retainer, TSB170015. Added link to video TSB, TSB140019.
2018-9-14	Removed reference to tables 2 and 3.

Last Modified: 17-Sep-2018
