

Technical Service Bulletin Number

TSB101096

**Technical Service Bulletin****Subject**

New Aftertreatment Diesel Particulate Filter Part Numbers for ISX CM871 and ISX CM871 Export Engines

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

The purpose of this document is to announce new aftertreatment diesel particulate filter (DPF) part numbers for the following engines that use a DPF:

- ISX CM871 engines built between 1 September 2006 and 31 December 2009
- ISX CM871 Export engines built between 1 December 2009 to present.

The new DPF part numbers supersede the previous DPF part numbers for both production and service. See Tables 1A and 1B.

Table 1A: Aftertreatment Diesel Particulate Filter (DPF) Part Number Supersession			
ISX CM871			
Old DPF Part Numbers (Phase 1)	Old DPF Part Numbers (Phase 2)	New DPF Part Numbers	Description
4969702	5283669	5297522	Insulated diesel particulate filter assembly
4969701	5283778	5297990	Uninsulated diesel particulate filter assembly

4969703	5283799	5297989	Volvo™ Spacesaver diesel particulate filter assembly
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Table 1B: Aftertreatment Diesel Particulate Filter (DPF) Part Number Supersession			
ISX CM871 Export			
Old DPF Part Number (Phase 1)	Old DPF Part Number (Phase 2)	New DPF Part Number	Description
4969702	5283669	5297522	Insulated diesel particulate filter assembly

The new DPFs contain a revised substrate material that may **not** be backward compatible with the engine's current electronic control module (ECM) calibration and Control Parts List (CPL).

A new ECM calibration for the correct CPL may be required to be installed in the engine ECM when installing a DPF with a new part number.

Also, if a DPF with an old part number is installed on a vehicle after a DPF with a new part number has previously been installed, the old ECM calibration for the correct CPL **must** be installed in the engine ECM.

The following methods are used to make sure the correct process is followed:

- A sticker is placed on the new DPF that references the need for a possible ECM calibration change.
- A sticker is placed on the exterior of the new DPF packaging that references the need for a possible ECM calibration change.
- A one page document referencing this Technical Service Bulletin (TSB) is placed in the packaging of all new DPFs.

NOTE: A change in CPL and therefore ECM base code will require a fleet count.

NOTE: Failure to install the ECM calibration for the correct CPL and DPF part number will cause damage to the DPF and will be considered an improper repair.

NOTE: To verify compatibility; any time a new, cleaned, or reconditioned DPF is installed on a vehicle, the ECM calibration installed in the engine ECM (as viewed through INSITE™ electronic service tool), as well as the CPL, must be cross referenced with the DPF part number being installed.



Mismatching a DPF, CPL, and ECM calibration will result in inconsistent and improper regeneration characteristics and could cause damage to the DPF.

Reference the following tables for more information:

Table 2: ISX CM871 DPF Part Number and ECM Calibration Requirement Reference

- CPL 1437, 2732, 3745, and 3748 (385 to 450 HP)
- CPL 1434, 2733, 3746, and 3749 (455 to 500 HP)

Table 3: ISX CM871 ECM Calibration Cross Reference

- CPL 1437, 2732, 3745, and 3748 (385 to 450 HP)
- CPL 1434, 2733, 3746, and 3749 (455 to 500 HP)

Table 4: ISX CM871 DPF Part Number and ECM Calibration Requirement Reference

- CPL 0927, 2734, 2919, 3320, 3747, 3750, 3751, and 3752 (525 to 600 HP)

Table 5: ISX CM871 ECM Calibration Cross Reference

- CPL 0927, 2734, 2919, 3320, 3747, 3750, 3751, and 3752 (525 to 600 HP)

Table 6: ISX CM871 Export DPF Part Number and ECM Calibration Requirement Reference

- CPL 2733, 3458, 3459, 3774, 3775, and 3776 (400 to 600 HP)

Table 7: ISX CM871 Export ECM Calibration Cross Reference

- CPL 2733, 3458, 3459, 3774, 3775, and 3776 (400 to 600 HP)

Table 2: ISX CM871 DPF Part Number and ECM Calibration Requirement CPL 1437, 2732, 3745, and 3748 (385 to 450 HP) CPL 1434, 2733, 3746, and 3749 (455 to 500 HP)			
Old DPF Part Numbers	New DPF Part Numbers	Description	ECM Calibration Required
4969702	5297522	Insulated diesel particulate filter assembly	Yes ¹
4969701	5297990	Uninsulated diesel particulate filter assembly	Yes ¹
4969703	5297989	Volvo™ Spacesaver diesel particulate filter assembly	Yes ¹
4969702	5283669	Insulated diesel particulate filter assembly	Yes ¹
4969701	5283778	Uninsulated diesel particulate filter assembly	Yes ¹
4969703	5283799	Volvo™ Spacesaver diesel particulate filter assembly	Yes ¹
5283669	5297522	Insulated diesel particulate filter assembly	No ²
5283778	5297990	Uninsulated diesel particulate filter assembly	No ²

5283799	5297989	Volvo™ Spacesaver diesel particulate filter assembly	No ²
<p>¹Install the correct ECM calibration for CPL 3745, 3746, 3748, or 3749 when a new DPF part number is installed, or verify the correct ECM calibration is installed for the corresponding DPF part number and CPL. See Table 3.</p> <p>²Verify the correct ECM calibration for CPL 3745, 3746, 3748, or 3749 is already installed, or verify the correct ECM calibration is installed for the corresponding DPF part number and CPL. See Table 3.</p>			

Table 3: ISX CM871 ECM Calibration Cross Reference

CPL 1437, 2732, 3745, and 3748 (385 to 450 HP)

CPL 1434, 2733, 3746, and 3749 (455 to 500 HP)

Old Engine CPL	ECM Calibration to be Used with DPF Part Number 4969701, 4969702, or 4969703 (See Table 2)	ECM Calibration to be Used with DPF Part Number 5283669, 5283778, 5283799, 5297522, 5297989, or 5297990 (See Table 2)	New Engine CPL
1434	AV10002	AV10191	3746
1434	AV10003	AV10192	3746
1434	AV10004	AV10193	3746
1434	AV10005	AV10194	3746
1434	AV10006	AV10195	3746
1434	AV10008	AV10196	3746
1434	AV10009	AV10197	3746
1434	AV10010	AV10198	3746
1434	AV10011	AV10199	3746
1434	AV10012	AV10200	3746
1434	AV10014	AV10201	3746
1437	AV10020	AV10202	3745
1437	AV10021	AV10203	3745
1437	AV10022	AV10204	3745
1437	AV10023	AV10205	3745
1437	AV10024	AV10206	3745
1437	AV10025	AV10207	3745
1437	AV10027	AV10208	3745
1437	AV10029	AV10209	3745
1437	AV10030	AV10210	3745
1437	AV10032	AV10211	3745
1437	AV10034	AV10212	3745

1437	AV10034	AV10212	3745
1437	AV10036	AV10213	3745
2732	AV10055	AV10214	3748
2732	AV10056	AV10215	3748
2732	AV10057	AV10216	3748
2732	AV10058	AV10217	3748
2732	AV10059	AV10218	3748
2732	AV10060	AV10219	3748
2732	AV10061	AV10220	3748
2732	AV10062	AV10221	3748
2732	AV10063	AV10222	3748
2732	AV10064	AV10223	3748
2732	AV10065	AV10224	3748
2732	AV10066	AV10225	3748
2732	AV10067	AV10226	3748
2732	AV10068	AV10227	3748
2732	AV10069	AV10228	3748
2732	AV10070	AV10229	3748
2732	AV10071	AV10230	3748
2732	AV10137	AV10231	3748
2732	AV10138	AV10232	3748
2732	AV10149	AV10233	3748
2732	AV10181	AV10234	3748
2732	AV10182	AV10235	3748
2732	AV10183	AV10236	3748
2732	AV10311	AV10312	3748
2732	AV10313	AV10314	3748
2732	AV10315	AV10317	3748
2732	AV10316	AV10318	3748
2733	AV10044	AV10237	3749
2733	AV10045	AV10238	3749
2733	AV10046	AV10239	3749
2733	AV10047	AV10240	3749
2733	AV10048	AV10241	3749
2733	AV10049	AV10242	3749

2733	AV10049	AV10291	3749
2733	AV10050	AV10242	3749
2733	AV10051	AV10243	3749
2733	AV10052	AV10244	3749
2733	AV10053	AV10245	3749
2733	AV10054	AV10246	3749
2733	AV10139	AV10247	3749
2733	AV10165	AV10248	3749
2733	AV10166	AV10249	3749
2733	AV10167	AV10250	3749
2733	AV10168	AV10251	3749
2733	AV10169	AV10252	3749
2733	AV10170	AV10253	3749
2733	AV10171	AV10254	3749
2733	AV10172	AV10255	3749
2733	AV10173	AV10256	3749
2733	AV10174	AV10257	3749
2733	AV10175	AV10258	3749
2733	AV10176	AV10259	3749
2733	AV10177	AV10260	3749
2733	AV10178	AV10261	3749
2733	AV10179	AV10262	3749
2733	AV10180	AV10263	3749
2733	AV10307	AV10309	3749
2733	AV10308	AV10310	3749

Table 4: ISX CM871 DPF Part Number and ECM Calibration Requirement Reference CPL 0927, 2734, 2919, 3320, 3747, 3750, 3751, and 3752 (525 to 600 HP)			
Old DPF Part Number	New DPF Part Number	Description	ECM Calibration Required
4969702	5283669	Insulated diesel particulate filter assembly	Yes ¹
4969701	5283778	Uninsulated diesel particulate filter assembly	Yes ¹
4969703	5283799	Volvo™ Spacesaver diesel particulate filter assembly	Yes ¹

4969702, 5283669	5297522	Insulated diesel particulate filter assembly	Yes ²
4969701, 5283778	5297990	Uninsulated diesel particulate filter assembly	Yes ²
4969703, 5283779	5297989	Volvo™ Spacesaver diesel particulate filter assembly	Yes ²

¹Verify the correct ECM calibration for CPL 3747, 3750, 3751, or 3752 is already installed, or verify the correct ECM calibration is installed for the corresponding DPF part number and CPL. See Table 5.

²Verify the correct ECM calibration and minimum revision level for CPL 3747, 3750, 3751, or 3752 is already installed, or verify the correct ECM calibration is installed for the corresponding DPF part number and CPL. See Table 5.

Table 5: ISX CM871 ECM Calibration Cross Reference
CPL 0927, 2734, 2919, 3320, 3747, 3750, 3751, and 3752 (525 to 600 HP)

Old Engine CPL	ECM Calibration to be Used with DPF Part Number 4969701, 4969702, or 4969703 (See Table 4)	ECM Calibration to be Used with DPF Part Number 5283669, 5283778, 5283799, 5297522, 5297989, or 5297990 (See Table 4)	Minimum Calibration Revision Level Required for Use with DPF Part Number 5297522, 5297989, or 5297990	New Engine CPL
0927	AV10007	AV10185	07	3747
0927	AV10015	AV10186	06	3747
0927	AV10016	AV10187	06	3747
0927	AV10017	AV10188	06	3747
0927	AV10018	AV10189	06	3747
0927	AV10019	AV10190	06	3747
2734	AV10037	AV10264	06	3750
2734	AV10038	AV10265	06	3750
2734	AV10039	AV10266	06	3750
2734	AV10040	AV10267	06	3750
2734	AV10041	AV10268	06	3750
2734	AV10042	AV10269	06	3750
2734	AV10043	AV10270	06	3750
2919	AV10098	AV10271	06	3751
2919	AV10099	AV10272	06	3751
2919	AV10101	AV10273	06	3751
2919	AV10102	AV10274	06	3751
2919	AV10103	AV10275	06	3751

2919	AV10103	AV10275	06	3751
2919	AV10104	AV10276	06	3751
2919	AV10105	AV10277	06	3751
2919	AV10106	AV10278	06	3751
2919	AV10116	AV10279	06	3751
2919	AV10134	AV10280	06	3751
2919	AV10140	AV10281	06	3751
2919	AV10150	AV10282	06	3751
3320	AV10141	AV10283	06	3752
3320	AV10142	AV10284	06	3752
3320	AV10143	AV10285	06	3752
3320	AV10144	AV10286	06	3752
3320	AV10145	AV10287	06	3752
3320	AV10146	AV10288	06	3752
3320	AV10147	AV10289	06	3752
3320	AV10148	AV10290	06	3752

Table 6: ISX CM871 DPF Part Number and ECM Calibration Cross Reference CPL 2733, 3458, 3459, 3774, 3775, and 3776 (400 to 600 HP)			
Old Engine Part Number	New DPF Part Number	Description	ECM Calibration Required
4969702	5283669	Insulated diesel particulate filter assembly	Yes ¹
4969702, 5283669	5297522	Insulated diesel particulate filter assembly	Yes ²

¹Verify the correct ECM calibration for CPL 3774, 3775, or 3762 is already installed, or verify the correct ECM calibration is installed for the corresponding DPF part number and CPL. See Table 7.

²Verify the correct ECM calibration and minimum revision level for CPL 3774, 3775, or 3762 is already installed, or verify the correct ECM calibration is installed for the corresponding DPF part number and CPL. See Table 7.

Table 7: ISX CM871 Export ECM Calibration Cross Reference CPL 2733, 3458, 3459, 3774, 3775, and 3776 (400 to 600 HP)				
Old Engine CPL	ECM Calibration to be Used with DPF Part Number 4969702 (See Table 6)	ECM Calibration to be Used with DPF Part Number 5283669 or 5297522 (See Table 6)	Minimum Calibration Revision Level Required for Use with DPF Part Number 5297522	New Engine CPL
2733	AV10104	AV10276	06	3751

2755	AV10184	AV10300	05	3770
3458	AV10151	AV10292	05	3774
3458	AV10152	AV10293	05	3774
3458	AV10153	AV10294	05	3774
3458	AV10154	AV10295	05	3774
3458	AV10155	AV10296	05	3774
3458	AV10156	AV10297	05	3774
3458	AV10157	AV10298	05	3774
3458	AV10158	AV10299	05	3774
3459	AV10159	AV10300	05	3775
3459	AV10160	AV10301	05	3775
3459	AV10161	AV10302	05	3775
3459	AV10162	AV10303	05	3775
3459	AV10163	AV10304	05	3775
3459	AV10164	AV10305	05	3775

Document History

Date	Details
2010-11-18	Module Created
2011-2-7	Original draft was only a place holder.
2011-9-29	Corrected table so it displays correctly.
2012-1-31	
2014-11-11	Added note about fleet count requirement

Last Modified: 17-Feb-2015

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