

ECO Fuel Catalyst Testing

Baseline Data Pre-Installation

Date installed	Bus #	ECO SN	Installation Notes	Avg ECM Key Time between Re-Gen's	LTD Mileage @ Install	LTD Fuel Usage	LTD MPG
8/29/16	10101	0-8604	No Active Codes @ Install	8.33	346,450	66,852	5.18
8/29/16	10107	0-8730	No Active Codes @ Install	25.33	287,447	55,726	5.16
8/29/16	10105	0-8878	No Active Codes @ Install	16.89	350,539	67,683	5.18
8/29/16	10111	0-1474	No Active Codes @ Install	17.66	324,602	62,327	5.21
8/29/16	10112	0-9568	No Active Codes @ Install	17.00	313,750	65,133	4.82
8/29/16	10109	0-9572	No Active Codes @ Install	20.33	320,499	61,669	5.20
8/29/16	10102	0-9573	No Active Codes @ Install	21.77	357,915	81,374	4.40
8/29/16	10114	0-9580	No Active Codes @ Install	20.11	333,604	67,195	4.96
8/29/16	10106	0-9565	No Active Codes @ Install	13.63	286,340	60,933	4.70
8/10/16	10113	0-8564	New DPF & DOC (OEM) installed for testing.	13.30	316,805	63,889	4.96

Post Installation Data Averages

Date installed	Bus #	ECO SN	Installation Notes	Avg ECM Key Time between Re-Gen's	Re-Gen% change	Miles Traveled Post Installation	Fuel Usage Post Installation	MPG Post Installation	MPG Difference	MPG % Change
8/29/16	10101	0-8604	ReGen 8/29/16 @ install	14.5	42.63%	4,926	892	5.52	0.34	6.13%
8/29/16	10107	0-8730	ReGen 8/29/16 @ install	25.1	-0.87%	1,779	427	4.16	-0.99	-23.90%
8/29/16	10105	0-8878	ReGen 8/29/16 @ install	18.2	12.19%	6,027	870	6.93	1.75	25.27%
8/29/16	10111	0-1474	NO ReGen or filter changes @ install	19.1	19.15%	6,240	1036	6.03	0.82	13.57%
8/29/16	10112	0-9568	NO ReGen or filter changes @ install	20.7	17.72%	6,527	1647	3.96	-0.85	-21.53%
8/29/16	10109	0-9572	ReGen 8/29/16 @ install	22.2	8.52%	4,717	823	5.73	0.54	9.33%
8/29/16	10102	0-9573	ReGen 8/29/16 @ install	24.9	12.53%	3,927	916	4.29	-0.11	-2.60%
8/29/16	10114	0-9580	ReGen 8/29/16 @ install	20.8	3.21%	5,606	1107	5.07	0.10	2.01%
8/29/16	10106	0-9565	NO ReGen or filter changes @ install	14.0	2.64%	4,959	854	5.81	1.11	19.10%
8/10/16	10113	0-8564	NEW DPF & DOC @ install	18.7	28.95%	11,832	1806	6.55	1.59	24.33%

Fleet Averages

19.82 14.67% 5654 1038 5.41 0.43 5.17%

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Notes, Comments & DTC Logged				
Bus #	ECO SN	Details	# DTC	
10101	0-8604	Installed ECO on 8/29/2016 - No active DTC. 9/13/16 Check engine light - regen & clear.	1	
10107	0-8730	Installed ECO on 8/29/2016 - No active DTC. - Bus is OOS for a defective W/C ramp (will delay test).		
10105	0-8878	Installed ECO on 8/29/2016 - No active DTC. 9/18/2016 SCR Code - Regen.	1	
10111	0-1474	Installed ECO on 8/29/2016 - No active DTC. 9/18/2016 SCR code - Regen.	1	
10112	0-9568	Installed ECO on 8/29/2016 - No active DTC. 9/9/2016 Check Engine (1V57252) Regen.	1	
10109	0-9572	Installed ECO on 8/29/2016 - No active DTC. 9/15/2016 Code 2518 cleared.	1	

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10102	0-9573	Installed ECO on 8/29/2016 - No active DTC.	0
10114	0-9580	Installed ECO on 8/29/2016 - No active DTC. 9/9/2016 - Check Engine (code 3582-241) cleared. 9/15/2016 inactive SCR code cleared.	2
10106	0-9565	Installed ECO on 8/29/2016 - No active DTC. 9/10/2016 Check Engine (1V57297) Regen. 9/12/2016 Check engine SCR codes - cleaned Decomp Tube and clear code. 9/16/2016 Replaced Doser Valve. 9/19/2016 3582 SCR code - Regen.	4
10113	0-8564	8/22/2016 - Inactive water in fuel logged & cleared. No aftertreatment issues. 9/13/2016 check engine light for SCR code - regen & clear. 9/19/2016 3582 SCR code - Regen.	2
10103	NA	(No ECO Test Catalyst) 8/24/2016 8/29/2016 OOS - Engine Failed 9/17/2016 SCR code - Regen. 9/18/2016 SCR code - Regen.	2
10104	NA	(No ECO Test Catalyst) 8/27/16 SCR code present, regen & clear. 9/6/2016 SCR code, regen & check exhaust then clear code.	2
10108	NA	(No ECO Test Catalyst) 8/29/2016 Check Engine high exhaust temp - could not duplicate complaint.	

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10110	NA	(No ECO Test Cayalyst) 9/14/2016 check engine light & derate - clean decom tube regen & clear. 9/18/2016 SCR code - Regen	2
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Post Installation Weekly Data Collection

Weekly Mileage

Bus #	ECO SN	Start	8/22/16		8/29/16		9/7/16		9/12/16		9/19/16	
10101	0-8604	346,450	NO TESTING		NO TESTING		347,586	1,136	348,200	1,750	349,301	1,101
10107	0-8730	287,447	NO TESTING		NO TESTING		287,447	0	287,447	0	287,982	535
10105	0-8878	350,539	NO TESTING		NO TESTING		352,029	1,490	352,784	2,245	354,085	1,301
10111	0-1474	324,602	NO TESTING		NO TESTING		326,152	1,550	326,669	2,067	327,912	1,243
10112	0-9568	313,750	NO TESTING		NO TESTING		315,040	1,290	315,789	2,039	317,079	1,290
10109	0-9572	320,499	NO TESTING		NO TESTING		321,441	942	322,400	1,901	323,858	1,458
10102	0-9573	357,915	NO TESTING		NO TESTING		357,928	13	359,051	1,136	360,748	1,697
10114	0-9580	333,604	NO TESTING		NO TESTING		334,741	1,137	335,460	1,856	336,558	1,098
10106	0-9565	286,340	NO TESTING		NO TESTING		287,413	1,073	288,040	1,700	288,942	902
10113	0-8564	316,805	319,268	2,463	320,291	1,023	321,328	1,037	322,000	5,195	323,085	1,085

Weekly Fuel Usage

Bus #	ECO SN	Start	8/22/16		8/29/16		9/7/16		9/12/16		9/19/16	
10101	0-8604	66,851.70	NO TESTING		NO TESTING		67,103	252	67,241	138	67,510	269
10107	0-8730	55,725.70	NO TESTING		NO TESTING		55,726	0	55,726	0	55,860	134
10105	0-8878	67,683.30	NO TESTING		NO TESTING		67,949	266	68,098	149	68,345	247
10111	0-1474	62,326.50	NO TESTING		NO TESTING		62,657	330	62,774	117	63,044	271
10112	0-9568	64,707.30	NO TESTING		NO TESTING		64,883	175	65,066	183	65,903	838
10109	0-9572	61,669.10	NO TESTING		NO TESTING		61,887	218	62,081	193	62,374	293
10102	0-9573	81,374.00	NO TESTING		NO TESTING		81,380	6	81,634	254	82,024	390
10114	0-9580	67,194.50	NO TESTING		NO TESTING		67,462	268	67,654	192	67,933	279
10106	0-9565	60,933.30	NO TESTING		NO TESTING		61,210	276	61,340	130	61,528	188
10113	0-8564	63,889.30	64,215.20	325.90	64,759.70	544.50	65,016	256	65,175	159	65,436	262

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ECM Key Time Between Re-Gen's											
Bus #	ECO SN	Start	8/22/16	8/29/16	9/27/16						
10101	0-8604	8.33			14.52						
10107	0-8730	25.33			25.11						
10105	0-8878	16.89			18.22						
10111	0-1474	17.66			19.11						
10112	0-9568	17.00			20.66						
10109	0-9572	20.33			22.22						
10102	0-9573	21.77			24.89						
10114	0-9580	20.11			20.78						
10106	0-9565	13.63			14.00						
10113	0-8564	13.30	19.80	17.25	19.11						

10101		10107		10105		10111		10112		10109		10102	
23204	9/27/16	20067	9/27/16	22790	9/27/16	21817	9/27/16		9/27/16	4400	9/27/16	24566	9/27/16
23213	8	20091	24	22815	25	21829	12			4425	25	24591	25
23238	25	20116	25	22839	24	21854	25			4450	25	24615	24
23251	13	20142	26	22864	25	21878	24			4474	24	24640	25
23275	24	20171	29	22877	13	21885	7			4499	25	24665	25
23288	13	20195	24	22901	24	21889	4			4524	25	24689	24
23292	4	20220	25	22927	26	21919	30			4546	22	24714	25
23297	5	20244	24	22928	1	21944	25			4573	27	24738	24
23310	13	20269	25	22929	1	21960	16			4574	1	24764	26
23335	25	20293	24	22954	25	21989	29			4600	26	24790	26

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Weekly Mileage

Bus #	9/27/16	
10101	350,240	939
10107	289,226	1,244
10105	355,076	991
10111	329,292	1,380
10112	318,987	1,908
10109	324,274	416
10102	361,829	1,081
10114	338,073	1,515
10106	290,226	1,284
10113	324,114	1,029

Weekly Fuel Usage

Bus #	9/27/16	
10101	67,744	234
10107	56,153	293
10105	68,553	208
10111	63,362	318
10112	66,354	451
10109	62,492	118
10102	82,290	266
10114	68,301	368
10106	61,787	259
10113	65,695	259

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10114		10106		10113
22371	9/27/16	19282	9/27/16	9/27/16
22395	24	19296	14	
22409	14	19309	13	
22421	12	19322	13	
22448	27	19335	13	
22472	24	19343	8	
22497	25	19356	13	
22521	24	19370	14	
22543	22	19395	25	
22558	15	19408	13	

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10112	0-9568	No Active Codes @ Install	17.00	313,750	65,133.2	4.82
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10114	0-9580	No Active Codes @ Install	20.11	333,604	67,194.5	4.96
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10113	0-8564	New DPF & DOC (OEM) installed for tes	13.30	316,805	63,889.3	4.96
Post Installation Data Averages						
Bus #	ECO SN	Installation Notes	Regen Interval	Miles Post Install	Fuel Post Install	MPG Post Installation
10101	0-8604	ReGen 8/29/16 @ install		2,886	389.5	7.41
10107	0-8730	ReGen 8/29/16 @ install		0	0.0	0.00
10105	0-8878	ReGen 8/29/16 @ install		3,735	415.1	9.00
10111	0-1474	NO ReGen or filter changes @ install		3,617	447.3	8.09
10112	0-9568	NO ReGen or filter changes @ install		3,329	358.5	9.29
10109	0-9572	ReGen 8/29/16 @ install		2,843	411.4	6.91
10102	0-9573	ReGen 8/29/16 @ install		1,149	260.4	4.41
10114	0-9580	ReGen 8/29/16 @ install		2,993	459.1	6.52
10106	0-9565	NO ReGen or filter changes @ install		2,773	406.2	6.83
10113	0-8564	NEW DPF & DOC @ install	18.53	9,718	1,285.4	7.56

Bus #	January-16	February-16	March-16	April-16
10101	2	1	6	2
10102	2	0	3	3
10103	3	6	2	1
10104	3	4	3	2
10105	2	0	0	1
10106	1	0	1	4
10107	1	0	1	2
10108	0	3	1	2
10109	2	2	5	3
10110	1	1	2	4
10111	1	1	0	0
10112	2	2	2	4
10113	2	0	2	3
10114	0	1	2	5
	22	21	30	36