



Recorders Attachment 1 – Data from 2015 IC School Bus International ECM

Baltimore, MD

HWY17MH007

(5 pages)

Vehicle Information: 4DRBUAAP9FB029679

Thu Nov 03 14:23:50 EDT 2016

Engine Type	MaxxForce DT/9/10 (2013 -)
Software Identification	PAR1EGR3
Engine Family Rating Code	1121
Vehicle Identification Number	4DRBUAAP9FB029679
Engine Serial Number	466HM2Y3518196
Transmission Type	Allison MD
Rated Power	215 hp
Total Miles	34,224.9 miles
Total Fuel Used	5,937 gal
Total Engine Hours	3,173.7 hr

Diagnostic Trouble Codes

DTC	SPN	FMI	Type	Message	Module
N/A	1378	31	Previously Active	Change Engine Oil Service Interval	Engine
N/A	596	19	Previously Active	Cruise Control Enable Switch not detected on J1939	Engine
0	629	8	Pending	ECM Error - Engine Off Timer fault	Engine

Signals

ID	Name	Value	Units
27	EGR Position	35.00	%
51	Engine Throttle Position	0.0	%
84	Vehicle Speed	0.00	mph
91	Accelerator Pedal 1 Output 1	0.0	%
92	Engine Load	Error	%
94	Fuel Delivery Pressure	0	psi
97	Water In Fuel	No	
100	Engine Oil Pressure	1	psi
102	Intake Manifold Pressure	0.00	psi
105	Intake Manifold Temperature	109	F
108	Barometric Absolute Pressure	14.6	psi
110	Engine Coolant Temperature 1	108	F
111	Engine Coolant Level	100.0	%
132	Mass Air Flow	0.0	kg/hr
158	V: Switch Battery	12.8	V
164	Injection Control Pressure	1	psi
172	Inlet Air Temperature	88	F
173	Exhaust Gas Temperature	283.9	F
175	Engine Oil Temperature	96.8	F
183	Engine Fuel Rate	0.00	gal/hr
190	Engine Speed	0.0	RPM
977	Engine Fan State	Off	
1110	EWPS - Has Shutdown Engine	No	

ID	Name	Value	Units
1173	TC2 Comp. Inlet Temperature	-40.0	F
1189	TC2 Wastegate CTL	0.0	%
1220	OBD Compliance	Heavy Duty/On-Board Diagnostics (CARB CCR 1971.1)	
2630	CAC Outlet Temperature	96.0	F
2791	EGR Valve CTL	35.00	%
3242	DPF Inlet Temperature	88.5	F
3246	DPF Outlet Temperature	89.9	F
3251	DPF Differential Pressure	0.00	psi
3701	DPF Status	Regen not needed	
3719	DPF Soot Load	85	%
4765	DOC Intake Temperature	83.1	F
5314	ICP Desired	0	psi
5541	TC1 Turbine Outlet Pressure	0.6	psi
8494	MAF Hz	20,000	Hz
8498	MAF Desired	0.0	mg
520213	AFT Regen Status	Not Active	
522302	EBP Desired	0.00	psi
522305	MAF Mean Value	0.0	mg
522307	IPR Ctrl	0.00	%
522309	Brake Ctrl Pressure	0	psi
522317	Exhaust Back Pressure	0.01	psi

Parameters

ID	Name	Value	Units
63001	Mode 1: Time factor for coking accumulation	2,818,624	
63011	Mode 2: Time factor for coking accumulation	0	
63021	Mode 3: Time factor for coking accumulation	13,806	
63031	Total percentage coking accumulation-limited	0.00	%
63041	Cyl 1: Close end of motion average time reference value has been properly measured	Properly Measured	
63051	Cyl 5: Close end of motion average time reference value has been properly measured	Properly Measured	
63061	Cyl 3: Close end of motion average time reference value has been properly measured	Properly Measured	
63071	Cyl 6: Close end of motion average time reference value has been properly measured	Properly Measured	
63081	Cyl 2: Close end of motion average time reference value has been properly measured	Properly Measured	
63091	Cyl 4: Close end of motion average time reference value has been properly measured	Properly Measured	
63111	Cyl 1: Average filtered close end of motion time for combustion adaptation	0.76	ms
63121	Cyl 5: Average filtered close end of motion time for combustion adaptation	0.78	ms
63131	Cyl 3: Average filtered close end of motion time for combustion adaptation	0.76	ms
63141	Cyl 6: Average filtered close end of motion time for combustion adaptation	0.76	ms
63151	Cyl 2: Average filtered close end of motion time for combustion adaptation	0.76	ms
63161	Cyl 4: Average filtered close end of motion time for combustion adaptation	0.74	ms
63171	Cyl 1: Average filtered close end of motion time reference for the combustior adaptation	0.81	ms
63181	Cyl 5: Average filtered close end of motion time reference for the combustior adaptation	0.82	ms
63191	Cyl 3: Average filtered close end of motion time reference for the combustior adaptation	0.80	ms
63201	Cyl 6: Average filtered close end of motion time reference for the combustior adaptation	0.85	ms

ID	Name	Value	Units
63211	Cyl 2: Average filtered close end of motion time reference for the combustior adaptation	0.78	ms
63221	Cyl 4: Average filtered close end of motion time reference for the combustior adaptation	0.78	ms
63231	Cyl 1: Average filtered close end of motion time difference for the combustion adaptation	0.05	ms
63241	Cyl 5: Average filtered close end of motion time difference for the combustion adaptation	0.03	ms
63251	Cyl 3: Average filtered close end of motion time difference for the combustion adaptation	0.04	ms
63261	Cyl 6: Average filtered close end of motion time difference for the combustion adaptation	0.09	ms
63271	Cyl 2: Average filtered close end of motion time difference for the combustion adaptation	0.02	ms
63281	Cyl 4: Average filtered close end of motion time difference for the combustion adaptation	0.04	ms
66010	ECM Serial Number	6000054768--	
69013	Water In Fuel Signal Enable	Enable	
69250	Crankcase Breather Speed (CBS) Signal Processing Mode Select	Closed Breather	
70003	Vehicle Retarder Control Mode	Disable	
71001	Glow Plug / Inlet Air Heater Control Mode	Inlet Air Heater Enable	
72011	EVRT Warm-up Enable	Disable	
73001	Engine Crank Inhibit Mode	Enable	
74004	Idle Shutdown Timer Mode	Disable	
74010	Engine Idle Shutdown Time	15	min
74021	Engine Idle Shutdown Maximum Intake Air Temperature	111	F
74031	Engine Idle Shutdown Minimum Intake Air Temperature	61	F
74111	Engine Idle Shutdown CARB	CARB IST Disabled	
74151	Smart IST DDS	Disable	
74161	Smart IST Brake	Disable	
74171	Smart IST Park Brake	Disable	
75001	Auxiliary Engine Speed Control - Mode	In Cab Operation Only	
75011	Auxiliary Engine Speed Control - Maximum Vehicle Speed	5	mph
75021	Auxiliary Engine Speed Control - In Cab Mode	Stationary Variable	
75031	Auxiliary Engine Speed Control - In Cab Operator Interface	Enable	

Parameters

ID	Name	Value	Units
75041	Auxiliary Engine Speed Control - Remote Pedal Enable	Disable	
75051	Auxiliary Engine Speed Control - Preset Engine Speed 1 (Set)	1,000	RPM
75061	Auxiliary Engine Speed Control - Preset Engine Speed 2 (Resume)	1,500	RPM
75071	Auxiliary Engine Speed Control - Ramp Rate	100	RPM/s
75081	Auxiliary Engine Speed Control - Maximum Engine Speed	2,200	RPM
75091	Auxiliary Engine Speed Control - Preset Engine Speed 3	1,000	RPM
75101	Auxiliary Engine Speed Control - Preset Engine Speed 4	1,500	RPM
75111	Auxiliary Engine Speed Control - Preset Engine Speed 5	1,000	RPM
75121	Auxiliary Engine Speed Control - Preset Engine Speed 6	1,500	RPM
75131	Auxiliary Engine Speed Control - Return to Zero	Return to zero not required	
75141	Auxiliary Engine Speed Control - Disabl ATC With Service Brake	Service Brake Disables AESC	
75151	Auxiliary Engine Speed Control - Disabl AESC With Parking Brake Released	Parking Brake Does Not Change AESC	
75161	Auxiliary Engine Speed Control - Disabl AESC With Driveline Status	Driveline Status Disables AESC	
75171	Auxiliary Engine Speed Control - Disabl AESC With In-Cab Controls	In-Cab Controls Disable AESC	
75181	Auxiliary Engine Speed Control - Disabl AESC With Vehicle Speed	Vehicle Speed Limit Disables AESC	
75191	Auxiliary Engine Speed Control - SPDT Enable	Enable the ability to activate the AESC enable signal (CC/AESC On, RPRE, RVAR) at the same time as the AESC incrementing signal (Set, Resume)	
75201	Auxiliary Engine Speed Control - Disabl RP With Service Brake	Service Brake Disables RPS	
75211	Auxiliary Engine Speed Control - Disabl RP With Parking Brake Released	Parking Brake Does Not Change RPS	
75221	Auxiliary Engine Speed Control - Disabl RP With Driveline Status	Driveline Status Disables RPS	
75231	Auxiliary Engine Speed Control - Disabl RP With In-Cab Controls	In-Cab Controls Disable RPS	
75241	Auxiliary Engine Speed Control - Disabl RP With Vehicle Speed	Vehicle Speed Limit Disables RPS	
75251	Auxiliary Engine Speed Control - Enable RP Overrides	Enable	

ID	Name	Value	Units
75261	Auxiliary Engine Speed Control - Enable AESC Overrides	Enable	
75270	Enable PTO preselect engine speed	Disabled	
75280	PTO preselect engine speed setpoint	850	RPM
76001	Cruise Control Mode	Disable	
76031	Cruise Control Vehicle Speed Low Limit	35	mph
76041	Cruise Control Vehicle Speed High Limit	55	mph
77002	Engine Warning & Protection System Mode	3-way Warning (Overspeed, Overheat, Low Oil Pressure, Low Coolant)	
77011	Engine Coolant Warning Temperature	235	F
77021	Engine Coolant Critical Temperature	240	F
77031	Engine Oil Pressure Engine RPM Boundary 1	700	RPM
77041	Engine Oil Pressure Engine RPM Boundary 2	1,400	RPM
77051	Engine Oil Pressure Engine RPM Boundary 3	2,000	RPM
77061	Engine Oil Warning Pressure for Region 1	5	psi
77071	Engine Oil Warning Pressure for Region 2	10	psi
77081	Engine Oil Warning Pressure for Region 3	20	psi
77091	Engine Oil Critical Pressure for Region 1	2	psi
77101	Engine Oil Critical Pressure for Region 2	5	psi
77111	Engine Oil Critical Pressure for Region 3	12	psi
79001	Road Speed Limiting Control Mode	Enable	
79011	Engine Speed Limit with VSS Fault	1,751	RPM
79021	Max Vehicle Speed with Road Speed Limiting On	74	mph
79030	Road Speed Limiting Secondary Vehicle Speed Limit	25	mph
79040	Road Speed Limiting Secondary Vehicle Speed Limit Enable	VLS Gov Enable Switch Feature Disabled	
79050	Road Speed Limiting Max RPM Limit for Secondary Speed with VSS fault	1,600	RPM
80001	Two Speed Axle Enable	Disable	
80011	Tire Revs Per Mile	497.0	Revolution miles
80020	Rear Axle Ratio Low	5.29	
80030	Rear Axle Ratio High	5.29	
80041	Transmission Top Gear Ratio	0.74	
80051	Low Axle Ratio Pulses Per Mile Count	42,066	

Parameters

ID	Name	Value	Units
80061	High Axle Ratio Pulses Per Mile Count	42,066	
80071	Transmission Tailshaft Gear Teeth	16	
82001	Transmission Type	Allison MD	
82011	Engine Family Rating Code	1121	
82020	Low Idle Engine Speed	700	RPM
82030	High Idle Engine Speed	2,600	RPM
82041	Rated Engine Speed	2,200	RPM
82051	Rated Power	215	hp
82071	Regulation Type	Type 2	
83001	Total Fuel Used	5,937	gal
83011	Total Engine Hours	3,173.7	hr
83021	Total Miles	34,224.9	miles
83051	Vehicle Miles per DPF Regeneration - All Regenerations	0.0	miles
83061	Vehicle Miles per DPF Regeneration - Last 5 Regeneration	0.0	miles
83082	Engine Coolant Temperature Fault Event Counter	0	
83092	Engine Coolant Temperature Fault Total Minutes	0.0	min
83111	Total Fuel Used at Idle Speed	1,104	gal
83121	Total Engine On Time at Idle Speed	1,794.5	hr
83131	Total AESC Fuel Used	12	gal
83141	Engine On Time in AESC	15.3	hr
83251	Vehicle Miles at Last DPF Servicing	2.2	miles
83261	Vehicle Hours at Last DPF Servicing	8.6	hr
83311	DPF Soot Load	101	
83321	DPF Ash Loading (Open Loop)	0.04	pounds
83331	DPF Soot Load Calculation Parameter #1	0.00	
83341	DPF Ash Loading (Closed Loop)	0.00	gal
83351	DPF Soot Load Calculation Parameter #2	0.00	
83361	Number of sample pairs used in restriction (dPdV) calculation	0	
83381	Current Accumulated Time of Regeneration Inhibit	0.0	hr
83391	First Accumulated Time of Regeneration Inhibit	0.0	hr
83401	Second Accumulated Time of Regeneration Inhibit	0.0	hr
83411	Third Accumulated Time of Regeneration Inhibit	0.0	hr
83421	Fourth Accumulated Time of Regeneration Inhibit	0.0	hr
83842	Number of Coolant System Fault Overlimit	0	
83851	Time of Coolant System Fault Overlimit	0.0	min
83861	Engine Coolant Level Fault Event Counter	28	

ID	Name	Value	Units
83871	Engine Coolant Level Fault Total Time	47.5	min
83881	Engine Oil Temperature Fault Event Counter	0	
83891	Engine Oil Temperature Fault Total Time	0.0	min
84001	Engine Speed Fault 1 Engine Hours	0.0	hr
84011	Engine Speed Fault 2 Engine Hours	0.0	hr
84021	Engine Oil Pressure Fault 1 Engine Hours	0.0	hr
84031	Engine Oil Pressure Fault 2 Engine Hours	0.0	hr
84041	Engine Coolant Temperature Fault 1 Engine Hours	0.0	hr
84051	Engine Coolant Temperature Fault 2 Engine Hours	0.0	hr
84061	Engine Coolant Level Fault 1 Engine Hours	2,834.8	hr
84071	Engine Coolant Level Fault 2 Engine Hours	0.0	hr
84081	Engine Speed Fault 1 Total Miles	0.0	miles
84091	Engine Speed Fault 2 Total Miles	0.0	miles
84101	Engine Oil Pressure Fault 1 Total Miles	0.0	miles
84111	Engine Oil Pressure Fault 2 Total Miles	0.0	miles
84121	Engine Coolant Temperature Fault 1 Total Miles	0.0	miles
84131	Engine Coolant Temperature Fault 2 Total Miles	0.0	miles
84141	Engine Coolant Level Fault 1 Total Mile	30,292.6	miles
84151	Engine Coolant Level Fault 2 Total Mile	0.0	miles
84171	Engine Oil Temperature Fault 1 Engine Hours	0.0	hr
84181	Engine Oil Temperature Fault 2 Engine Hours	0.0	hr
84191	Engine Oil Temperature Fault 1 Total Miles	0.0	miles
84201	Engine Oil Temperature Fault 2 Total Miles	0.0	miles
84211	Coolant System Fault 1 Engine Hours	0.0	hr
84221	Coolant System Fault 2 Engine Hours	0.0	hr
84231	Coolant System Fault 1 Total Miles	0.0	miles
84241	Coolant System Fault 2 Total Miles	0.0	miles
85001	Vehicle Identification Number	4DRBUAAP9FB029679	
88001	Engine Serial Number	466HM2Y3518196	
89001	Vehicle Speed Signal Mode	Enable Hardwired OSS feature	
90001	Engine Fan Control Mode	Disable	
90021	Fan On Temperature for Engine Cooling Control	212	F

Parameters

ID	Name	Value	Units
90031	Fan Off Temperature for Engine Cooling Control	204	F
90181	Total Time Fan Duty Cycle Protection is enabled	30	s
90191	Extended Fan On Time During Fan Duty Cycle Protection	120	s
91001	Radiator Shutter Enable	Disable	
91011	Radiator Shutter Open Temperature	189	F
91021	Radiator Shutter Closed Temperature	176	F
92001	Coolant Tank Selection	Float Sensor (Plastic Tank)	
93011	Driveline Status for Hydraulic Pressure Governor Operation	Neutral Operation	
93071	Vehicle Speed Source Selection When Split Shaft is Active	Output Shaft Speed Selected When Split Shaft is Enabled	
94001	Cold Ambient Protection Enable	Enable	
95001	Service Interval Mode	Enable	
95011	Fuel Used Service Interval	1,500	gal
95021	Engine Hour Service Interval	175	hr
95031	Vehicle Distance Service Interval	6,000	miles
95041	Fuel Used Starting Value	0	gal

ID	Name	Value	Units
95051	Engine Hour Starting Value	0.0	hr
95061	Vehicle Distance Starting Value	0.0	miles
95071	Service Soon Percent	100	%
95081	Change Oil Lamp Always On	No	
95091	Change Oil Lamp Activation Time	30	s
95101	Service Interval Reset Request	No	
95171	CDPF Reset Request	No	
95211	Aftertreatment Reset Request	No Reset	
97001	Traction Control Enable	Enable	
99061	Enable stationary regeneration feature	Enable	
99071	Enable inhibit regeneration feature	Enable	
99131	MAF Configuration Selection	Configuration 3	
99141	Enable Severe De-rate When DPF Overloaded	Enable	
99153	MAF Learned Reset	No	
99393	MAFT Co-efficient A1	21.03	
99403	MAFT Co-efficient B1	2.92	
99423	MAFT Process is Pass/Fail or Auto-Trim is complete	Save PP Auto trim complete & Pass	
99502	Fuel Pressure Adaptation Reset	No	