

Event Data Recorder - Attachment A-Caterpillar ECM Data
MEXICAN HAT, UTAH; 1/6/08
HWY-08-MH-012
(57 Pages)

Cat Electronic Technician 2007C v1.0
Trip Segment - Fleet

1/11/2008 11:57 PM

C13 Truck (KCB87996)

Parameter	Value
Vehicle ID	2M93JMDA87W064449
Engine Serial Number	KCB87996
ECM Serial Number	29366527JJ
Personality Module Part Number	2951519-00
Personality Module Release Date	MAY06
Personality Module Code	72
ECM Date/Time	1/11/2008 10:55:11 PM

Description	Value	Unit
Time	1122:09	hours
Driving Time	516:36	hours
Distance	23941.6	Miles
Fuel	4142.5	Gal
Overall Fuel Economy	5.78	MPG
Driving Fuel Economy	6.62	MPG
Idle Time	355:06	hours
Idle Fuel	264.8	Gal
% Idle Time	32	%
PTO Time	250:26	hours
PTO Fuel	262.4	Gal
% PTO Time	22	%
Avg Load Factor	29	%
Avg Vehicle Speed	21.3	MPH
Avg Driving Speed	46.3	MPH
Max Vehicle Speed	88	MPH
Max Engine Speed	2399	RPM
Start Time	0:00	hours
End Time	1122:09	hours

Cat Electronic Technician 2007C v1.0
Trip Segment - Driver

1/11/2008 11:57 PM

C13 Truck (KCB87996)

Parameter	Value
Vehicle ID	2M93JMDA87W064449
Engine Serial Number	KCB87996
ECM Serial Number	29366527JJ
Personality Module Part Number	2951519-00
Personality Module Release Date	MAY06
Personality Module Code	72
ECM Date/Time	1/11/2008 10:54:53 PM

Description	Value	Unit
Time	1122:09	hours
Driving Time	516:36	hours
Distance	23941.6	Miles
Fuel	4142.5	Gal
Overall Fuel Economy	5.78	MPG
Driving Fuel Economy	6.62	MPG
Idle Time	355:06	hours
Idle Fuel	264.8	Gal
% Idle Time	32	%
PTO Time	250:26	hours
PTO Fuel	262.4	Gal
% PTO Time	22	%
Avg Load Factor	29	%
Avg Vehicle Speed	21.3	MPH
Avg Driving Speed	46.3	MPH
Max Vehicle Speed	88	MPH
Max Engine Speed	2399	RPM
Start Time	0:00	hours
End Time	1122:09	hours

Start Odometer	0.0	Miles
End Odometer	23941.6	Miles

Cat Electronic Technician 2007C v1.0
Total Time vs Vehicle Speed

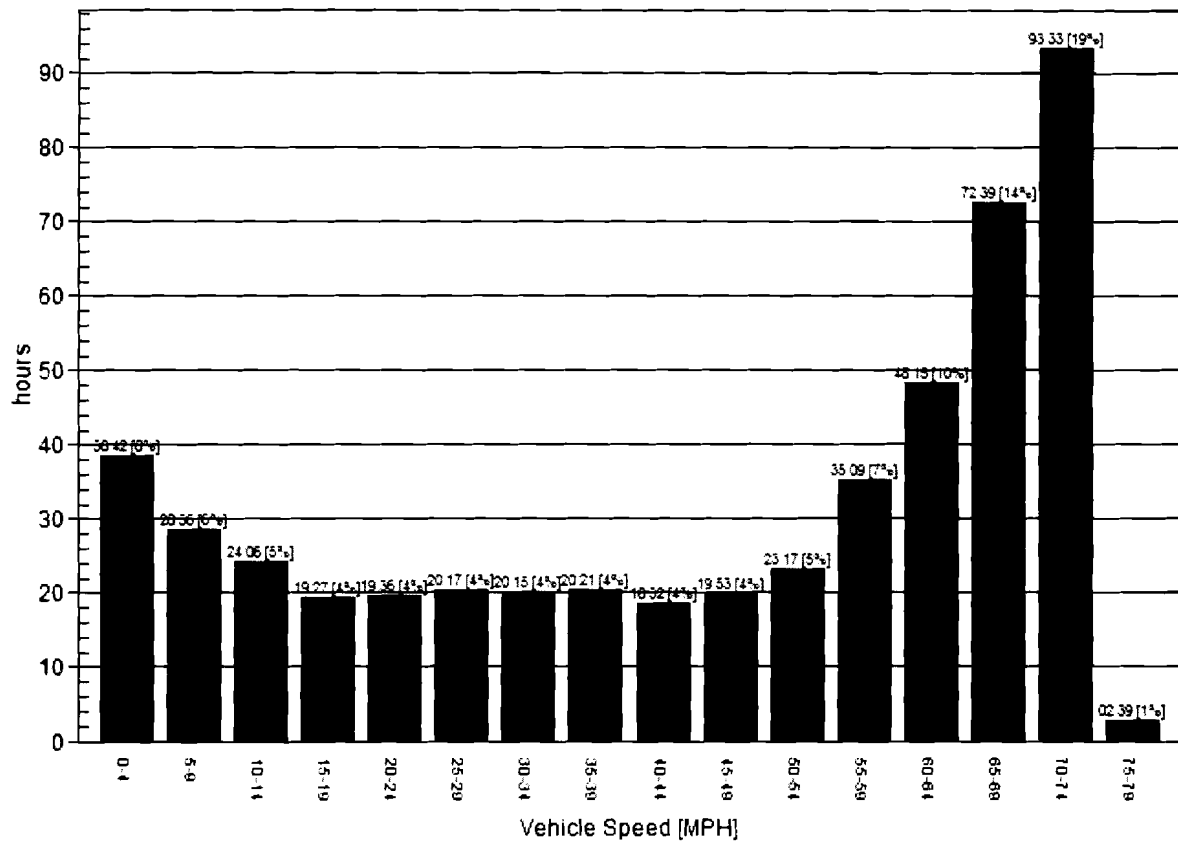
1/12/2008 3:47 PM

C13 Truck (KCB87996)

Parameter	Value
Vehicle ID	2M93JMDA87W064449
Engine Serial Number	KCB87996
ECM Serial Number	29366527JJ
Personality Module Part Number	2951519-00
Personality Module Release Date	MAY06
Personality Module Code	72
ECM Date/Time	1/12/2008 2:45:24 PM

Vehicle Speed(MPH)	hours	%
0-4	38.70	7.66
5-9	28.60	5.66
10-14	24.10	4.77
15-19	19.45	3.85
20-24	19.60	3.88
25-29	20.30	4.02
30-34	20.25	4.01
35-39	20.35	4.03
40-44	18.55	3.67
45-49	19.90	3.94
50-54	23.30	4.61
55-59	35.15	6.96
60-64	48.25	9.55
65-69	72.65	14.38
70-74	93.55	18.51
75-79	2.65	0.52

Total Time vs Vehicle Speed



Cat Electronic Technician 2007C v1.0
Total Time vs Engine Speed

1/12/2008 3:47 PM

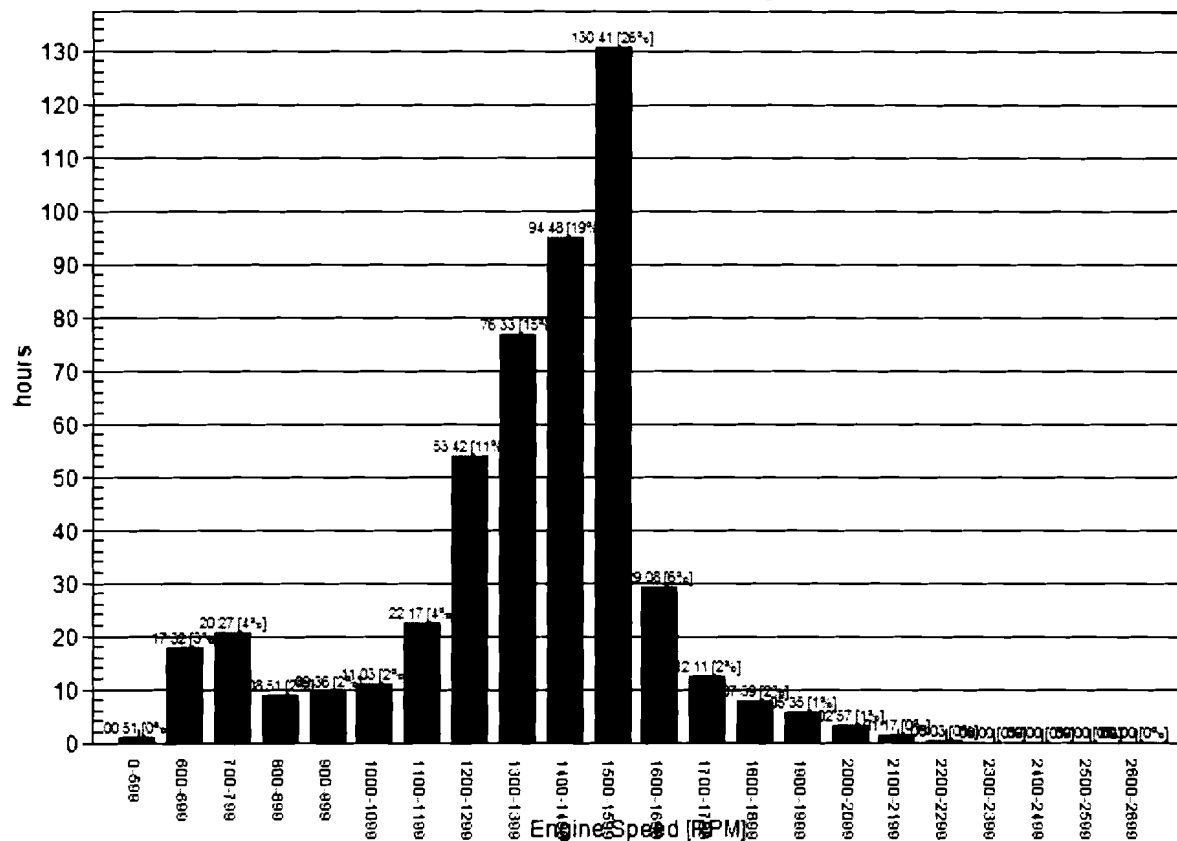
C13 Truck (KCB87996)

Parameter	Value
Vehicle ID	2M93JMDA87W064449
Engine Serial Number	KCB87996
ECM Serial Number	29366527JJ
Personality Module Part Number	2951519-00
Personality Module Release Date	MAY06
Personality Module Code	72
ECM Date/Time	1/12/2008 2:44:52 PM

Engine Speed(RPM)	hours	%
0-599	0.85	0.17
600-699	17.55	3.47
700-799	20.45	4.05
800-899	8.85	1.75
900-999	9.60	1.90
1000-1099	11.05	2.19
1100-1199	22.30	4.41
1200-1299	53.70	10.63
1300-1399	76.55	15.15
1400-1499	94.80	18.76
1500-1599	130.70	25.87
1600-1699	29.15	5.77
1700-1799	12.20	2.41
1800-1899	7.65	1.51
1900-1999	5.60	1.11
2000-2099	2.95	0.58
2100-2199	1.30	0.26
2200-2299	0.05	0.01
2300-2399	0.00	0.00

2400-2499	0.00	0.00
2500-2599	0.00	0.00
2600-2699	0.00	0.00

Total Time vs Engine Speed



Cat Electronic Technician 2007C v1.0
Total Time vs Engine Speed And Vehicle Speed (%)

1/12/2008 3:48 PM

C13 Truck (KCB87996)

Parameter	Value
Vehicle ID	2M93JMDA87W064449
Engine Serial Number	KCB87996
ECM Serial Number	29366527JJ
Personality Module Part Number	2951519-00
Personality Module Release Date	MAY06
Personality Module Code	72
ECM Date/Time	1/12/2008 2:46:01 PM

Total Time vs Engine Speed And Vehicle Speed (%)

RPM	0-599	600-699	700-799	800-899	900-999	1000-1099	1100-1199	1200-1299	1300-1399
MPH									
0-4	0.17	2.75	3.58	0.64	0.33	0.07	0.02	0.01	0.00
5-9	0.00	0.53	0.32	0.89	1.04	0.76	0.64	0.55	0.36
10-14	0.00	0.20	0.17	0.18	0.23	0.51	0.42	0.54	0.78
15-19	0.00	0.00	0.00	0.03	0.14	0.22	0.59	0.64	0.66
20-24	0.00	0.00	0.00	0.00	0.09	0.23	0.29	0.87	0.92
25-29	0.00	0.00	0.00	0.00	0.03	0.07	0.38	1.22	0.99
30-34	0.00	0.00	0.00	0.00	0.00	0.10	0.71	0.58	0.49
35-39	0.00	0.00	0.00	0.00	0.00	0.10	0.05	0.95	1.82
40-44	0.00	0.00	0.00	0.00	0.00	0.00	0.53	0.80	0.03
45-49	0.00	0.00	0.00	0.00	0.00	0.04	0.00	0.64	1.99
50-54	0.00	0.00	0.00	0.00	0.00	0.03	0.67	0.03	0.11
55-59	0.00	0.00	0.00	0.00	0.00	0.02	0.10	3.77	0.40
60-64	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.06	6.65
65-69	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.02
70-74	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
75-79	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.17	3.47	4.07	1.74	1.86	2.15	4.40	10.66	15.21

RPM	1400-1499	1500-1599	1600-1699	1700-1799	1800-1899	1900-1999	2000-2099	2100-2199	2200-2299
MPH									
0-4	0.00	0.00	0.00	0.02	0.00	0.00	0.00	0.06	0.00
5-9	0.29	0.23	0.05	0.00	0.00	0.00	0.00	0.00	0.00
10-14	0.61	0.18	0.26	0.23	0.18	0.13	0.11	0.04	0.00
15-19	0.59	0.39	0.23	0.14	0.10	0.09	0.01	0.01	0.00
20-24	0.57	0.29	0.20	0.13	0.08	0.02	0.12	0.03	0.00
25-29	0.26	0.53	0.33	0.07	0.01	0.06	0.05	0.00	0.00
30-34	1.25	0.72	0.02	0.03	0.06	0.03	0.01	0.00	0.00
35-39	0.31	0.07	0.47	0.21	0.03	0.00	0.00	0.00	0.00
40-44	1.21	0.93	0.02	0.00	0.08	0.04	0.01	0.00	0.00
45-49	0.08	0.08	0.76	0.29	0.00	0.00	0.01	0.01	0.00
50-54	2.41	0.96	0.00	0.09	0.24	0.08	0.00	0.00	0.00
55-59	0.04	1.26	1.18	0.00	0.00	0.07	0.09	0.02	0.00
60-64	1.29	0.03	0.33	1.05	0.12	0.00	0.00	0.03	0.00
65-69	9.96	3.52	0.01	0.02	0.55	0.38	0.00	0.00	0.00
70-74	0.01	16.83	1.50	0.00	0.00	0.17	0.12	0.00	0.00
75-79	0.00	0.00	0.40	0.08	0.01	0.00	0.00	0.02	0.00
Total	18.86	26.02	5.75	2.36	1.46	1.07	0.53	0.22	0.00

RPM	2300-2399	2400-2499	2500-2599	2600-2699	Total
MPH					
0-4	0.00	0.00	0.00	0.00	7.65

5-9	0.00	0.00	0.00	0.00	5.65
10-14	0.00	0.00	0.00	0.00	4.76
15-19	0.00	0.00	0.00	0.00	3.83
20-24	0.00	0.00	0.00	0.00	3.83
25-29	0.00	0.00	0.00	0.00	3.99
30-34	0.00	0.00	0.00	0.00	3.99
35-39	0.00	0.00	0.00	0.00	4.00
40-44	0.00	0.00	0.00	0.00	3.64
45-49	0.00	0.00	0.00	0.00	3.89
50-54	0.00	0.00	0.00	0.00	4.61
55-59	0.00	0.00	0.00	0.00	6.95
60-64	0.00	0.00	0.00	0.00	9.57
65-69	0.00	0.00	0.00	0.00	14.47
70-74	0.00	0.00	0.00	0.00	18.63
75-79	0.00	0.00	0.00	0.00	0.51
Total	0.00	0.00	0.00	0.00	100.00

**Cat Electronic Technician 2007C v1.0
System Troubleshooting Settings**

1/12/2008 12:10 AM

C13 Truck (KCB87996)

Parameter	Value
Vehicle ID	2M93JMDA87W064449
Engine Serial Number	KCB87996
ECM Serial Number	29366527JJ
Personality Module Part Number	2951519-00
Personality Module Release Date	MAY06
Personality Module Code	72
ECM Date/Time	1/11/2008 11:07:54 PM

Description	Value	Unit	Mode
Cooling Fan	---		Normal
Dyno Mode	---		Normal
Fuel Temperature Power Correction	---		Normal
Idle Shutdown Timer	---		Normal
Powertrain Data Link	---		Normal

**Cat Electronic Technician 2007C v1.0
Status**

1/11/2008 11:49 PM

C13 Truck (KCB87996)

Parameter	Value
Vehicle ID	2M93JMDA87W064449
Engine Serial Number	KCB87996
ECM Serial Number	29366527JJ
Personality Module Part Number	2951519-00
Personality Module Release Date	MAY06
Personality Module Code	72
ECM Date/Time	1/11/2008 10:47:08 PM

Active Status Flags

C13 Truck (KCB87996)

Intake Valve System Starting
No Engine Speed

Description	DIAG	Value	Unit	Minimum	Maximum	ECM
Vehicle Speed		0	MPH	0	0	C13 Truck (KCB87996)
Engine Speed		0	RPM	0	0	C13 Truck (KCB87996)
Accelerator Pedal Position - J1/P1:66	DIAG	0	%			C13 Truck (KCB87996)
Fuel Position		0.00	mm	0.00	0.00	C13 Truck (KCB87996)
Boost Pressure		0	PSI	0	0	C13 Truck (KCB87996)
Engine Oil Pressure	DIAG	73	PSI			C13 Truck (KCB87996)
Engine Coolant Temperature	DIAG	194	Deg F			C13 Truck (KCB87996)
Engine Retarder		Disabled				C13 Truck

Intake Manifold Air Temperature	DIAG 104	Deg F	(KCB87996) C13 Truck (KCB87996)
Atmospheric Pressure	DIAG 15	PSI	C13 Truck (KCB87996)

**Cat Electronic Technician 2007C v1.0
Status**

1/11/2008 11:54 PM

C13 Truck (KCB87996)

Parameter	Value
Vehicle ID	2M93JMDA87W064449
Engine Serial Number	KCB87996
ECM Serial Number	29366527JJ
Personality Module Part Number	2951519-00
Personality Module Release Date	MAY06
Personality Module Code	72
ECM Date/Time	1/11/2008 10:52:18 PM

Active Status Flags

C13 Truck (KCB87996)

Intake Valve System Starting

No Engine Speed

Description	DIAG	Value	Unit	Minimum	Maximum	ECM
Atmospheric Pressure	DIAG	15	PSI			C13 Truck (KCB87996)
Boost Pressure		0	PSI	0	0	C13 Truck (KCB87996)
Engine Oil Pressure	DIAG	73	PSI			C13 Truck (KCB87996)
Engine Oil Temperature		Not Installed	Deg F			C13 Truck (KCB87996)
Engine Coolant Temperature	DIAG	194	Deg F			C13 Truck (KCB87996)
Fuel Pressure		Not Installed	PSI			C13 Truck (KCB87996)
Fuel Temperature	DIAG	122	Deg F			C13 Truck (KCB87996)
Intake Manifold Air Temperature	DIAG	104	Deg F			C13 Truck (KCB87996)

**Cat Electronic Technician 2007C v1.0
Status**

1/11/2008 11:54 PM

C13 Truck (KCB87996)

Parameter	Value
Vehicle ID	2M93JMDA87W064449
Engine Serial Number	KCB87996
ECM Serial Number	29366527JJ
Personality Module Part Number	2951519-00
Personality Module Release Date	MAY06
Personality Module Code	72
ECM Date/Time	1/11/2008 10:52:02 PM

Active Status Flags

C13 Truck (KCB87996)

Intake Valve System Starting
No Engine Speed

Description	Value	Unit	Minimum	Maximum	ECM
Engine Coolant Diverter Solenoid Status	Off				C13 Truck (KCB87996)
Intake Valve Actuation System Oil Pressure Solenoid Status	Off				C13 Truck (KCB87996)

Cat Electronic Technician 2007C v1.0 **Status**

1/11/2008 11:54 PM

C13 Truck (KCB87996)

Parameter	Value
Vehicle ID	2M93JMDA87W064449
Engine Serial Number	KCB87996
ECM Serial Number	29366527JJ
Personality Module Part Number	2951519-00
Personality Module Release Date	MAY06
Personality Module Code	72
ECM Date/Time	1/11/2008 10:51:44 PM

Active Status Flags

C13 Truck (KCB87996)

Intake Valve System Starting
 No Engine Speed

Description	Value	Unit	Minimum	Maximum	ECM
Engine Speed	0	RPM	0	0	C13 Truck (KCB87996)
ECM Battery Voltage	14.2	Volts	14.2	14.3	C13 Truck (KCB87996)
Battery Monitor and Engine Control Status	Disabled				C13 Truck (KCB87996)

**Cat Electronic Technician 2007C v1.0
Status**

1/11/2008 11:53 PM

C13 Truck (KCB87996)

Parameter	Value
Vehicle ID	2M93JMDA87W064449
Engine Serial Number	KCB87996
ECM Serial Number	29366527JJ
Personality Module Part Number	2951519-00
Personality Module Release Date	MAY06
Personality Module Code	72
ECM Date/Time	1/11/2008 10:51:24 PM

Active Status Flags

C13 Truck (KCB87996)

Intake Valve System Starting

No Engine Speed

Description	Value	Unit	Minimum	Maximum	ECM
Auxiliary Brake	Not Installed				C13 Truck (KCB87996)
Vehicle Speed	0	MPH	0	0	C13 Truck (KCB87996)
Ignition Key Switch	On				C13 Truck (KCB87996)
On/Off Fan Output	Unavailable				C13 Truck (KCB87996)
Lockout Solenoid	Unavailable				C13 Truck (KCB87996)
Shift Solenoid	Unavailable				C13 Truck (KCB87996)
Cruise/Idle On-Off Switch - J1/P1:59	Off				C13 Truck (KCB87996)
Clutch Pedal Position Switch - J1/P1:22	Not Installed				C13 Truck (KCB87996)

**Cat Electronic Technician 2007C v1.0
Status**

1/11/2008 11:53 PM

C13 Truck (KCB87996)

Parameter	Value
Vehicle ID	2M93JMDA87W064449
Engine Serial Number	KCB87996
ECM Serial Number	29366527JJ
Personality Module Part Number	2951519-00
Personality Module Release Date	MAY06
Personality Module Code	72
ECM Date/Time	1/11/2008 10:51:06 PM

Active Status Flags

C13 Truck (KCB87996)

Intake Valve System Starting

No Engine Speed

Description	DIAG	Value	Unit	Minimum	Maximum	ECM
Clutch Pedal Position Switch - J1/P1:22		Not Installed				C13 Truck (KCB87996)
Retarder Off/Low/Med/High Switch - J1/P1:23 & 40		Off				C13 Truck (KCB87996)
Service Brake Pedal Position Switch #1 - J1/P1:45		On				C13 Truck (KCB87996)
Outside Temperature Sensor		Unavailable	Deg F			C13 Truck (KCB87996)
A/C High Pressure Switch		Unavailable				C13 Truck (KCB87996)
Service Brake Pedal Position Switch #2		Unavailable				C13 Truck (KCB87996)
Transmission Neutral Switch - J1939		Off				C13 Truck (KCB87996)
Accelerator Pedal Position -	DIAG 0		%			C13 Truck

J1/P1:66

(KCB87996)

Engine Running Output -
J1/P1:10

Off

C13 Truck
(KCB87996)

**Cat Electronic Technician 2007C v1.0
Status**

1/11/2008 11:53 PM

C13 Truck (KCB87996)

Parameter	Value
Vehicle ID	2M93JMDA87W064449
Engine Serial Number	KCB87996
ECM Serial Number	29366527JJ
Personality Module Part Number	2951519-00
Personality Module Release Date	MAY06
Personality Module Code	72
ECM Date/Time	1/11/2008 10:50:50 PM

Active Status Flags

C13 Truck (KCB87996)

Intake Valve System Starting

No Engine Speed

Description	Value	Unit	Minimum	Maximum	ECM
Vehicle Speed	0	MPH	0	0	C13 Truck (KCB87996)
PTO Accelerator Sensor	Unavailable	%			C13 Truck (KCB87996)
Engine Shutdown Output	Not Installed				C13 Truck (KCB87996)
Starting Aid On/Off Switch	Not Installed				C13 Truck (KCB87996)
Starting Aid Output	Not Installed				C13 Truck (KCB87996)
Two Speed Axle Switch	Not Installed				C13 Truck (KCB87996)
Cruise/Idle On-Off Switch - J1/P1:59	Off				C13 Truck (KCB87996)
Cruise Control					C13 Truck

Set/Resume/Accel/Decel Switch -
J1/P1:35 & 44

Off

(KCB87996)

Cat Electronic Technician 2007C v1.0 **Status**

1/11/2008 11:52 PM

C13 Truck (KCB87996)

Parameter	Value
Vehicle ID	2M93JMDA87W064449
Engine Serial Number	KCB87996
ECM Serial Number	29366527JJ
Personality Module Part Number	2951519-00
Personality Module Release Date	MAY06
Personality Module Code	72
ECM Date/Time	1/11/2008 10:50:34 PM

Active Status Flags

C13 Truck (KCB87996)

Intake Valve System Starting
 No Engine Speed

Description	Value	Unit	Minimum	Maximum	ECM
PTO On/Off Switch - J1/P1:56	Off				C13 Truck (KCB87996)
PTO Engine RPM Set Speed Input A Switch	Not Installed				C13 Truck (KCB87996)
PTO Engine RPM Set Speed Input B Switch	Not Installed				C13 Truck (KCB87996)
Ignore Brake/Clutch Switch	Not Installed				C13 Truck (KCB87996)
Torque Limit Switch	Not Installed				C13 Truck (KCB87996)
Diagnostic Enable Switch - J1/P1:46	Off				C13 Truck (KCB87996)

Cat Electronic Technician 2007C v1.0 **Status**

1/11/2008 11:52 PM

C13 Truck (KCB87996)

Parameter	Value
Vehicle ID	2M93JMDA87W064449
Engine Serial Number	KCB87996
ECM Serial Number	29366527JJ
Personality Module Part Number	2951519-00
Personality Module Release Date	MAY06
Personality Module Code	72
ECM Date/Time	1/11/2008 10:50:13 PM

Active Status Flags

C13 Truck (KCB87996)

Intake Valve System Starting

No Engine Speed

Description	Value	Unit	Minimum	Maximum	ECM
Engine Speed	0	RPM	0	0	C13 Truck (KCB87996)
Percent Torque	Not Installed	%			C13 Truck (KCB87996)
Powertrain Status	Not Installed				C13 Truck (KCB87996)
Traction Control/ABS Status	Not Installed				C13 Truck (KCB87996)
Traction Control Torque Command	Not Installed	%			C13 Truck (KCB87996)
Transmission Status	Not Installed				C13 Truck (KCB87996)
Transmission Speed Command	Not Installed	RPM			C13 Truck (KCB87996)
Transmission Torque Command	Not	%			C13 Truck

ABS Retarder Status	Installed	(KCB87996)
	Not	C13 Truck
	Installed	(KCB87996)

**Cat Electronic Technician 2007C v1.0
Status**

1/11/2008 11:52 PM

C13 Truck (KCB87996)

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Vehicle ID	2M93JMDA87W064449
Engine Serial Number	KCB87996
ECM Serial Number	29366527JJ
Personality Module Part Number	2951519-00
Personality Module Release Date	MAY06
Personality Module Code	72
ECM Date/Time	1/11/2008 10:49:59 PM

Active Status Flags

C13 Truck (KCB87996)

Intake Valve System Starting
No Engine Speed

Description	Value	Unit	Minimum	Maximum	ECM
Engine Speed	0	RPM	0	0	C13 Truck (KCB87996)
PTO Set RPM	0	RPM	0	0	C13 Truck (KCB87996)
PTO Config	Remote Switches				C13 Truck (KCB87996)
Cruise Control Set/Resume/Accel/Decel Switch - J1/P1:35 & 44	Off				C13 Truck (KCB87996)
PTO Kickout	Not Kicked Out				C13 Truck (KCB87996)
PTO Accelerator Sensor	Unavailable	%			C13 Truck (KCB87996)
PTO Shutdown Status	Disabled				C13 Truck (KCB87996)

PTO On/Off Switch - J1/P1:56	Off	C13 Truck (KCB87996)
Remote PTO Set Switch - J1/P1:58	Off	C13 Truck (KCB87996)
Remote PTO Resume Switch - J1/P1:60	Off	C13 Truck (KCB87996)

**Cat Electronic Technician 2007C v1.0
Status**

1/11/2008 11:52 PM

C13 Truck (KCB87996)

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Engine Serial Number	KCB87996
ECM Serial Number	29366527JJ
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Personality Module Release Date	MAY06
Personality Module Code	72
ECM Date/Time	1/11/2008 10:49:43 PM

Active Status Flags

C13 Truck (KCB87996)

Intake Valve System Starting

No Engine Speed

Description	Value	Unit	Minimum	Maximum	ECM
Engine Speed	0	RPM	0	0	C13 Truck (KCB87996)
Idle Set Speed	0	RPM	0	0	C13 Truck (KCB87996)
Idle Mode	Not Active				C13 Truck (KCB87996)
Cruise/Idle On-Off Switch - J1/P1:59	Off				C13 Truck (KCB87996)
Cruise Control Set/Resume/Accel/Decel Switch - J1/P1:35 & 44	Off				C13 Truck (KCB87996)
Accel/Decel Mode	Not Active				C13 Truck (KCB87996)
Idle Kickout	Cruise/PTO Switch Turned Off				C13 Truck (KCB87996)

Service Brake Pedal Position Switch #1 - J1/P1:45	On	C13 Truck (KCB87996)
Clutch Pedal Position Switch - J1/P1:22	Not Installed	C13 Truck (KCB87996)
Service Brake Pedal Position Switch #2	Unavailable	C13 Truck (KCB87996)

**Cat Electronic Technician 2007C v1.0
Status**

1/11/2008 11:51 PM

C13 Truck (KCB87996)

Parameter	Value
Vehicle ID	2M93JMDA87W064449
Engine Serial Number	KCB87996
ECM Serial Number	29366527JJ
Personality Module Part Number	2951519-00
Personality Module Release Date	MAY06
Personality Module Code	72
ECM Date/Time	1/11/2008 10:49:26 PM

Active Status Flags

C13 Truck (KCB87996)

Intake Valve System Starting
No Engine Speed

Description	Value	Unit	Minimum	Maximum	ECM
Vehicle Speed	0	MPH	0	0	C13 Truck (KCB87996)
Cruise Set Speed	0	MPH	0	0	C13 Truck (KCB87996)
Cruise Mode	Not Active				C13 Truck (KCB87996)
Cruise/Idle On-Off Switch - J1/P1:59	Off				C13 Truck (KCB87996)
Cruise Control Set/Resume/Accel/Decel Switch - J1/P1:35 & 44	Off				C13 Truck (KCB87996)
Accel/Decel Mode	Not Active				C13 Truck (KCB87996)
Cruise Kickout	Not Kicked Out				C13 Truck (KCB87996)

Service Brake Pedal Position Switch #1 - J1/P1:45	On	C13 Truck (KCB87996)
Clutch Pedal Position Switch - J1/P1:22	Not Installed	C13 Truck (KCB87996)
Adaptive Cruise Control Set Speed	Initializing MPH	C13 Truck (KCB87996)

**Cat Electronic Technician 2007C v1.0
Status**

1/11/2008 11:51 PM

C13 Truck (KCB87996)

Parameter	Value
Vehicle ID	2M93JMDA87W064449
Engine Serial Number	KCB87996
ECM Serial Number	29366527JJ
Personality Module Part Number	2951519-00
Personality Module Release Date	MAY06
Personality Module Code	72
ECM Date/Time	1/11/2008 10:49:07 PM

Active Status Flags

C13 Truck (KCB87996)

Intake Valve System Starting

No Engine Speed

Description	DIAG	Value	Unit	Minimum	Maximum	ECM
Engine Retarder		Disabled				C13 Truck (KCB87996)
Retarder Off/Low/Med/High Switch - J1/P1:23 & 40		Off				C13 Truck (KCB87996)
Accelerator Pedal Position - J1/P1:66	DIAG	0	%			C13 Truck (KCB87996)
Vehicle Speed		0	MPH	0	0	C13 Truck (KCB87996)
Cruise/Idle On-Off Switch - J1/P1:59		Off				C13 Truck (KCB87996)
ECM Battery Voltage		14.2	Volts	14.2	14.3	C13 Truck (KCB87996)
Idle Shutdown Status		Disabled				C13 Truck (KCB87996)
Auxiliary Brake		Not				C13 Truck

Service Brake Pedal Position Switch #1 - J1/P1:45	Installed	(KCB87996)
	On	C13 Truck (KCB87996)
Clutch Pedal Position Switch - J1/P1:22	Not Installed	C13 Truck (KCB87996)

Cat Electronic Technician 2007C v1.0 **Status**

1/11/2008 11:51 PM

C13 Truck (KCB87996)

Parameter	Value
Vehicle ID	2M93JMDA87W064449
Engine Serial Number	KCB87996
ECM Serial Number	29366527JJ
Personality Module Part Number	2951519-00
Personality Module Release Date	MAY06
Personality Module Code	72
ECM Date/Time	1/11/2008 10:48:53 PM

Active Status Flags

C13 Truck (KCB87996)

Intake Valve System Starting

No Engine Speed

Description	DIAG	Value	Unit	Minimum	Maximum	ECM
Engine Speed		0	RPM	0	0	C13 Truck (KCB87996)
Cooling Fan		Direct Mode				C13 Truck (KCB87996)
On/Off Fan Output		Unavailable				C13 Truck (KCB87996)
Three Speed Fan Slip Output - J1/P1:11		Off				C13 Truck (KCB87996)
Three Speed Fan Brake Output - J1/P1:13		Off				C13 Truck (KCB87996)
A/C High Pressure Switch		Unavailable				C13 Truck (KCB87996)
Engine Coolant Temperature	DIAG	194	Deg F			C13 Truck (KCB87996)
Intake Manifold Air	DIAG	104	Deg			C13 Truck

Temperature		F	(KCB87996)
Coolant Level	DIAG	OK	C13 Truck (KCB87996)
Fan Override Switch		Not Installed	C13 Truck (KCB87996)

Cat Electronic Technician 2007C v1.0 **Status**

1/11/2008 11:50 PM

C13 Truck (KCB87996)

Parameter	Value
Vehicle ID	2M93JMDA87W064449
Engine Serial Number	KCB87996
ECM Serial Number	29366527JJ
Personality Module Part Number	2951519-00
Personality Module Release Date	MAY06
Personality Module Code	72
ECM Date/Time	1/11/2008 10:48:15 PM

Active Status Flags

C13 Truck (KCB87996)

Intake Valve System Starting

No Engine Speed

Description	DIAG	Value	Unit	Minimum	Maximum	ECM
Engine Speed		0	RPM	0	0	C13 Truck (KCB87996)
Estimated Fuel Rate		0.00	GPH	0.00	0.00	C13 Truck (KCB87996)
Fuel Economy		0.00	MPG	0.00	0.00	C13 Truck (KCB87996)
Fuel Temperature	DIAG	122	Deg F			C13 Truck (KCB87996)
Intake Manifold Air Temperature	DIAG	104	Deg F			C13 Truck (KCB87996)
Engine Oil Temperature		Not Installed	Deg F			C13 Truck (KCB87996)
Vehicle Speed Limit		72	MPH	72	72	C13 Truck (KCB87996)
Driver Reward VSL Bonus		0	MPH	0	0	C13 Truck

Ignition Key Switch	On				(KCB87996) C13 Truck (KCB87996)
ECM Battery Voltage	14.3	Volts	14.2	14.3	C13 Truck (KCB87996)

**Cat Electronic Technician 2007C v1.0
Status**

1/11/2008 11:50 PM

C13 Truck (KCB87996)

Parameter	Value
Vehicle ID	2M93JMDA87W064449
Engine Serial Number	KCB87996
ECM Serial Number	29366527JJ
Personality Module Part Number	2951519-00
Personality Module Release Date	MAY06
Personality Module Code	72
ECM Date/Time	1/11/2008 10:47:50 PM

Active Status Flags

C13 Truck (KCB87996)

Intake Valve System Starting
No Engine Speed

Description	Value	Unit	Minimum	Maximum	ECM
Engine Speed		RPM			C13 Truck (KCB87996)
Desired Engine Speed		RPM			C13 Truck (KCB87996)
Accelerator Pedal Position - J1/P1:66		%			C13 Truck (KCB87996)
Fuel Position		mm			C13 Truck (KCB87996)
FRC Fuel Limit		mm			C13 Truck (KCB87996)
Rated Fuel Limit		mm			C13 Truck (KCB87996)
Boost Pressure		PSI			C13 Truck (KCB87996)
Ignition Key Switch					C13 Truck

Powertrain Status	Not Installed	(KCB87996) C13 Truck (KCB87996)
Multi-Torque		C13 Truck (KCB87996)

Cat Electronic Technician 2007C v1.0 Status

1/11/2008 11:50 PM

C13 Truck (KCB87996)

Parameter	Value
Vehicle ID	2M93JMDA87W064449
Engine Serial Number	KCB87996
ECM Serial Number	29366527JJ
Personality Module Part Number	2951519-00
Personality Module Release Date	MAY06
Personality Module Code	72
ECM Date/Time	1/11/2008 10:47:36 PM

Active Status Flags

C13 Truck (KCB87996)

Intake Valve System Starting
No Engine Speed

Description	Value	Unit	Minimum	Maximum	ECM
Vehicle Speed		MPH			C13 Truck (KCB87996)
Engine Speed		RPM			C13 Truck (KCB87996)
Accelerator Pedal Position - J1/P1:66		%			C13 Truck (KCB87996)
Fuel Position		mm			C13 Truck (KCB87996)
Boost Pressure		PSI			C13 Truck (KCB87996)
Engine Oil Pressure		PSI			C13 Truck (KCB87996)
Engine Coolant Temperature		Deg F			C13 Truck (KCB87996)
Engine Retarder					C13 Truck (KCB87996)
Intake Manifold Air Temperature		Deg F			C13 Truck (KCB87996)
Atmospheric Pressure		PSI			C13 Truck (KCB87996)

Cat Electronic Technician 2007C v1.0**1/12/2008 12:10 AM**

C13 Truck (KCB87996)

Parameter	Value
Vehicle ID	2M93JMDA87W064449
Engine Serial Number	KCB87996
ECM Serial Number	29366527JJ
Personality Module Part Number	2951519-00
Personality Module Release Date	MAY06
Personality Module Code	72
ECM Date/Time	1/11/2008 11:08:22 PM

**Cat Electronic Technician 2007C v1.0
Rating History**

1/11/2008 11:56 PM

C13 Truck (KCB87996)

Parameter	Value
Vehicle ID	2M93JMDA87W064449
Engine Serial Number	KCB87996
ECM Serial Number	29366527JJ
Personality Module Part Number	2951519-00
Personality Module Release Date	MAY06
Personality Module Code	72
ECM Date/Time	1/11/2008 10:53:57 PM

Description	Original Setting
Advertised Power	410 HP
Governed Speed	2100 RPM
Multi-Torque Ratio	Unavailable
Rated Peak Torque	1450 lb-ft @ 1200 RPM
Date/Time	6/30/2007 6:47:42 AM
Engine Hours	1079 hours
Tool to change rating	Unavailable

Description	Present Setting
Advertised Power	410 HP
Governed Speed	2100 RPM
Multi-Torque Ratio	Unavailable
Rated Peak Torque	1450 lb-ft @ 1200 RPM
Date/Time	6/30/2007 6:47:42 AM
Engine Hours	1079 hours
Tool to change rating	Unavailable

Description	Previous Setting
--------------------	-------------------------

Advertised Power	410 HP
Governed Speed	2100 RPM
Multi-Torque Ratio	Unavailable
Rated Peak Torque	1450 lb-ft @ 1200 RPM
Date/Time	6/30/2007 6:47:42 AM
Engine Hours	0 hours
Tool to change rating	Unavailable

Description	Highest Setting
Advertised Power	410 HP
Governed Speed	2100 RPM
Multi-Torque Ratio	Unavailable
Rated Peak Torque	1450 lb-ft @ 1200 RPM
Date/Time	6/30/2007 6:47:42 AM
Engine Hours	1079 hours
Tool to change rating	Unavailable

**Cat Electronic Technician 2007C v1.0
Maintenance Indicator**

1/12/2008 12:02 AM

C13 Truck (KCB87996)

Parameter	Value
Vehicle ID	2M93JMDA87W064449
Engine Serial Number	KCB87996
ECM Serial Number	29366527JJ
Personality Module Part Number	2951519-00
Personality Module Release Date	MAY06
Personality Module Code	72
ECM Date/Time	1/11/2008 11:00:39 PM

Description	Status	Value	Unit
PM1	---	Unavailable	Miles
PM2	---	Unavailable	Miles
Coolant Flush/Fill	---	Unavailable	Miles

Cat Electronic Technician 2007C v1.0
Logged Diagnostic Codes

1/11/2008 11:47 PM

C13 Truck (KCB87996)

Parameter	Value
Vehicle ID	2M93JMDA87W064449
Engine Serial Number	KCB87996
ECM Serial Number	29366527JJ
Personality Module Part Number	2951519-00
Personality Module Release Date	MAY06
Personality Module Code	72
ECM Date/Time	1/11/2008 10:45:14 PM

Code	Description	Occur	First	Last
C13 Truck (KCB87996) - Diagnostic Clock = 1163 hours				
100- 3	Oil Pressure voltage high (24)	1	1163	1163
102- 3	Boost Pressure voltage high (25)	1	1163	1163
105- 3	Intake Manifold Air Temperature voltage high (38)	1	1163	1163
108- 3	Barometric Pressure voltage high (26)	1	1163	1163
111- 2	Coolant Level signal invalid (12)	1	1163	1163
174- 3	Fuel Temperature voltage high (13)	1	1163	1163
283- 5	Intake Valve Actuation System Oil Pressure Solenoid current low (97)	4	1163	1163
284- 5	Engine Coolant Diverter current low (98)	4	1163	1163
385- 3	Intake Valve Actuation System Oil Pressure voltage high (95)	1	1163	1163

Cat Electronic Technician 2007C v1.0
J1939 Receive Communication Status

1/12/2008 12:10 AM

C13 Truck (KCB87996)

Parameter	Value
Vehicle ID	2M93JMDA87W064449
Engine Serial Number	KCB87996
ECM Serial Number	29366527JJ
Personality Module Part Number	2951519-00
Personality Module Release Date	MAY06
Personality Module Code	72
ECM Date/Time	1/11/2008 11:08:41 PM

Description

State

There are no J1939 Devices communicating

Cat Electronic Technician 2007C v1.0
ECM Summary

1/11/2008 11:55 PM

Description	Value
C13 Truck (KCB87996)	
Vehicle ID	2M93JMDA87W064449
Engine Serial Number	KCB87996
ECM Serial Number	29366527JJ
Personality Module Part Number	2951519-00
Personality Module Release Date	MAY06
Personality Module Code	72
ECM Date/Time	1/11/2008 10:53:09 PM

**Cat Electronic Technician 2007C v1.0
Driver Reward**

1/12/2008 12:03 AM

C13 Truck (KCB87996)

Parameter	Value
Vehicle ID	2M93JMDA87W064449
Engine Serial Number	KCB87996
ECM Serial Number	29366527JJ
Personality Module Part Number	2951519-00
Personality Module Release Date	MAY06
Personality Module Code	72
ECM Date/Time	1/11/2008 11:01:21 PM

Driver Reward Settings: Current ECM Values

Bonus Information

Minimum Score For Bonus	0
Maximum Bonus	0 MPH
Minimum Bonus	0 MPH
Averaging Period	10 hours

Target Information

Parameter	Targets	Weighting Factors
Average Engine Speed	1500 RPM	20 %
Average Driving Speed Over 50 MPH/80 KmPH	55 MPH	20 %
Average Accelerator Demand	100 RPM	20 %
Percent Idle Time	0 %	20 %
Engine Shift Speed	1400 RPM	20 %
		100 Total %

Cat Electronic Technician 2007C v1.0
Current Totals

1/11/2008 11:55 PM

C13 Truck (KCB87996)

Parameter	Value
Vehicle ID	2M93JMDA87W064449
Engine Serial Number	KCB87996
ECM Serial Number	29366527JJ
Personality Module Part Number	2951519-00
Personality Module Release Date	MAY06
Personality Module Code	72
ECM Date/Time	1/11/2008 10:53:31 PM

Description	Value	Unit
Total Time	1122:09	hours
Total PTO Time	250:27	hours
Total Idle Time	355:06	hours
Total Distance	23942	Miles
Total Fuel	4143	Gal
Total PTO Fuel	262	Gal
Total Idle Fuel	265	Gal
Total Max Fuel	13756	Gal
Average Load Factor	28	%
Lifetime Total Engine Revolutions	71970000	

Cat Electronic Technician 2007C v1.0
Critical Events

1/11/2008 11:48 PM

C13 Truck (KCB87996)

Parameter	Value
Vehicle ID	2M93JMDA87W064449
Engine Serial Number	KCB87996
ECM Serial Number	29366527JJ
Personality Module Part Number	2951519-00
Personality Module Release Date	MAY06
Personality Module Code	72
ECM Date/Time	1/11/2008 10:46:12 PM

	Start Time	Elapsed	Extreme	Average
C13 Truck (KCB87996)				
111-11 Very Low Coolant Level (62)	1/6/2008 11:46:36 AM	00:00:44	N/A	N/A

**Cat Electronic Technician 2007C v1.0
Configuration**

1/12/2008 12:00 AM

C13 Truck (KCB87996)

Parameter	Value
Vehicle ID	2M93JMDA87W064449
Engine Serial Number	KCB87996
ECM Serial Number	29366527JJ
Personality Module Part Number	2951519-00
Personality Module Release Date	MAY06
Personality Module Code	72
ECM Date/Time	1/11/2008 10:58:30 PM

Description	Value	Unit	TT
Selected Engine Rating			
Rating Number	1		0
Rating Type	Standard		
Multi-Torque Ratio	Unavailable		
Advertised Power	410 HP		
Governed Speed	2100 RPM		
Rated Peak Torque	1450 lb-ft @ 1200 RPM		
Top Engine Speed Range	2120 - 2120 RPM		
Test Spec	0K5946-00		
Test Spec with BrakeSaver			
ECM Identification Parameters			
Vehicle ID	2M93JMDA87W064449		1
Engine Serial Number	KCB87996		
ECM Serial Number	29366527JJ		
Personality Module Part Number	2951519-00		
Personality Module Release Date	MAY06		
Security Access Parameters			
Total Tattletale	48		
Last Tool to change Customer Parameters	ET191861		

Last Tool to change System Parameters	00000000		
ECM Wireless Communications Enable	No		0
Vehicle Speed Parameters			
Vehicle Speed Calibration	Unavailable	PPM	
Vehicle Speed Cal (J1939-Trans)	1677	R/Mile	1
Vehicle Speed Cal (J1939-ABS)	Unavailable	Ratio	
Vehicle Speed Limit	72	MPH	1
VSL Protection	1600	RPM	1
Tachometer Calibration	113.0	PPR	0
Soft Vehicle Speed Limit	Yes		1
Two Speed Axle - Low Speed Range Axle Ratio	Unavailable		
Nominal Axle Ratio - High Speed Range Axle Ratio	Unavailable		
Cruise Control Parameters			
Low Cruise Control Speed Set Limit	20	MPH	1
High Cruise Control Speed Set Limit	70	MPH	2
Engine Retarder Mode	Manual		0
Engine Retarder Minimum VSL Type	Soft Limit		1
Engine Retarder Minimum Vehicle Speed	3	MPH	1
Auto Retarder in Cruise (0 = Off)	3	MPH	1
Auto Retarder in Cruise Increment	1	MPH	1
Cruise/Idle/PTO Switch Configuration	Set/Decel-Res/Accel		1
SoftCruise Control	Yes		0
Adaptive Cruise Control Enable	Disabled		0
Idle Parameters (Old PTO)			
Idle Vehicle Speed Limit	1	MPH	0
Idle RPM Limit	700	RPM	1
Idle/PTO RPM Ramp Rate	250	RPM/s	1
Idle/PTO Bump RPM	25	RPM	1
Dedicated PTO Parameters			
PTO Configuration	Remote Switches		1
PTO Top Engine Limit	1550	RPM	1
PTO Engine RPM Set Speed (0 = Off)	950	RPM	1
PTO Engine RPM Set Speed A (0 = Off)	0	RPM	0
PTO Engine RPM Set Speed B (0 = Off)	0	RPM	0
PTO to Set Speed	Yes		1

Maximum PTO Enable Speed	2120	RPM	0
PTO Cab Controls RPM Limit	Unavailable		
PTO Kickout Vehicle Speed Limit	1	MPH	0
Torque Limit	2000	lb-ft	1
PTO Shutdown Time (0 = Off)	0	min	0
PTO Shutdown Timer Maximum RPM	2120	RPM	0
PTO Activates Cooling Fan	Normal		0
Engine/Gear Parameters			
Lower Gears Engine RPM Limit	2120	RPM	0
Lower Gears Turn Off Speed	3	MPH	0
Intermediate Gears Engine RPM Limit	2120	RPM	0
Intermediate Gears Turn Off Speed	5	MPH	0
Gear Down Protection RPM Limit	2120	RPM	1
Gear Down Protection Turn On Speed	127	MPH	0
Low Idle Engine RPM	700	RPM	1
Transmission Style	Automatic Option 1		1
Eaton Top 2 Override with Cruise Switch	Unavailable		
Top Gear Ratio	0.778		1
Top Gear Minus One Ratio	1.000		1
Top Gear Minus Two Ratio	1.267		1
Governor Type	Min/Max		1
Timer Parameters			
Idle Shutdown Time (0 = Off)	0	min	0
Idle Shutdown Timer Maximum RPM	2120	RPM	0
Cold Mode Idle Shutdown Timer Enable	Unavailable		
Allow Idle Shutdown Override	Yes		0
Minimum Idle Shutdown Outside Temp	Not Installed	Deg F	
Maximum Idle Shutdown Outside Temp	Not Installed	Deg F	
A/C Switch Fan On-Time (0 = Off)	0	Sec	0
Fan with Engine Retarder in High Mode	No		0
Engine Retarder Delay	0.1	Sec	1
Smart Idle Parameters			
Battery Monitor and Engine Control Voltage	0.0	Volts	0
Engine Monitoring Parameters			
Engine Monitoring Mode	Shutdown		1

Engine Monitoring Lamps	Warning Lamp		0
Coolant Level Sensor	4-pin		1
Engine Coolant Temperature Derate Enable Status	Unavailable		
Maintenance Parameters			
Maintenance Indicator Mode	Off		0
PM1 Interval	0	Miles	0
Engine Oil Capacity	36	Qts	1
Trip Parameters			
Fuel Correction Factor	0	%	0
Dash - Change Fuel Correction Factor	No		1
Dash - PM1 Reset	No		1
Dash - Fleet Trip Reset	No		1
Dash - State Selection	No		1
Theft Deterrent System Control	No		0
Theft Deterrent Password	****		
Quick Stop Rate	0	MPH/S	0
Vehicle Overspeed Threshold	127	MPH	0
Vehicle Activity Report Parameters			
Minimum Idle Time (0 = Off)	0	min	0
Driver Reward			
Driver Reward Enable	Enabled		0
Input Selections			
Fan Override Switch	None		0
Transmission Neutral Switch	J1939		1
Ignore Brake/Clutch Switch	None		1
Torque Limit Switch	None		1
Diagnostic Enable Switch	J1/P1:46		1
PTO On/Off Switch	J1/P1:56		1
Remote PTO Set Switch	J1/P1:58		1
Remote PTO Resume Switch	J1/P1:60		1
PTO Engine RPM Set Speed Input A	None		1
PTO Engine RPM Set Speed Input B	None		1
Starting Aid On/Off Switch	None		0
Two Speed Axle Switch	None		0
Cruise Control On/Off Switch	J1/P1:59		0

Cruise Control Set/Resume/Accel/Decel Switch	J1/P1:35 & 44	0
Cruise Control Pause Switch	None	0
Clutch Pedal Position Switch	J1/P1:22	0
Retarder Off/Low/Med/High Switch	J1/P1:23 & 40	0
Service Brake Pedal Position Switch #1	J1/P1:45	0
Accelerator Pedal Position	J1/P1:66	0
Vehicle Speed Input	J1939 - Trans	1
Output Selections		
Engine Running Output	J1/P1:10	1
Engine Shutdown Output	None	0
Auxiliary Brake	None	0
Starting Aid Output	None	0
Fan Control Type	Three Speed Fan DC	1
PTO Active Output	None	0
Passwords		
Customer Password #1	*****	
Customer Password #2	*****	
Data Link Parameters		
Powertrain Data Link	J1939	0
System Settings		
Personality Module Code	72	0
FLS	56	0
FTS	-69	0

Cat Electronic Technician 2007C v1.0
Active Code

1/11/2008 11:45 PM

C13 Truck (KCB87996)

Parameter	Value
Vehicle ID	2M93JMDA87W064449
Engine Serial Number	KCB87996
ECM Serial Number	29366527JJ
Personality Module Part Number	2951519-00
Personality Module Release Date	MAY06
Personality Module Code	72
ECM Date/Time	1/11/2008 10:43:28 PM

Code	Description
C13 Truck (KCB87996)	
283- 5	Intake Valve Actuation System Oil Pressure Solenoid current low (97)
284- 5	Engine Coolant Diverter current low (98)
231-12	J1939 Device Not Responding
108- 3	Barometric Pressure voltage high (26)
111- 2	Coolant Level signal invalid (12)
174- 3	Fuel Temperature voltage high (13)
105- 3	Intake Manifold Air Temperature voltage high (38)
100- 3	Oil Pressure voltage high (24)
385- 3	Intake Valve Actuation System Oil Pressure voltage high (95)
102- 3	Boost Pressure voltage high (25)

**Cat Electronic Technician 2007C v1.0
Custom Data**

1/12/2008 12:00 AM

C13 Truck (KCB87996)

Parameter	Value
Vehicle ID	2M93JMDA87W064449
Engine Serial Number	KCB87996
ECM Serial Number	29366527JJ
Personality Module Part Number	2951519-00
Personality Module Release Date	MAY06
Personality Module Code	72
ECM Date/Time	1/11/2008 10:57:51 PM

Data 1 - Not Defined *****

% of Total: *** -- Trip Total: *****

When Not Defined

When Not Defined

Data 2 - Not Defined *****

% of Total: *** -- Trip Total: *****

When Not Defined

When Not Defined

Data 3 - Not Defined *****

% of Total: *** -- Trip Total: *****

When Not Defined

When Not Defined

Data 4 - Not Defined *****

% of Total: *** -- Trip Total: *****

When Not Defined

When Not Defined

Data 5 - Not Defined *****

% of Total: *** -- Trip Total: *****

When Not Defined

When Not Defined