

# Heavy Vehicle Data Report

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## Table Of Contents

Component Information	3
Engine #1 on J1587 . . . . .	3
Engine #1 on J1939 . . . . .	3
Off Board Diagnostic-Service Tool #2 on J1939 . . . . .	3
Retarder - Engine on J1939 . . . . .	3
Event Data	4
Hard Brake Event 1 Graph . . . . .	4
Hard Brake Event 1 Table . . . . .	6
Hard Brake Event 2 Graph . . . . .	8
Hard Brake Event 2 Table . . . . .	10
Last Stop Event Graph . . . . .	12
Last Stop Event Table . . . . .	14
Real Time Records	18
System Reference Times . . . . .	18
Electronic Control Unit Times . . . . .	18
Engine #1 on J1587 . . . . .	18
Engine #1 on J1939 . . . . .	18
ECU Time Information	19
Engine #1 on J1587 . . . . .	19
Engine #1 on J1939 . . . . .	19
Distance Information	20
Engine #1 on J1587 . . . . .	20

# Heavy Vehicle Data Report

VIN: 1FUJGBDV1ALAR4676

Make: Not Provided, Model: Not Provided, S/N: Not Provided



Engine #1 on J1939 . . . . .	20
External Reference GPS Data	21
J1939 Messages by Parameter Group Number	22
J1939 Suspect Parameter Number Values	25
J1587 Network Message Values	48
J1587 Fault Code Data (PID 194) . . . . .	50
Diagnostic Codes for Engine #1 (MID 128) . . . . .	50
Forensic Context Information . . . . .	51
Network Logs . . . . .	51
Heavy Vehicle Data File Information . . . . .	51

# Heavy Vehicle Data Report

VIN: 1FUJGBDV1ALAR4676

Make: Not Provided, Model: Not Provided, S/N: Not Provided



## Component Information

The TruckCRYPT Software performs a so-called role-call when it is connected to a vehicle. The role-call process sends out request messages on the different vehicle networks and asks all modules for identifying information like make, model, serial number, software identification, and vehicle identification number. These data are requested from each module on the networks. Not every module will respond to the requests. Modules are identified by their source address (SA) on J1939 networks and by their message identifier (MID) on J1587 networks. The interpretation of these identifiers is based on the J1939 and J1587 standards. Often the engine retarder controlling application runs in the engine control module and will share some of the same component information. The data shown in this section is a direct rendering of the byte stream from the network and no interpretation is given.

### Engine #1 on J1587

**Software:** 04\*003\*000\*00\*R\*\*a\*018\*00\*08\*11\*10\*12\*0\*0<.0053

### Engine #1 on J1939

**ECU Software Version from ISO:** 0 2 84 0 1 82 4 3 0 97 18 0 8 11 10 12 0 0 0

**Software:** 004\*003\*000\*000\*R\*\*a\*018\*000\*08\*11\*10\*12\*00 \*0<.0053.00176\*

### Off Board Diagnostic-Service Tool #2 on J1939

### Retarder - Engine on J1939

**Software:** 004\*003\*000\*000\*R\*\*a\*018\*000\*08\*11\*10\*12\*00 \*0<.0053.00176\*

# Heavy Vehicle Data Report

VIN: 1FUJGBDV1ALAR4676

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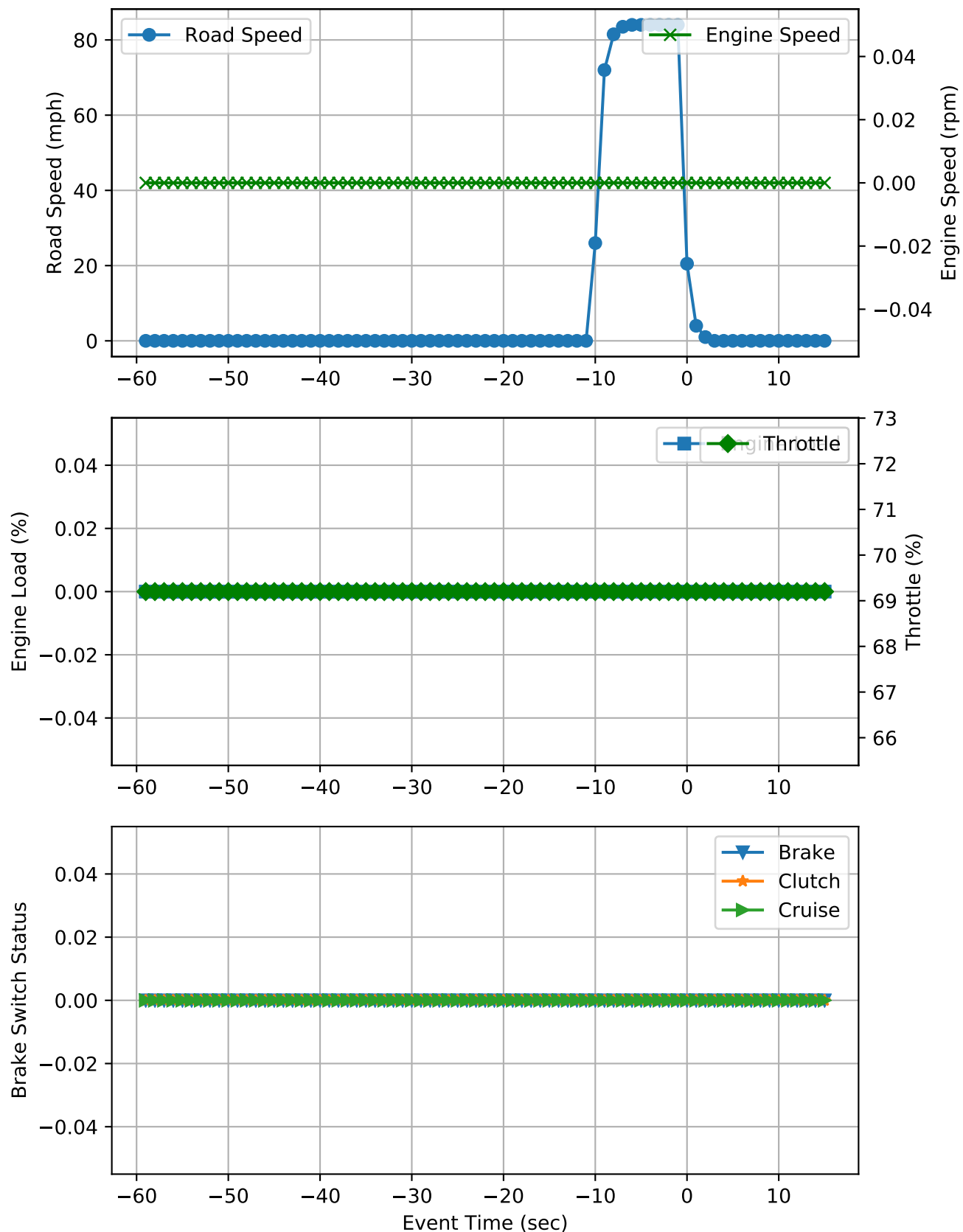
## Event Data

### Hard Brake Event 1 Graph

# Heavy Vehicle Data Report

VIN: 1FUJGBDV1ALAR4676

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Make: Not Provided, Model: Not Provided, S/N: Not Provided

### Hard Brake Event 1 Table

[illegible]

Make: Not Provided, Model: Not Provided, S/N: Not Provided

[illegible]

# Heavy Vehicle Data Report

VIN: 1FUJGBDV1ALAR4676

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Speed	Brake Switch	Clutch Switch	Engine Load	Throttle	Cruise Switch	Coast Switch	Resume Switch	Set Switch	Accelerator
	On/Off	On/Off	%	%	On/Off	On/Off	On/Off	On/Off	On/Off
	0	0	0.0	69.2	0	0	0	0	0
	0	0	0.0	69.2	0	0	0	0	0
	0	0	0.0	69.2	0	0	0	0	0
	0	0	0.0	69.2	0	0	0	0	0
	0	0	0.0	69.2	0	0	0	0	0
	0	0	0.0	69.2	0	0	0	0	0
	0	0	0.0	69.2	0	0	0	0	0
	0	0	0.0	69.2	0	0	0	0	0

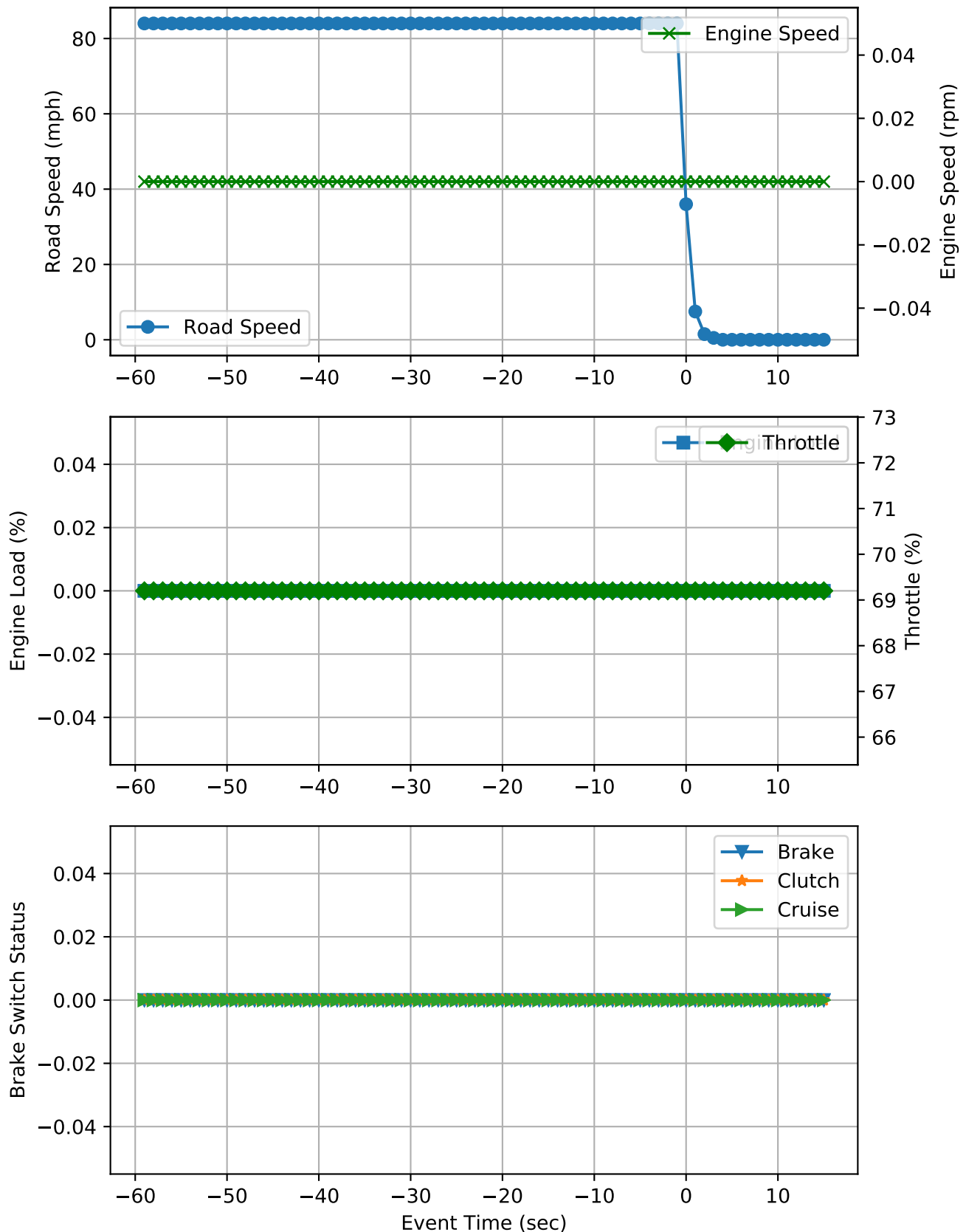
## Hard Brake Event 2 Graph



# Heavy Vehicle Data Report

VIN: 1FUJGBDV1ALAR4676

Make: Not Provided, Model: Not Provided, S/N: Not Provided



Make: Not Provided, Model: Not Provided, S/N: Not Provided

### Hard Brake Event 2 Table

[illegible]

Make: Not Provided, Model: Not Provided, S/N: Not Provided

[illegible]

# Heavy Vehicle Data Report

VIN: 1FUJGBDV1ALAR4676

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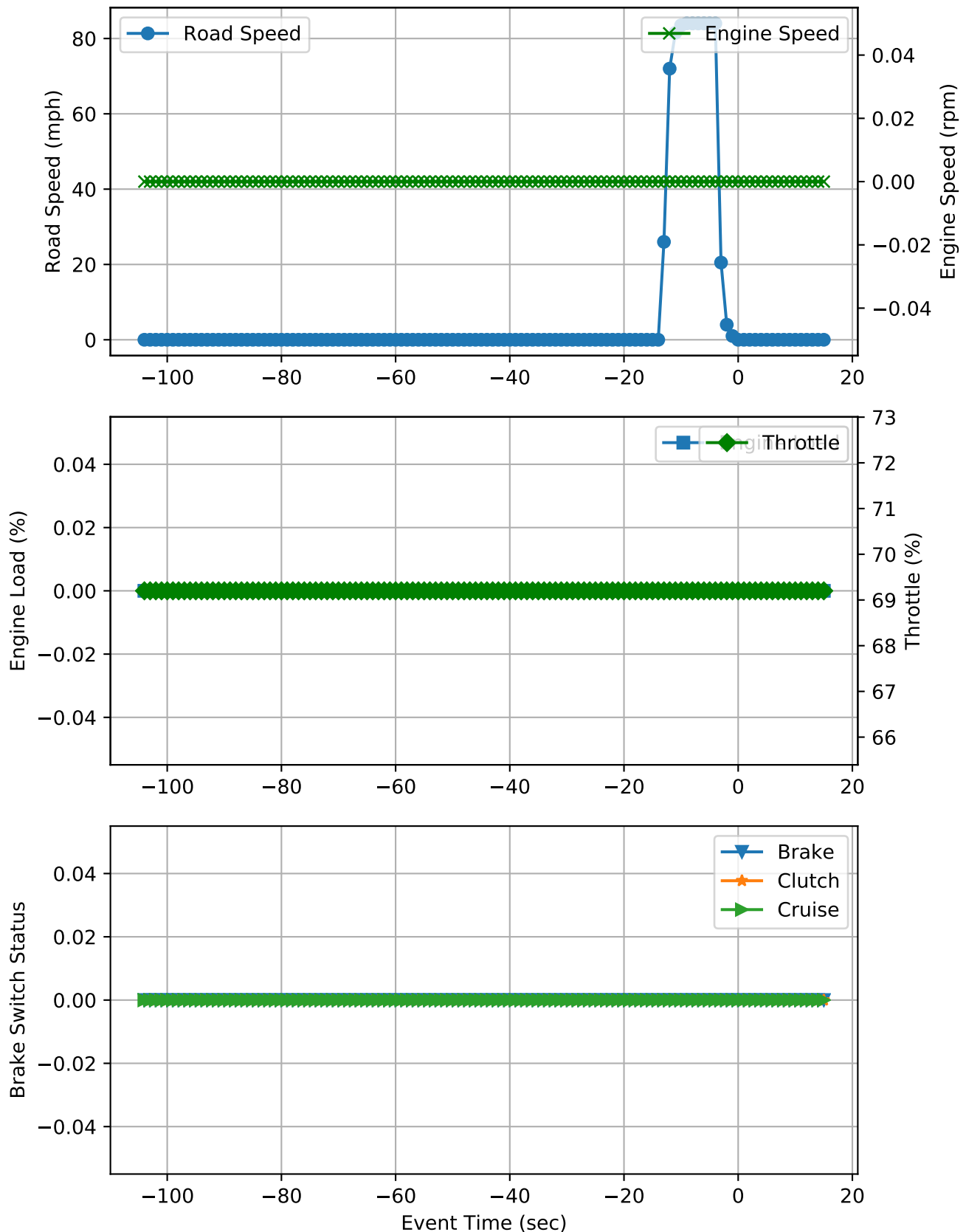
Speed	Brake Switch	Clutch Switch	Engine Load	Throttle	Cruise Switch	Coast Switch	Resume Switch	Set Switch	Accelerator
	On/Off	On/Off	%	%	On/Off	On/Off	On/Off	On/Off	On/Off
	0	0	0.0	69.2	0	0	0	0	0
	0	0	0.0	69.2	0	0	0	0	0
	0	0	0.0	69.2	0	0	0	0	0
	0	0	0.0	69.2	0	0	0	0	0
	0	0	0.0	69.2	0	0	0	0	0
	0	0	0.0	69.2	0	0	0	0	0
	0	0	0.0	69.2	0	0	0	0	0
	0	0	0.0	69.2	0	0	0	0	0

## Last Stop Event Graph

# Heavy Vehicle Data Report

VIN: 1FUJGBDV1ALAR4676

Make: Not Provided, Model: Not Provided, S/N: Not Provided



Make: Not Provided, Model: Not Provided, S/N: Not Provided

## Last Stop Event Table

[illegible]

Make: Not Provided, Model: Not Provided, S/N: Not Provided

[illegible]

Make: Not Provided, Model: Not Provided, S/N: Not Provided

[illegible]



Make: Not Provided, Model: Not Provided, S/N: Not Provided

[illegible]

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## Real Time Records

Time is tracked by computers and electronic control units by counting the number of seconds from a defined epoch. There are two common epochs used with heavy vehicles: 1) the UNIX epoch of January 1, 1970 at midnight UTC, and 2) the J1587 epoch of January 1, 1985 at midnight UTC. Local times are expressed and displayed in terms of a timezone; however, most computers keep track of time using Universal Coordinated Time (UTC). The TruckCRYPT software treats all ECU times as UTC. All math related to times is done using UTC and results may be displayed in local time (i.e. with timezone information).

Many electronic control units use a small battery to keep time when the power to the ECU is turned off. However, this battery may eventually run out, which means the real time clock (RTC) on the ECU is not able to keep accurate time. This symptom manifests itself as a date that seems unreasonable. Typical RTCs will have drift and not reflect accurate time. This is accounted for by recording the PC time (which is assumed accurate) at the same time the vehicle network message containing real time information reaches the TruckCRYPT software. A GPS system, if available, can provide external time references that are not subject to change.

## System Reference Times

The following values were obtained through the computer running the software.

Description	UNIX Timestamp	Local Time Value
Permission Time	1517803127	Sun, 04 Feb 2018 21:58:47 -0600
Last GPS Time	1517803975	Sun, 04 Feb 2018 22:12:55 -0600
PC Time at Last GPS Reading	1517803974	Sun, 04 Feb 2018 22:12:54 -0600
Last PC Time	1517803974	Sun, 04 Feb 2018 22:12:54 -0600

The following values are calculated based on the data in the previous table.

Description	Total Seconds	Hours:Minutes:Seconds
PC Time minus GPS Time	0	0:00:00
Download Duration	846	0:14:06

## Electronic Control Unit Times

The information in this section is based on the real-time clock data from the different vehicle networks. For J1939, PGN 65254 is used to interpret real time values. Parameter Identifiers 251 and 252 are used to interpret times from the J1587 network.

### Engine #1 on J1587

**Last ECM Clock:** 03:50:05

**Last ECM Date:** 02/05/2018

**Last ECM Time:** 1517802605 seconds from epoch, or Sun, 04 Feb 2018 21:50:05 -0600

**PC Time minus ECM Time:** 797 seconds (0:13:17)

### Engine #1 on J1939

**Last ECM Time:** 1517803177 seconds from epoch, or Sun, 04 Feb 2018 21:59:37 -0600

**PC Time minus ECM Time:** 797 seconds (0:13:17)

# Heavy Vehicle Data Report

VIN: 1FUJGBDV1ALAR4676

Make: Not Provided, Model: Not Provided, S/N: Not Provided



## ECU Time Information

Many electronic control units will keep track of the time it is operating. This is often an internal counter that increments one count per second. There are two common counters: one for the number of seconds that pass with the ignition key switch in the on position, and the other is for the number of seconds that the engine speed is greater than zero. Some of these times can be reset based on a trip reset event.

### Engine #1 on J1587

### Engine #1 on J1939

**Total Engine Hours of Operation:** 3047.70 hours

# Heavy Vehicle Data Report

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## Distance Information

Distance information is kept using a counter that increments with pulses from a pickup sensor. Usually a magnetic pickup sensor, called the Vehicle Speed Sensor (VSS), is located on the tail-shaft near the rear of the transmission. Additionally, discrete wheel speed sensors are used by the electronic brake controller to determine individual wheel speeds. These sensors detect pulses from the changing magnetic flux associated with the gaps in a rotating tone ring. Using a parameter based on tire size, these pulses can be converted to a distance. Speed is determined by counting the number of pulses in a given amount of time and converting that rate to engineering units. The distance calculated is tracked with different resolutions based on J1939 parameters. The information in this section is based on J1939 PGN 65217 and 65248 as well as J1587 PID 244 and 245. After a while, the different sources for distance information may not report the same value due to rounding and truncation errors.

### Engine #1 on J1587

### Engine #1 on J1939

**High Resolution Total Vehicle Distance:** 904.3032 mile s

# Heavy Vehicle Data Report

VIN: 1FUJGBDV1ALAR4676

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## External Reference GPS Data

GPS Description.

**Address:** Not Available

**Altitude:** 212.1

**GPS Time:** 1517803975 seconds from the epoch, or Sun, 04 Feb 2018 22:12:55 -0600

**Latitude:** 36.054875

**Longitude:** -95.84539333333333

**System Time:** 1517803974 seconds from the epoch, or Sun, 04 Feb 2018 22:12:54 -0600

# Heavy Vehicle Data Report

VIN: 1FUJGBDV1ALAR4676

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## J1939 Messages by Parameter Group Number

This section contains the raw hexadecimal representation of the network traffic from the J1939 network. Different control applications (CAs) can use the same parameter group number (PGN) but each CA has its own source address (SA). The table below displays all the J1939 parameters that were seen on the network. Most of the J1939 values do not change with time during a typical download; however, some parameters, like time update during the session. The table below lists the message traffic for the messages that were last seen. Messages that are more than 8 bytes are shown as the result of assembling the transport layer CAN frames into defined J1939 messages. The human readable values from the raw hexadecimal are displayed in the Suspect Parameter Number Table.

PGN	Acronym	Parameter Group Name	SA	Source	Message Hexadecimal
57344	CM1	Cab Message 1	0	Engine #1	FF FF FF FF FF F3 FF FF
57344	CM1	Cab Message 1	23	Instrument Cluster #1	00 00 00 00 00 00 00 00
57344	CM1	Cab Message 1	25	Passenger-Operator Climate Control #1	00 00 00 00 00 00 00 00
57344	CM1	Cab Message 1	33	Body Controller	00 00 00 00 00 00 00 00
57344	CM1	Cab Message 1	40	Cab Display #1	00 00 00 00 00 00 00 00
57344	CM1	Cab Message 1	49	Cab Controller - Primary	00 00 00 00 00 00 00 00
61440	ERC1	Electronic Retarder Controller 1	15	Retarder - Engine	00 7D FF FF 0F FF FF FF
61441	EBC1	Electronic Brake Controller 1	11	Brakes - System Controller	00 00 00 00 00 00 00 00
61441	EBC1	Electronic Brake Controller 1	49	Cab Controller - Primary	00 00 00 00 00 00 00 00
64892	DPFC1	DPF Control 1:8	0	Engine #1	FF FF D0 34 FD FF FF FF
64947	AT1OG2	Aftertreatment 1 Outlet Gas 2	0	Engine #1	FF FF FF FF FF FF FF FF
64976	IC2	Intake/Exhaust Conditions 2	0	Engine #1	FF FF FF FF FF FF FF FF
65188	ET2	Engine Temperature 2	0	Engine #1	FF FF FF FF FF FF FF FF
65213	FD1	Fan Drive #1	0	Engine #1	FF FF FF FF FF FF FF FF
65214	EEC4	Electronic Engine Controller 4	0	Engine #1	FF FF 00 00 FF FF FF FF
65217	VDHR	High Resolution Vehicle Distance	0	Engine #1	FB 70 04 00 FB 70 04 00
65226	DM01	Active Diagnostic Trouble Codes	0	Engine #1	47 FF 5B 00 04 03 71 02 09 01 76 02 0E 01
65227	DM02	Previously Active Diagnostic Trouble Codes	0	Engine #1	47 FF 60 02 0E 02 6F 00 03 01 0F 02 09 01 0F 02 09 01 CD 03 09 01 DA 03 09 01 DA 03 09 01 6F 00 01 01

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VIN: 1FUJGBDV1ALAR4676

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PGN	Acronym	Parameter Group Name	SA	Source	Message Hexadecimal
65242	SOFT	Software Identification	0	Engine #1	0F 30 30 34 2A 30 30 33 2A 30 30 30 2A 30 30 30 2A 52 2A D0 2A 61 2A 30 31 38 2A 30 30 30 2A 30 38 2A 31 31 2A 31 30 2A 31 32 2A 30 30 2A 30 3C 2E 30 30 35 33 2E 30 30 31 37 36 2A
65242	SOFT	Software Identification	15	Retarder - Engine	0F 30 30 34 2A 30 30 33 2A 30 30 30 2A 30 30 30 2A 52 2A D0 2A 61 2A 30 31 38 2A 30 30 30 2A 30 38 2A 31 31 2A 31 30 2A 31 32 2A 30 30 2A 30 3C 2E 30 30 35 33 2E 30 30 31 37 36 2A
65243	EFL/P2	Engine Fluid Level/Pressure 2	0	Engine #1	FF FF FF FF FF FF FF FF
65244	IO	Idle Operation	0	Engine #1	00 00 00 00 00 00 00 00
65245	TC	Turbocharger	0	Engine #1	FF FF FF FF FF FF FF FF
65248	VD	Vehicle Distance	0	Engine #1	7B 2D 00 00 7B 2D 00 00
65249	RC	Retarder Configuration	15	Retarder - Engine	03 03 FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF
65252	SHUTDN	Shutdown	0	Engine #1	00 7F FF FF 00 7F FF FF
65253	HOURS	Engine Hours: Revolutions	0	Engine #1	1A EE 00 00 00 00 00 00
65254	TD	Time/Date	0	Engine #1	94 3B 03 02 14 21 FF FF
65255	VH	Vehicle Hours	0	Engine #1	FF FF FF FF 00 00 00 00
65257	LFC	Fuel Consumption (Liquid)	0	Engine #1	00 00 00 00 00 00 00 00
65259	CI	Component Identification	25 0	Off Board Diagnostic-Service Tool #2	53 59 4E 45 52 2A 53 53 53 32 2D 52 30 33 2A 30 30 31 39 2A 55 4E 49 56 45 52 53 41 4C
65260	VI	Vehicle Identification	0	Engine #1	31 46 55 4A 47 42 44 56 31 41 4C 41 52 34 36 37 36 2A
65260	VI	Vehicle Identification	15	Retarder - Engine	31 46 55 4A 47 42 44 56 31 41 4C 41 52 34 36 37 36 2A
65261	CCSS	Cruise Control/Vehicle Speed Setup	0	Engine #1	69 64 30 FF FF FF FF FF
65262	ET1	Engine Temperature 1	0	Engine #1	FF FF FF FF FF FF FF FF
65263	EFL/P1	Engine Fluid Level/Pressure 1	0	Engine #1	FF FF FF FF FF FF FF FA
65264	PTO	Power Takeoff Information	0	Engine #1	FF FF FF 00 00 F0 00 FF

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VIN: 1FUJGBDV1ALAR4676

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PGN	Acronym	Parameter Group Name	SA	Source	Message Hexadecimal
65264	PTO	Power Takeoff Information	23	Instrument Cluster #1	00 00 00 00 00 00 00 00
65264	PTO	Power Takeoff Information	33	Body Controller	00 00 00 00 00 00 00 00
65264	PTO	Power Takeoff Information	40	Cab Display #1	00 00 00 00 00 00 00 00
65264	PTO	Power Takeoff Information	49	Cab Controller - Primary	00 00 00 00 00 00 00 00
65265	CCVS1	Cruise Control/Vehicle Speed 1	0	Engine #1	C3 00 00 00 00 00 00 30
65265	CCVS1	Cruise Control/Vehicle Speed 1	23	Instrument Cluster #1	00 00 00 00 00 00 00 00
65265	CCVS1	Cruise Control/Vehicle Speed 1	33	Body Controller	00 00 00 00 00 00 00 00
65265	CCVS1	Cruise Control/Vehicle Speed 1	40	Cab Display #1	00 00 00 00 00 00 00 00
65265	CCVS1	Cruise Control/Vehicle Speed 1	49	Cab Controller - Primary	00 00 00 00 00 00 00 00
65266	LFE1	Fuel Economy (Liquid)	0	Engine #1	00 00 00 00 00 00 FF FF
65269	AMB	Ambient Conditions	0	Engine #1	FF FF FF FF FF FF FF FF
65269	AMB	Ambient Conditions	33	Body Controller	00 00 00 00 00 00 00 00
65270	IC1	Intake/Exhaust Conditions 1	0	Engine #1	FF 00 FF FF FF FF FF FF
65271	VEP1	Vehicle Electrical Power 1	0	Engine #1	FF FF FF FF FF FF F5 00
65279	OI	Operator indicators	0	Engine #1	FF FF FF FF FF FF FF FF



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## J1939 Suspect Parameter Number Values

SPN Description

SPN	SPN Name	PGN	Source	Value	Units	Meaning
985	A/C High Pressure Fan Switch	65252	Engine #1	3	bit	Not available
1243	ABS Fully Operational	61441	Brakes - System Controller	0	bit	Not fully operational
1243	ABS Fully Operational	61441	Cab Controller - Primary	0	bit	Not fully operational
575	ABS Off-road Switch	61441	Brakes - System Controller	0	bit	Abs off-road switch passive
575	ABS Off-road Switch	61441	Cab Controller - Primary	0	bit	Abs off-road switch passive
1438	ABS/EBS Amber Warning Signal (Powered Vehicle)	61441	Brakes - System Controller	0	bit	Off
1438	ABS/EBS Amber Warning Signal (Powered Vehicle)	61441	Cab Controller - Primary	0	bit	Off
577	ASR "Hill Holder" Switch	61441	Brakes - System Controller	0	bit	Asr -hill holder-switch passive
577	ASR "Hill Holder" Switch	61441	Cab Controller - Primary	0	bit	Asr -hill holder-switch passive
562	ASR Brake Control Active	61441	Brakes - System Controller	0	bit	Asr brake control passive but installed
562	ASR Brake Control Active	61441	Cab Controller - Primary	0	bit	Asr brake control passive but installed
561	ASR Engine Control Active	61441	Brakes - System Controller	0	bit	Asr engine control passive but installed
561	ASR Engine Control Active	61441	Cab Controller - Primary	0	bit	Asr engine control passive but installed
576	ASR Off-road Switch	61441	Brakes - System Controller	0	bit	Asr off-road switch passive
576	ASR Off-road Switch	61441	Cab Controller - Primary	0	bit	Asr off-road switch passive
1793	ATC/ASR Information Signal	61441	Brakes - System Controller	0	bit	Off
1793	ATC/ASR Information Signal	61441	Cab Controller - Primary	0	bit	Off

# Heavy Vehicle Data Report

VIN: 1FUJGBDV1ALAR4676

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SPN	SPN Name	PGN	Source	Value	Units	Meaning
972	Accelerator Interlock Switch	61441	Brakes - System Controller	0	bit	Off
972	Accelerator Interlock Switch	61441	Cab Controller - Primary	0	bit	Off
520	Actual Retarder - Percent Torque	61440	Retarder - Engine	0	%	
3248	Aftertreatment 1 DPF Outlet Exhaust Gas Temperature Preliminary FMI	64947	Engine #1	31	binary	
3247	Aftertreatment 1 Exhaust Gas Temperature 3 Preliminary FMI	64947	Engine #1	31	binary	
624	Amber Warning Lamp	65226	Engine #1	0	bit	Lamp off
171	Ambient Air Temperature	65269	Body Controller	-459.400	deg F	
563	Anti-Lock Braking (ABS) Active	61441	Brakes - System Controller	0	bit	Abs passive but installed
563	Anti-Lock Braking (ABS) Active	61441	Cab Controller - Primary	0	bit	Abs passive but installed
1666	Automatic Gear Shifting Enable Switch	57344	Engine #1	0	bit	Automated gear shifting is disabled
1666	Automatic Gear Shifting Enable Switch	57344	Instrument Cluster #1	0	bit	Automated gear shifting is disabled
1666	Automatic Gear Shifting Enable Switch	57344	Passenger-Operator Climate Control #1	0	bit	Automated gear shifting is disabled
1666	Automatic Gear Shifting Enable Switch	57344	Body Controller	0	bit	Automated gear shifting is disabled
1666	Automatic Gear Shifting Enable Switch	57344	Cab Display #1	0	bit	Automated gear shifting is disabled
1666	Automatic Gear Shifting Enable Switch	57344	Cab Controller - Primary	0	bit	Automated gear shifting is disabled
1684	Auxiliary Heater Coolant Pump Request	57344	Engine #1	3	bit	Don't care/take no action
1684	Auxiliary Heater Coolant Pump Request	57344	Instrument Cluster #1	0	bit	Deactivate water pump
1684	Auxiliary Heater Coolant Pump Request	57344	Passenger-Operator Climate Control #1	0	bit	Deactivate water pump

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VIN: 1FUJGBDV1ALAR4676

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SPN	SPN Name	PGN	Source	Value	Units	Meaning
1684	Auxiliary Heater Coolant Pump Request	57344	Body Controller	0	bit	Deactivate water pump
1684	Auxiliary Heater Coolant Pump Request	57344	Cab Display #1	0	bit	Deactivate water pump
1684	Auxiliary Heater Coolant Pump Request	57344	Cab Controller - Primary	0	bit	Deactivate water pump
1683	Auxiliary Heater Mode Request	57344	Engine #1	15	bit	Don't care/take no action
1683	Auxiliary Heater Mode Request	57344	Instrument Cluster #1	0	bit	De-activate auxiliary heater
1683	Auxiliary Heater Mode Request	57344	Passenger-Operator Climate Control #1	0	bit	De-activate auxiliary heater
1683	Auxiliary Heater Mode Request	57344	Body Controller	0	bit	De-activate auxiliary heater
1683	Auxiliary Heater Mode Request	57344	Cab Display #1	0	bit	De-activate auxiliary heater
1683	Auxiliary Heater Mode Request	57344	Cab Controller - Primary	0	bit	De-activate auxiliary heater
3448	Auxiliary Input Ignore Switch	65264	Engine #1	3	bit	Not available
3448	Auxiliary Input Ignore Switch	65264	Instrument Cluster #1	0	bit	Off
3448	Auxiliary Input Ignore Switch	65264	Body Controller	0	bit	Off
3448	Auxiliary Input Ignore Switch	65264	Cab Display #1	0	bit	Off
3448	Auxiliary Input Ignore Switch	65264	Cab Controller - Primary	0	bit	Off
108	Barometric Pressure	65269	Body Controller	0.000	psi	
1682	Battery Main Switch Hold Request	57344	Engine #1	3	bit	Don't care/take no action
1682	Battery Main Switch Hold Request	57344	Instrument Cluster #1	0	bit	Release battery main switch
1682	Battery Main Switch Hold Request	57344	Passenger-Operator Climate Control #1	0	bit	Release battery main switch
1682	Battery Main Switch Hold Request	57344	Body Controller	0	bit	Release battery main switch
1682	Battery Main Switch Hold Request	57344	Cab Display #1	0	bit	Release battery main switch
1682	Battery Main Switch Hold Request	57344	Cab Controller - Primary	0	bit	Release battery main switch

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SPN	SPN Name	PGN	Source	Value	Units	Meaning
521	Brake Pedal Position	61441	Brakes - System Controller	0.000	%	
521	Brake Pedal Position	61441	Cab Controller - Primary	0.000	%	
597	Brake Switch	65265	Engine #1	0	bit	Brake pedal released
597	Brake Switch	65265	Instrument Cluster #1	0	bit	Brake pedal released
597	Brake Switch	65265	Body Controller	0	bit	Brake pedal released
597	Brake Switch	65265	Cab Display #1	0	bit	Brake pedal released
597	Brake Switch	65265	Cab Controller - Primary	0	bit	Brake pedal released
170	Cab Interior Temperature	65269	Body Controller	-459.400	deg F	
1691	Cab Interior Temperature Command	57344	Instrument Cluster #1	-459.400	deg F	
1691	Cab Interior Temperature Command	57344	Passenger-Operator Climate Control #1	-459.400	deg F	
1691	Cab Interior Temperature Command	57344	Body Controller	-459.400	deg F	
1691	Cab Interior Temperature Command	57344	Cab Display #1	-459.400	deg F	
1691	Cab Interior Temperature Command	57344	Cab Controller - Primary	-459.400	deg F	
598	Clutch Switch	65265	Engine #1	0	bit	Clutch pedal released
598	Clutch Switch	65265	Instrument Cluster #1	0	bit	Clutch pedal released
598	Clutch Switch	65265	Body Controller	0	bit	Clutch pedal released
598	Clutch Switch	65265	Cab Display #1	0	bit	Clutch pedal released
598	Clutch Switch	65265	Cab Controller - Primary	0	bit	Clutch pedal released
5566	Coolant Level Engine Protection Shutdown Status	65252	Engine #1	3	bit	Not available
602	Cruise Control Accelerate Switch	65265	Engine #1	0	bit	Cruise control activator not in the position -accelerate-

# Heavy Vehicle Data Report

VIN: 1FUJGBDV1ALAR4676

Make: Not Provided, Model: Not Provided, S/N: Not Provided



SPN	SPN Name	PGN	Source	Value	Units	Meaning
602	Cruise Control Accelerate Switch	65265	Instrument Cluster #1	0	bit	Cruise control activator not in the position -accelerate-
602	Cruise Control Accelerate Switch	65265	Body Controller	0	bit	Cruise control activator not in the position -accelerate-
602	Cruise Control Accelerate Switch	65265	Cab Display #1	0	bit	Cruise control activator not in the position -accelerate-
602	Cruise Control Accelerate Switch	65265	Cab Controller - Primary	0	bit	Cruise control activator not in the position -accelerate-
595	Cruise Control Active	65265	Engine #1	0	bit	Cruise control switched off
595	Cruise Control Active	65265	Instrument Cluster #1	0	bit	Cruise control switched off
595	Cruise Control Active	65265	Body Controller	0	bit	Cruise control switched off
595	Cruise Control Active	65265	Cab Display #1	0	bit	Cruise control switched off
595	Cruise Control Active	65265	Cab Controller - Primary	0	bit	Cruise control switched off
600	Cruise Control Coast (Decelerate) Switch	65265	Engine #1	0	bit	Cruise control activator not in the position -coast-
600	Cruise Control Coast (Decelerate) Switch	65265	Instrument Cluster #1	0	bit	Cruise control activator not in the position -coast-
600	Cruise Control Coast (Decelerate) Switch	65265	Body Controller	0	bit	Cruise control activator not in the position -coast-
600	Cruise Control Coast (Decelerate) Switch	65265	Cab Display #1	0	bit	Cruise control activator not in the position -coast-
600	Cruise Control Coast (Decelerate) Switch	65265	Cab Controller - Primary	0	bit	Cruise control activator not in the position -coast-

# Heavy Vehicle Data Report

VIN: 1FUJGBDV1ALAR4676

Make: Not Provided, Model: Not Provided, S/N: Not Provided



SPN	SPN Name	PGN	Source	Value	Units	Meaning
596	Cruise Control Enable Switch	65265	Engine #1	0	bit	Cruise control disabled
596	Cruise Control Enable Switch	65265	Instrument Cluster #1	0	bit	Cruise control disabled
596	Cruise Control Enable Switch	65265	Body Controller	0	bit	Cruise control disabled
596	Cruise Control Enable Switch	65265	Cab Display #1	0	bit	Cruise control disabled
596	Cruise Control Enable Switch	65265	Cab Controller - Primary	0	bit	Cruise control disabled
87	Cruise Control High Set Limit Speed	65261	Engine #1	62.137	mph	
88	Cruise Control Low Set Limit Speed	65261	Engine #1	29.826	mph	
1633	Cruise Control Pause Switch	65265	Engine #1	0	bit	Off
1633	Cruise Control Pause Switch	65265	Instrument Cluster #1	0	bit	Off
1633	Cruise Control Pause Switch	65265	Body Controller	0	bit	Off
1633	Cruise Control Pause Switch	65265	Cab Display #1	0	bit	Off
1633	Cruise Control Pause Switch	65265	Cab Controller - Primary	0	bit	Off
601	Cruise Control Resume Switch	65265	Engine #1	0	bit	Cruise control activator not in the position -resume-
601	Cruise Control Resume Switch	65265	Instrument Cluster #1	0	bit	Cruise control activator not in the position -resume-
601	Cruise Control Resume Switch	65265	Body Controller	0	bit	Cruise control activator not in the position -resume-
601	Cruise Control Resume Switch	65265	Cab Display #1	0	bit	Cruise control activator not in the position -resume-
601	Cruise Control Resume Switch	65265	Cab Controller - Primary	0	bit	Cruise control activator not in the position -resume-
86	Cruise Control Set Speed	65265	Engine #1	0.000	mph	
86	Cruise Control Set Speed	65265	Instrument Cluster #1	0.000	mph	
86	Cruise Control Set Speed	65265	Body Controller	0.000	mph	

# Heavy Vehicle Data Report

VIN: 1FUJGBDV1ALAR4676

Make: Not Provided, Model: Not Provided, S/N: Not Provided



SPN	SPN Name	PGN	Source	Value	Units	Meaning
86	Cruise Control Set Speed	65265	Cab Display #1	0.000	mph	
86	Cruise Control Set Speed	65265	Cab Controller - Primary	0.000	mph	
599	Cruise Control Set Switch	65265	Engine #1	0	bit	Cruise control activator not in the position -set-
599	Cruise Control Set Switch	65265	Instrument Cluster #1	0	bit	Cruise control activator not in the position -set-
599	Cruise Control Set Switch	65265	Body Controller	0	bit	Cruise control activator not in the position -set-
599	Cruise Control Set Switch	65265	Cab Display #1	0	bit	Cruise control activator not in the position -set-
599	Cruise Control Set Switch	65265	Cab Controller - Primary	0	bit	Cruise control activator not in the position -set-
527	Cruise Control States	65265	Engine #1	0	bit	Off/disabled
527	Cruise Control States	65265	Instrument Cluster #1	0	bit	Off/disabled
527	Cruise Control States	65265	Body Controller	0	bit	Off/disabled
527	Cruise Control States	65265	Cab Display #1	0	bit	Off/disabled
527	Cruise Control States	65265	Cab Controller - Primary	0	bit	Off/disabled
3750	DPF 1 Conditions Not Met for Active Regeneration	64892	Engine #1	3	bit	Not available
4175	DPF Active Regeneration Forced Status	64892	Engine #1	7	bit	Not available
3707	DPF Active Regeneration Inhibited Due to Accelerator Pedal Off Idle	64892	Engine #1	3	bit	Not available
3704	DPF Active Regeneration Inhibited Due to Clutch Disengaged	64892	Engine #1	0	bit	Not inhibited
3716	DPF Active Regeneration Inhibited Due to Engine Not Warmed Up	64892	Engine #1	3	bit	Not available



# Heavy Vehicle Data Report

VIN: 1FUJGBDV1ALAR4676

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SPN	SPN Name	PGN	Source	Value	Units	Meaning
3703	DPF Active Regeneration Inhibited Due to Inhibit Switch	64892	Engine #1	1	bit	Inhibited
5629	DPF Active Regeneration Inhibited Due to Low Exhaust Gas Pressure	64892	Engine #1	3	bit	Not available
3711	DPF Active Regeneration Inhibited Due to Low Exhaust Gas Temperature	64892	Engine #1	3	bit	Not available
3708	DPF Active Regeneration Inhibited Due to Out of Neutral	64892	Engine #1	1	bit	Inhibited
3706	DPF Active Regeneration Inhibited Due to PTO Active	64892	Engine #1	0	bit	Not inhibited
3710	DPF Active Regeneration Inhibited Due to Parking Brake Not Set	64892	Engine #1	3	bit	Not available
3715	DPF Active Regeneration Inhibited Due to Permanent System Lockout	64892	Engine #1	3	bit	Not available
3705	DPF Active Regeneration Inhibited Due to Service Brake Active	64892	Engine #1	0	bit	Not inhibited
3712	DPF Active Regeneration Inhibited Due to System Fault Active	64892	Engine #1	3	bit	Not available
3713	DPF Active Regeneration Inhibited Due to System Timeout	64892	Engine #1	1	bit	Inhibited
3714	DPF Active Regeneration Inhibited Due to Temporary System Lockout	64892	Engine #1	3	bit	Not available
3709	DPF Active Regeneration Inhibited Due to Vehicle Speed Above Allowed Speed	64892	Engine #1	0	bit	Not inhibited
3717	DPF Active Regeneration Inhibited Due to Vehicle Speed Below Allowed Speed	64892	Engine #1	3	bit	Not available
3702	DPF Active Regeneration Inhibited Status	64892	Engine #1	3	bit	Not available
3700	DPF Active Regeneration Status	64892	Engine #1	3	bit	Not available



# Heavy Vehicle Data Report

VIN: 1FUJGBDV1ALAR4676

Make: Not Provided, Model: Not Provided, S/N: Not Provided



SPN	SPN Name	PGN	Source	Value	Units	Meaning
3718	DPF Automatic Active Regeneration Initiation Configuration	64892	Engine #1	3	bit	Not available
3697	DPF Lamp Command	64892	Engine #1	7	bit	Not available
3699	DPF Passive Regeneration Status	64892	Engine #1	3	bit	Not available
3696	DPF Regeneration Force Switch	57344	Engine #1	3	bit	Not available
3696	DPF Regeneration Force Switch	57344	Instrument Cluster #1	0	bit	Not active
3696	DPF Regeneration Force Switch	57344	Passenger-Operator Climate Control #1	0	bit	Not active
3696	DPF Regeneration Force Switch	57344	Body Controller	0	bit	Not active
3696	DPF Regeneration Force Switch	57344	Cab Display #1	0	bit	Not active
3696	DPF Regeneration Force Switch	57344	Cab Controller - Primary	0	bit	Not active
3695	DPF Regeneration Inhibit Switch	57344	Engine #1	3	bit	Not available
3695	DPF Regeneration Inhibit Switch	57344	Instrument Cluster #1	0	bit	Not active
3695	DPF Regeneration Inhibit Switch	57344	Passenger-Operator Climate Control #1	0	bit	Not active
3695	DPF Regeneration Inhibit Switch	57344	Body Controller	0	bit	Not active
3695	DPF Regeneration Inhibit Switch	57344	Cab Display #1	0	bit	Not active
3695	DPF Regeneration Inhibit Switch	57344	Cab Controller - Primary	0	bit	Not active
3701	DPF Status	64892	Engine #1	7	bit	Not available
962	Day	65254	Engine #1	5	Days	
5825	Driver Warning System Indicator Status	65279	Engine #1	7	bit	Not available
1121	EBS Brake Switch	61441	Brakes - System Controller	0	bit	Brake pedal is not being pressed
1121	EBS Brake Switch	61441	Cab Controller - Primary	0	bit	Brake pedal is not being pressed
1439	EBS Red Warning Signal	61441	Brakes - System Controller	0	bit	Off

# Heavy Vehicle Data Report

VIN: 1FUJGBDV1ALAR4676

Make: Not Provided, Model: Not Provided, S/N: Not Provided



SPN	SPN Name	PGN	Source	Value	Units	Meaning
1439	EBS Red Warning Signal	61441	Cab Controller - Primary	0	bit	Off
5826	Emission Control System Operator Inducement Severity	65279	Engine #1	7	bit	Not available / not supported
172	Engine Air Intake Temperature	65269	Body Controller	-40	deg F	
2813	Engine Air Shutoff Command Status	65252	Engine #1	3	bit	Not available
3667	Engine Air Shutoff Status	65252	Engine #1	3	bit	Not available
2815	Engine Alarm Acknowledge	65252	Engine #1	3	bit	Not available
2814	Engine Alarm Output Command Status	65252	Engine #1	3	bit	Not available
1656	Engine Automatic Start Enable Switch	57344	Engine #1	3	bit	Not available
1656	Engine Automatic Start Enable Switch	57344	Instrument Cluster #1	0	bit	Switch in the off state
1656	Engine Automatic Start Enable Switch	57344	Passenger-Operator Climate Control #1	0	bit	Switch in the off state
1656	Engine Automatic Start Enable Switch	57344	Body Controller	0	bit	Switch in the off state
1656	Engine Automatic Start Enable Switch	57344	Cab Display #1	0	bit	Switch in the off state
1656	Engine Automatic Start Enable Switch	57344	Cab Controller - Primary	0	bit	Switch in the off state
970	Engine Auxiliary Shutdown Switch	61441	Brakes - System Controller	0	bit	Off
970	Engine Auxiliary Shutdown Switch	61441	Cab Controller - Primary	0	bit	Off
185	Engine Average Fuel Economy	65266	Engine #1	0.000	miles/gallon	
111	Engine Coolant Level	65263	Engine #1	100.000	%	
1082	Engine Coolant Load Increase	61440	Retarder - Engine	3	bit	Not available
971	Engine Derate Switch	61441	Brakes - System Controller	0	bit	Off
971	Engine Derate Switch	61441	Cab Controller - Primary	0	bit	Off
183	Engine Fuel Rate	65266	Engine #1	0.000	gallons/h	
967	Engine Idle Decrement Switch	65265	Engine #1	3	bit	Not available

# Heavy Vehicle Data Report

VIN: 1FUJGBDV1ALAR4676

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SPN	SPN Name	PGN	Source	Value	Units	Meaning
967	Engine Idle Decrement Switch	65265	Instrument Cluster #1	0	bit	Off
967	Engine Idle Decrement Switch	65265	Body Controller	0	bit	Off
967	Engine Idle Decrement Switch	65265	Cab Display #1	0	bit	Off
967	Engine Idle Decrement Switch	65265	Cab Controller - Primary	0	bit	Off
968	Engine Idle Increment Switch	65265	Engine #1	0	bit	Off
968	Engine Idle Increment Switch	65265	Instrument Cluster #1	0	bit	Off
968	Engine Idle Increment Switch	65265	Body Controller	0	bit	Off
968	Engine Idle Increment Switch	65265	Cab Display #1	0	bit	Off
968	Engine Idle Increment Switch	65265	Cab Controller - Primary	0	bit	Off
594	Engine Idle Shutdown Driver Alert Mode	65252	Engine #1	0	bit	Inactive
591	Engine Idle Shutdown Timer Function	65252	Engine #1	3	bit	Not available
592	Engine Idle Shutdown Timer Override	65252	Engine #1	0	bit	Inactive
590	Engine Idle Shutdown Timer State	65252	Engine #1	0	bit	Inactive
593	Engine Idle Shutdown has Shutdown Engine	65252	Engine #1	0	bit	No
184	Engine Instantaneous Fuel Economy	65266	Engine #1	0.000	miles/gallon	
102	Engine Intake Manifold #1 Pressure	65270	Engine #1	0.000	psi	
5465	Engine Intake Manifold Pressure Control Mode	65214	Engine #1	3	bit	Not available
2812	Engine Overspeed Test	65252	Engine #1	3	bit	Not available
981	Engine PTO Governor Accelerate Switch	65264	Engine #1	0	bit	Off
981	Engine PTO Governor Accelerate Switch	65264	Instrument Cluster #1	0	bit	Off
981	Engine PTO Governor Accelerate Switch	65264	Body Controller	0	bit	Off

# Heavy Vehicle Data Report

VIN: 1FUJGBDV1ALAR4676

Make: Not Provided, Model: Not Provided, S/N: Not Provided



SPN	SPN Name	PGN	Source	Value	Units	Meaning
981	Engine PTO Governor Accelerate Switch	65264	Cab Display #1	0	bit	Off
981	Engine PTO Governor Accelerate Switch	65264	Cab Controller - Primary	0	bit	Off
983	Engine PTO Governor Coast/Decelerate Switch	65264	Engine #1	0	bit	Off
983	Engine PTO Governor Coast/Decelerate Switch	65264	Instrument Cluster #1	0	bit	Off
983	Engine PTO Governor Coast/Decelerate Switch	65264	Body Controller	0	bit	Off
983	Engine PTO Governor Coast/Decelerate Switch	65264	Cab Display #1	0	bit	Off
983	Engine PTO Governor Coast/Decelerate Switch	65264	Cab Controller - Primary	0	bit	Off
980	Engine PTO Governor Enable Switch	65264	Engine #1	3	bit	Not available
980	Engine PTO Governor Enable Switch	65264	Instrument Cluster #1	0	bit	Off
980	Engine PTO Governor Enable Switch	65264	Body Controller	0	bit	Off
980	Engine PTO Governor Enable Switch	65264	Cab Display #1	0	bit	Off
980	Engine PTO Governor Enable Switch	65264	Cab Controller - Primary	0	bit	Off
982	Engine PTO Governor Resume Switch	65264	Engine #1	0	bit	Off
982	Engine PTO Governor Resume Switch	65264	Instrument Cluster #1	0	bit	Off
982	Engine PTO Governor Resume Switch	65264	Body Controller	0	bit	Off
982	Engine PTO Governor Resume Switch	65264	Cab Display #1	0	bit	Off
982	Engine PTO Governor Resume Switch	65264	Cab Controller - Primary	0	bit	Off
984	Engine PTO Governor Set Switch	65264	Engine #1	0	bit	Off
984	Engine PTO Governor Set Switch	65264	Instrument Cluster #1	0	bit	Off
984	Engine PTO Governor Set Switch	65264	Body Controller	0	bit	Off
984	Engine PTO Governor Set Switch	65264	Cab Display #1	0	bit	Off

# Heavy Vehicle Data Report

VIN: 1FUJGBDV1ALAR4676

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SPN	SPN Name	PGN	Source	Value	Units	Meaning
984	Engine PTO Governor Set Switch	65264	Cab Controller - Primary	0	bit	Off
1109	Engine Protection System Approaching Shutdown	65252	Engine #1	0	bit	Not approaching
1111	Engine Protection System Configuration	65252	Engine #1	3	bit	Not available
1108	Engine Protection System Timer Override	65252	Engine #1	0	bit	Inactive
1107	Engine Protection System Timer State	65252	Engine #1	0	bit	Inactive
1110	Engine Protection System has Shutdown Engine	65252	Engine #1	0	bit	No
189	Engine Rated Speed	65214	Engine #1	0.000	rpm	
979	Engine Remote PTO Governor Preprogrammed Speed Control Switch	65264	Engine #1	3	bit	Not available
979	Engine Remote PTO Governor Preprogrammed Speed Control Switch	65264	Instrument Cluster #1	0	bit	Off
979	Engine Remote PTO Governor Preprogrammed Speed Control Switch	65264	Body Controller	0	bit	Off
979	Engine Remote PTO Governor Preprogrammed Speed Control Switch	65264	Cab Display #1	0	bit	Off
979	Engine Remote PTO Governor Preprogrammed Speed Control Switch	65264	Cab Controller - Primary	0	bit	Off
978	Engine Remote PTO Governor Variable Speed Control Switch	65264	Engine #1	0	bit	Off
978	Engine Remote PTO Governor Variable Speed Control Switch	65264	Instrument Cluster #1	0	bit	Off
978	Engine Remote PTO Governor Variable Speed Control Switch	65264	Body Controller	0	bit	Off
978	Engine Remote PTO Governor Variable Speed Control Switch	65264	Cab Display #1	0	bit	Off
978	Engine Remote PTO Governor Variable Speed Control Switch	65264	Cab Controller - Primary	0	bit	Off

# Heavy Vehicle Data Report

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SPN	SPN Name	PGN	Source	Value	Units	Meaning
973	Engine Retarder Selection	61441	Brakes - System Controller	0.000	%	
973	Engine Retarder Selection	61441	Cab Controller - Primary	0.000	%	
3669	Engine Rotation Direction	65214	Engine #1	3	bit	Not available
1237	Engine Shutdown Override Switch	65265	Engine #1	0	bit	Off
1237	Engine Shutdown Override Switch	65265	Instrument Cluster #1	0	bit	Off
1237	Engine Shutdown Override Switch	65265	Body Controller	0	bit	Off
1237	Engine Shutdown Override Switch	65265	Cab Display #1	0	bit	Off
1237	Engine Shutdown Override Switch	65265	Cab Controller - Primary	0	bit	Off
966	Engine Test Mode Switch	65265	Engine #1	0	bit	Off
966	Engine Test Mode Switch	65265	Instrument Cluster #1	0	bit	Off
966	Engine Test Mode Switch	65265	Body Controller	0	bit	Off
966	Engine Test Mode Switch	65265	Cab Display #1	0	bit	Off
966	Engine Test Mode Switch	65265	Cab Controller - Primary	0	bit	Off
250	Engine Total Fuel Used	65257	Engine #1	0.000	gallons	
247	Engine Total Hours of Operation	65253	Engine #1	3047.700	hours	
236	Engine Total Idle Fuel Used	65244	Engine #1	0.000	gallons	
235	Engine Total Idle Hours	65244	Engine #1	0.000	hours	
249	Engine Total Revolutions	65253	Engine #1	0	r	
182	Engine Trip Fuel	65257	Engine #1	0.000	gallons	
1665	Engine Turbocharger Oil Level Switch	65245	Engine #1	3	bit	Not available
1081	Engine Wait to Start Lamp	65252	Engine #1	3	bit	Not available
3698	Exhaust System High Temperature Lamp Command	64892	Engine #1	7	bit	Not available
1215	Failure Mode Identifier	65226	Engine #1	14	binary	
977	Fan Drive State	65213	Engine #1	15	bit	Not available
3040	Flash Amber Warning Lamp (AWL)	65226	Engine #1	3	bit	Unavailable / do not flash
3038	Flash Malfunction Indicator Lamp (MIL)	65226	Engine #1	3	bit	Unavailable / do not flash

# Heavy Vehicle Data Report

VIN: 1FUJGBDV1ALAR4676

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SPN	SPN Name	PGN	Source	Value	Units	Meaning
3041	Flash Protect Lamp	65226	Engine #1	3	bit	Unavailable / do not flash
3039	Flash Red Stop Lamp (RSL)	65226	Engine #1	3	bit	Unavailable / do not flash
2911	Halt brake switch	61441	Brakes - System Controller	0	bit	Halt brake switch passive
2911	Halt brake switch	61441	Cab Controller - Primary	0	bit	Halt brake switch passive
917	High Resolution Total Vehicle Distance	65217	Engine #1	1455335	meters	
918	High Resolution Trip Distance	65217	Engine #1	1455335	meters	
961	Hours	65254	Engine #1	3	hours	
5504	Hydrocarbon Doser Purging Enable	64892	Engine #1	3	bit	Not available
158	Keyswitch Battery Potential	65271	Engine #1	12.250	Volts	
586	Make	65259	Off Board Diagnostic-Service Tool #2	SYNER	ASCII	
1213	Malfunction Indicator Lamp	65226	Engine #1	3	bit	Not available
74	Maximum Vehicle Speed Limit	65261	Engine #1	65.244	mph	
960	Minutes	65254	Engine #1	59	minutes	
587	Model	65259	Off Board Diagnostic-Service Tool #2	SSS2-R03	ASCII	
963	Month	65254	Engine #1	2	Months	
965	Number of Software Identification Fields	65242	Engine #1	15	step	
965	Number of Software Identification Fields	65242	Retarder - Engine	15	step	
1216	Occurrence Count	65226	Engine #1	1	binary	
2897	Operator Engine PTO Governor Memory Select Switch	65264	Engine #1	3	bit	Not available
2897	Operator Engine PTO Governor Memory Select Switch	65264	Instrument Cluster #1	0	bit	Pto set speed memory 1 selected
2897	Operator Engine PTO Governor Memory Select Switch	65264	Body Controller	0	bit	Pto set speed memory 1 selected



# Heavy Vehicle Data Report

VIN: 1FUJGBDV1ALAR4676

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SPN	SPN Name	PGN	Source	Value	Units	Meaning
2897	Operator Engine PTO Governor Memory Select Switch	65264	Cab Display #1	0	bit	Pto set speed memory 1 selected
2897	Operator Engine PTO Governor Memory Select Switch	65264	Cab Controller - Primary	0	bit	Pto set speed memory 1 selected
1714	Operator Seat Direction Switch	57344	Engine #1	3	bit	Not available
1714	Operator Seat Direction Switch	57344	Instrument Cluster #1	0	bit	Operator seat not facing forward
1714	Operator Seat Direction Switch	57344	Passenger-Operator Climate Control #1	0	bit	Operator seat not facing forward
1714	Operator Seat Direction Switch	57344	Body Controller	0	bit	Operator seat not facing forward
1714	Operator Seat Direction Switch	57344	Cab Display #1	0	bit	Operator seat not facing forward
1714	Operator Seat Direction Switch	57344	Cab Controller - Primary	0	bit	Operator seat not facing forward
5675	Operator Shift Prompt	65279	Engine #1	3	bit	Don't care/take no action
976	PTO Governor State	65265	Engine #1	0	bit	Off/disabled
976	PTO Governor State	65265	Instrument Cluster #1	0	bit	Off/disabled
976	PTO Governor State	65265	Body Controller	0	bit	Off/disabled
976	PTO Governor State	65265	Cab Display #1	0	bit	Off/disabled
976	PTO Governor State	65265	Cab Controller - Primary	0	bit	Off/disabled
5404	PTO Shutdown has Shutdown Engine	65252	Engine #1	3	bit	Not available
5630	Park Brake Command	57344	Engine #1	3	bit	Don't care/take no action
5630	Park Brake Command	57344	Instrument Cluster #1	0	bit	Park brake apply not requested
5630	Park Brake Command	57344	Passenger-Operator Climate Control #1	0	bit	Park brake apply not requested



# Heavy Vehicle Data Report

VIN: 1FUJGBDV1ALAR4676

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SPN	SPN Name	PGN	Source	Value	Units	Meaning
5630	Park Brake Command	57344	Body Controller	0	bit	Park brake apply not requested
5630	Park Brake Command	57344	Cab Display #1	0	bit	Park brake apply not requested
5630	Park Brake Command	57344	Cab Controller - Primary	0	bit	Park brake apply not requested
3807	Park Brake Release Inhibit Request	65265	Engine #1	3	bit	Unavailable
3807	Park Brake Release Inhibit Request	65265	Instrument Cluster #1	0	bit	Park brake release inhibit not requested
3807	Park Brake Release Inhibit Request	65265	Body Controller	0	bit	Park brake release inhibit not requested
3807	Park Brake Release Inhibit Request	65265	Cab Display #1	0	bit	Park brake release inhibit not requested
3807	Park Brake Release Inhibit Request	65265	Cab Controller - Primary	0	bit	Park brake release inhibit not requested
70	Parking Brake Switch	65265	Engine #1	0	bit	Parking brake not set
70	Parking Brake Switch	65265	Instrument Cluster #1	0	bit	Parking brake not set
70	Parking Brake Switch	65265	Body Controller	0	bit	Parking brake not set
70	Parking Brake Switch	65265	Cab Display #1	0	bit	Parking brake not set
70	Parking Brake Switch	65265	Cab Controller - Primary	0	bit	Parking brake not set
90	Power Takeoff Oil Temperature	65264	Instrument Cluster #1	-40	deg F	
90	Power Takeoff Oil Temperature	65264	Body Controller	-40	deg F	
90	Power Takeoff Oil Temperature	65264	Cab Display #1	-40	deg F	
90	Power Takeoff Oil Temperature	65264	Cab Controller - Primary	-40	deg F	
187	Power Takeoff Set Speed	65264	Engine #1	0.000	rpm	
187	Power Takeoff Set Speed	65264	Instrument Cluster #1	0.000	rpm	

# Heavy Vehicle Data Report

VIN: 1FUJGBDV1ALAR4676

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SPN	SPN Name	PGN	Source	Value	Units	Meaning
187	Power Takeoff Set Speed	65264	Body Controller	0.000	rpm	
187	Power Takeoff Set Speed	65264	Cab Display #1	0.000	rpm	
187	Power Takeoff Set Speed	65264	Cab Controller - Primary	0.000	rpm	
186	Power Takeoff Speed	65264	Instrument Cluster #1	0.000	rpm	
186	Power Takeoff Speed	65264	Body Controller	0.000	rpm	
186	Power Takeoff Speed	65264	Cab Display #1	0.000	rpm	
186	Power Takeoff Speed	65264	Cab Controller - Primary	0.000	rpm	
987	Protect Lamp	65226	Engine #1	1	bit	Lamp on
623	Red Stop Lamp	65226	Engine #1	1	bit	Lamp on
605	Refrigerant High Pressure Switch	65252	Engine #1	3	bit	Not available
875	Refrigerant Low Pressure Switch	65252	Engine #1	3	bit	Not available
969	Remote Accelerator Enable Switch	61441	Brakes - System Controller	0	bit	Off
969	Remote Accelerator Enable Switch	61441	Cab Controller - Primary	0	bit	Off
3447	Remote PTO Governor Preprogrammed Speed Control Switch #2	65264	Engine #1	3	bit	Not available
3447	Remote PTO Governor Preprogrammed Speed Control Switch #2	65264	Instrument Cluster #1	0	bit	Off
3447	Remote PTO Governor Preprogrammed Speed Control Switch #2	65264	Body Controller	0	bit	Off
3447	Remote PTO Governor Preprogrammed Speed Control Switch #2	65264	Cab Display #1	0	bit	Off
3447	Remote PTO Governor Preprogrammed Speed Control Switch #2	65264	Cab Controller - Primary	0	bit	Off
1686	Request Cab Zone Heating	57344	Engine #1	3	bit	Don't care/take no action
1686	Request Cab Zone Heating	57344	Instrument Cluster #1	0	bit	Do not cab engine zone
1686	Request Cab Zone Heating	57344	Passenger-Operator Climate Control #1	0	bit	Do not cab engine zone
1686	Request Cab Zone Heating	57344	Body Controller	0	bit	Do not cab engine zone

# Heavy Vehicle Data Report

VIN: 1FUJGBDV1ALAR4676

Make: Not Provided, Model: Not Provided, S/N: Not Provided



SPN	SPN Name	PGN	Source	Value	Units	Meaning
1686	Request Cab Zone Heating	57344	Cab Display #1	0	bit	Do not cab engine zone
1686	Request Cab Zone Heating	57344	Cab Controller - Primary	0	bit	Do not cab engine zone
1685	Request Engine Zone Heating	57344	Engine #1	3	bit	Don't care/take no action
1685	Request Engine Zone Heating	57344	Instrument Cluster #1	0	bit	Do not heat engine zone
1685	Request Engine Zone Heating	57344	Passenger-Operator Climate Control #1	0	bit	Do not heat engine zone
1685	Request Engine Zone Heating	57344	Body Controller	0	bit	Do not heat engine zone
1685	Request Engine Zone Heating	57344	Cab Display #1	0	bit	Do not heat engine zone
1685	Request Engine Zone Heating	57344	Cab Controller - Primary	0	bit	Do not heat engine zone
986	Requested Percent Fan Speed	57344	Instrument Cluster #1	0.000	%	
986	Requested Percent Fan Speed	57344	Passenger-Operator Climate Control #1	0.000	%	
986	Requested Percent Fan Speed	57344	Body Controller	0.000	%	
986	Requested Percent Fan Speed	57344	Cab Display #1	0.000	%	
986	Requested Percent Fan Speed	57344	Cab Controller - Primary	0.000	%	
557	Retarder Control Method (Retarder Configuration)	65249	Retarder - Engine	3	step	
571	Retarder Enable - Brake Assist Switch	61440	Retarder - Engine	0	bit	Retarder - brake assist disabled
572	Retarder Enable - Shift Assist Switch	61440	Retarder - Engine	0	bit	Retarder - shift assist disabled
902	Retarder Location	65249	Retarder - Engine	3	bit	(secondary) transmission output (output shaft rpm)
1667	Retarder Requesting Brake Light	61440	Retarder - Engine	3	bit	Not available/take no action
4234	Retarder Road Speed Exceeded Status	61440	Retarder - Engine	3	bit	Don't care/take no action

# Heavy Vehicle Data Report

VIN: 1FUJGBDV1ALAR4676

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SPN	SPN Name	PGN	Source	Value	Units	Meaning
4233	Retarder Road Speed Limit Switch	61440	Retarder - Engine	3	bit	Not available
900	Retarder Torque Mode	61440	Retarder - Engine	0	bit	
901	Retarder Type	65249	Retarder - Engine	0	bit	Electric/magnetic
79	Road Surface Temperature	65269	Body Controller	-459.400	deg F	
1706	SPN Conversion Method	65226	Engine #1	0	bit	Means convert spns per the version 4 definition below
1856	Seat Belt Switch	57344	Engine #1	3	bit	Not available
1856	Seat Belt Switch	57344	Instrument Cluster #1	0	bit	Not buckled
1856	Seat Belt Switch	57344	Passenger-Operator Climate Control #1	0	bit	Not buckled
1856	Seat Belt Switch	57344	Body Controller	0	bit	Not buckled
1856	Seat Belt Switch	57344	Cab Display #1	0	bit	Not buckled
1856	Seat Belt Switch	57344	Cab Controller - Primary	0	bit	Not buckled
959	Seconds	65254	Engine #1	37	Seconds	
2596	Selected Maximum Vehicle Speed Limit	57344	Instrument Cluster #1	0	count	
2596	Selected Maximum Vehicle Speed Limit	57344	Passenger-Operator Climate Control #1	0	count	
2596	Selected Maximum Vehicle Speed Limit	57344	Body Controller	0	count	
2596	Selected Maximum Vehicle Speed Limit	57344	Cab Display #1	0	count	
2596	Selected Maximum Vehicle Speed Limit	57344	Cab Controller - Primary	0	count	
588	Serial Number	65259	Off Board Diagnostic-Service Tool #2	0019	ASCII	
234	Software Identification	65242	Engine #1	004*003*000*000*R**a*018*000*08*11*10*12*00*0<.0053.00176*	ASCII	
234	Software Identification	65242	Retarder - Engine	004*003*000*000*R**a*018*000*08*11*10*12*00*0<.0053.00176*	ASCII	

# Heavy Vehicle Data Report

VIN: 1FUJGBDV1ALAR4676

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SPN	SPN Name	PGN	Source	Value	Units	Meaning
1481	Source Address of Controlling Device for Brake Control	61441	Brakes - System Controller	0	SA	
1481	Source Address of Controlling Device for Brake Control	61441	Cab Controller - Primary	0	SA	
1480	Source Address of Controlling Device for Retarder Control	61440	Retarder - Engine	15	SA	
248	Total Power Takeoff Hours	65255	Engine #1	0.000	hours	
245	Total Vehicle Distance	65248	Engine #1	904.328	miles	
1238	Traction Control Override Switch	61441	Brakes - System Controller	0	bit	Off
1238	Traction Control Override Switch	61441	Cab Controller - Primary	0	bit	Off
1792	Tractor-Mounted Trailer ABS Warning Signal	61441	Brakes - System Controller	0	bit	Off
1792	Tractor-Mounted Trailer ABS Warning Signal	61441	Cab Controller - Primary	0	bit	Off
1836	Trailer ABS Status	61441	Brakes - System Controller	0	bit	Trailer abs status information available but not active
1836	Trailer ABS Status	61441	Cab Controller - Primary	0	bit	Trailer abs status information available but not active
244	Trip Distance	65248	Engine #1	904.328	miles	
69	Two Speed Axle Switch	65265	Engine #1	3	bit	Not available
69	Two Speed Axle Switch	65265	Instrument Cluster #1	0	bit	Low speed range
69	Two Speed Axle Switch	65265	Body Controller	0	bit	Low speed range
69	Two Speed Axle Switch	65265	Cab Display #1	0	bit	Low speed range
69	Two Speed Axle Switch	65265	Cab Controller - Primary	0	bit	Low speed range
233	Unit Number (Power Unit)	65259	Off Board Diagnostic-Service Tool #2	UNIVERSAL	ASCII	

# Heavy Vehicle Data Report

VIN: 1FUJGBDV1ALAR4676

Make: Not Provided, Model: Not Provided, S/N: Not Provided



SPN	SPN Name	PGN	Source	Value	Units	Meaning
237	Vehicle Identification Number	65260	Engine #1	1FUJGBDV1A LAR4676*	ASCII	
237	Vehicle Identification Number	65260	Retarder - Engine	1FUJGBDV1A LAR4676*	ASCII	
1655	Vehicle Limiting Speed Governor Decrement Switch	57344	Engine #1	3	bit	Not available
1655	Vehicle Limiting Speed Governor Decrement Switch	57344	Instrument Cluster #1	0	bit	Switch in the off state
1655	Vehicle Limiting Speed Governor Decrement Switch	57344	Passenger-Operator Climate Control #1	0	bit	Switch in the off state
1655	Vehicle Limiting Speed Governor Decrement Switch	57344	Body Controller	0	bit	Switch in the off state
1655	Vehicle Limiting Speed Governor Decrement Switch	57344	Cab Display #1	0	bit	Switch in the off state
1655	Vehicle Limiting Speed Governor Decrement Switch	57344	Cab Controller - Primary	0	bit	Switch in the off state
1653	Vehicle Limiting Speed Governor Enable Switch	57344	Engine #1	3	bit	Not available
1653	Vehicle Limiting Speed Governor Enable Switch	57344	Instrument Cluster #1	0	bit	Switch disabled
1653	Vehicle Limiting Speed Governor Enable Switch	57344	Passenger-Operator Climate Control #1	0	bit	Switch disabled
1653	Vehicle Limiting Speed Governor Enable Switch	57344	Body Controller	0	bit	Switch disabled
1653	Vehicle Limiting Speed Governor Enable Switch	57344	Cab Display #1	0	bit	Switch disabled
1653	Vehicle Limiting Speed Governor Enable Switch	57344	Cab Controller - Primary	0	bit	Switch disabled
1654	Vehicle Limiting Speed Governor Increment Switch	57344	Engine #1	3	bit	Not available
1654	Vehicle Limiting Speed Governor Increment Switch	57344	Instrument Cluster #1	0	bit	Switch in the off state
1654	Vehicle Limiting Speed Governor Increment Switch	57344	Passenger-Operator Climate Control #1	0	bit	Switch in the off state
1654	Vehicle Limiting Speed Governor Increment Switch	57344	Body Controller	0	bit	Switch in the off state
1654	Vehicle Limiting Speed Governor Increment Switch	57344	Cab Display #1	0	bit	Switch in the off state
1654	Vehicle Limiting Speed Governor Increment Switch	57344	Cab Controller - Primary	0	bit	Switch in the off state
97	Water In Fuel Indicator	65279	Engine #1	3	bit	Not available
84	Wheel-Based Vehicle Speed	65265	Engine #1	0.000	mph	

# Heavy Vehicle Data Report

VIN: 1FUJGBDV1ALAR4676

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SPN	SPN Name	PGN	Source	Value	Units	Meaning
84	Wheel-Based Vehicle Speed	65265	Instrument Cluster #1	0.000	mph	
84	Wheel-Based Vehicle Speed	65265	Body Controller	0.000	mph	
84	Wheel-Based Vehicle Speed	65265	Cab Display #1	0.000	mph	
84	Wheel-Based Vehicle Speed	65265	Cab Controller - Primary	0.000	mph	
964	Year	65254	Engine #1	2018	Years	

# Heavy Vehicle Data Report

VIN: 1FUJGBDV1ALAR4676

Make: Not Provided, Model: Not Provided, S/N: Not Provided



## J1587 Network Message Values

J1587 Message description

MID	PID	Parameter Name	Value	Units	Meaning
128	44	Attention/Warning Indicator Lamps Status	244		Protect Lamp Status - Not Available Amber Lamp Status - On / Active Red Lamp Status - Off / Inactive
128	185	Average Fuel Economy	0.000	mpg	
128	168	Battery Potential (Voltage)	12.250	volts	
128	251	Clock	03:50:05	HH:MM:SS	
128	86	Cruise Control Set Speed	0.000	mph	
128	85	Cruise Control Status	0		Cruise Control Switch - Off Set Switch - Off Coast Switch - Off Resume Switch - Off Accel Switch - Off Brake Switch - Off Clutch Switch - Off Cruise Mode - Not Active
128	252	Date	02/05/2018	Month/Day/Year	
128	194	Diagnostic Code and Occurrence Count	3	Count	See Below
128	121	Engine Retarder Status	128		Engine Retarder - On / Active 2 Cylinder - Not Active 3 Cylinder - Not Active 4 Cylinder - Not Active 6 Cylinder - Not Active 8 Cylinder - Not Active
128	40	Engine Retarder Switches Status	195		Engine Retarder Switch - Off / Inactive Engine Retarder Level Switch - 0 Cylinders
128	190	Engine Speed	0.000	rpm	
128	183	Fuel Rate (Instantaneous)	0.000	gal/hr	



# Heavy Vehicle Data Report

VIN: 1FUJGBDV1ALAR4676

Make: Not Provided, Model: Not Provided, S/N: Not Provided



MID	PID	Parameter Name	Value	Units	Meaning
128	188	Idle Engine Speed	500.000	rpm	
128	71	Idle Shutdown Timer Status	8		Idle shutdown timer status - Inactive Idle shutdown timer function - Enabled Idle shutdown timer override - Inactive Engine has shutdown by idle timer - No Driver Alert Mode - Inactive
128	184	Instantaneous Fuel Economy	0.000	mpg	
128	74	Maximum Road Speed Limit	65.000	mph	
128	111	Not Provided	b'\xc8'		
128	122	Not Provided	b'\x00'		
128	41	Not Provided	b'\xc0'		
128	43	Not Provided	b'\xc7'		
128	48	Not Provided	b'1'		
128	55	Not Provided	b'6'		
128	65	Not Provided	b'\xfc'		
128	68	Not Provided	b'\xc8'		
128	93	Not Provided	b'\x18'		
128	70	Parking Brake Switch Status	127		Inactive
128	91	Percent Accelerator Pedal Position	0.000	%	
128	92	Percent Engine Load	100.000	%	
128	187	Power Takeoff Set Speed	592.000	rpm	
128	89	Power Takeoff Status	0		PTO Mode - Inactive Clutch Switch - Off Brake Switch - Off Accel Switch - Off Resume Switch - Off Coast Switch - Off Set Switch - Off PTO Control Switch - Off
128	189	Rated Engine Speed	1800.000	rpm	

# Heavy Vehicle Data Report

VIN: 1FUJGBDV1ALAR4676

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MID	PID	Parameter Name	Value	Units	Meaning
128	84	Road Speed	0.000	mph	
128	83	Road Speed Limit Status	127		Road Speed Limiter Currently Not Active
128	234	Software Identification	04*003*000*00*R**a*018*00*08*11*10*12*0*0<.0053		
128	247	Total Engine Hours	3047.700	hours	
128	250	Total Fuel Used	0.000	gallons	
128	236	Total Idle Fuel Used	0.000	gallons	
128	235	Total Idle Hours	0.000	hours	
128	248	Total PTO Hours	0.000	hours	
128	245	Total Vehicle Distance	903.900	miles	
128	244	Trip Distance	903.900	miles	
128	182	Trip Fuel	0.000	gallons	
128	233	Unit Number (Power Unit)	-----		
128	237	Vehicle Identification Number	1FUJGBDV1ALAR4676		
128	46	Vehicle Wet Tank Pressure	48.000	psi	

Message Identifier (MID) Legend: 128 = Engine #1

## J1587 Fault Code Data (PID 194)

A = Active, I = Inactive

### *Diagnostic Codes for Engine #1 (MID 128)*

A - Percent Accelerator Pedal Position: Voltage below normal or shorted low. Count: 3

A - Unknown System ID: Abnormal update rate. Count: 1

A - Unknown System ID: Special Instructions. Count: 1

# Heavy Vehicle Data Report

VIN: 1FUJGBDV1ALAR4676

Make: Not Provided, Model: Not Provided, S/N: Not Provided



## Forensic Context Information

### Network Logs

Network logs are files that containing all of the vehicle network traffic. For heavy vehicles there are two networks that are commonly used: 1) Controller Area Network (CAN) and 2) J1708, which is an older protocol based on RS485. The RP1210 compliant Vehicle Diagnostic Adapter is set up to receive all CAN and J1708 messages. These messages are stored in separate files. The J1708 log file is text based and the CAN file is a binary file. The hash digest values are calculated based on the SHA-256 algorithm.

**CAN Log File Name:** CANNetworkTraffic.bin

**CAN Log File Signature:** None

**CAN Log File Size:** 0

**J1708 Log File Name:** J1708NetworkTraffic.bin

**J1708 Log File Signature:** None

**J1708 Log File Size:** 0

### Heavy Vehicle Data File Information

**File Name:** Example Data.cpt

**File Format:** 2.0

**Machine UUID:** 4C4C4544-0031-5310-804C-B2C04F473932

**Harddrive UUID:** 170342420521

**Signatures:**

-----BEGIN PGP SIGNATURE-----

Version: PGPY v0.4.3

wl4EABMIAAYFAIp32ccACgkQnY0LEuAMZkBEExQD/fvMYhOawIDnRmhM92G2kb1Em

CdjhSIXvBhhZQlb7Kc0A/0Ltv5iPaGdDVTGTG1F/WX+MpW97z1F+gl+/zd+GmEac

=UoKj

-----END PGP SIGNATURE-----

cipherprefs: []

compprefs: []

created: 2018-02-05 04:12:55.538464

expires\_at: None

exportable: True

features: set()

hashprefs: []

hash\_algorithm: HashAlgorithm.SHA256

is\_expired: False

key\_algorithm: PubKeyAlgorithm.ECDSA

key\_flags: set()

keyserver:

keyserverprefs: []

notation: {}

policy\_uri:

revocable: True

signer: 9D8D0B12E00C6640

type: SignatureType.BinaryDocument