

## **Greyhound ECM Reports**



TO: Glenn Lysinger

ADDRESS: A09

FROM: Bud O'Donnell

DATE: Oct 23, 1998

SUBJECT: Meeting With USA National Transportation Safety Board (NTSB)  
Reference Case Number PSC-98-005

On June 25, 1998 we received two DDEC III ECMs from the USA National Transportation Safety Board (NTSB). The ECMs were from a bus and a truck that were involved in an accident on the Pennsylvania turnpike about 4:00 AM June 20, 1998.

The ECMs were powered up on a DDEC III lab simulator. The bus ECM was from engine S/N 04R-20523 and the truck ECM from engine S/N 06R-370113. Both contained R7.00 software. Neither ECM had any codes that could have been active near their ending engine hours. Their calibrations, DDR engine\trip data and diagnostics records were off loaded and saved.

The bus ECM did not have Data Pages enabled. After enabling the Data Pages a DHP data file was extracted. The ECM clock was in error reading 10/22/1985 14:08:10 as final time when battery was disconnected. The dates in the data file were adjusted to 6/20/1998 final date (time of day cannot be adjusted).

The trk ECM did have Data Pages enabled. The Data Pages DHP data file was extracted. The ECM clock appeared correct reading 6/21/1985 19:39:03 as final time when battery was disconnected.

The attached Engine Usage Profiles (bus has a manually inserted Jun 19/20 time scale) show the truck was idling and the bus driving at 4:00 AM on June 20, 1998.

The attached "sample1" reports and Max Speed graphs show the past driving characteristics of the vehicles.

All the above was discussed with the NTSB (Chris Voeglie) and sample copies of various ProManager Reports were provided.

The ECMs were returned to the NTSB (Chris Voeglie).

cc: Arn VanderBok, Dave Hart, Bob Shipley

| Date      | Vehicle                        |
|-----------|--------------------------------|
| Jun 19/20 | 15<br>18<br>21<br>24<br>3<br>6 |
| Page Up   | Line Up                        |
| Page Down | Line Down                      |
| Name      |                                |

Detroit Diesel Electronic Controls

Page 1 of 1

## Sample Custom Report (Example)

Date Printed: Jul 08,1998  
Vehicle: bus1From: Jun 01,1998  
To: Jun 30,1998

| Date       | Overall<br>Fuel Economy<br>(MPG) | Overall<br>Distance<br>(Miles) | Overall<br>Fuel<br>(Gal) | Highest<br>RPM |
|------------|----------------------------------|--------------------------------|--------------------------|----------------|
| SUMMARY    | 6.80                             | 5,638                          | 829.38                   | 2,349          |
| Thu Jun 04 | 7.04                             | 308                            | 43.75                    | 2,328          |
| Fri Jun 05 | 6.02                             | 337                            | 56.00                    | 2,242          |
| Sat Jun 06 | 6.89                             | 442                            | 64.13                    | 2,304          |
| Sun Jun 07 | 7.18                             | 600                            | 83.50                    | 2,349          |
| Mon Jun 08 | 7.04                             | 609                            | 86.50                    | 2,239          |
| Tue Jun 09 | 7.16                             | 435                            | 60.75                    | 2,204          |
| Fri Jun 12 | 0.05                             | 0                              | 4.00                     | 2,200          |
| Sat Jun 13 | 0.00                             | 0                              | 0.88                     | 2,187          |
| Sun Jun 14 | 4.86                             | 69                             | 14.25                    | 2,201          |
| Mon Jun 15 | 6.75                             | 719                            | 106.63                   | 2,204          |
| Tue Jun 16 | 6.58                             | 429                            | 65.25                    | 2,230          |
| Wed Jun 17 | 6.38                             | 386                            | 60.50                    | 2,197          |
| Thu Jun 18 | 6.92                             | 295                            | 42.63                    | 2,206          |
| Fri Jun 19 | 7.47                             | 582                            | 77.88                    | 2,208          |
| Sat Jun 20 | 6.83                             | 428                            | 62.75                    | 2,198          |

Detroit Diesel Electronic Controls

Page 1 of 1

## Sample Custom Report (Example)

Date Printed: Jul 08,1998  
Vehicle: bus1From: Jun 01,1998  
To: Jun 30,1998

| Date       | Highest<br>Speed<br>(MPH) | Hard-Brake<br>Appls |
|------------|---------------------------|---------------------|
| SUMMARY    | 87                        | 14                  |
| Thu Jun 04 | 76                        | 0                   |
| Fri Jun 05 | 80                        | 0                   |
| Sat Jun 06 | 87                        | 1                   |
| Sun Jun 07 | 85                        | 2                   |
| Mon Jun 08 | 75                        | 1                   |
| Tue Jun 09 | 71                        | 0                   |
| Fri Jun 12 | 9                         | 0                   |
| Sat Jun 13 | 3                         | 0                   |
| Sun Jun 14 | 70                        | 0                   |
| Mon Jun 15 | 77                        | 3                   |
| Tue Jun 16 | 87                        | 4                   |
| Wed Jun 17 | 79                        | 0                   |
| Thu Jun 18 | 77                        | 1                   |
| Fri Jun 19 | 75                        | 0                   |
| Sat Jun 20 | 76                        | 2                   |

Detroit Diesel Electronic Controls

Page 1

## TRENDS REPORT

Date Printed: Jul 08,1998  
Vehicle: bus1

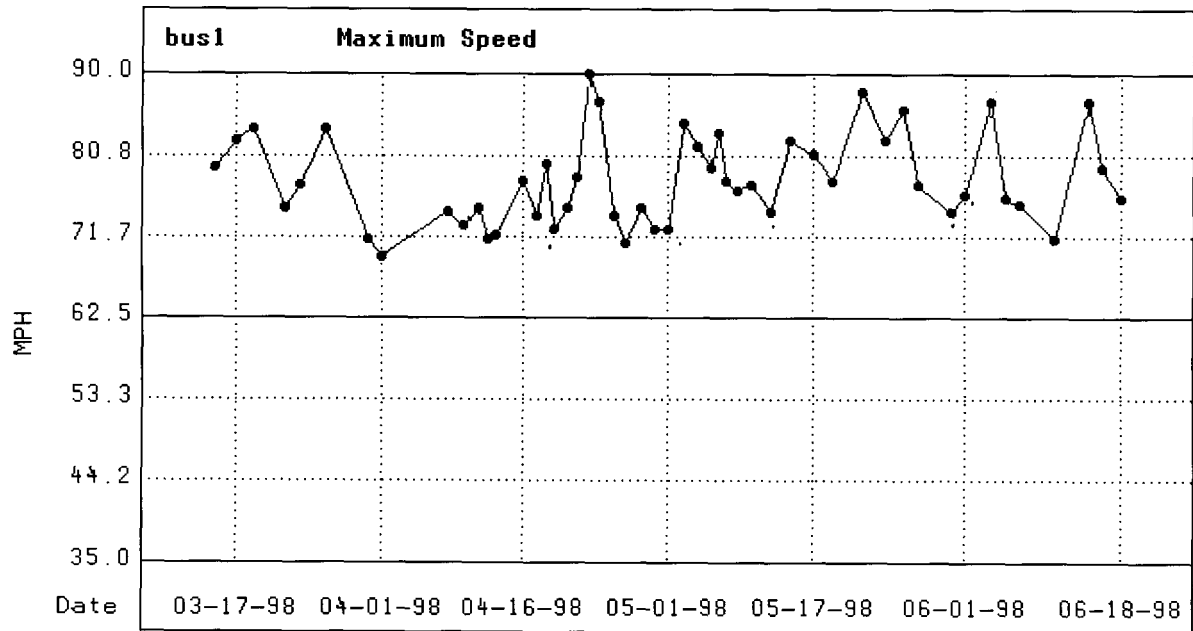
From: Mar 14,1998  
To: Jun 18,1998

| Trend Parameter       | Warning | Value Detected | Date |
|-----------------------|---------|----------------|------|
| Turbo Boost Pressure  |         |                |      |
| Maximum RPM           |         |                |      |
| Maximum Speed         |         |                |      |
| Maximum Coolant Temp. |         |                |      |
| Maximum Oil Temp.     |         |                |      |
| Max. Inlet Air Temp.  |         |                |      |
| Min Throttle Position |         |                |      |
| Fuel Economy          |         |                |      |
| Main Battery Voltage  |         |                |      |
| Oil Pressure          |         |                |      |

| Trend Parameter                | Upper Spec. | Average Value | Lower Spec. | Maximum Value | Minimum Value |
|--------------------------------|-------------|---------------|-------------|---------------|---------------|
| Turbo Boost Pressure (PSI)     | 40.0        | 24.3          | 10.0        | 26.3          | 23.0          |
| Maximum RPM (RPM)              | 2,400.      | 2,275         | 1,000       | 2,386         | 2,169         |
| Maximum Speed (MPH)            | 90.0.       | 78.1          | 35.0        | 90.0          | 69.5          |
| Maximum Coolant Temp. (deg.F)  | 235.0       | 206.0         | 175.0       | 209.5         | 201.8         |
| Maximum Oil Temp. (deg.F)      | 260.0       | 200.8         | 120.0       | 210.0         | 190.8         |
| Max. Inlet Air Temp. (deg.F)   |             |               |             |               |               |
| Min Throttle Position (Counts) | 220.0       | 194.2         | 64.0        | 208.0         | 160.0         |
| Fuel Economy (MPG)             | 9.0         | 7.0           | 3.0         | 7.9           | 6.4           |
| Main Battery Voltage (Volts)   | 32.0        | 13.4          | 10.0        | 13.4          | 13.4          |
| Oil Pressure (PSI)             | 60.0        | 42.3          | 35.0        | 44.8          | 40.3          |

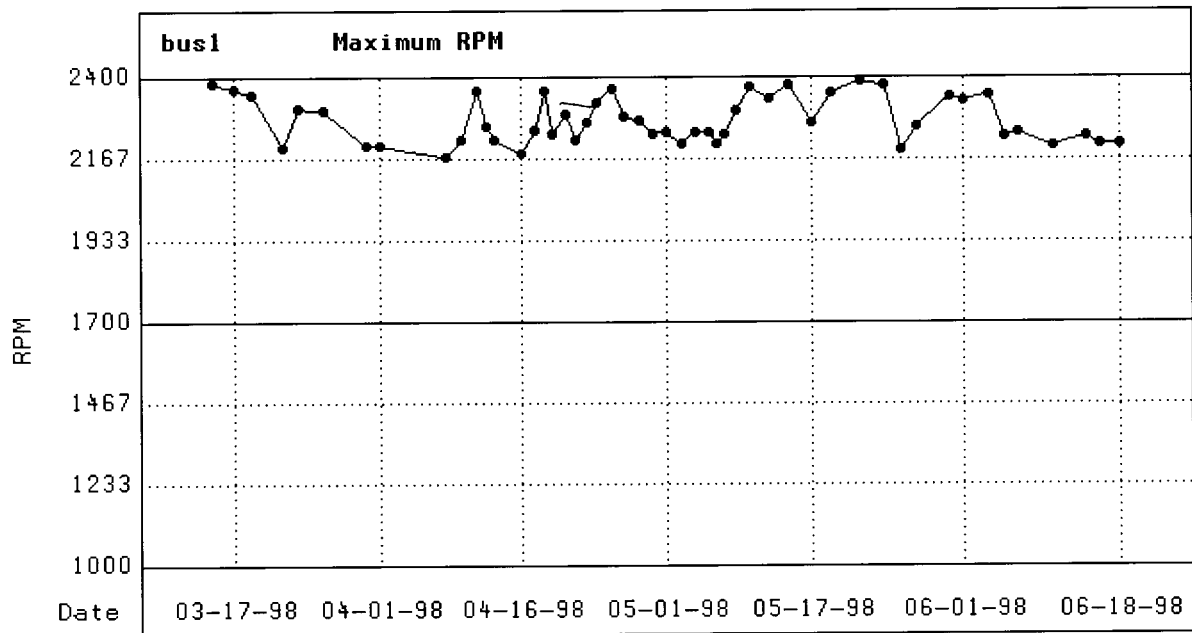
Date Printed: Jul 08,1998  
Vehicle: bus1

From: Jun 04,1998  
To: Jun 20,1998



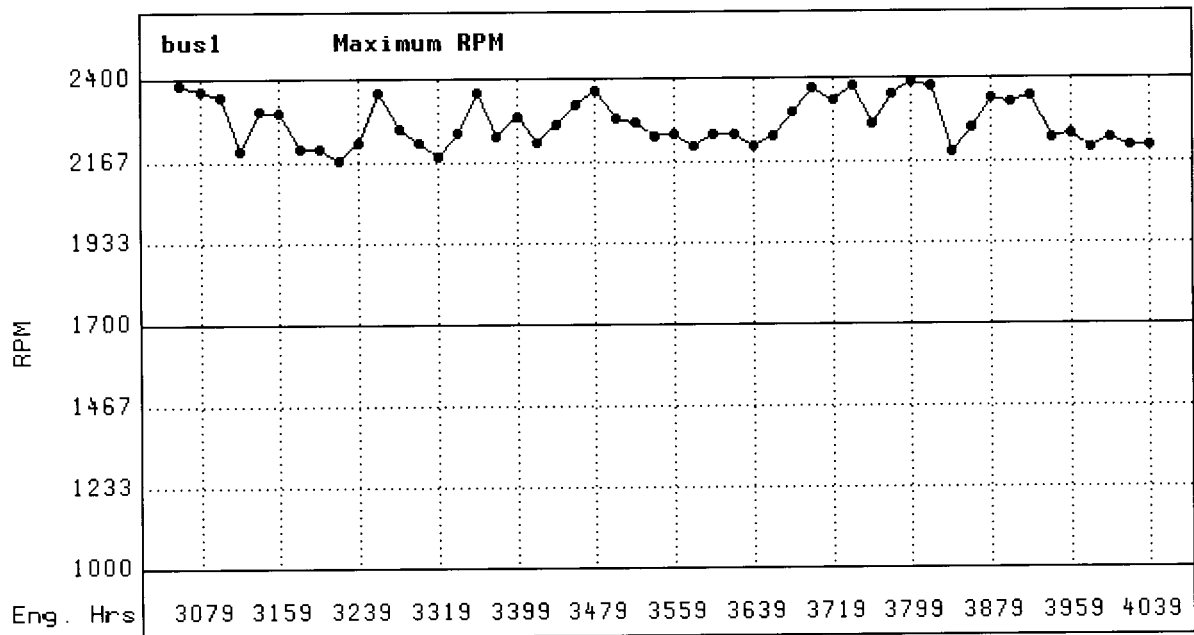
Date Printed: Jul 08,1998  
Vehicle: bus1

From: Jun 04,1998  
To: Jun 20,1998



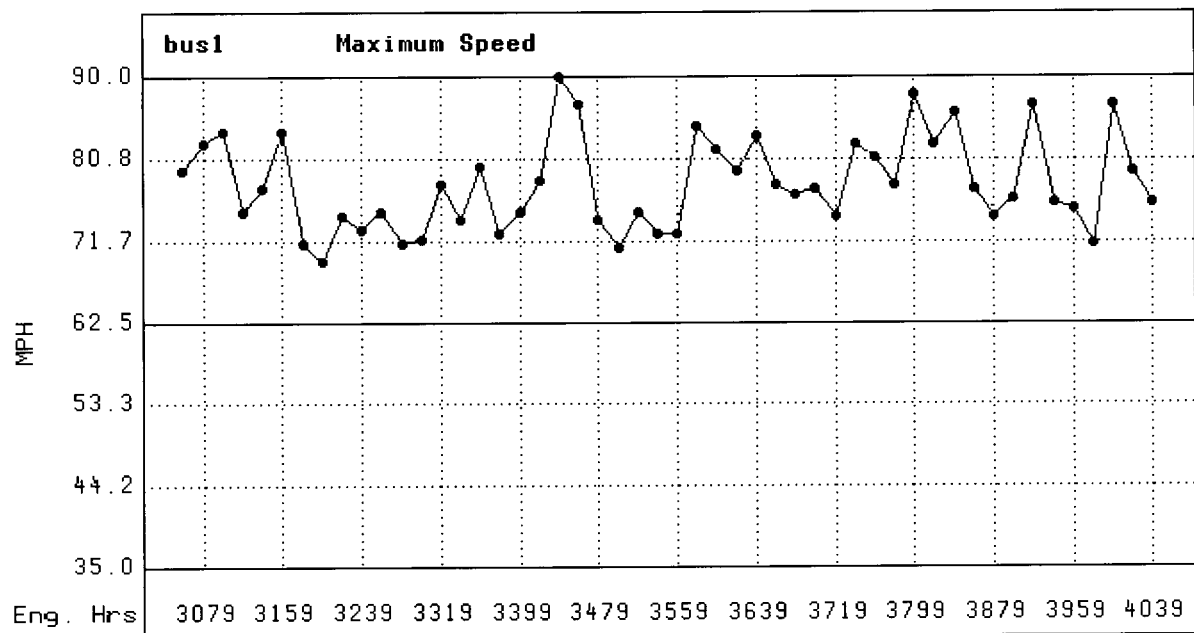
Date Printed: Jul 08,1998  
Vehicle: bus1

From: Jun 04,1998  
To: Jun 20,1998



Date Printed: Jul 08,1998  
Vehicle: bus1

From: Jun 04,1998  
To: Jun 20,1998



# Detroit Diesel Diagnostics Link - Engine Configuration Data

Printed on July 09, 1998

DDC Electronics Reliability  
Data Hub Lab  
Detroit , MI,

Vehicle Unit Number: 0000000000  
Engine Serial Number: 04R0020523

Page 1 of 1

## Engine page:

|                       |                   |
|-----------------------|-------------------|
| Engine Series         | Series 50 8.5L    |
| Engine serial number: | 04R0020523        |
| VIN:                  | 1M8RCMUA5WPO50208 |
| Engine model:         | 6047GK50          |
| EPA certification:    | 782               |
| Idle speed RPM:       | 700               |
| Rated BHP:            | 315               |
| Peak torque FT-LB:    | 1150              |
| Rated engine RPM:     | 2110              |
| Peak torque RPM:      | 1200              |
| LSG droop RPM:        | 125               |

## ECM data page:

|                             |          |
|-----------------------------|----------|
| Rating group (6N4M#):       | 6606     |
| Rating family (6N4D#):      | 6557     |
| Application family (6N4C#): | 303      |
| ECM serial number:          | SG601KB7 |
| ECM software level:         | 7.00     |
| Shared version:             | 0        |
| Rating version:             | 71       |

**Detroit Diesel Diagnostics Link - Trips Totals**

Printed on July 09, 1998

DDC Electronics Reliability  
Data Hub Lab  
Detroit , MI,

Vehicle Unit Number: 0000000000  
Engine Serial Number: 04R0020523

Page 1 of 2

**Engine Totals****Accumulated Totals**

|          |          |       |
|----------|----------|-------|
| Fuel     | 21071.4  | gals  |
| Time     | 4065.9   | hours |
| Distance | 154250.5 | miles |

**Idle Totals**

|      |        |       |
|------|--------|-------|
| Fuel | 1299.8 | gals  |
| Time | 1376.5 | hours |

**VSG Totals**

|      |        |       |
|------|--------|-------|
| Fuel | 1204.8 | gals  |
| Time | 1014.6 | hours |

**Optimized Idle Totals**

Optimized Idle not enabled

**Cruise Totals**

|      |     |       |
|------|-----|-------|
| Time | 0.0 | hours |
|------|-----|-------|

**Engine Brake Totals**

|      |      |       |
|------|------|-------|
| Time | 49.7 | hours |
|------|------|-------|

**Percentages**

|           |    |
|-----------|----|
| On Idle   | 34 |
| On Cruise | 0  |

**Trip Totals****Accumulated Totals**

|          |       |       |
|----------|-------|-------|
| Fuel     | 71.8  | gals  |
| Time     | 13.6  | hours |
| Distance | 487.9 | miles |

**Idle Totals**

|      |     |       |
|------|-----|-------|
| Fuel | 4.4 | gals  |
| Time | 4.5 | hours |

**VSG Totals**

|      |     |       |
|------|-----|-------|
| Fuel | 3.5 | gals  |
| Time | 2.5 | hours |

**Optimized Idle Totals**

Detroit Diesel Diagnostics Link - Trips Totals

Printed on July 09, 1998

DDC Electronics Reliability  
Data Hub Lab  
Detriot , MI,

Vehicle Unit Number: 0000000000  
Engine Serial Number: 04R0020523

Page 2 of 2

Optimized Idle not enabled

**Cruise Totals**

Time 0.0 hours

**Engine Brake Totals**

Time 0.4 hours

**Fuel Consumption**

6.8 mpg

**Percentages**

On Idle 33  
On Cruise 0

## Detroit Diesel Diagnostics Link - Calibrations

Printed on July 09, 1998

DDC Electronics Reliability  
Data Hub Lab  
Detroit, MI,

Vehicle Unit Number: 0000000000  
Engine Serial Number: 04R0020523  
File: Retrieved Calibration  
Page 1 of 3

### Vehicle Page

#### Parameter Name

Vehicle Identification Number  
Vehicle Unit Number  
Idle Adjust RPM  
LSG Droop RPM  
Engine/Service Brake  
Engine Brake Minimum (mph)  
Half Engine Mode  
A/c Fan Timer (s)

#### Value

1M8RCMUA5WPO50208  
0000000000  
0  
125  
Disabled  
0  
N/A  
180

### Shift Page

#### Parameter Name

Enable progressive shift  
Low gear #1 Off speed (mph)  
Low gear #1 RPM limit  
Low gear #1 Maximum limit  
Low gear #2 Off speed (mph)  
Low gear #2 RPM limit  
Low gear #2 Maximum limit  
High gear On speed (mph)  
High gear RPM limit  
  
Low gear torque limit (ft-lb)  
Low gear torque limit threshold

#### Value

Disabled  
N/A  
N/A  
N/A  
N/A  
N/A  
N/A  
N/A  
N/A  
  
N/A  
N/A

### Protection Page

#### Parameter Name

Oil pressure  
Oil temperature  
Oil level  
Coolant pressure  
Coolant temperature  
Coolant level  
Auxiliary shutdown 1  
Auxiliary shutdown 2  
Intercooler temperature  
Crankcase pressure

#### Value

Shutdown  
Shutdown  
N/A  
N/A  
Shutdown  
Shutdown  
Shutdown  
N/A  
N/A  
N/A

### ISD & VSG Page

#### Parameter Name

Enable idle shutdown  
Idle shutdown time (min)  
Idle shutdown Enabled on VSG  
Idle shutdown Override  
Override temperature disable Lower limit (°C)  
Override temperature disable Upper limit (°C)  
Variable speed governor Droop RPM

#### Value

Disabled  
N/A  
N/A  
N/A  
N/A  
N/A  
0

## Detroit Diesel Diagnostics Link - Calibrations

Printed on July 09, 1998

DDC Electronics Reliability  
Data Hub Lab  
Detroit, MI,

Vehicle Unit Number: 000u000000  
Engine Serial Number: 04R0020523  
File: Retrieved Calibration  
Page 2 of 3

|                                 |     |
|---------------------------------|-----|
| Variable speed governor min RPM | 950 |
| Variable speed governor max RPM | 950 |
| Variable speed governor Alt RPM | N/A |
| Optimized Idle                  | N/A |

### Cruise Page

| Parameter Name                             | Value    |
|--------------------------------------------|----------|
| Vehicle speed sensor                       | Enabled  |
| Cruise                                     | Disabled |
| Dynamic braking                            | Disabled |
| Cruise Auto Resume                         | N/A      |
| Cruise Minimum set speed (mph)             | N/A      |
| Cruise Maximum set speed (mph)             | N/A      |
| Cruise switch VSG                          | N/A      |
| Cruise switch VSG Initial RPM              | N/A      |
| Cruise switch VSG RPM increment            | N/A      |
| Enable cruise engine brake                 | N/A      |
| Cruise engine brake Activation speed (mph) | N/A      |
| Cruise engine brake Increment speed (mph)  | N/A      |

### VSS Page

| Parameter Name       | Value    |
|----------------------|----------|
| Vehicle speed sensor | Enabled  |
| VSS Anti-Tamper      | Disabled |
| VSS Type             | Tail     |
| VSS Signal           | Switched |
| VSS ratio (rpm/mph)  | 24.525   |
| Tire size (rev/mile) | 485      |
| VSS Teeth            | 16       |
| Top gear ratio       | 0.74     |
| Axle ratio           | 4.1      |
| Pulses/mile          | 31814    |
| Non-VSS Idle         |          |
| Idle method          | N/A      |
| RPM limit            | N/A      |
| Load limit (%)       | N/A      |

### Vehicle Speed Limit Page

| Parameter Name          | Value   |
|-------------------------|---------|
| Set speed limit         | Enabled |
| Speed limit (mph)       | 70      |
| Overspeed limit (mph)   | 0       |
| Overspeed no fuel (mph) | 0       |

### Compressor Page

| Parameter Name | Value |
|----------------|-------|
| Load (psi)     | N/A   |
| Unload (psi)   | N/A   |

## Detroit Diesel Diagnostics Link - Calibrations

Printed on July 09, 1998

DDC Electronics Reliability  
Data Hub Lab  
Detroit, MI,

Vehicle Unit Number: 000U000000  
Engine Serial Number: 04R0020523  
File: Retrieved Calibration  
Page 3 of 3

|                     |     |
|---------------------|-----|
| Rating #1 Min (psi) | N/A |
| Rating #1 Max (psi) | N/A |
| Rating #2 Min (psi) | N/A |
| Rating #2 Max (psi) | N/A |
| Rating #3 Min (psi) | N/A |
| Rating #3 Max (psi) | N/A |

### Economy and ESS Page

#### Economy

##### Parameter Name

##### Value

|                             |          |
|-----------------------------|----------|
| Calculation Type            | Filtered |
| Conversion Factor (mph/mpg) | 5        |
| Minimum Economy (mpg)       | 7        |
| Maximum Speed (mph)         | 0        |

#### ESS Transmission

##### Parameter Name

##### Value

|               |     |
|---------------|-----|
| Late Change   | N/A |
| Engine Brake  | N/A |
| Second Chance | N/A |
| Skip Shift    | N/A |

#### TOP 2 Transmission

##### Parameter Name

##### Value

|                            |     |
|----------------------------|-----|
| TOP 2 Cruise Master Switch | N/A |
|----------------------------|-----|

### Lockout Page

#### Parameter Name

#### Value

|                                |          |
|--------------------------------|----------|
| Idle Shutdown Lockout          | Disabled |
| VSG Calibration Lockout        | Disabled |
| Engine Protection Lockout      | Disabled |
| Cruise Control Lockout         | Disabled |
| ESS Transmission Lockout       | Disabled |
| Progressive Shift Lockout      | Disabled |
| Engine/Vehicle Options Lockout | Disabled |
| Engine Droop Lockout           | Disabled |
| Air Compressor Lockout         | Disabled |

### Miscellaneous Page

#### Parameter Name

#### Value

|                                    |          |
|------------------------------------|----------|
| J1922 ABS communications           | Enabled  |
| J1922 transmission communications  | Enabled  |
| J1939 communications               | Disabled |
| Fire truck water pressure governor | Disabled |
| Air governor                       | Disabled |
| Data Pages                         | Enabled  |

### Limits Page

#### Parameter Name

#### Value

|                     |            |
|---------------------|------------|
| Rated RPM           | 2110       |
| Idle RPM            | 700        |
| Max Idle Offset RPM | 100        |
| Min Idle Offset RPM | -25        |
| Max LSG Droop RPM   | 150        |
| Transmission Type   | ALLISON WT |

Detroit Diesel Electronic Controls

Page 1 of 1

Sample Custom Report (Example)

Date Printed: Jul 08,1998  
Vehicle: bus1

From: Jun 05,1998  
To: Jun 21,1998

| Date       | Overall<br>Fuel Economy<br>(MPG) | Overall<br>Distance<br>(Miles) | Overall<br>Fuel<br>(Gal) | Highest<br>RPM |
|------------|----------------------------------|--------------------------------|--------------------------|----------------|
| SUMMARY    | 6.78                             | 5,330                          | 785.63                   | 2,349          |
| Fri Jun 05 | 6.02                             | 337                            | 56.00                    | 2,242          |
| Sat Jun 06 | 6.89                             | 442                            | 64.13                    | 2,304          |
| Sun Jun 07 | 7.18                             | 600                            | 83.50                    | 2,349          |
| Mon Jun 08 | 7.04                             | 609                            | 86.50                    | 2,239          |
| Tue Jun 09 | 7.16                             | 435                            | 60.75                    | 2,204          |
| Fri Jun 12 | 0.05                             | 0                              | 4.00                     | 2,200          |
| Sat Jun 13 | 0.00                             | 0                              | 0.88                     | 2,187          |
| Sun Jun 14 | 4.86                             | 69                             | 14.25                    | 2,201          |
| Mon Jun 15 | 6.75                             | 719                            | 106.63                   | 2,204          |
| Tue Jun 16 | 6.58                             | 429                            | 65.25                    | 2,230          |
| Wed Jun 17 | 6.38                             | 386                            | 60.50                    | 2,197          |
| Thu Jun 18 | 6.92                             | 295                            | 42.63                    | 2,206          |
| Fri Jun 19 | 7.47                             | 582                            | 77.88                    | 2,208          |
| Sat Jun 20 | 6.83                             | 428                            | 62.75                    | 2,198          |

Detroit Diesel Electronic Controls

Page 1 of 1

## Sample Custom Report (Example)

Date Printed: Jul 08,1998  
Vehicle: bus1From: Jun 05,1998  
To: Jun 21,1998

| Date       | Highest<br>Speed<br>(MPH) | Hard-Brake<br>Appls | Alerts<br>(Check) | Alerts<br>(Stop) |
|------------|---------------------------|---------------------|-------------------|------------------|
| SUMMARY    | 87                        | 14                  | -                 | -                |
| Fri Jun 05 | 80                        | 0                   | -                 | -                |
| Sat Jun 06 | 87                        | 1                   | -                 | -                |
| Sun Jun 07 | 85                        | 2                   | -                 | -                |
| Mon Jun 08 | 75                        | 1                   | -                 | -                |
| Tue Jun 09 | 71                        | 0                   | -                 | -                |
| Fri Jun 12 | 9                         | 0                   | -                 | -                |
| Sat Jun 13 | 3                         | 0                   | -                 | -                |
| Sun Jun 14 | 70                        | 0                   | -                 | -                |
| Mon Jun 15 | 77                        | 3                   | -                 | -                |
| Tue Jun 16 | 87                        | 4                   | -                 | -                |
| Wed Jun 17 | 79                        | 0                   | -                 | -                |
| Thu Jun 18 | 77                        | 1                   | -                 | -                |
| Fri Jun 19 | 75                        | 0                   | -                 | -                |
| Sat Jun 20 | 76                        | 2                   | -                 | -                |

Detroit Diesel Electronic Controls

Page 1 of 1

## Sample Custom Report (Example)

Date Printed: Jul 08,1998  
Vehicle: bus1From: Jun 05,1998  
To: Jun 21,1998

| Date       | Alerts<br>(Total) | Average<br>Speed<br>(MPH) | Battery<br>Disconnects | Brake<br>Appls |
|------------|-------------------|---------------------------|------------------------|----------------|
| SUMMARY    | -                 | 54.2                      | 0                      | 0              |
| Fri Jun 05 | -                 | 42.4                      | 0                      | 0              |
| Sat Jun 06 | -                 | 55.3                      | 0                      | 0              |
| Sun Jun 07 | -                 | 55.8                      | 0                      | 0              |
| Mon Jun 08 | -                 | 58.2                      | 0                      | 0              |
| Tue Jun 09 | -                 | 61.1                      | 0                      | 0              |
| Fri Jun 12 | -                 | 3.7                       | 0                      | 0              |
| Sat Jun 13 | -                 | 0.0                       | 0                      | 0              |
| Sun Jun 14 | -                 | 58.8                      | 0                      | 0              |
| Mon Jun 15 | -                 | 55.9                      | 0                      | 0              |
| Tue Jun 16 | -                 | 55.2                      | 0                      | 0              |
| Wed Jun 17 | -                 | 46.4                      | 0                      | 0              |
| Thu Jun 18 | -                 | 50.8                      | 0                      | 0              |
| Fri Jun 19 | -                 | 57.4                      | 0                      | 0              |
| Sat Jun 20 | -                 | 53.3                      | 0                      | 0              |

Detroit Diesel Electronic Controls

Page 1 of 1

Sample Custom Report (Example)

Date Printed: Jul 08,1998  
Vehicle: bus1

From: Jun 05,1998  
To: Jun 21,1998

| Date       | Brake<br>Avg/100 Mile | Brake<br>Avg/day | Cruise<br>Distance<br>(Miles) | Cruise<br>Fuel<br>(Gal) |
|------------|-----------------------|------------------|-------------------------------|-------------------------|
| SUMMARY    | 0.0                   | 0.0              | 0                             | 0.00                    |
| Fri Jun 05 | 0.0                   | 0.0              | 0                             | 0.00                    |
| Sat Jun 06 | 0.0                   | 0.0              | 0                             | 0.00                    |
| Sun Jun 07 | 0.0                   | 0.0              | 0                             | 0.00                    |
| Mon Jun 08 | 0.0                   | 0.0              | 0                             | 0.00                    |
| Tue Jun 09 | 0.0                   | 0.0              | 0                             | 0.00                    |
| Fri Jun 12 | 0.0                   | 0.0              | 0                             | 0.00                    |
| Sat Jun 13 | -                     | 0.0              | 0                             | 0.00                    |
| Sun Jun 14 | 0.0                   | 0.0              | 0                             | 0.00                    |
| Mon Jun 15 | 0.0                   | 0.0              | 0                             | 0.00                    |
| Tue Jun 16 | 0.0                   | 0.0              | 0                             | 0.00                    |
| Wed Jun 17 | 0.0                   | 0.0              | 0                             | 0.00                    |
| Thu Jun 18 | 0.0                   | 0.0              | 0                             | 0.00                    |
| Fri Jun 19 | 0.0                   | 0.0              | 0                             | 0.00                    |
| Sat Jun 20 | 0.0                   | 0.0              | 0                             | 0.00                    |

Detroit Diesel Electronic Controls

Page 1 of 1

Sample Custom Report (Example)

Date Printed: Jul 08,1998  
Vehicle: bus1

From: Jun 05,1998  
To: Jun 21,1998

| Date       | Cruise<br>Fuel Economy<br>(MPG) | Cruise<br>Percentage | Cruise<br>Time | Days<br>Worked |
|------------|---------------------------------|----------------------|----------------|----------------|
| SUMMARY    | -                               | 0.0                  | 0:00           | 14             |
| Fri Jun 05 | -                               | 0.0                  | 0:00           | 1              |
| Sat Jun 06 | -                               | 0.0                  | 0:00           | 1              |
| Sun Jun 07 | -                               | 0.0                  | 0:00           | 1              |
| Mon Jun 08 | -                               | 0.0                  | 0:00           | 1              |
| Tue Jun 09 | -                               | 0.0                  | 0:00           | 1              |
| Fri Jun 12 | -                               | 0.0                  | 0:00           | 1              |
| Sat Jun 13 | -                               | 0.0                  | 0:00           | 1              |
| Sun Jun 14 | -                               | 0.0                  | 0:00           | 1              |
| Mon Jun 15 | -                               | 0.0                  | 0:00           | 1              |
| Tue Jun 16 | -                               | 0.0                  | 0:00           | 1              |
| Wed Jun 17 | -                               | 0.0                  | 0:00           | 1              |
| Thu Jun 18 | -                               | 0.0                  | 0:00           | 1              |
| Fri Jun 19 | -                               | 0.0                  | 0:00           | 1              |
| Sat Jun 20 | -                               | 0.0                  | 0:00           | 1              |

Detroit Diesel Electronic Controls

Page 1 of 1

## Sample Custom Report (Example)

Date Printed: Jul 08,1998  
Vehicle: bus1From: Jun 05,1998  
To: Jun 21,1998

| Date       | Driver<br>Grade | Driving<br>Fuel<br>(Gal) | Driving<br>Fuel Economy<br>(MPG) | Driving<br>Percentage |
|------------|-----------------|--------------------------|----------------------------------|-----------------------|
| SUMMARY    | -               | 736.38                   | -                                | 63.8                  |
| Fri Jun 05 | -               | 52.13                    | 6.46                             | 59.5                  |
| Sat Jun 06 | -               | 63.75                    | 6.93                             | 71.4                  |
| Sun Jun 07 | -               | 79.25                    | 7.57                             | 66.6                  |
| Mon Jun 08 | -               | 81.75                    | 7.45                             | 67.6                  |
| Tue Jun 09 | -               | 56.50                    | 7.70                             | 65.5                  |
| Fri Jun 12 | -               | 0.00                     | -                                | 1.6                   |
| Sat Jun 13 | -               | 0.13                     | 0.00                             | 0.8                   |
| Sun Jun 14 | -               | 9.38                     | 7.38                             | 23.1                  |
| Mon Jun 15 | -               | 98.75                    | 7.28                             | 62.7                  |
| Tue Jun 16 | -               | 64.50                    | 6.65                             | 69.4                  |
| Wed Jun 17 | -               | 57.75                    | 6.68                             | 70.0                  |
| Thu Jun 18 | -               | 40.00                    | 7.38                             | 72.5                  |
| Fri Jun 19 | -               | 73.38                    | 7.93                             | 70.0                  |
| Sat Jun 20 | -               | 59.13                    | 7.24                             | 68.1                  |

Detroit Diesel Electronic Controls

Page 1 of 1

Sample Custom Report (Example)

Date Printed: Jul 08,1998  
Vehicle: bus1

From: Jun 05,1998  
To: Jun 21,1998

| Date       | Idle<br>Fuel<br>(Gal) | Idle<br>Percentage | Idle<br>Time | Incidents |
|------------|-----------------------|--------------------|--------------|-----------|
| SUMMARY    | 49.25                 | 36.2               | 55:50        | -         |
| Fri Jun 05 | 3.88                  | 40.5               | 5:25         | -         |
| Sat Jun 06 | 0.38                  | 28.6               | 3:12         | -         |
| Sun Jun 07 | 4.25                  | 33.4               | 5:23         | -         |
| Mon Jun 08 | 4.75                  | 32.4               | 5:01         | -         |
| Tue Jun 09 | 4.25                  | 34.5               | 3:45         | -         |
| Fri Jun 12 | 4.00                  | 98.4               | 3:17         | -         |
| Sat Jun 13 | 0.75                  | 99.2               | 0:56         | -         |
| Sun Jun 14 | 4.88                  | 76.9               | 3:55         | -         |
| Mon Jun 15 | 7.88                  | 37.3               | 7:39         | -         |
| Tue Jun 16 | 0.75                  | 30.6               | 3:25         | -         |
| Wed Jun 17 | 2.75                  | 30.0               | 3:34         | -         |
| Thu Jun 18 | 2.63                  | 27.5               | 2:12         | -         |
| Fri Jun 19 | 4.50                  | 30.0               | 4:20         | -         |
| Sat Jun 20 | 3.63                  | 31.9               | 3:46         | -         |

Detroit Diesel Electronic Controls

Page 1 of 1

## Sample Custom Report (Example)

Date Printed: Jul 08,1998  
Vehicle: bus1From: Jun 05,1998  
To: Jun 21,1998

| Date       | Incidents<br>Avg/100 Mile | Incidents<br>Avg/day | Overrev<br>% time | Overrev<br>Time |
|------------|---------------------------|----------------------|-------------------|-----------------|
| SUMMARY    | -                         | -                    | -                 | -               |
| Fri Jun 05 | -                         | -                    | -                 | -               |
| Sat Jun 06 | -                         | -                    | -                 | -               |
| Sun Jun 07 | -                         | -                    | -                 | -               |
| Mon Jun 08 | -                         | -                    | -                 | -               |
| Tue Jun 09 | -                         | -                    | -                 | -               |
| Fri Jun 12 | -                         | -                    | -                 | -               |
| Sat Jun 13 | -                         | -                    | -                 | -               |
| Sun Jun 14 | -                         | -                    | -                 | -               |
| Mon Jun 15 | -                         | -                    | -                 | -               |
| Tue Jun 16 | -                         | -                    | -                 | -               |
| Wed Jun 17 | -                         | -                    | -                 | -               |
| Thu Jun 18 | -                         | -                    | -                 | -               |
| Fri Jun 19 | -                         | -                    | -                 | -               |
| Sat Jun 20 | -                         | -                    | -                 | -               |

Detroit Diesel Electronic Controls

Page 1 of 1

## Sample Custom Report (Example)

Date Printed: Jul 08,1998  
Vehicle: bus1From: Jun 05,1998  
To: Jun 21,1998

| Date       | Overspeed | Overspeed<br>Avg/100 Mile | Overspeed<br>Avg/day | Speeding<br>% time |
|------------|-----------|---------------------------|----------------------|--------------------|
| SUMMARY    | -         | -                         | -                    | -                  |
| Fri Jun 05 | -         | -                         | -                    | -                  |
| Sat Jun 06 | -         | -                         | -                    | -                  |
| Sun Jun 07 | -         | -                         | -                    | -                  |
| Mon Jun 08 | -         | -                         | -                    | -                  |
| Tue Jun 09 | -         | -                         | -                    | -                  |
| Fri Jun 12 | -         | -                         | -                    | -                  |
| Sat Jun 13 | -         | -                         | -                    | -                  |
| Sun Jun 14 | -         | -                         | -                    | -                  |
| Mon Jun 15 | -         | -                         | -                    | -                  |
| Tue Jun 16 | -         | -                         | -                    | -                  |
| Wed Jun 17 | -         | -                         | -                    | -                  |
| Thu Jun 18 | -         | -                         | -                    | -                  |
| Fri Jun 19 | -         | -                         | -                    | -                  |
| Sat Jun 20 | -         | -                         | -                    | -                  |

Detroit Diesel Electronic Controls

Page 1 of 1

Sample Custom Report (Example)

Date Printed: Jul 08,1998  
Vehicle: bus1

From: Jun 05,1998  
To: Jun 21,1998

| Date       | Speeding<br>Time | Stop-Idle<br>Fuel<br>(Gal) | Stop-Idle<br>Percentage | Stop-Idle<br>Time |
|------------|------------------|----------------------------|-------------------------|-------------------|
| SUMMARY    | -                | 42.63                      | 30.4                    | 46:51             |
| Fri Jun 05 | -                | 3.50                       | 33.4                    | 4:28              |
| Sat Jun 06 | -                | 0.00                       | 23.5                    | 2:38              |
| Sun Jun 07 | -                | 3.88                       | 28.9                    | 4:40              |
| Mon Jun 08 | -                | 4.38                       | 28.5                    | 4:24              |
| Tue Jun 09 | -                | 3.88                       | 31.3                    | 3:24              |
| Fri Jun 12 | -                | 3.75                       | 94.0                    | 3:08              |
| Sat Jun 13 | -                | 0.75                       | 96.4                    | 0:55              |
| Sun Jun 14 | -                | 4.50                       | 66.7                    | 3:24              |
| Mon Jun 15 | -                | 7.13                       | 33.4                    | 6:51              |
| Tue Jun 16 | -                | 0.50                       | 25.9                    | 2:54              |
| Wed Jun 17 | -                | 2.13                       | 21.7                    | 2:34              |
| Thu Jun 18 | -                | 1.88                       | 18.5                    | 1:29              |
| Fri Jun 19 | -                | 3.63                       | 23.1                    | 3:21              |
| Sat Jun 20 | -                | 2.75                       | 22.7                    | 2:41              |

Detroit Diesel Electronic Controls

Page 1 of 1

## Sample Custom Report (Example)

Date Printed: Jul 08,1998  
Vehicle: bus1From: Jun 05,1998  
To: Jun 21,1998

| Date       | TopGear<br>Fuel<br>(Gal) | TopGear<br>Percentage | TopGear<br>Time | TopGear-1<br>Fuel<br>(Gal) |
|------------|--------------------------|-----------------------|-----------------|----------------------------|
| SUMMARY    | -                        | -                     | -               | -                          |
| Fri Jun 05 | -                        | -                     | -               | -                          |
| Sat Jun 06 | -                        | -                     | -               | -                          |
| Sun Jun 07 | -                        | -                     | -               | -                          |
| Mon Jun 08 | -                        | -                     | -               | -                          |
| Tue Jun 09 | -                        | -                     | -               | -                          |
| Fri Jun 12 | -                        | -                     | -               | -                          |
| Sat Jun 13 | -                        | -                     | -               | -                          |
| Sun Jun 14 | -                        | -                     | -               | -                          |
| Mon Jun 15 | -                        | -                     | -               | -                          |
| Tue Jun 16 | -                        | -                     | -               | -                          |
| Wed Jun 17 | -                        | -                     | -               | -                          |
| Thu Jun 18 | -                        | -                     | -               | -                          |
| Fri Jun 19 | -                        | -                     | -               | -                          |
| Sat Jun 20 | -                        | -                     | -               | -                          |

Detroit Diesel Electronic Controls

Page 1 of 1

## Sample Custom Report (Example)

Date Printed: Jul 08,1998  
Vehicle: bus1From: Jun 05,1998  
To: Jun 21,1998

| Date       | TopGear-1<br>Percentage | TopGear-1<br>Time | TopGear-2<br>Fuel<br>(Gal) | TopGear-2<br>Percentage |
|------------|-------------------------|-------------------|----------------------------|-------------------------|
| SUMMARY    | -                       | -                 | -                          | -                       |
| Fri Jun 05 | -                       | -                 | -                          | -                       |
| Sat Jun 06 | -                       | -                 | -                          | -                       |
| Sun Jun 07 | -                       | -                 | -                          | -                       |
| Mon Jun 08 | -                       | -                 | -                          | -                       |
| Tue Jun 09 | -                       | -                 | -                          | -                       |
| Fri Jun 12 | -                       | -                 | -                          | -                       |
| Sat Jun 13 | -                       | -                 | -                          | -                       |
| Sun Jun 14 | -                       | -                 | -                          | -                       |
| Mon Jun 15 | -                       | -                 | -                          | -                       |
| Tue Jun 16 | -                       | -                 | -                          | -                       |
| Wed Jun 17 | -                       | -                 | -                          | -                       |
| Thu Jun 18 | -                       | -                 | -                          | -                       |
| Fri Jun 19 | -                       | -                 | -                          | -                       |
| Sat Jun 20 | -                       | -                 | -                          | -                       |

Detroit Diesel Electronic Controls

Page 1 of 1

## Sample Custom Report (Example)

Date Printed: Jul 08,1998  
Vehicle: bus1From: Jun 05,1998  
To: Jun 21,1998

| Date       | TopGear-2<br>Time | VSG/PTO<br>Fuel<br>(Gal) | VSG/PTO<br>Percentage | VSG/PTO<br>Time |
|------------|-------------------|--------------------------|-----------------------|-----------------|
| SUMMARY    | -                 | 41.63                    | 22.1                  | 34:09           |
| Fri Jun 05 | -                 | 3.50                     | 22.1                  | 2:57            |
| Sat Jun 06 | -                 | 0.00                     | 0.0                   | 0:00            |
| Sun Jun 07 | -                 | 4.00                     | 23.1                  | 3:44            |
| Mon Jun 08 | -                 | 4.13                     | 26.8                  | 4:08            |
| Tue Jun 09 | -                 | 4.13                     | 32.2                  | 3:30            |
| Fri Jun 12 | -                 | 3.63                     | 89.0                  | 2:58            |
| Sat Jun 13 | -                 | 0.63                     | 45.3                  | 0:26            |
| Sun Jun 14 | -                 | 4.13                     | 56.8                  | 2:54            |
| Mon Jun 15 | -                 | 6.25                     | 23.5                  | 4:49            |
| Tue Jun 16 | -                 | 0.00                     | 0.0                   | 0:00            |
| Wed Jun 17 | -                 | 2.13                     | 14.7                  | 1:45            |
| Thu Jun 18 | -                 | 2.25                     | 21.3                  | 1:42            |
| Fri Jun 19 | -                 | 4.13                     | 21.7                  | 3:08            |
| Sat Jun 20 | -                 | 2.75                     | 18.0                  | 2:08            |