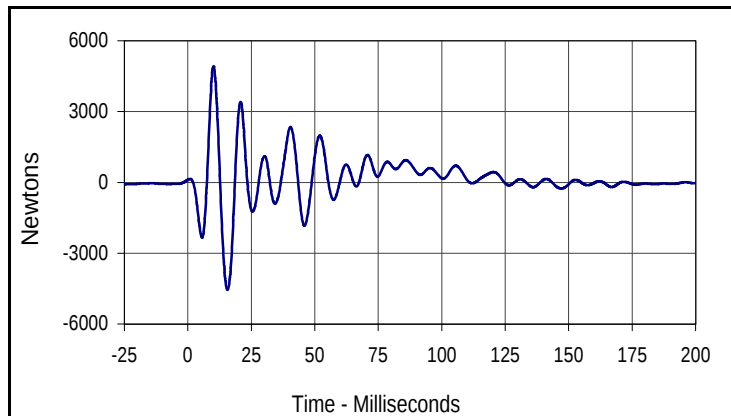
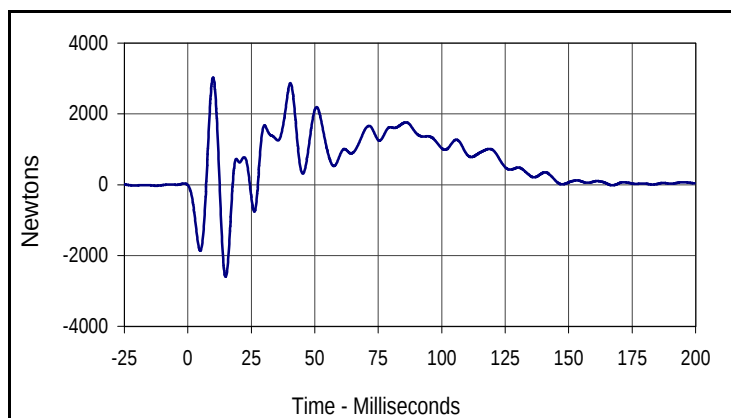


Test Vehicle: 2004 Jeep Liberty 4-Door MPV  
 Test Program: 2004 FMVSS 208 Upgrade

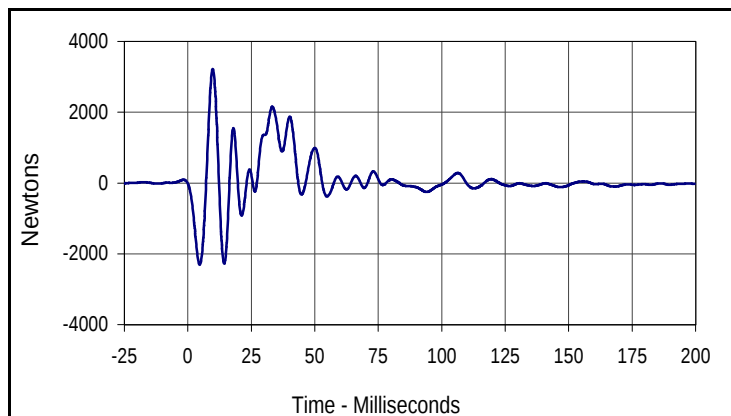
Test Date: 8/12/04  
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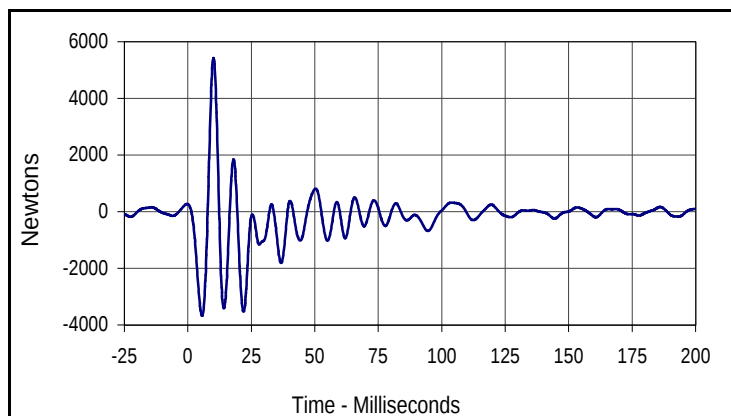
| Curve Description |      |           |         |
|-------------------|------|-----------|---------|
| Barrier Force A1  |      |           |         |
| CURNO             | Type | SAE Class | Units   |
| 128               | FIL  | 60        | Newtons |
| Max               | Time | Min       | Time    |
| 4906.8            | 10.1 | -4553.4   | 15.6    |



| Curve Description |      |           |         |
|-------------------|------|-----------|---------|
| Barrier Force B1  |      |           |         |
| CURNO             | Type | SAE Class | Units   |
| 137               | FIL  | 60        | Newtons |
| Max               | Time | Min       | Time    |
| 3020.8            | 9.9  | -2597.1   | 14.9    |



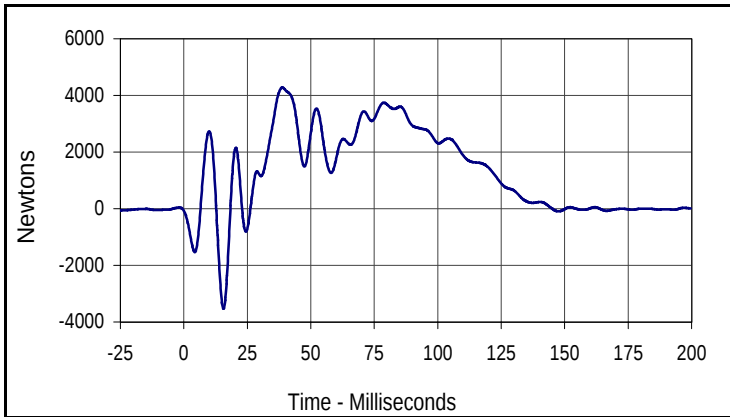
| Curve Description |      |           |         |
|-------------------|------|-----------|---------|
| Barrier Force C1  |      |           |         |
| CURNO             | Type | SAE Class | Units   |
| 146               | FIL  | 60        | Newtons |
| Max               | Time | Min       | Time    |
| 3222.1            | 9.8  | -2307.3   | 4.7     |



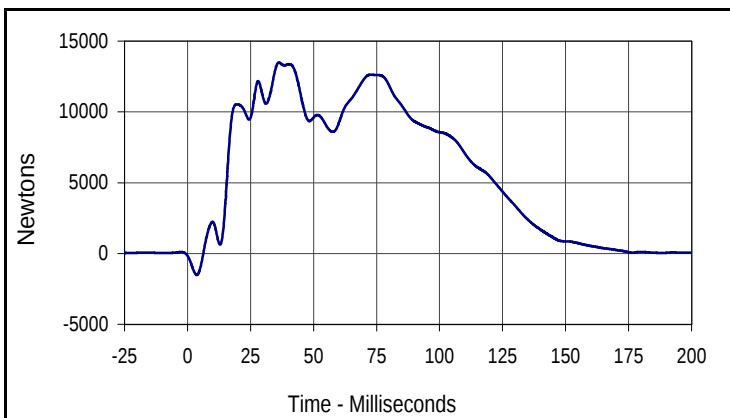
| Curve Description |      |           |         |
|-------------------|------|-----------|---------|
| Barrier Force D1  |      |           |         |
| CURNO             | Type | SAE Class | Units   |
| 155               | FIL  | 60        | Newtons |
| Max               | Time | Min       | Time    |
| 5428.1            | 10.1 | -3675.7   | 5.6     |

Test Vehicle: 2004 Jeep Liberty 4-Door MPV  
 Test Program: 2004 FMVSS 208 Upgrade

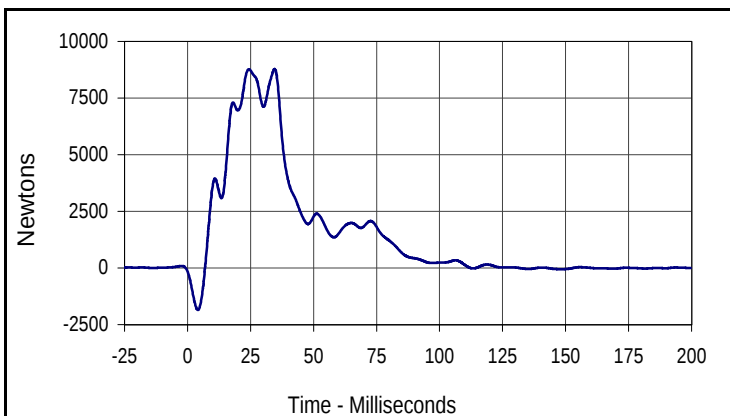
Test Date: 8/12/04  
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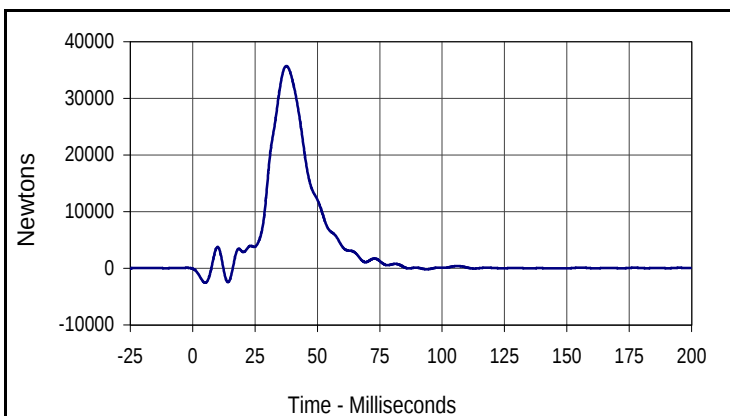
| Curve Description |      |           |         |
|-------------------|------|-----------|---------|
| Barrier Force A2  |      |           |         |
| CURNO             | Type | SAE Class | Units   |
| 129               | FIL  | 60        | Newtons |
| Max               | Time | Min       | Time    |
| 4277.1            | 38.8 | -3529.6   | 15.6    |



| Curve Description |      |           |         |
|-------------------|------|-----------|---------|
| Barrier Force B2  |      |           |         |
| CURNO             | Type | SAE Class | Units   |
| 138               | FIL  | 60        | Newtons |
| Max               | Time | Min       | Time    |
| 13492.5           | 36.3 | -1515.0   | 3.7     |



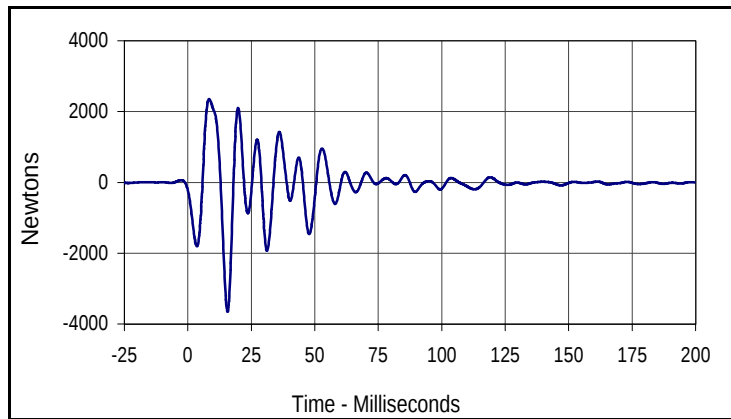
| Curve Description |      |           |         |
|-------------------|------|-----------|---------|
| Barrier Force C2  |      |           |         |
| CURNO             | Type | SAE Class | Units   |
| 147               | FIL  | 60        | Newtons |
| Max               | Time | Min       | Time    |
| 8778.9            | 34.5 | -1856.1   | 4.1     |



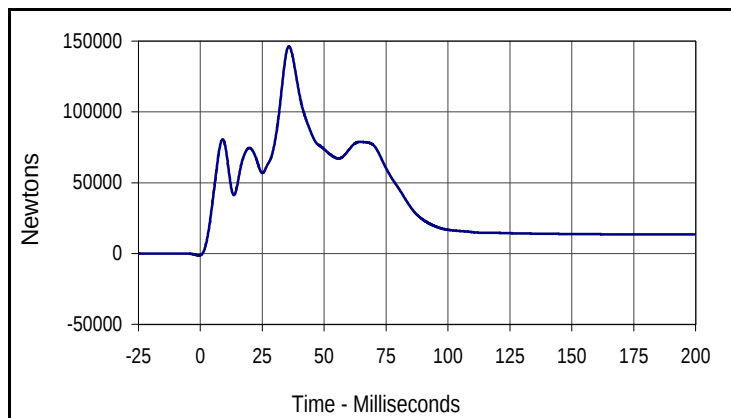
| Curve Description |      |           |         |
|-------------------|------|-----------|---------|
| Barrier Force D2  |      |           |         |
| CURNO             | Type | SAE Class | Units   |
| 156               | FIL  | 60        | Newtons |
| Max               | Time | Min       | Time    |
| 35716.7           | 37.6 | -2554.4   | 5.0     |

Test Vehicle: 2004 Jeep Liberty 4-Door MPV  
 Test Program: 2004 FMVSS 208 Upgrade

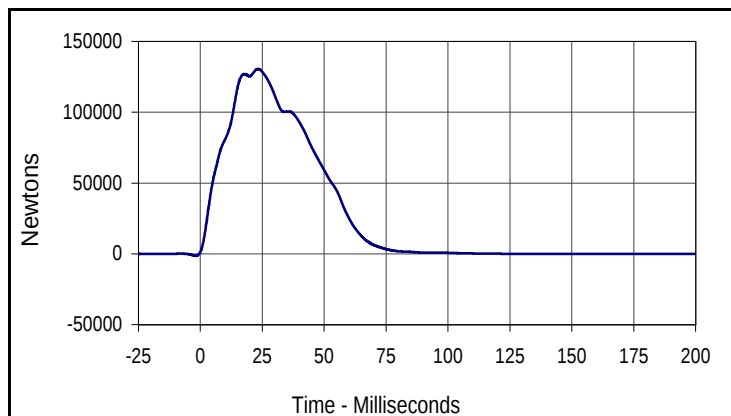
Test Date: 8/12/04  
 NHTSA No.: R40402



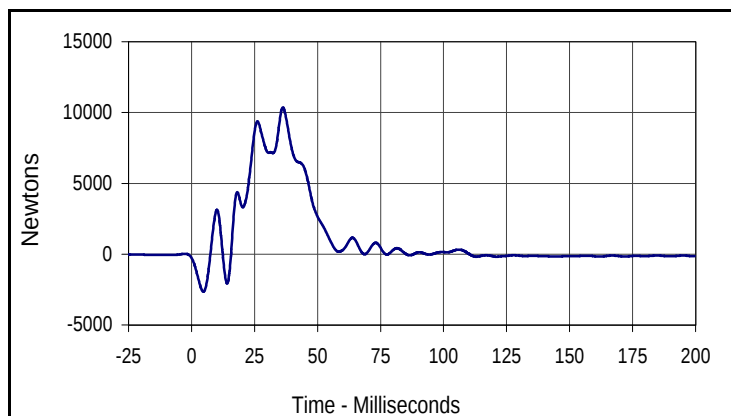
| Curve Description |      |           |         |
|-------------------|------|-----------|---------|
| Barrier Force A3  |      |           |         |
| CURNO             | Type | SAE Class | Units   |
| 130               | FIL  | 60        | Newtons |
| Max               | Time | Min       | Time    |
| 2354.1            | 8.3  | -3647.0   | 15.6    |



| Curve Description |      |           |         |
|-------------------|------|-----------|---------|
| Barrier Force B3  |      |           |         |
| CURNO             | Type | SAE Class | Units   |
| 139               | FIL  | 60        | Newtons |
| Max               | Time | Min       | Time    |
| 146282.8          | 35.8 | -1175.3   | 0.0     |



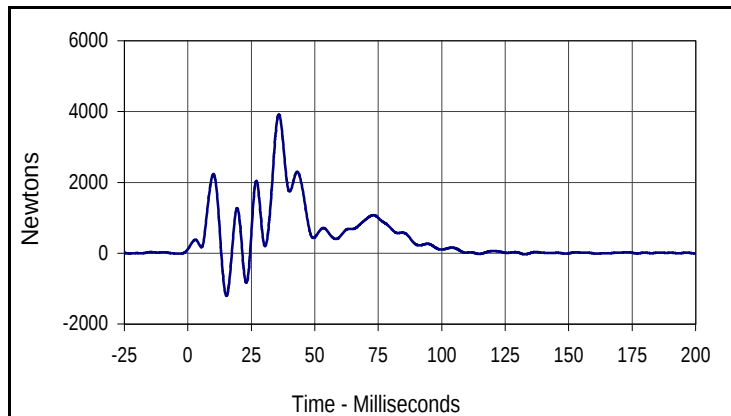
| Curve Description |      |           |         |
|-------------------|------|-----------|---------|
| Barrier Force C3  |      |           |         |
| CURNO             | Type | SAE Class | Units   |
| 148               | FIL  | 60        | Newtons |
| Max               | Time | Min       | Time    |
| 130502.5          | 23.3 | -63.4     | 157.9   |



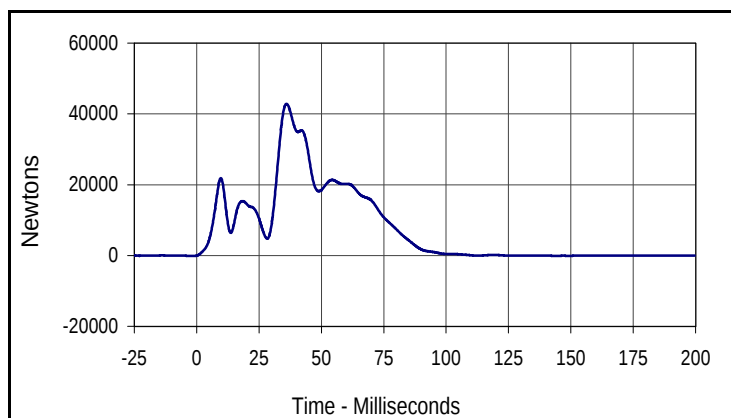
| Curve Description |      |           |         |
|-------------------|------|-----------|---------|
| Barrier Force D3  |      |           |         |
| CURNO             | Type | SAE Class | Units   |
| 157               | FIL  | 60        | Newtons |
| Max               | Time | Min       | Time    |
| 10352.2           | 36.2 | -2655.0   | 4.7     |

Test Vehicle: 2004 Jeep Liberty 4-Door MPV  
 Test Program: 2004 FMVSS 208 Upgrade

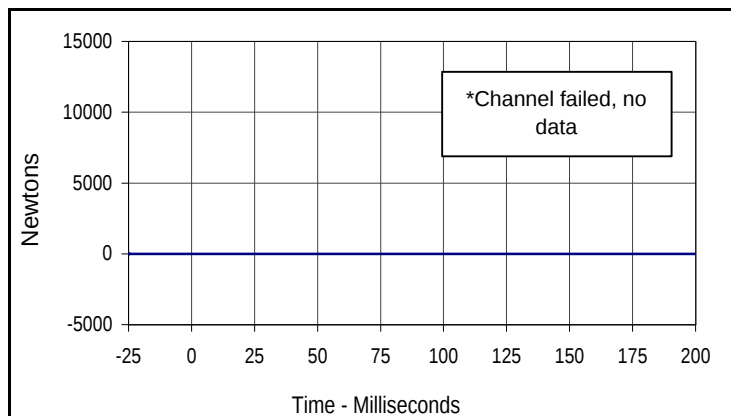
Test Date: 8/12/04  
 NHTSA No.: R40402



| Curve Description |      |           |         |
|-------------------|------|-----------|---------|
| Barrier Force A4  |      |           |         |
| CURNO             | Type | SAE Class | Units   |
| 131               | FIL  | 60        | Newtons |
| Max               | Time | Min       | Time    |
| 3921.6            | 35.8 | -1204.7   | 15.2    |

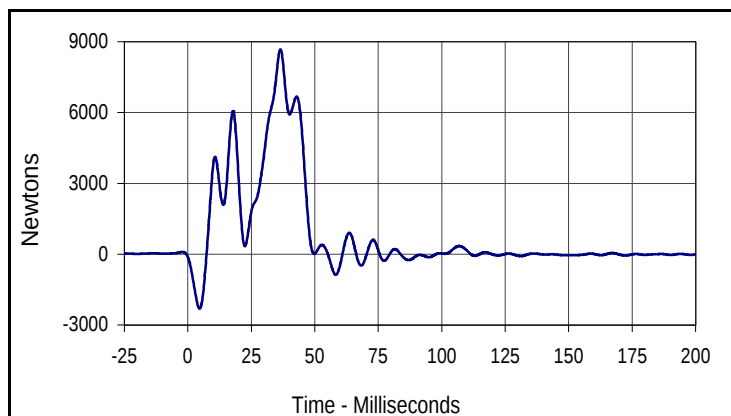


| Curve Description |      |           |         |
|-------------------|------|-----------|---------|
| Barrier Force B4  |      |           |         |
| CURNO             | Type | SAE Class | Units   |
| 140               | FIL  | 60        | Newtons |
| Max               | Time | Min       | Time    |
| 42837.2           | 36.0 | -82.8     | 149.6   |



| Curve Description |      |           |         |
|-------------------|------|-----------|---------|
| Barrier Force C4  |      |           |         |
| CURNO             | Type | SAE Class | Units   |
| 149               | FIL  | 60        | Newtons |
| Max               | Time | Min       | Time    |
| 0.0               | 0.0  | 0.0       | 0.0     |

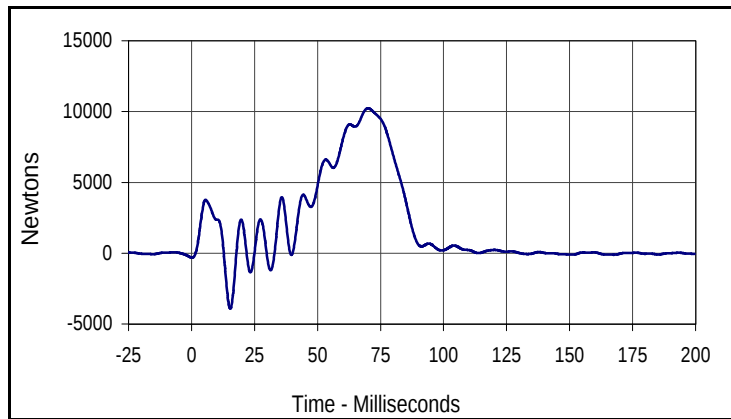
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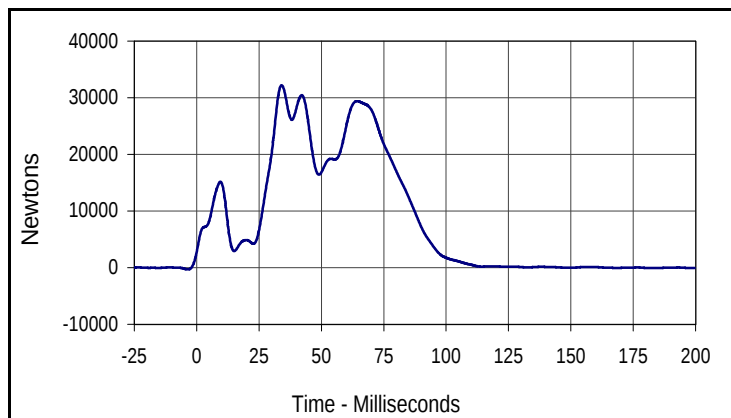
| Curve Description |      |           |         |
|-------------------|------|-----------|---------|
| Barrier Force D4  |      |           |         |
| CURNO             | Type | SAE Class | Units   |
| 158               | FIL  | 60        | Newtons |
| Max               | Time | Min       | Time    |
| 8677.0            | 36.5 | -2310.3   | 4.6     |

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 Test Program: 2004 FMVSS 208 Upgrade

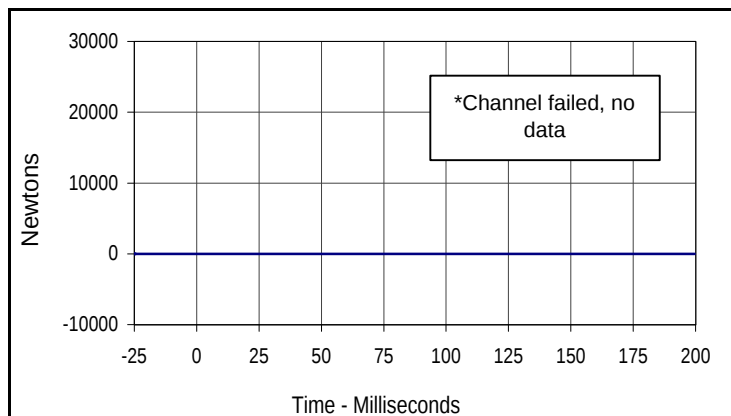
Test Date: 8/12/04  
 NHTSA No.: R40402



| Curve Description |      |           |         |
|-------------------|------|-----------|---------|
| Barrier Force A5  |      |           |         |
| CURNO             | Type | SAE Class | Units   |
| 132               | FIL  | 60        | Newtons |
| Max               | Time | Min       | Time    |
| 10233.9           | 70.0 | -3919.8   | 15.4    |

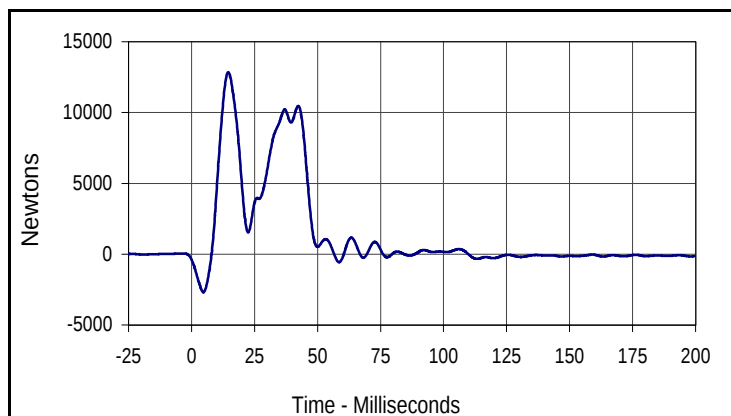


| Curve Description |      |           |         |
|-------------------|------|-----------|---------|
| Barrier Force B5  |      |           |         |
| CURNO             | Type | SAE Class | Units   |
| 141               | FIL  | 60        | Newtons |
| Max               | Time | Min       | Time    |
| 32198.0           | 34.1 | -61.5     | 200.0   |



| Curve Description |      |           |         |
|-------------------|------|-----------|---------|
| Barrier Force C5  |      |           |         |
| CURNO             | Type | SAE Class | Units   |
| 150               | FIL  | 60        | Newtons |
| Max               | Time | Min       | Time    |
| 0.0               | 0.0  | 0.0       | 0.0     |

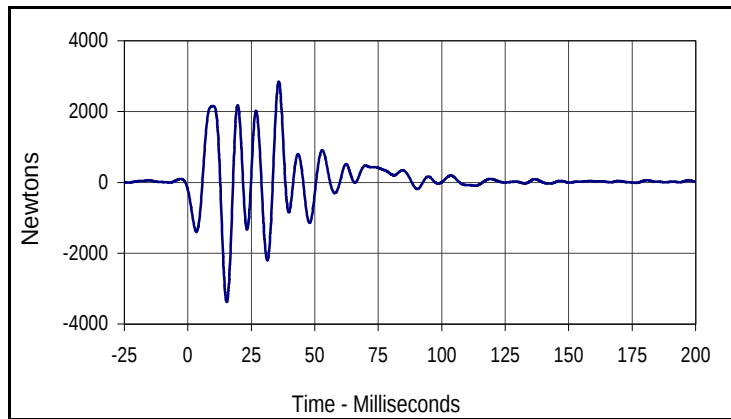
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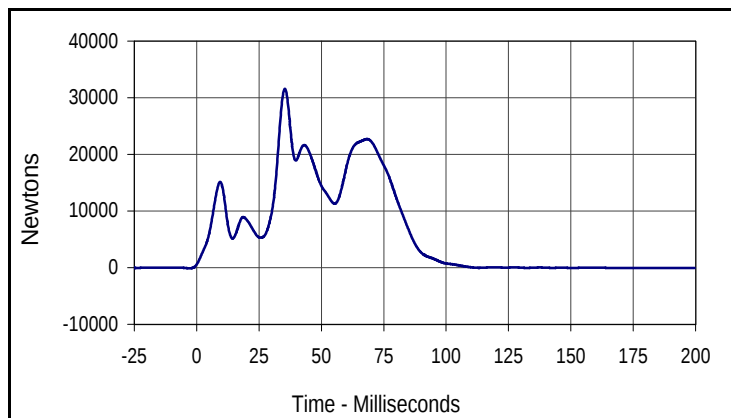
| Curve Description |      |           |         |
|-------------------|------|-----------|---------|
| Barrier Force D5  |      |           |         |
| CURNO             | Type | SAE Class | Units   |
| 159               | FIL  | 60        | Newtons |
| Max               | Time | Min       | Time    |
| 12843.4           | 14.5 | -2683.8   | 4.7     |

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 Test Program: 2004 FMVSS 208 Upgrade

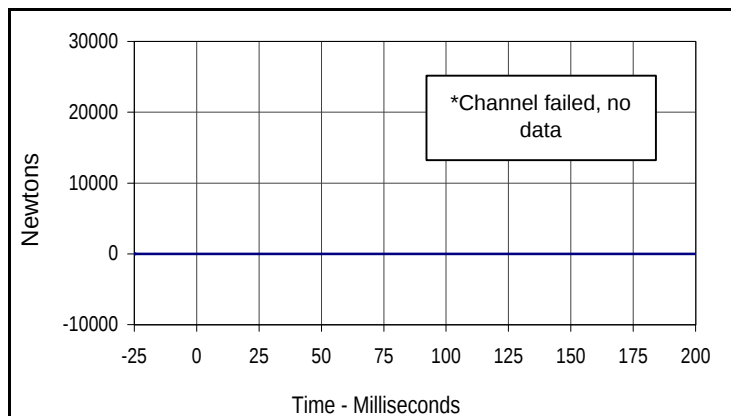
Test Date: 8/12/04  
 NHTSA No.: R40402



| Curve Description |      |           |         |
|-------------------|------|-----------|---------|
| Barrier Force A6  |      |           |         |
| CURNO             | Type | SAE Class | Units   |
| 133               | FIL  | 60        | Newtons |
| Max               | Time | Min       | Time    |
| 2844.0            | 35.8 | -3371.9   | 15.3    |

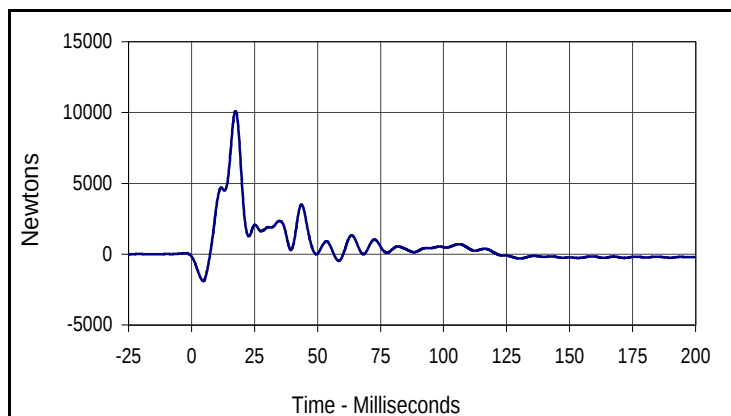


| Curve Description |      |           |         |
|-------------------|------|-----------|---------|
| Barrier Force B6  |      |           |         |
| CURNO             | Type | SAE Class | Units   |
| 142               | FIL  | 60        | Newtons |
| Max               | Time | Min       | Time    |
| 31576.9           | 35.3 | -62.1     | 166.6   |



| Curve Description |      |           |         |
|-------------------|------|-----------|---------|
| Barrier Force C6  |      |           |         |
| CURNO             | Type | SAE Class | Units   |
| 151               | FIL  | 60        | Newtons |
| Max               | Time | Min       | Time    |
| 0.0               | 0.0  | 0.0       | 0.0     |

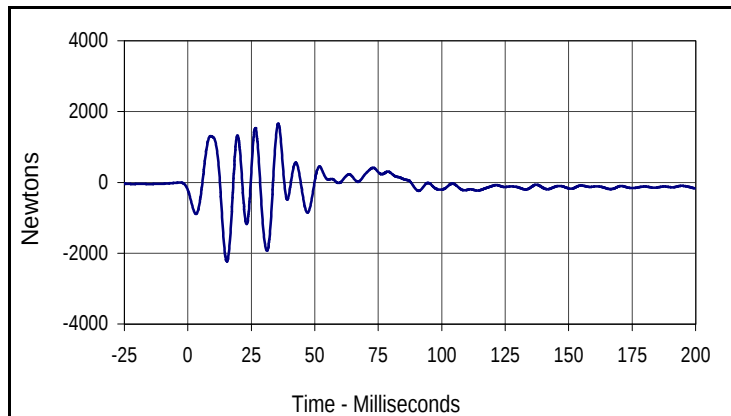
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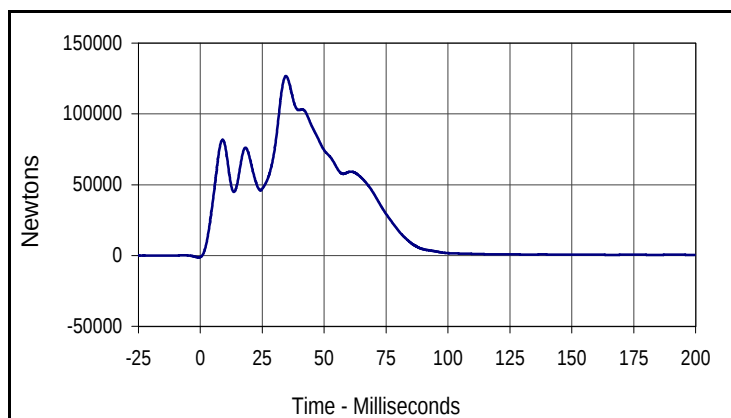
| Curve Description |      |           |         |
|-------------------|------|-----------|---------|
| Barrier Force D6  |      |           |         |
| CURNO             | Type | SAE Class | Units   |
| 160               | FIL  | 60        | Newtons |
| Max               | Time | Min       | Time    |
| 10103.0           | 17.5 | -1902.8   | 4.6     |

Test Vehicle: 2004 Jeep Liberty 4-Door MPV  
 Test Program: 2004 FMVSS 208 Upgrade

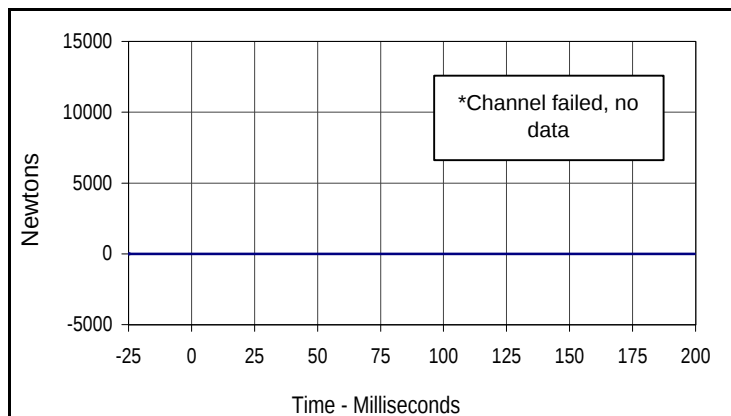
Test Date: 8/12/04  
 NHTSA No.: R40402



| Curve Description |      |           |         |
|-------------------|------|-----------|---------|
| Barrier Force A7  |      |           |         |
| CURNO             | Type | SAE Class | Units   |
| 134               | FIL  | 60        | Newtons |
| Max               | Time | Min       | Time    |
| 1658.3            | 35.6 | -2233.1   | 15.4    |

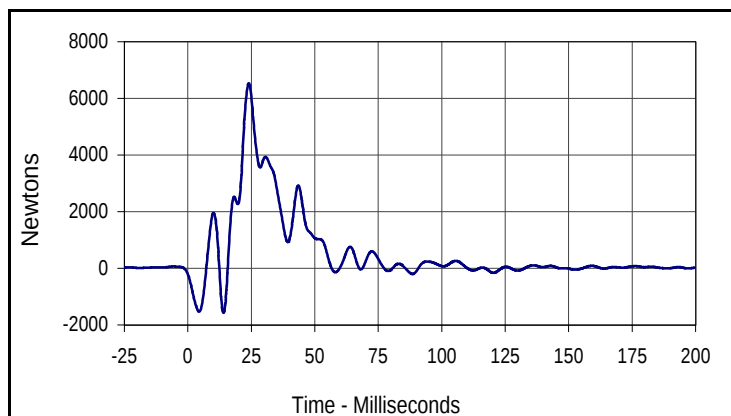


| Curve Description |      |           |         |
|-------------------|------|-----------|---------|
| Barrier Force B7  |      |           |         |
| CURNO             | Type | SAE Class | Units   |
| 143               | FIL  | 60        | Newtons |
| Max               | Time | Min       | Time    |
| 126666.6          | 34.6 | -1107.3   | 0.0     |



| Curve Description |      |           |         |
|-------------------|------|-----------|---------|
| Barrier Force C7  |      |           |         |
| CURNO             | Type | SAE Class | Units   |
| 152               | FIL  | 60        | Newtons |
| Max               | Time | Min       | Time    |
| 0.0               | 0.0  | 0.0       | 0.0     |

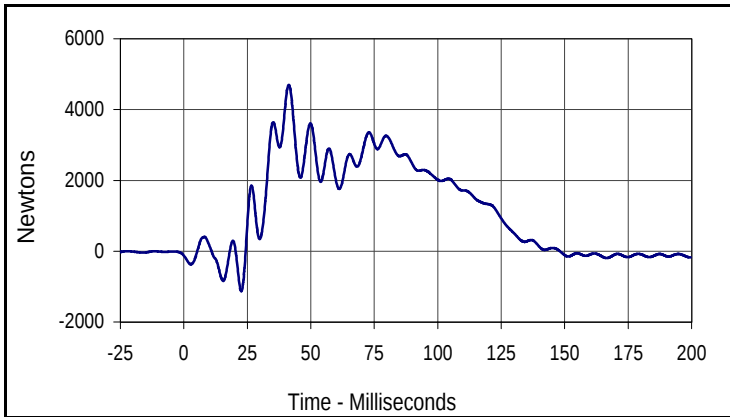
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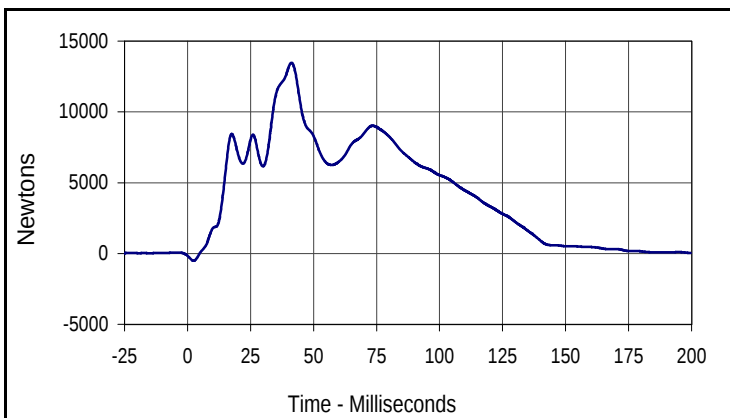
| Curve Description |      |           |         |
|-------------------|------|-----------|---------|
| Barrier Force D7  |      |           |         |
| CURNO             | Type | SAE Class | Units   |
| 161               | FIL  | 60        | Newtons |
| Max               | Time | Min       | Time    |
| 6530.1            | 24.0 | -1569.6   | 14.0    |

Test Vehicle: 2004 Jeep Liberty 4-Door MPV  
 Test Program: 2004 FMVSS 208 Upgrade

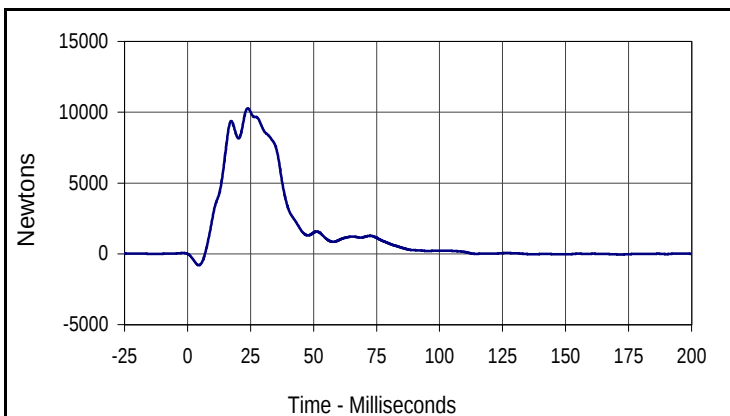
Test Date: 8/12/04  
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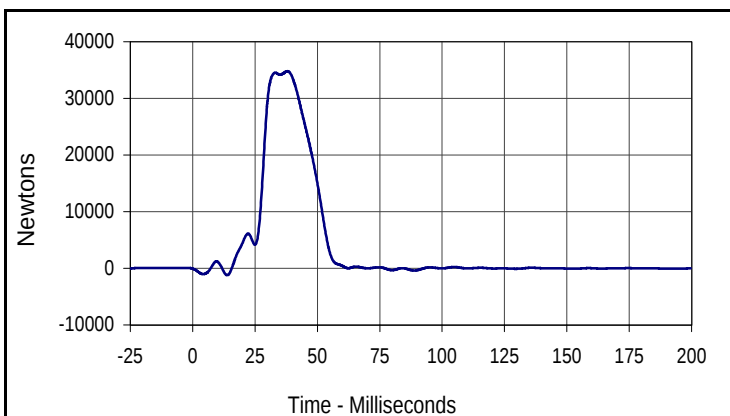
| Curve Description |      |           |         |
|-------------------|------|-----------|---------|
| Barrier Force A8  |      |           |         |
| CURNO             | Type | SAE Class | Units   |
| 135               | FIL  | 60        | Newtons |
| Max               | Time | Min       | Time    |
| 4695.5            | 41.3 | -1129.3   | 22.6    |



| Curve Description |      |           |         |
|-------------------|------|-----------|---------|
| Barrier Force B8  |      |           |         |
| CURNO             | Type | SAE Class | Units   |
| 144               | FIL  | 60        | Newtons |
| Max               | Time | Min       | Time    |
| 13472.4           | 41.2 | -509.9    | 2.4     |



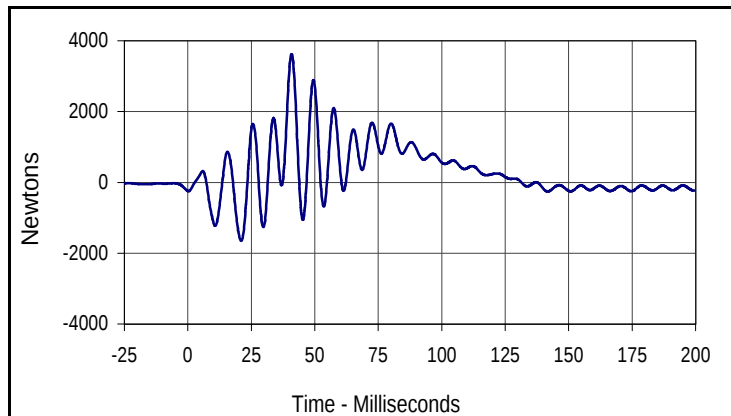
| Curve Description |      |           |         |
|-------------------|------|-----------|---------|
| Barrier Force C8  |      |           |         |
| CURNO             | Type | SAE Class | Units   |
| 153               | FIL  | 60        | Newtons |
| Max               | Time | Min       | Time    |
| 10284.1           | 23.9 | -803.7    | 4.5     |



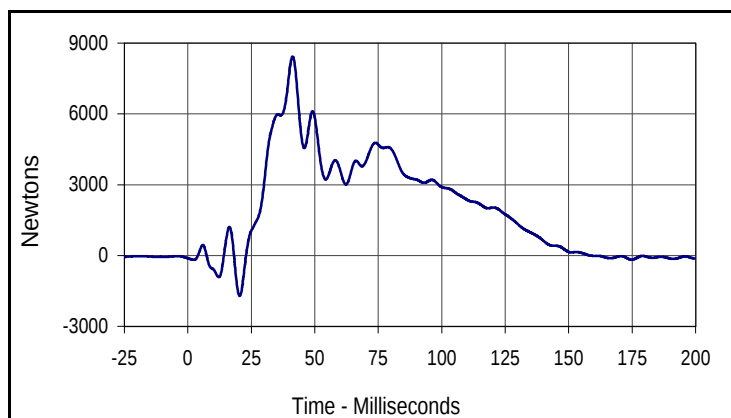
| Curve Description |      |           |         |
|-------------------|------|-----------|---------|
| Barrier Force D8  |      |           |         |
| CURNO             | Type | SAE Class | Units   |
| 162               | FIL  | 60        | Newtons |
| Max               | Time | Min       | Time    |
| 34778.1           | 38.0 | -1213.7   | 13.9    |

Test Vehicle: 2004 Jeep Liberty 4-Door MPV  
 Test Program: 2004 FMVSS 208 Upgrade

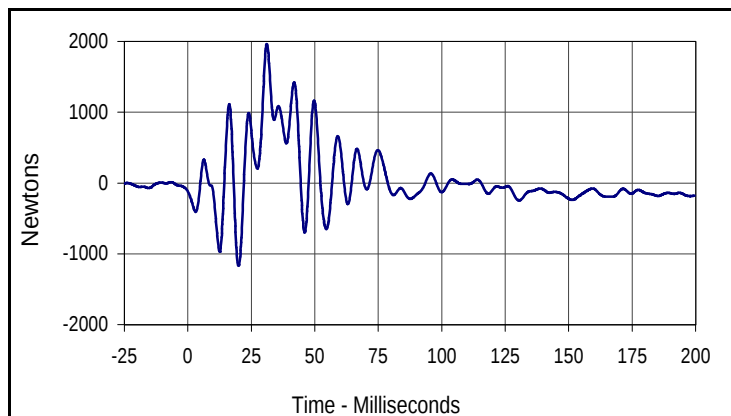
Test Date: 8/12/04  
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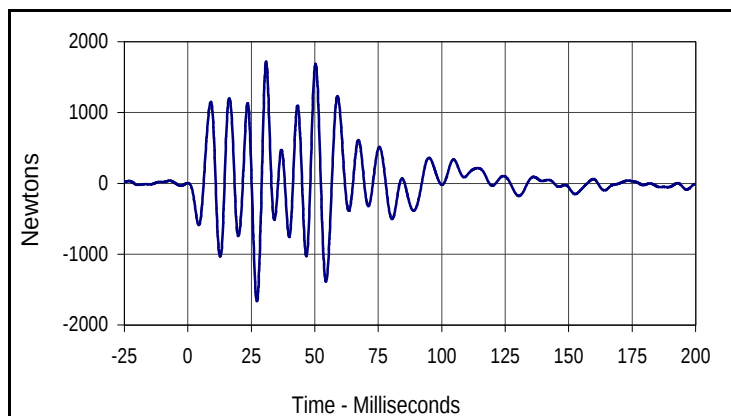
| Curve Description |      |           |         |
|-------------------|------|-----------|---------|
| Barrier Force A9  |      |           |         |
| CURNO             | Type | SAE Class | Units   |
| 136               | FIL  | 60        | Newtons |
| Max               | Time | Min       | Time    |
| 3621.3            | 40.9 | -1653.1   | 21.0    |



| Curve Description |      |           |         |
|-------------------|------|-----------|---------|
| Barrier Force B9  |      |           |         |
| CURNO             | Type | SAE Class | Units   |
| 145               | FIL  | 60        | Newtons |
| Max               | Time | Min       | Time    |
| 8423.3            | 41.3 | -1712.4   | 20.4    |



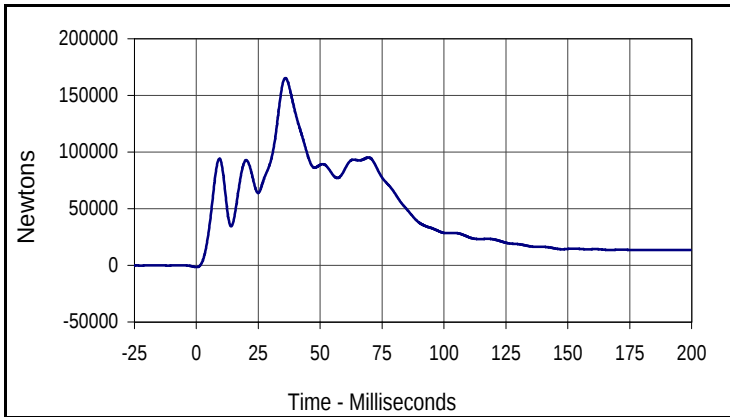
| Curve Description |      |           |         |
|-------------------|------|-----------|---------|
| Barrier Force C9  |      |           |         |
| CURNO             | Type | SAE Class | Units   |
| 154               | FIL  | 60        | Newtons |
| Max               | Time | Min       | Time    |
| 1964.3            | 31.1 | -1169.9   | 19.9    |



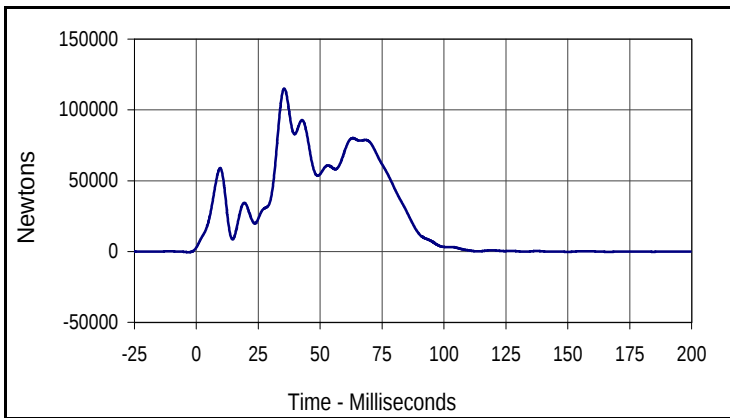
| Curve Description |      |           |         |
|-------------------|------|-----------|---------|
| Barrier Force D9  |      |           |         |
| CURNO             | Type | SAE Class | Units   |
| 163               | FIL  | 60        | Newtons |
| Max               | Time | Min       | Time    |
| 1719.1            | 30.8 | -1667.8   | 27.2    |

Test Vehicle: 2004 Jeep Liberty 4-Door MPV  
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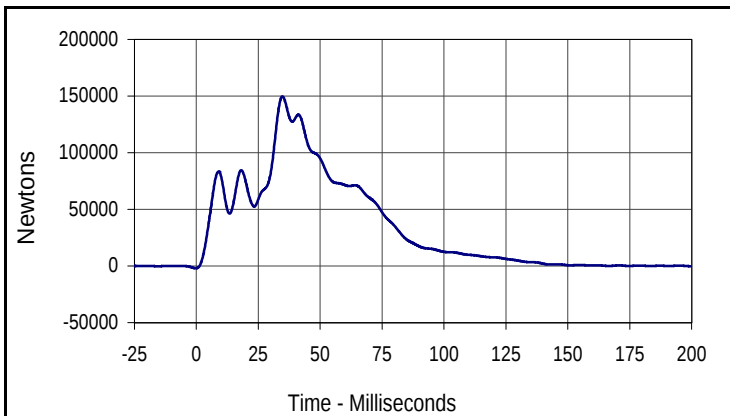
Test Date: 8/12/04  
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| Curve Description         |      |           |         |
|---------------------------|------|-----------|---------|
| Barrier Force Sum Group 1 |      |           |         |
| CURNO                     | Type | SAE Class | Units   |
| 001                       | SUM  | 60        | Newtons |
| Max                       | Time | Min       | Time    |
| 165352.4                  | 35.9 | -1539.9   | 0.1     |



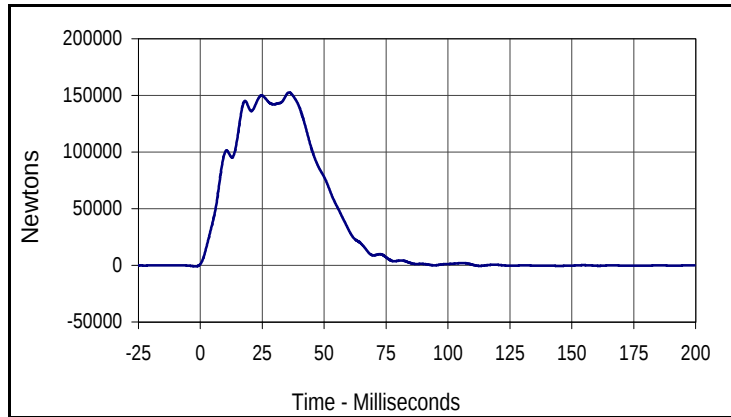
| Curve Description         |      |           |         |
|---------------------------|------|-----------|---------|
| Barrier Force Sum Group 2 |      |           |         |
| CURNO                     | Type | SAE Class | Units   |
| 002                       | SUM  | 60        | Newtons |
| Max                       | Time | Min       | Time    |
| 115062.3                  | 35.5 | -218.6    | 166.7   |



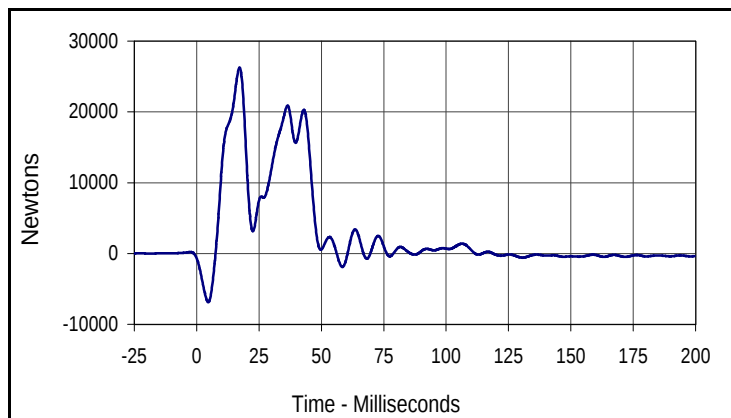
| Curve Description         |      |           |         |
|---------------------------|------|-----------|---------|
| Barrier Force Sum Group 3 |      |           |         |
| CURNO                     | Type | SAE Class | Units   |
| 003                       | SUM  | 60        | Newtons |
| Max                       | Time | Min       | Time    |
| 149745.7                  | 34.8 | -1975.8   | 0.0     |

Test Vehicle: 2004 Jeep Liberty 4-Door MPV  
 Test Program: 2004 FMVSS 208 Upgrade

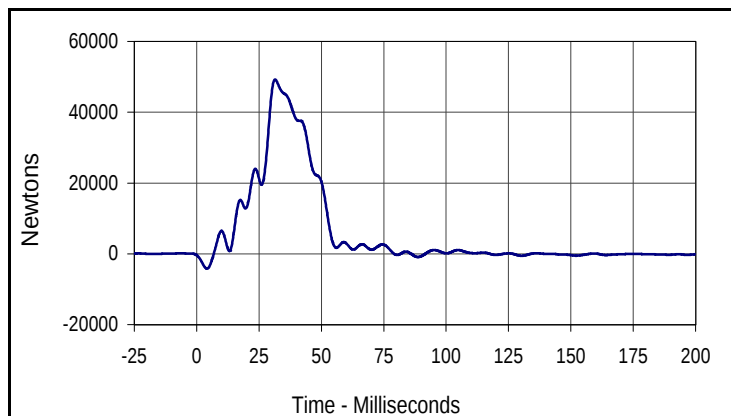
Test Date: 8/12/04  
 NHTSA No.: R40402



| Curve Description         |      |           |         |
|---------------------------|------|-----------|---------|
| Barrier Force Sum Group 4 |      |           |         |
| CURNO                     | Type | SAE Class | Units   |
| 004                       | SUM  | 60        | Newtons |
| Max                       | Time | Min       | Time    |
| 152625.1                  | 35.9 | -530.5    | 144.8   |



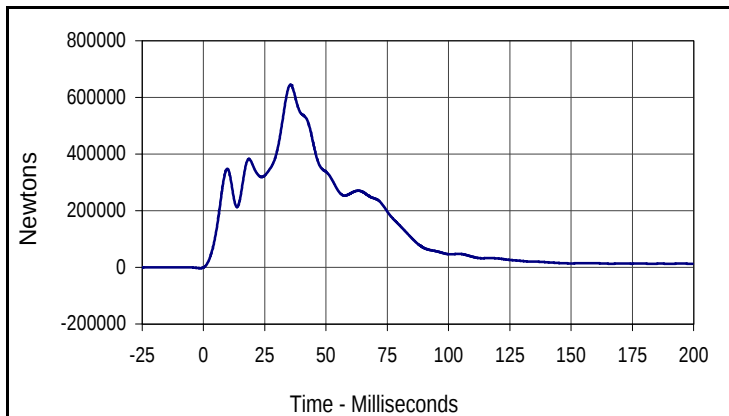
| Curve Description         |      |           |         |
|---------------------------|------|-----------|---------|
| Barrier Force Sum Group 5 |      |           |         |
| CURNO                     | Type | SAE Class | Units   |
| 005                       | SUM  | 60        | Newtons |
| Max                       | Time | Min       | Time    |
| 26231.3                   | 17.2 | -6893.8   | 4.6     |



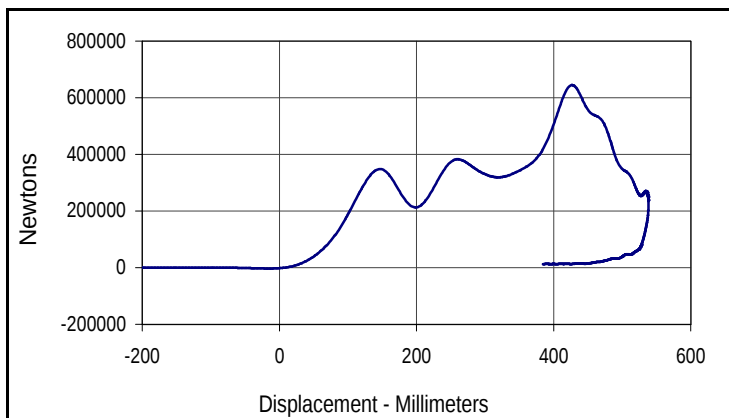
| Curve Description         |      |           |         |
|---------------------------|------|-----------|---------|
| Barrier Force Sum Group 6 |      |           |         |
| CURNO                     | Type | SAE Class | Units   |
| 006                       | SUM  | 60        | Newtons |
| Max                       | Time | Min       | Time    |
| 49281.7                   | 31.4 | -4190.7   | 4.1     |

Test Vehicle: 2004 Jeep Liberty 4-Door MPV  
 Test Program: 2004 FMVSS 208 Upgrade

Test Date: 8/12/04  
 NHTSA No.: R40402



| Curve Description       |      |           |         |
|-------------------------|------|-----------|---------|
| Barrier Force Total Sum |      |           |         |
| CURNO                   | Type | SAE Class | Units   |
| 007                     | SUM  | 60        | Newtons |
| Max                     | Time | Min       | Time    |
| 644780.1                | 35.5 | -561.5    | 0.0     |



| Curve Description                  |       |           |         |
|------------------------------------|-------|-----------|---------|
| Barrier Force Total Sum vs. Displ. |       |           |         |
| CURNO                              | Type  | SAE Class | Units   |
| 001                                | XVY   | 60        | Newtons |
| Max                                | MM    | Min       | MM      |
| 644780.1                           | 427.0 | -561.5    | 6.2     |

# BARRIER LOAD CELL SUMMARY DATA

Test Vehicle: 2004 Jeep Liberty 4-Door MPV

NHTSA No.: R40402

Test Program: 2004 FMVSS 208 Upgrade

Test Date: 8/12/04

| Location                  | Units   | Max      | Time | Min     | Time  |
|---------------------------|---------|----------|------|---------|-------|
| Barrier Force A1          | Newtons | 4906.8   | 10.1 | -4553.4 | 15.6  |
| Barrier Force A2          | Newtons | 4277.1   | 38.8 | -3529.6 | 15.6  |
| Barrier Force A3          | Newtons | 2354.1   | 8.3  | -3647.0 | 15.6  |
| Barrier Force A4          | Newtons | 3921.6   | 35.8 | -1204.7 | 15.2  |
| Barrier Force A5          | Newtons | 10233.9  | 70.0 | -3919.8 | 15.4  |
| Barrier Force A6          | Newtons | 2844.0   | 35.8 | -3371.9 | 15.3  |
| Barrier Force A7          | Newtons | 1658.3   | 35.6 | -2233.1 | 15.4  |
| Barrier Force A8          | Newtons | 4695.5   | 41.3 | -1129.3 | 22.6  |
| Barrier Force A9          | Newtons | 3621.3   | 40.9 | -1653.1 | 21.0  |
| Barrier Force B1          | Newtons | 3020.8   | 9.9  | -2597.1 | 14.9  |
| Barrier Force B2          | Newtons | 13492.5  | 36.3 | -1515.0 | 3.7   |
| Barrier Force B3          | Newtons | 146282.8 | 35.8 | -1175.3 | 0.0   |
| Barrier Force B4          | Newtons | 42837.2  | 36.0 | -82.8   | 149.6 |
| Barrier Force B5          | Newtons | 32198.0  | 34.1 | -61.5   | 200.0 |
| Barrier Force B6          | Newtons | 31576.9  | 35.3 | -62.1   | 166.6 |
| Barrier Force B7          | Newtons | 126666.6 | 34.6 | -1107.3 | 0.0   |
| Barrier Force B8          | Newtons | 13472.4  | 41.2 | -509.9  | 2.4   |
| Barrier Force B9          | Newtons | 8423.3   | 41.3 | -1712.4 | 20.4  |
| Barrier Force C1          | Newtons | 3222.1   | 9.8  | -2307.3 | 4.7   |
| Barrier Force C2          | Newtons | 8778.9   | 34.5 | -1856.1 | 4.1   |
| Barrier Force C3          | Newtons | 130502.5 | 23.3 | -63.4   | 157.9 |
| Barrier Force C4          | Newtons | 0.0      | 0.0  | 0.0     | 0.0   |
| Barrier Force C5          | Newtons | 0.0      | 0.0  | 0.0     | 0.0   |
| Barrier Force C6          | Newtons | 0.0      | 0.0  | 0.0     | 0.0   |
| Barrier Force C7          | Newtons | 0.0      | 0.0  | 0.0     | 0.0   |
| Barrier Force C8          | Newtons | 10284.1  | 23.9 | -803.7  | 4.5   |
| Barrier Force C9          | Newtons | 1964.3   | 31.1 | -1169.9 | 19.9  |
| Barrier Force D1          | Newtons | 5428.1   | 10.1 | -3675.7 | 5.6   |
| Barrier Force D2          | Newtons | 35716.7  | 37.6 | -2554.4 | 5.0   |
| Barrier Force D3          | Newtons | 10352.2  | 36.2 | -2655.0 | 4.7   |
| Barrier Force D4          | Newtons | 8677.0   | 36.5 | -2310.3 | 4.6   |
| Barrier Force D5          | Newtons | 12843.4  | 14.5 | -2683.8 | 4.7   |
| Barrier Force D6          | Newtons | 10103.0  | 17.5 | -1902.8 | 4.6   |
| Barrier Force D7          | Newtons | 6530.1   | 24.0 | -1569.6 | 14.0  |
| Barrier Force D8          | Newtons | 34778.1  | 38.0 | -1213.7 | 13.9  |
| Barrier Force D9          | Newtons | 1719.1   | 30.8 | -1667.8 | 27.2  |
| Barrier Force Sum Group 1 | Newtons | 165352.4 | 35.9 | -1539.9 | 0.1   |
| Barrier Force Sum Group 2 | Newtons | 115062.3 | 35.5 | -218.6  | 166.7 |
| Barrier Force Sum Group 3 | Newtons | 149745.7 | 34.8 | -1975.8 | 0.0   |
| Barrier Force Sum Group 4 | Newtons | 152625.1 | 35.9 | -530.5  | 144.8 |
| Barrier Force Sum Group 5 | Newtons | 26231.3  | 17.2 | -6893.8 | 4.6   |
| Barrier Force Sum Group 6 | Newtons | 49281.7  | 31.4 | -4190.7 | 4.1   |
| Barrier Force Total Sum   | Newtons | 644780.1 | 35.5 | -561.5  | 0.0   |

1.) Channels failed, no data