

**APPENDIX C**  
**PRE-TEST SID / HIII CONFIGURATION AND PERFORMANCE VERIFICATION DATA**

Test Program: SID / HIII External Measurements

Test Date: 6/11/07

ATD Serial No.: 275

Test I.D.: N/A



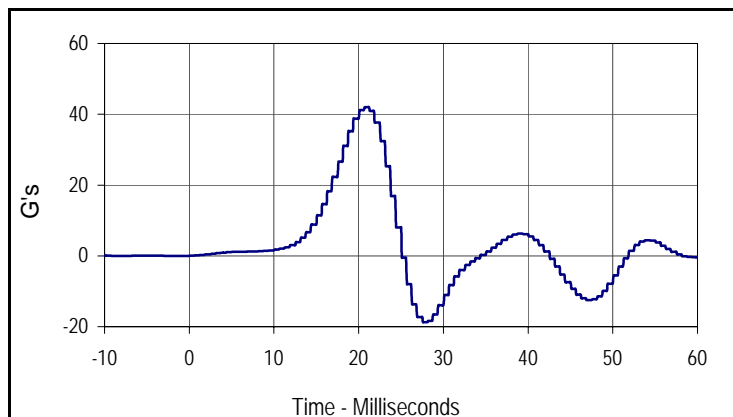
Tested Parameter	Units	Specification	Result	Pass/Fail
Laboratory Temperature	°C	18.9 to 25.6	21.1	Pass
Laboratory Relative Humidity	%	10 to 70	30	Pass
SH- Seated Height	mm	889 to 909	898	Pass
HP- Hip Point Height	mm	99 (reference)	99	Pass
RH- Rib Height	mm	502 to 520	505	Pass
KH- Knee Pivot From Back Line	mm	511 to 526	520	Pass
KV- Knee Pivot From Floor	mm	490 to 505	498	Pass
HW- Hip Width	mm	356 to 391	375	Pass
Overall Test Results				Pass

Test Program: SID / HIII Thorax Lateral Impact  
 ATD Serial No.: 275

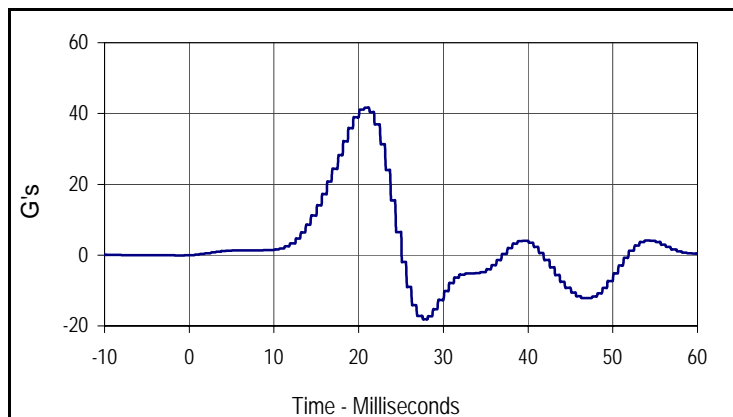
Test Date: 6/11/07  
 Test I.D.: TH06G



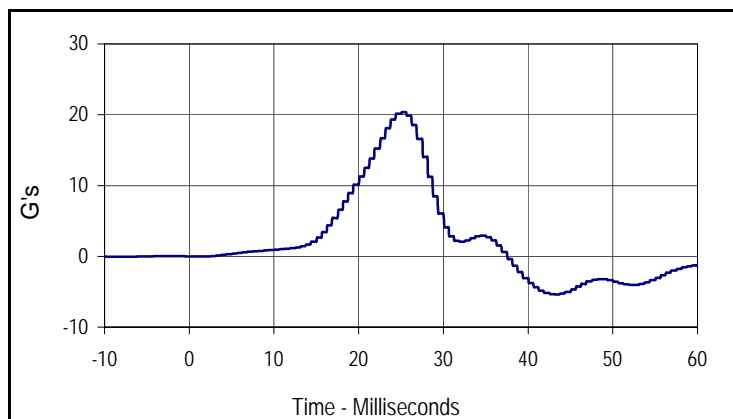
Tested Parameter	Units	Specification	Result	Pass/Fail
Laboratory Temperature	°C	18.9 to 25.6	21.1	Pass
Laboratory Relative Humidity	%	10 to 70	30	Pass
Probe Velocity	m/s	4.21 to 4.33	4.30	Pass
Upper Rib Acceleration	G's	37.0 to 46.0	42.0	Pass
Lower Rib Acceleration	G's	37.0 to 46.0	41.7	Pass
Thoracic Spine Acceleration	G's	15.0 to 22.0	20.4	Pass
Overall Test Results			Pass	



Curve Description			
Upper Rib Y Primary			
CURNO	Type	SAE Class	Units
001	FIL	FIR100	G's
Max	Time	Min	Time
42.0	20.7	-18.8	27.6



Curve Description			
Lower Rib Y Primary			
CURNO	Type	SAE Class	Units
002	FIL	FIR100	G's
Max	Time	Min	Time
41.7	20.7	-18.1	27.6



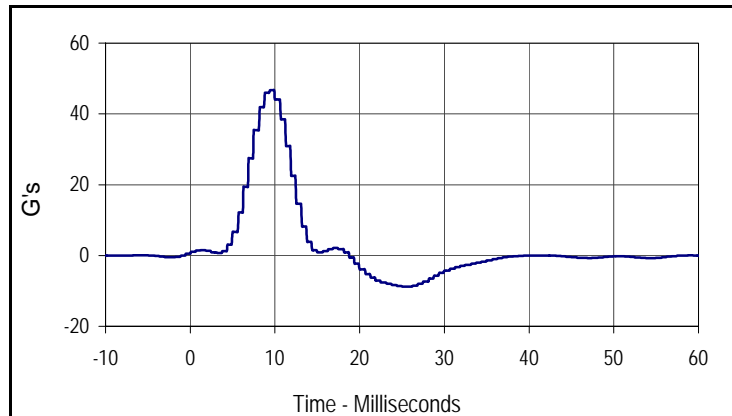
Curve Description			
Lower Spine Y Primary			
CURNO	Type	SAE Class	Units
003	FIL	FIR100	G's
Max	Time	Min	Time
20.4	25.1	-5.4	43.2

Test Program: SID / HIII Pelvis Lateral Impact  
 ATD Serial No.: 275

Test Date: 6/11/07  
 Test I.D.: PL06G



Tested Parameter	Units	Specification	Result	Pass/Fail
Laboratory Temperature	°C	18.9 to 25.6	21.1	Pass
Laboratory Relative Humidity	%	10 to 70	30	Pass
Probe Velocity	m/s	4.21 to 4.33	4.32	Pass
Peak Pelvis Acceleration	G's	40.0 to 60.0	46.7	Pass
Acceleration Time Above 20 G's	Msec.	3.0 to 7.0	4.90	Pass
Overall Test Results				Pass



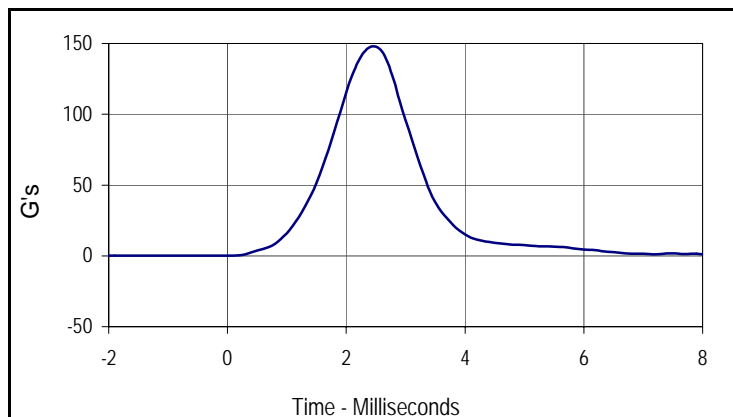
Curve Description			
Pelvis Y Primary			
CURNO	Type	SAE Class	Units
001	FIL	FIR100	G's
Max	Time	Min	Time
46.7	9.4	-8.8	25.0

Test Program: SID / HIII Head Drop Lateral Impact Test  
 ATD Serial No.: 275

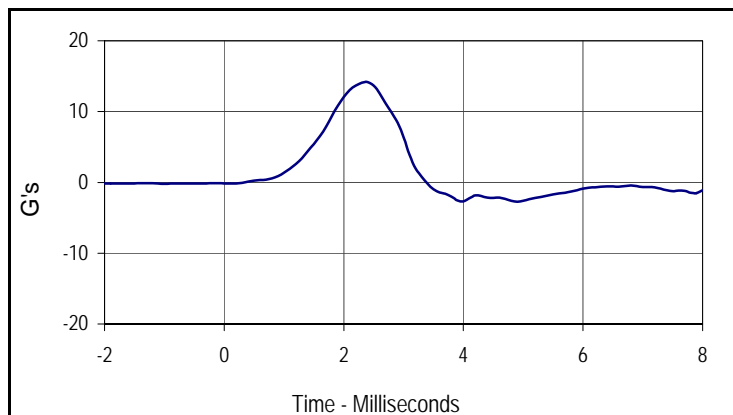
Test Date: 6/11/07  
 Test I.D.: HD06G



Tested Parameter	Units	Specification	Result	Pass/Fail
Laboratory Temperature	°C	18.9 to 25.6	21.7	Pass
Laboratory Relative Humidity	%	10 to 70	30	Pass
Peak Resultant Acceleration	G's	120.0 to 150.0	147.7	Pass
Peak Longitudinal Acceleration	G's	≤15.0	14.2	Pass
Is Acceleration Unimodal?	Yes/No	Yes	Yes	Pass
Oscillations After Main Pulse	%	<15	5.1	Pass
Overall Test Results			Pass	



Curve Description			
Head Resultant			
CURNO	Type	SAE Class	Units
001	RES	1000	G's
Max	Time	Min	Time
147.7	2.5	0.1	-0.1



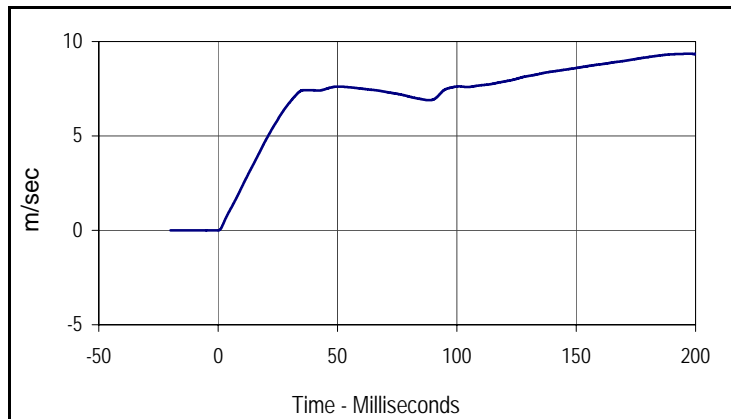
Curve Description			
Head X			
CURNO	Type	SAE Class	Units
002	FIL	1000	G's
Max	Time	Min	Time
14.2	2.4	-2.7	4.9

Test Program: SID / HIII Neck Pendulum Lateral Test  
 ATD Serial No.: 275

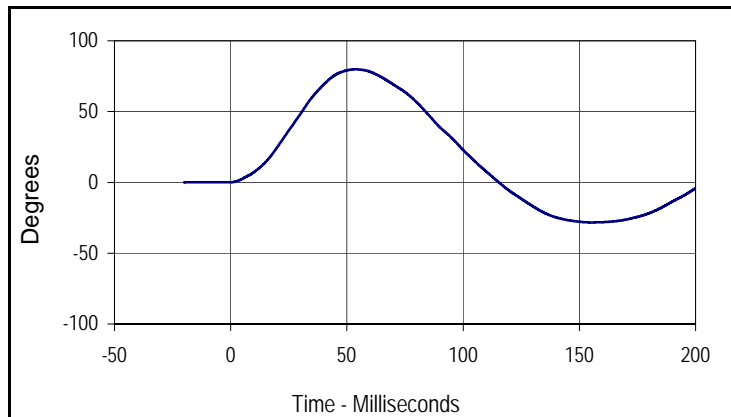
Test Date: 6/11/07  
 Test I.D.: NB06G



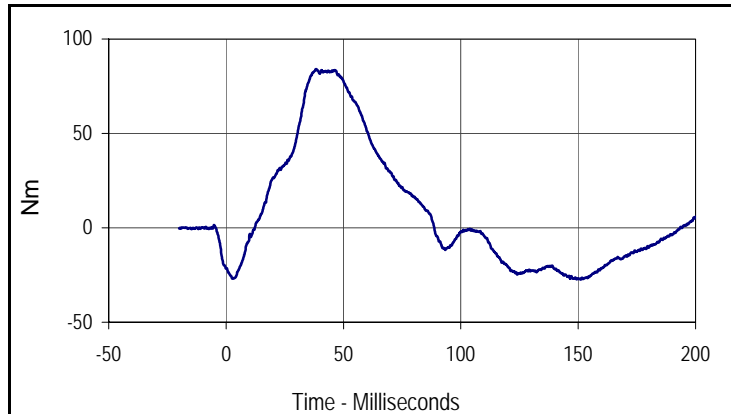
Tested Parameter	Units	Specification	Result	Pass/Fail	
Laboratory Temperature	°C	20.6 to 22.2	21.1	Pass	
Laboratory Relative Humidity	%	10 to 70	30	Pass	
Pendulum Velocity	m/sec	6.89 to 7.13	7.11	Pass	
Pendulum Deceleration	10 Msec.	m/sec	1.96 to 2.55	2.32	Pass
	20 Msec.	m/sec	4.12 to 5.10	4.79	Pass
	30 Msec.	m/sec	5.73 to 7.01	6.79	Pass
	40 to 70	m/sec	6.27 to 7.64	7.61	Pass
"D" Plane Rotation	Max	Degrees	66.0 to 82.0	79.8	Pass
Max Rotation Time After Peak Moment	Msec.	2.0 to 16.0	15.5	Pass	
Rotation Time From Peak to Zero Angle	Msec.	58.0 to 67.0	61.6	Pass	
Moment About Occipital Condyle	Nm	73.0 to 88.0	84.1	Pass	
Positive Moment Decay, Time To 0 Nm	Msec.	49.0 to 64.0	50.4	Pass	
Overall Test Results				Pass	



Curve Description			
Pendulum Velocity			
CURNO	Type	SAE Class	Units
001	FIL	180	m/sec
Max	Time	Min	Time
9.3	196.6	0.0	-0.1



Curve Description			
"D" Plane Rotation			
CURNO	Type	SAE Class	Units
003	FIL	60	Degrees
Max	Time	Min	Time
79.8	53.8	-28.3	155.3



Curve Description			
Moment About Occipital Condyle			
CURNO	Type	SAE Class	Units
004	FIL	600	Nm
Max	Time	Min	Time
84.1	38.3	-27.4	151.0

Test Program: SID / HIII External Measurements

Test Date: 6/11/07

ATD Serial No.: 274

Test I.D.: N/A



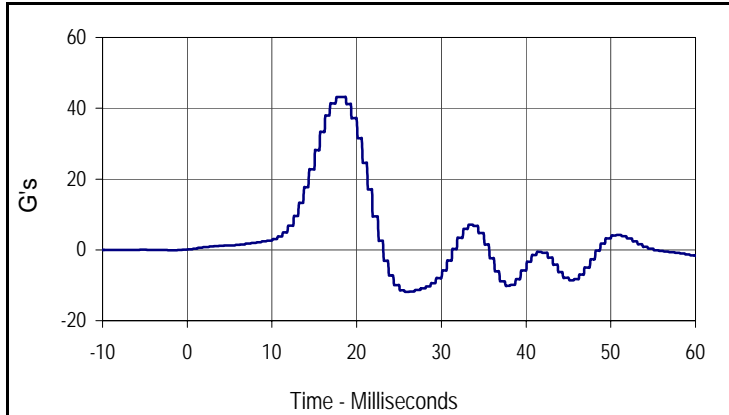
Tested Parameter	Units	Specification	Result	Pass/Fail
Laboratory Temperature	°C	18.9 to 25.6	21.1	Pass
Laboratory Relative Humidity	%	10 to 70	30	Pass
SH- Seated Height	mm	889 to 909	895	Pass
HP- Hip Point Height	mm	99 (reference)	99	Pass
RH- Rib Height	mm	502 to 520	516	Pass
KH- Knee Pivot From Back Line	mm	511 to 526	520	Pass
KV- Knee Pivot From Floor	mm	490 to 505	498	Pass
HW- Hip Width	mm	356 to 391	380	Pass
Overall Test Results				Pass

Test Program: SID / HIII Thorax Lateral Impact  
 ATD Serial No.: 274

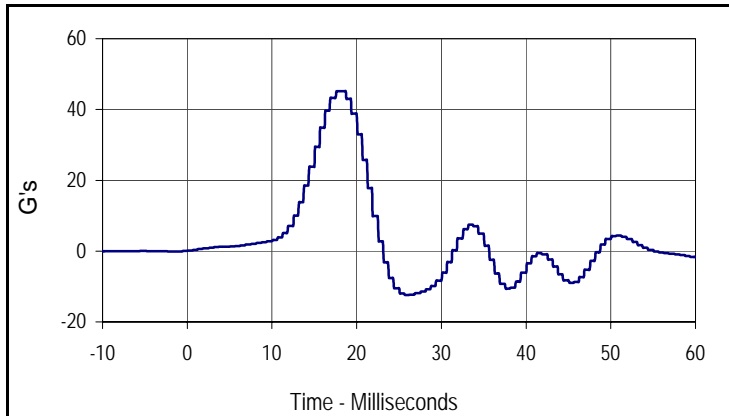
Test Date: 6/11/07  
 Test I.D.: TH06F



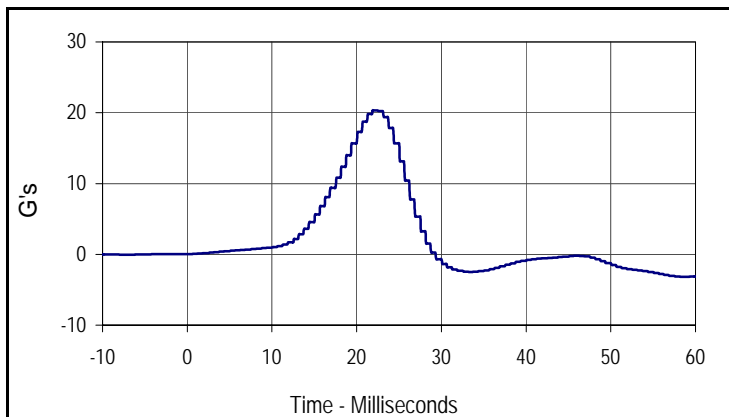
Tested Parameter	Units	Specification	Result	Pass/Fail
Laboratory Temperature	°C	18.9 to 25.6	21.1	Pass
Laboratory Relative Humidity	%	10 to 70	30	Pass
Probe Velocity	m/s	4.21 to 4.33	4.31	Pass
Upper Rib Acceleration	G's	37.0 to 46.0	43.2	Pass
Lower Rib Acceleration	G's	37.0 to 46.0	45.2	Pass
Thoracic Spine Acceleration	G's	15.0 to 22.0	20.3	Pass
Overall Test Results				Pass



Curve Description			
Upper Rib Y Primary			
CURNO	Type	SAE Class	Units
001	FIL	FIR100	G's
Max	Time	Min	Time
43.2	17.6	-11.9	25.7



Curve Description			
Lower Rib Y Primary			
CURNO	Type	SAE Class	Units
002	FIL	FIR100	G's
Max	Time	Min	Time
45.2	17.6	-12.4	25.7



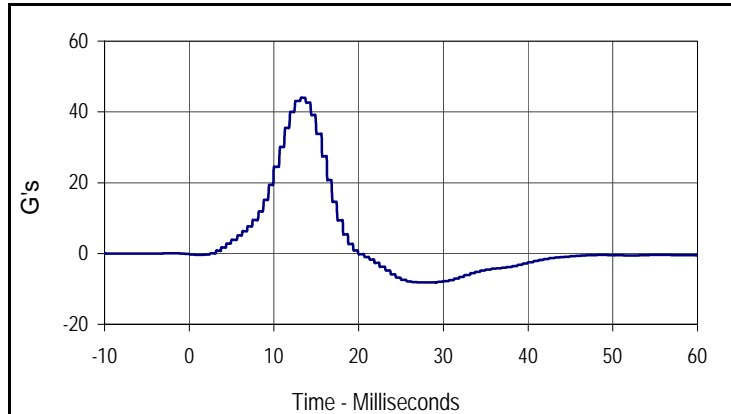
Curve Description			
Lower Spine Y Primary			
CURNO	Type	SAE Class	Units
003	FIL	FIR100	G's
Max	Time	Min	Time
20.3	21.9	-3.2	58.8

Test Program: SID / HIII Pelvis Lateral Impact  
 ATD Serial No.: 274

Test Date: 6/11/07  
 Test I.D.: PL06F



Tested Parameter	Units	Specification	Result	Pass/Fail
Laboratory Temperature	°C	18.9 to 25.6	21.1	Pass
Laboratory Relative Humidity	%	10 to 70	30	Pass
Probe Velocity	m/s	4.21 to 4.33	4.26	Pass
Peak Pelvis Acceleration	G's	40.0 to 60.0	44.0	Pass
Acceleration Time Above 20 G's	Msec.	3.0 to 7.0	4.90	Pass
Overall Test Results				Pass



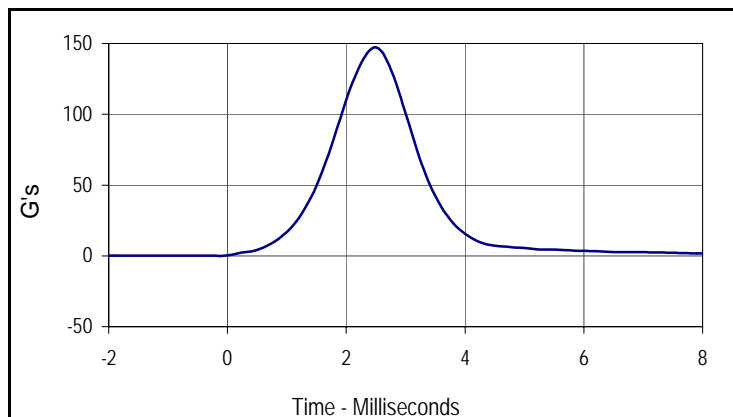
Curve Description			
Pelvis Y Primary			
CURNO	Type	SAE Class	Units
001	FIL	FIR100	G's
Max	Time	Min	Time
44.0	13.2	-8.2	27.5

Test Program: SID / HIII Head Drop Lateral Impact Test  
 ATD Serial No.: 274

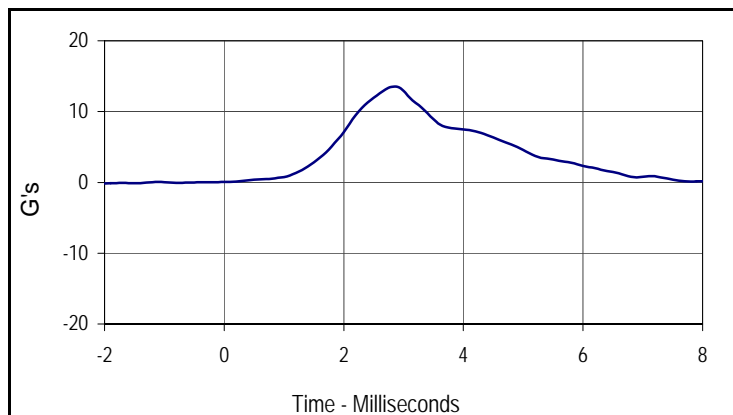
Test Date: 6/11/07  
 Test I.D.: HD06F



Tested Parameter	Units	Specification	Result	Pass/Fail
Laboratory Temperature	°C	18.9 to 25.6	21.7	Pass
Laboratory Relative Humidity	%	10 to 70	30	Pass
Peak Resultant Acceleration	G's	120.0 to 150.0	147.3	Pass
Peak Longitudinal Acceleration	G's	≤15.0	13.5	Pass
Is Acceleration Unimodal?	Yes/No	Yes	Yes	Pass
Oscillations After Main Pulse	%	<15	3.8	Pass
Overall Test Results			Pass	



Curve Description			
Head Resultant			
CURNO	Type	SAE Class	Units
001	RES	1000	G's
Max	Time	Min	Time
147.3	2.5	0.0	-0.1



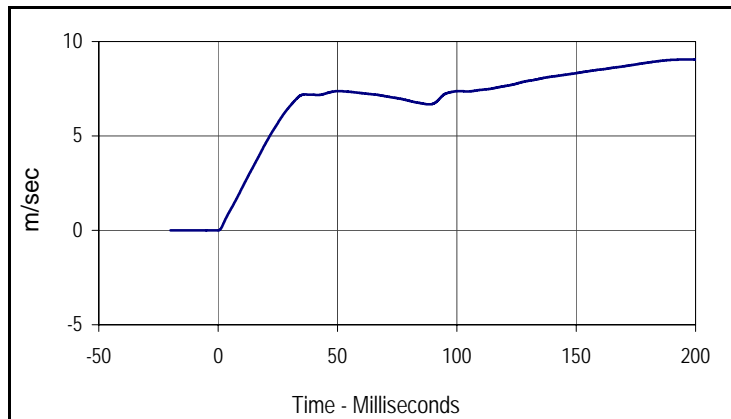
Curve Description			
Head X			
CURNO	Type	SAE Class	Units
002	FIL	1000	G's
Max	Time	Min	Time
13.5	2.8	-0.1	-2.0

Test Program: SID / HIII Neck Pendulum Lateral Test  
 ATD Serial No.: 274

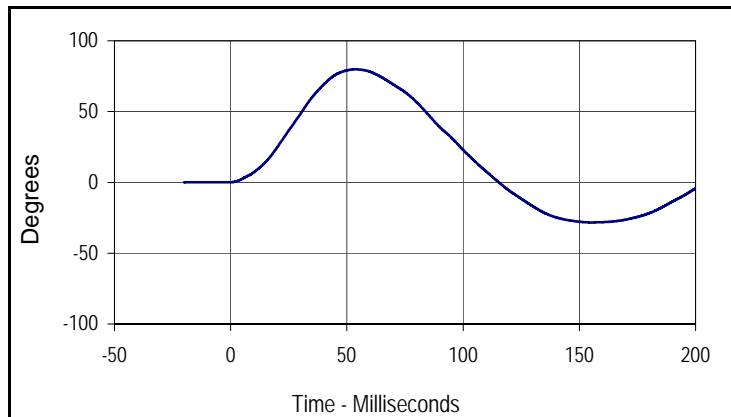
Test Date: 6/11/07  
 Test I.D.: NB06F



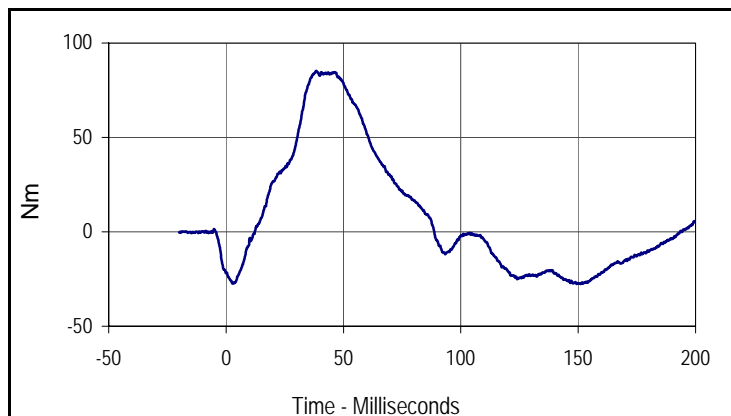
Tested Parameter	Units	Specification	Result	Pass/Fail	
Laboratory Temperature	°C	20.6 to 22.2	21.1	Pass	
Laboratory Relative Humidity	%	10 to 70	30	Pass	
Pendulum Velocity	m/sec	6.89 to 7.13	7.09	Pass	
Pendulum Deceleration	10 Msec.	m/sec	1.96 to 2.55	2.25	Pass
	20 Msec.	m/sec	4.12 to 5.10	4.63	Pass
	30 Msec.	m/sec	5.73 to 7.01	6.57	Pass
	40 to 70	m/sec	6.27 to 7.64	7.37	Pass
"D" Plane Rotation	Max	Degrees	66.0 to 82.0	79.8	Pass
Max Rotation Time After Peak Moment	Msec.	2.0 to 16.0	15.5	Pass	
Rotation Time From Peak to Zero Angle	Msec.	58.0 to 67.0	61.6	Pass	
Moment About Occipital Condyle	Nm	73.0 to 88.0	85.2	Pass	
Positive Moment Decay, Time To 0 Nm	Msec.	49.0 to 64.0	50.4	Pass	
Overall Test Results				Pass	



Curve Description			
Pendulum Velocity			
CURNO	Type	SAE Class	Units
001	FIL	180	m/sec
Max	Time	Min	Time
9.1	196.6	0.0	-0.1



Curve Description			
"D" Plane Rotation			
CURNO	Type	SAE Class	Units
003	FIL	60	Degrees
Max	Time	Min	Time
79.8	53.8	-28.3	155.3



Curve Description			
Moment About Occipital Condyle			
CURNO	Type	SAE Class	Units
004	FIL	600	Nm
Max	Time	Min	Time
85.2	38.3	-27.7	151.0

**APPENDIX C**  
**POST-TEST SID / HIII CONFIGURATION AND PERFORMANCE VERIFICATION DATA**

Test Program: SID / HIII External Measurements

Test Date: 6/13/07

ATD Serial No.: 275

Test I.D.: N/A



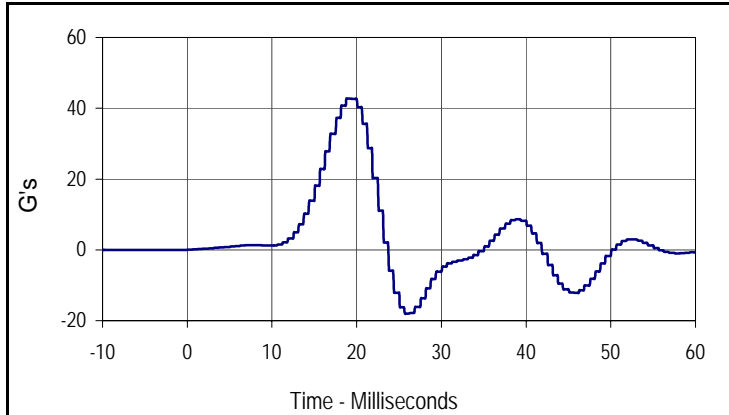
Tested Parameter	Units	Specification	Result	Pass/Fail
Laboratory Temperature	°C	18.9 to 25.6	21.1	Pass
Laboratory Relative Humidity	%	10 to 70	30	Pass
SH- Seated Height	mm	889 to 909	900	Pass
HP- Hip Point Height	mm	99 (reference)	99	Pass
RH- Rib Height	mm	502 to 520	505	Pass
KH- Knee Pivot From Back Line	mm	511 to 526	516	Pass
KV- Knee Pivot From Floor	mm	490 to 505	495	Pass
HW- Hip Width	mm	356 to 391	362	Pass
Overall Test Results				Pass

Test Program: SID / HIII Thorax Lateral Impact  
 ATD Serial No.: 275

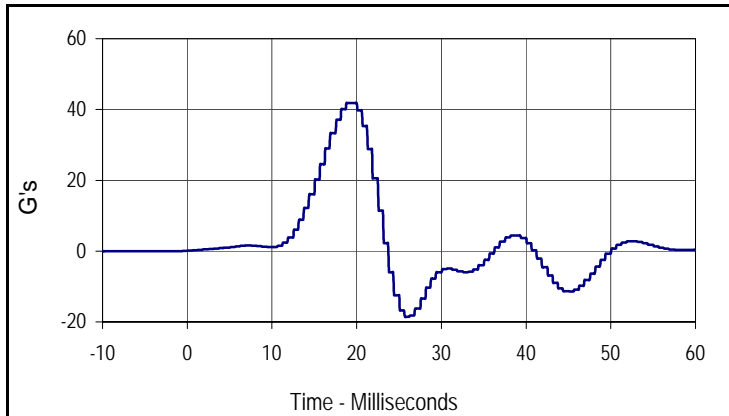
Test Date: 6/13/07  
 Test I.D.: TH06H



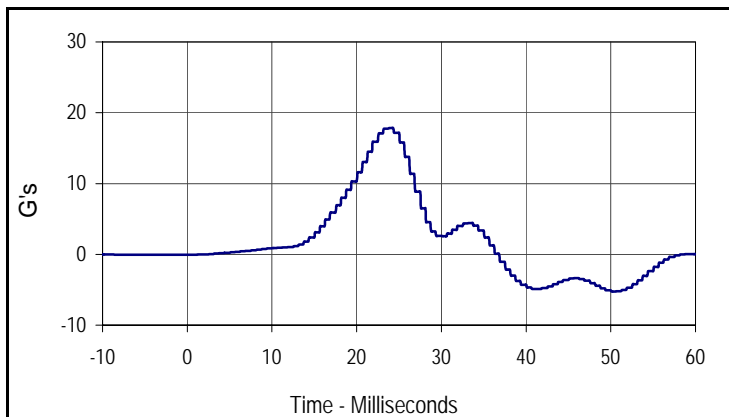
Tested Parameter	Units	Specification	Result	Pass/Fail
Laboratory Temperature	°C	18.9 to 25.6	21.1	Pass
Laboratory Relative Humidity	%	10 to 70	30	Pass
Probe Velocity	m/s	4.21 to 4.33	4.24	Pass
Upper Rib Acceleration	G's	37.0 to 46.0	42.7	Pass
Lower Rib Acceleration	G's	37.0 to 46.0	41.8	Pass
Thoracic Spine Acceleration	G's	15.0 to 22.0	17.8	Pass
Overall Test Results				Pass



Curve Description			
Upper Rib Y Primary			
CURNO	Type	SAE Class	Units
001	FIL	FIR100	G's
Max	Time	Min	Time
42.7	18.8	-18.0	25.7



Curve Description			
Lower Rib Y Primary			
CURNO	Type	SAE Class	Units
002	FIL	FIR100	G's
Max	Time	Min	Time
41.8	18.8	-18.5	25.7



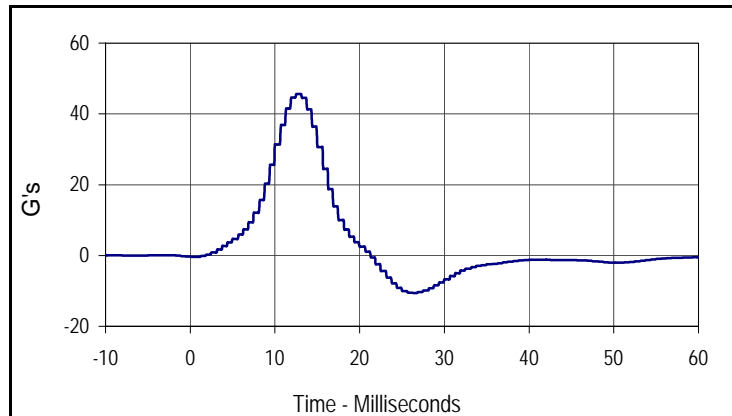
Curve Description			
Lower Spine Y Primary			
CURNO	Type	SAE Class	Units
003	FIL	FIR100	G's
Max	Time	Min	Time
17.8	23.8	-5.2	50.1

Test Program: SID / HIII Pelvis Lateral Impact  
 ATD Serial No.: 275

Test Date: 6/13/07  
 Test I.D.: PL06H



Tested Parameter	Units	Specification	Result	Pass/Fail
Laboratory Temperature	°C	18.9 to 25.6	21.1	Pass
Laboratory Relative Humidity	%	10 to 70	30	Pass
Probe Velocity	m/s	4.21 to 4.33	4.28	Pass
Peak Pelvis Acceleration	G's	40.0 to 60.0	45.7	Pass
Acceleration Time Above 20 G's	Msec.	3.0 to 7.0	6.10	Pass
Overall Test Results				Pass



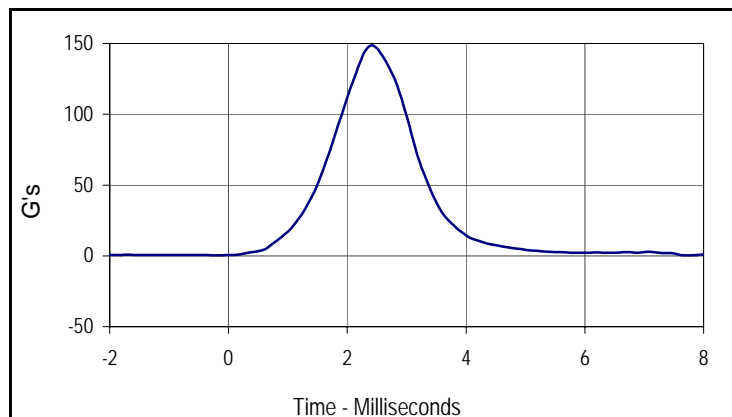
Curve Description			
Pelvis Y Primary			
CURNO	Type	SAE Class	Units
001	FIL	FIR100	G's
Max	Time	Min	Time
45.7	12.5	-10.6	26.3

Test Program: SID / HIII Head Drop Lateral Impact Test  
 ATD Serial No.: 275

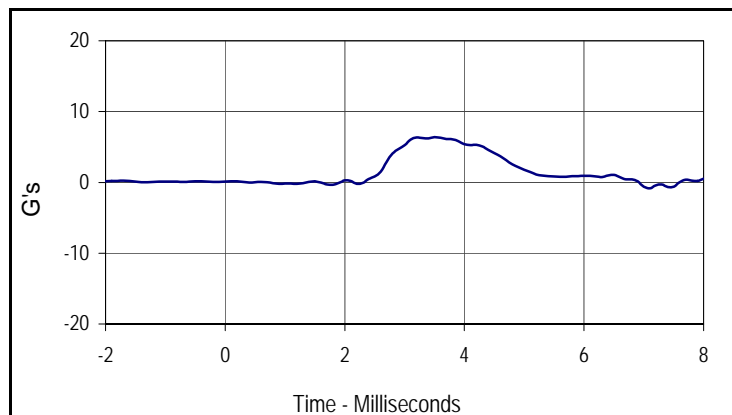
Test Date: 6/13/07  
 Test I.D.: HD06H



Tested Parameter	Units	Specification	Result	Pass/Fail
Laboratory Temperature	°C	18.9 to 25.6	21.7	Pass
Laboratory Relative Humidity	%	10 to 70	30	Pass
Peak Resultant Acceleration	G's	120.0 to 150.0	148.6	Pass
Peak Longitudinal Acceleration	G's	≤15.0	6.4	Pass
Is Acceleration Unimodal?	Yes/No	Yes	Yes	Pass
Oscillations After Main Pulse	%	<15	2.9	Pass
Overall Test Results			Pass	



Curve Description			
Head Resultant			
CURNO	Type	SAE Class	Units
001	RES	1000	G's
Max	Time	Min	Time
148.6	2.4	0.5	-0.2



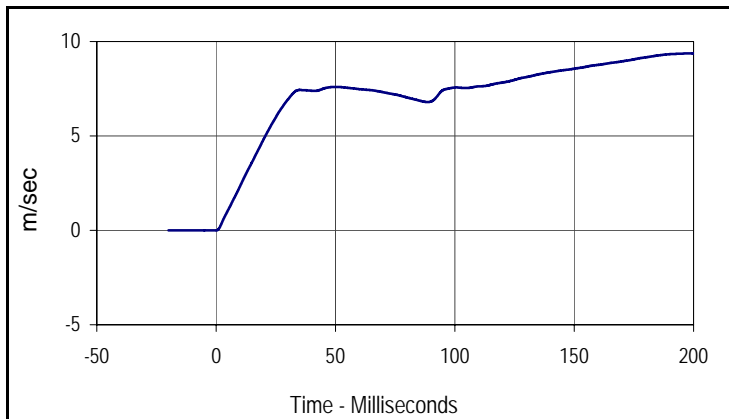
Curve Description			
Head X			
CURNO	Type	SAE Class	Units
002	FIL	1000	G's
Max	Time	Min	Time
6.4	3.5	-0.3	1.8

Test Program: SID / HIII Neck Pendulum Lateral Test  
 ATD Serial No.: 275

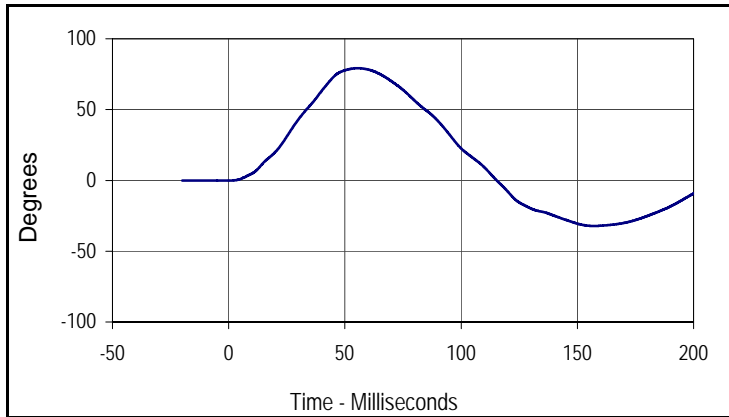
Test Date: 6/13/07  
 Test I.D.: NB06H



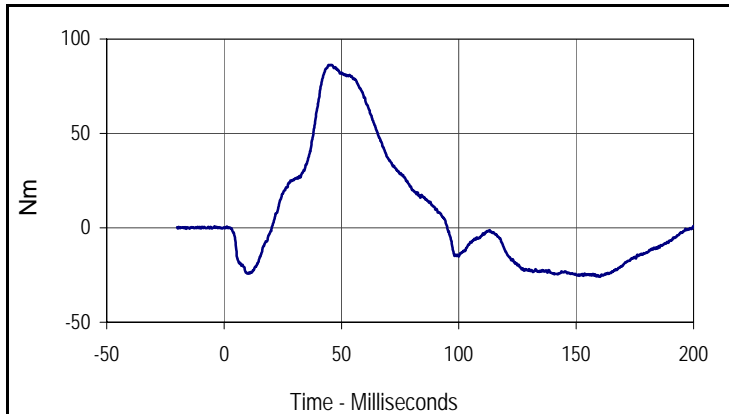
Tested Parameter	Units	Specification	Result	Pass/Fail	
Laboratory Temperature	°C	20.6 to 22.2	21.1	Pass	
Laboratory Relative Humidity	%	10 to 70	30	Pass	
Pendulum Velocity	m/sec	6.89 to 7.13	7.09	Pass	
Pendulum Deceleration	10 Msec.	m/sec	1.96 to 2.55	2.34	Pass
	20 Msec.	m/sec	4.12 to 5.10	4.85	Pass
	30 Msec.	m/sec	5.73 to 7.01	6.92	Pass
	40 to 70	m/sec	6.27 to 7.64	7.60	Pass
"D" Plane Rotation	Max	Degrees	66.0 to 82.0	79.2	Pass
Max Rotation Time After Peak Moment	Msec.	2.0 to 16.0	10.0	Pass	
Rotation Time From Peak to Zero Angle	Msec.	58.0 to 67.0	59.9	Pass	
Moment About Occipital Condyle	Nm	73.0 to 88.0	86.3	Pass	
Positive Moment Decay, Time To 0 Nm	Msec.	49.0 to 64.0	49.7	Pass	
Overall Test Results				Pass	



Curve Description			
Pendulum Velocity			
CURNO	Type	SAE Class	Units
001	FIL	180	m/sec
Max	Time	Min	Time
9.4	198.6	0.0	-0.1



Curve Description			
"D" Plane Rotation			
CURNO	Type	SAE Class	Units
003	FIL	60	Degrees
Max	Time	Min	Time
79.2	55.4	-32.2	157.2



Curve Description			
Moment About Occipital Condyle			
CURNO	Type	SAE Class	Units
004	FIL	600	Nm
Max	Time	Min	Time
86.3	45.4	-25.9	160.2

Test Program: SID / HIII External Measurements

Test Date: 6/13/07

ATD Serial No.: 274

Test I.D.: N/A



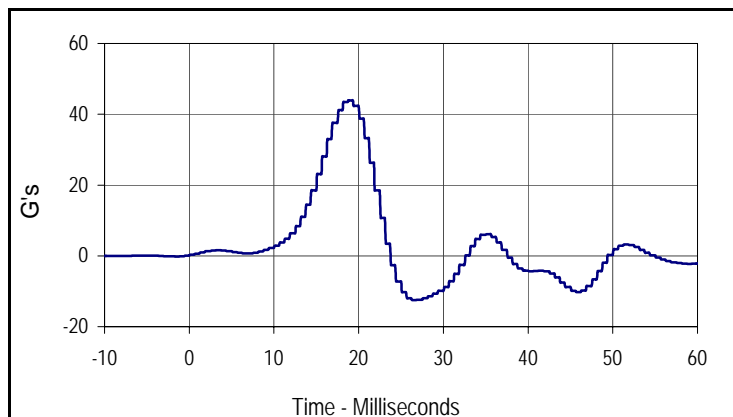
Tested Parameter	Units	Specification	Result	Pass/Fail
Laboratory Temperature	°C	18.9 to 25.6	21.1	Pass
Laboratory Relative Humidity	%	10 to 70	30	Pass
SH- Seated Height	mm	889 to 909	903	Pass
HP- Hip Point Height	mm	99 (reference)	99	Pass
RH- Rib Height	mm	502 to 520	512	Pass
KH- Knee Pivot From Back Line	mm	511 to 526	519	Pass
KV- Knee Pivot From Floor	mm	490 to 505	499	Pass
HW- Hip Width	mm	356 to 391	360	Pass
Overall Test Results				Pass

Test Program: SID / HIII Thorax Lateral Impact  
 ATD Serial No.: 274

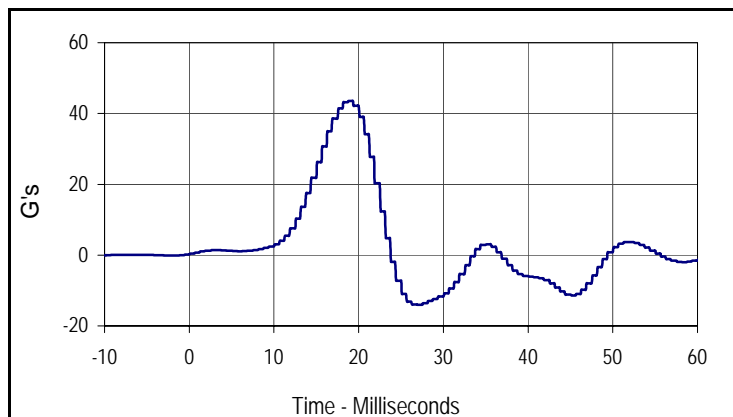
Test Date: 6/13/07  
 Test I.D.: TH06I



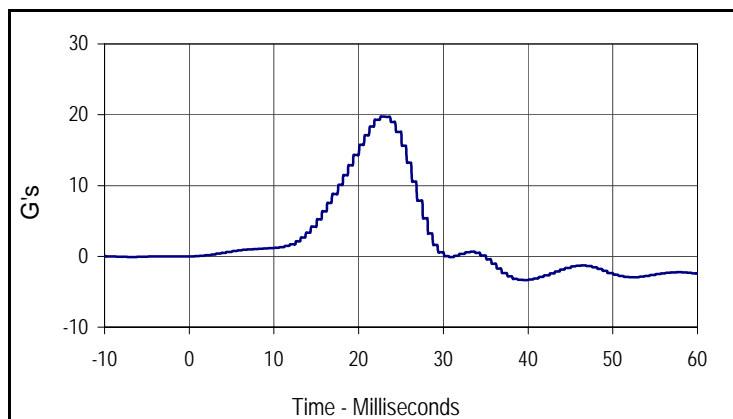
Tested Parameter	Units	Specification	Result	Pass/Fail
Laboratory Temperature	°C	18.9 to 25.6	21.1	Pass
Laboratory Relative Humidity	%	10 to 70	30	Pass
Probe Velocity	m/s	4.21 to 4.33	4.24	Pass
Upper Rib Acceleration	G's	37.0 to 46.0	43.9	Pass
Lower Rib Acceleration	G's	37.0 to 46.0	43.5	Pass
Thoracic Spine Acceleration	G's	15.0 to 22.0	19.8	Pass
Overall Test Results			Pass	



Curve Description			
Upper Rib Y Primary			
CURNO	Type	SAE Class	Units
001	FIL	FIR100	G's
Max	Time	Min	Time
43.9	18.8	-12.5	26.3



Curve Description			
Lower Rib Y Primary			
CURNO	Type	SAE Class	Units
002	FIL	FIR100	G's
Max	Time	Min	Time
43.5	18.8	-14.0	26.9



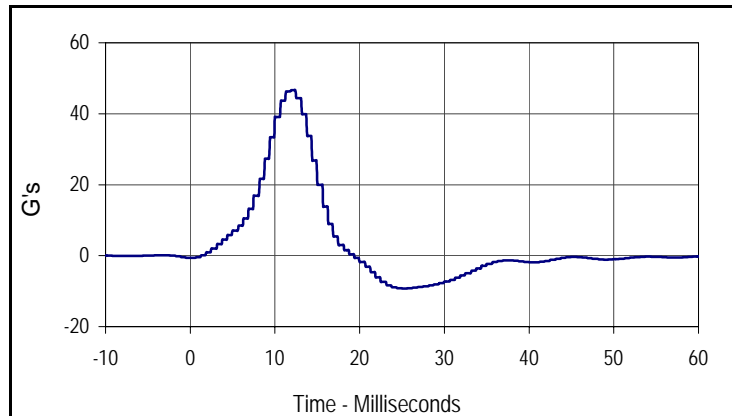
Curve Description			
Lower Spine Y Primary			
CURNO	Type	SAE Class	Units
003	FIL	FIR100	G's
Max	Time	Min	Time
19.8	22.6	-3.4	39.4

Test Program: SID / HIII Pelvis Lateral Impact  
 ATD Serial No.: 274

Test Date: 6/13/07  
 Test I.D.: PL06I



Tested Parameter	Units	Specification	Result	Pass/Fail
Laboratory Temperature	°C	18.9 to 25.6	21.1	Pass
Laboratory Relative Humidity	%	10 to 70	30	Pass
Probe Velocity	m/s	4.21 to 4.33	4.30	Pass
Peak Pelvis Acceleration	G's	40.0 to 60.0	46.6	Pass
Acceleration Time Above 20 G's	Msec.	3.0 to 7.0	6.70	Pass
Overall Test Results				Pass



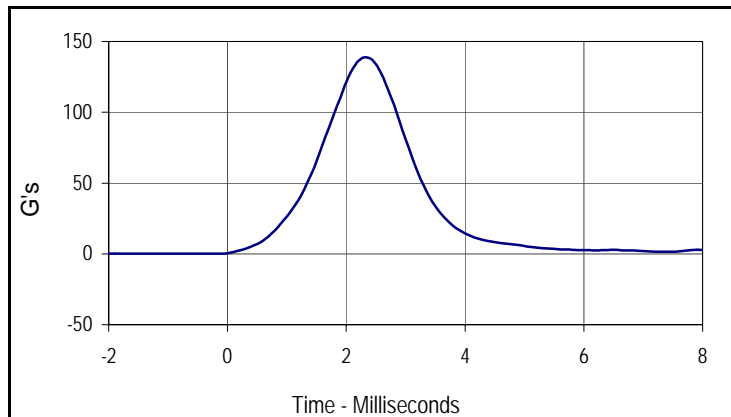
Curve Description			
Pelvis Y Primary			
CURNO	Type	SAE Class	Units
001	FIL	FIR100	G's
Max	Time	Min	Time
46.6	11.9	-9.3	25.0

Test Program: SID / HIII Head Drop Lateral Impact Test  
 ATD Serial No.: 274

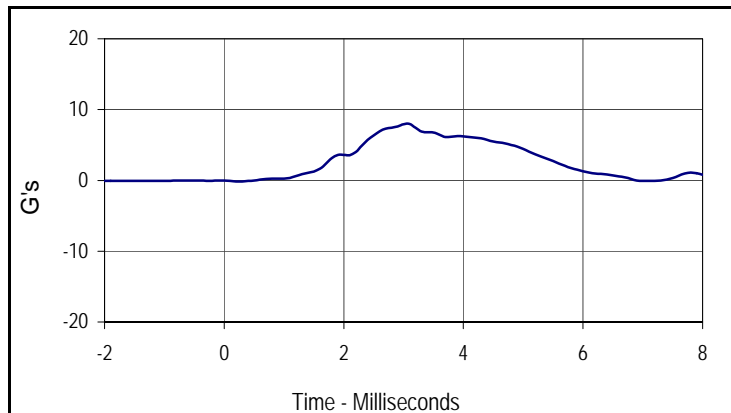
Test Date: 6/13/07  
 Test I.D.: HD06I



Tested Parameter	Units	Specification	Result	Pass/Fail
Laboratory Temperature	°C	18.9 to 25.6	21.7	Pass
Laboratory Relative Humidity	%	10 to 70	30	Pass
Peak Resultant Acceleration	G's	120.0 to 150.0	138.8	Pass
Peak Longitudinal Acceleration	G's	≤15.0	8.0	Pass
Is Acceleration Unimodal?	Yes/No	Yes	Yes	Pass
Oscillations After Main Pulse	%	<15	4.0	Pass
Overall Test Results			Pass	Pass



Curve Description			
Head Resultant			
CURNO	Type	SAE Class	Units
001	RES	1000	G's
Max	Time	Min	Time
138.8	2.3	0.1	-0.9



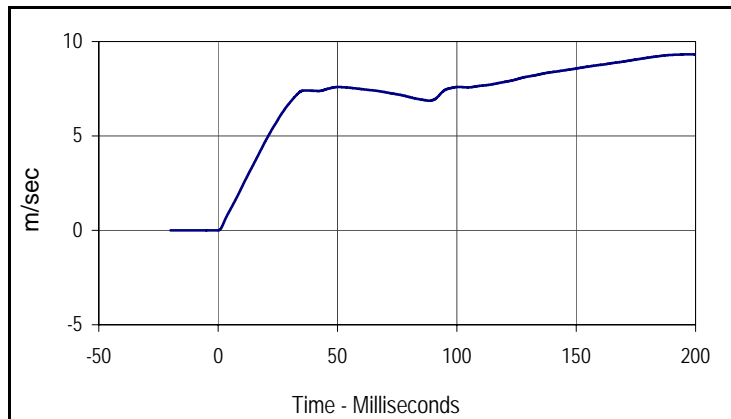
Curve Description			
Head X			
CURNO	Type	SAE Class	Units
002	FIL	1000	G's
Max	Time	Min	Time
8.0	3.1	-0.1	0.2

Test Program: SID / HIII Neck Pendulum Lateral Test  
 ATD Serial No.: 274

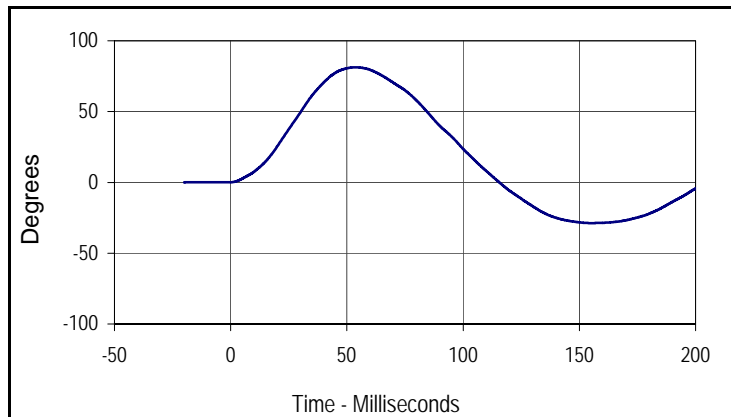
Test Date: 6/13/07  
 Test I.D.: NB06I



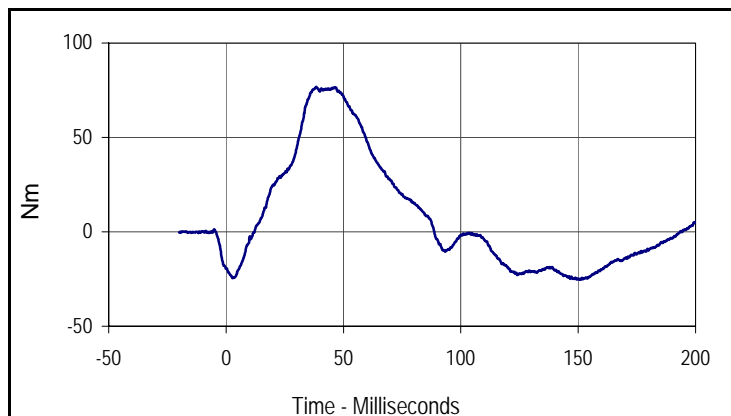
Tested Parameter	Units	Specification	Result	Pass/Fail	
Laboratory Temperature	°C	20.6 to 22.2	21.1	Pass	
Laboratory Relative Humidity	%	10 to 70	30	Pass	
Pendulum Velocity	m/sec	6.89 to 7.13	7.09	Pass	
Pendulum Deceleration	10 Msec.	m/sec	1.96 to 2.55	2.31	Pass
	20 Msec.	m/sec	4.12 to 5.10	4.77	Pass
	30 Msec.	m/sec	5.73 to 7.01	6.76	Pass
	40 to 70	m/sec	6.27 to 7.64	7.59	Pass
"D" Plane Rotation	Max	Degrees	66.0 to 82.0	81.3	Pass
Max Rotation Time After Peak Moment	Msec.	2.0 to 16.0	15.4	Pass	
Rotation Time From Peak to Zero Angle	Msec.	58.0 to 67.0	61.9	Pass	
Moment About Occipital Condyle	Nm	73.0 to 88.0	76.8	Pass	
Positive Moment Decay, Time To 0 Nm	Msec.	49.0 to 64.0	50.4	Pass	
<b>Overall Test Results</b>				<b>Pass</b>	



Curve Description			
Pendulum Velocity			
CURNO	Type	SAE Class	Units
001	FIL	180	m/sec
Max	Time	Min	Time
9.3	196.6	0.0	-0.1



Curve Description			
"D" Plane Rotation			
CURNO	Type	SAE Class	Units
003	FIL	60	Degrees
Max	Time	Min	Time
81.3	53.7	-28.8	155.3



Curve Description			
Moment About Occipital Condyle			
CURNO	Type	SAE Class	Units
004	FIL	600	Nm
Max	Time	Min	Time
76.8	38.3	-25.3	151.1