

48/24 kph 90 Degree Side Impact (MDB) into Right Side of 2007 Kia Rio

Date: 03/23/2007

MDB CENTER OF GRAVITY Y-AXIS VELOCITY

Time: 12:32

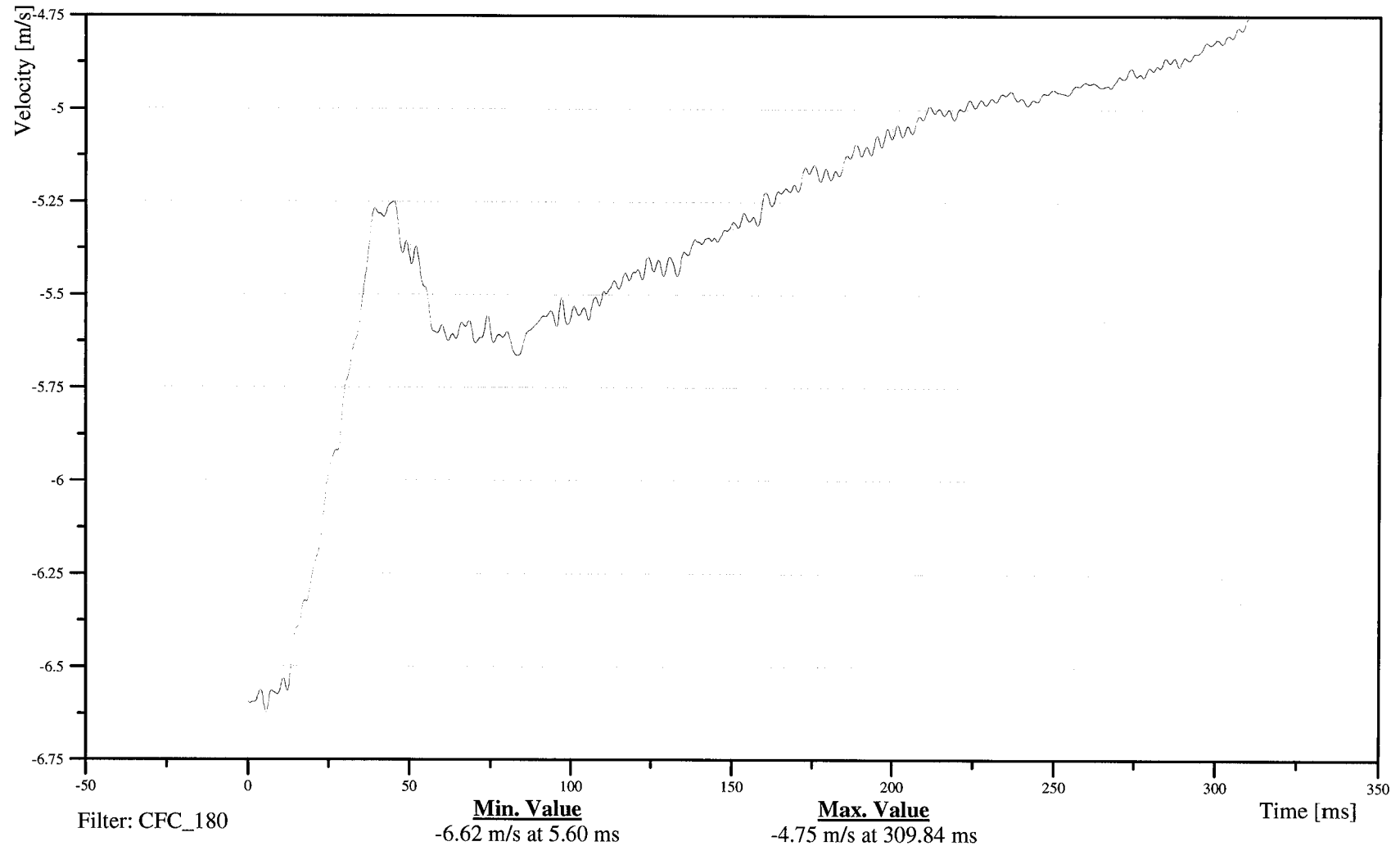
Customer: NHTSA

Test Number: C70509

M0VEHCCG0000VEYC

TRC Inc. Test Lab: CTF

Test Number: 070323



B-92

070323



48/24 kph 90 Degree Side Impact (MDB) into Right Side of 2007 Kia Rio

Date: 03/23/2007

Time: 12:32

MDB CENTER OF GRAVITY Z-AXIS ACCELERATION

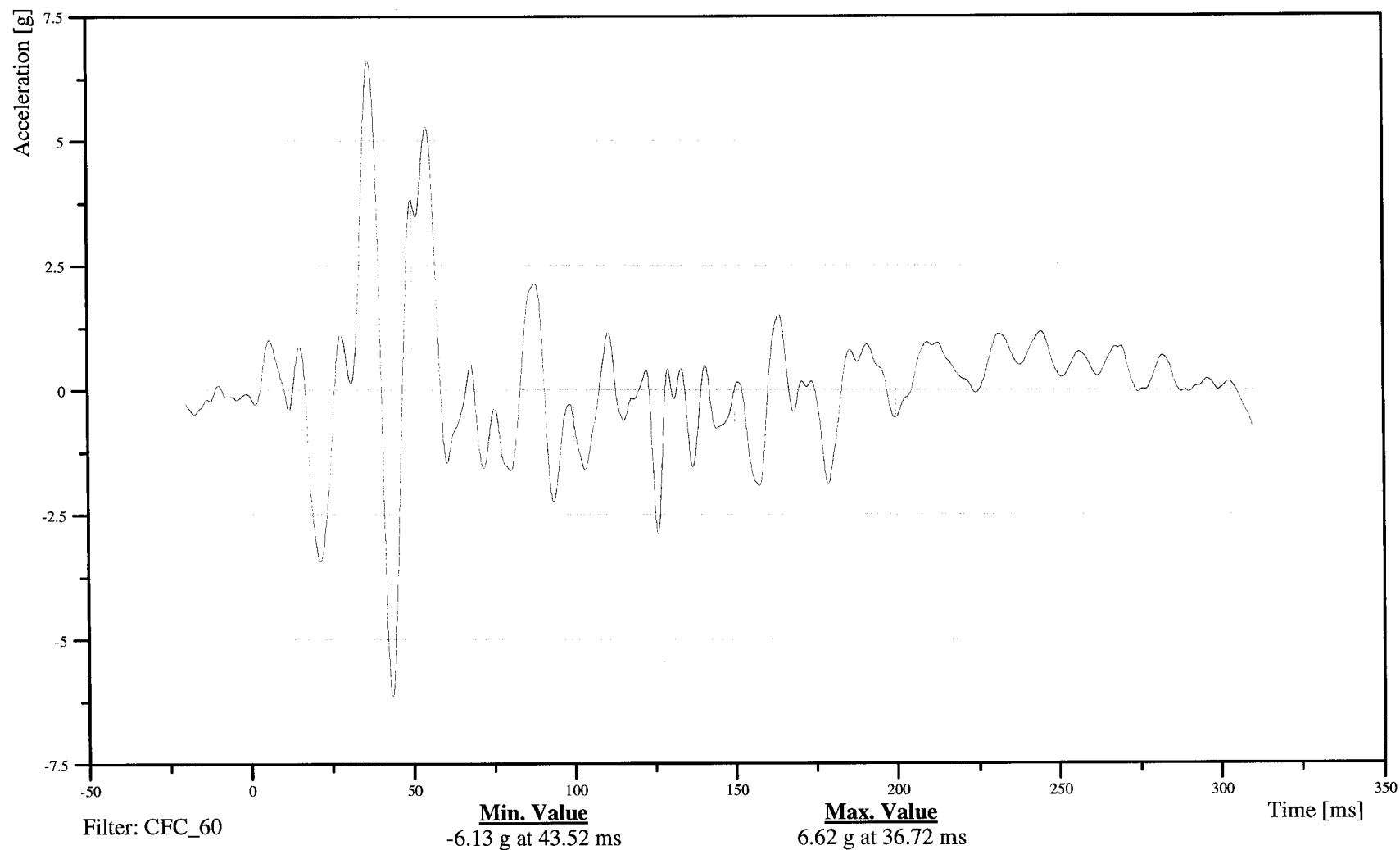
Customer: NHTSA

Test Number: C70509

M0VEHCCG0000ACZD

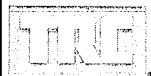
TRC Inc. Test Lab: CTF

Test Number: 070323



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070323



48/24 kph 90 Degree Side Impact (MDB) into Right Side of 2007 Kia Rio

Date: 03/23/2007

MDB CENTER OF GRAVITY Z-AXIS VELOCITY

Time: 12:32

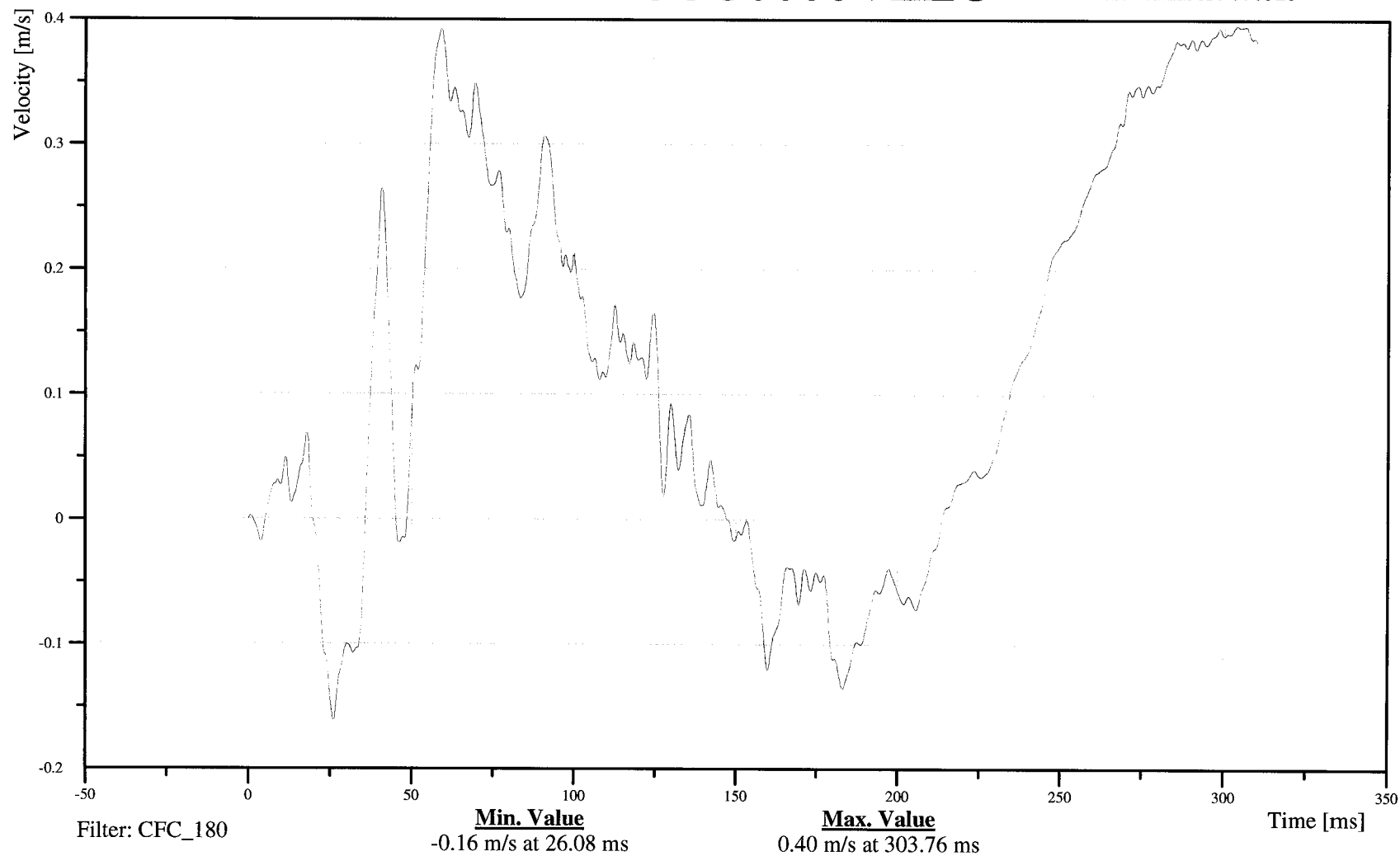
Customer: NHTSA

Test Number: C70509

M0VEHCCG0000VEZC

TRC Inc. Test Lab: CTF

Test Number: 070323



B-94

070323



48/24 kph 90 Degree Side Impact (MDB) into Right Side of 2007 Kia Rio

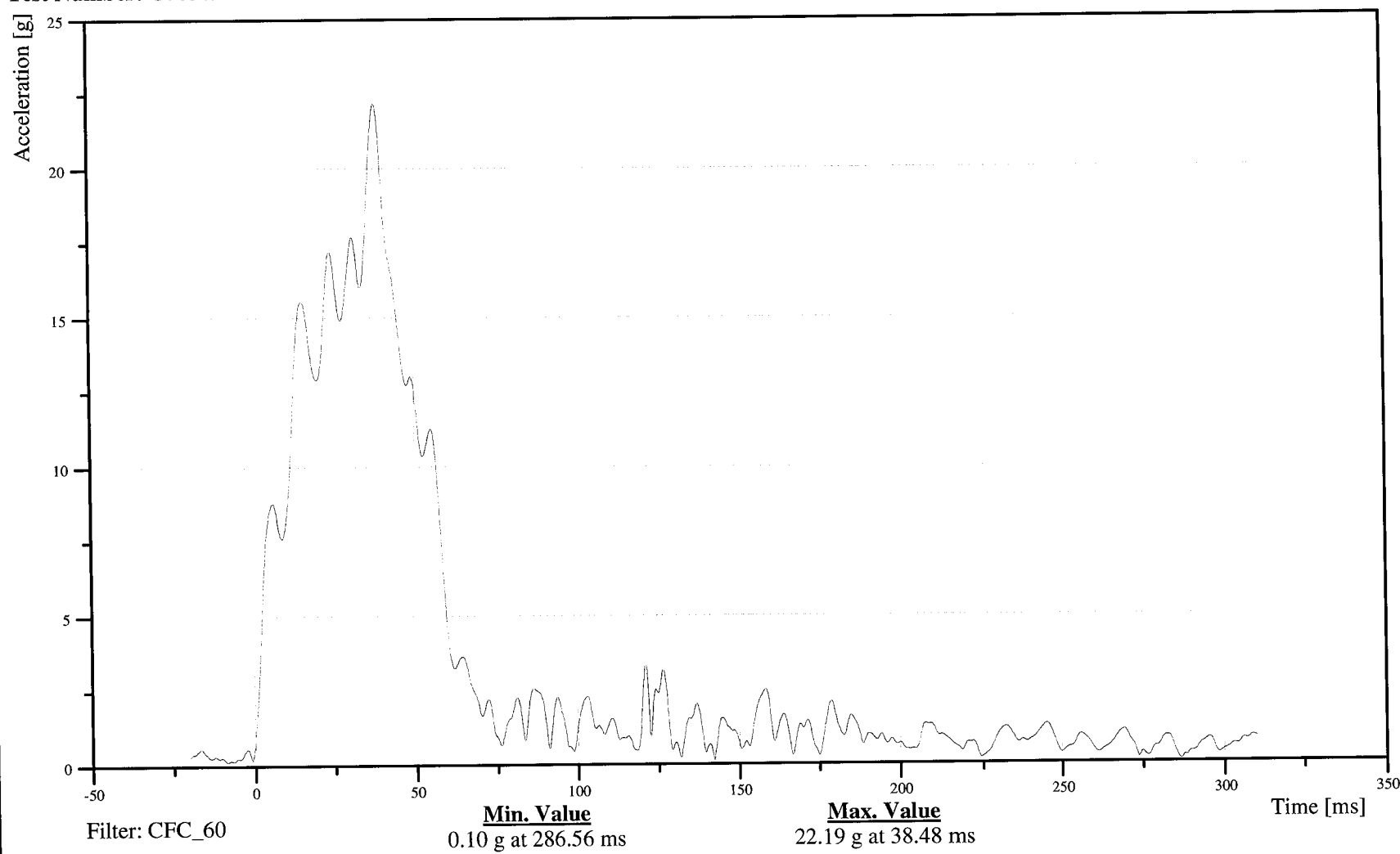
Date: 03/23/2007
Time: 12:32

MDB CENTER OF GRAVITY RESULTANT ACCELERATION

Customer: NHTSA
Test Number: C70509

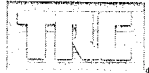
M0VEHCCG0000ACRD

TRC Inc. Test Lab: CTF
Test Number: 070323



B-95

070323



48/24 kph 90 Degree Side Impact (MDB) into Right Side of 2007 Kia Rio

Date: 03/23/2007

MDB REAR X-AXIS ACCELERATION

Time: 12:32

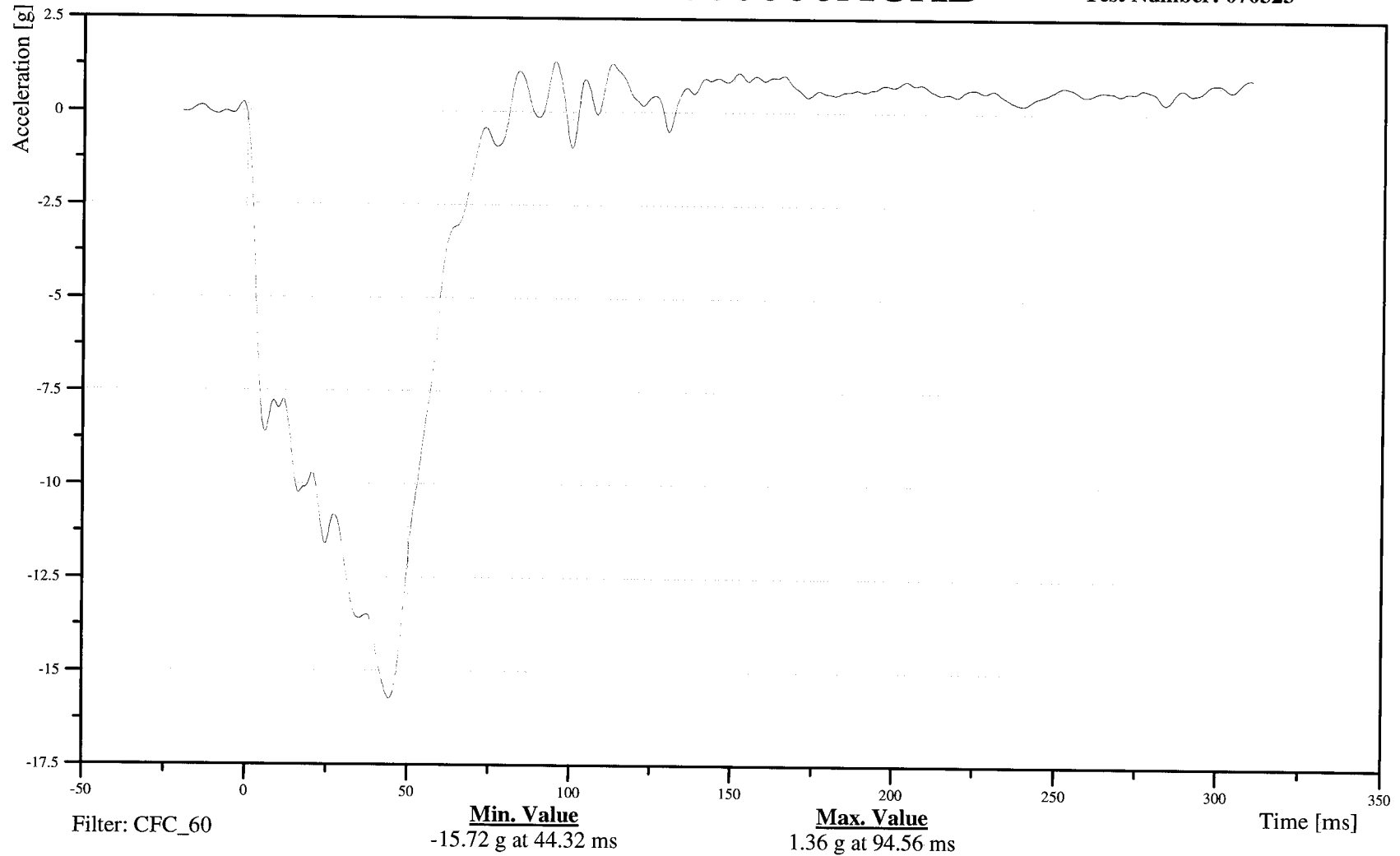
Customer: NHTSA

Test Number: C70509

M7FRAM000000ACXD

TRC Inc. Test Lab: CTF

Test Number: 070323



B-96

070323



48/24 kph 90 Degree Side Impact (MDB) into Right Side of 2007 Kia Rio

Date: 03/23/2007

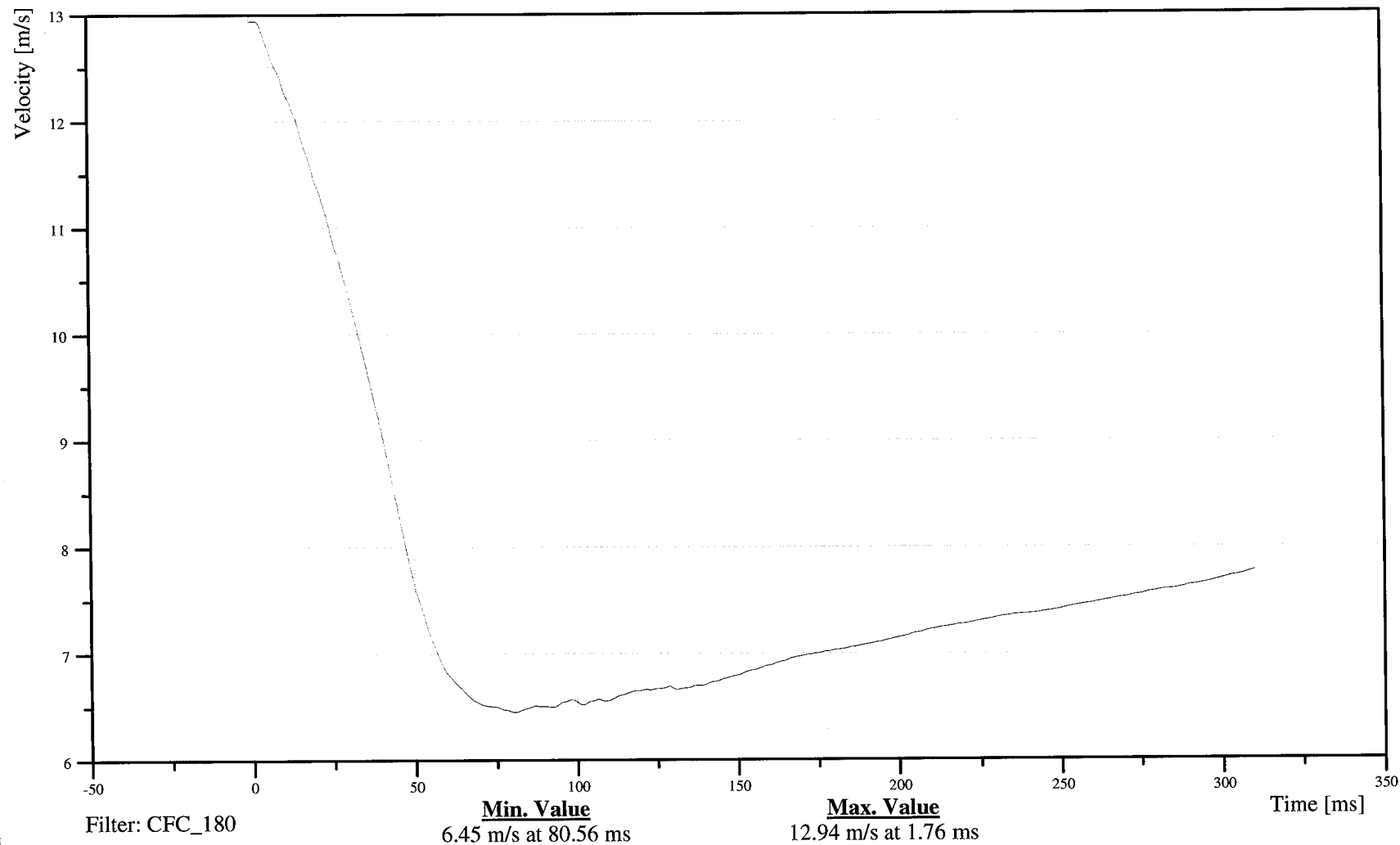
Time: 12:32

MDB REAR X-AXIS VELOCITY

Customer: NHTSA
Test Number: C70509

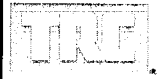
M7FRAM000000VEXC

TRC Inc. Test Lab: CTF
Test Number: 070323



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070323



48/24 kph 90 Degree Side Impact (MDB) into Right Side of 2007 Kia Rio

Date: 03/23/2007

MDB REAR Y-AXIS ACCELERATION

Time: 12:32

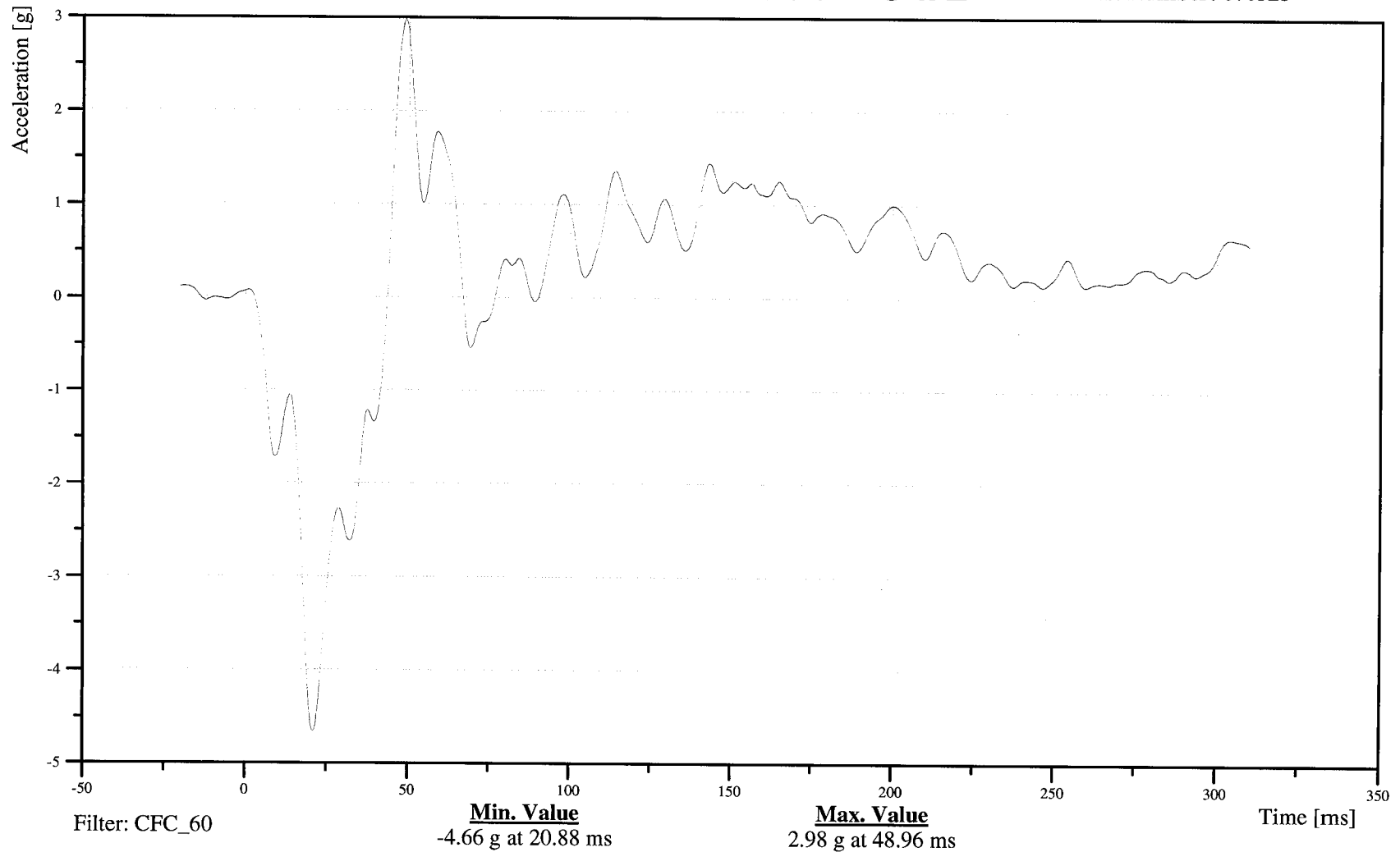
Customer: NHTSA

Test Number: C70509

M7FRAM000000ACYD

TRC Inc. Test Lab: CTF

Test Number: 070323



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070323



48/24 kph 90 Degree Side Impact (MDB) into Right Side of 2007 Kia Rio

Date: 03/23/2007

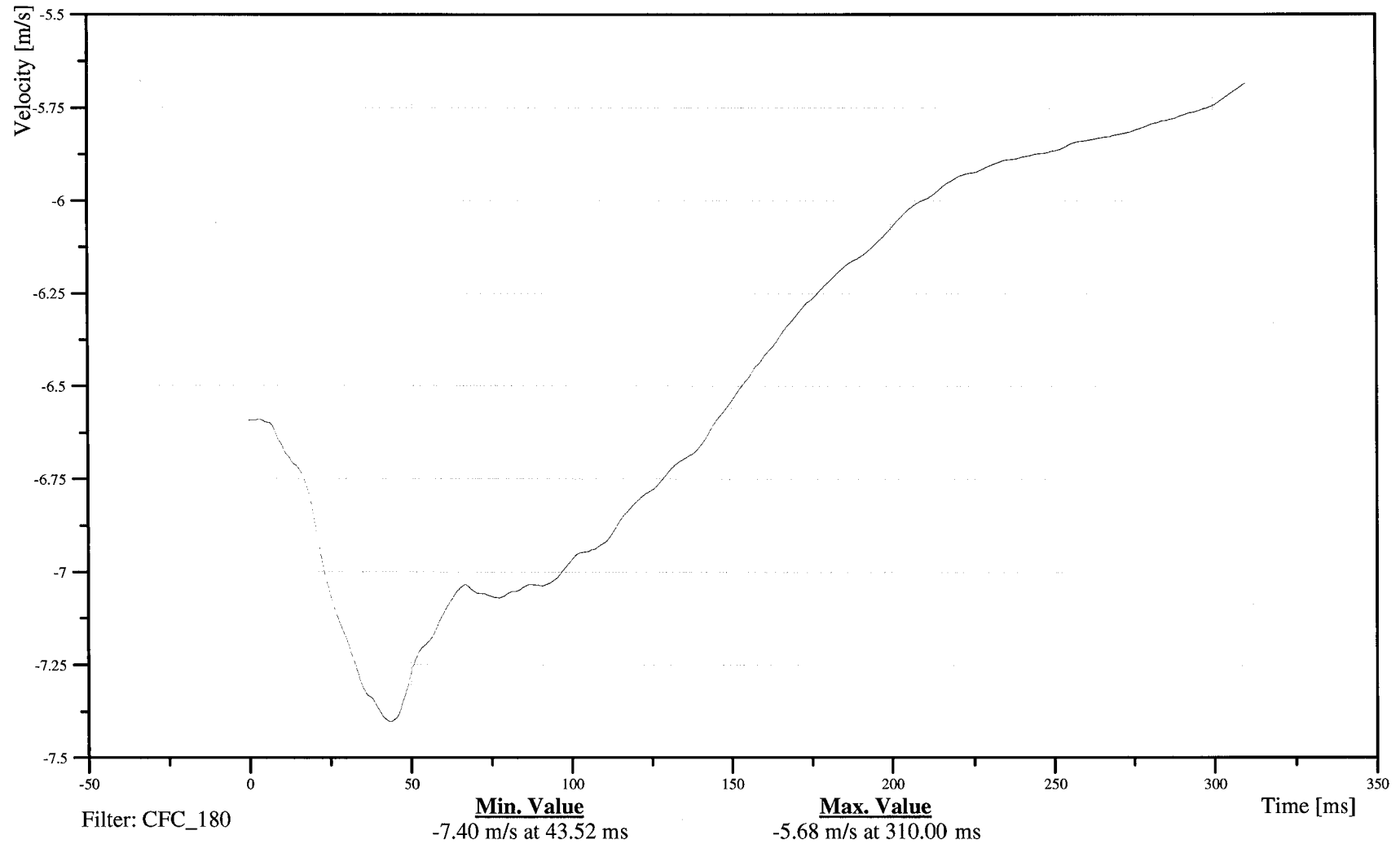
MDB REAR Y-AXIS VELOCITY

Time: 12:32

Customer: NHTSA
Test Number: C70509

M7FRAM000000VEYC

TRC Inc. Test Lab: CTF
Test Number: 070323



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070323



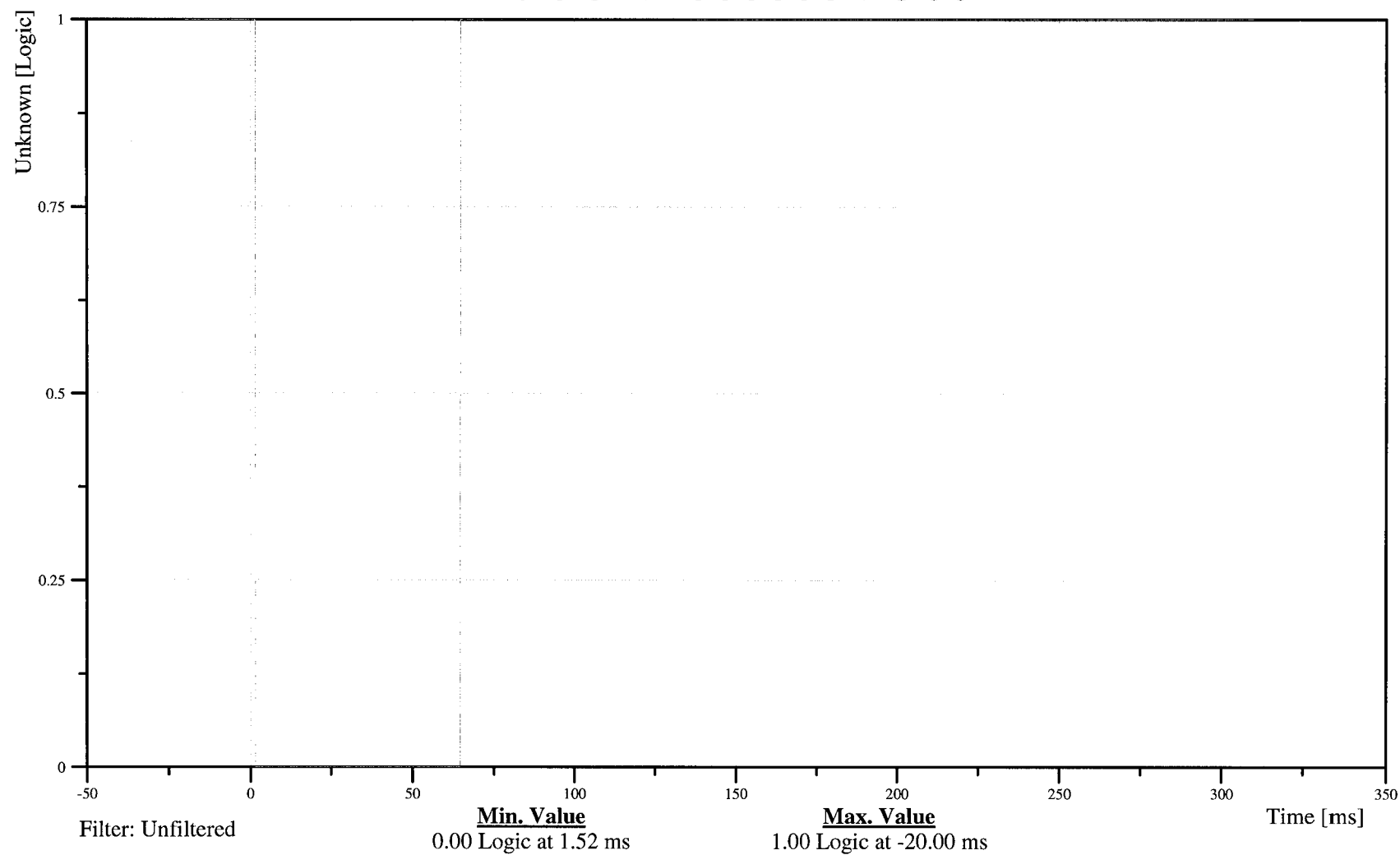
MDB RIGHT CONTACT SWITCH

Time: 12:32

M3CONT000000VO00

Test Number: C70509

Test Number: 070323



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070323



48/24 kph 90 Degree Side Impact (MDB) into Right Side of 2007 Kia Rio

Date: 03/23/2007

MDB LEFT CONTACT SWITCH

Time: 12:32

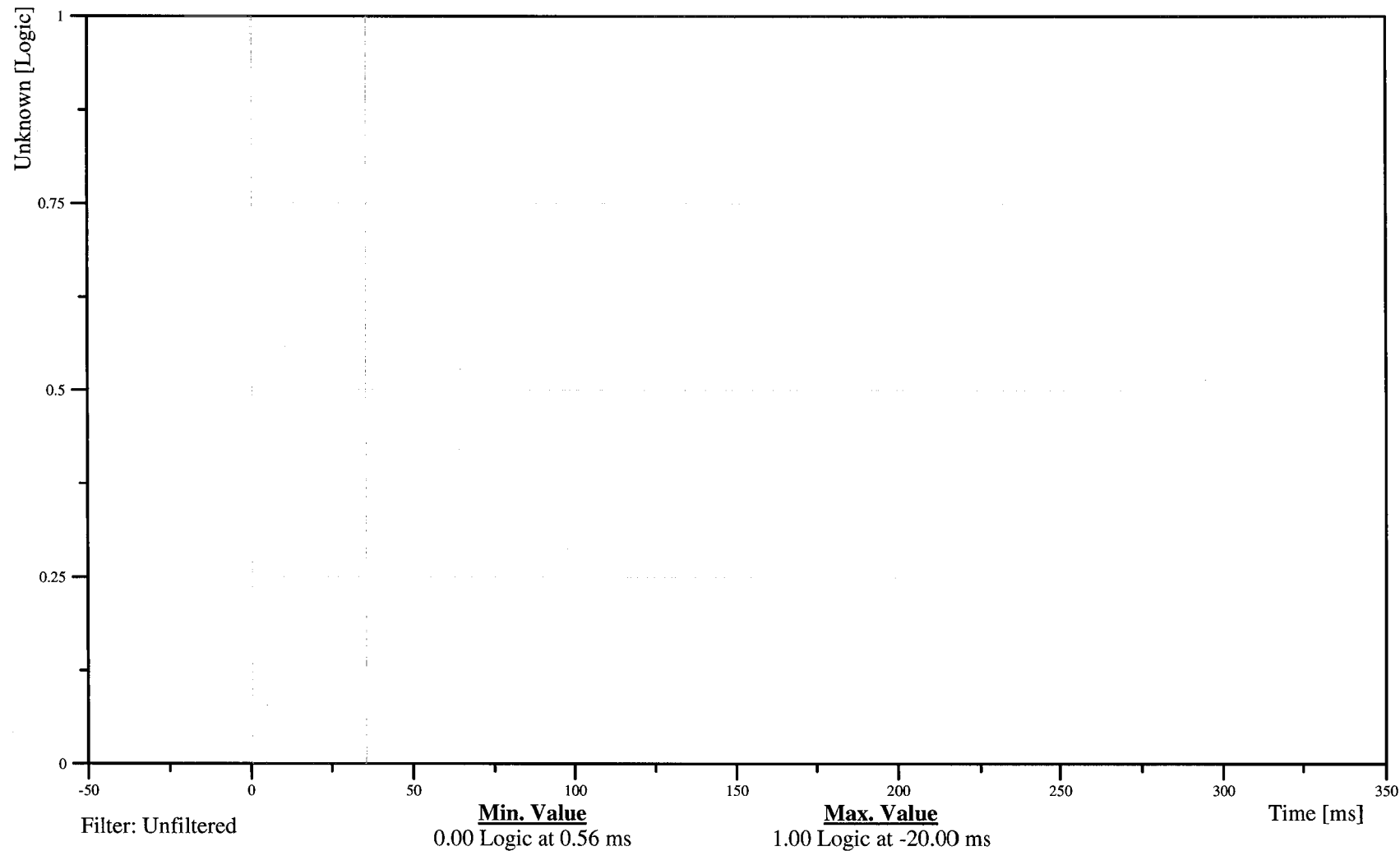
Customer: NHTSA

Test Number: C70509

M1CONT000000VO00

TRC Inc. Test Lab: CTF

Test Number: 070323



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070323

Right Front and Right Rear Passenger Dummy Instrumentation Plots



48/24 kph 90 Degree Side Impact (MDB) into Right Side of 2007 Kia Rio

Date: 03/23/2007

RIGHT FRONT PASSENGER UPPER RIB Y-AXIS ACCELERATION

Time: 12:32

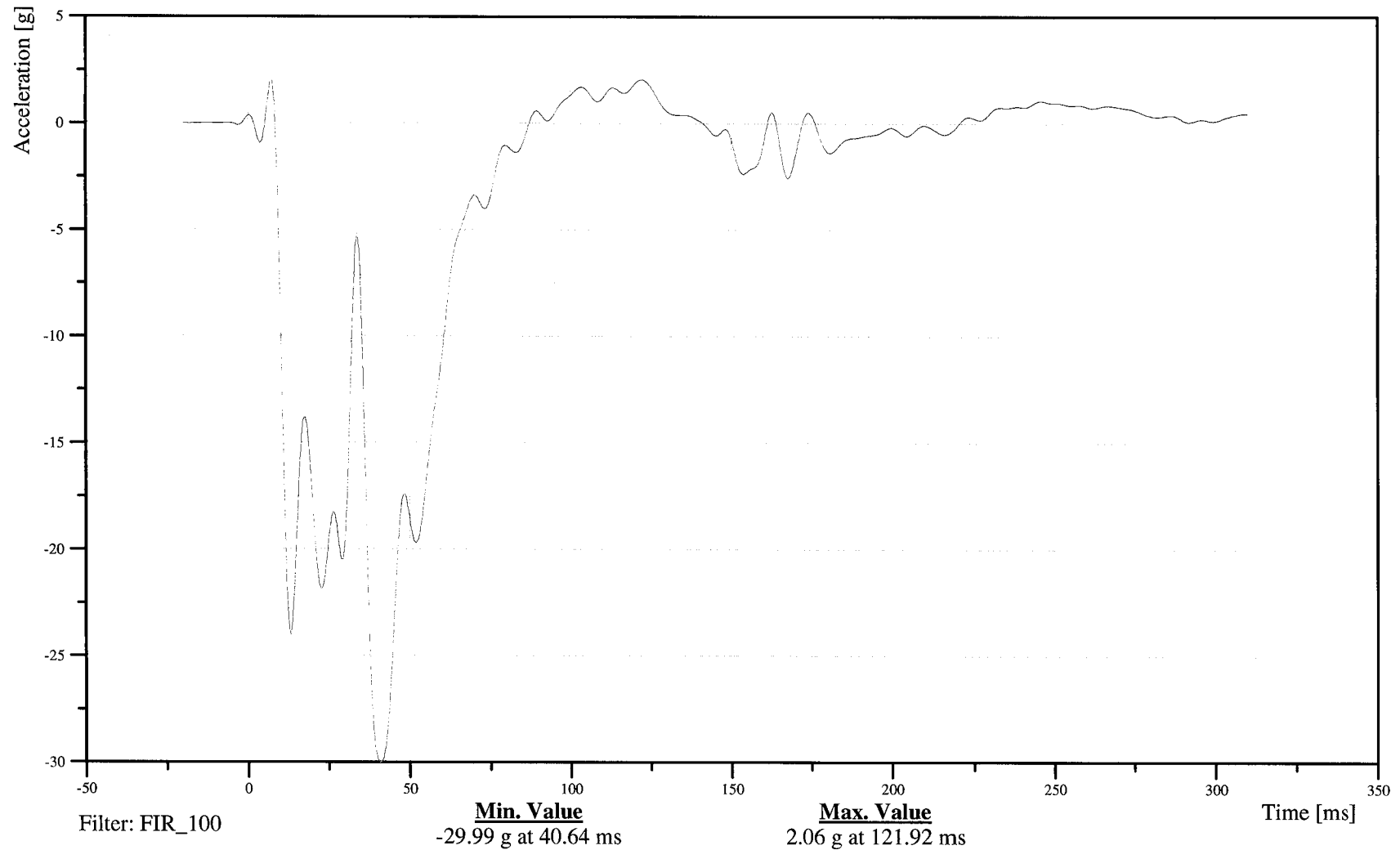
Customer: NHTSA

Test Number: C70509

13RIBSRU00SIACY1

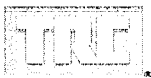
TRC Inc. Test Lab: CTF

Test Number: 070323



B-103

070323



48/24 kph 90 Degree Side Impact (MDB) into Right Side of 2007 Kia Rio

Date: 03/23/2007

RIGHT FRONT PASSENGER LOWER RIB Y-AXIS ACCELERATION

Time: 12:32

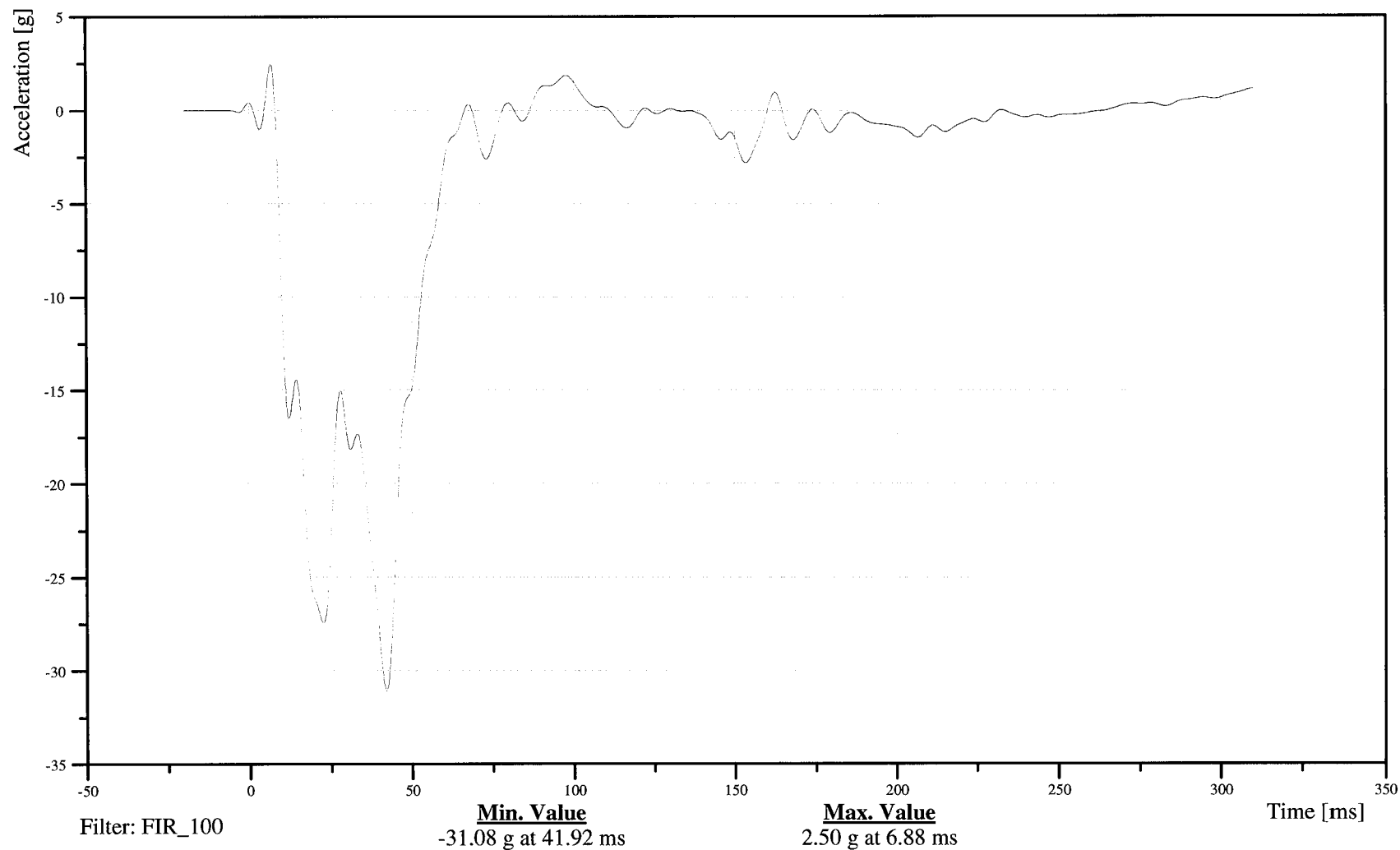
Customer: NHTSA

Test Number: C70509

13RIBSRL00SIACY1

TRC Inc. Test Lab: CTF

Test Number: 070323



B-104

070323



48/24 kph 90 Degree Side Impact (MDB) into Right Side of 2007 Kia Rio

Date: 03/23/2007

RIGHT FRONT PASSENGER LOWER SPINE Y-AXIS ACCELERATION

Time: 12:32

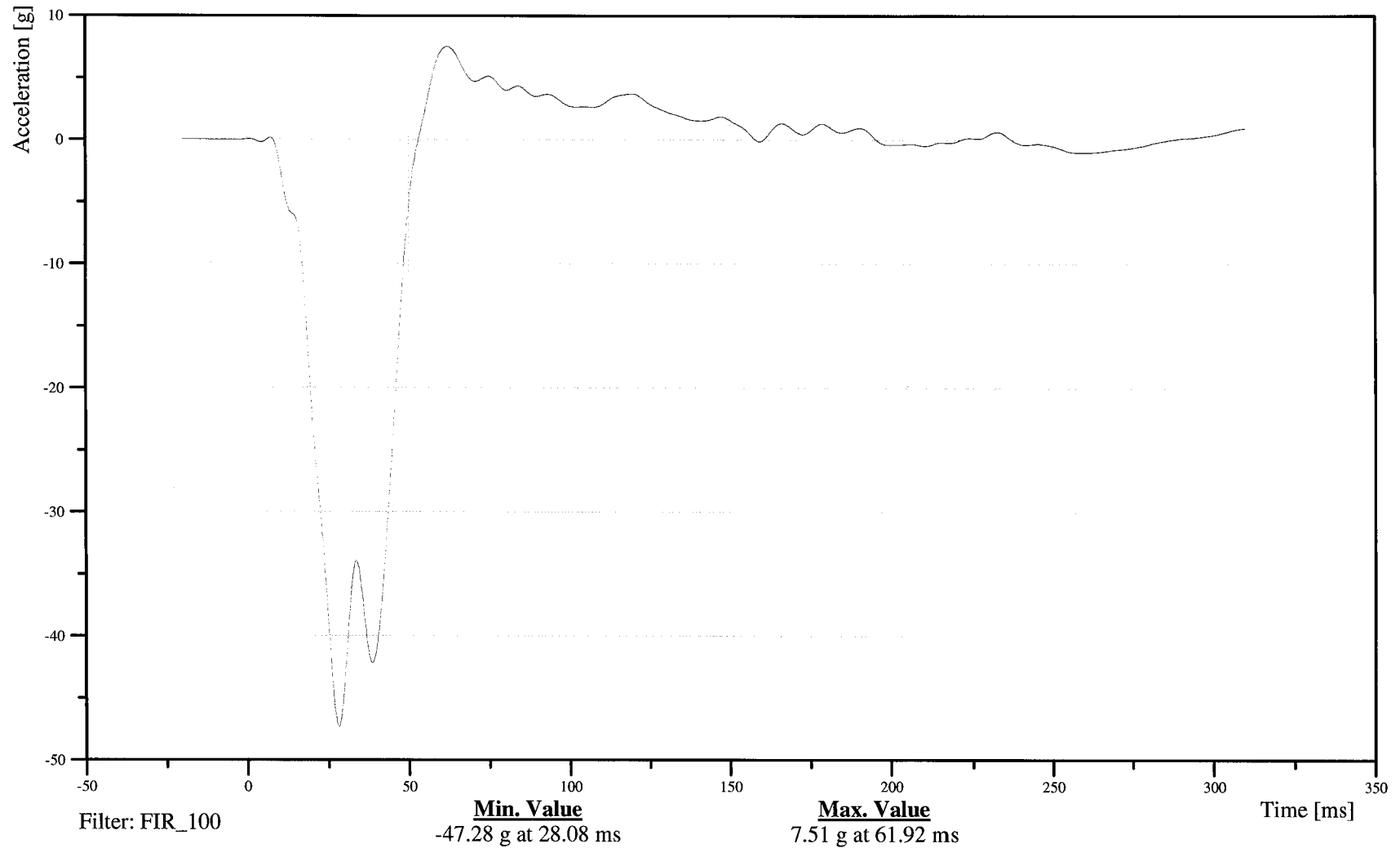
Customer: NHTSA

Test Number: C70509

13SPIN1200SIACY1

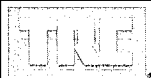
TRC Inc. Test Lab: CTF

Test Number: 070323



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070323



48/24 kph 90 Degree Side Impact (MDB) into Right Side of 2007 Kia Rio

Date: 03/23/2007

Time: 12:32

RIGHT FRONT PASSENGER PELVIS Y-AXIS ACCELERATION

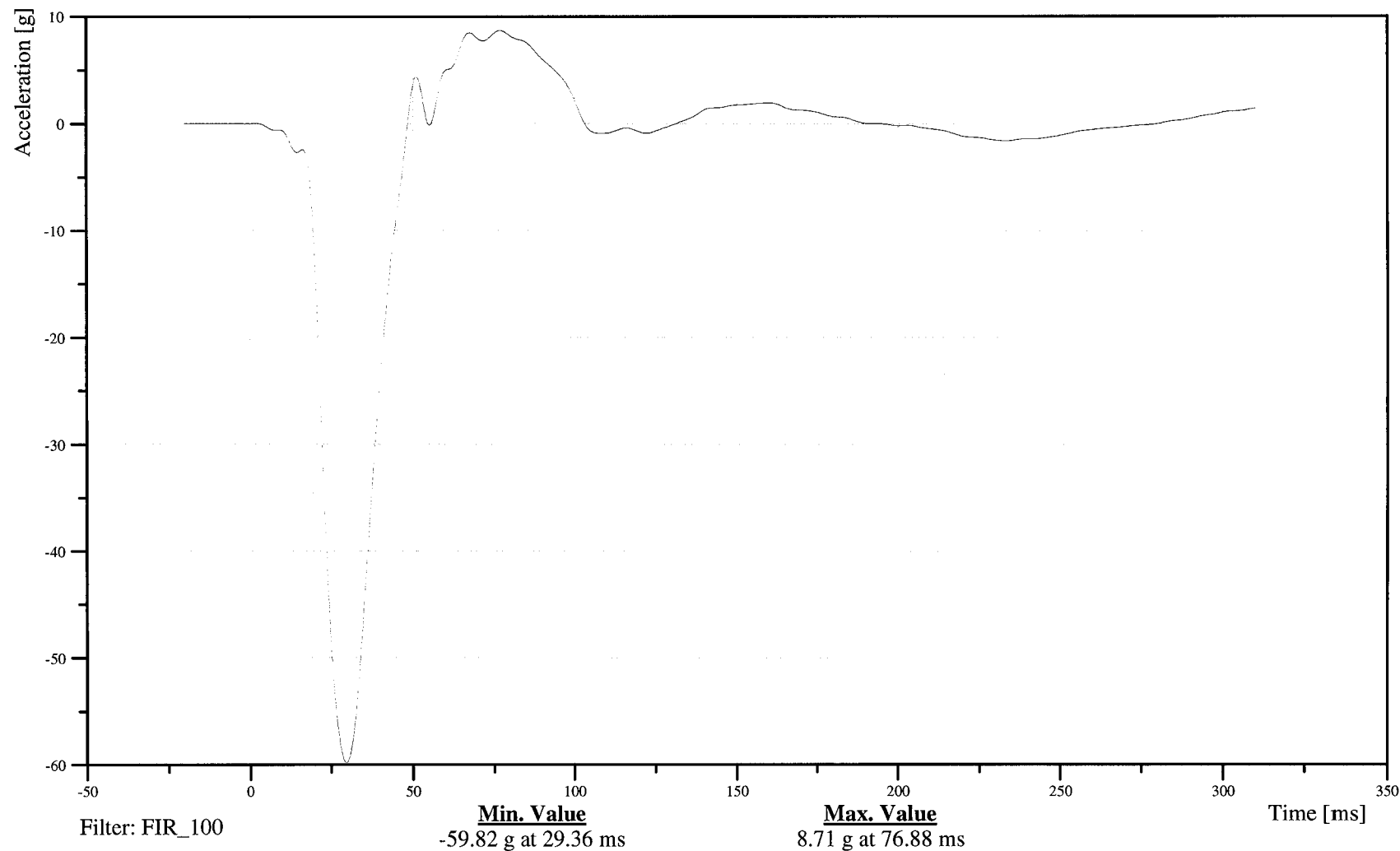
Customer: NHTSA

Test Number: C70509

13PELVCG00SIACY1

TRC Inc. Test Lab: CTF

Test Number: 070323



B-106

070323



48/24 kph 90 Degree Side Impact (MDB) into Right Side of 2007 Kia Rio

Date: 03/23/2007

RIGHT REAR PASSENGER UPPER RIB Y-AXIS ACCELERATION

Time: 12:32

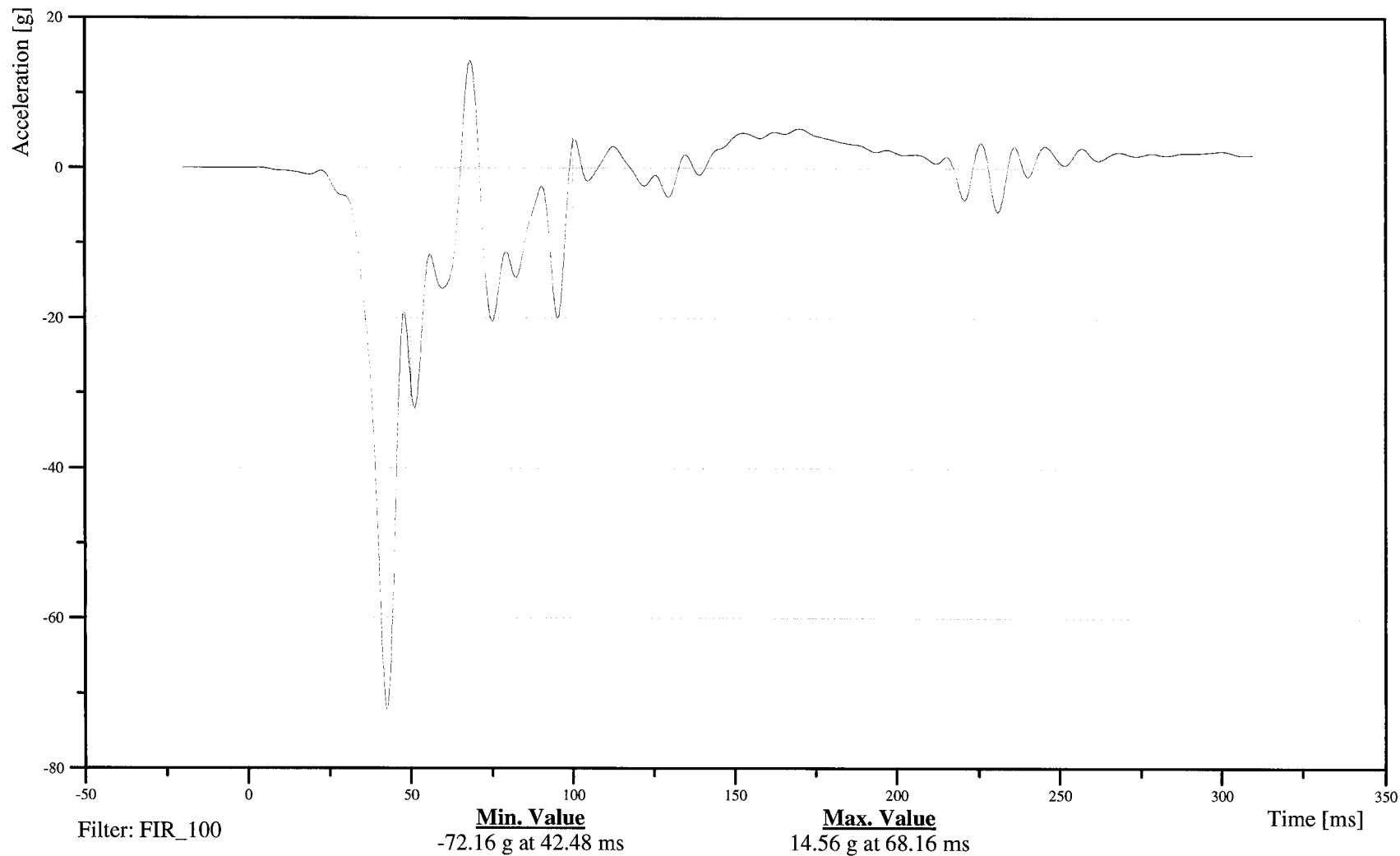
Customer: NHTSA

Test Number: C70509

16RIBSRU00SIACY1

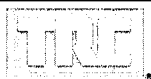
TRC Inc. Test Lab: CTF

Test Number: 070323



B-107

070323



48/24 kph 90 Degree Side Impact (MDB) into Right Side of 2007 Kia Rio

Date: 03/23/2007

RIGHT REAR PASSENGER LOWER RIB Y-AXIS ACCELERATION

Time: 12:32

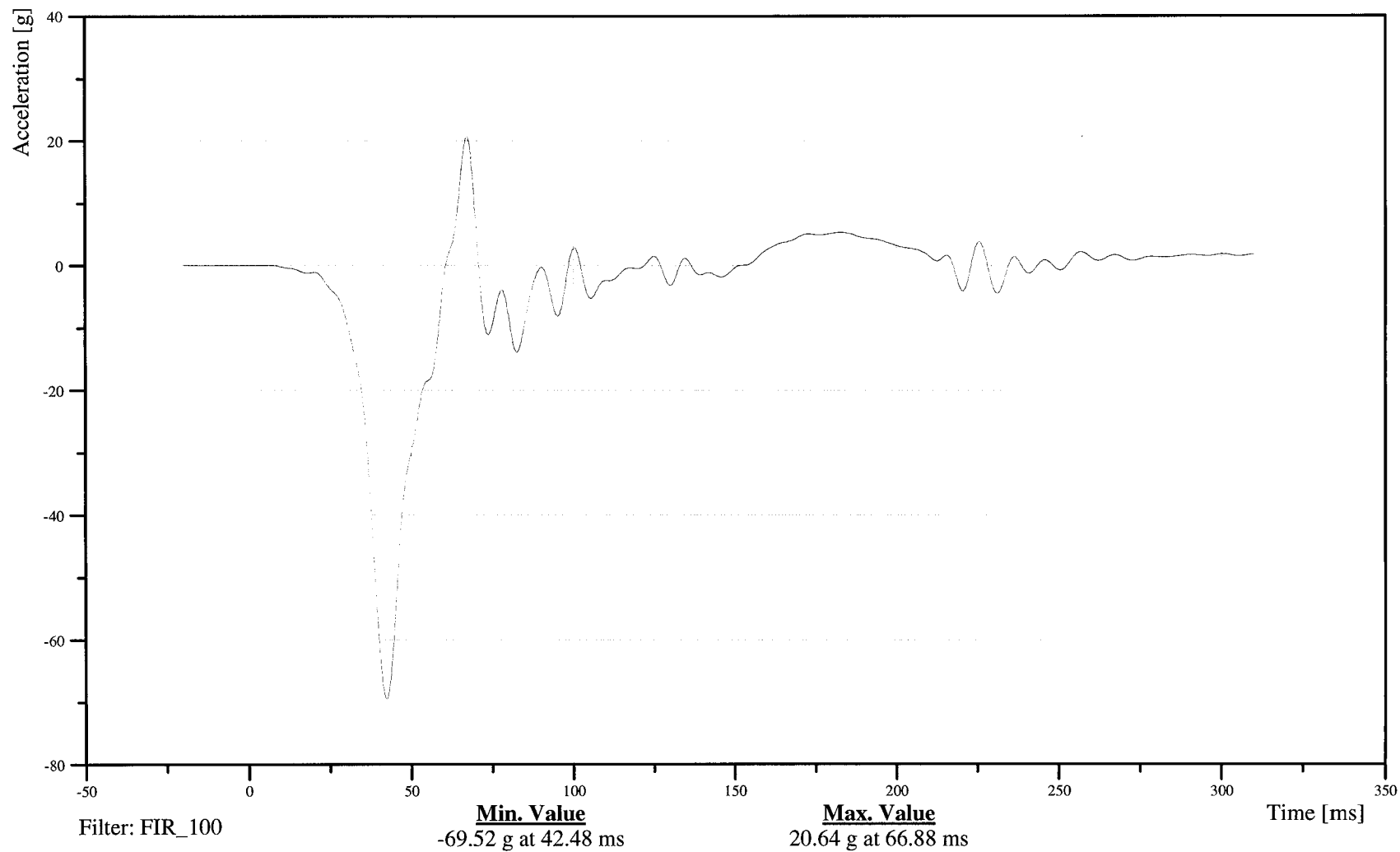
Customer: NHTSA

Test Number: C70509

16RIBSRL00SIACY1

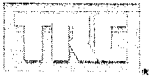
TRC Inc. Test Lab: CTF

Test Number: 070323



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070323



48/24 kph 90 Degree Side Impact (MDB) into Right Side of 2007 Kia Rio

Date: 03/23/2007

RIGHT REAR PASSENGER LOWER SPINE Y-AXIS ACCELERATION

Time: 12:32

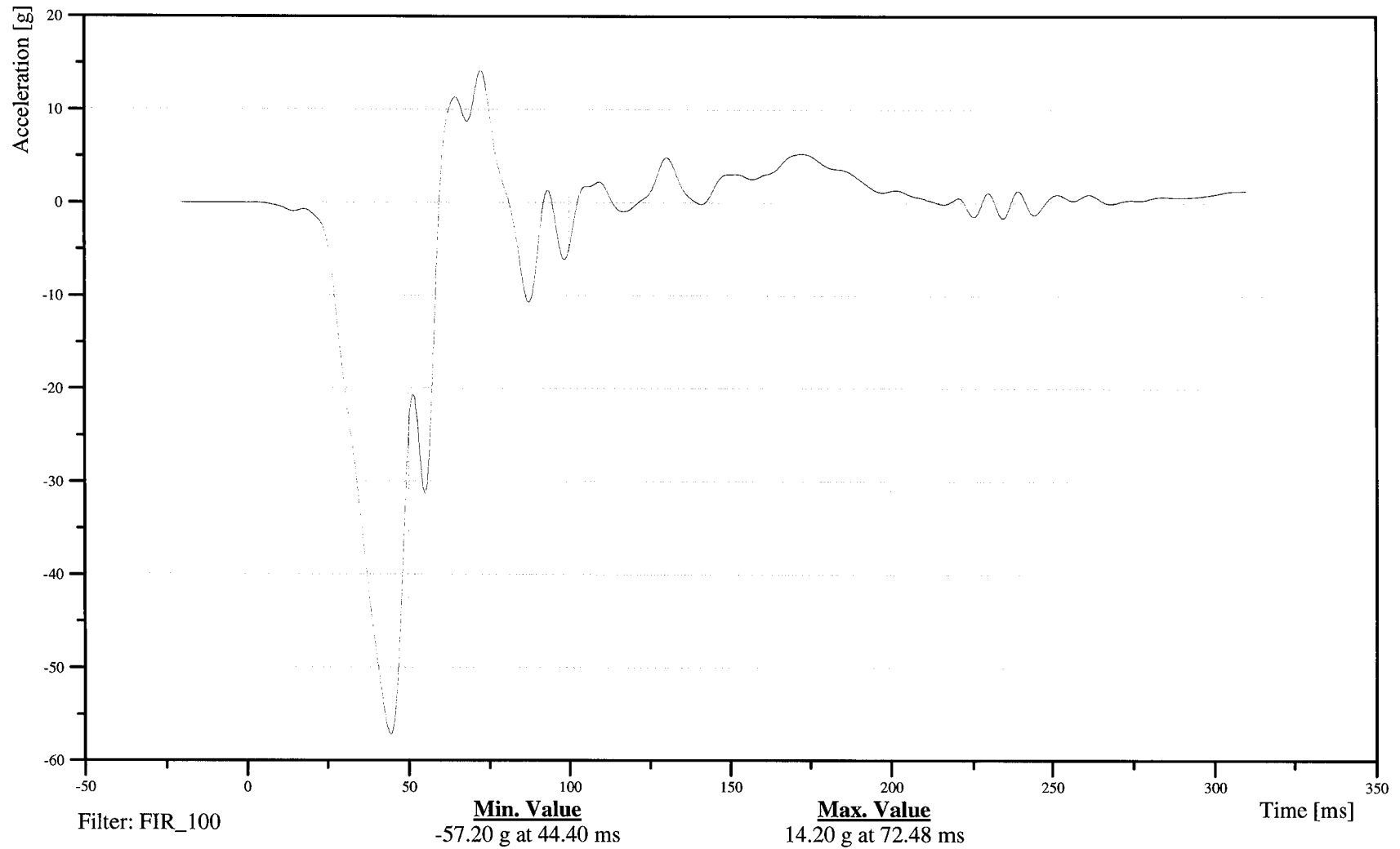
Customer: NHTSA

Test Number: C70509

16SPIN1200SIACY1

TRC Inc. Test Lab: CTF

Test Number: 070323



B-109

070323



48/24 kph 90 Degree Side Impact (MDB) into Right Side of 2007 Kia Rio

Date: 03/23/2007

RIGHT REAR PASSENGER PELVIS Y-AXIS ACCELERATION

Time: 12:32

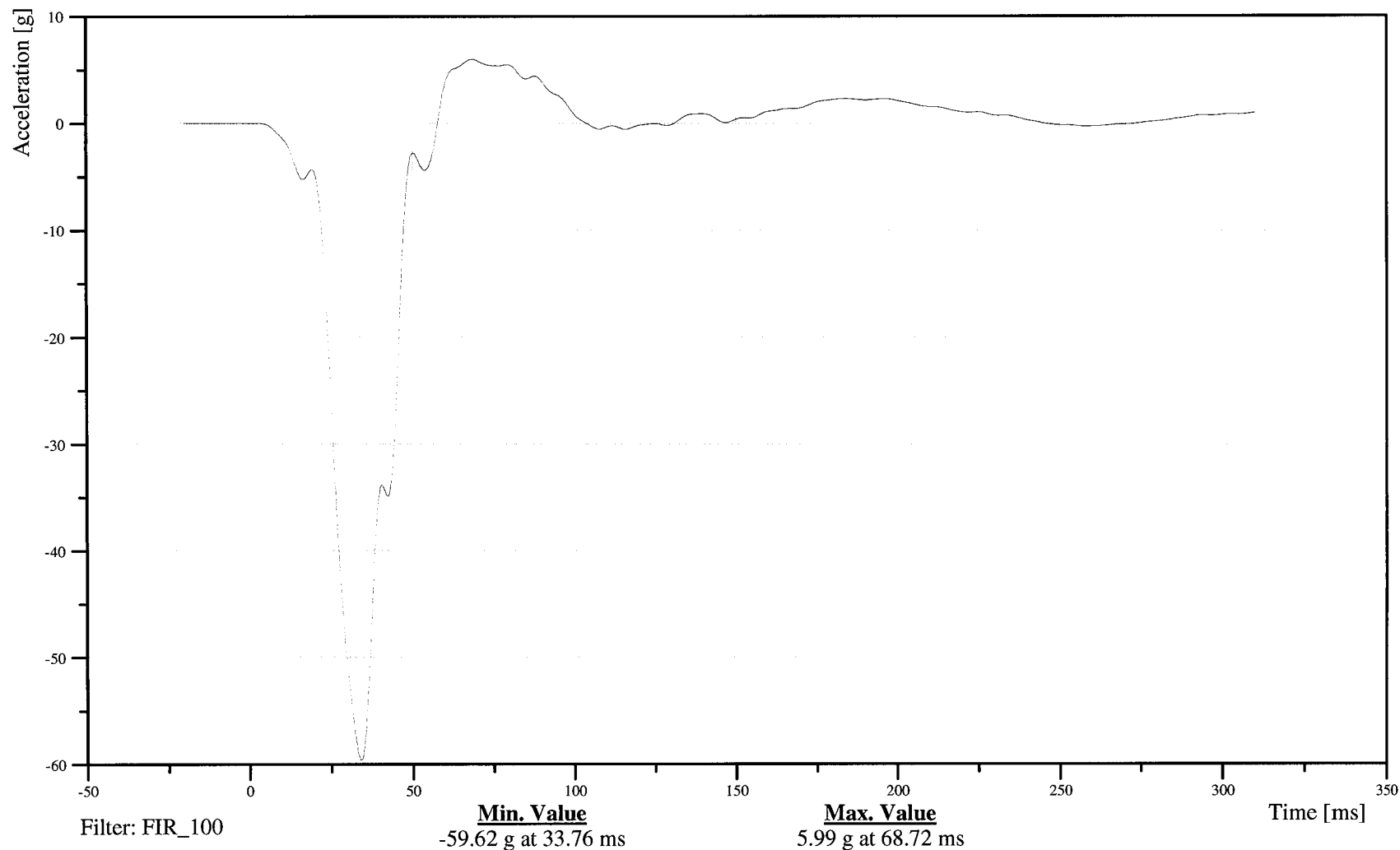
Customer: NHTSA

Test Number: C70509

16PELVCG00SIACY1

TRC Inc. Test Lab: CTF

Test Number: 070323



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070323



48/24 kph 90 Degree Side Impact (MDB) into Right Side of 2007 Kia Rio

Date: 03/23/2007

RIGHT FRONT PASSENGER UPPER RIB Y-AXIS REDUNDANT ACCELERATION

Time: 12:32

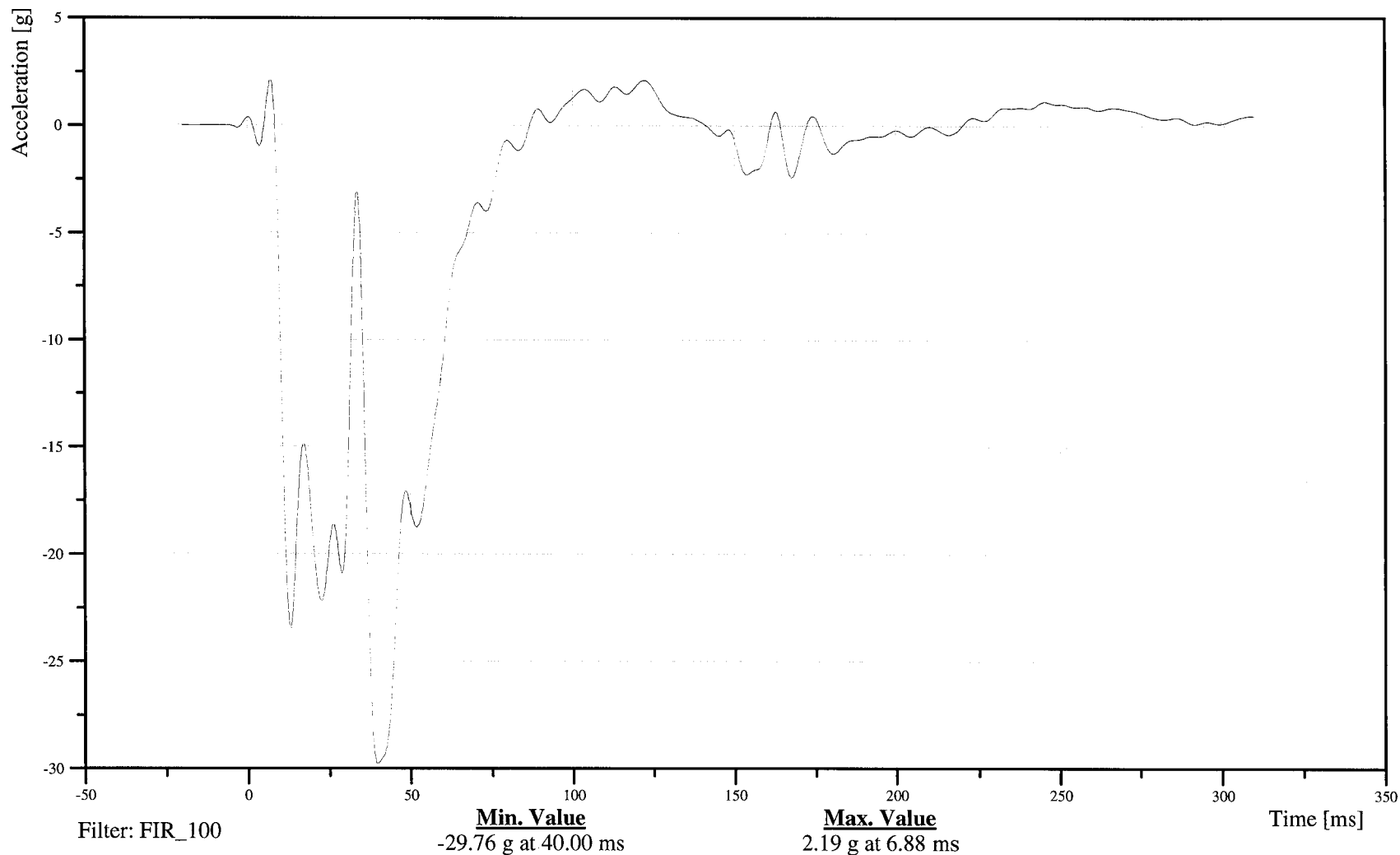
Customer: NHTSA

Test Number: C70509

13RIBSRURDSIACY1

TRC Inc. Test Lab: CTF

Test Number: 070323



B-111

070323



48/24 kph 90 Degree Side Impact (MDB) into Right Side of 2007 Kia Rio

Date: 03/23/2007

RIGHT FRONT PASSENGER LOWER RIB Y-AXIS REDUNDANT ACCELERATION

Time: 12:32

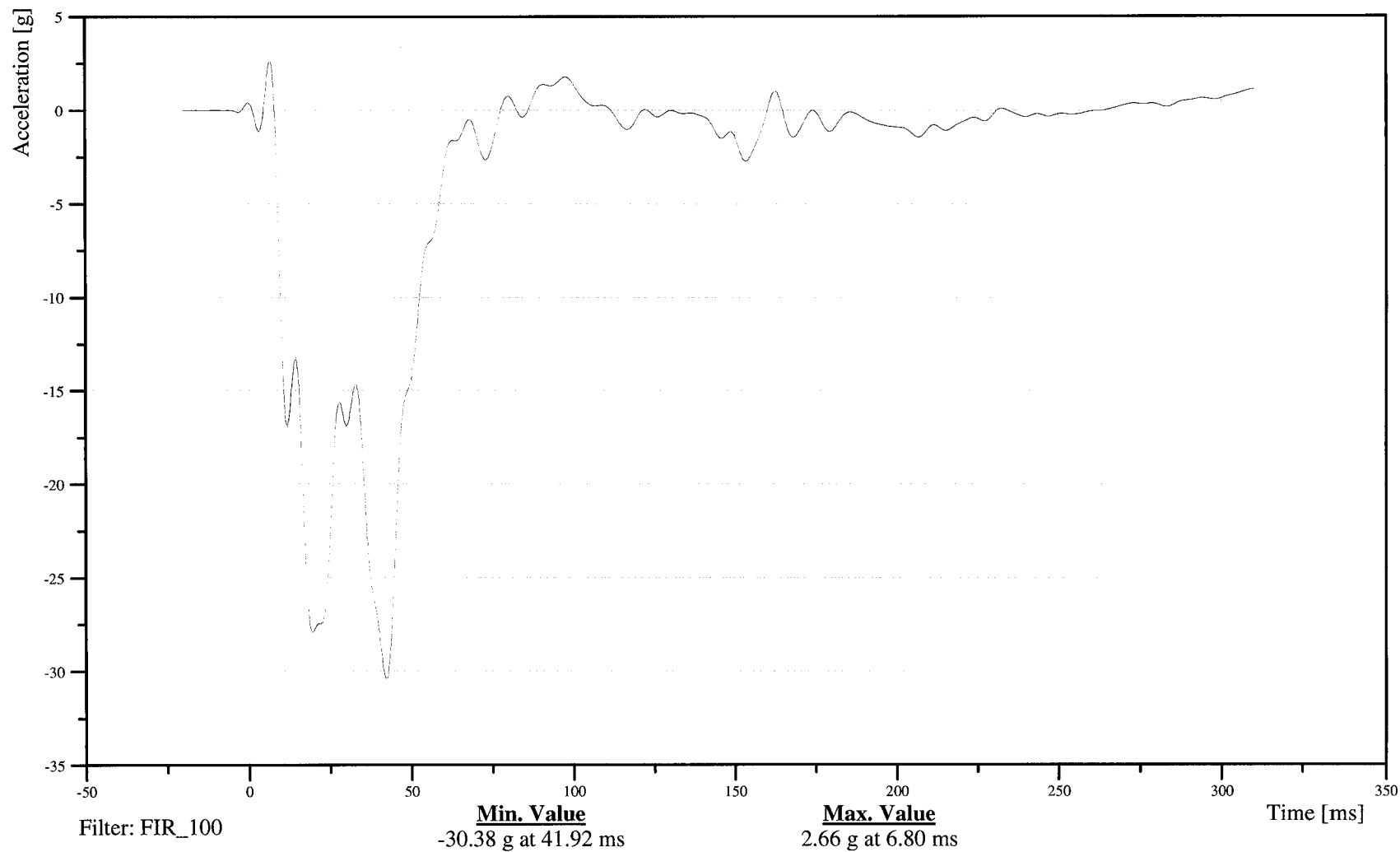
Customer: NHTSA

Test Number: C70509

13RIBSRLRDSIACY1

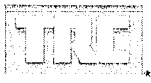
TRC Inc. Test Lab: CTF

Test Number: 070323



B-112

070323



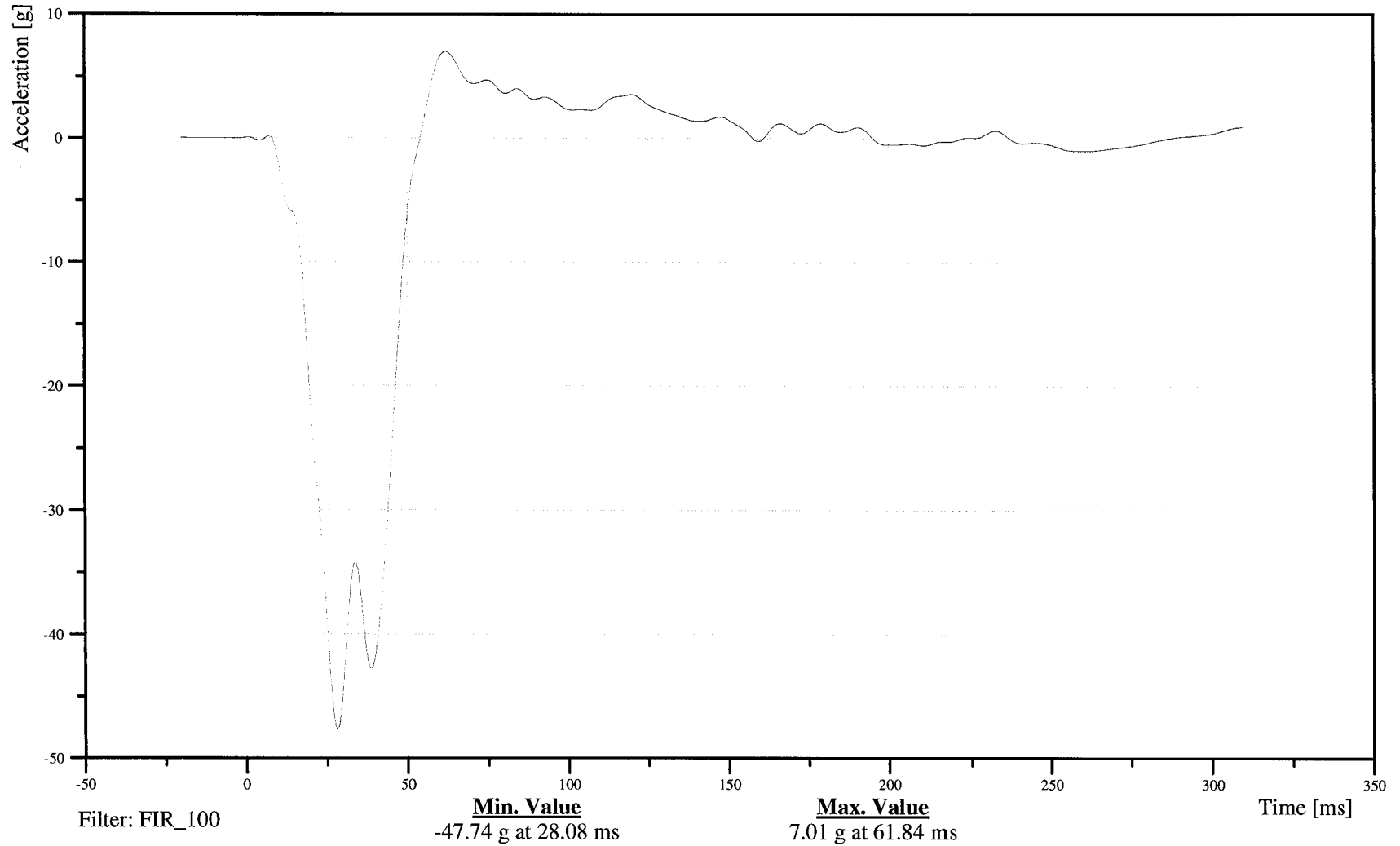
48/24 kph 90 Degree Side Impact (MDB) into Right Side of 2007 Kia Rio
RIGHT FRONT PASSENGER LOWER SPINE Y-AXIS REDUNDANT ACCELERATION

Date: 03/23/2007
Time: 12:32

Customer: NHTSA
Test Number: C70509

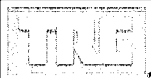
13SPIN12RDSIACY1

TRC Inc. Test Lab: CTF
Test Number: 070323



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070323



48/24 kph 90 Degree Side Impact (MDB) into Right Side of 2007 Kia Rio

Date: 03/23/2007

RIGHT REAR PASSENGER UPPER RIB Y-AXIS REDUNDANT ACCELERATION

Time: 12:32

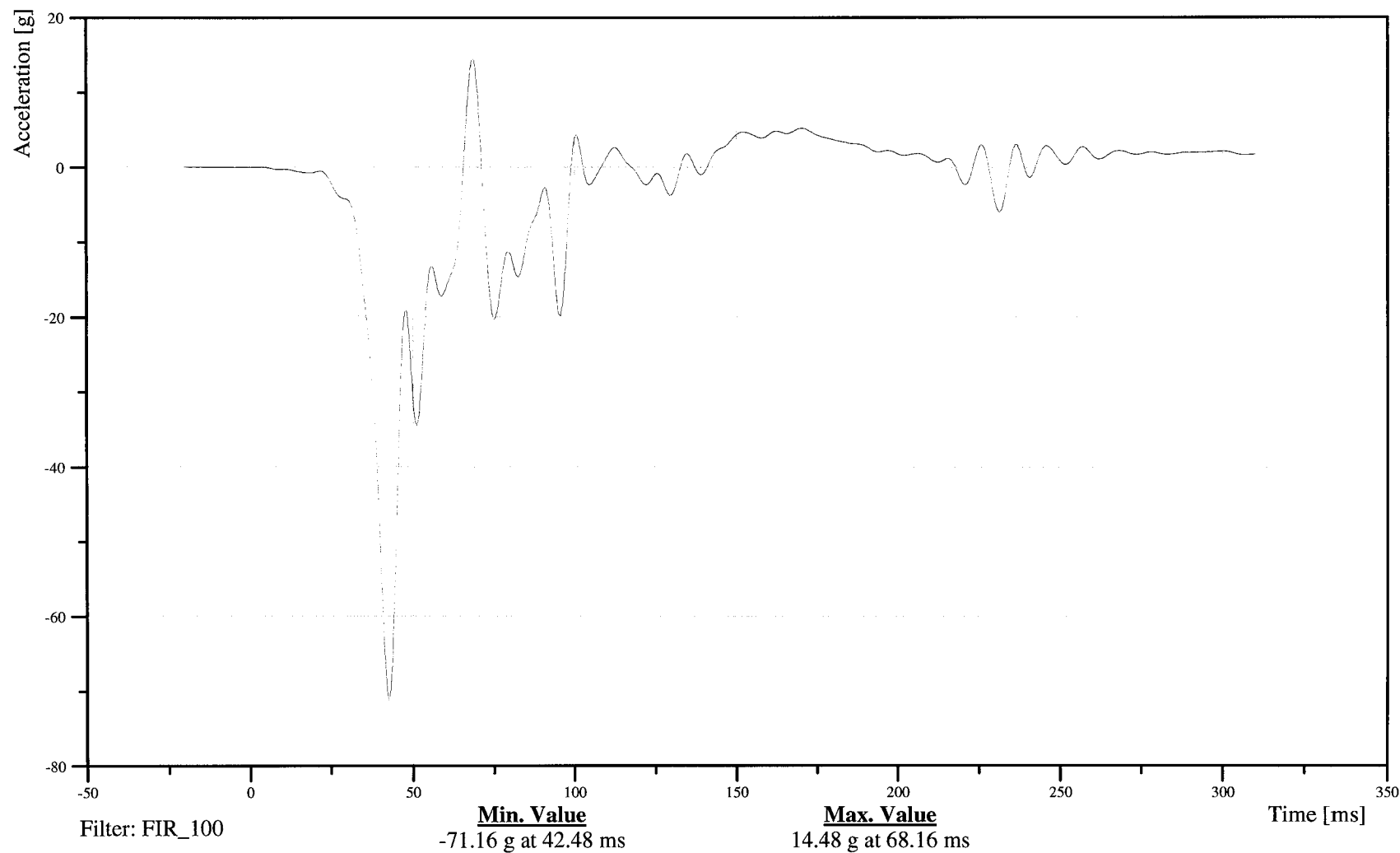
Customer: NHTSA

Test Number: C70509

16RIBSRURDSIACY1

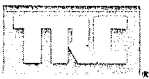
TRC Inc. Test Lab: CTF

Test Number: 070323



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070323



48/24 kph 90 Degree Side Impact (MDB) into Right Side of 2007 Kia Rio

Date: 03/23/2007

Time: 12:32

RIGHT REAR PASSENGER LOWER RIB Y-AXIS REDUNDANT ACCELERATION

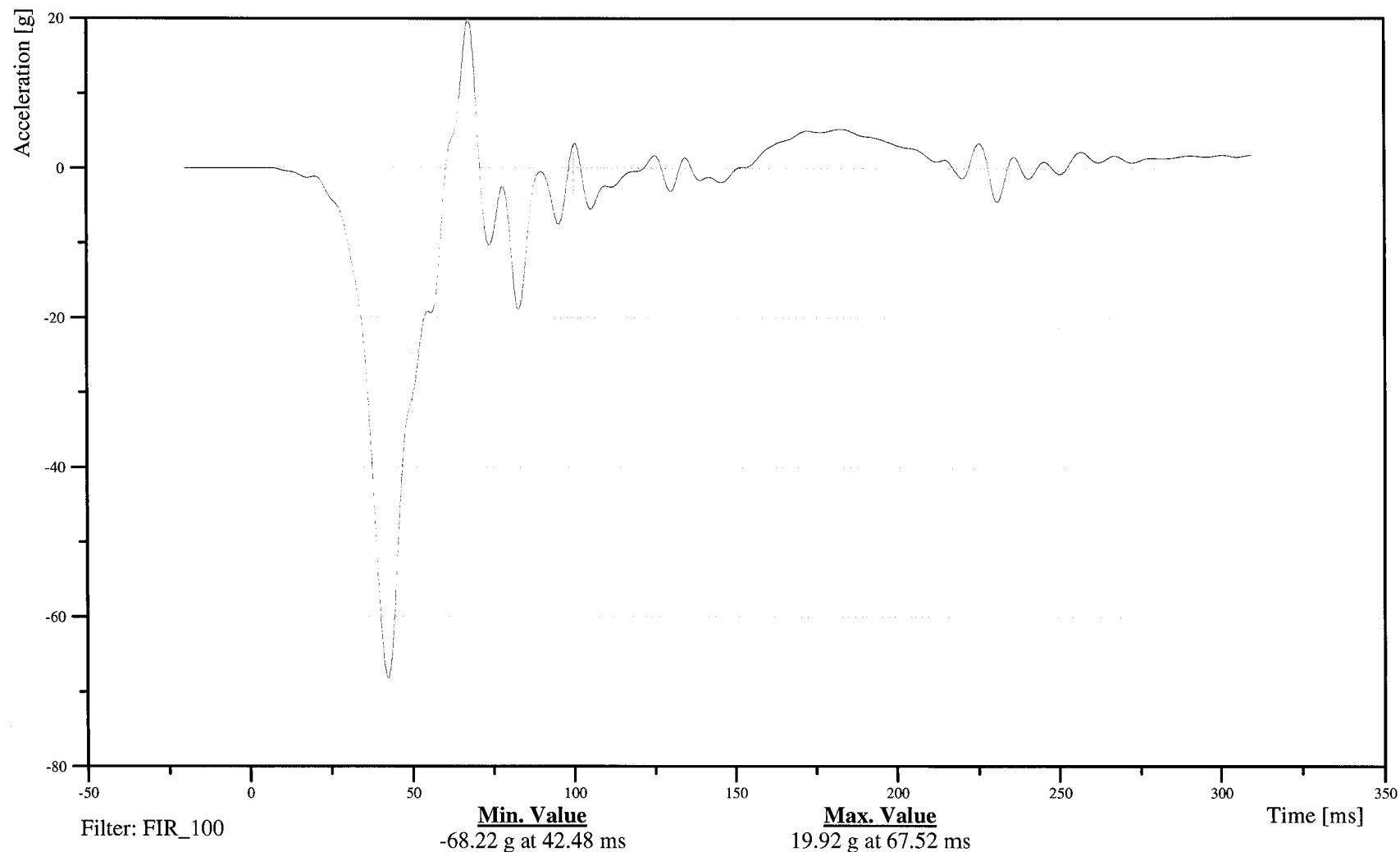
Customer: NHTSA

Test Number: C70509

16RIBSRLRDSIACY1

TRC Inc. Test Lab: CTF

Test Number: 070323



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070323



48/24 kph 90 Degree Side Impact (MDB) into Right Side of 2007 Kia Rio

Date: 03/23/2007

RIGHT REAR PASSENGER LOWER SPINE Y-AXIS REDUNDANT ACCELERATION

Time: 12:32

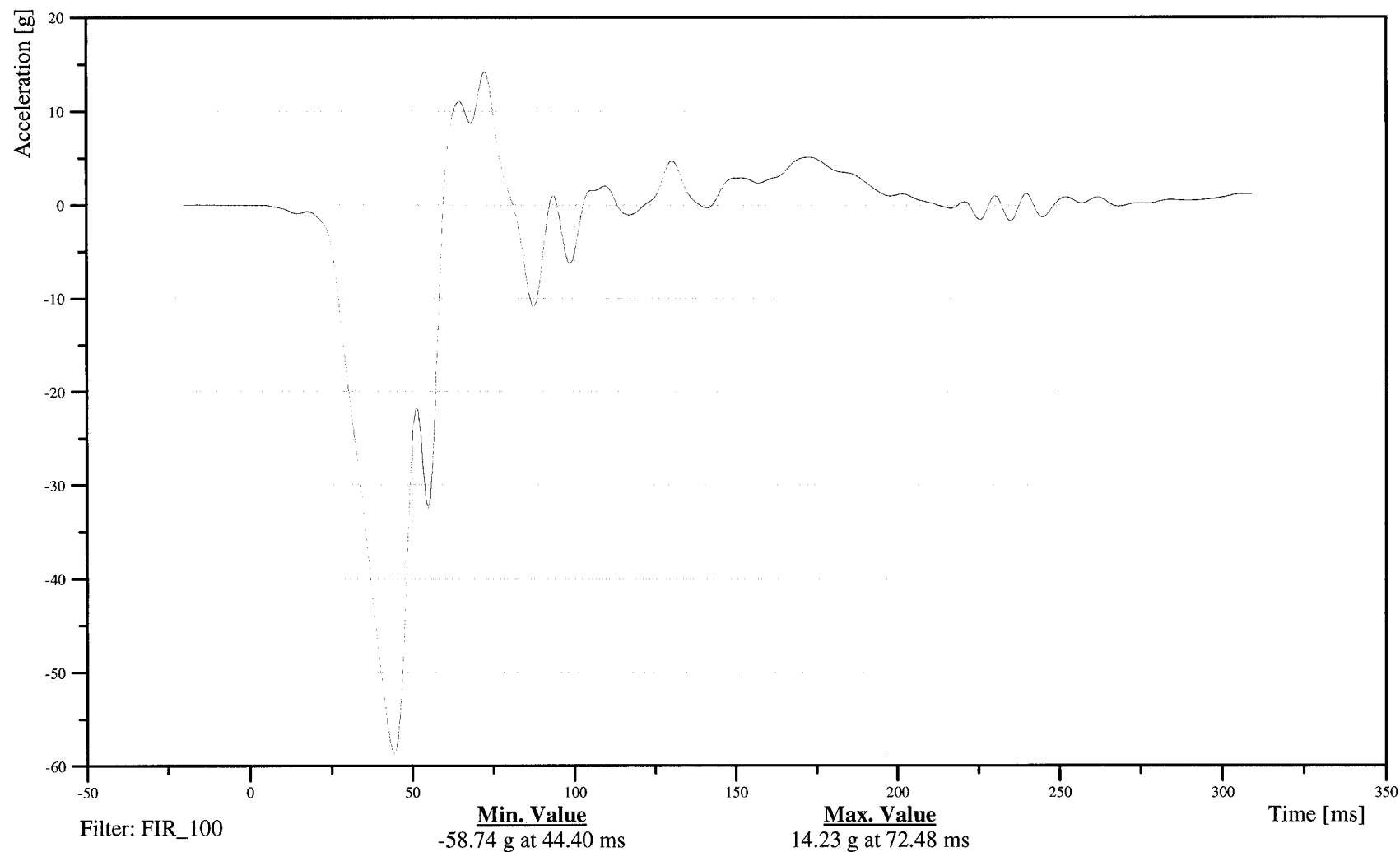
Customer: NHTSA

Test Number: C70509

16SPIN12RDSIACY1

TRC Inc. Test Lab: CTF

Test Number: 070323



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070323

Appendix C

SID Configuration and Performance Verification Data

Summary
SID Pre-Test and Post-Test Calibration
Configured For Right Side Impact

Date: 03/12/07 TRC Inc. Test Number: S/N065 & S/N028
Laboratory Technician: C. Hall, R. Benavides, R. Stoner

Test Parameter	Specification	SID 065		SID 028	
		Pre-Test	Post-Test	Pre-Test	Post-Test
SH - Seated Height (mm)	889-909	905	900	901	898
RH - Rib Height (mm)	502-520	515	515	513	516
HP - Hip Pivot Height (mm)	99 ref	99.1	99.1	99.1	99.1
KH - Knee Pivot from Back Line (mm)	511-526	523	520	522	520
KV - Knee Pivot to Floor (mm)	490-505	497	498	495	495
HW - Hip Width (mm)	356-391	371	369	364	370
Thorax Impacts					
Temperature (°C)	18.9-25.5	21.2	21.0	21.1	20.9
Relative Humidity (%)	10-70	54	55	23	54
Probe Speed (m/s)	4.27-4.33	4.310	4.318	4.284	4.282
Upper Rib (g's)	(-37)-(-46)	-40.0	-44.1	-40.9	-40.8
Lower Rib (g's)	(-37)-(-46)	-38.2	-43.7	-40.2	-39.3
Lower Spine (g's)	(-15)-(-22)	-19.0	-20.1	-17.4	-17.4
Pelvis Impacts					
Temperature (°C)	18.9-25.5	21.2	21.1	21.3	20.8
Relative Humidity (%)	10-70	31	52	26	54
Probe Speed (m/s)	4.27-4.33	4.327	4.326	4.295	4.284
Pelvis (g's)	(-40)-(-60)	-40.9	-44.2	-47.8	-47.7

Transportation Research Center Inc.
572F SID Dummy
External Dimensions
Serial No. 065 Calibration No. 22

Test Parameter	Dimension	Specification	Results	Pass
Seated Height	SH	889.0 - 909.3 mm	905 mm	Yes
Rib Height	RH	501.7 - 520.7 mm	515 mm	Yes
Hip Pivot Height	HP	99.1 REF mm	99.1 mm	
Knee Pivot From Backline	KH	510.5 - 525.8 mm	523 mm	Yes
Knee Pivot From Floor	KV	490.2 - 505.5 mm	497 mm	Yes
Hip Width	HW	355.6 - 391.2 mm	371 mm	Yes
Top Rib Width From C/L	RW-1	165.1 - 180.3 mm	179 mm	Yes
Bottom Rib Width From C/L	RW-2	165.1 - 180.3 mm	179 mm	Yes
Difference Between Top & Bottom Rib Width from C/L		<= 2.5 mm	2.0 mm	Yes

Technician

Ron Beards

Approved

Ron Stoner



Transportation Research Center Inc.

Right Lateral Thorax

SID Serial No. 065 Certification No. 22-1

Test Date: 3/14/2007

Test Parameter	Specification	Test Results	Pass
Temperature	18.9 - 25.5 °C	21.2 °C	Yes
Relative Humidity	10 - 70 %	54 %	Yes
Impactor Velocity	4.27 - 4.33 m/s	4.310 m/s	Yes
Upper Rib Lateral Acceleration	(-37) - (-46) g	-40.0 g	Yes
Lower Rib Lateral Acceleration	(-37) - (-46) g	-38.2 g	Yes
Lower Spine Lateral Acceleration	(-15) - (-22) g	-19.0 g	Yes

Test meets specifications.

Comments:

Technician

Robert Beraud

Approved

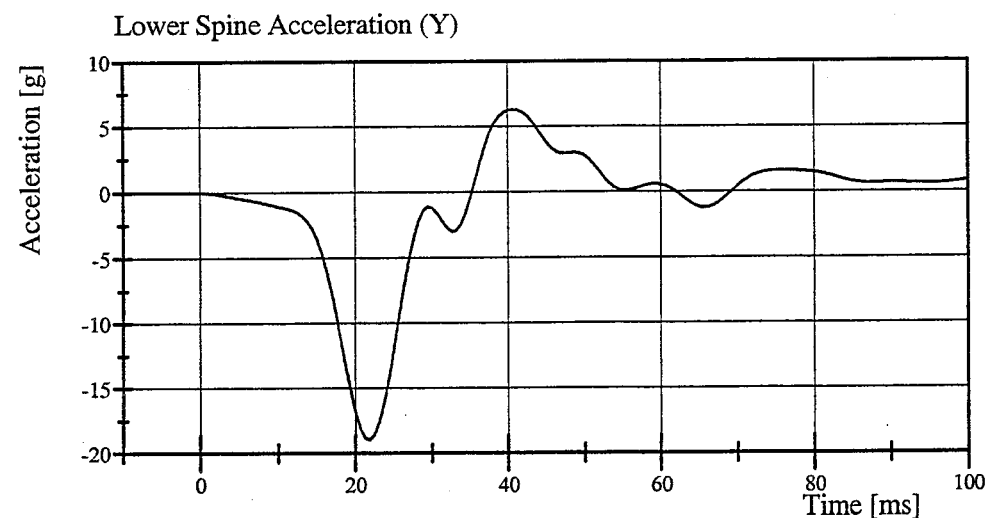
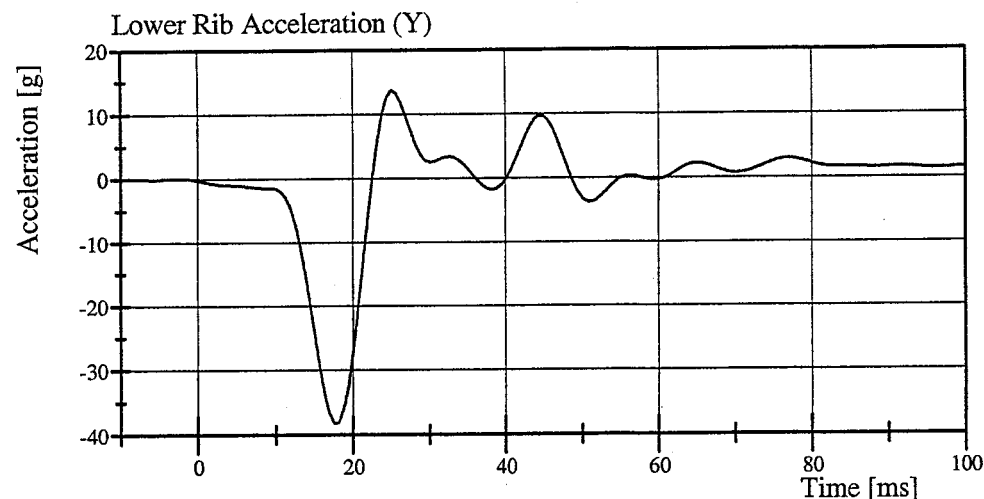
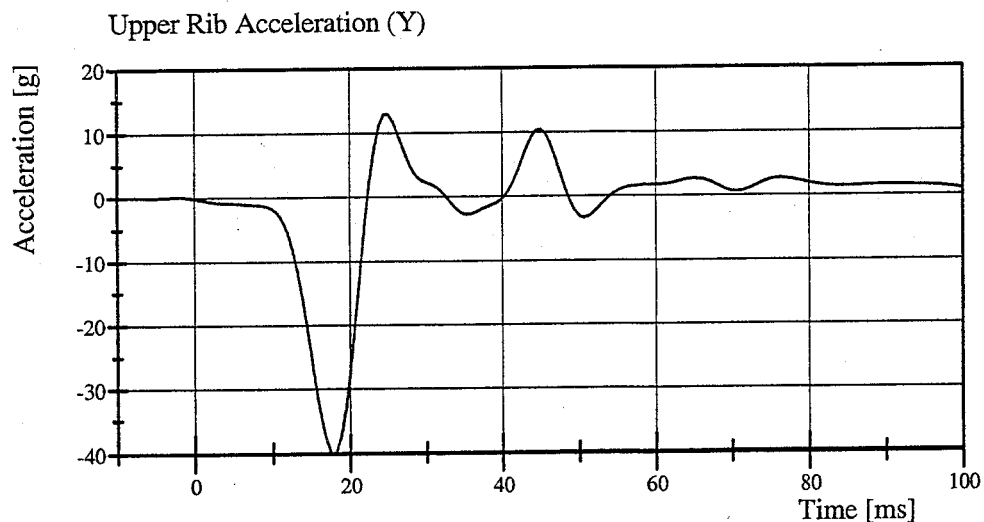
Ken Stoner

Transportation Research Center Inc.

Right Lateral Thorax

SID Serial No. 065 Certification No. 22-1

Test Date: 3/14/2007



Transportation Research Center Inc.

3.05 m/s Thoracic Shock Absorber Compression

SID Serial No. 065 Certification No. 20-1

Test Date: 06/14/2006

Test Parameter	Specification	Test Results	Pass
Temperature	18.9 - 25.5 °C	21.1 °C	Yes
Relative Humidity	10 - 70 %	51 %	Yes
Maximum Force at Test Velocity	855 - 1,144 N	977.1 N	Yes
Maximum Displacement at Test Velocity	30.2 - 35.19 mm	32.780 mm	Yes

Test meets specifications.

Comments:

Actual Impactor Velocity (m/s): 3.074

Damper Setting: 6.0

Technician



Approved



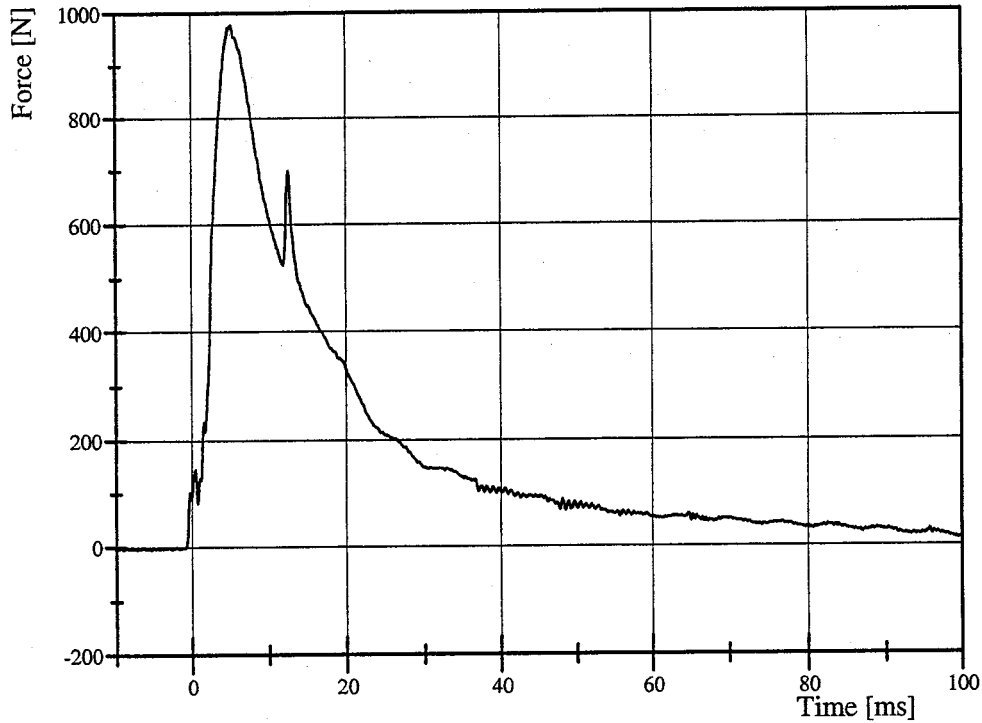
Transportation Research Center Inc.

3.05 m/s Thoracic Shock Absorber Compression

SID Serial No. 065 Certification No. 20-1

Test Date: 06/14/2006

Shock Absorber Resistive Force

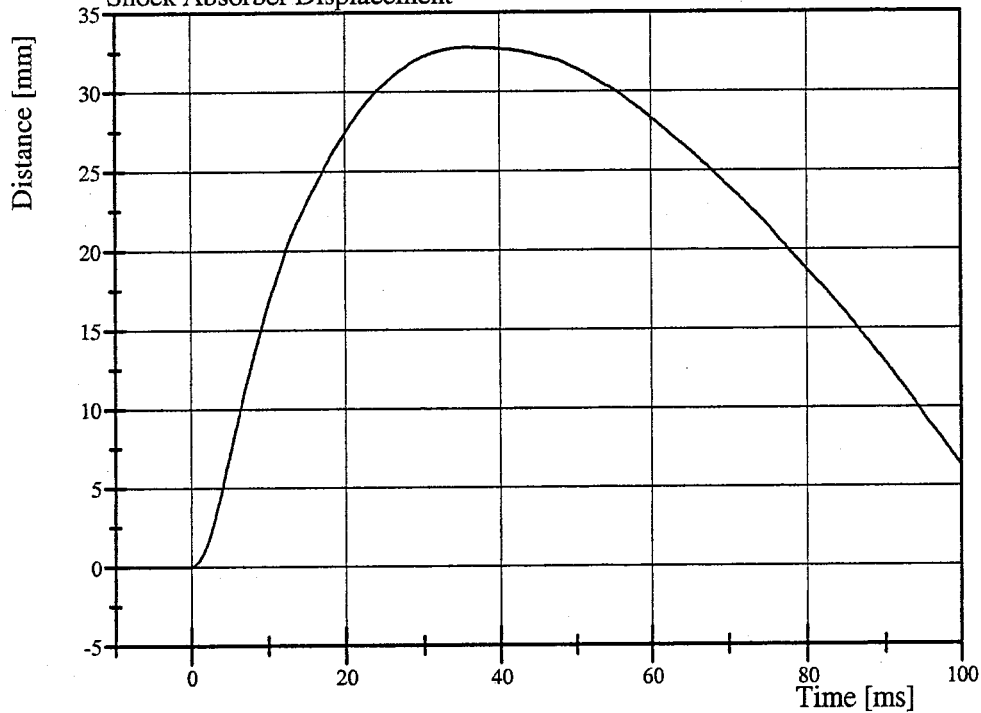


Filter Class: CFC_1000

Max: 977.1 N at 5.3 ms

Min: -4.9 N at -9.0 ms

Shock Absorber Displacement



Filter Class: CFC_1000

Max: 32.8 mm at 35.6 ms

Min: -0.0 mm at -9.5 ms

Transportation Research Center Inc.

4.27 m/s Thoracic Shock Absorber Compression

SID Serial No. 065 Certification No. 20-1

Test Date: 06/14/2006

Test Parameter	Specification	Test Results	Pass
Temperature	18.9 - 25.5 °C	21.5 °C	Yes
Relative Humidity	10 - 70 %	53 %	Yes
Maximum Force at Test Velocity	1,749 - 2,114 N	1,978.0 N	Yes
Maximum Displacement at Test Velocity	31.69 - 37.25 mm	35.850 mm	Yes

Test meets specifications.

Comments:

Actual Impactor Velocity (m/s): 4.283

Damper Setting: 6.0

Technician



Approved



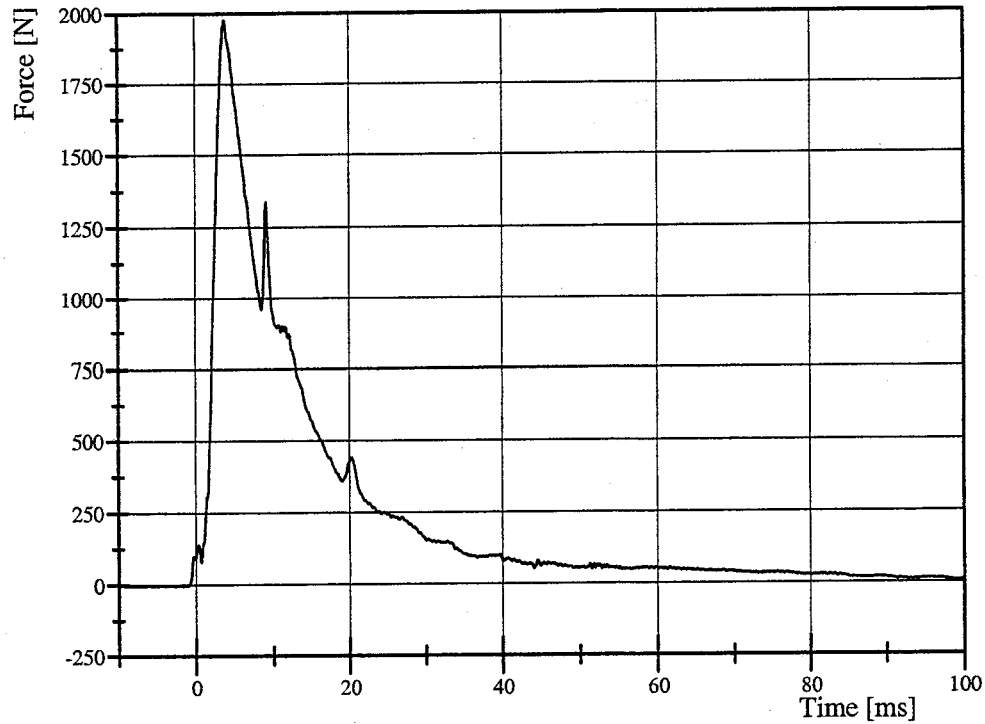
Transportation Research Center Inc.

4.27 m/s Thoracic Shock Absorber Compression

SID Serial No. 065 Certification No. 20-1

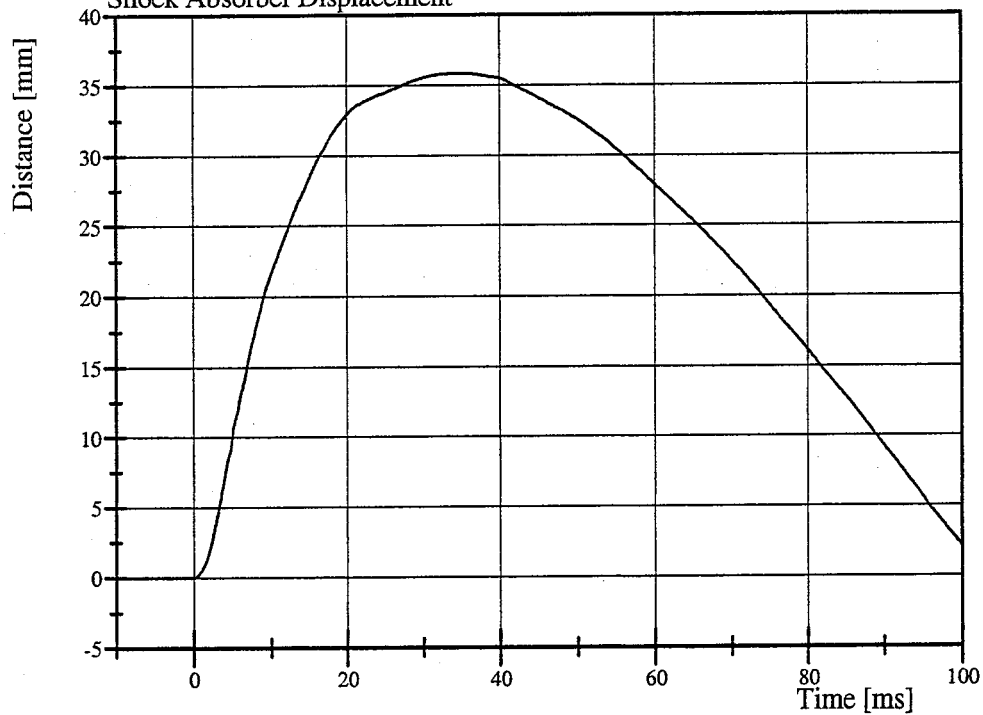
Test Date: 06/14/2006

Shock Absorber Resistive Force



Filter Class: CFC_1000
Max: 1,978.0 N at 3.8 ms
Min: -4.8 N at -1.6 ms

Shock Absorber Displacement



Filter Class: CFC_1000
Max: 35.9 mm at 34.4 ms
Min: -0.0 mm at -9.8 ms

Transportation Research Center Inc.

6.10 m/s Thoracic Shock Absorber Compression

SID Serial No. 065 Certification No. 20-1

Test Date: 06/14/2006

Test Parameter	Specification	Test Results	Pass
Temperature	18.9 - 25.5 °C	21.5 °C	Yes
Relative Humidity	10 - 70 %	52 %	Yes
Maximum Force at Test Velocity	3,745 - 4,440 N	4,291.0 N	Yes
Maximum Displacement at Test Velocity	33.36 - 39.57 mm	37.867 mm	Yes

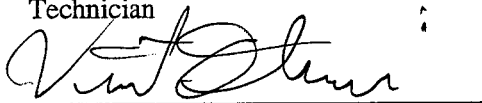
Test meets specifications.

Comments:

Actual Impactor Velocity (m/s): 6.096

Damper Setting: 6.0

Technician



Approved



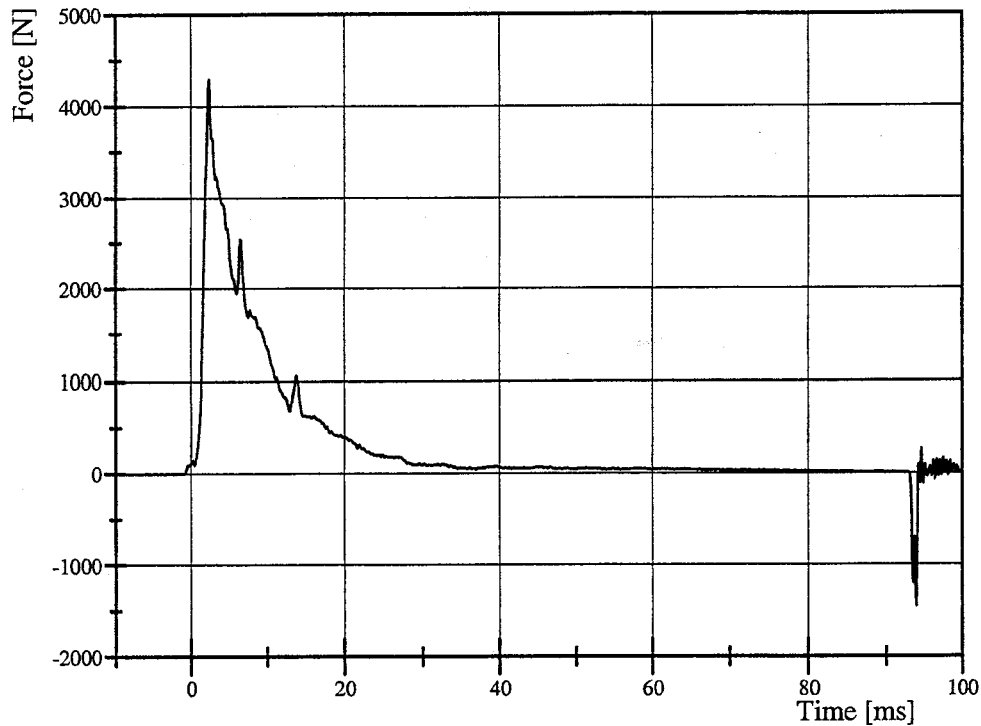
Transportation Research Center Inc.

6.10 m/s Thoracic Shock Absorber Compression

SID Serial No. 065 Certification No. 20-1

Test Date: 06/14/2006

Shock Absorber Resistive Force

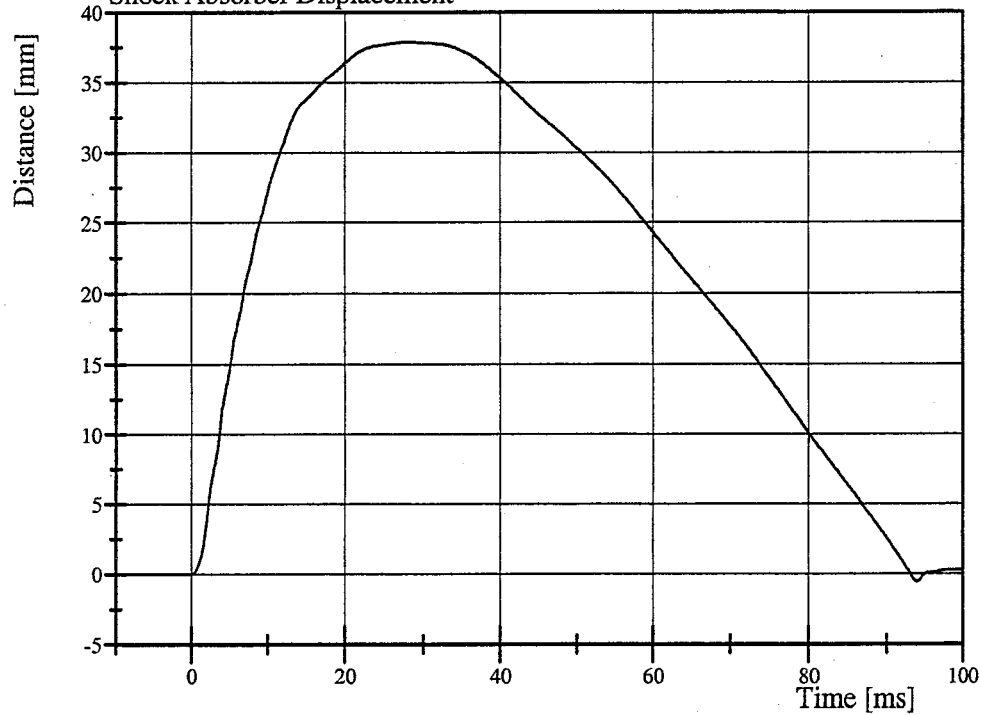


Filter Class: CFC_1000

Max: 4,291.0 N at 2.4 ms

Min: -1,450.4 N at 93.9 ms

Shock Absorber Displacement



Filter Class: CFC_1000

Max: 37.9 mm at 27.8 ms

Min: -0.6 mm at 94.0 ms

Transportation Research Center Inc.

Abdomen Compression

SID Serial No. 065 Certification No. 22-12

Test Date: 3/13/2007

Test Parameter	Specification	Test Results	Pass
Temperature	18.9 - 25.5 °C	21.2 °C	Yes
Relative Humidity	10 - 70 %	31 %	Yes
Probe Force within Corridor	Yes	Yes	Yes
Probe Velocity	6.35 - 8.89 mm/s	8.038 mm/s	Yes

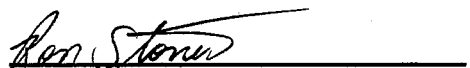
Test meets specifications.

Comments:

Technician



Approved

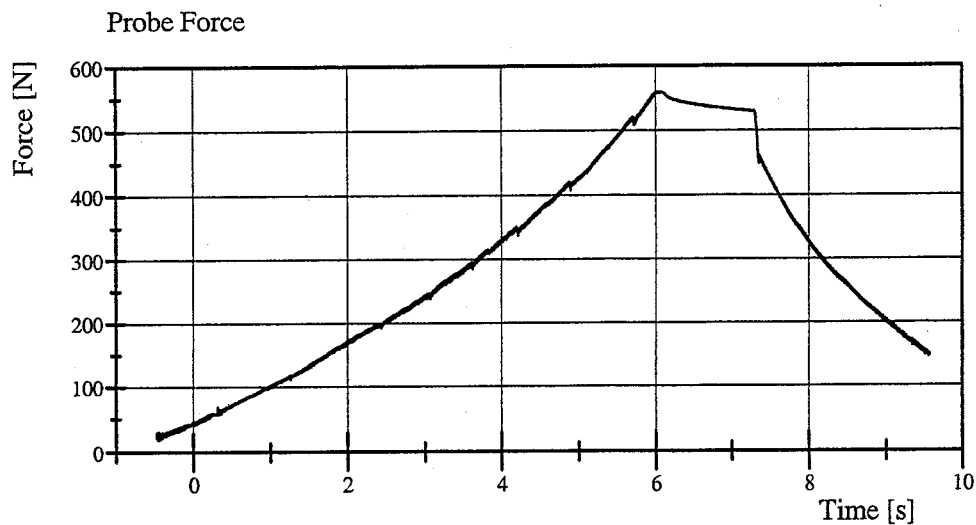


Transportation Research Center Inc.

Abdomen Compression

SID Serial No. 065 Certification No. 22-12

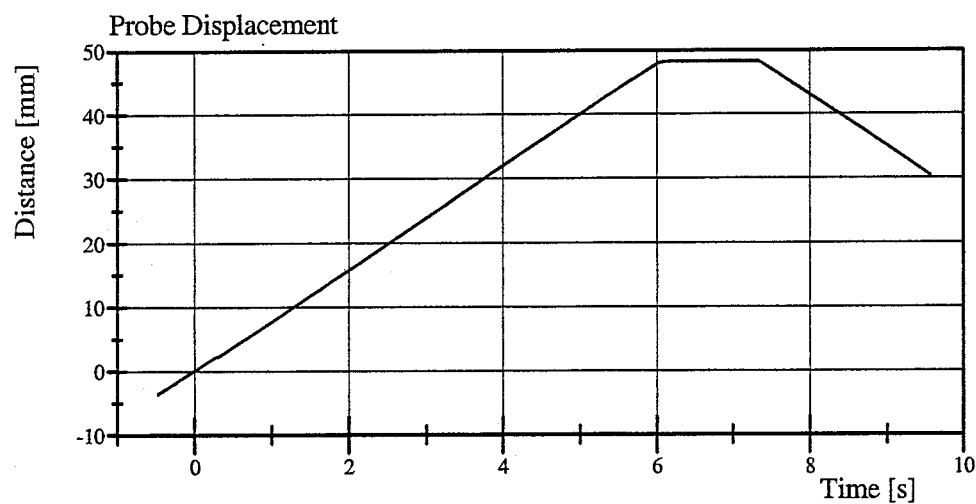
Test Date: 3/13/2007



Filter Class: CFC_600

Max: 559.4 N at 6.1 s

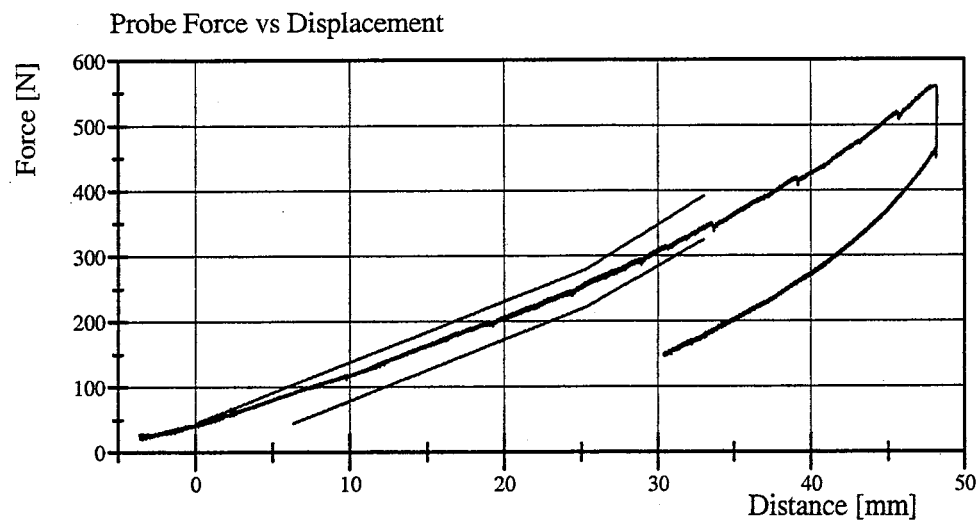
Min: 20.1 N at -0.5 s



Filter Class: CFC_180

Max: 48.2 mm at 7.1 s

Min: -3.6 mm at -0.5 s



Filter Class: CFC_600

Max: 559.4 N at 48.1 mm

Min: 20.1 N at -3.4 mm

TRANSPORTATION RESEARCH CENTER INC.

LUMBAR FLEXION TEST

SID PART 572B

CAL DATE: 15-Mar-07

TRC, INC.

TEST NO: LUFL-01

572B SN 065 TORSO FLEX CAL 01

TEST PARAMETER	SPECIFICATION	TEST RESULTS
TEMPERATURE	18.9 – 25.6° C	21.1 °C
RELATIVE HUMIDITY	10 – 70 %	30 %
FORCE AT 0 DEG. FLEXION	-27 – 27 N	1.0 N
FORCE AT 20 DEG OF FLEXION	98 – 151 N	118.1 N
FORCE AT 30 DEG OF FLEXION	151 – 205 N	157 N
FORCE AT 40 DEG OF FLEXION	205 – 258 N	206.1 N
NET RETURN ANGLE AFTER 3 MINUTES	< 12 °	6.3

TEST MEETS SPECIFICATIONS

TECHNICIAN

Rand Beach

Transportation Research Center Inc.

Right Lateral Pelvis

SID Serial No. 065 Certification No. 22-3

Test Date: 3/15/2007

Test Parameter	Specification	Test Results	Pass
Temperature	18.9 - 25.5 °C	21.2 °C	Yes
Relative Humidity	10 - 70 %	31 %	Yes
Impactor Velocity	4.27 - 4.33 m/s	4.327 m/s	Yes
Pelvis Lateral Acceleration Duration above 20g	3 - 7 ms	6.6 ms	Yes
Pelvis Lateral Acceleration	(-40) - (-60) g	-40.9 g	Yes
Is Acceleration Curve Unimodal Above 20g?	Yes	Yes	Yes

Test meets specifications.

Comments:

Technician

Rand Baur

Approved

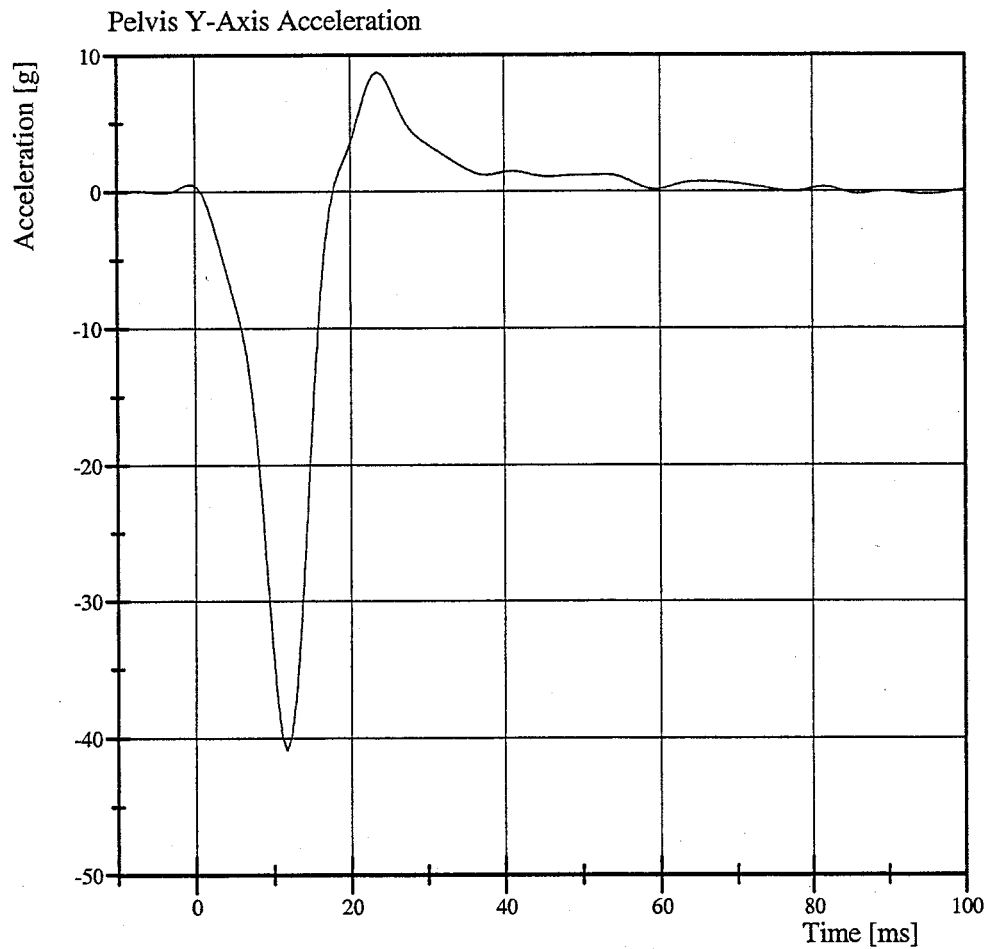
Ken Stoner

Transportation Research Center Inc.

Right Lateral Pelvis

SID Serial No. 065 Certification No. 22-3

Test Date: 3/15/2007



Filter Class: FIR_100
Max: 8.7 g at 23.5 ms
Min: -40.9 g at 11.7 ms

Calibration Test Results

Pre-Test

SID: 028

Configured for Right Side Impact

External Dimensions:	The dummy passed all external dimension requirements.
Lateral Head Drop Test:	The head passed all lateral drop test requirements.
Lateral Neck Test:	The neck passed all impact test requirements.
Lateral Thorax Impact Test:	The thorax passed all impact test requirements.
Lumbar Flexion Test:	The dummy met the lumbar flexion test requirements.
Abdominal Compression Test:	The abdomen met the compression test requirements.
Pelvis Impact Test:	The lateral pelvis passed all impact test requirements.
Thoracic Shock Absorber Test:	The thoracic shock absorber was tested on June 13, 2006 for a previous calibration series.

Transportation Research Center Inc.
572F SID Dummy
External Dimensions
Serial No. 028 Calibration No. 19

Test Parameter	Dimension	Specification	Results	Pass
Seated Height	SH	889.0 - 909.3 mm	901 mm	Yes
Rib Height	RH	501.7 - 520.7 mm	513 mm	Yes
Hip Pivot Height	HP	99.1 REF mm	99.1 mm	
Knee Pivot From Backline	KH	510.5 - 525.8 mm	522 mm	Yes
Knee Pivot From Floor	KV	490.2 - 505.5 mm	495 mm	Yes
Hip Width	HW	355.6 - 391.2 mm	364 mm	Yes
Top Rib Width From CVL	RW-1	165.1 - 180.3 mm	177 mm	Yes
Bottom Rib Width From CVL	RW-2	165.1 - 180.3 mm	177 mm	Yes
Difference Between Top & Bottom Rib Width from CVL		<= 2.5 mm	0.0 mm	Yes

Technician

Charles W. Kelly

Approved

Ron Stoner



Transportation Research Center Inc.

Right Lateral Thorax

SID Serial No. 028 Certification No. 19-1

Test Date: 3/16/2007

Test Parameter	Specification	Test Results	Pass
Temperature	18.9 - 25.5 °C	21.1 °C	Yes
Relative Humidity	10 - 70 %	23 %	Yes
Impactor Velocity	4.27 - 4.33 m/s	4.284 m/s	Yes
Upper Rib Lateral Acceleration	(-37) - (-46) g	-40.9 g	Yes
Lower Rib Lateral Acceleration	(-37) - (-46) g	-40.2 g	Yes
Lower Spine Lateral Acceleration	(-15) - (-22) g	-17.4 g	Yes

Test meets specifications.

Comments:

Technician

Charles W. Bell

Approved

Ron Stone

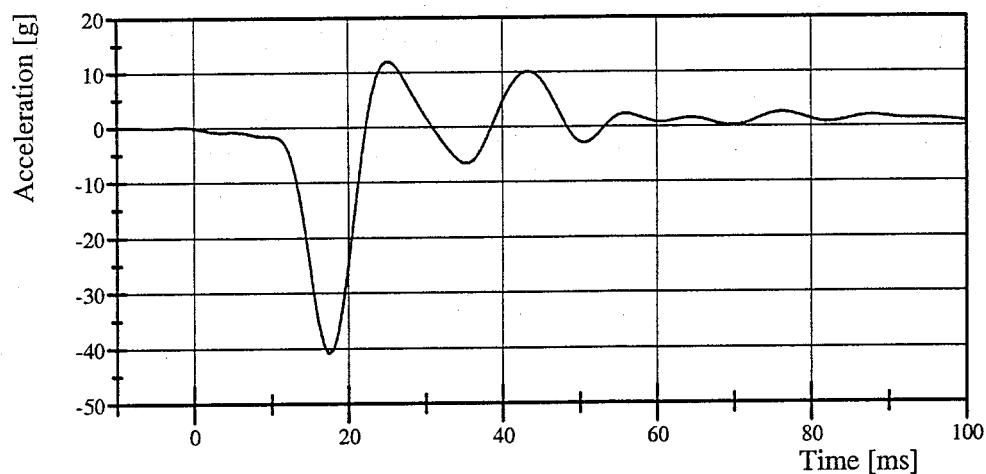
Transportation Research Center Inc.

Right Lateral Thorax

SID Serial No. 028 Certification No. 19-1

Test Date: 3/16/2007

Upper Rib Acceleration (Y)

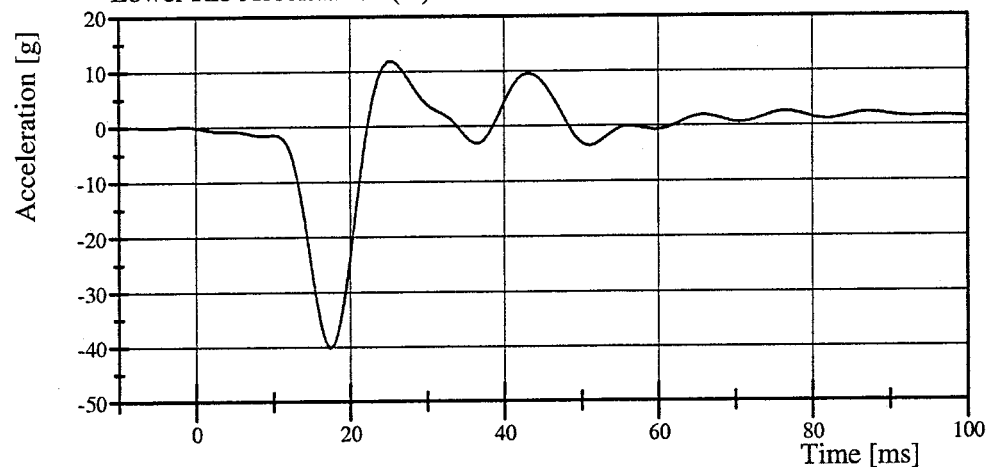


Filter Class: FIR_100

Max: 12.0 g at 25.0 ms

Min: -40.9 g at 17.4 ms

Lower Rib Acceleration (Y)

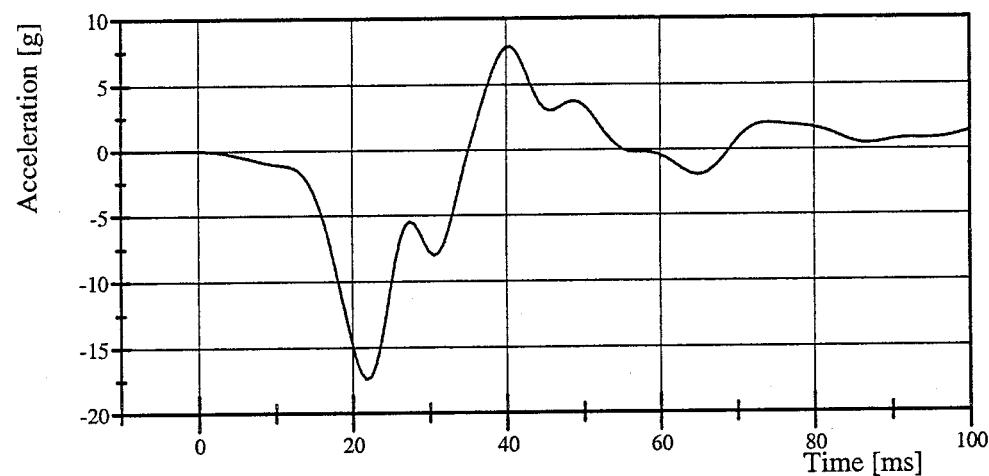


Filter Class: FIR_100

Max: 11.9 g at 25.5 ms

Min: -40.2 g at 17.4 ms

Lower Spine Acceleration (Y)



Filter Class: FIR_100

Max: 7.9 g at 40.5 ms

Min: -17.4 g at 21.8 ms

Transportation Research Center Inc.

3.05 m/s Thoracic Shock Absorber Compression

SID Serial No. 028 Certification No. 17-1

Test Date: 06/13/2006

Test Parameter	Specification	Test Results	Pass
Temperature	18.9 - 25.5 °C	21.6 °C	Yes
Relative Humidity	10 - 70 %	51 %	Yes
Maximum Force at Test Velocity	853 - 1,141 N	922.5 N	Yes
Maximum Displacement at Test Velocity	30.2 - 35.18 mm	31.124 mm	Yes

Test meets specifications.

Comments:

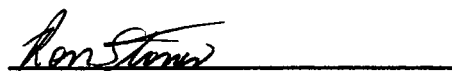
Actual Impactor Velocity (m/s): 3.070

Damper Setting: 5.4

Technician



Approved



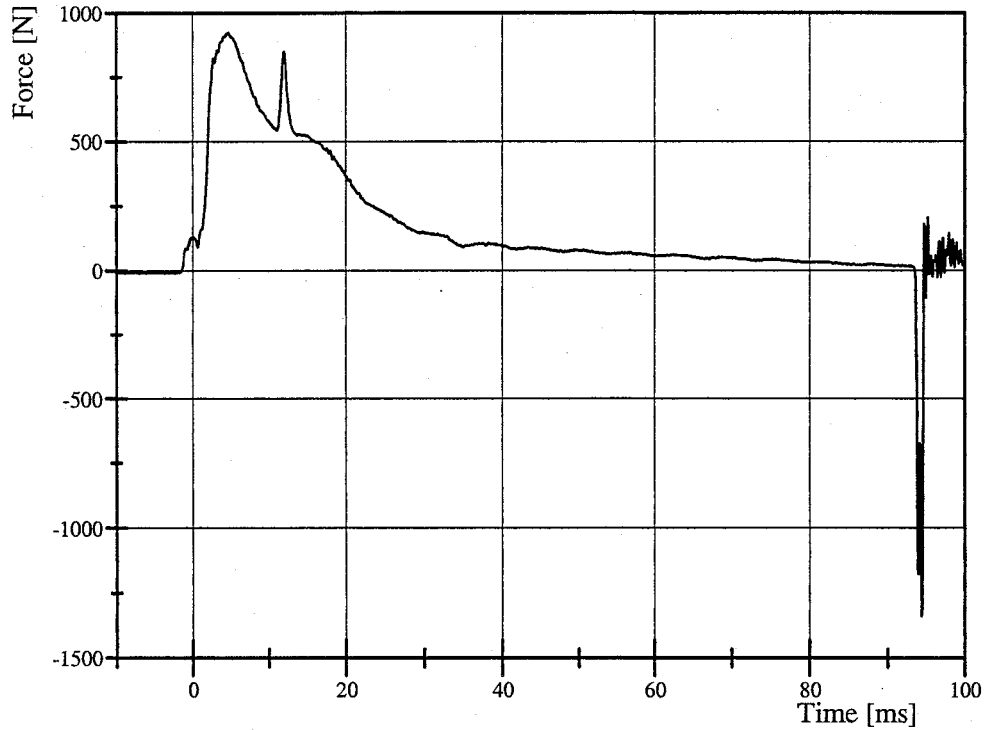
Transportation Research Center Inc.

3.05 m/s Thoracic Shock Absorber Compression

SID Serial No. 028 Certification No. 17-1

Test Date: 06/13/2006

Shock Absorber Resistive Force

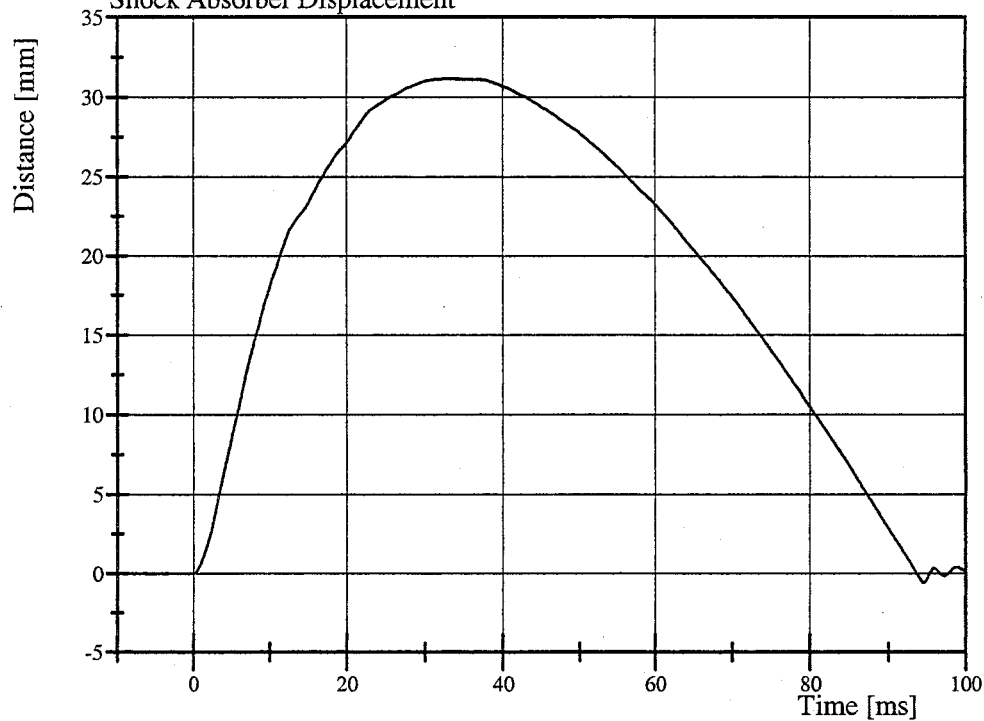


Filter Class: CFC_1000

Max: 922.5 N at 4.7 ms

Min: -1,337.3 N at 94.3 ms

Shock Absorber Displacement



Filter Class: CFC_1000

Max: 31.1 mm at 32.6 ms

Min: -0.6 mm at 94.6 ms

Transportation Research Center Inc.

4.27 m/s Thoracic Shock Absorber Compression

SID Serial No. 028 Certification No. 17-1

Test Date: 06/13/2006

Test Parameter	Specification	Test Results	Pass
Temperature	18.9 - 25.5 °C	21.5 °C	Yes
Relative Humidity	10 - 70 %	48 %	Yes
Maximum Force at Test Velocity	1,753 - 2,119 N	1,768.4 N	Yes
Maximum Displacement at Test Velocity	31.7 - 37.25 mm	34.467 mm	Yes

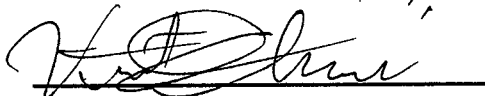
Test meets specifications.

Comments:

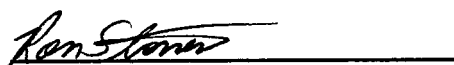
Actual Impactor Velocity (m/s): 4.288

Damper Setting: 5.4

Technician



Approved



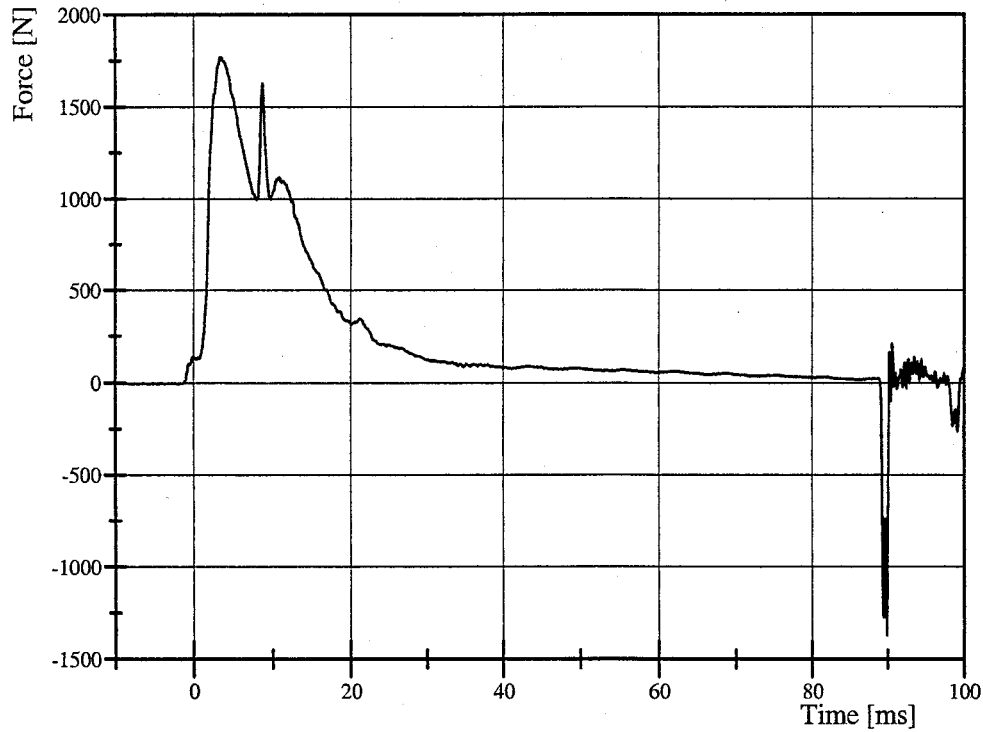
Transportation Research Center Inc.

4.27 m/s Thoracic Shock Absorber Compression

SID Serial No. 028 Certification No. 17-1

Test Date: 06/13/2006

Shock Absorber Resistive Force

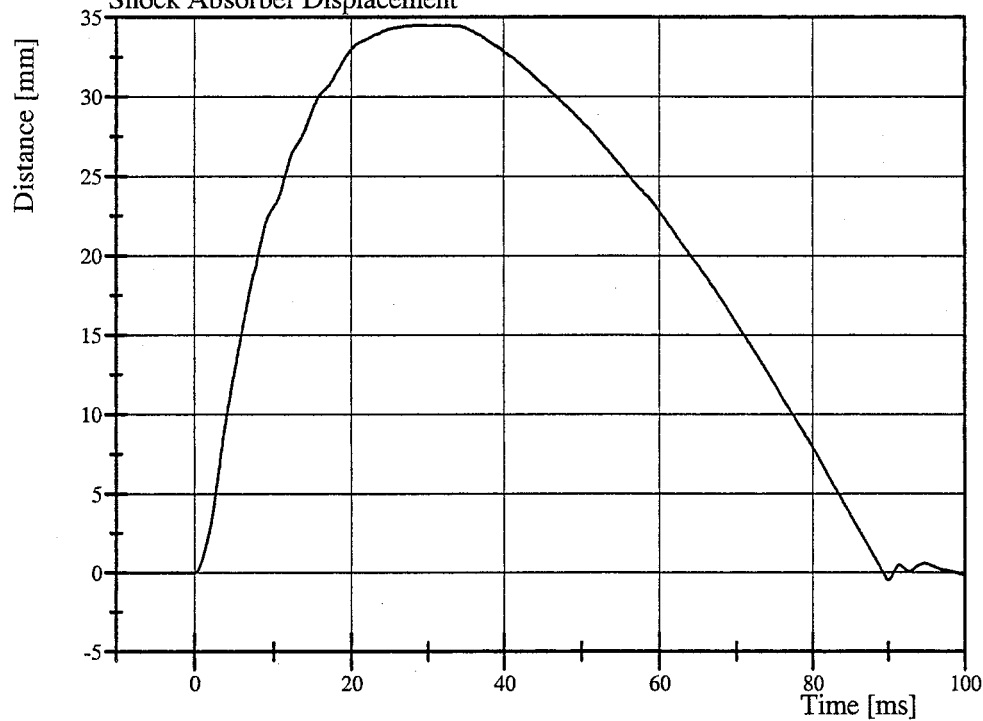


Filter Class: CFC_1000

Max: 1,768.4 N at 3.4 ms

Min: -1,371.1 N at 89.8 ms

Shock Absorber Displacement



Filter Class: CFC_1000

Max: 34.5 mm at 29.4 ms

Min: -0.5 mm at 90.0 ms

Transportation Research Center Inc.

6.10 m/s Thoracic Shock Absorber Compression

SID Serial No. 028 Certification No. 17-1

Test Date: 06/13/2006

Test Parameter	Specification	Test Results	Pass
Temperature	18.9 - 25.5 °C	21.6 °C	Yes
Relative Humidity	10 - 70 %	51 %	Yes
Maximum Force at Test Velocity	3,745 - 4,439 N	4,424.0 N	Yes
Maximum Displacement at Test Velocity	33.36 - 39.57 mm	37.147 mm	Yes

Test meets specifications.

Comments:

Actual Impactor Velocity (m/s): 6.096

Damper Setting: 5.4

Technician



Approved

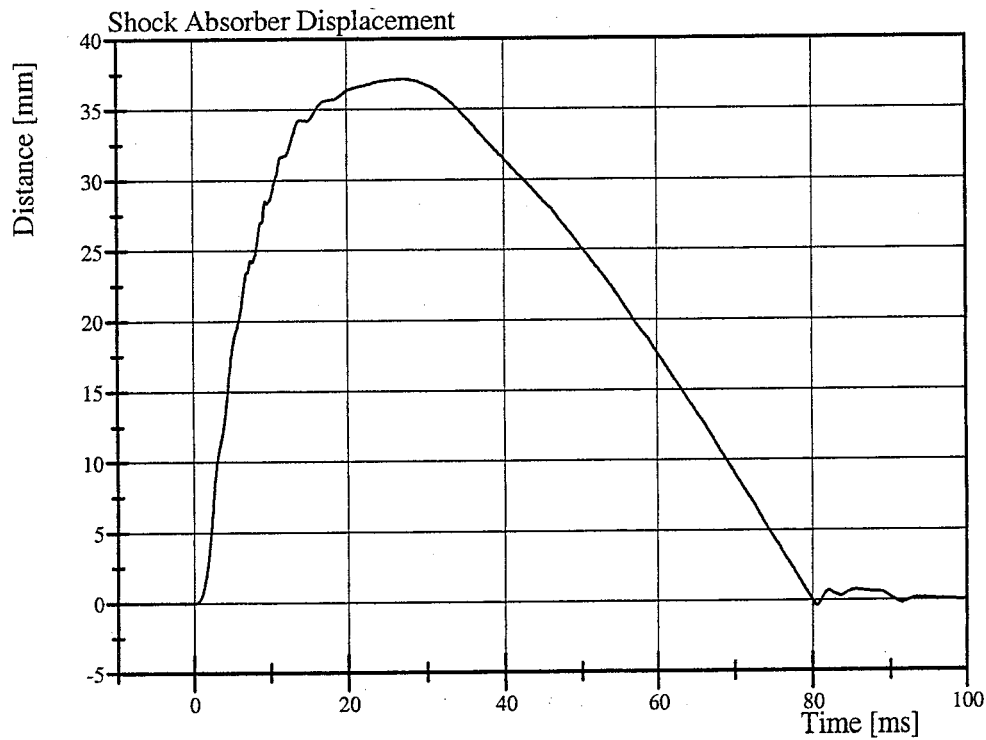
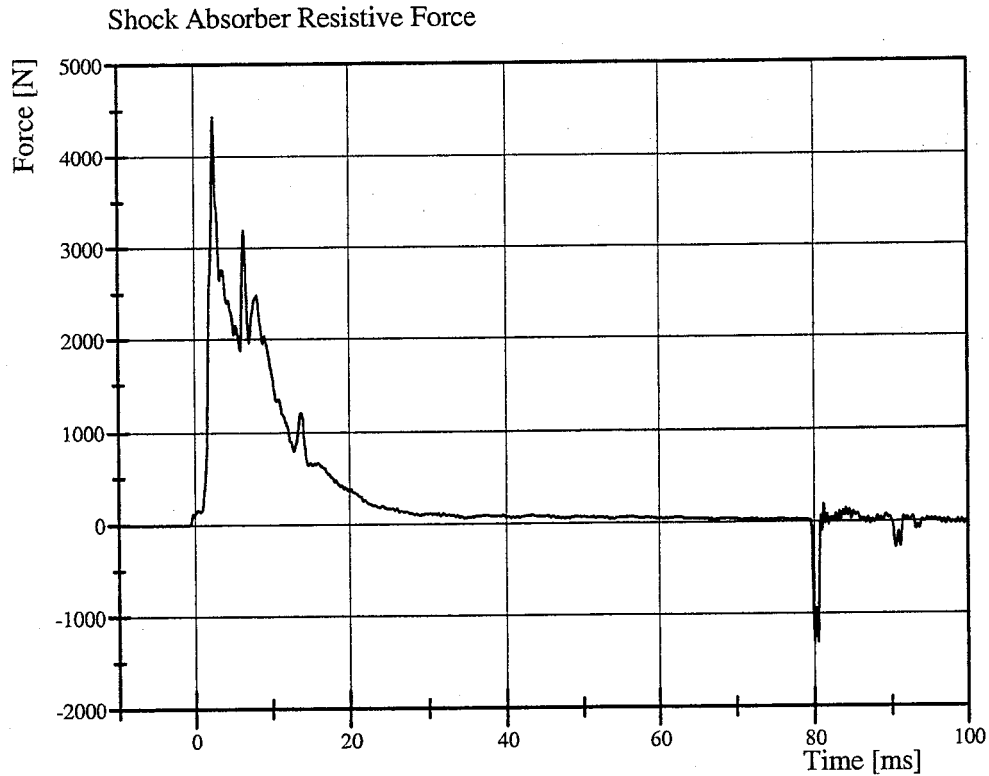


Transportation Research Center Inc.

6.10 m/s Thoracic Shock Absorber Compression

SID Serial No. 028 Certification No. 17-1

Test Date: 06/13/2006



Transportation Research Center Inc.

Abdomen Compression

SID Serial No. 028 Certification No. 19-1

Test Date: 3/16/2007

Test Parameter	Specification	Test Results	Pass
Temperature	18.9 - 25.5 °C	21.4 °C	Yes
Relative Humidity	10 - 70 %	22 %	Yes
Probe Force within Corridor	Yes	Yes	Yes
Probe Velocity	6.35 - 8.89 mm/s	8.099 mm/s	Yes

Test meets specifications.

Comments:

Technician

Charles W. Ball

Approved

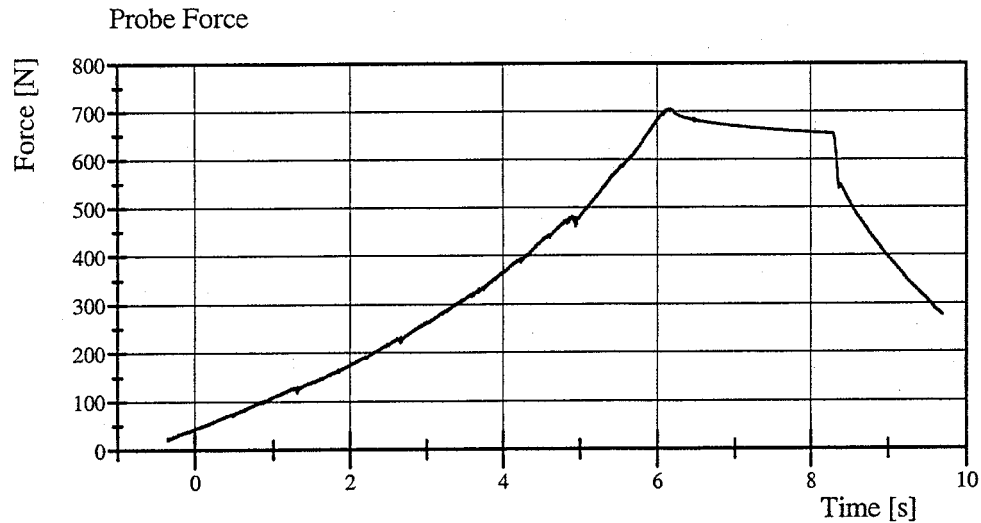
Ron Storus

Transportation Research Center Inc.

Abdomen Compression

SID Serial No. 028 Certification No. 19-1

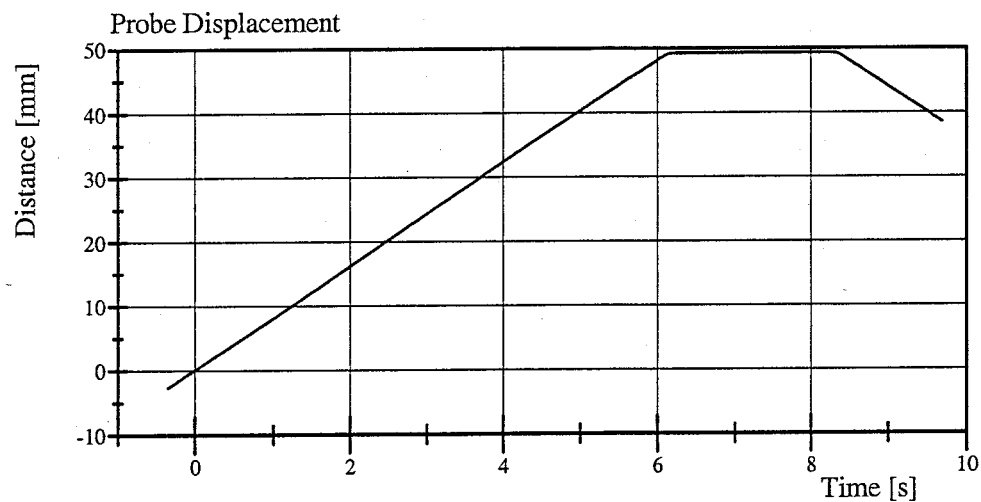
Test Date: 3/16/2007



Filter Class: CFC_600

Max: 704.7 N at 6.2 s

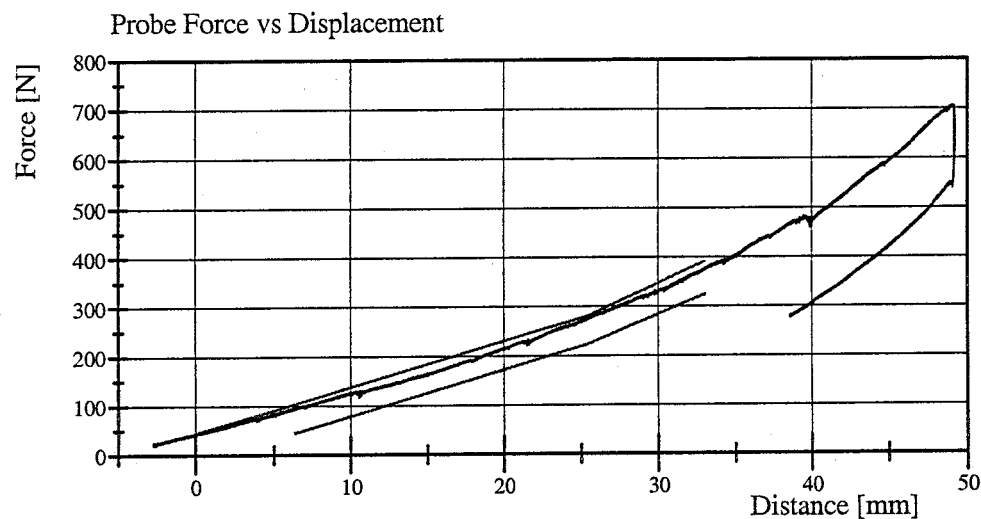
Min: 20.4 N at -0.4 s



Filter Class: CFC_180

Max: 49.2 mm at 8.0 s

Min: -2.7 mm at -0.4 s



Filter Class: CFC_600

Max: 704.7 N at 49.1 mm

Min: 20.4 N at -2.7 mm

TRANSPORTATION RESEARCH CENTER INC.

LUMBAR FLEXION TEST

SID PART 572B

CAL DATE: 16-Mar-07

TRC, INC.

TEST NO: LUFL-01

572B SN 28 TORSO FLEX CAL 01

TEST PARAMETER	SPECIFICATION	TEST RESULTS
TIME		1230
TEMPERATURE	18.9 – 25.6° C	21.2 °C
RELATIVE HUMIDITY	10 – 70 %	23 %
FORCE AT 0 DEG. FLEXION	-27 – 27 N	0 N
FORCE AT 20 DEG OF FLEXION	98 – 151 N	106.76 N
FORCE AT 30 DEG OF FLEXION	151 – 205 N	160.14 N
FORCE AT 40 DEG OF FLEXION	205 – 258 N	209.06 N
NET RETURN ANGLE AFTER 3 MINUTES	< 12 °	5.0

TEST MEETS SPECIFICATIONS

TECHNICIAN

Charles W. Hall

Transportation Research Center Inc.

Right Lateral Pelvis

SID Serial No. 028 Certification No. 19-14

Test Date: 3/21/2007

Test Parameter	Specification	Test Results	Pass
Temperature	18.9 - 25.5 °C	21.3 °C	Yes
Relative Humidity	10 - 70 %	26 %	Yes
Impactor Velocity	4.27 - 4.33 m/s	4.295 m/s	Yes
Pelvis Lateral Acceleration Duration above 20g	3 - 7 ms	5.8 ms	Yes
Pelvis Lateral Acceleration	(-40) - (-60) g	-47.8 g	Yes
Is Acceleration Curve Unimodal Above 20g?	Yes	Yes	Yes

Test meets specifications.

Comments:

Technician

Charles W. Bell

Approved

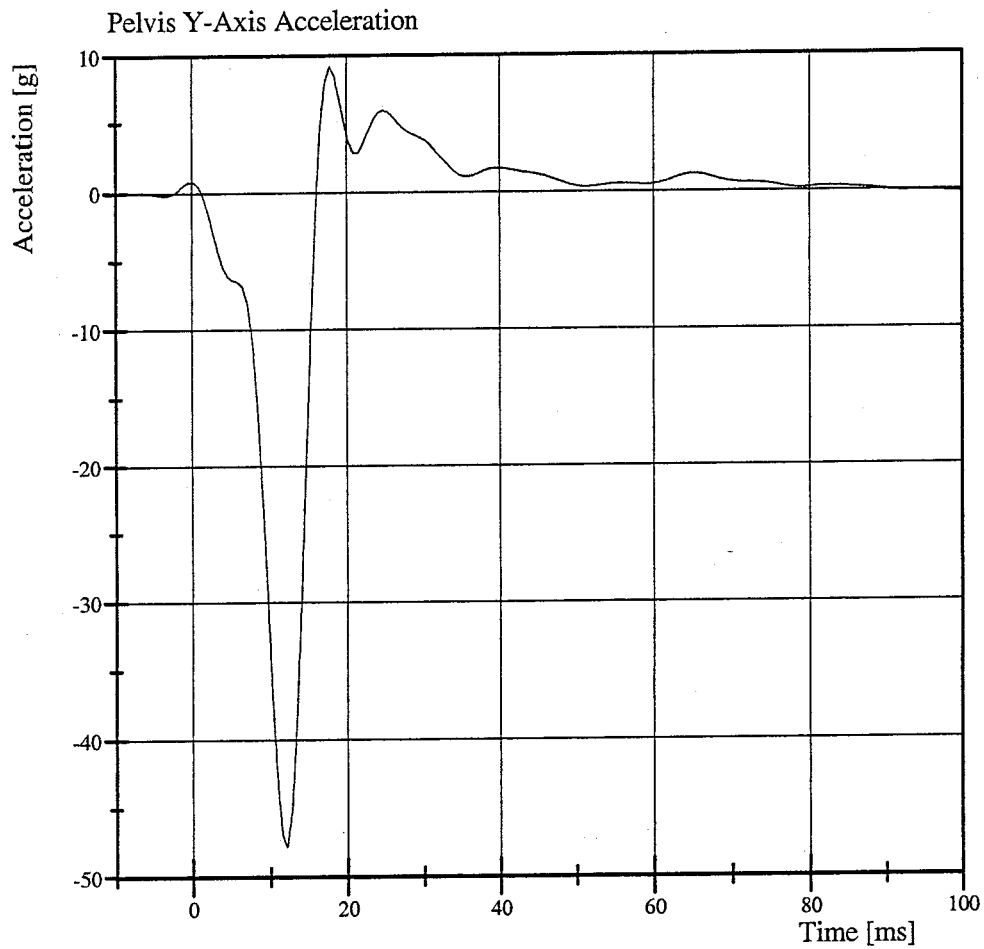
Ron Starnes

Transportation Research Center Inc.

Right Lateral Pelvis

SID Serial No. 028 Certification No. 19-14

Test Date: 3/21/2007



Filter Class: FIR_100
Max: 9.2 g at 17.8 ms
Min: -47.8 g at 12.1 ms



Calibration Test Results

Post-Test

SID: 065

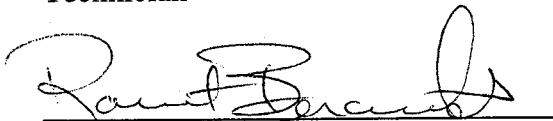
Configured for Right Side Impact

External Dimensions:	The dummy passed all external dimension requirements.
Lateral Head Drop Test:	The head passed all lateral drop test requirements.
Lateral Neck Test:	The neck passed all impact test requirements.
Lateral Thorax Impact Test:	The thorax passed all impact test requirements.
Lumbar Flexion Test:	The dummy met the lumbar flexion test requirements.
Abdominal Compression Test:	The abdomen met the compression test requirements.
Pelvis Impact Test:	The lateral pelvis passed all impact test requirements.
Thoracic Shock Absorber Test:	The thoracic shock absorber was not tested at this time.

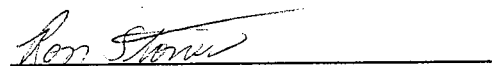
Transportation Research Center Inc.
572F SID Dummy
External Dimensions
Serial No. 065 Calibration No. 23

Test Parameter	Dimension	Specification	Results	Pass
Seated Height	SH	889.0 - 909.3 mm	900 mm	Yes
Rib Height	RH	501.7 - 520.7 mm	515 mm	Yes
Hip Pivot Height	HP	99.1 REF mm	99.1 mm	
Knee Pivot From Backline	KH	510.5 - 525.8 mm	520 mm	Yes
Knee Pivot From Floor	KV	490.2 - 505.5 mm	498 mm	Yes
Hip Width	HW	355.6 - 391.2 mm	369 mm	Yes
Top Rib Width From CVL	RW-1	165.1 - 180.3 mm	174 mm	Yes
Bottom Rib Width From CVL	RW-2	165.1 - 180.3 mm	174 mm	Yes
Difference Between Top & Bottom Rib Width from CVL		<= 2.5 mm	2.0 mm	Yes

Technician



Approved





Transportation Research Center Inc.

Right Lateral Thorax

SID Serial No. 065 Certification No. 23-2

Test Date: 3/28/2007

Test Parameter	Specification	Test Results	Pass
Temperature	18.9 - 25.5 °C	21.0 °C	Yes
Relative Humidity	10 - 70 %	55 %	Yes
Impactor Velocity	4.27 - 4.33 m/s	4.318 m/s	Yes
Upper Rib Lateral Acceleration	(-37) - (-46) g	-44.1 g	Yes
Lower Rib Lateral Acceleration	(-37) - (-46) g	-43.7 g	Yes
Lower Spine Lateral Acceleration	(-15) - (-22) g	-20.1 g	Yes

Test meets specifications.

Comments:

Technician

Technician
Paul Brandy

Approved

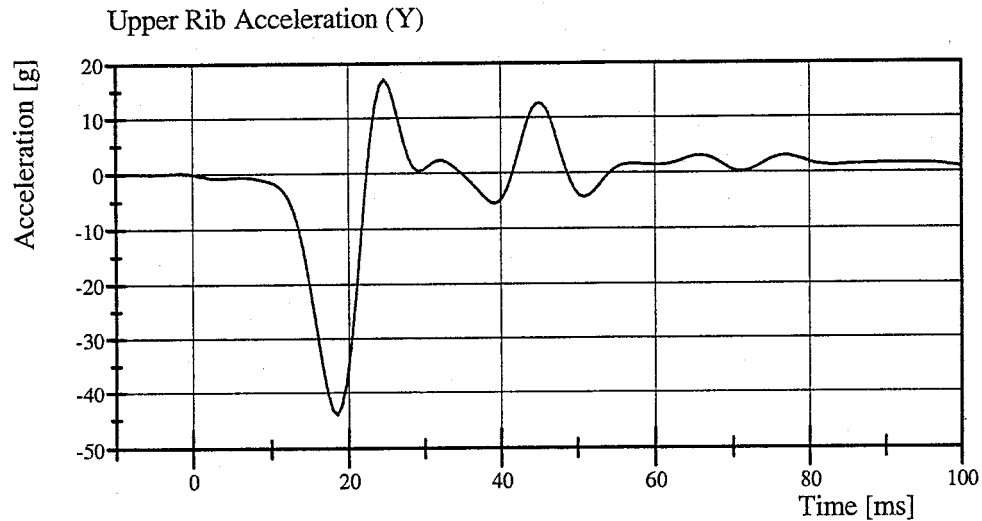
Ron Stoner

Transportation Research Center Inc.

Right Lateral Thorax

SID Serial No. 065 Certification No. 23-2

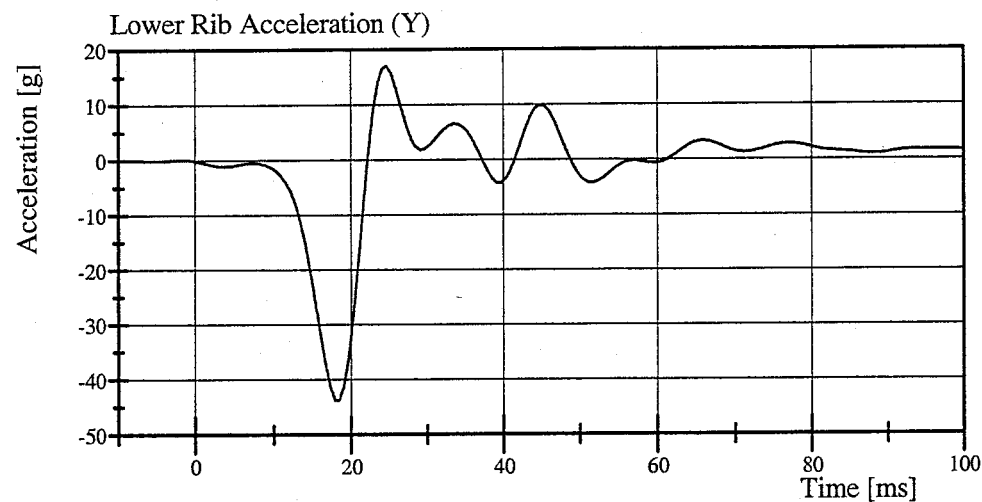
Test Date: 3/28/2007



Filter Class: FIR_100

Max: 17.1 g at 24.7 ms

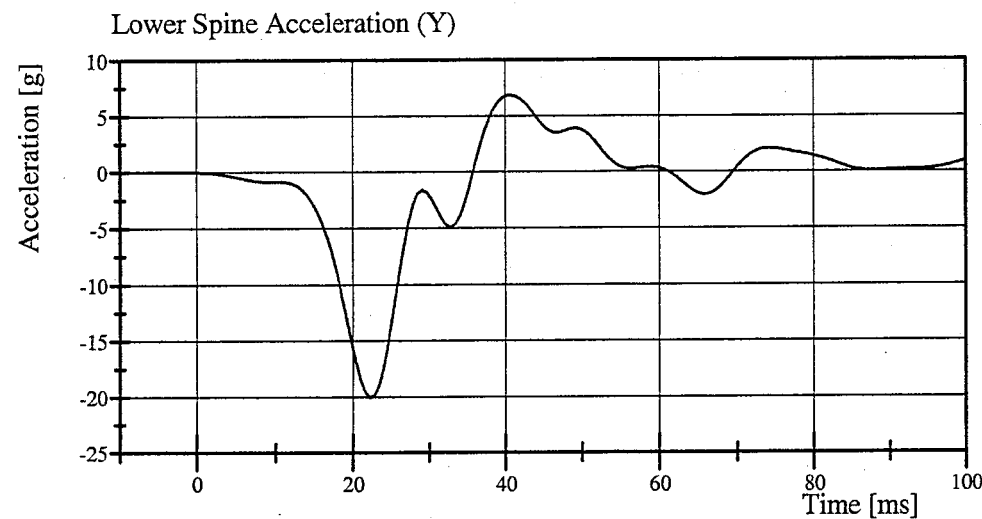
Min: -44.1 g at 18.5 ms



Filter Class: FIR_100

Max: 17.1 g at 24.7 ms

Min: -43.7 g at 18.4 ms



Filter Class: FIR_100

Max: 6.9 g at 40.4 ms

Min: -20.1 g at 22.2 ms

Transportation Research Center Inc.

Abdomen Compression

SID Serial No. 065 Certification No. 23-7

Test Date: 3/30/2007

Test Parameter	Specification	Test Results	Pass
Temperature	18.9 - 25.5 °C	21.4 °C	Yes
Relative Humidity	10 - 70 %	23 %	Yes
Probe Force within Corridor	Yes	Yes	Yes
Probe Velocity	6.35 - 8.89 mm/s	8.087 mm/s	Yes

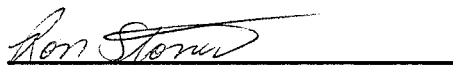
Test meets specifications.

Comments:

Technician



Approved

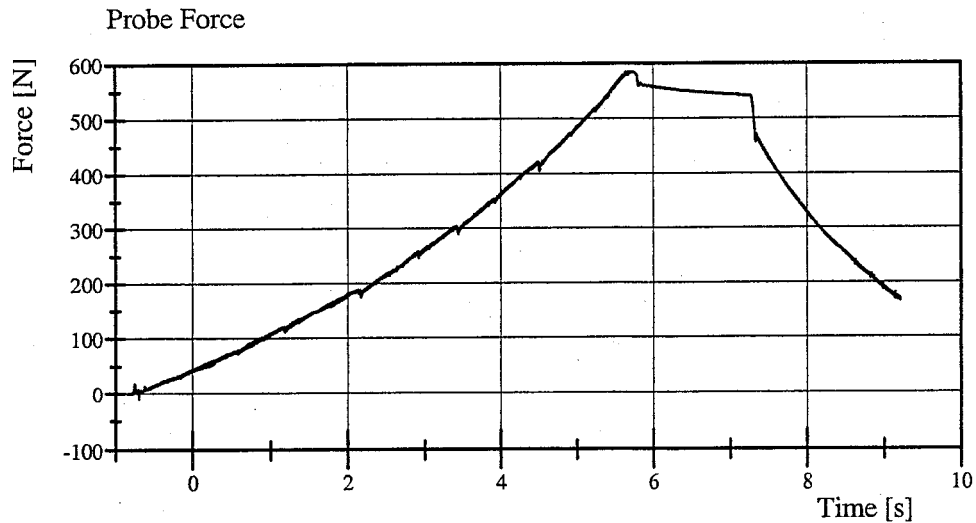


Transportation Research Center Inc.

Abdomen Compression

SID Serial No. 065 Certification No. 23-7

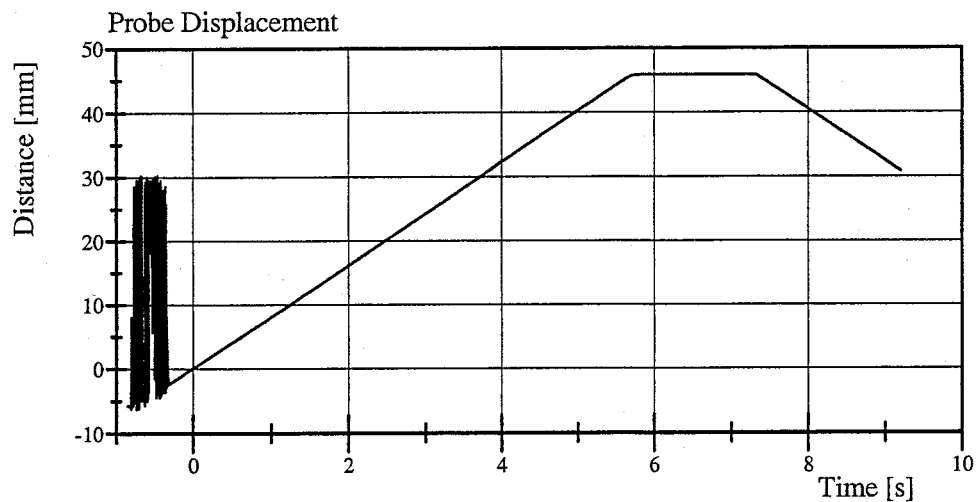
Test Date: 3/30/2007



Filter Class: CFC_600

Max: 584.0 N at 5.7 s

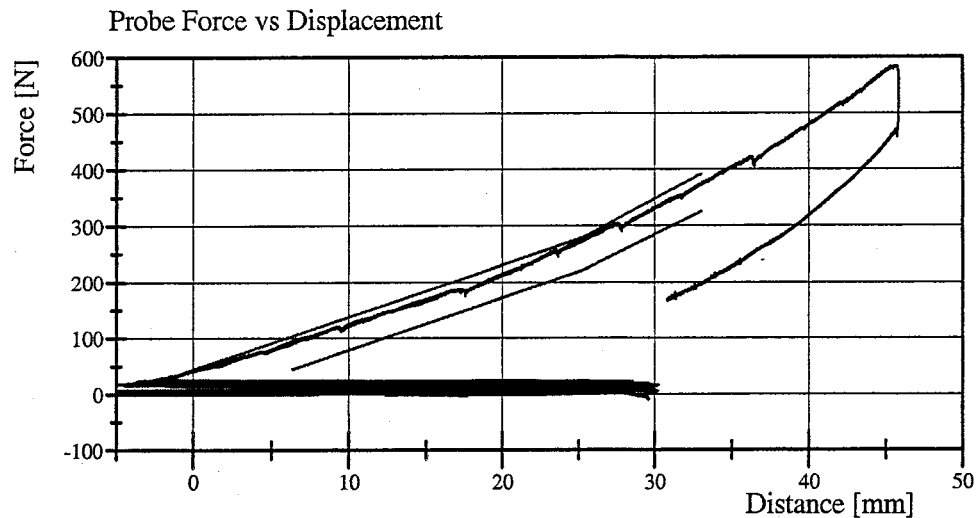
Min: -9.9 N at -0.7 s



Filter Class: CFC_180

Max: 45.8 mm at 7.1 s

Min: -6.2 mm at -0.7 s



Filter Class: CFC_600

Max: 584.0 N at 45.7 mm

Min: -9.9 N at 29.6 mm

TRANSPORTATION RESEARCH CENTER INC.

LUMBAR FLEXION TEST

SID PART 572B

CAL DATE: 29-Mar-07

TRC, INC.

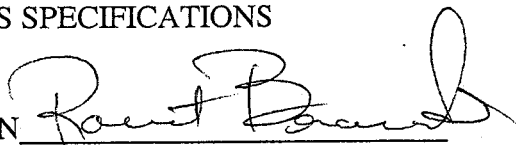
TEST NO: LUFL-01

572B SN 065 TORSO FLEX CAL 01

TEST PARAMETER	SPECIFICATION	TEST RESULTS
TEMPERATURE	18.9 – 25.6° C	21.1 °C
RELATIVE HUMIDITY	10 – 70 %	30 %
FORCE AT 0 DEG. FLEXION	-27 – 27 N	.6 N
FORCE AT 20 DEG OF FLEXION	98 – 151 N	133.4 N
FORCE AT 30 DEG OF FLEXION	151 – 205 N	186.8 N
FORCE AT 40 DEG OF FLEXION	205 – 258 N	213.5 N
NET RETURN ANGLE AFTER 3 MINUTES	< 12 °	6.3

TEST MEETS SPECIFICATIONS

TECHNICIAN



Transportation Research Center Inc.

Right Lateral Pelvis

SID Serial No. 065 Certification No. 23-1

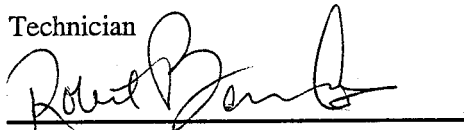
Test Date: 3/28/2007

Test Parameter	Specification	Test Results	Pass
Temperature	18.9 - 25.5 °C	21.1 °C	Yes
Relative Humidity	10 - 70 %	52 %	Yes
Impactor Velocity	4.27 - 4.33 m/s	4.326 m/s	Yes
Pelvis Lateral Acceleration Duration above 20g	3 - 7 ms	6.5 ms	Yes
Pelvis Lateral Acceleration	(-40) - (-60) g	-44.2 g	Yes
Is Acceleration Curve Unimodal Above 20g?	Yes	Yes	Yes

Test meets specifications.

Comments:

Technician



Approved

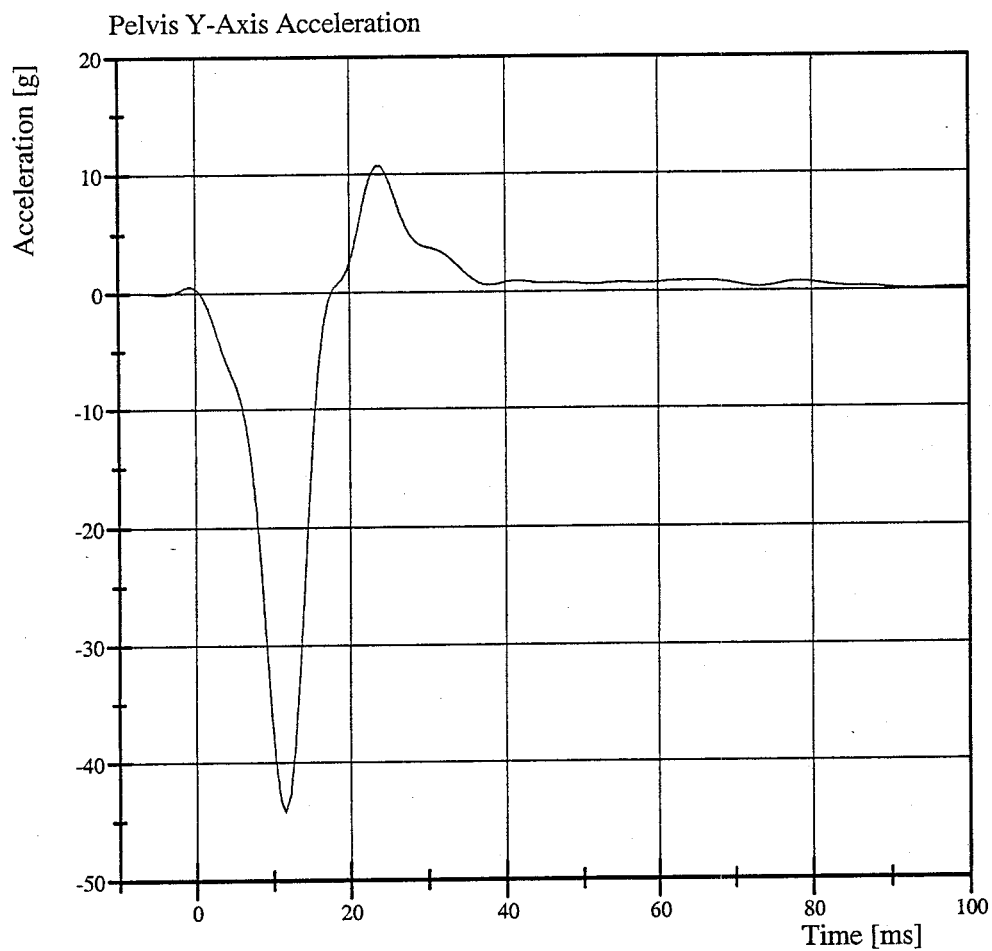


Transportation Research Center Inc.

Right Lateral Pelvis

SID Serial No. 065 Certification No. 23-1

Test Date: 3/28/2007



Filter Class: FIR_100

Max: 10.7 g at 24.0 ms

Min: -44.2 g at 11.5 ms

Calibration Test Results

Post-Test

SID: 028

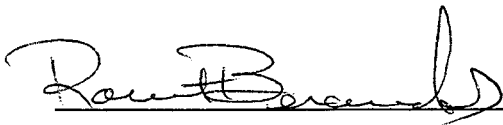
Configured for Right Side Impact

External Dimensions:	The dummy passed all external dimension requirements.
Lateral Head Drop Test:	The head passed all lateral drop test requirements.
Lateral Neck Test:	The neck passed all impact test requirements.
Lateral Thorax Impact Test:	The thorax passed all impact test requirements.
Lumbar Flexion Test:	The dummy met the lumbar flexion test requirements.
Abdominal Compression Test:	The abdomen met the compression test requirements.
Pelvis Impact Test:	The lateral pelvis passed all impact test requirements.
Thoracic Shock Absorber Test:	The thoracic shock absorber was not tested at this time.

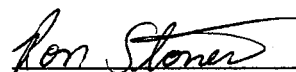
Transportation Research Center Inc.
572F SID Dummy
External Dimensions
Serial No. 028 Calibration No. 20

Test Parameter	Dimension	Specification	Results	Pass
Seated Height	SH	889.0 - 909.3 mm	898 mm	Yes
Rib Height	RH	501.7 - 520.7 mm	516 mm	Yes
Hip Pivot Height	HP	99.1 REF mm	99.1 mm	
Knee Pivot From Backline	KH	510.5 - 525.8 mm	520 mm	Yes
Knee Pivot From Floor	KV	490.2 - 505.5 mm	495 mm	Yes
Hip Width	HW	355.6 - 391.2 mm	370 mm	Yes
Top Rib Width From CVL	RW-1	165.1 - 180.3 mm	176 mm	Yes
Bottom Rib Width From CVL	RW-2	165.1 - 180.3 mm	176 mm	Yes
Difference Between Top & Bottom Rib Width from CVL		<= 2.5 mm	0.0 mm	Yes

Technician



Approved





Transportation Research Center Inc.

Right Lateral Thorax

SID Serial No. 028 Certification No. 20-1

Test Date: 3/28/2007

Test Parameter	Specification	Test Results	Pass
Temperature	18.9 - 25.5 °C	20.9 °C	Yes
Relative Humidity	10 - 70 %	54 %	Yes
Impactor Velocity	4.27 - 4.33 m/s	4.282 m/s	Yes
Upper Rib Lateral Acceleration	(-37) - (-46) g	-40.8 g	Yes
Lower Rib Lateral Acceleration	(-37) - (-46) g	-39.3 g	Yes
Lower Spine Lateral Acceleration	(-15) - (-22) g	-17.4 g	Yes

Test meets specifications.

Comments:

Technician

Rout B...

Approved

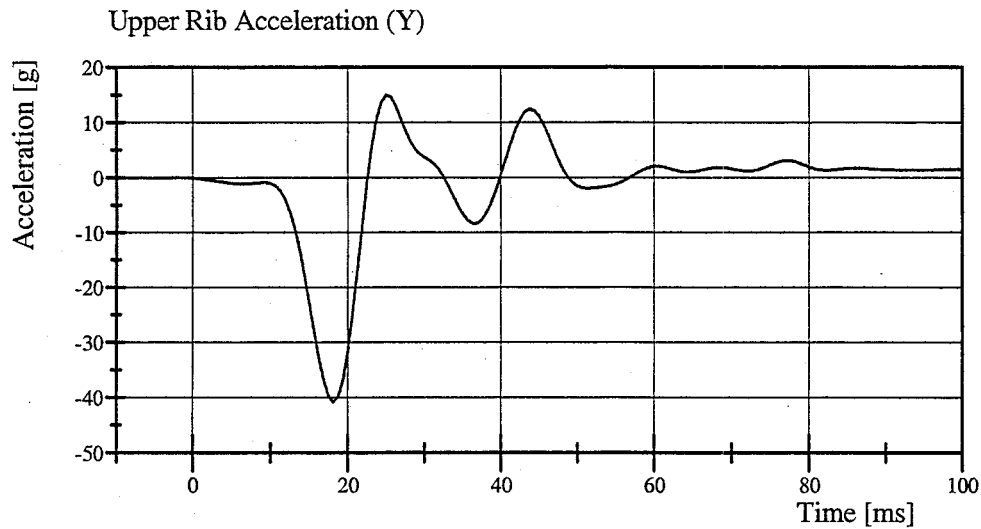
Ren Stoner

Transportation Research Center Inc.

Right Lateral Thorax

SID Serial No. 028 Certification No. 20-1

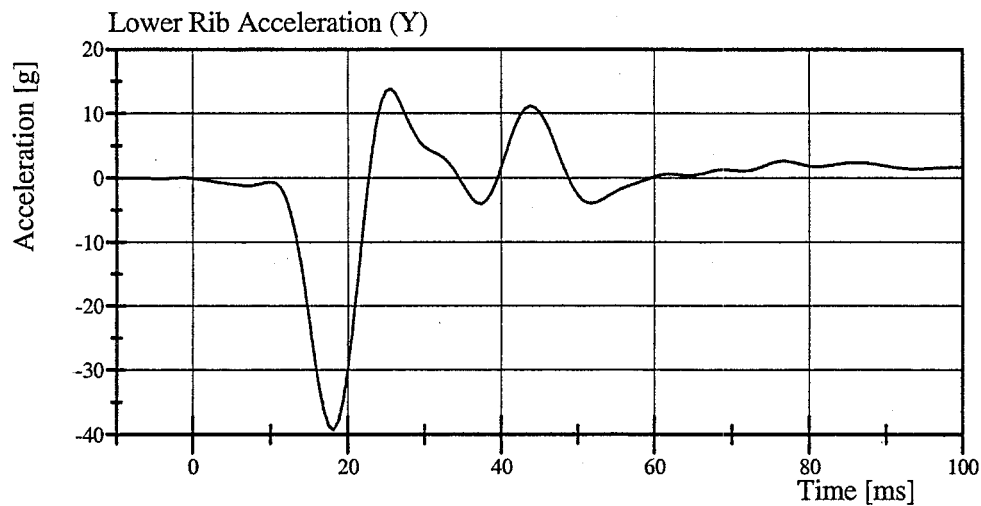
Test Date: 3/28/2007



Filter Class: FIR_100

Max: 15.0 g at 25.0 ms

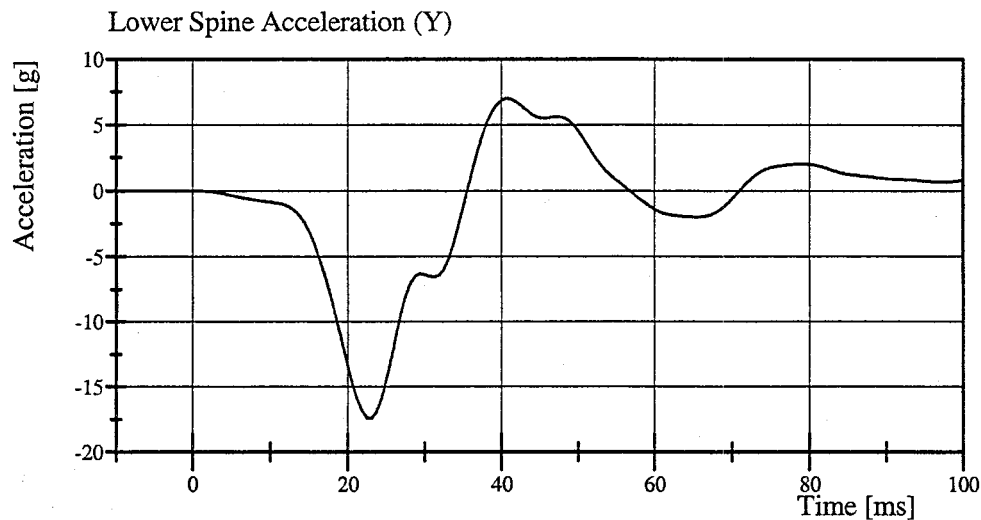
Min: -40.8 g at 18.1 ms



Filter Class: FIR_100

Max: 13.8 g at 25.6 ms

Min: -39.3 g at 18.1 ms



Filter Class: FIR_100

Max: 7.0 g at 40.6 ms

Min: -17.4 g at 23.0 ms

Transportation Research Center Inc.

Abdomen Compression

SID Serial No. 028 Certification No. 20-1

Test Date: 3/28/2007

Test Parameter	Specification	Test Results	Pass
Temperature	18.9 - 25.5 °C	21.1 °C	Yes
Relative Humidity	10 - 70 %	52 %	Yes
Probe Force within Corridor	Yes	Yes	Yes
Probe Velocity	6.35 - 8.89 mm/s	8.090 mm/s	Yes

Test meets specifications.

Comments:

Technician



Approved

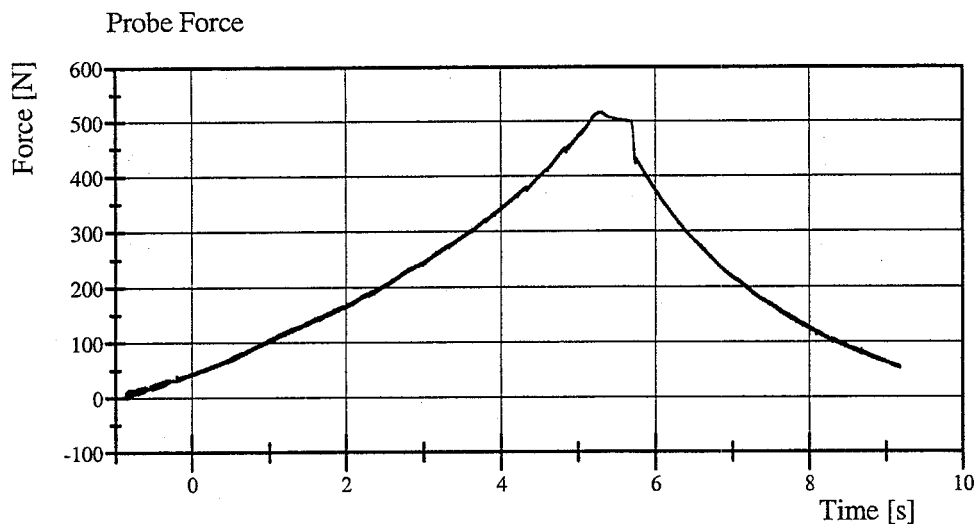


Transportation Research Center Inc.

Abdomen Compression

SID Serial No. 028 Certification No. 20-1

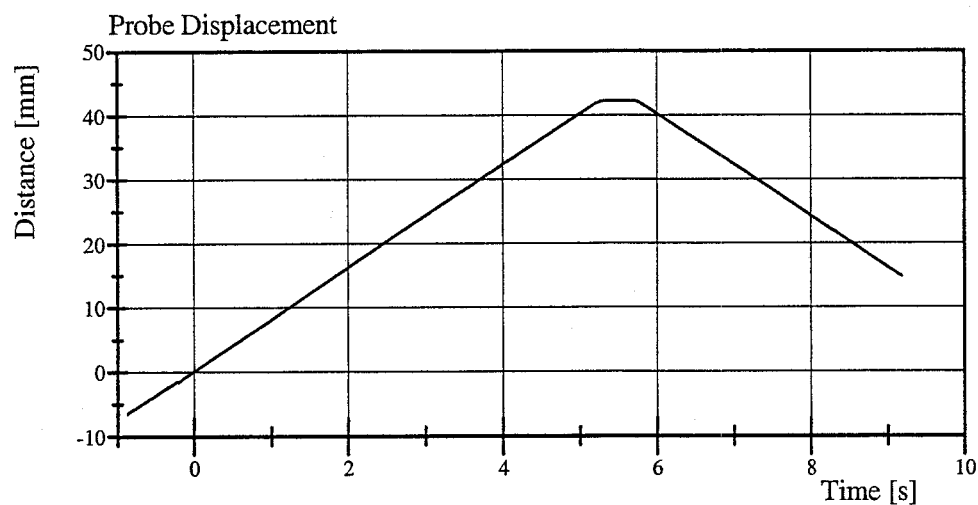
Test Date: 3/28/2007



Filter Class: CFC_600

Max: 516.6 N at 5.3 s

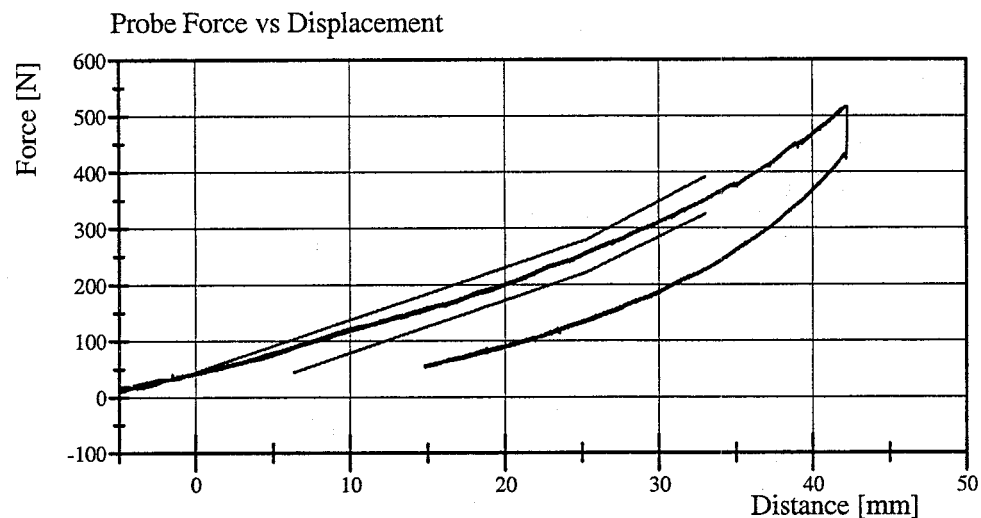
Min: -1.0 N at -0.8 s



Filter Class: CFC_180

Max: 42.3 mm at 5.7 s

Min: -6.5 mm at -0.9 s



Filter Class: CFC_600

Max: 516.6 N at 42.2 mm

Min: -1.0 N at -6.3 mm

TRANSPORTATION RESEARCH CENTER INC.

LUMBAR FLEXION TEST

SID PART 572B

CAL DATE: 29-Mar-07

TRC, INC.

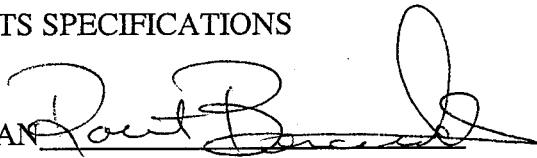
TEST NO: LUFL-01

572B SN 28 TORSO FLEX CAL 01

TEST PARAMETER	SPECIFICATION	TEST RESULTS
TIME		810
TEMPERATURE	18.9 – 25.6° C	21.4 °C
RELATIVE HUMIDITY	10 – 70 %	28 %
FORCE AT 0 DEG. FLEXION	-27 – 27 N	0 N
FORCE AT 20 DEG OF FLEXION	98 – 151 N	111.0 N
FORCE AT 30 DEG OF FLEXION	151 – 205 N	155.6 N
FORCE AT 40 DEG OF FLEXION	205 – 258 N	209.06 N
NET RETURN ANGLE AFTER 3 MINUTES	< 12 °	5.0

TEST MEETS SPECIFICATIONS

TECHNICIAN



Transportation Research Center Inc.

Right Lateral Pelvis

SID Serial No. 028 Certification No. 20-1

Test Date: 3/28/2007

Test Parameter	Specification	Test Results	Pass
Temperature	18.9 - 25.5 °C	20.8 °C	Yes
Relative Humidity	10 - 70 %	54 %	Yes
Impactor Velocity	4.27 - 4.33 m/s	4.284 m/s	Yes
Pelvis Lateral Acceleration			
Duration above 20g	3 - 7 ms	5.7 ms	Yes
Pelvis Lateral Acceleration	(-40) - (-60) g	-47.7 g	Yes
Is Acceleration Curve Unimodal Above 20g?	Yes	Yes	Yes

Test meets specifications.

Comments:

Technician



Approved

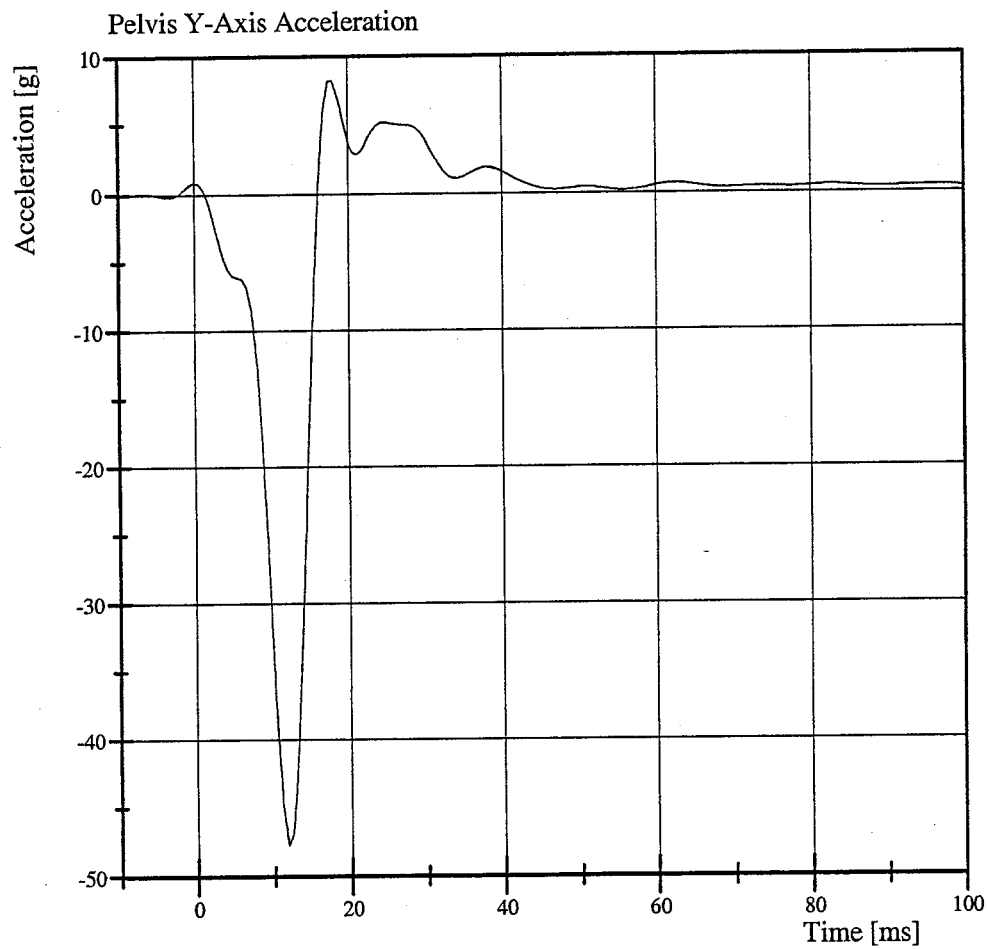


Transportation Research Center Inc.

Right Lateral Pelvis

SID Serial No. 028 Certification No. 20-1

Test Date: 3/28/2007



Filter Class: FIR_100
Max: 8.3 g at 18.0 ms
Min: -47.7 g at 11.8 ms



Test Date: 03/23/07

Type: DOT S/N: 065

Mfg.: Denton

Proj./Seg. No.: 20020455/3080

Test Eng: Walter D. Dudek

ITEM	PRE-USE	POST-USE
HEAD:		
Skull Cap Bolts: tight and no wires pinched	X	
Head Skin Condition	X	X
* Neck Load Cell Cables: secure, taped, and with strain relief	N/A	
Accel. Cable Exit (left or right)	N/A	
NECK:		
Rubber Condition and Separation From End Caps	X	X
NECK – SID/HIII only:		
Condyle Pin, Set Screws	N/A	
* Neck Cable Torque (10-14 in lb) Actual:	N/A	
* Nodding Blocks Condition and Position (Post-test Joint Function)	N/A	N/A
THORAX:		
Jacket & Abdomen Condition	X	X
Stacked Shoulder Foams and Bolts	X	X
Rib Wrap Condition	X	X
Rib Cage Spring and Support Assembly	X	X
Rib Cage Bolts	X	X
Damper Rear Attachment Ring, Pivot Pins, and Bracket	X	X
Location and Adjustment of Chest Pot Bracket and Collars	N/A	N/A
Chest Pot Rod End Nuts and Eyebolt	N/A	
Arm Foam Orientation/Condition	X	X
Thorax/Lumbar Spine Bolts / Condition and Separation from End Caps	X	X
Adjust rib cage position to full extension	X	
PELVIS:		
Iliac Crest Bone	X	X
Flesh Condition	X	X
Tightness and Alignment of H-Point Tool Insert	X	
Hips Range of Motion and 1-2g Adjustment (before calibration only)	X	
Upper Femur Bolt Adjustment and Position	X	
LEGS AND FEET:		
Knee Skins and Castings Condition	X	X
Femur Load Cell Bolts	X	
Breakaway Femur Bolts - function	X	
Knee Joint Function and Range of Motion	X	X
Leg Skin Condition and Position	X	X
Ankle Range of Motion	X	X
Foot Condition	X	X
OTHER:		
Cleanliness	X	
Target Position	X	
Clothes and Shoes BLUE	X	
One G Joint Adjustments	X	
Verify channel s against assembly and Check connectors (intact & labeled)	X	
ATTACH TEMPERATURE LOGGER TO DUMMY / DOWNLOAD	X	X

* Items checked during calibration; these items need checked when the dummy is used without recalibration

Pre Test Inspection Completed By: J. Clarridge Date: 03/22/07

Post Test Inspection Completed By: J. Clarridge Date: 03/27/07

TRANSPORTATION RESEARCH
CENTER INC.



SID or SID/HIII

Test Date: 03/23/07

Type: DOT S/N: 028 Mfg.: Vector

Proj./Seg. No.: 20020455/3080 Test Eng: Walter D. Dudek

ITEM	PRE-USE	POST-USE
HEAD:		
Skull Cap Bolts: tight and no wires pinched	X	
Head Skin Condition	X	X
* Neck Load Cell Cables: secure, taped, and with strain relief	X	
Accel. Cable Exit (left or right)	N/A	
NECK:		
Rubber Condition and Separation From End Caps	X	X
NECK - SID/HIII only:		
Condyle Pin, Set Screws	N/A	
* Neck Cable Torque (10-14 in lb) Actual:	N/A	
* Nodding Blocks Condition and Position (Post-test Joint Function)	N/A	N/A
THORAX:		
Jacket & Abdomen Condition	X	X
Stacked Shoulder Foams and Bolts	X	X
Rib Wrap Condition	X	X
Rib Cage Spring and Support Assembly	X	X
Rib Cage Bolts	X	X
Damper Rear Attachment Ring, Pivot Pins, and Bracket	X	X
Location and Adjustment of Chest Pot Bracket and Collars	N/A	N/A
Chest Pot Rod End Nuts and Eyebolt	N/A	
Arm Foam Orientation/Condition	X	X
Thorax/Lumbar Spine Bolts / Condition and Separation from End Caps	X	X
Adjust rib cage position to full extension	X	
PELVIS:		
Iliac Crest Bone	X	X
Flesh Condition	X	X
Tightness and Alignment of H-Point Tool Insert	X	
Hips Range of Motion and 1-2g Adjustment (before calibration only)	X	
Upper Femur Bolt Adjustment and Position	X	
LEGS AND FEET:		
Knee Skins and Castings Condition	X	X
Femur Load Cell Bolts	X	
Breakaway Femur Bolts - function	X	
Knee Joint Function and Range of Motion	X	X
Leg Skin Condition and Position	X	X
Ankle Range of Motion	X	X
Foot Condition	X	X
OTHER:		
Cleanliness	X	
Target Position	X	
Clothes and Shoes PINK	X	
One G Joint Adjustments	X	
Verify channel s against assembly and Check connectors (intact & labeled)	X	
ATTACH TEMPERATURE LOGGER TO DUMMY / DOWNLOAD	X	X

* Items checked during calibration; these items need checked when the dummy is used without recalibration

Pre Test Inspection Completed By: J. Clarridge Date: 03/22/07

Post Test Inspection Completed By: J. Clarridge Date: 03/27/07

Appendix D

Test Equipment List and Calibration Information

Sign Convention
SAE J211 MAR95

Accelerometers: +X: Forward
 +Y: Rightward
 +Z: Downward

Potentiometers: +Chest longitudinal deflection: Outward
 +Chest lateral deflection: Rightward
 +Seat belt displacement: Outward
 +Seat belt extension: Elongation
 +Knee slider displacement: Distance between femur and tibia
 increased (in relation to a seated
 dummy)

Rotation potentiometers:
 +About the X-axis: Left foot-eversion
 Right foot-inversion
 +About the Y-axis: Left/right foot-dorsiflexion
 +About the Z-axis: Left foot-internal
 Right foot-external

Load cells: +Femur force: Tension
 +Seat belt force: Tension
 +Barrier force: Tension

Neck load cells: +X force: Head pushed rearward
 +Y force: Head pushed leftward
 +Z force: Head pulled upward (tension on neck)
 +X moment: Left ear rotating toward left shoulder
 +Y moment: Chin rotating toward chest
 +Z moment: Chin rotating toward left shoulder

Tibia load cells: +X force: Ankle forward, knee rearward
 +Y force: Ankle rightward, knee leftward
 +Z force: Tension
 +X moment: Bottom of tibia moving leftward
 +Y moment: Bottom of tibia moving rearward

Sign Convention (Continued)
SAE J211 MAR95

<u>Lumbar load cells:</u>	+X force:	Chest rearward, pelvis forward
	+Y force:	Chest leftward, pelvis rightward
	+Z force:	Chest upward, pelvis downward
	+X moment:	Left shoulder toward left hip
	+Y moment:	Sternum toward front of legs
	+Z moment:	Right shoulder forward, left shoulder rearward

Frequency Response Classes
SAE J211 MAR95

<u>Typical Test Measurements</u>	<u>Channel Class</u>
Vehicle Structural Accelerations for use in:	
Total vehicle comparison	60
Collision simulation input	60
Component analysis	600
Integration for velocity or displacement	180
Barrier Face Forces	60
Belt Restraint System Loads	60
Anthropomorphic Test Device	
Head accelerations (linear and angular)	1000
Neck	
Forces	1000
Moments	600
Thorax	
Spine accelerations	180
Rib accelerations	1000
Sternum accelerations	1000
Deflections	600
Lumbar	
Forces	1000
Moments	1000
Pelvis	
Accelerations	1000
Forces	1000
Moments	1000
Femur/Knee/Tibia/Ankle	
Forces	600
Moments	600
Displacements	180
Sled Accelerations	60
Steering Column Loads	600
Head Form Accelerations	1000

The direction column on the following sheets describes the transducer output as mounted and wired in the test location. The polarity column indicates whether a polarity change occurred during data acquisition to conform to J211 MAR95. See Report Sign Convention sheet for description of data output as presented in the report: occasionally channels have been adjusted in post-acquisition processing to conform to J211 MAR95.

Channel Report Test Number 070323

Ref	Transducer ID	ISO Signal Identifier	Description	FScale	Units	DAS		Assembly
						Flip	Positive Polarity	
1	Trig D1	10ZERO00000VO0A	EVENT		1 Logic	+	Bipolar	
2	P45628	13RIBSRU00SIACYA	Right Upper Rib Y	800 g		-	Leftward	3-065 DOT SID Denton.001
3	P46522	13RIBSRURDSIACYA	Right Upper Rib Red Y	800 g		-	Leftward	3-065 DOT SID Denton.002
4	P45629	13RIBSRL00SIACYA	Right Lower Rib Y	800 g		-	Leftward	3-065 DOT SID Denton.003
5	P45631	13RIBSRLRDSIACYA	Right Lower Rib Red Y	800 g		-	Leftward	3-065 DOT SID Denton.004
6	P45632	13SPIN1200SIACYA	Lower Spine Y	400 g		-	Leftward	3-065 DOT SID Denton.005
7	P45625	13SPIN12RDSIACYA	Lower Spine Red Y	400 g		-	Leftward	3-065 DOT SID Denton.006
8	P49020	13PELVCG00SIACYA	Pelvis Accel Y	400 g		-	Leftward	3-065 DOT SID Denton.007
9	P46508	13PELVCGRDSIACYA	Pelvis Accel Red Y	400 g		-	Leftward	3-065 DOT SID Denton.008
10	P47535	16RIBSRU00SIACYA	Right Upper Rib Y	800 g		-	Leftward	6-028 DOT SID Vector.001
11	P46465	16RIBSRURDSIACYA	Right Upper Rib Red Y	800 g		-	Leftward	6-028 DOT SID Vector.002
12	P46466	16RIBSRL00SIACYA	Right Lower Rib Y	800 g		-	Leftward	6-028 DOT SID Vector.003
13	P47321	16RIBSRLRDSIACYA	Right Lower Rib Red Y	800 g		-	Leftward	6-028 DOT SID Vector.004
14	P47502	16SPIN1200SIACYA	Lower Spine Y	400 g		+	Rightward	6-028 DOT SID Vector.005
15	P47512	16SPIN12RDSIACYA	Lower Spine Red Y	400 g		+	Rightward	6-028 DOT SID Vector.006
16	P48673	16PELVCG00SIACYA	Pelvis Accel Y	400 g		-	Leftward	6-028 DOT SID Vector.007
17	P49016	16PELVCGRDSIACYA	Pelvis Accel Red Y	400 g		-	Leftward	6-028 DOT SID Vector.008
18	P46902	14SILBFR0000ACXA	Left SIDE SILL AT FRONT SEAT (X) ACCELERATION VS TIME (#1)	400 g		+	Forward	
19	P54208	14SILBFR0000ACYA	Left SIDE SILL AT FRONT SEAT (Y) ACCELERATION VS TIME (#1)	1000 g		+	Rightward	
20	P50316	14SILBFR0000ACZA	Left SIDE SILL AT FRONT SEAT (Z) ACCELERATION VS TIME (#1)	400 g		-	Upward	
21	p48633	14SILBRE0000ACXA	Left SIDE SILL AT REAR SEAT (X) ACCELERATION VS TIME (#2)	400 g		+	Forward	
22	P49772	14SILBRE0000ACYA	Left SIDE SILL AT REAR SEAT (Y) ACCELERATION VS TIME (#2)	1000 g		+	Rightward	
23	P54236	14SILBRE0000ACZA	Left SIDE SILL AT REAR SEAT (Z) ACCELERATION VS TIME (#2)	400 g		-	Upward	
24	P54573	18FORA000000ACXA	REAR FLOORPAN ABOVE AXLE (X) ACCELERATION VS TIME (#3)	1000 g		+	Forward	
25	P54566	18FORA000000ACYA	REAR FLOORPAN ABOVE AXLE (Y) ACCELERATION VS TIME (#3)	1000 g		+	Rightward	
26	P54574	18FORA000000ACZA	REAR FLOORPAN ABOVE AXLE (Z) ACCELERATION VS TIME (#3)	1000 g		-	Upward	
27	P46960	16SILBFR0000ACYA	RIGHT SIDE SILL AT FRONT SEAT (Y) ACCELERATION VS TIME (#5)	1000 g		-	Leftward	
28	p54481	16SILBRE0000ACYA	RIGHT SIDE SILL AT REAR SEAT (Y) ACCELERATION VS TIME	1000 g		-	Leftward	
29	P50459	14VEHCRE0000ACYA	LEFT REAR OCCUPANT COMPARTMENT (Y) ACCELERATION VS TIME (#7)	1500 g		+	Rightward	
30	p54459	13APILLO0000ACYA	RIGHT LOWER A-POST (Y) ACCELERATION VS TIME (#14)	1500 g		+	Rightward	
31	P54584	13APILMI0000ACYA	RIGHT MID A-POST (Y) ACCELERATION VS TIME (#15)	1500 g		+	Rightward	
32	P54610	16BPILLO0000ACYA	RIGHT LOWER B-POST (Y) ACCELERATION VS TIME (#12)	1500 g		+	Rightward	
33	P47429	16BPILMI0000ACYA	RIGHT MID B-POST (Y) ACCELERATION VS TIME (#13)	1500 g		+	Rightward	
34	P54192	13SETRFR0000ACYA	RIGHT FRONT SEAT TRACK (Y) ACCELERATION VS TIME (#16)	1500 g		-	Leftward	
35	P54558	16SETRLERE00ACYA	RIGHT REAR SEAT TRACK (Y) ACCELERATION VS TIME	1500 g		-	Leftward	
36	P54160	10VEHCCG0000ACXA	VEHICLE CENTER OF GRAVITY (X) ACCELERATION VS TIME (#18)	1000 g		+	Forward	
37	P46918	10VEHCCG0000ACYA	VEHICLE CENTER OF GRAVITY (Y) ACCELERATION VS TIME (#18)	1000 g		-	Leftward	
38	P49899	10VEHCCG0000ACZA	VEHICLE CENTER OF GRAVITY (Z) ACCELERATION VS TIME (#18)	1000 g		-	Upward	

Channel Report Test Number 070323

Ref	Transducer ID	ISO Signal Identifier	Description	DAS		
				FScale	Units	Flip Positive Polarity
1	P54622	M0VEHCCG0000ACXA	MDB CENTER OF GRAVITY (X) ACCELERATION VS TIME (#1)	600	g	+ Forward
2	P54599	M0VEHCCG0000ACYA	MDB CENTER OF GRAVITY (Y) ACCELERATION VS TIME(#1)	600	g	- Leftward
3	P54588	M0VEHCCG0000ACZA	MDB CENTER OF GRAVITY (Z) ACCELERATION VS TIME(#1)	600	g	- Upward
4	p54561	M7FRAM000000ACXA	MDB REAR (X) ACCELERATION VS TIME (#2)	600	g	+ Forward
5	P50277	M7FRAM000000ACYA	MDB REAR (Y) ACCELERATION VS TIME (#2)	600	g	- Leftward
6	Bit.00	M3CONT000000VO00	MDB RIGHT CONTACT SWITCH	1	Logic	+ Bipolar
7	Bit.01	M1CONT000000VO00	MDB LEFT CONTACT SWITCH	1	Logic	+ Bipolar

Command File Test Number 070323

Channel	ISO Mnemonic	Channel Title	Filter Class	Flip	Zero	Full Scale
1	13RIBSRU00SIACYA	RIGHT FRONT PASSENGER UPPER RIB Y-AXIS ACCELERATION	1000	+	yes	800
1A	13RIBSRU00SIVEYA	RIGHT FRONT PASSENGER UPPER RIB Y-AXIS VELOCITY	180			
2	13RIBSRL00SIACYA	RIGHT FRONT PASSENGER LOWER RIB Y-AXIS ACCELERATION	1000	+	yes	800
2A	13RIBSRL00SIVEYA	RIGHT FRONT PASSENGER LOWER RIB Y-AXIS VELOCITY	180			
3	13SPIN1200SIACYA	RIGHT FRONT PASSENGER LOWER SPINE Y-AXIS ACCELERATION	1000	+	yes	400
3A	13SPIN1200SIVEYA	RIGHT FRONT PASSENGER LOWER SPINE Y-AXIS VELOCITY	180			
4	13PELVCG00SIACYA	RIGHT FRONT PASSENGER PELVIS Y-AXIS ACCELERATION	1000	+	yes	400
4A	13PELVCG00SIVEYA	RIGHT FRONT PASSENGER PELVIS Y-AXIS VELOCITY	180			
5	16RIBSRU00SIACYA	RIGHT REAR PASSENGER UPPER RIB Y-AXIS ACCELERATION	1000	+	yes	800
5A	16RIBSRU00SIVEYA	RIGHT REAR PASSENGER UPPER RIB Y-AXIS VELOCITY	180			
6	16RIBSRL00SIACYA	RIGHT REAR PASSENGER LOWER RIB Y-AXIS ACCELERATION	1000	+	yes	800
6A	16RIBSRL00SIVEYA	RIGHT REAR PASSENGER LOWER RIB Y-AXIS VELOCITY	180			
7	16SPIN1200SIACYA	RIGHT REAR PASSENGER LOWER SPINE Y-AXIS ACCELERATION	1000	+	yes	400
7A	16SPIN1200SIVEYA	RIGHT REAR PASSENGER LOWER SPINE Y-AXIS VELOCITY	180			
8	16PELVCG00SIACYA	RIGHT REAR PASSENGER PELVIS Y-AXIS ACCELERATION	1000	+	yes	400
8A	16PELVCG00SIVEYA	RIGHT REAR PASSENGER PELVIS Y-AXIS VELOCITY	180			
9	13RIBSRURDSIACYA	RIGHT FRONT PASSENGER UPPER RIB Y-AXIS REDUNDANT ACCELERATION	1000	+	yes	800
9A	13RIBSRURDSIVEYA	RIGHT FRONT PASSENGER UPPER RIB Y-AXIS REDUNDANT VELOCITY	180			
10	13RIBSRLRDSIACYA	RIGHT FRONT PASSENGER LOWER RIB Y-AXIS REDUNDANT ACCELERATION	1000	+	yes	800
10A	13RIBSRLRDSIVEYA	RIGHT FRONT PASSENGER LOWER RIB Y-AXIS REDUNDANT VELOCITY	180			
11	13SPIN12RDSIACYA	RIGHT FRONT PASSENGER LOWER SPINE Y-AXIS REDUNDANT ACCELERATION	1000	+	yes	400
11A	13SPIN12RDSIVEYA	RIGHT FRONT PASSENGER LOWER SPINE Y-AXIS REDUNDANT VELOCITY	180			
12	16RIBSRURDSIACYA	RIGHT REAR PASSENGER UPPER RIB Y-AXIS REDUNDANT ACCELERATION	1000	+	yes	800
12A	16RIBSRURDSIVEYA	RIGHT REAR PASSENGER UPPER RIB Y-AXIS REDUNDANT VELOCITY	180			
13	16RIBSRLRDSIACYA	RIGHT REAR PASSENGER LOWER RIB Y-AXIS REDUNDANT ACCELERATION	1000	+	yes	800
13A	16RIBSRLRDSIVEYA	RIGHT REAR PASSENGER LOWER RIB Y-AXIS REDUNDANT VELOCITY	180			
14	16SPIN12RDSIACYA	RIGHT REAR PASSENGER LOWER SPINE Y-AXIS REDUNDANT ACCELERATION	1000	+	yes	400
14A	16SPIN12RDSIVEYA	RIGHT REAR PASSENGER LOWER SPINE Y-AXIS REDUNDANT VELOCITY	180			
15	14SILBFR0000ACXA	LEFT SIDE SILL AT FRONT SEAT X-AXIS ACCELERATION	60	+	yes	400
15A	14SILBFR0000VEXA	LEFT SIDE SILL AT FRONT SEAT X-AXIS VELOCITY	180			
16	14SILBFR0000ACYA	LEFT SIDE SILL AT FRONT SEAT Y-AXIS ACCELERATION	60	+	yes	1000
16A	14SILBFR0000VEYA	LEFT SIDE SILL AT FRONT SEAT Y-AXIS VELOCITY	180			
17	14SILBFR0000ACZA	LEFT SIDE SILL AT FRONT SEAT Z-AXIS ACCELERATION	60	+	yes	400
17A	14SILBFR0000VEZA	LEFT SIDE SILL AT FRONT SEAT Z-AXIS VELOCITY	180			
17B	14SILBFR0000ACRA	LEFT SIDE SILL AT FRONT SEAT RESULTANT ACCELERATION	60			
18	14SILBRE0000ACXA	LEFT SIDE SILL AT REAR SEAT X-AXIS ACCELERATION	60	+	yes	400
18A	14SILBRE0000VEXA	LEFT SIDE SILL AT REAR SEAT X-AXIS VELOCITY	180			
19	14SILBRE0000ACYA	LEFT SIDE SILL AT REAR SEAT Y-AXIS ACCELERATION	60	+	yes	1000
19A	14SILBRE0000VEYA	LEFT SIDE SILL AT REAR SEAT Y-AXIS VELOCITY	180			
20	14SILBRE0000ACZA	LEFT SIDE SILL AT REAR SEAT Z-AXIS ACCELERATION	60	+	yes	400
20A	14SILBRE0000VEZA	LEFT SIDE SILL AT REAR SEAT Z-AXIS VELOCITY	180			

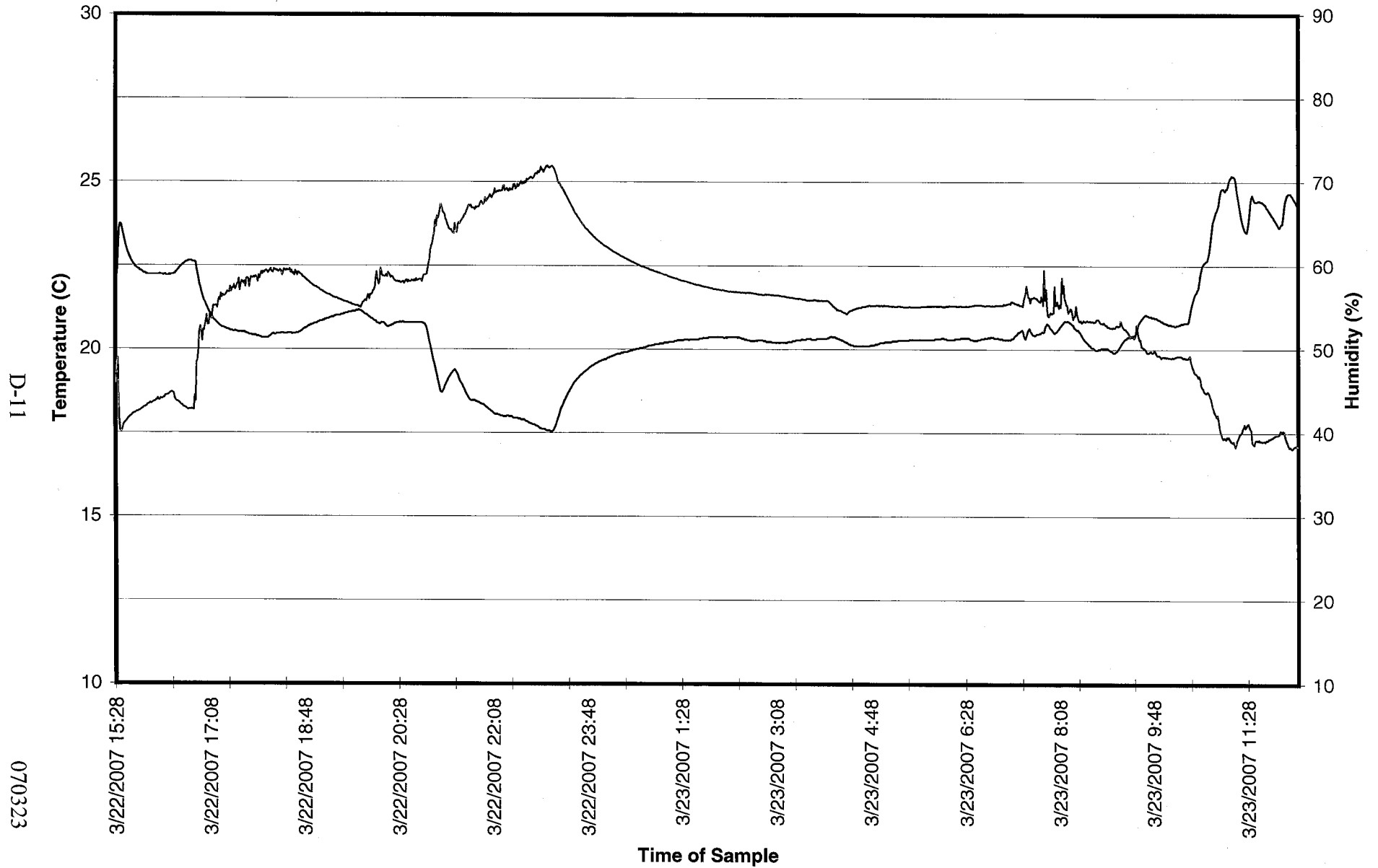
Command File Test Number 070323

Channel	ISO Mnemonic	Channel Title	Filter Class	Flip	Zero	Full Scale
20B	14SILBRE0000ACRA	LEFT SIDE SILL AT REAR SEAT RESULTANT ACCELERATION	60			
21	18FORA000000ACXA	REAR FLOORPAN ABOVE AXLE X-AXIS ACCELERATION	60	+	yes	1000
21A	18FORA000000VEXA	REAR FLOORPAN ABOVE AXLE X-AXIS VELOCITY	180			
22	18FORA000000ACYA	REAR FLOORPAN ABOVE AXLE Y-AXIS ACCELERATION	60	+	yes	1000
22A	18FORA000000VEYA	REAR FLOORPAN ABOVE AXLE Y-AXIS VELOCITY	180			
23	18FORA000000ACZA	REAR FLOORPAN ABOVE AXLE Z-AXIS ACCELERATION	60	+	yes	1000
23A	18FORA000000VEZA	REAR FLOORPAN ABOVE AXLE Z-AXIS VELOCITY	180			
23B	18FORA000000ACRA	REAR FLOORPAN ABOVE AXLE RESULTANT ACCELERATION	60			
24	16SILBFR0000ACYA	RIGHT SIDE SILL AT FRONT SEAT Y-AXIS ACCELERATION	60	+	yes	1000
24A	16SILBFR0000VEYA	RIGHT SIDE SILL AT FRONT SEAT Y-AXIS VELOCITY	180			
24B	16SILBFR0000DCYA	RIGHT SIDE SILL AT FRONT SEAT Y-AXIS DISPLACEMENT	180			
25	16SILBRE0000ACYA	RIGHT SIDE SILL AT REAR SEAT Y-AXIS ACCELERATION	60	+	yes	1000
25A	16SILBRE0000VEYA	RIGHT SIDE SILL AT REAR SEAT Y-AXIS VELOCITY	180			
25B	16SILBRE0000DCYA	RIGHT SIDE SILL AT REAR SEAT Y-AXIS DISPLACEMENT	180			
26	14VEHCRE0000ACYA	LEFT REAR OCCUPANT COMPARTMENT Y-AXIS ACCELERATION	60	-	yes	1500
26A	14VEHCRE0000VEYA	LEFT REAR OCCUPANT COMPARTMENT Y-AXIS VELOCITY	180			
26B	14VEHCRE0000DCYA	LEFT REAR OCCUPANT COMPARTMENT Y-AXIS DISPLACEMENT	180			
27	13APILLO0000ACYA	RIGHT LOWER A-POST Y-AXIS ACCELERATION	60	+	yes	1500
27A	13APILLO0000VEYA	RIGHT LOWER A-POST Y-AXIS VELOCITY	180			
28	13APILMI0000ACYA	RIGHT MIDDLE A-POST Y-AXIS ACCELERATION	60	+	yes	1500
28A	13APILMI0000VEYA	RIGHT MIDDLE A-POST Y-AXIS VELOCITY	180			
29	16BPILLO0000ACYA	RIGHT LOWER B-POST Y-AXIS ACCELERATION	60	+	yes	1500
29A	16BPILLO0000VEYA	RIGHT LOWER B-POST Y-AXIS VELOCITY	180			
30	16BPILMI0000ACYA	RIGHT MIDDLE B-POST Y-AXIS ACCELERATION	60	+	yes	1500
30A	16BPILMI0000VEYA	RIGHT MIDDLE B-POST Y-AXIS VELOCITY	180			
31	13SETRFR0000ACYA	RIGHT FRONT SEAT TRACK Y-AXIS ACCELERATION	60	+	yes	1500
31A	13SETRFR0000VEYA	RIGHT FRONT SEAT TRACK Y-AXIS VELOCITY	180			
32	16SETRLERE00ACYA	RIGHT REAR SEAT TRACK Y-AXIS ACCELERATION	60	+	yes	1500
32A	16SETRLERE00VEYA	RIGHT REAR SEAT TRACK Y-AXIS VELOCITY	180			
33	10VEHCCG0000ACXA	VEHICLE CENTER OF GRAVITY X-AXIS ACCELERATION	60	+	yes	1000
33A	10VEHCCG0000VEXA	VEHICLE CENTER OF GRAVITY X-AXIS VELOCITY	180			
34	10VEHCCG0000ACYA	VEHICLE CENTER OF GRAVITY Y-AXIS ACCELERATION	60	+	yes	1000
34A	10VEHCCG0000VEYA	VEHICLE CENTER OF GRAVITY Y-AXIS VELOCITY	180			
35	10VEHCCG0000ACZA	VEHICLE CENTER OF GRAVITY Z-AXIS ACCELERATION	60	+	yes	1000
35A	10VEHCCG0000VEZA	VEHICLE CENTER OF GRAVITY Z-AXIS VELOCITY	180			
35B	10VEHCCG0000ACRA	VEHICLE CENTER OF GRAVITY RESULTANT ACCELERATION	60			
36	M0VEHCCG0000ACXA	MDB CENTER OF GRAVITY X-AXIS ACCELERATION	60	+	yes	600
36A	M0VEHCCG0000VEXA	MDB CENTER OF GRAVITY X-AXIS VELOCITY	180			
37	M0VEHCCG0000ACYA	MDB CENTER OF GRAVITY Y-AXIS ACCELERATION	60	+	yes	600
37A	M0VEHCCG0000VEYA	MDB CENTER OF GRAVITY Y-AXIS VELOCITY	180			
38	M0VEHCCG0000ACZA	MDB CENTER OF GRAVITY Z-AXIS ACCELERATION	60	+	yes	600

Command File Test Number 070323

Channel	ISO Mnemonic	Channel Title	Filter Class	Flip	Zero	Full Scale
38A	M0VEHCCG0000VEZA	MDB CENTER OF GRAVITY Z-AXIS VELOCITY	180			
38B	M0VEHCCG0000ACRA	MDB CENTER OF GRAVITY RESULTANT ACCELERATION	60			
39	M7FRAM000000ACXA	MDB REAR X-AXIS ACCELERATION	60	+	yes	600
39A	M7FRAM000000VEXA	MDB REAR X-AXIS VELOCITY	180			
40	M7FRAM000000ACYA	MDB REAR Y-AXIS ACCELERATION	60	+	yes	600
40A	M7FRAM000000VEYA	MDB REAR Y-AXIS VELOCITY	180			
41	M3CONT000000VO00	MDB RIGHT CONTACT SWITCH	0	+	no	1
42	M1CONT000000VO00	MDB LEFT CONTACT SWITCH	0	+	no	1
42A	13RIBSRU00SIACYA	RIGHT FRONT PASSENGER UPPER RIB Y-AXIS ACCELERATION	100	+	yes	800
42B	13RIBSRL00SIACYA	RIGHT FRONT PASSENGER LOWER RIB Y-AXIS ACCELERATION	100	+	yes	800
42C	13SPIN1200SIACYA	RIGHT FRONT PASSENGER LOWER SPINE Y-AXIS ACCELERATION	100	+	yes	400
42D	13PELVCG00SIACYA	RIGHT FRONT PASSENGER PELVIS Y-AXIS ACCELERATION	100	+	yes	400
42E	16RIBSRU00SIACYA	RIGHT REAR PASSENGER UPPER RIB Y-AXIS ACCELERATION	100	+	yes	800
42F	16RIBSRL00SIACYA	RIGHT REAR PASSENGER LOWER RIB Y-AXIS ACCELERATION	100	+	yes	800
42G	16SPIN1200SIACYA	RIGHT REAR PASSENGER LOWER SPINE Y-AXIS ACCELERATION	100	+	yes	400
42H	16PELVCG00SIACYA	RIGHT REAR PASSENGER PELVIS Y-AXIS ACCELERATION	100	+	yes	400
42I	13RIBSRURDSIACYA	RIGHT FRONT PASSENGER UPPER RIB Y-AXIS REDUNDANT ACCELERATION	100	+	yes	800
42J	13RIBSRLRDSIACYA	RIGHT FRONT PASSENGER LOWER RIB Y-AXIS REDUNDANT ACCELERATION	100	+	yes	800
42K	13SPIN12RDSIACYA	RIGHT FRONT PASSENGER LOWER SPINE Y-AXIS REDUNDANT ACCELERATION	100	+	yes	400
42L	16RIBSRURDSIACYA	RIGHT REAR PASSENGER UPPER RIB Y-AXIS REDUNDANT ACCELERATION	100	+	yes	800
42M	16RIBSRLRDSIACYA	RIGHT REAR PASSENGER LOWER RIB Y-AXIS REDUNDANT ACCELERATION	100	+	yes	800
42N	16SPIN12RDSIACYA	RIGHT REAR PASSENGER LOWER SPINE Y-AXIS REDUNDANT ACCELERATION	100	+	yes	400

48/24 KPH 90 DEGREE SIDE IMPACT (MDB) INTO RIGHT SIDE OF 2007 KIA RIO



KIA

SOLD TO:

SHIP TO:

2007 31401

KIA RIO BASE

SILVER/GRAY

MODEL YEAR MODEL

MODEL DESCRIPTION

EXTERIOR/INTERIOR COLOR

KNADE123576188258

G4H38462

TACOMA

TRUCK

VEHICLE NUMBER

ENGINE NUMBER

PORT OF ENTRY

MODE OF TRANSPORTATION

OH028
RICART PROPERTIES, INC.
4255 S. Hamilton Road
PO BOX 27130 COLUMBUS OH 43227
GROVEPORT OH 43125

OH028

STANDARD FEATURES

MANUFACTURER'S SUGGESTED RETAIL PRICE ➤

MECHANICAL

1.6L 16-Valve DOHC CVVT 4-Cylinder Engine
5-Speed Manual Transmission
Independent Front Suspension, Fr. Stabilizer Bar
Torsion Beam Rear Suspension
Rack and Pinion Steering
P175/70R14 Tires, Center Caps
Power Front Disc/Rear Drum Brakes

SAFETY

Dual Front Advanced Airbags
Front Seat Mounted Side Airbags
Full-Length Side Curtain Airbags
Front Height Adjustable Seatbelt Anchors
Front Seat Belt Pretensioners with Force Limiters
Rear Three-Point Seatbelts (3)
Lower Anchors and Tethers for Children (LATCH)

INTERIOR

Full Cloth Seat Trim, Tachometer
8-way Driver's Seat, Dual Front Cupholders
Driver's Seat Fold Down Armrest
Front Pass. Seatback Pocket, Tinted Glass
Dual Sun Visors w/Covered Vanity Mirrors
Luggage Hook on Front Passenger Seatback
Dual Manual Remote Outside Mirrors
Auto-Off Headlamps, Low-Fuel Warning Light
Remote Trunk and Fuel Door Releases
Dome Lamp w/Delay Out

EXTERIOR

Body Color Front and Rear Bumpers
Body Color Door Handles
Variable Intermittent Front Wipers
Black Body Side Moldings
10 YEARS/100,000 MILES

LIMITED POWERTRAIN WARRANTY

5 YEARS/60,000 MILES

24-HOUR ROADSIDE ASSISTANCE

ADDITIONAL INSTALLED EQUIPMENT:
(In addition to or in place of standard features)
Carpeted Floor Mats

\$10,770.00

\$85.00

MSRP INCLUDING OPTIONS

\$10,855.00

INLAND FREIGHT AND HANDLING

\$580.00

TOTAL MANUFACTURER'S SUGGESTED RETAIL PRICE ➤

\$11,435.00

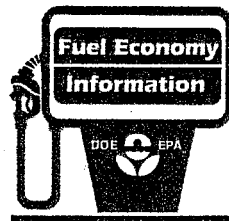
Manufacturer's suggested retail price includes manufacturer's recommended pre-delivery service.
License and title fees, state and local taxes and other dealer installed options
and accessories are not included in the manufacturer's suggested retail price.

Compare this vehicle to others in the FREE FUEL ECONOMY GUIDE available at the dealer.

PARTS CONTENT INFORMATION

CITY MPG

32



HIGHWAY MPG

35

2007 KIA RIO BASE
1.6 LITER ENGINE
FUEL INJECTION
4 CYLINDERS, CATALYST
5 SPEED

Estimated Annual Fuel Cost

\$ 1204.00

Actual Mileage will vary with
options, driving conditions,
driving habits and vehicle's
condition. Results reported to
EPA indicate that the majority
of vehicles with these estimates
will achieve between

27 and 37 mpg in the city, and between

29 and 41 mpg on the highway.

For Comparison Shopping
all vehicles classified as
COMPACT
have been issued mileage
ratings ranging from

12 to 49 mpg city and

18 to 51 mpg highway.

FOR VEHICLES IN THIS CAR LINE
U.S. / CANADIAN PARTS CONTENT
2%

MAJOR SOURCES OF FOREIGN
PARTS:
KOREA: 90%

NOTE: PARTS CONTENT DOES NOT INCLUDE
FINAL ASSEMBLY, DISTRIBUTION, OR OTHER
NON-PARTS COSTS.

FOR THIS VEHICLE
FINAL ASSEMBLY POINT:
KOREA

COUNTRY OF ORIGIN
ENGINE:

KOREA

TRANSMISSION:

KOREA

see www.fueleconomy.gov

D-12

070323





CERTIFICATE OF CONFORMITY

Certificate No. **29343**
Serial No. **GJ320**

Cellbond Composites Ltd
5 Stukeley Business Centre
Blackstone Road
Huntingdon
Cambridgeshire
PE29 6EF
United Kingdom

Product Description	FMVSS 214 - 1750x740x550mm Spec with 1.6 3/8 5052 Painted Grey
Cellbond Part No.	70NHTSASIUS G

telephone
+44 (0) 1480 435302
telefax
+44 (0) 1480 450181
email
sales@cellbond.com
website
www.cellbond.com

	Test Results	GR No.	Blk No.
1	20083-8	CHC13030077GJ	N/A
2	19948-8	CHC0509013GC	N/A

Declaration.

The above moving deformable barrier has been manufactured in accordance with the provisions of FMVSS 214.

Additional Information...

company registration
England 1944904

registered office
5 Stukeley Business Centre
Blackstone Road
Huntingdon
Cambridgeshire
PE29 6EF

Cellbond Offices
United Kingdom
United States of America





NHTSA / IIHS DEFORMABLE SIDE IMPACT BARRIER
ALUMINIUM HONEYCOMB CERTIFICATION
STATIC TEST RESULTS

MAIN BLOCK
Core: 1.6 3/8 5052

Required Crush Strength
42.5 PSI to 47.5 PSI

Test No: 20083-8

GR No: CHC13030077GJ

Block No: N/A

	Crush Strength (PSI)			RESULT
	0.25 to 0.38 inch	0.38 to 0.52 inch	0.52 to 0.65 inch	
Sample* 1	45.891	45.750	45.828	PASS
Sample 2	47.053	47.008	46.659	PASS
Sample 3	46.171	45.632	45.432	PASS
Sample 4	45.804	46.397	46.559	PASS
Sample 5	45.251	45.991	46.546	PASS
Sample 6	45.785	46.101	45.639	PASS
Sample 7	46.201	46.237	46.275	PASS
Sample 8	45.570	45.999	45.935	PASS

Seven out of the eight samples must fulfil the crush strength
requirement in order to pass the block certification

*Sample size and location as per R94.

RESULT: PASSED

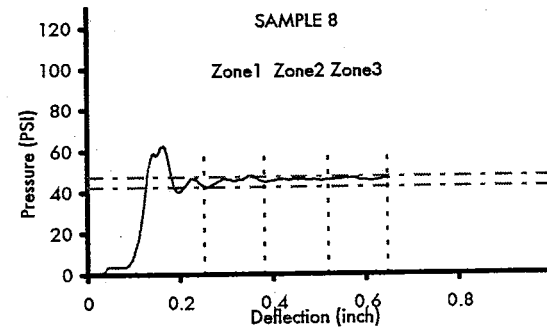
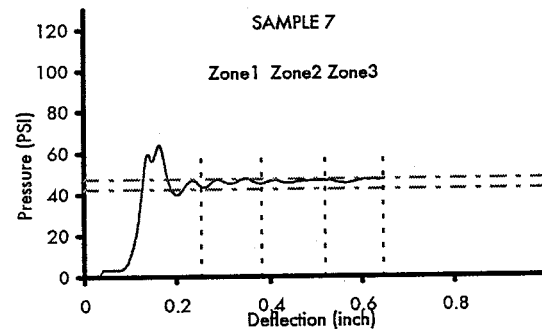
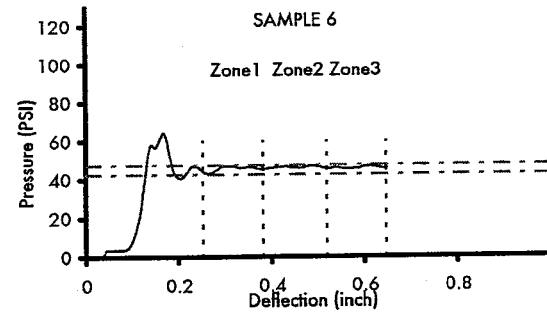
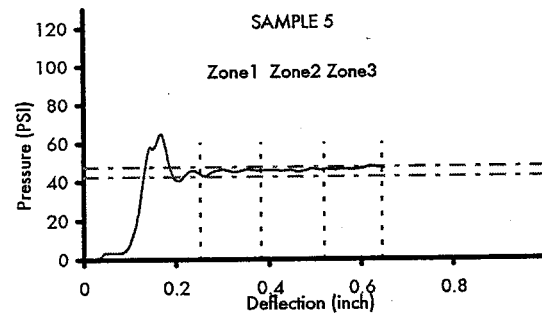
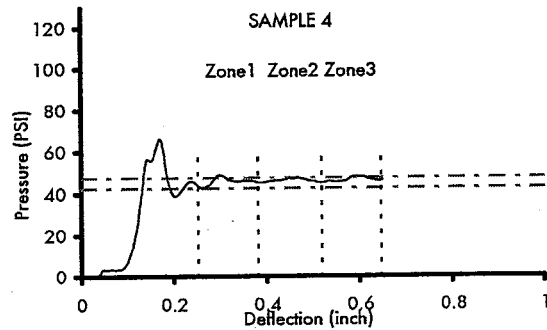
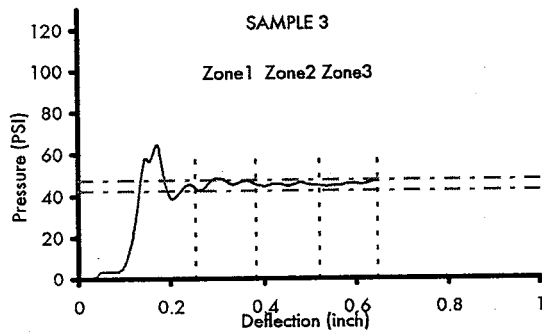
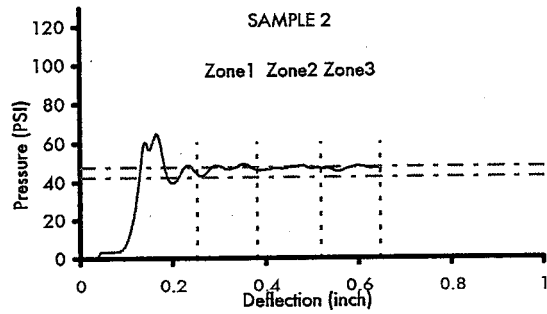
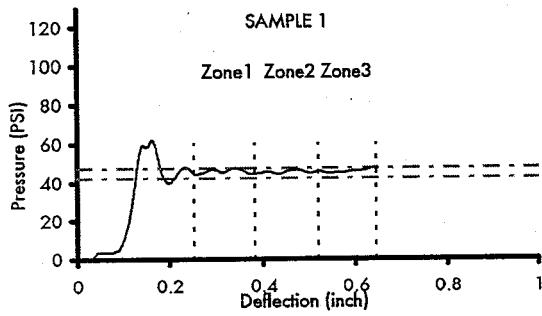
NHTSA / IIHS DEFORMABLE SIDE IMPACT BARRIER
MAIN BLOCK

Honeycomb Type: 1.6 3/8 5052
Higher Acceptable Crush Strength Limit: 47.5 PSI
Lower Acceptable Crush Strength Limit: 42.5 PSI

Section 1: 0.25 - 0.38 inch
Section 2: 0.38 - 0.52 inch
Section 3: 0.52 - 0.65 inch
Speed: 0.25 inch/min
Block No: N/A

Test No: 20083-8

GR No: CHC13030077GJ





NHTSA / IIHS DEFORMABLE SIDE IMPACT BARRIER
ALUMINIUM HONEYCOMB CERTIFICATION
STATIC TEST RESULTS

BUMPER

Core: 5.2 1/4 3003

Required Crush Strength
230 PSI to 260 PSI

Test No: 19948-8

GR No: CHC0509013GC

Block No: N/A

	Crush Strength (PSI)			RESULT
	0.25 to 0.38	0.38 to 0.52	0.52 to 0.65	
Sample* 1	245.89	245.38	240.73	PASS
Sample 2	242.66	241.62	233.67	PASS
Sample 3	238.02	235.74	232.87	PASS
Sample 4	251.63	247.22	248.33	PASS
Sample 5	252.68	251.12	248.94	PASS
Sample 6	244.70	244.90	241.09	PASS
Sample 7	246.81	243.04	239.05	PASS
Sample 8	230.86	230.64	225.64	FAIL

Seven out of the eight samples must fulfil the crush strength
requirement in order to pass the block certification

*Sample size and location as per R94.

RESULT: PASSED

NHTSA / IIHS DEFORMABLE SIDE IMPACT BARRIER BUMPER

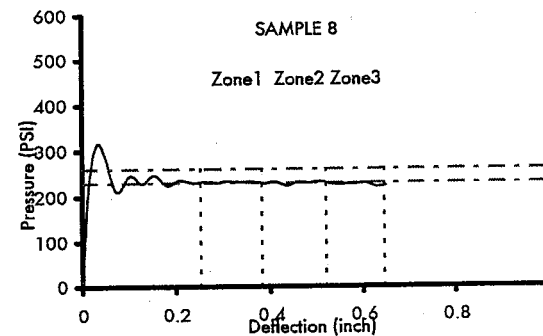
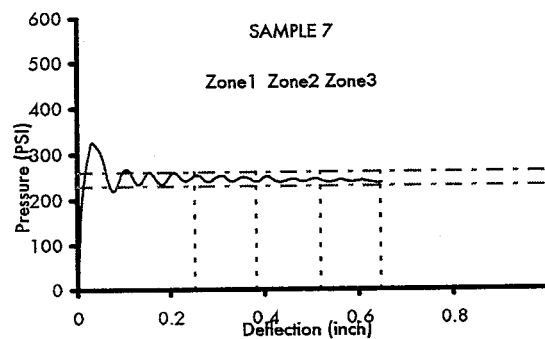
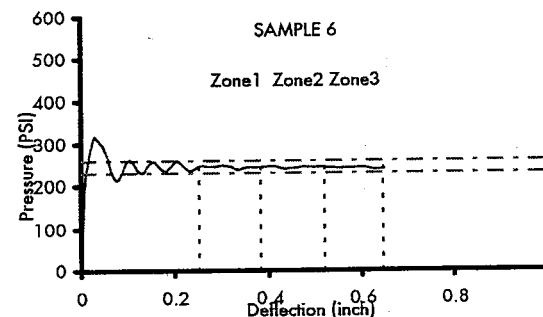
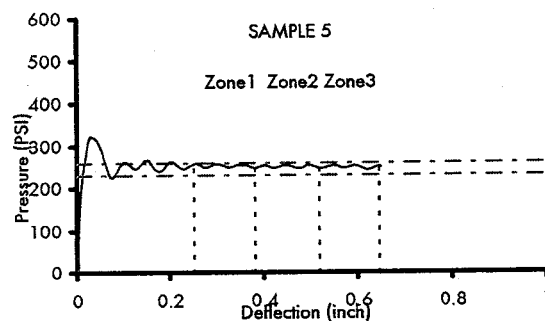
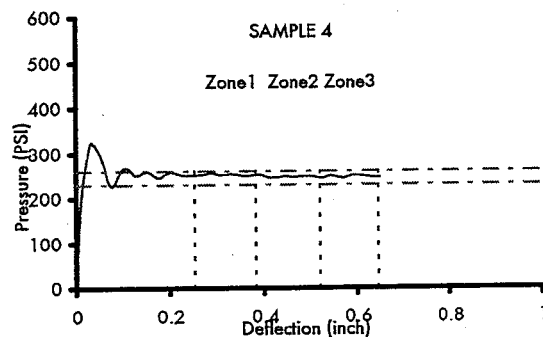
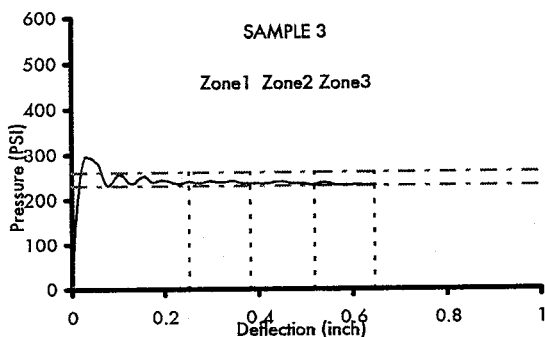
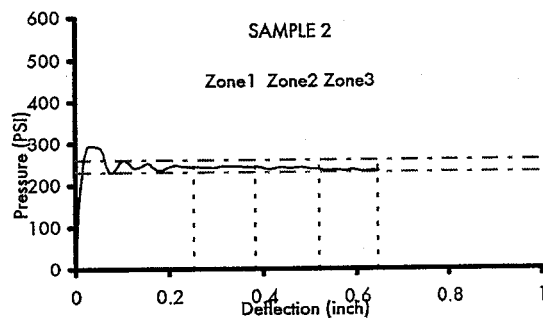
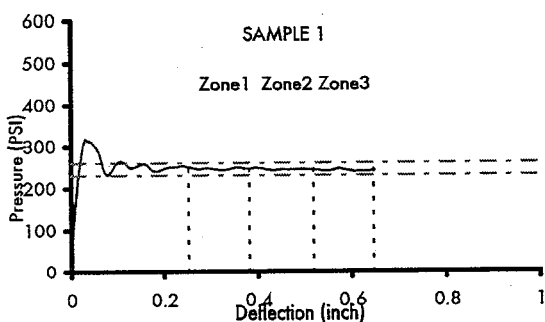
Honeycomb Type: 5.2 1/4 3003
Higher Acceptable Crush Strength Limit: 260 PSI
Lower Acceptable Crush Strength Limit: 230 PSI

Section 1: 0.25 - 0.38 inch
Section 2: 0.38 - 0.52 inch
Section 3: 0.52 - 0.65 inch
Speed: 0.25 inch/min

Test No: 19948-8

GR No: CHC0509013GC

Block No: N/A





TRANSPORTATION RESEARCH CENTER INC.
East Liberty, Ohio 43319-0367