

# NHTSA Pole Side Impact Vehicle Tests: WorldSID Dummy Data

Presented at Pole Side Impact  
Working Group Meeting  
20 June 2012

Vehicle	HIC36	Shoulder Deflection (mm)	Max Thorax Rib Deflection (mm)	Max Abdomen Rib Deflection (mm)	Lower Spine (G's)	Pubic Force (N)	Pelvis Resultant Acceleration (G's)	Shoulder Force (N)	S-I joint Force (L/R) (N)	Rib with Max deflection	25% AIS 3+ Thoracic Risk	50% AIS 3+ Thoracic Risk	25% AIS 2+ Shoulder Risk	50% AIS 2+ Shoulder Risk	comment
2010 Ford F150	367	38	41	33	57	1110	44	2080	2439/1459	Rib 1	80	71	92	81	curtain and thorax bag
2010 Buick Lacrosse	577	54	43	26	61	1201	87	2270	3533/1952	Rib 1	84	74	100	89	curtain and thorax bag
2011 Hyundai Sonata	250	57	32	44	73	1433	72	2338	3725/1755	Rib 3	63	56	103	91	curtain and thorax bag
2010 Chevy Traverse	439	66	46	36	54	1557	71	2425	3253/1947	Rib 1	89	79	107	95	curtain and thorax bag
2010 Acura MDX	470	62	29	42	54	812	52	2422	3655/1877	Rib 3	56	49	107	95	curtain and thorax bag
2010 Suzuki SX4	195	25	35	42	53	1107	69	1177	4213/2077	Rib 3	68	60	52	46	curtain and thorax bag
2010 Kia Forte	491	55	25	34	46	1151	79	2231	3297/1910	Rib 3	49	43	98	87	curtain and thorax bag
2011 Hyundai Tucson	452	55	35	42	57	936	54	2081	3350/1694	Rib 1	69	61	92	81	curtain and thorax bag
2011 Cadillac CTS	514	51	56	40	57	925	47	2248	No Data	Rib 1	109	96	99	88	curtain and thorax bag
2011 Jeep Gr Cherokee	332	51	30	23	36	1227	58	2017	2651/1520	Rib 1	59	52	89	79	curtain and thorax bag
2011 Ford Explorer	393	60	43	39	81	912	81	2412	4172/2212	Rib 1	83	73	106	94	curtain and thorax bag
2011 Honda Odyssey	413	51	40	41	49	1013	58	1928	3328/1767	Rib 1	78	69	85	75	curtain and thorax bag

25 % risk

51

2922

2270

3107

50% risk

58

3365

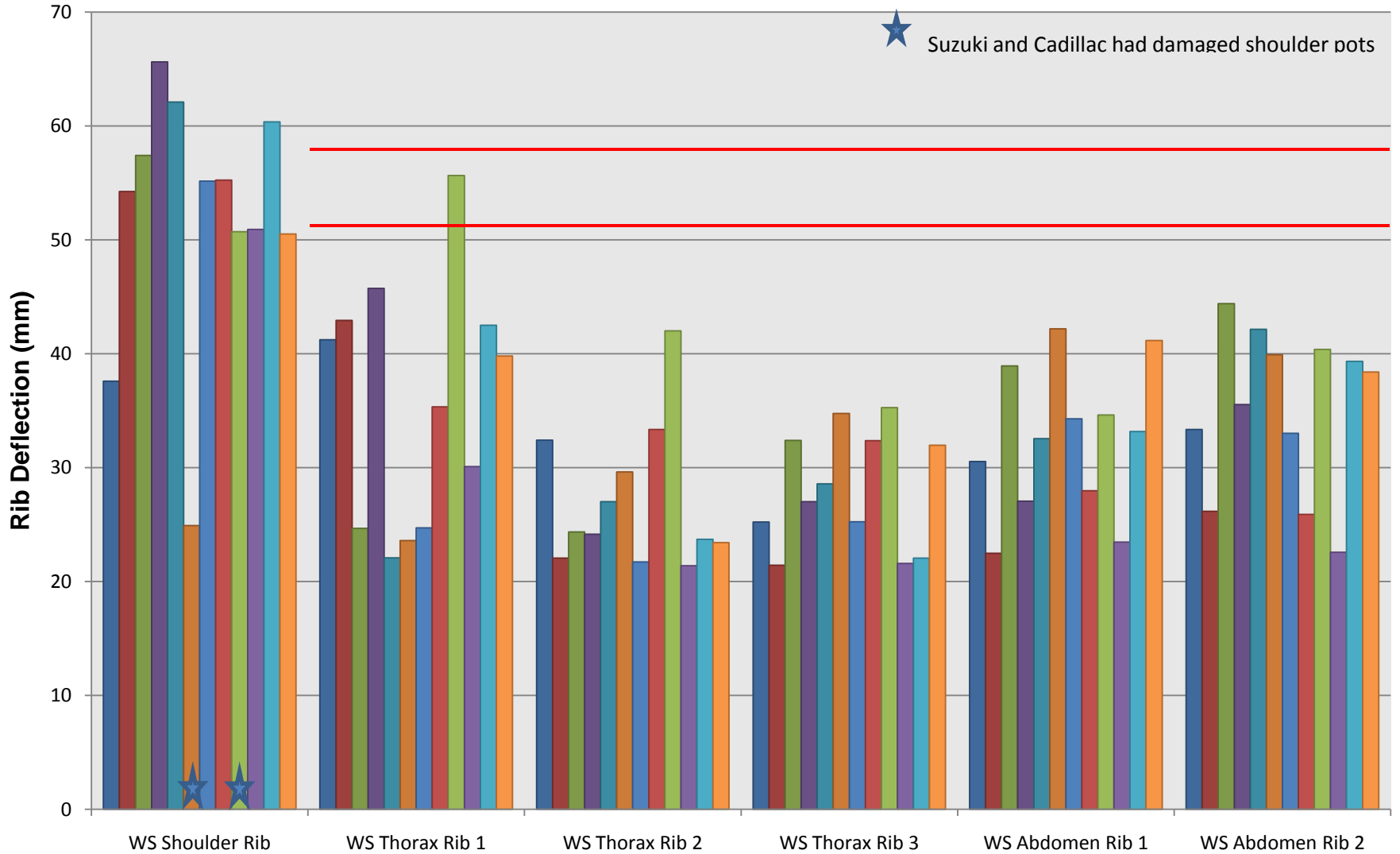
2556

PMHS

# WorldSID Ribs

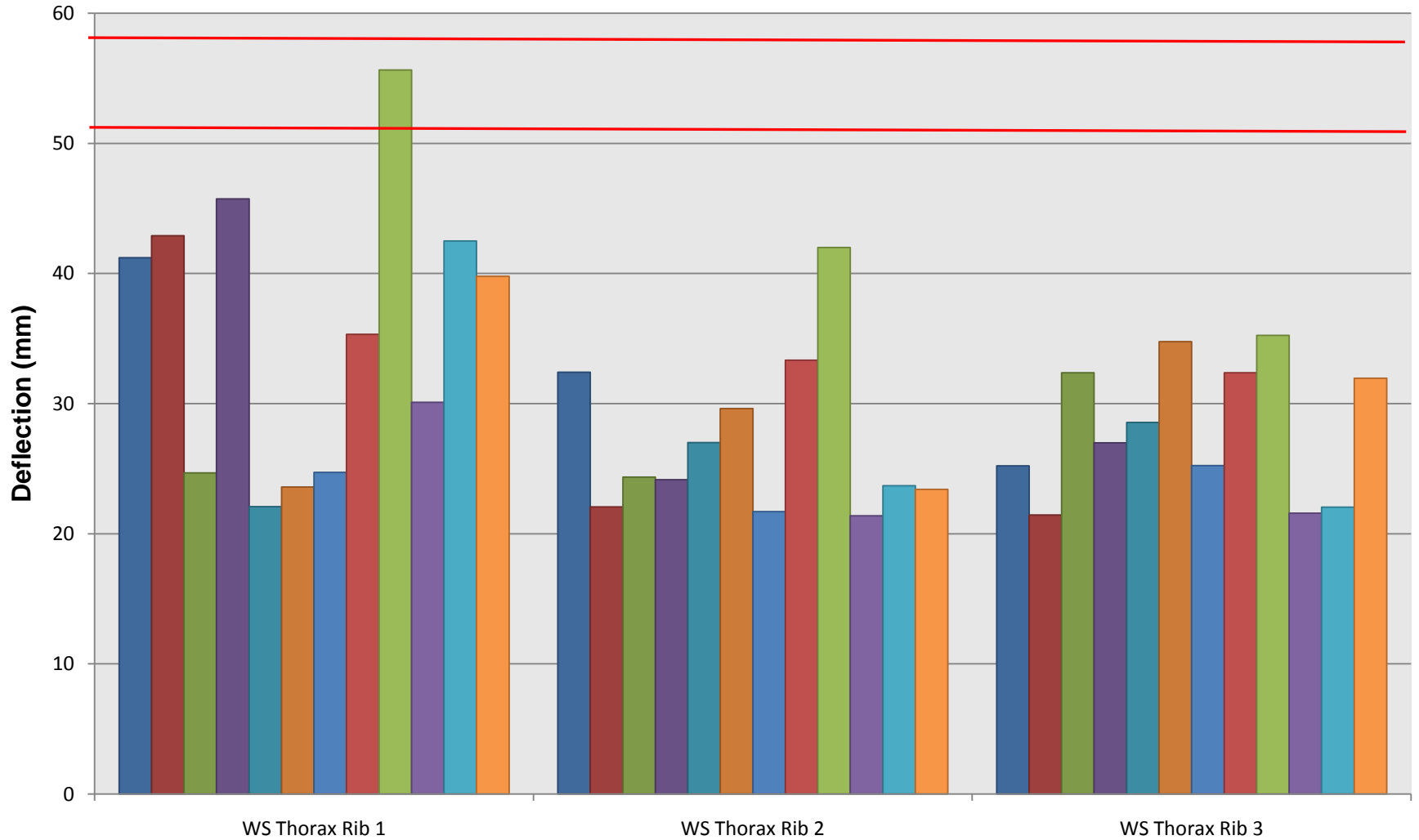
- 2010 Ford F150      2010 Buick LaCrosse      2011 Hyundai Sonata      2010 Chevy Traverse      2011 Accura MDX      2010 Suzuki SX4
- 2010 Kia Forte      2011 Hyundai Tuscon      2011 Cadillac CTX      2011 Jeep Gr Cherokee      2011 Ford Explorer XLT      2011 Honda Odyssey

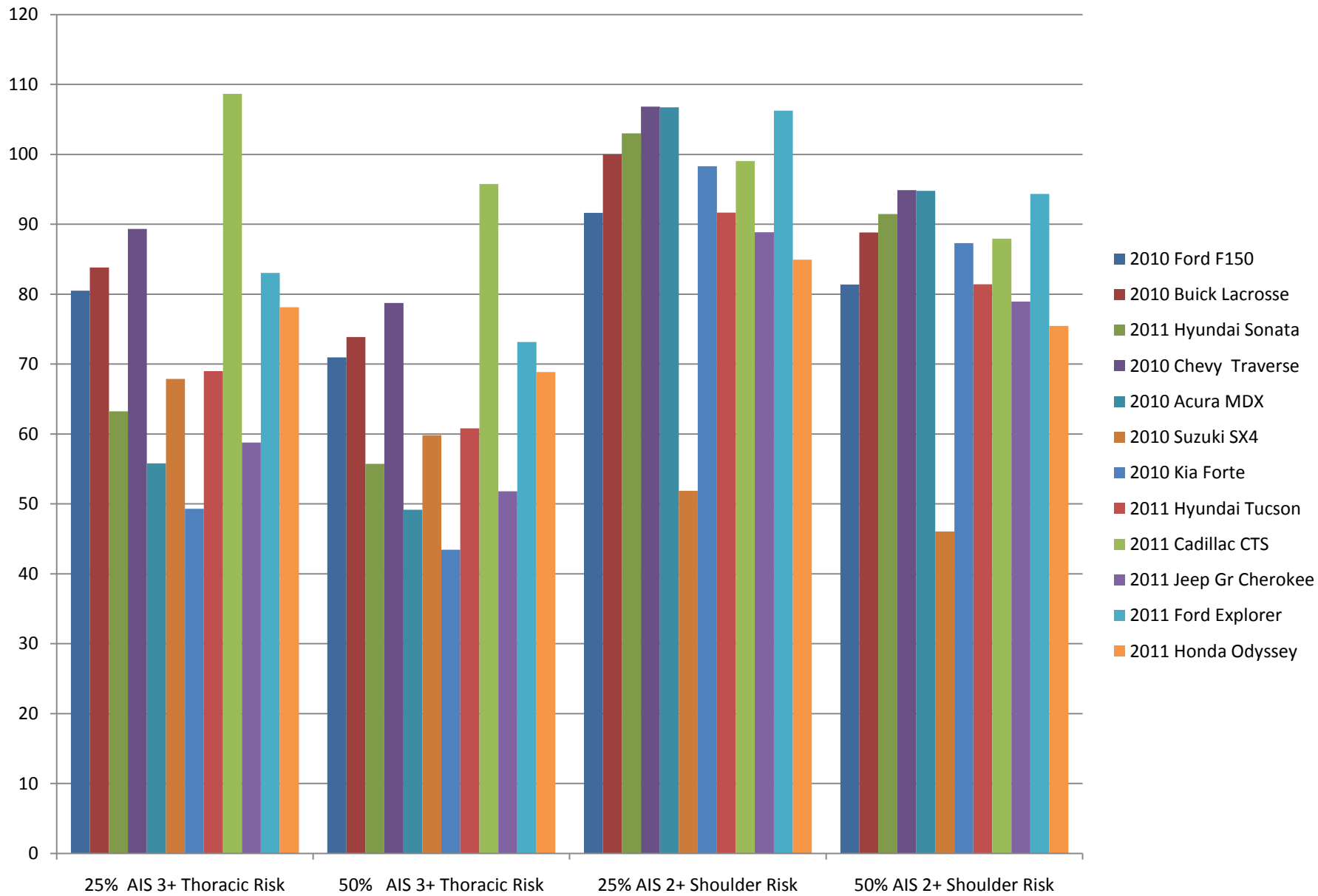
★ Suzuki and Cadillac had damaged shoulder pots



# WorldSID Thorax Ribs

- 2010 Ford F150
- 2010 Buick LaCrosse
- 2011 Hyundai Sonata
- 2010 Chevy Traverse
- 2011 Accura MDX
- 2010 Suzuki SX4
- 2010 Kia Forte
- 2011 Hyundai Tuscon
- 2011 Cadillac CTX
- 2011 Jeep Gr Cherokee
- 2011 Ford Explorer XLT
- 2011 Honda Odyssey







2010 Suzuki SX4 Left Side FMVSS 214 Pole Impact 32 kph

Date: 08/01/2011  
Time: 16:46

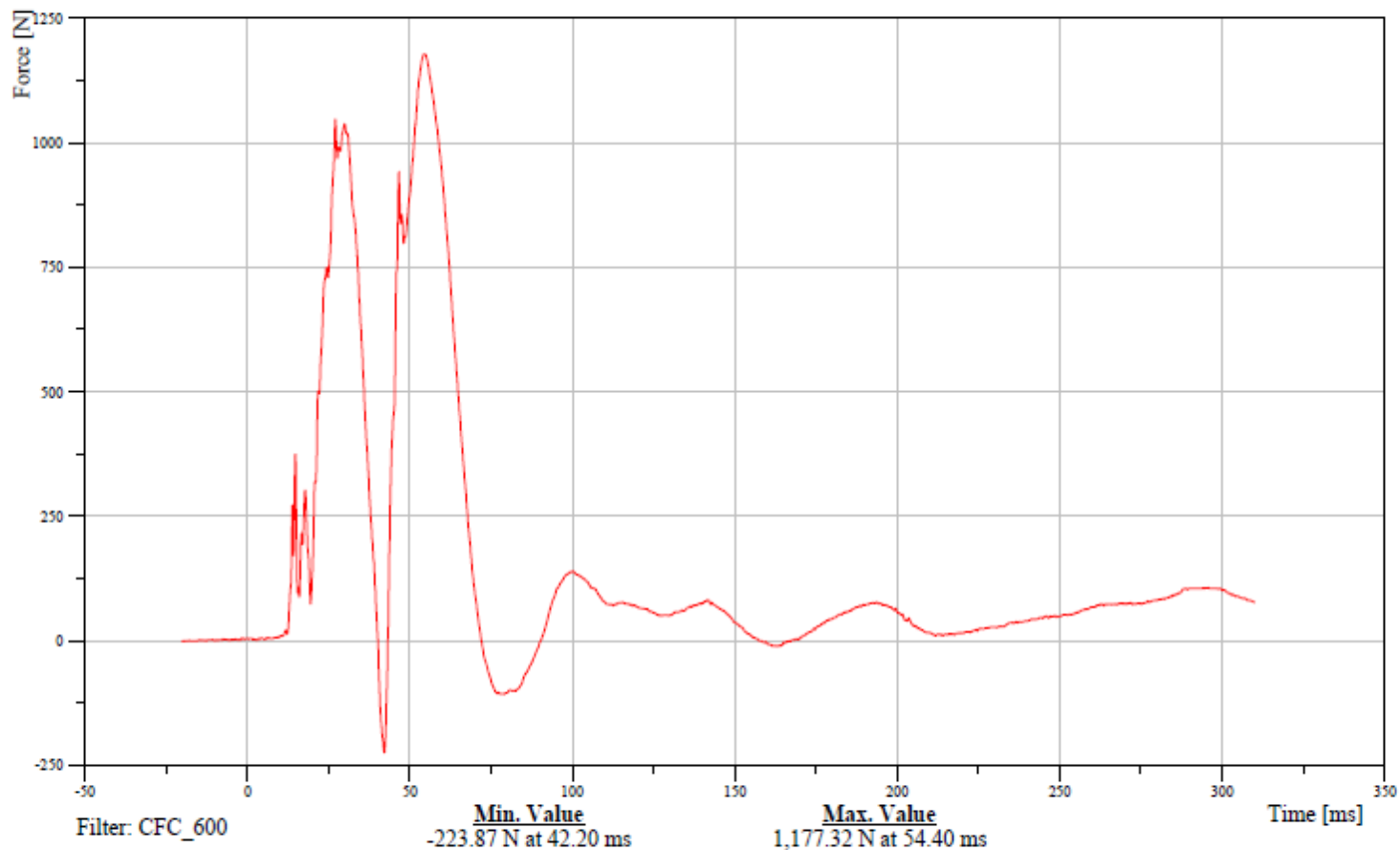
Shoulder Y-Axis Force

Customer: VRTC

11SHLDLE00WSFOYB

TRC Inc. Test Lab: CTF

Test Number: 110801



B-22

110801



# 2010 Kia Forte Left Side FMVSS 214 Pole Impact 32 kph

Date: 07/08/2011

Time: 14:26

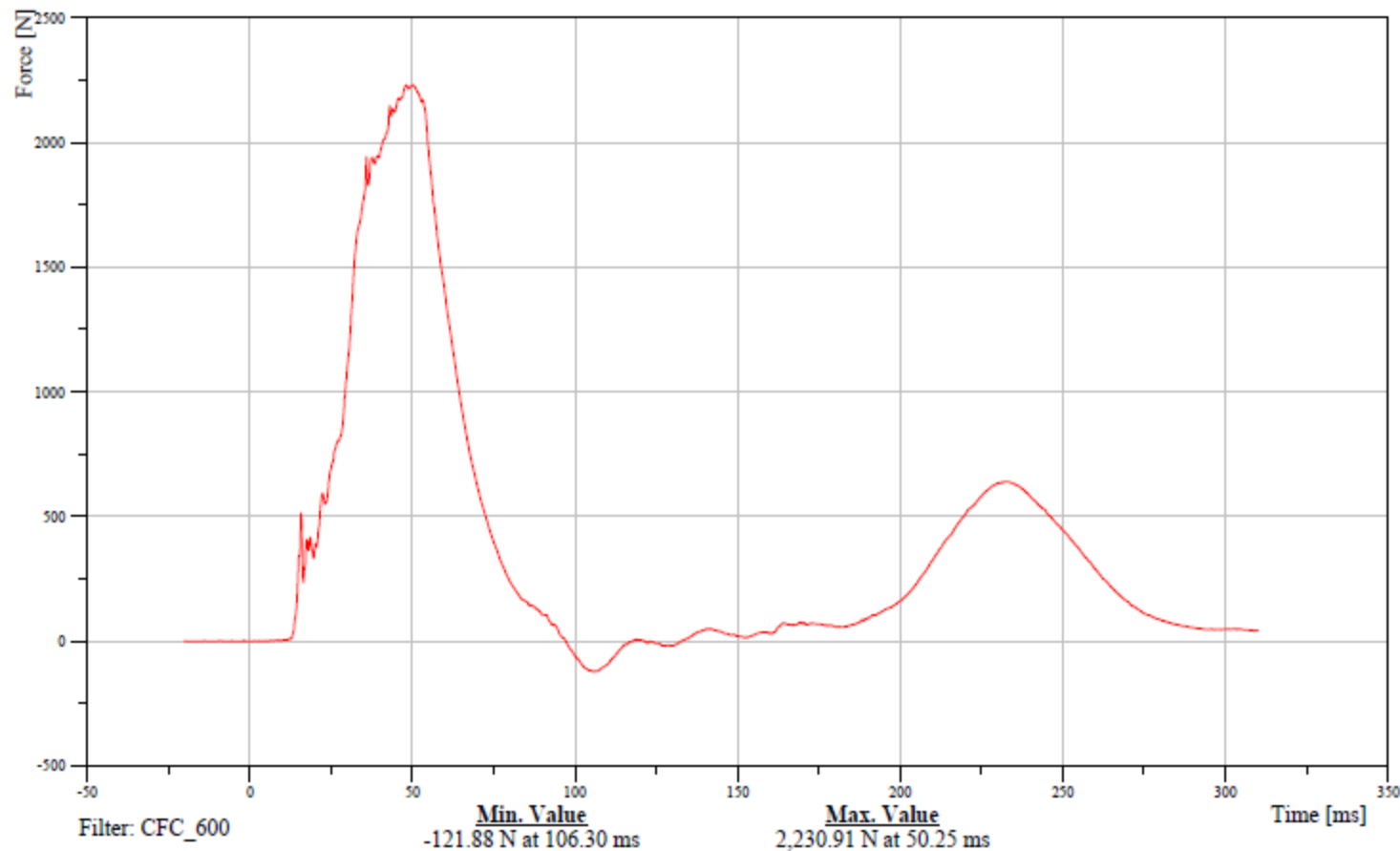
## Shoulder Y-Axis Force

Customer: VRTC

### 11SHLDLE00WSFOYB

TRC Inc. Test Lab: CTF

Test Number: 110708



B-22

110708



# 2010 Suzuki SX4 Left Side FMVSS 214 Pole Impact 32 kph

Date: 08/01/2011  
Time: 16:46

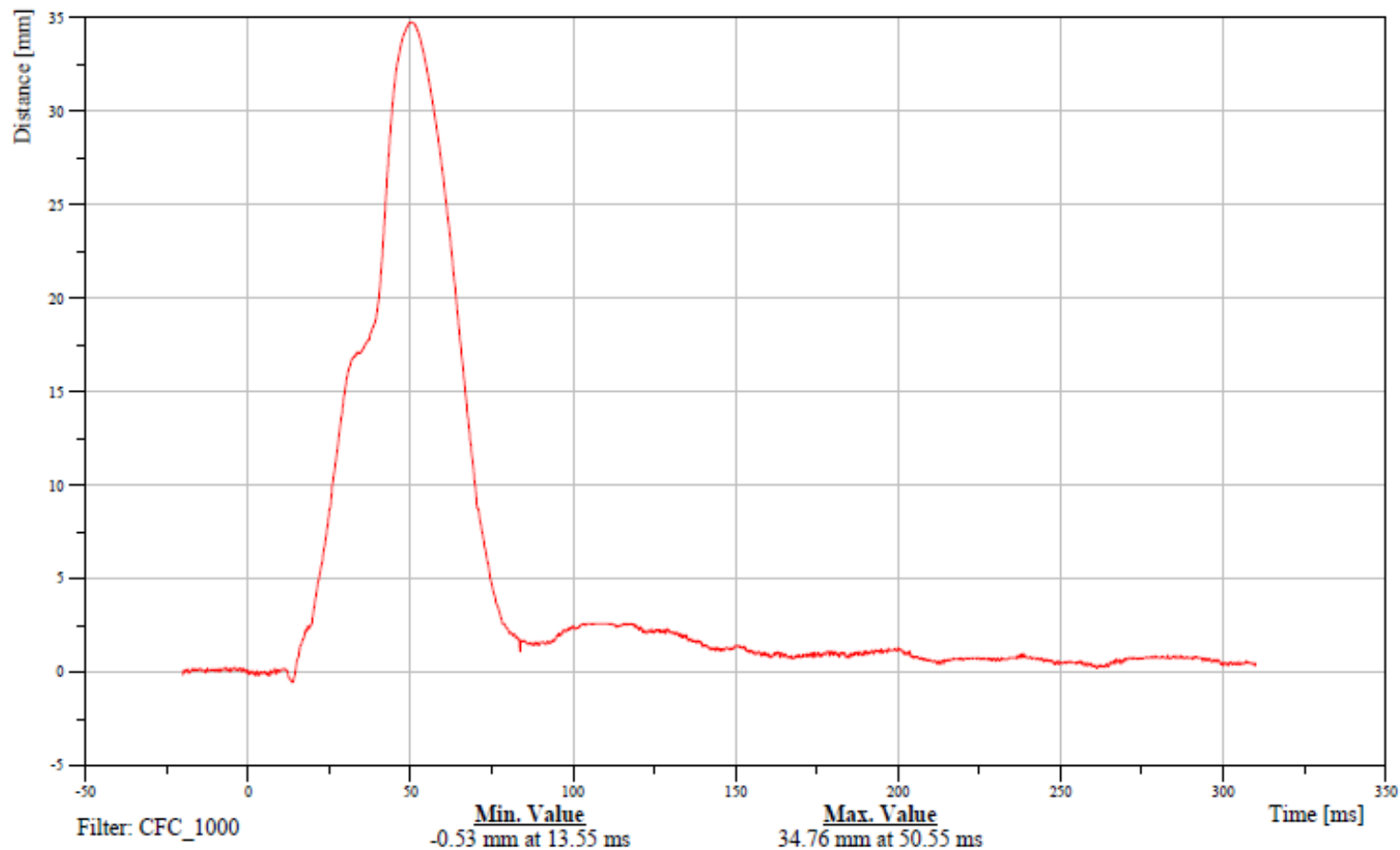
## Thorax Rib 3 Y-Axis Displacement

Customer: VRTC

# 11TRRILE03WSDSYA

TRC Inc. Test Lab: CTF

Test Number: 110801







# 2010 Kia Forte Left Side FMVSS 214 Pole Impact 32 kph

Date: 07/06/2011

## Thorax Rib 3 Y-Axis Displacement

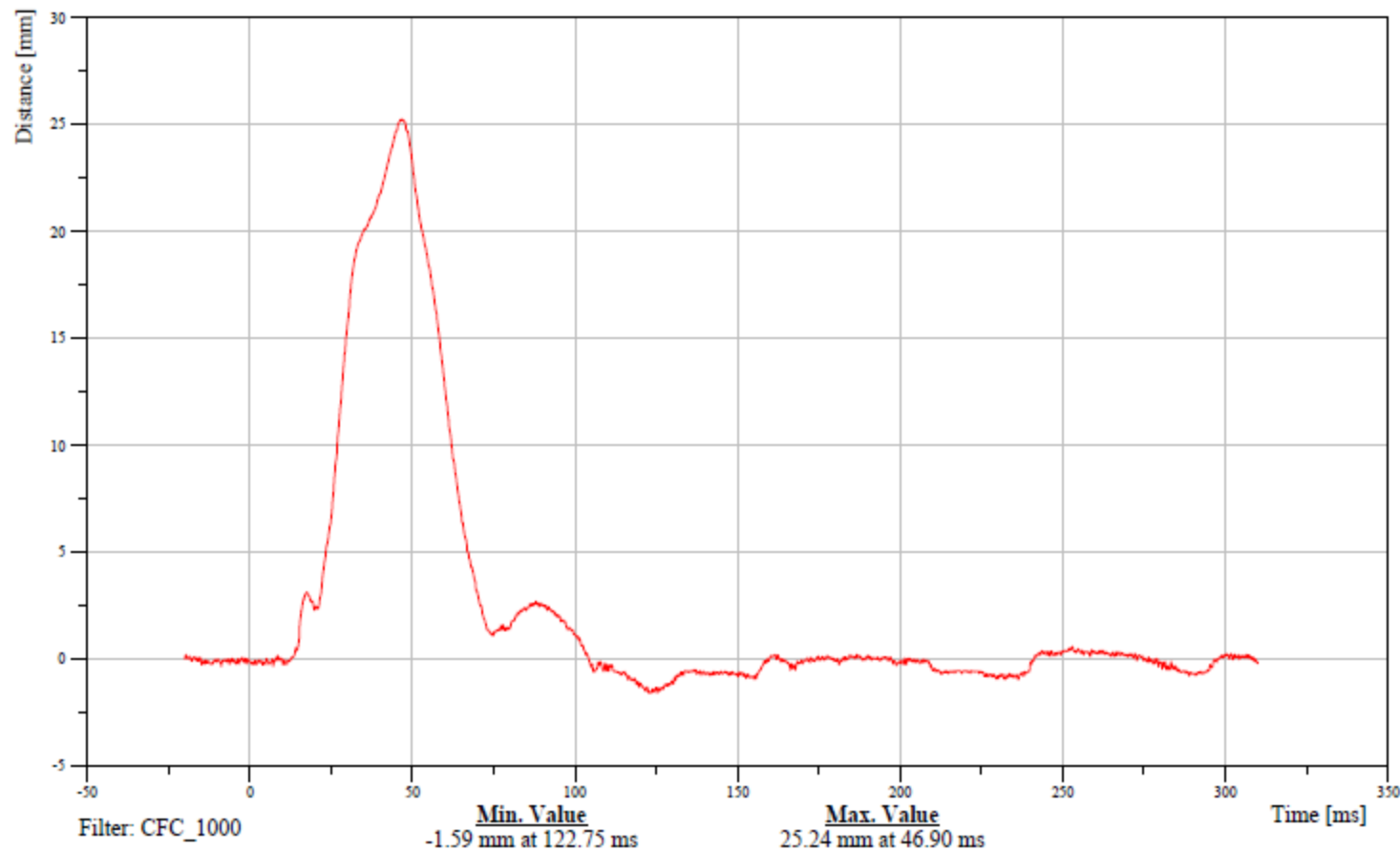
Time: 14:26

Customer: VRTC

# 11TRRILE03WSDSYA

TRC Inc. Test Lab: CTF

Test Number: 110708





# 2010 Suzuki SX4 Left Side FMVSS 214 Pole Impact 32 kph

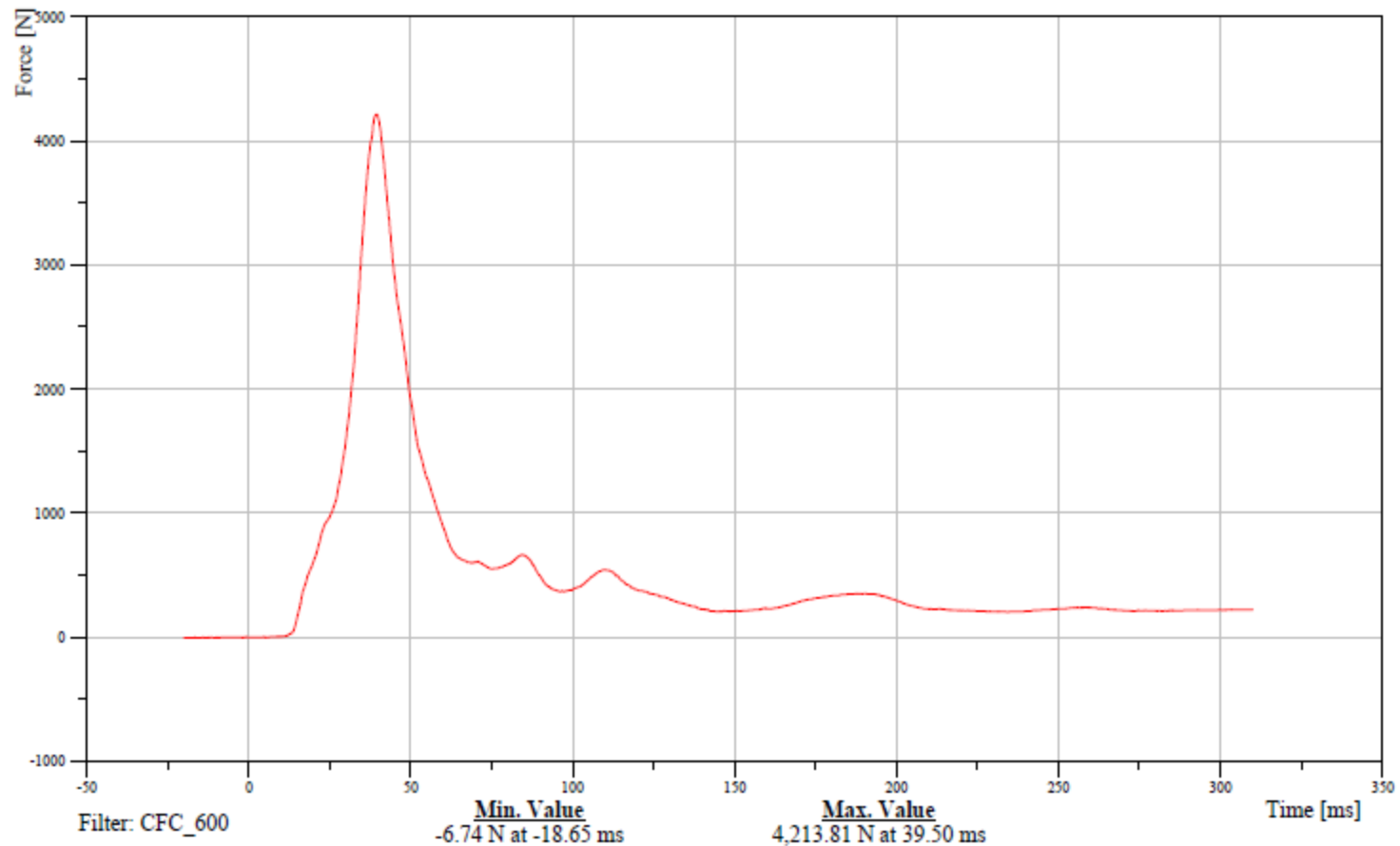
Date: 08/01/2011  
Time: 16:46

## Sacro-Iliac Left Y-Axis Force

Customer: VRTC

### 11SACRLE00WSFOYB

TRC Inc. Test Lab: CTF  
Test Number: 110801



B-82

110801



# 2010 Kia Forte Left Side FMVSS 214 Pole Impact 32 kph

Date: 07/08/2011  
Time: 14:26

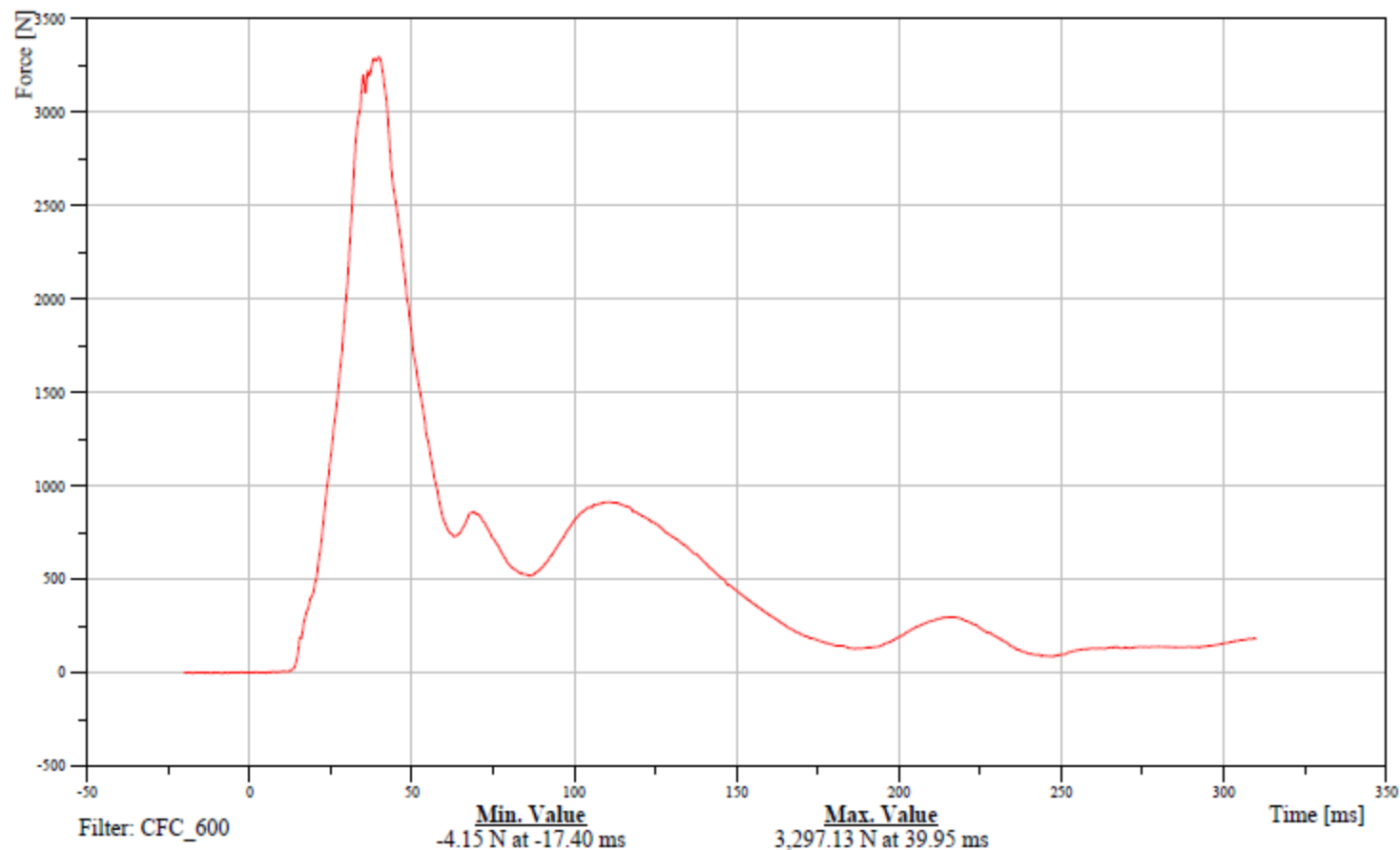
## Sacro-Iliac Left Y-Axis Force

Customer: VRTC

### 11SACRLE00WSFOYB

TRC Inc. Test Lab: CTF

Test Number: 110708



33

440708



# 2011 Jeep Grand Cherokee Left Side FMVSS 214 Pole Impact 32 kph

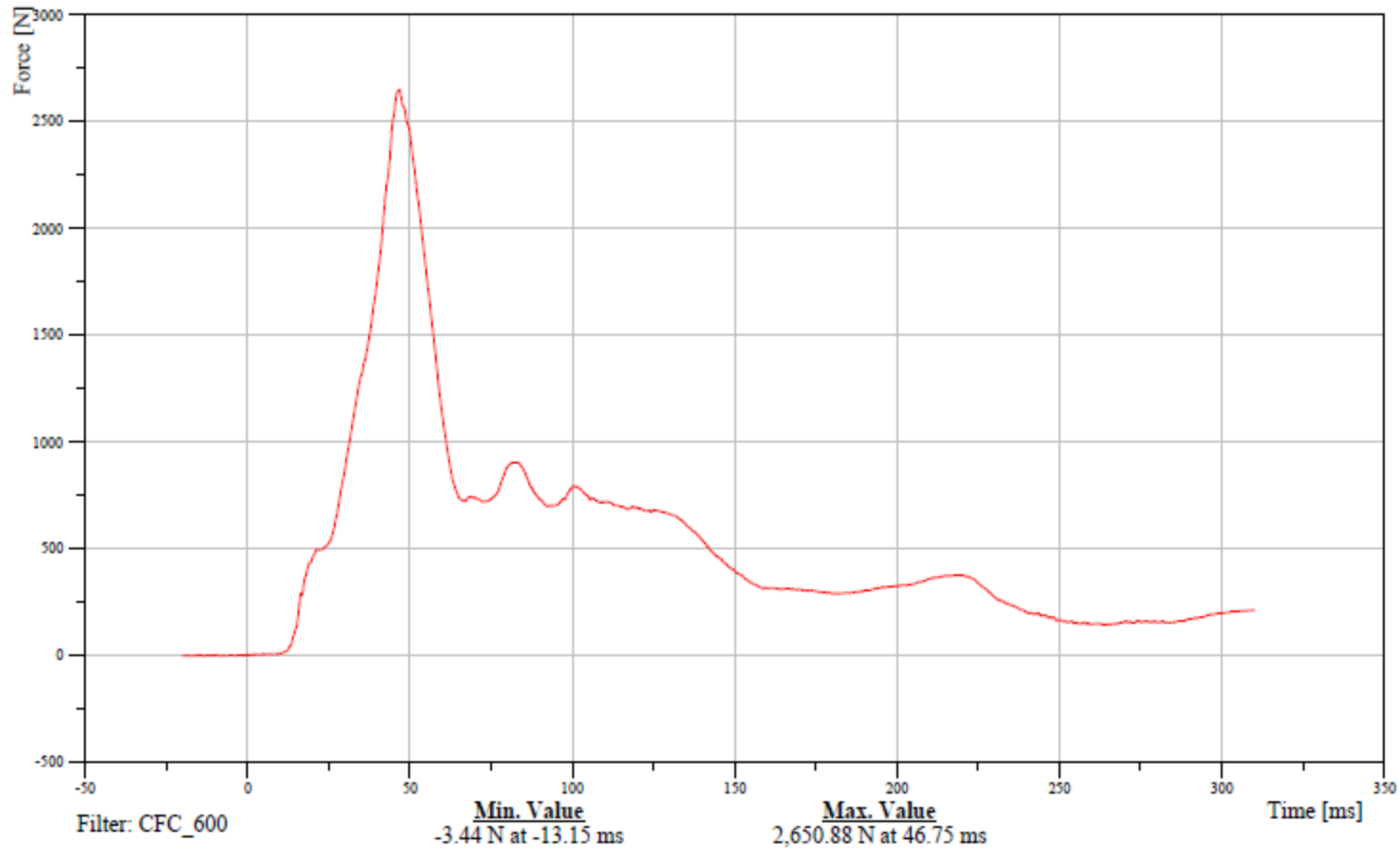
Date: 08/24/2011  
Time: 15:41

## Sacro-Iliac Left Y-Axis Force

Customer: VRTC

### 11SACRLE00WSFOYB

TRC Inc. Test Lab: CTF  
Test Number: 110824



B-77

110824