

REPORT NUMBER: CAL-05-07

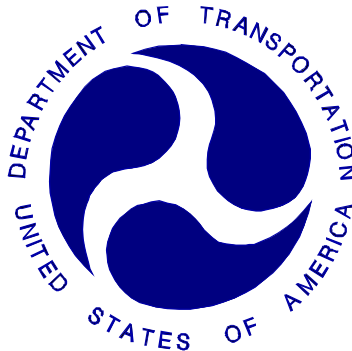
**NEW CAR ASSESSMENT PROGRAM (NCAP)
FRONTAL BARRIER IMPACT TEST**

DAIMLERCHRYSLER
2005 DODGE DAKOTA
FOUR-DOOR PICKUP

NHTSA NUMBER: M50305

GENERAL DYNAMICS TEST NUMBER: 8642-NCAP-57

GENERAL DYNAMICS
ADVANCED INFORMATION ENGINEERING SERVICES
TRANSPORTATION SCIENCES CENTER
P.O. BOX 400
BUFFALO, NEW YORK 14225



February 8, 2005

FINAL REPORT

PREPARED FOR:

U. S. DEPARTMENT OF TRANSPORTATION
National Highway Traffic Safety Administration
Rulemaking
Office of Crashworthiness Standards
Mail Code: NVS-111
400 Seventh Street, SW, Room No. 5313
Washington, DC 20590

**ADVANCED INFORMATION ENGINEERING SERVICES
A GENERAL DYNAMICS COMPANY**

NCAP Frontal Barrier Impact Test Data Summary

Vehicle: 2005 Dodge Dakota Four-Door Pickup

NHTSA No: M50305

Test Date: February 8, 2005

Test Speed: 56.49 kph

Vehicle Test Weight

Weight as Delivered: = 1992.0 kg

Weight as Tested: = 2275.0 kg

Injury Criteria:

ATD Position	HIC	Clip (g's)	Chest Disp (mm)	Left Femur (N)	Right Femur (N)
Driver (142)	317.9	36.5	-35.0	-6322.0	-3830.6
Passenger (150)	680.5	38.6	-32.0	-1908.4	-2510.0

DUMMY MAXIMUM AND MINIMUM VALUES

Vehicle Year/Make/Model/Body Style: 2005 Dodge Dakota Four-Door Pickup

NHTSA Test No.: M50305 Test Date: February 8, 2005

DESCRIPTION	Unit	MAXIMUM VALUE							
		Driver				Passenger			
		Pos	msec	Neg	msec	Pos	msec	Neg	msec
Head 9 Array X Arm Y	g	4.3	84.1	-4.5	98.3	7.7	61.9	-20.7	86.4
Head 9 Array X Arm Z	g	22.2	91.1	-8.5	140.3	40.9	76.2	-5.2	137.0
Head 9 Array Y Arm X	g	1.9	23.7	-35.9	71.4	0.8	199.9	-60.3	81.2
Head 9 Array Y Arm Z	g	22.7	87.2	-1.7	139.4	33.8	76.2	-6.6	110.6
Head 9 Array Z Arm X	g	2.8	28.0	-38.1	74.0	3.0	28.5	-70.6	89.6
Head 9 Array Z Arm Y	g	2.4	76.8	-9.6	88.3	6.7	62.4	-21.2	92.9
Head X	g	2.2	23.8	-37.6	79.9	0.4	20.0	-56.4	80.4
Head Y	g	5.3	49.7	-7.3	50.0	4.1	61.7	-16.4	86.7
Head Z	g	21.3	68.3	-1.3	139.7	34.0	76.1	-4.8	110.6
Head Resultant	g	41.9	72.4	0.1	19.1	66.2	84.6	0.0	-10.9
Redundant Head X	g	2.4	23.8	-37.9	71.0	0.9	199.7	-54.9	82.5
Redundant Head Y	g	5.4	49.7	-7.6	50.0	4.0	61.8	-17.4	86.0
Redundant Head Z	g	22.3	72.2	-1.4	139.0	34.4	76.1	-4.9	110.8
Redundant Head Resultant	g	43.5	71.0	0.1	-49.6	65.3	84.6	0.0	-5.5
Upper Neck Fx	N	333.9	78.5	-577.1	131.8	501.9	89.8	-345.4	145.2
Upper Neck Fy	N	75.0	22.7	-95.0	98.8	239.5	71.4	-124.4	130.4
Upper Neck Fz	N	1417.1	67.3	-41.8	21.3	1634.6	76.1	-165.3	110.6
Upper Neck F Resultant	N	1435.9	67.3	3.4	-6.1	1645.7	76.1	1.8	-10.6
Upper Neck Mx	N-m	4.1	103.8	-22.3	87.3	25.5	99.9	-7.9	137.5
Upper Neck My	N-m	45.9	137.6	-17.5	96.3	44.7	89.7	-22.4	66.3
Upper Neck Mz	N-m	2.5	120.3	-6.7	87.1	22.7	105.6	-10.2	158.0
Upper Neck M Resultant	N-m	45.9	137.6	0.1	-4.1	48.1	89.4	0.1	-44.7
Chest X	g	1.5	168.9	-36.1	88.1	1.3	143.2	-45.1	75.6
Chest Y	g	0.2	20.9	-3.0	41.7	7.0	76.8	-2.7	106.1
Chest Z	g	§	§	§	§	18.6	85.8	-9.9	112.2
Chest Resultant	g	44.2 ¹	24.9 ¹	0.0 ¹	3.7 ¹	45.5	75.6	0.0	-10.6

§ - Data is Meaningless

¹Chest Az data is meaningless

DUMMY MAXIMUM AND MINIMUM VALUES (cont.)

Vehicle Year/Make/Model/Body Style: 2005 Dodge Dakota Four-Door Pickup

NHTSA Test No.: M50305 Test Date: February 8, 2005

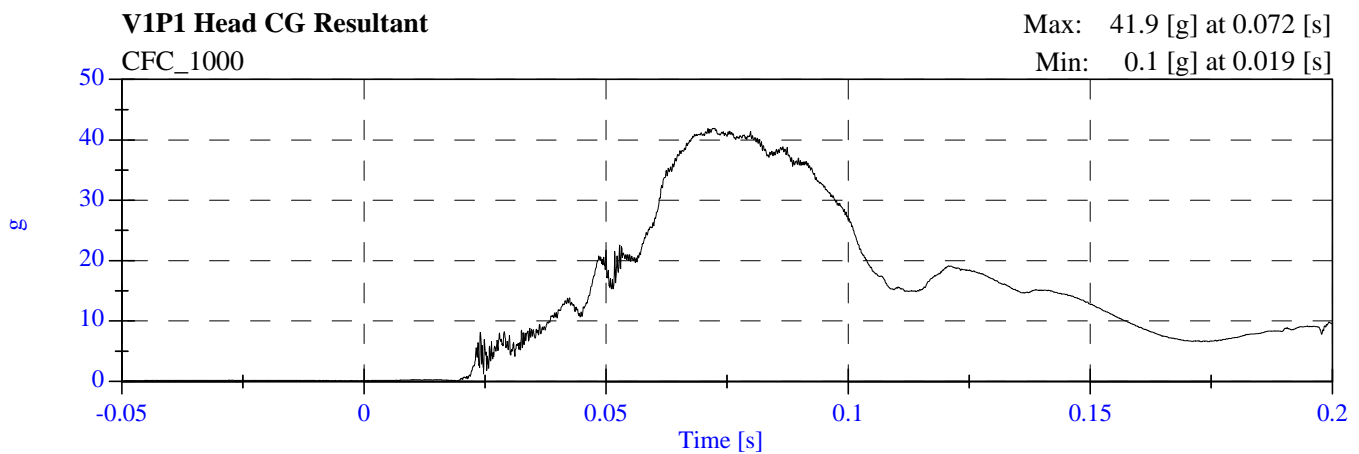
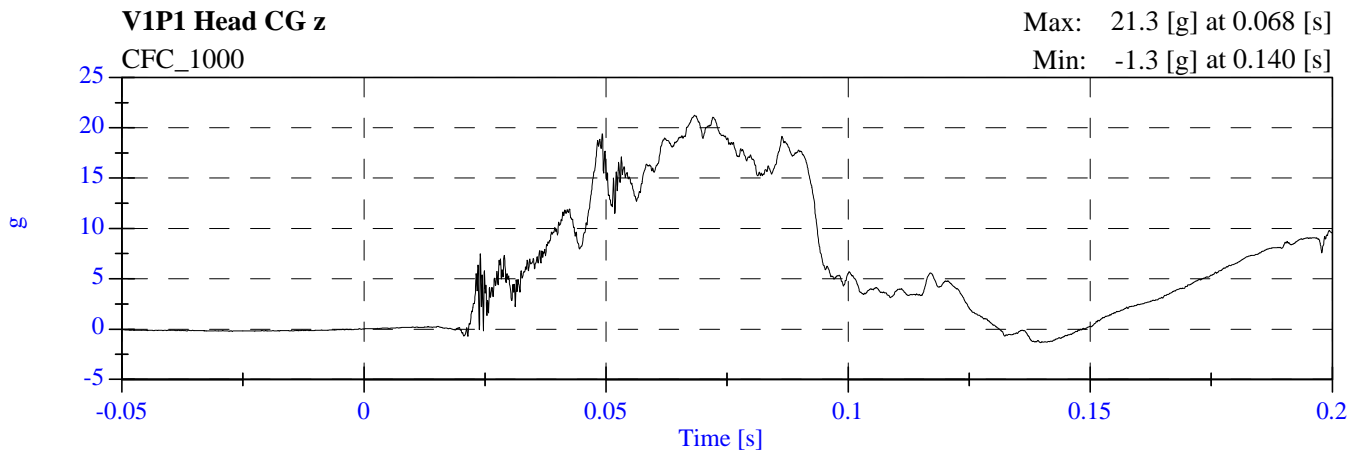
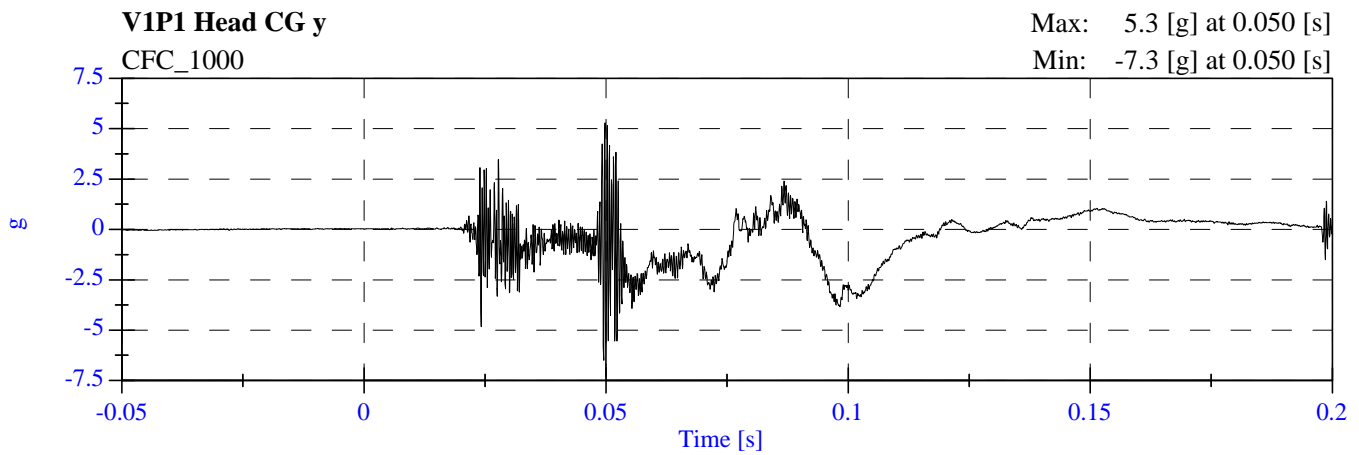
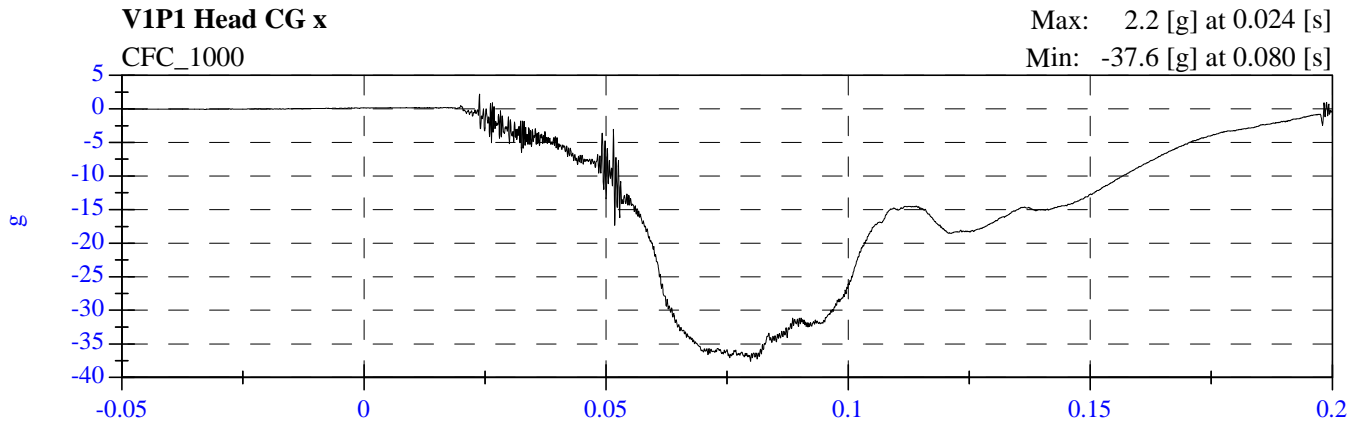
DESCRIPTION	Unit	MAXIMUM VALUE							
		Driver				Passenger			
		Pos	msec	Neg	msec	Pos	msec	Neg	msec
Redundant Chest X	g	1.5	163.2	-35.3	87.9	1.3	143.5	-44.4	75.6
Redundant Chest Y	g	‡	‡	‡	‡	5.4	76.8	-3.4	106.1
Redundant Chest Z	g	8.9	88.6	-8.3	108.0	19.1	85.8	-10.1	112.1
Redundant Chest Resultant	g	36.4 ¹	88.1 ¹	0.0 ¹	-0.1 ¹	44.6	75.6	0.0	-10.3
Chest Displacement	mm	0.4	20.9	-35.0	92.1	0.0	-17.6	-32.0	83.5
Pelvic X	g	4.1	108.5	-70.2	44.9	6.1	91.6	-55.3	59.1
Pelvic Y	g	6.6	43.9	-6.8	47.5	4.8	65.7	-9.2	79.0
Pelvic Z	g	1.4	148.7	-18.7	63.6	3.7	29.6	-24.1	74.5
Pelvic Resultant	g	70.7	44.9	0.0	-6.8	58.9	59.1	0.1	-12.8
Left Femur	N	306.9	36.2	-6322.0	45.2	643.7	35.6	-1908.4	59.4
Right Femur	N	414.3	36.2	-3830.6	50.4	990.2	45.9	-2510.0	52.6
Left Upper Tibia Mx	N-m	21.0	94.5	-40.7	43.5	18.2	149.9	-49.4	48.0
Left Upper Tibia My	N-m	109.9	43.6	-16.3	109.4	15.5	116.1	-118.9	44.9
Left Lower Tibia Fz	N	88.4	114.8	-3755.4	49.4	77.5	114.9	-3437.4	44.8
Left Lower Tibia Mx	N-m	22.0	43.9	-19.8	93.4	41.9	88.6	-12.6	40.3
Left Lower Tibia My	N-m	22.1	91.4	-107.1	44.5	31.2	87.1	-34.7	42.8
Right Upper Tibia Mx	N-m	49.7	45.5	-13.2	199.9	9.7	165.4	-46.9	41.4
Right Upper Tibia My	N-m	48.2	72.4	-21.2	113.3	13.7	113.2	-124.3	48.3
Right Lower Tibia Fz	N	80.9	150.7	-2866.0	50.6	138.3	118.4	-3476.9	39.3
Right Lower Tibia Mx	N-m	13.9	40.7	-84.3	56.6	27.1	87.2	-18.8	39.4
Right Lower Tibia My	N-m	38.3	83.4	-29.8	54.0	51.2	87.6	-42.1	64.1
Left Foot Aft Ax	g	9.9	45.5	-24.1	44.2	11.2	57.8	-56.6	45.6
Left Foot Aft Az	g	‡	‡	‡	‡	22.8	83.8	-85.9	42.1
Left Foot Fore Az	g	28.8	37.0	-84.2	44.5	62.2	38.6	-105.1	45.6
Right Foot Aft Ax	g	23.8	82.4	-63.8	52.2	32.8	88.2	-92.7	38.2
Right Foot Aft Az	g	5.0	127.6	-45.7	43.9	31.6	48.1	-45.8	38.6
Right Foot Fore Az	g	31.7	48.0	-93.7	36.5	41.7	37.0	-89.4	43.1
Lap Belt Load	N	4468.7	55.1	-2.2	-16.2	6480.7	53.5	-14.2	-37.8
Torso Belt	N	4630.9	71.2	-34.1	166.1	5182.8	44.2	-52.2	145.5

‡ - Data is Questionable

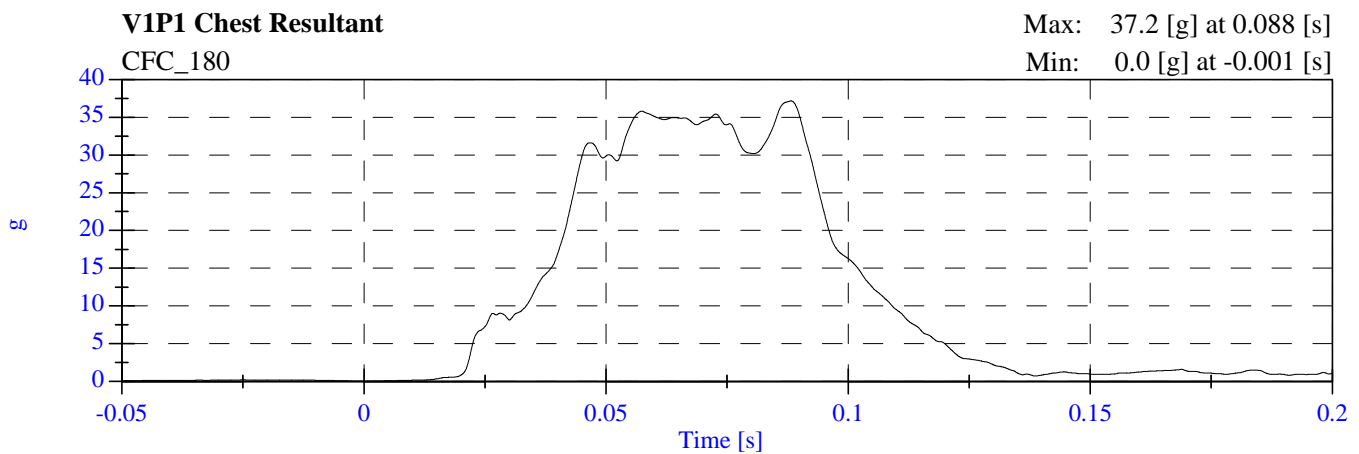
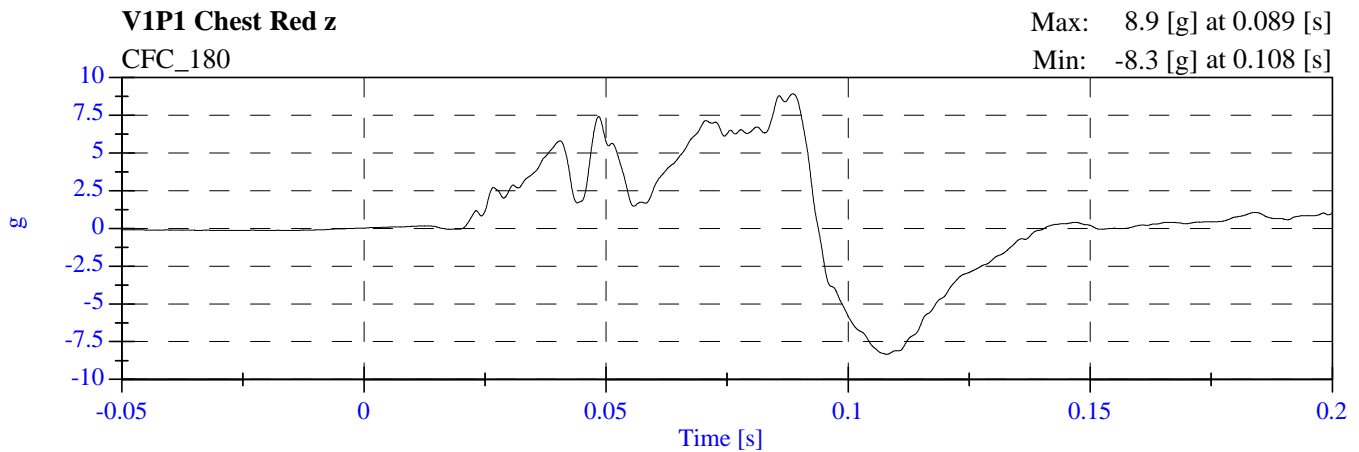
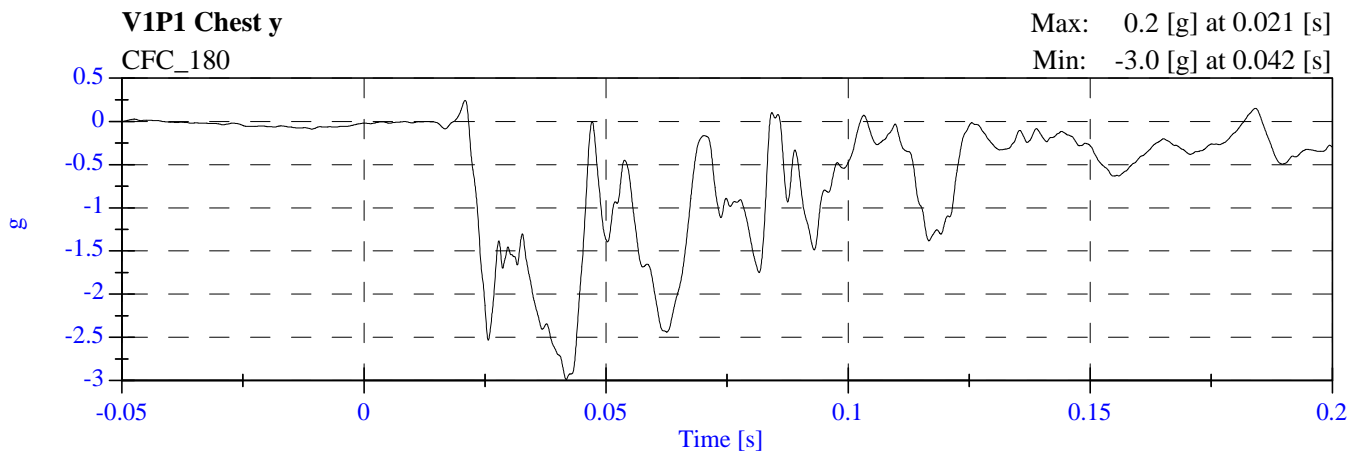
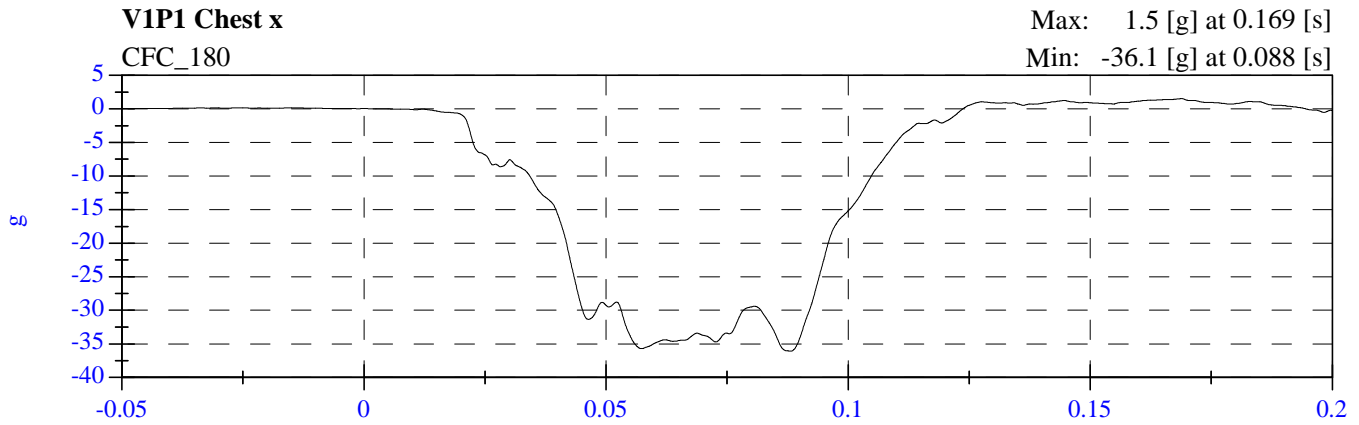
¹ Redundant Chest Ay data is questionable

† - Did not record

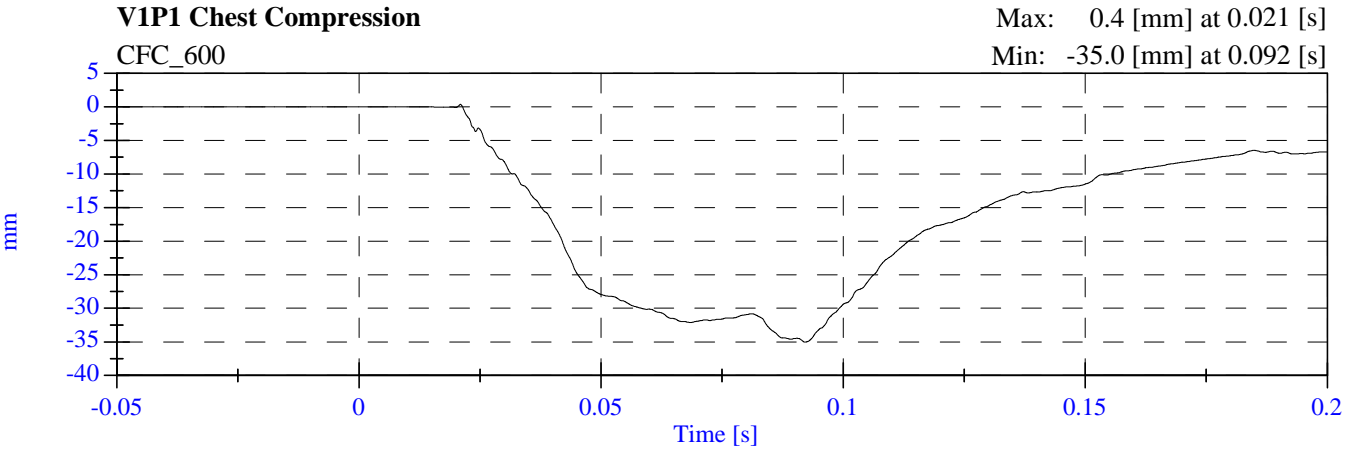
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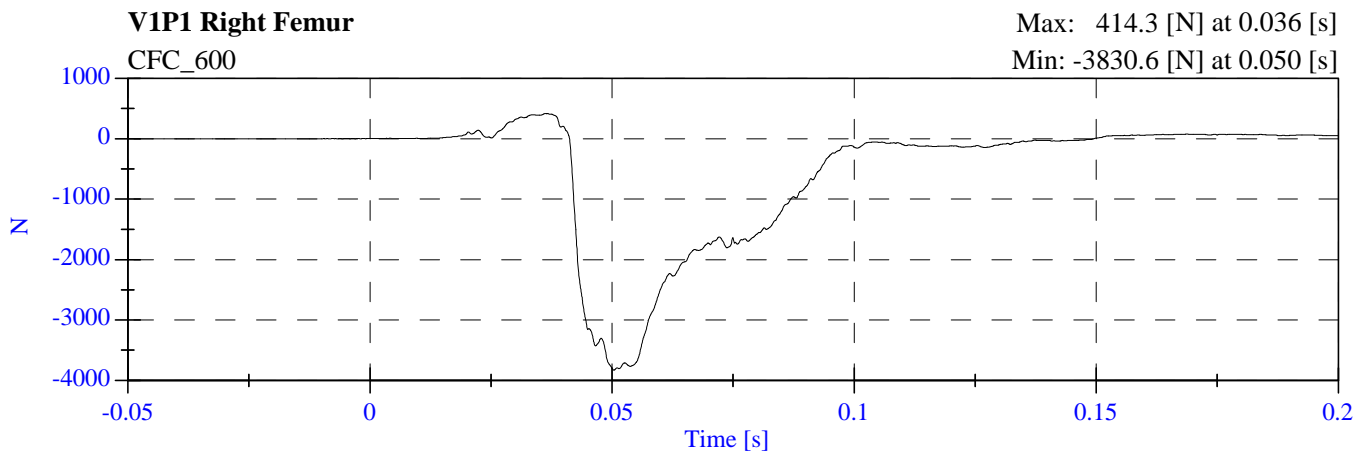
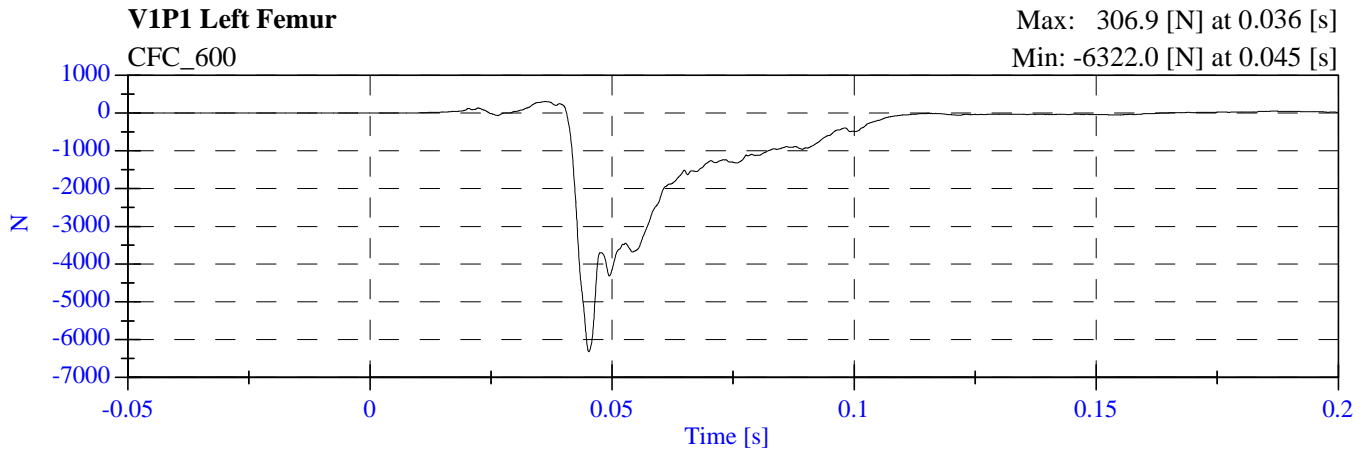
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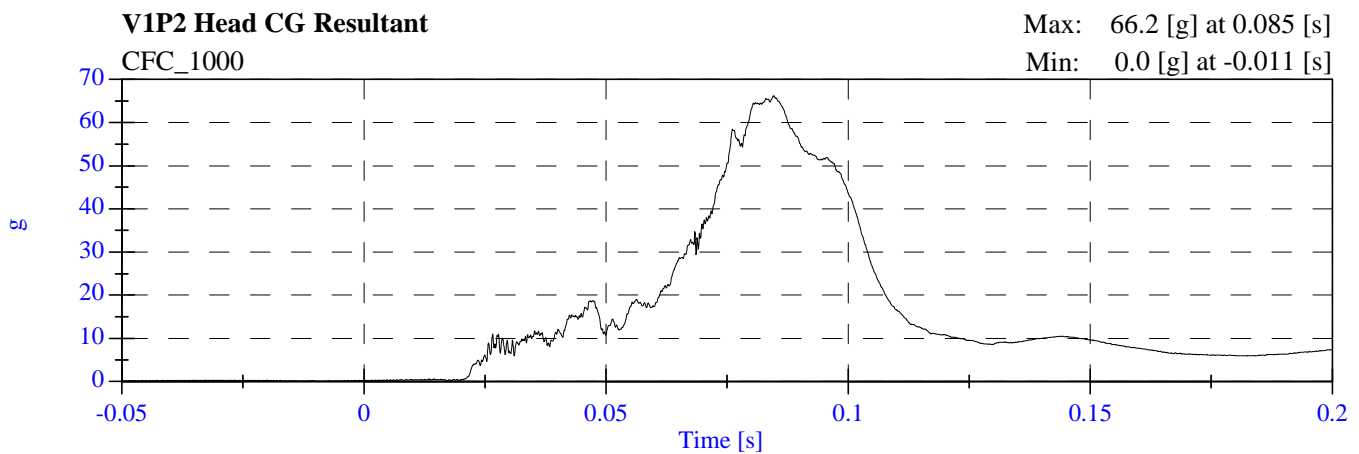
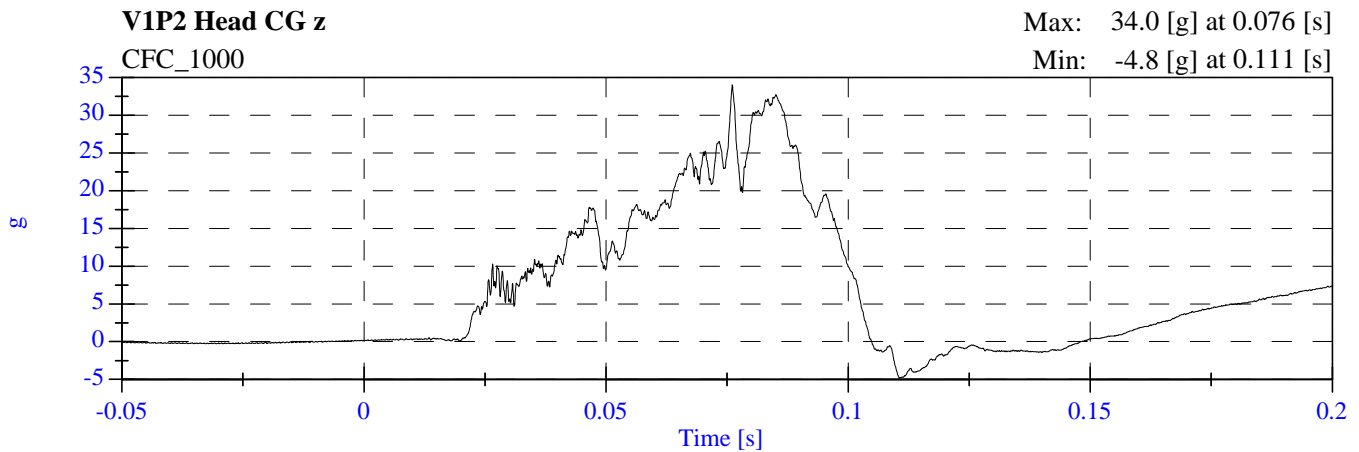
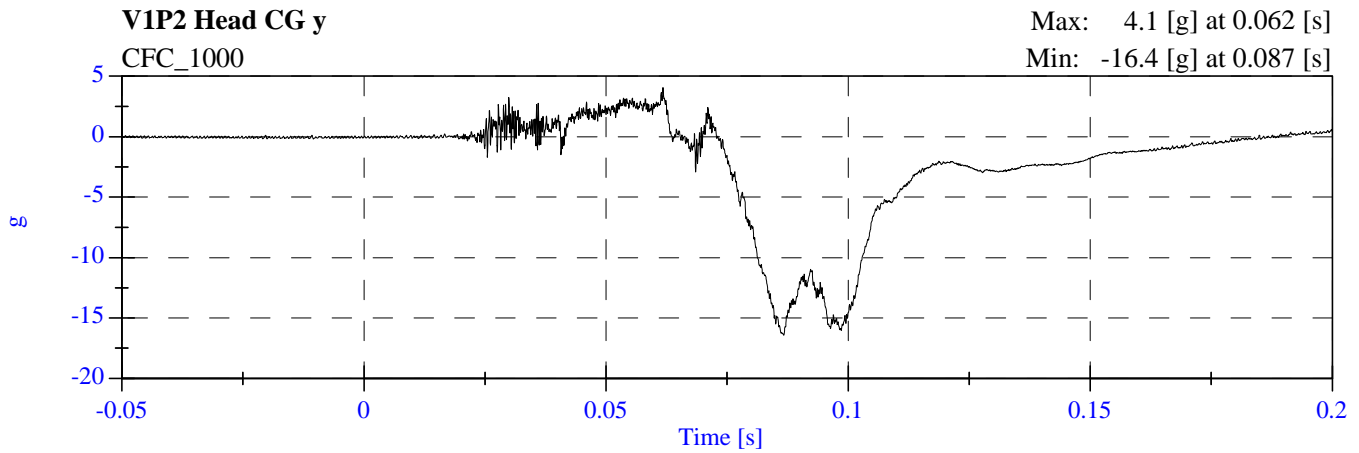
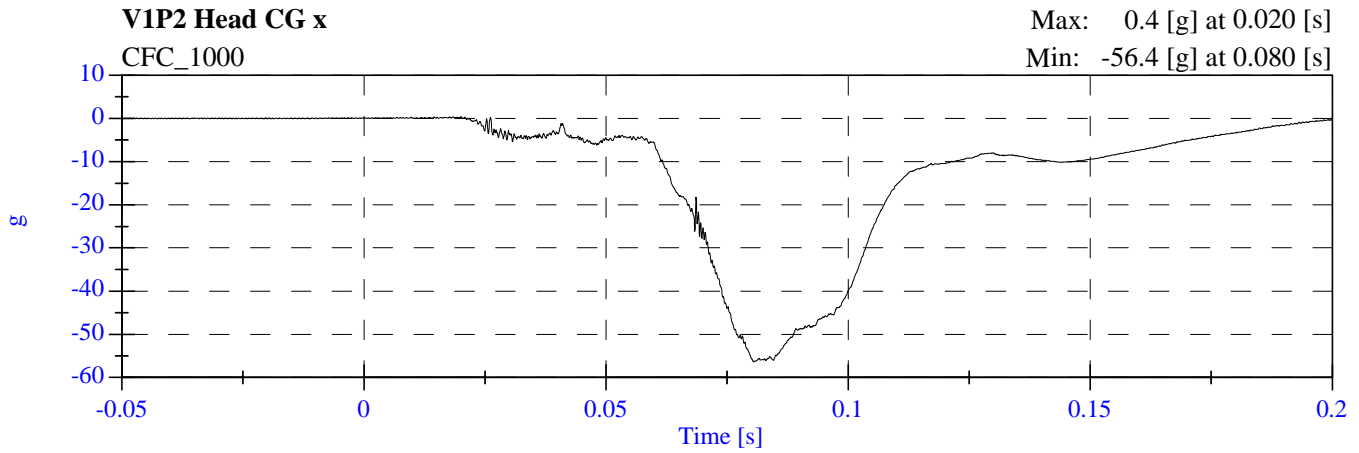
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M50305 - February 08, 2005**



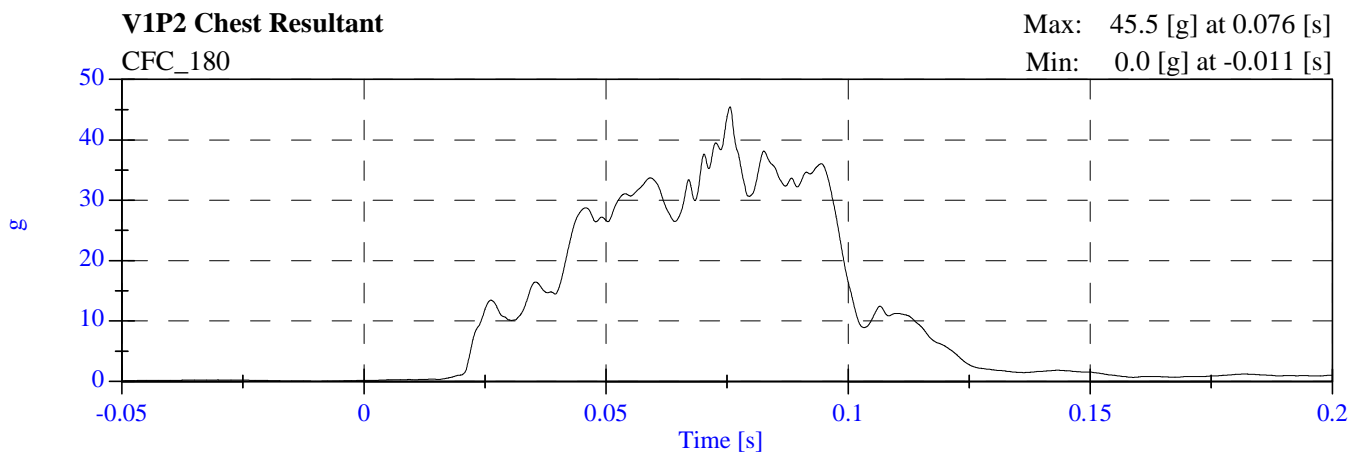
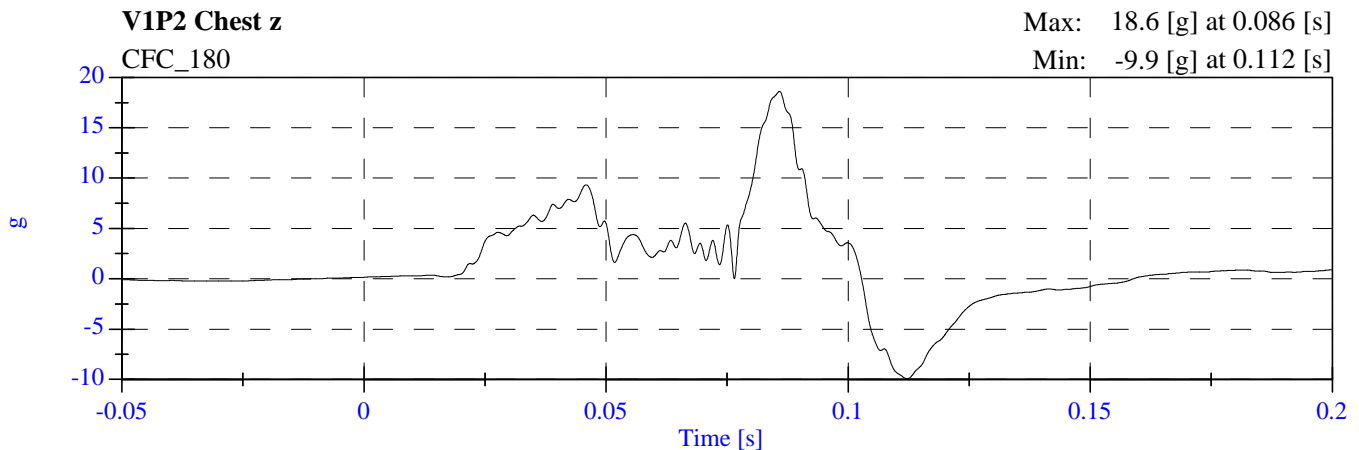
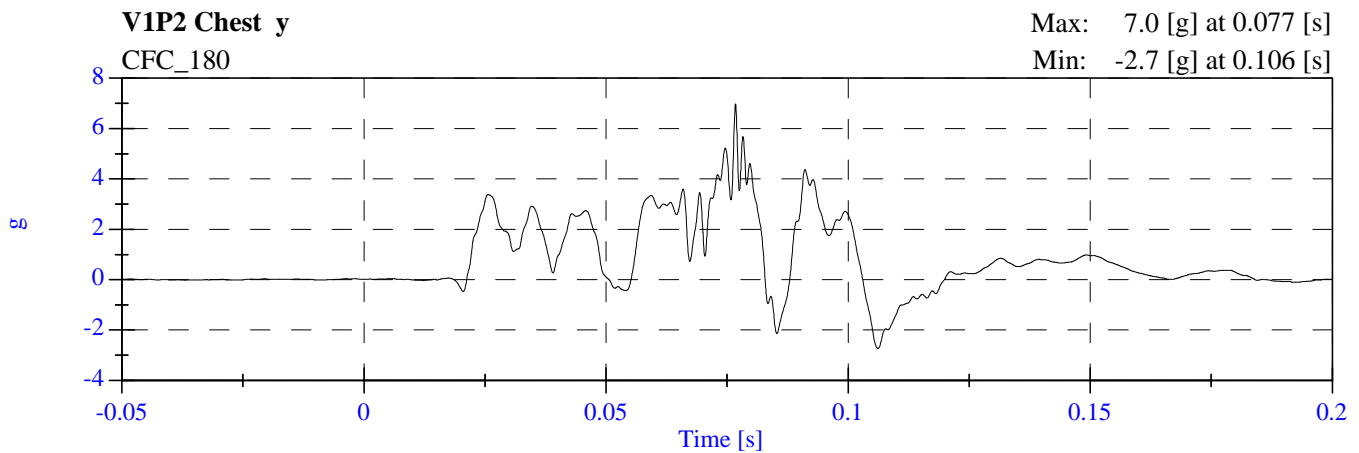
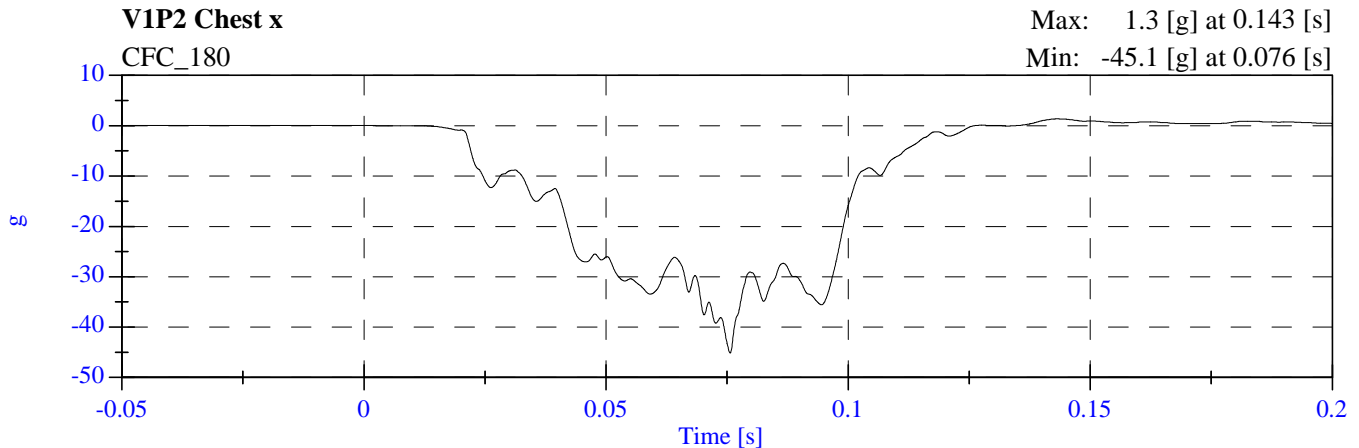
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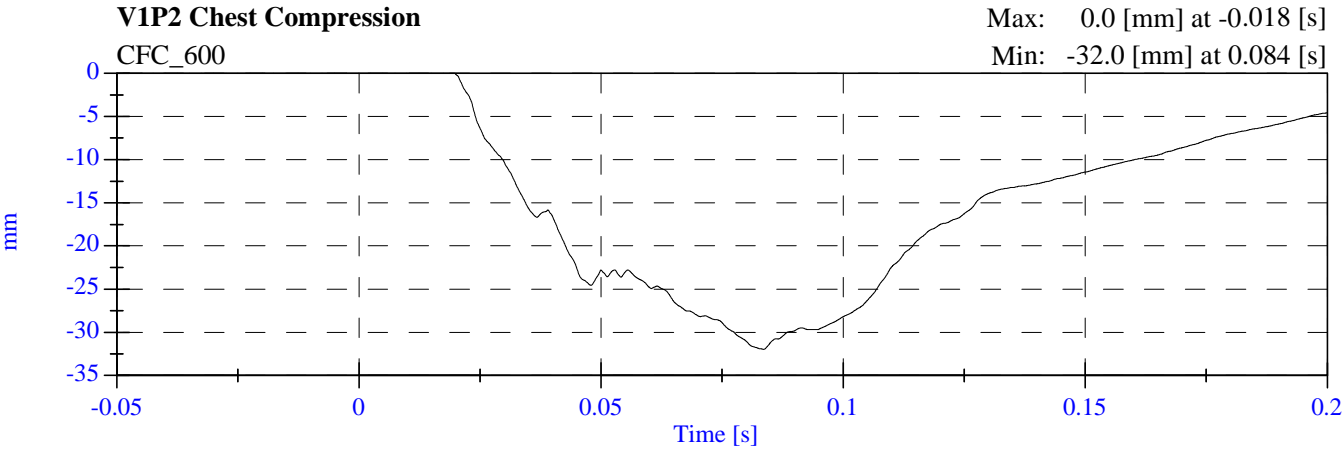
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