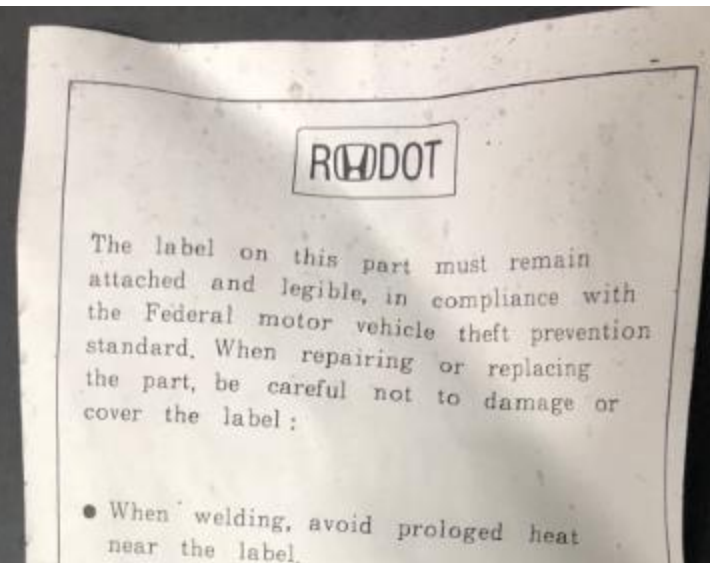


OEM Crash Test vs Aftermarket

- 2018

OEM Parts from Honda



- 1) OEM front bumper cover (used the original OEM that was on the vehicle)
- 2) OEM Bumper Reinforcement Bar
- 3) OEM Left and Right front Bumper Brace
- 4) OEM Front Bumper Absorber
- 5) OEM Radiator support
- 6) OEM Hood
- 7) OEM Left and Right hood hinges
- 8) OEM Left and Right Hood Hinges
- 9) Used the original OEM Wheel
- 10) OEM Windshield



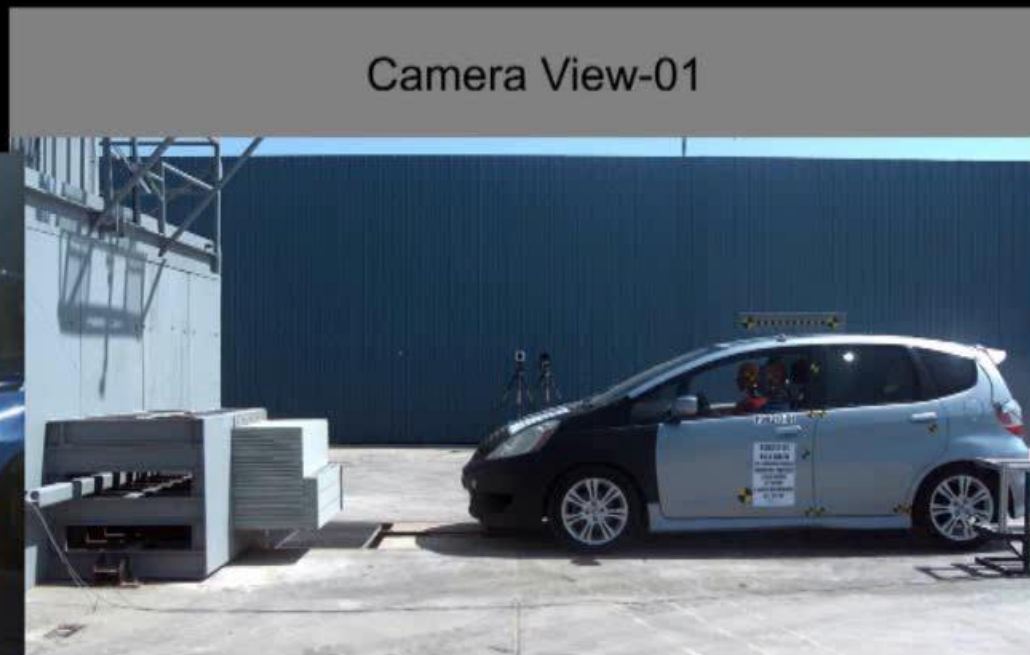
Honda OEM Vehicle Versus Repaired Honda Using OEM Parts

Aftermarket Parts



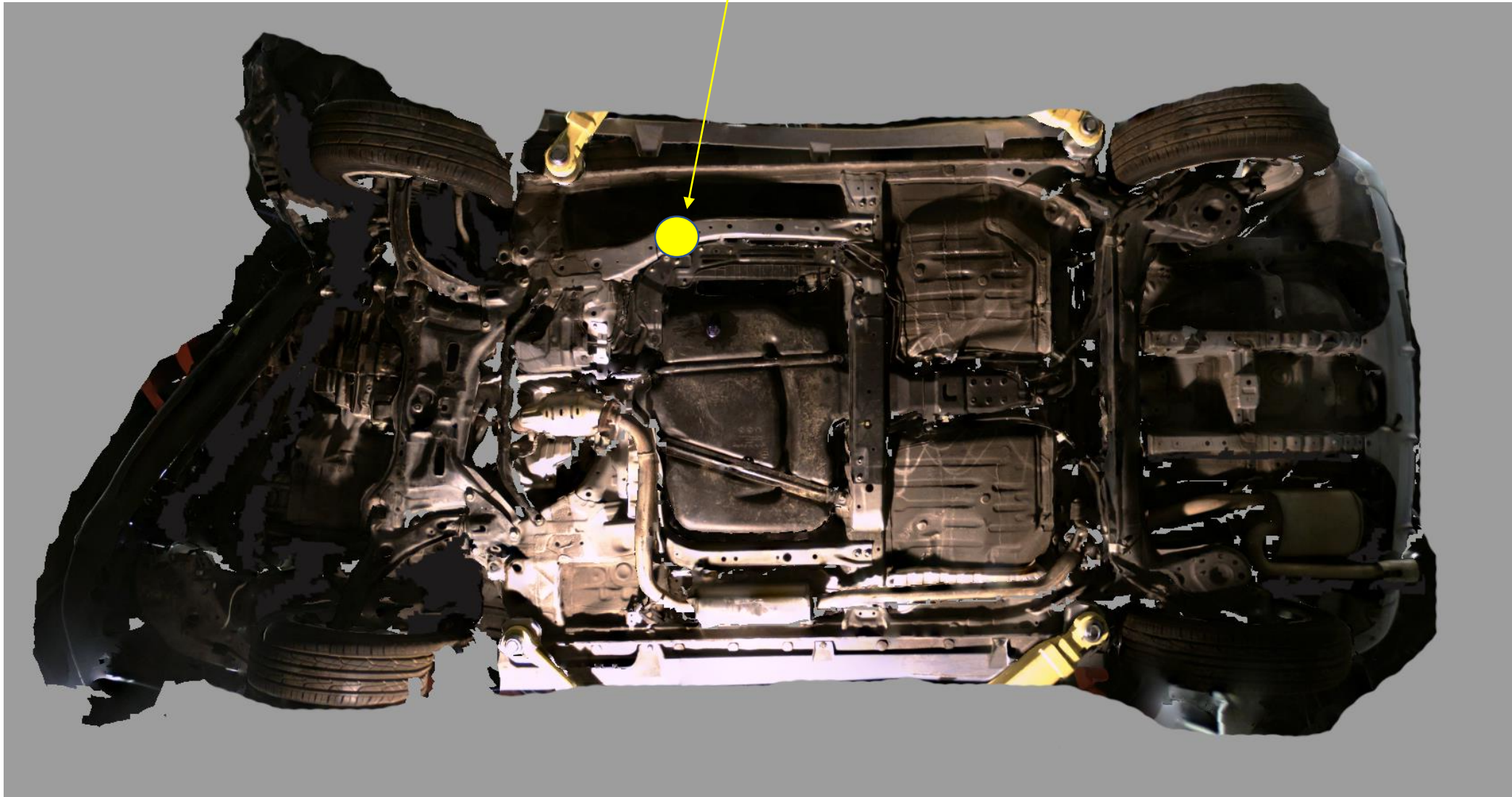
Frame # -49 ● Time -0.049

OEM parts from Honda



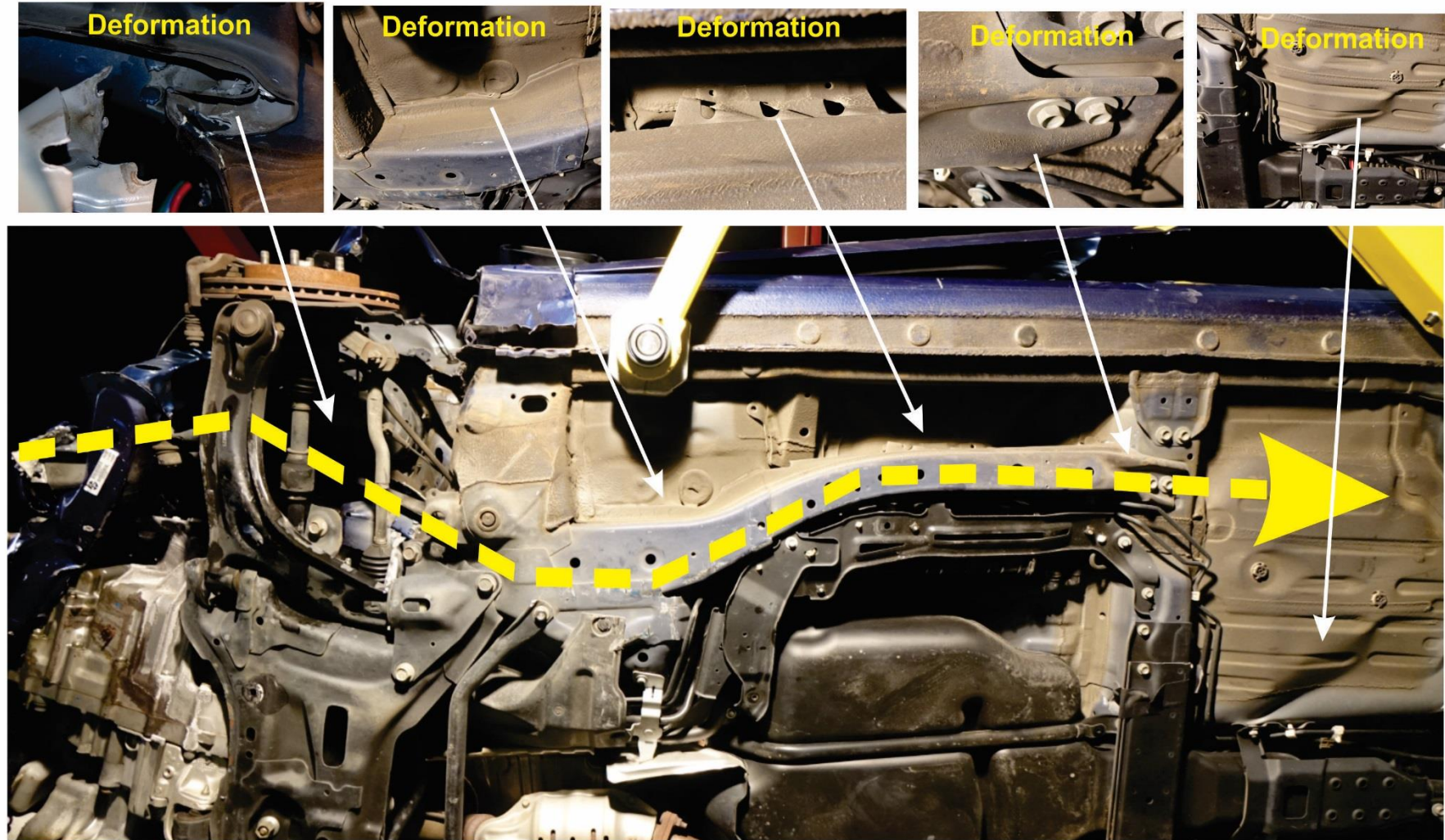
Frame # -49 ● Time -0.049

Bottom Frame Rail Sensor Location



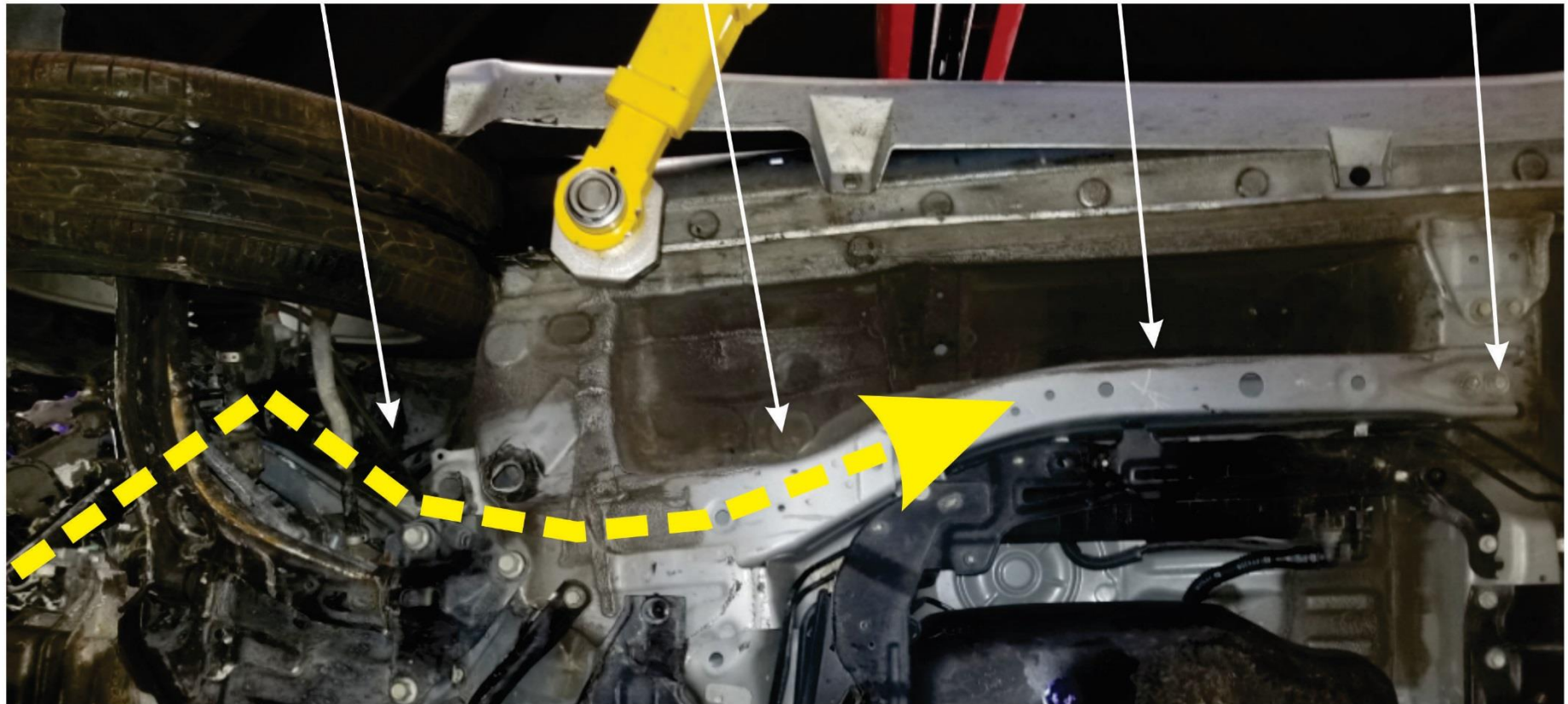
Aftermarket Parts

Structural collapse underneath the occupants caused injurious vertical loads



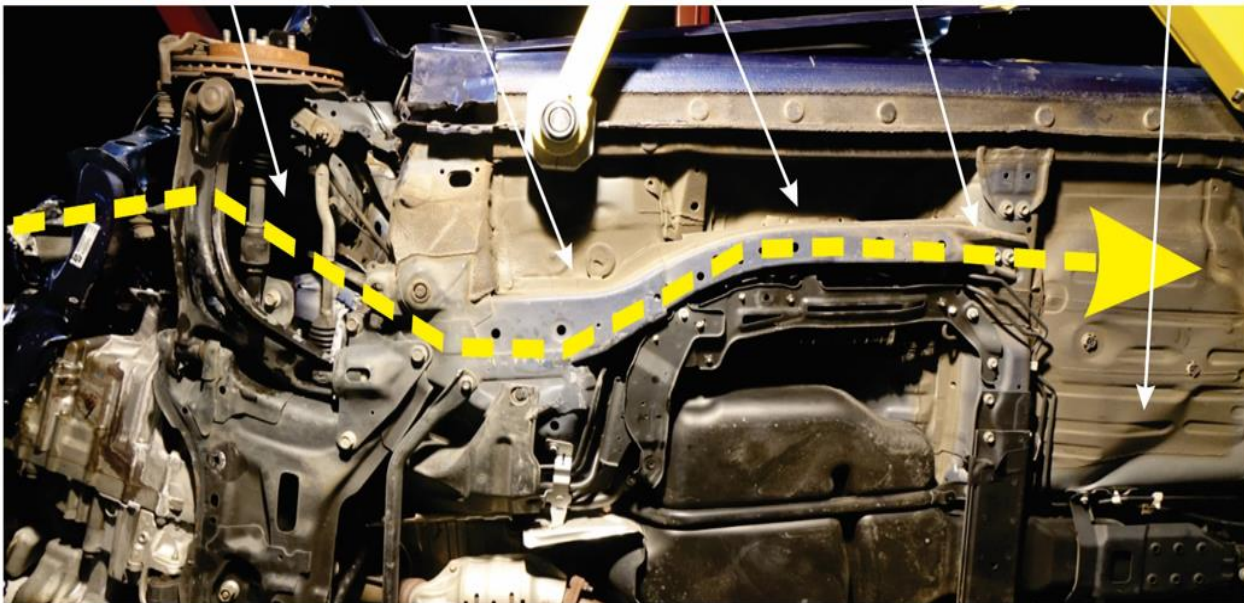
Virtually
Identical
Frame
Component
Damage on
Honda OEM
Parts Repair

Honda OEM Parts

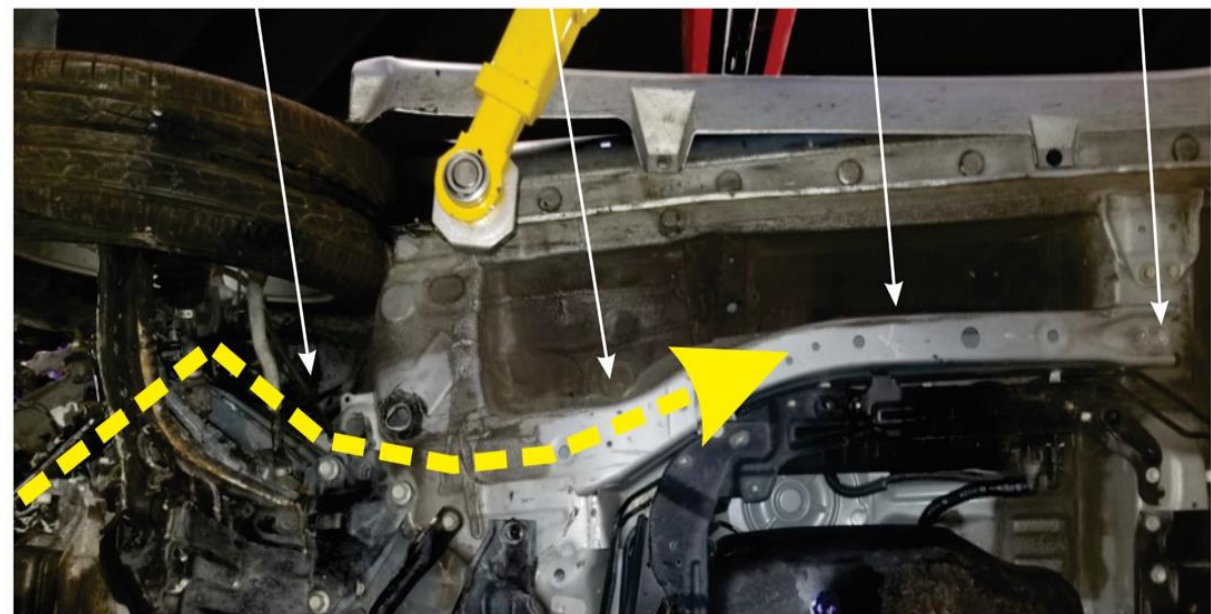


Substantially Increased Damage Underneath the Occupant Compartment Using Aftermarket Parts

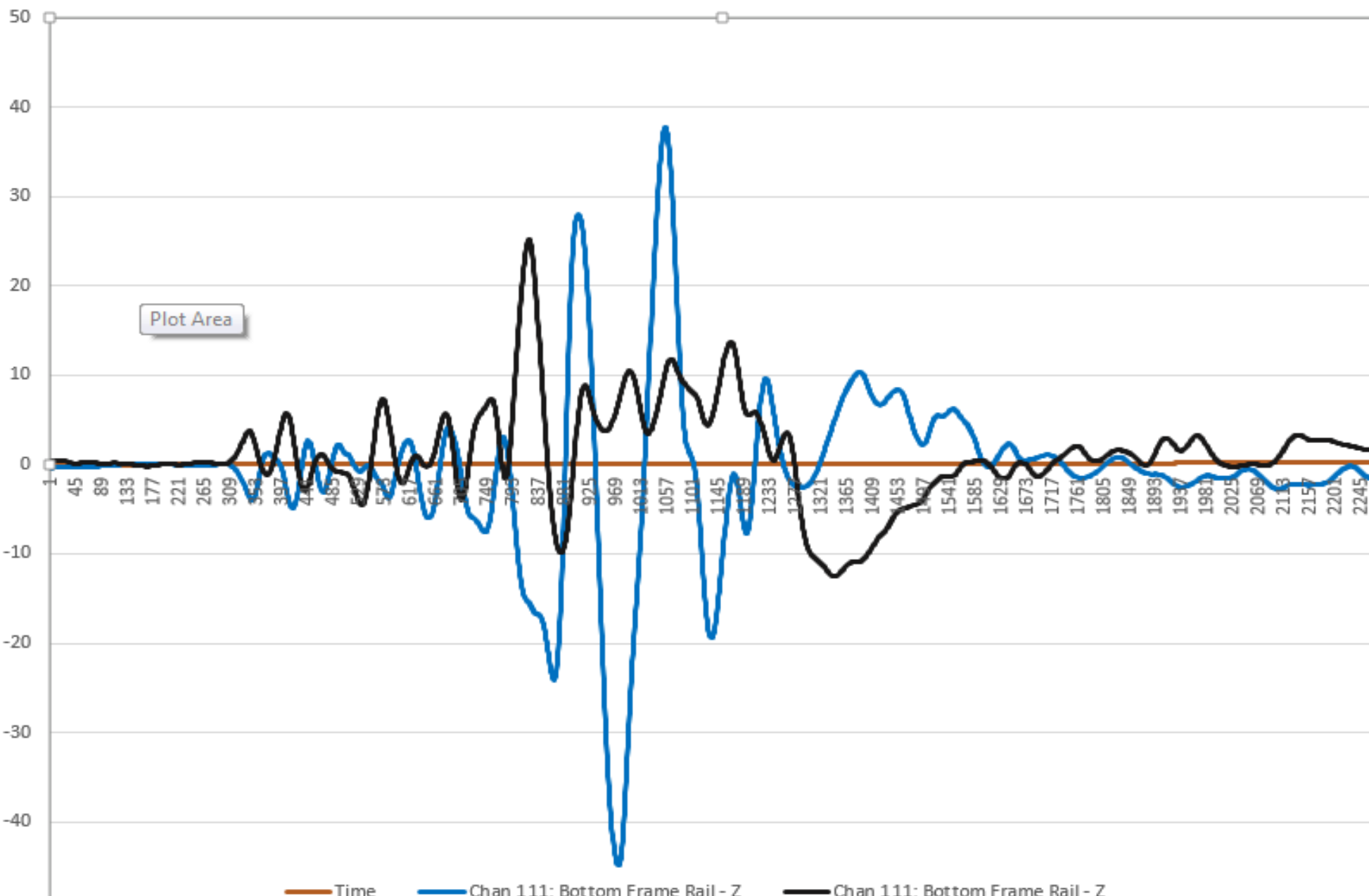
Aftermarket Parts



Honda OEM Parts



Bottom Frame Rail Sensor - Z

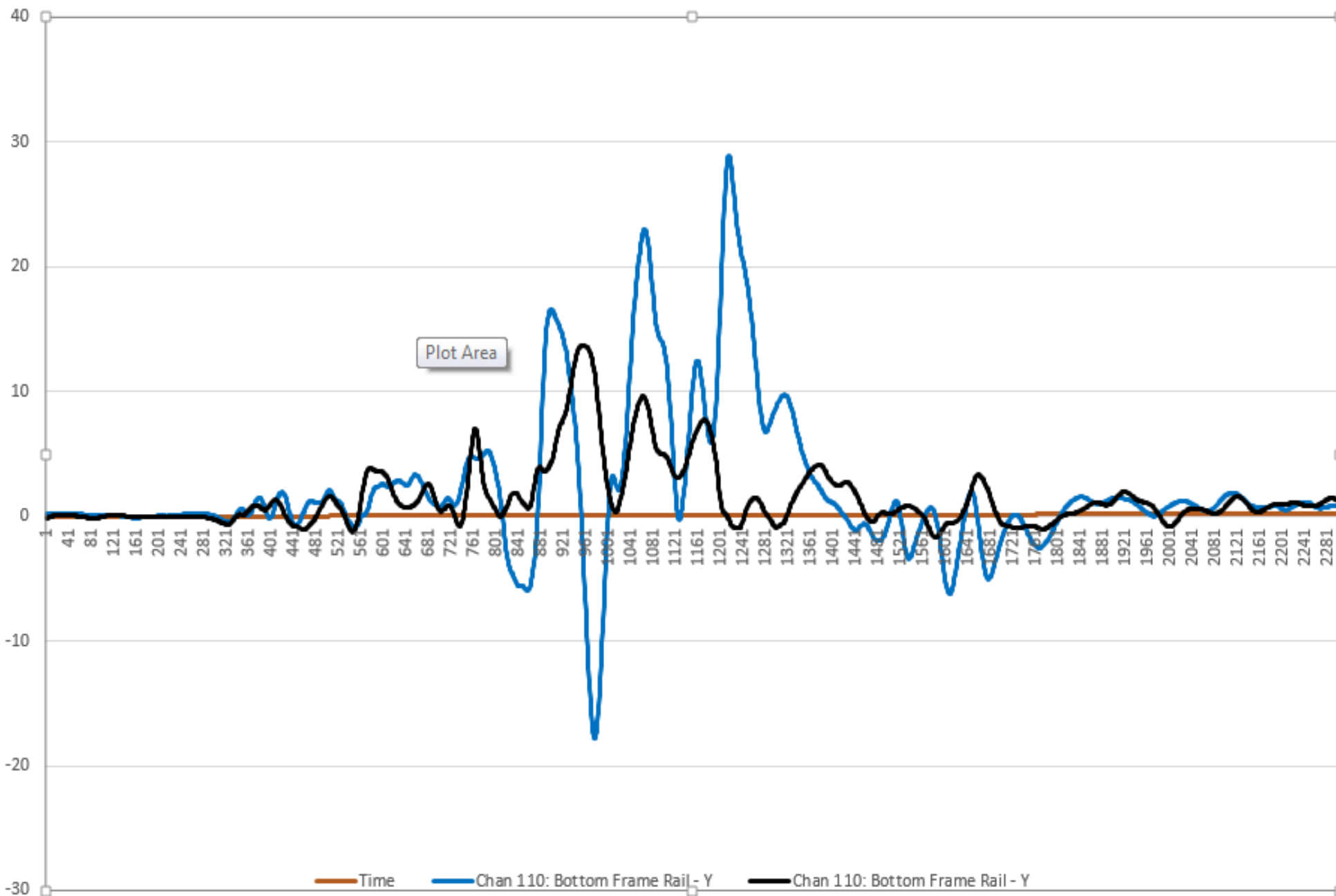


**Black-
OEM**

**Blue-
Aftermarket
Parts Repair**

Time Chan 111: Bottom Frame Rail - Z Chan 111: Bottom Frame Rail - Z

Bottom Frame Rail Sensor - Y



Black-
OEM

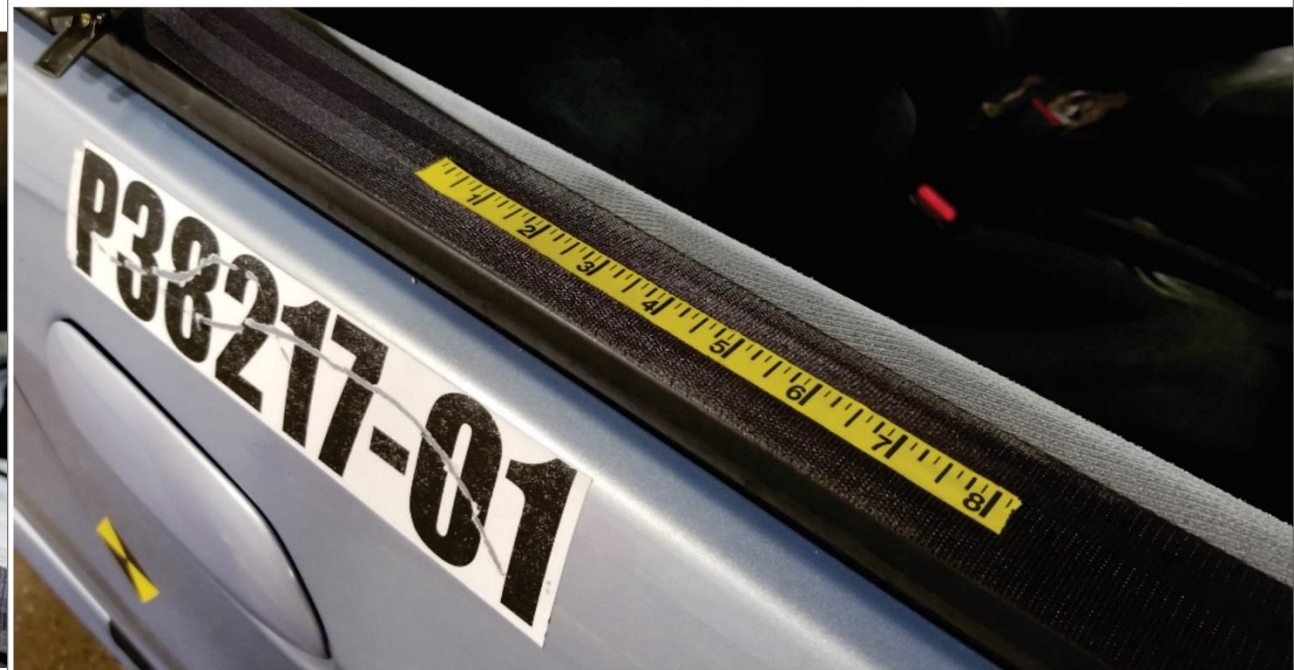
Blue-
Aftermarket
Parts Repair

13 Inches of Load Limiter Payout vs. 8 Inches OEM Parts

Aftermarket Parts

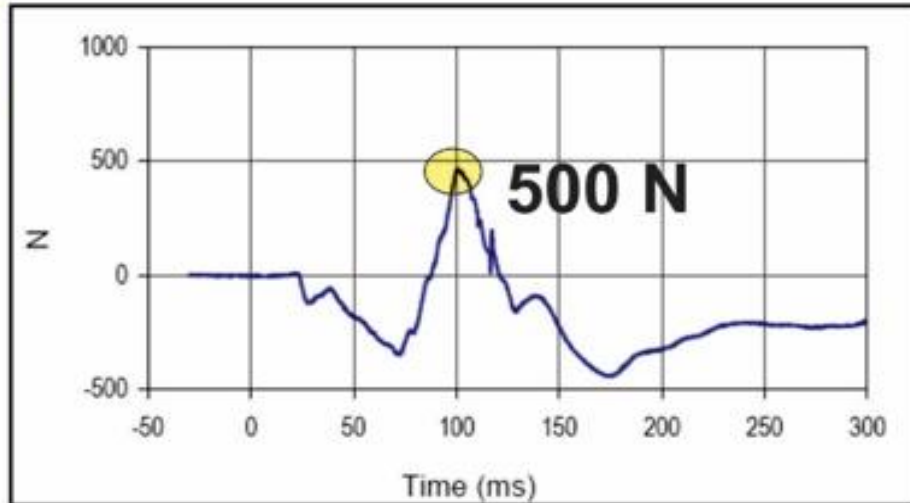


Honda OEM Parts



Driver Upper Neck Force Plot Failed to Record

Aftermarket Parts



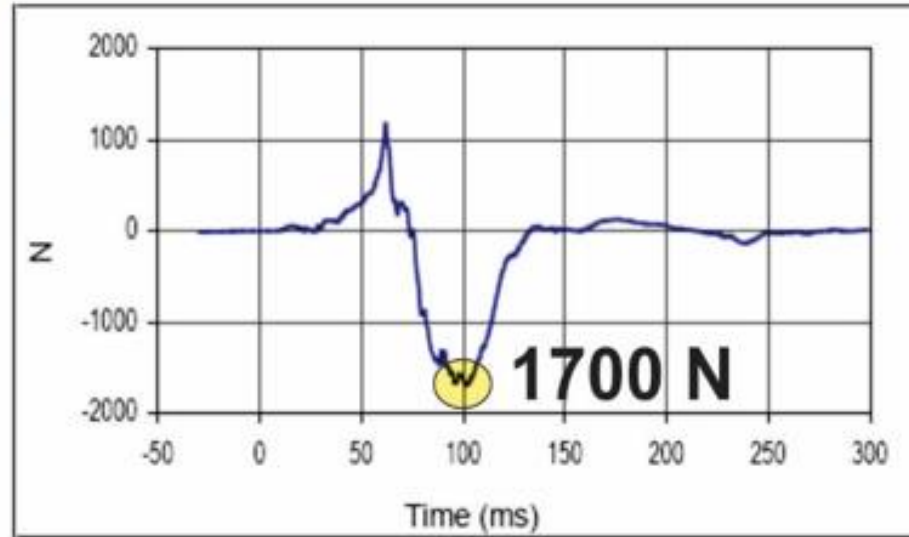
Curve Description			
Driver Upper Neck Force X			
Plot No.		SAE Class	Units
009		1000	N
Max	Time	Min	Time
465.7	101.4	-439.9	175.3

Honda OEM Parts

Data Stream Not Recorded

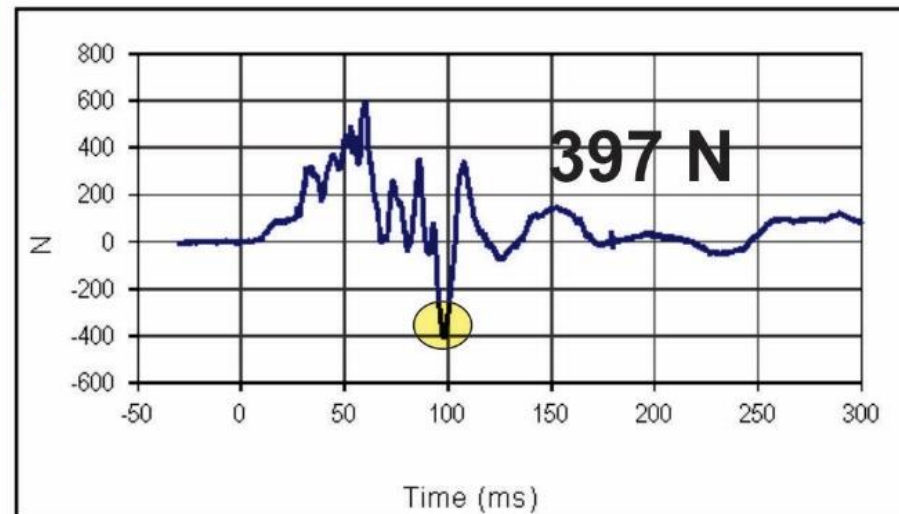
Driver Left Femur Force Z, Slightly Higher But Not Out Of Expectation

Aftermarket Parts



Curve Description			
Driver Left Femur Force Z			
Plot No.		SAE Class	Units
033		600	N
Max	Time	Min	Time
1178.6	61.9	-1685.4	101.4

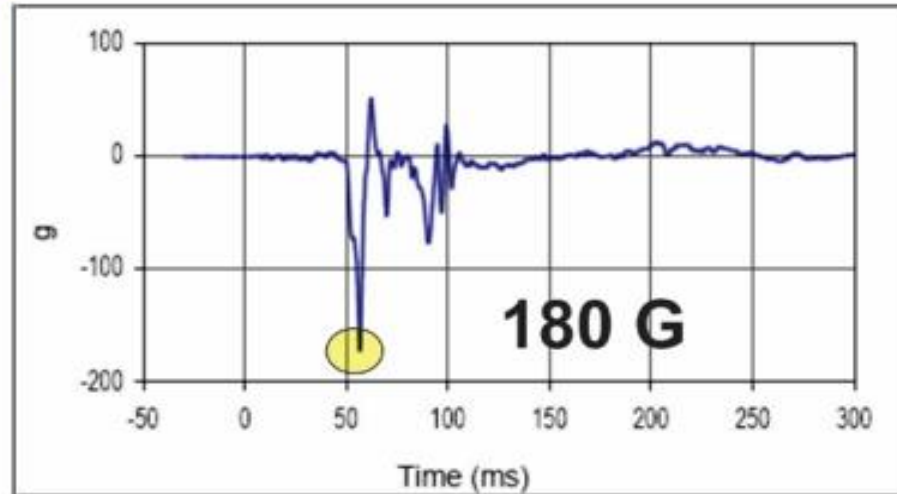
Honda OEM Parts



Curve Description			
Driver Right Femur Force Z			
Plot No.		SAE Class	Units
023		600	N
Max	Time	Min	Time
589.4	60.0	-407.7	98.1

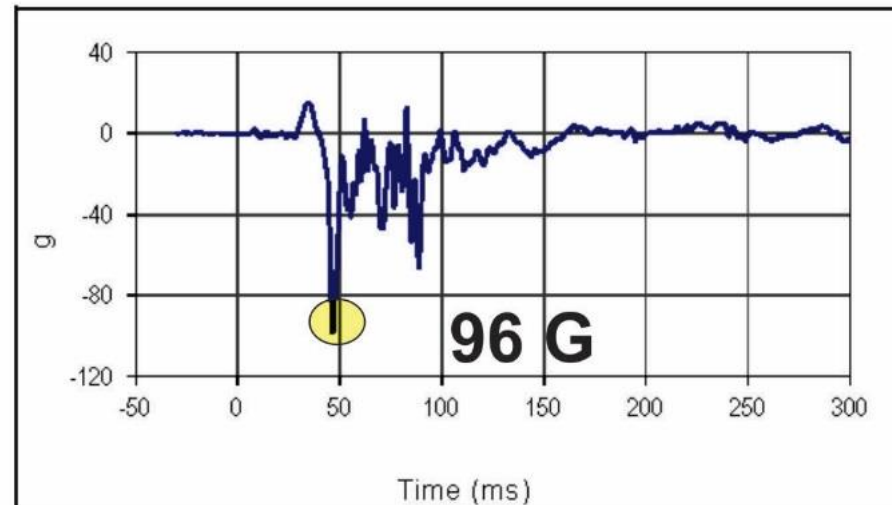
Again, The OEM Parts Repaired Vehicle Performs Much Closer to the OEM, than Aftermarket Part Repair

Aftermarket Parts



Curve Description			
Driver Right Toe Acceleration Z			
Plot No.	SAE Class	Units	
056	180	g	
Max	Time	Min	Time
51.1	62.1	-173.6	56.6

Honda OEM Parts



Curve Description			
Driver Right Toe Acceleration Z			
Plot No.	SAE Class	Units	
048	180	g	
Max	Time	Min	Time
14.9	34.3	-98.2	46.5



Aftermarket Parts



Honda OEM Parts

Brake Pedal
Displacement
Differences
Demonstrate Major
Floor Pan Intrusion
in the Aftermarket
Part Vehicle