

U.S. Department of Transportation National Highway Traffic Safety

National Automotive Sampling System

Adn	ninistration	EXTERIOR	TRUCK FORM Crash Causation Special Study
1.	Primary Sampling Unit Number		12. Vehicle Configuration
2.	Year		1 2 3 4 5 6 7 8 9 10
			Left justify
3.	Case Number - Stratum		(-) No additional units
4.	Vehicle Number		(R) Straight truck (T) Tractor
••	vollicie i tuliibei		(S) Semi-trailer
	VEHICLE IDENTIFICATION		(F) Full trailer
5.	Power Unit Type		(G) Gooseneck hitch
	(1) Straight Truck		(O) Other trailer (specify):
	(2) Tractor (8) Other (specify)::		(U) Unknown trailer type (A) A dolly
	(9) Unknown		(A) A dolly (B) B train
	(5) Challown		(C) C dolly
6.	Power Unit Vehicle Identification Number (VIN)		(X) Unknown dolly
			(J) Jeep
	1 2 3 4 5 6 7 8 9 10 11 12 13 14	15 16 17	(P) Bus
	Left justify; Slash zeros and letter Z (0 and Z) No VIN — Code all zeros		(I) Implement of husbandry
7	0.1.0.1		13. Total Number Of Trailers
7.	Cab Style (1) Conventional		Code actual value (0) None (includes bobtail tractor)
	(2) Cab-over-engine		(7) Not applicable (includes straight truck)
	(3) Cab forward		(9) Unknown
	(8) Other (specify):		
	(9) Unknown		Number Of Axles In Use
			14. Power Unit
8.	Sleeper Berth		15. First Trailer
	(1) Yes		16. Second Trailer
	(2) No (9) Unknown		17. Third Trailer Code number of axles
	() Chkhown		(97) Not applicable (includes no trailer)
9.	Dromedary Box		(99) Unknown
	(1) Yes		, ,
	(2) No		Number Of Lift Axles (Not in Use)
	(3) Unknown		18. Power Unit
10	ITC Equipment Installed		19. First Trailer
10.	ITS Equipment Installed (Code up to three units.)		20. Second Trailer 21. Third Trailer
	(1) Headway detection unit		Code number of axles
	(2) Side/object detection unit		(97) Not applicable (includes no trailer)
	(3) Rollover warning unit		(99) Unknown
	(7) Not applicable		
	(8) Other (specify):		Number Of Steer Axles (includes self-aligning steer axles)
	(9) Unknown		22. Power Unit
11.	Engine Control/Data Recorder Installed		24. Second Trailer
	(1) Yes (specify type):		25. Third Trailer
			Code number of steer axles
	(2) No		(97) Not applicable (includes no trailer)
	(9) Unknown		(99) Unknown
	If installed, record the following data:		Trailer Type
	Engine RPM (9997) Not applicable		26. First Trailer
	(9999) Unknown		27. Second Trailer
	Vehicle Speed	KPH	28. Third Trailer
	mph x = 1.6093	KPH	(1) Semi
	(9997) Not applicable		(2) Full
	(9999) Unknown		(7) Not applicable (includes no trailer)
	Gear Position (specify):		(8) Other (specify):(9) Unknown
			(7) CHKHOWH

VEHICLE IDENTIFICATION		
Trailer Make 29. First Trailer	Gross Vehicle Weight Rating (GVWR) 45. Power Unit . 0	`
30. Second Trailer	45. Power Unit	
31. Third Trailer	47. Second Trailer	
Record specific make	48. Third Trailer	
(97) Not applicable (includes no trailer)	Code GVWR to nearest 10 kilograms	
(99) Unknown	(0000) Less than 5 kilograms	
Thursday Mr. 1.137	(9997) Not applicable	
Trailer Model Year 32. First Trailer	(9999) Unknown	
33. Second Trailer	Power Unit	
34. Third Trailer	, lbsx.4536=, kgs	
Code all four digits of the model year	First Trailer	
(9999) Unknown	,, lbsx.4536=,kgs	
Tr 1 X/INI	Second Trailer	
Trailer VIN 35. First Trailer VIN	,, lbsx.4536=,, kgs	
55. This Hand viiv	, lbsx.4536=, kgs	
$\frac{1}{2}$ $\frac{2}{3}$ $\frac{3}{4}$ $\frac{4}{5}$ $\frac{5}{6}$ $\frac{7}{7}$ $\frac{8}{9}$ $\frac{9}{10}$ $\frac{11}{11}$ $\frac{12}{12}$ $\frac{13}{14}$ $\frac{14}{15}$ $\frac{16}{17}$		
	Empty Weight	
36. Second Trailer VIN	49. Power Unit,	
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17		
37. Third Trailer VIN	52. Third Trailer,	
57. Time framer vity	53. Total empty weight,,,	U
<u>1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17</u>	(0000) Less than 5 kilograms	
Left justify: slash zeros and letter z (0 and z)	(9997) Not applicable	
No trailer – code all zeros	(9999) Unknown	
No VIN tag – code all nines		
	Power Unit	
Trailer Date of Manufacture	,, lbs x .4536 =, kgs	;S
38. First Trailer	Einst Torilon	
39. Second Trailer	First Trailer, lbs x .4536 =, kgs	re
40. Third Trailer Code month/yr.	,,,,,,,,,,,,,	,3
No trailer – code all zeros	Second Trailer	
Unknown – code all nines	, , lbs x .4536 = , kgs	S
Body Style	Third Trailer	
41. Power Unit	,, lbs x .4536 =,kgs	;S
42. First Trailer 43. Second Trailer	Total , lbs x .4536 = , kgs	
44. Third Trailer	,, lbs x .4536 =, kgs	,5
(01) Van	Vehicle Length	
(02) Open top van	54. Power Unit m	n
(03) Refrigerated van	55. First Trailer m	
(04) Livestock carrier	56. Second Trailer m	
(05) Flatbed	57. Third Trailer m	n
(06) Low boy	58. Total Length m	n
(07) Flatbed with equipment	Code length to the nearest tenth of a meter.	
(08) Flatbed with sides (09) Pole/logging	(000) Less than 0.1 meters (997) Not applicable	
(10) Tank-liquid	(999) Unknown	
(11) Tank-compressed gas	(777) Chanown	
(12) Tank-dry bulk	Power Unit	
(13) Auto carrier	,, ft. x .3048 =, m	
(14) Dump		
(15) Bottom dump/hopper bottom	First Trailer	
(16) Garbage/refuse	,, ft. x .3048 = m	
(17) Cement Mixer	Conond Trailor	
(18) Other (specify):(97) Not applicable (includes tractor power unit)	Second Trailer , ft. x .3048 = m	
(99) Unknown	,, II. A .5040 –III	
(>) Similari		

____ lbsx.4536= ___ , ___ kgs

____, ____ lbsx.4536= ____, ___ kgs

____ , ___ , ___ kgs

Second Trailer

Third Trailer

68. Power Unit69. First Trailer70. Second Trailer

Percent Of Cargo Capacity

78. Second Trailer79. Third Trailer

(0) No spillage

(9) Unknown

(1) Non-hazardous spillage

(7) Not applicable (includes tractor power unit)

(2) Hazardous spillage

e occup	oied.	
·_	l	
·_	l	
	1	
·	l	
	l	
·	1	
·	l	
·	l	

LOCATOR

Locate the end of the damage with re	espect to the vehicle's damag	ed center point or bumper c	corner for end impacts or an	undamaged axle for side
impacts/				

Specific Impact No.	Location of Direct Damage	Location of Field L	Location of Max Crush

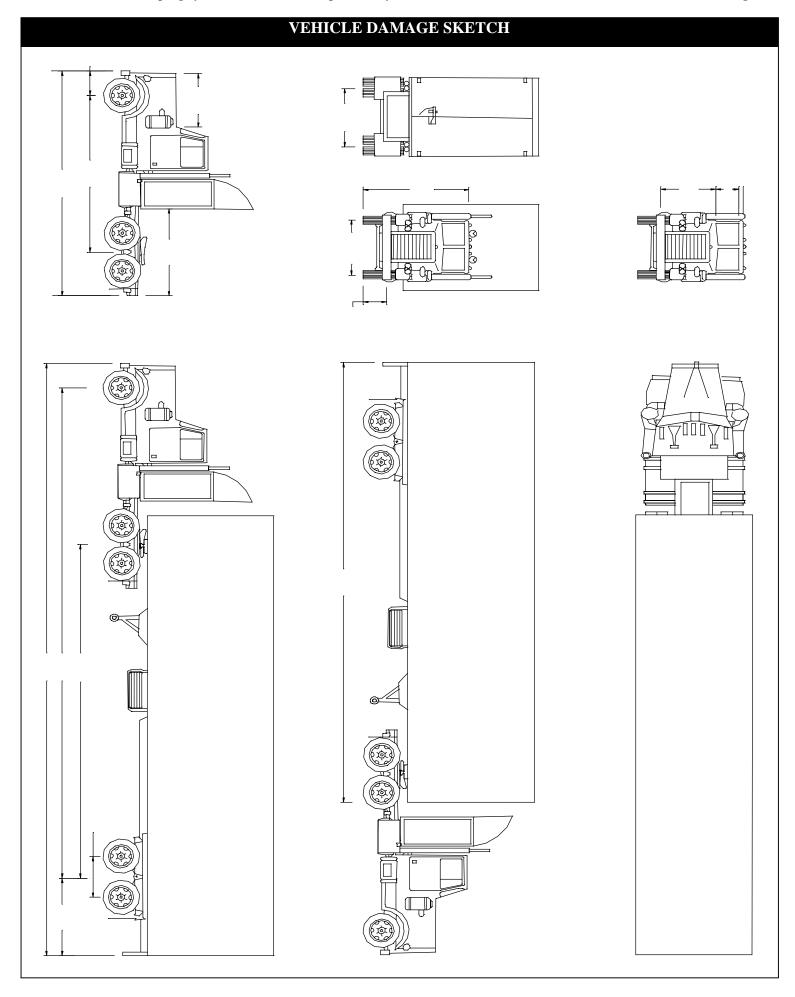
CRUSH PROFILE IN CENTIMETERS

NOTES: Identify the plane at which the measurements are taken (e.g., at bumper, above bumper, at sill, above sill, etc.) and label adjustments (e.g., free space).

Free space value is defined as the distance between the baseline and the original body contour taken at the individual C locations. This may include the following:: bumper lead, bumper taper, side protrusion, side taper, etc. Record the value for measurement and maximum crush.

Use as many lines/columns as necessary to describe each damage profile.

	Use as many lines/columns as necessary to describe each damage profile.							
		Direct l	Damage					
Specific Impact Number	Plane of Impact C-Measurements	Width (CDC)	Max Crush	Field L	Damage Inspection Notes:			



VEHICLE DAMAGE SKETCH

Nati	ona	l Automo	otive Sampling	System - Crasl			terior Truck Forn	n		Page 8	
					TDC	C WORKSI					
					CODES FO	OR OBJECT CO	ONTACTED				
01-3	0 - `	Vehicle N	Number			(/	Fence				
						(58)	Wall				
Non			D - 11 (E1		E., 4)	(59)	Building				
(31)			Rollover (Excl and-Over-End	udes End-Over-	Ena)	(60)	Ditch or Culvert Ground				
(32)		re or Exp				(61) (62)	Fire Hydrant				
(34)		ickknife	DIOSIOII			(63)	Curb				
(35)			unit Damage (S	Specify):		(64)	Bridge				
(33)	_					(68)	Other Fixed Obje	ect (Specify):			
(36) (38)			on Injury collision (Speci	ifv):		(69)	Unknown Fixed (Object			
, ,								_			
(39)	O	ther Non	collision - Deta	uls Unknown			sion With Nonfixe		04 7/1:1		
Call	:a : a.	. XX/:4b E	ivad Object			(70)	Passenger Car, Li		or Other Venicie	2	
			ixed Object cm in diameter)	,		(71)	Not In-Transport Medium/Heavy T		In Transport		
(41) (42)			cm in diameter)			(71)	Pedestrian	Tuck of bus not	i III-TTalisport		
(43)		hrubbery		.)		(73)	Cyclist or Cycle				
(44)		mbankme				(74)					
(45)			Pole or Post (A	Any Diameter)		(14)	<u> </u>				
						(75)	Vehicle Occupan	t			
			Pole or Post			(76)					
(50)			st (≤ 10 cm in d			(77)					
(51)				\leq 30 cm in dian	neter)	(78)	Trailer, Disconne				
(52)			st (> 30 cm in d			(79)	Object Fell From				
(53)			st (diameter unl	known)		(88)	Other Nonfixed C	Object (Specify):			
(54)			raffic Barrier			(00)		1.01.			
(55)		npact Att		1 . 1 . 1 . 1 . 1 . 1 . 1 . 1 . 1 . 1 .		(89)	Unknown Nonfix				
(56)			ic Barrier (inci	udes guardrail)		(98)	Other Event (Spe	city):			
	•	,				(99)	Unknown Event	or Object			
				DEFO	DRMATION CLA	ASSIFICATION	BY EVENT NUM				
			Crash Event	Object	(1) (2)	(3)	(4) Specific	(5) Specific	(6)		
			Sequence	Contacted	Direction of	Deformation	Longitudinal	Vertical or	Type of	(7)	
			Number	Contacted	Force	Location	or Lateral	Lateral	Damage	Deformation	
			TVallioof		1 0100	Location	Location	Location	Distribution	Extent	
	115										
	116										
											
	117	•									

	Crash Event Sequence Number	Object Contacted	(1) (2) Direction of Force	(3) Deformation Location	Specific Longitudinal or Lateral Location	Specific Vertical or Lateral Location	(6) Type of Damage Distribution	(7) Deformation
115.					Location ——	Location ——	———	Extent
116.								
117.								
118.								
119.								
120.								
121.								
122.								
123.								
124.								

National Automotive Sampling System - Crash Causation Special Study: Exterior Truck Form Page 9 NOTE: COMPLETE THIS PAGE FOR REAR AND SIDE IMPACTS ONLY. RIGHT OR LEFT VIEW REAR VIEW Front Rear |--T---| Truck bumper height above Нв Front axle setback Αs ground D Front tire diameter

LEVEL 1 INSPECTION RESULTS

					EL 1 INSPECTI	ON RESULTS					
DRIVER/CO	OMPC	NEN'	Г СОІ	MPL	IANCE						
			Out	-of-					Out		
Driver Check	Vio	lation	Serv	vice	Disposition	1 st Towed Unit	Viola	tion	Ser	vice	Disposition
	Y	N	Y	N	Code		Y	N	Y	N	Code
Seat belts						Coupling devices					
No log						Header boards					
Log not current						Mrkr/clear lights/tail					
False log						Tires					
10 hr. rule						Wheels/lugs/rims					
15 hr. rule						Brakes					
60/7 rule						Air hoses/leaks					
70/8 rule						Frames					
Medical certification						Suspensions					
Other medical						Wiring					
Under age						Turn signals					
Driver qualifications						Stop signals					
License opr/chauff/cdl						Mud flaps					
Other driver reg.						Rear end prot.					
	1		Out	-of-		Cargo securement	1				
Power Unit	Vio	lation	Serv		Disposition	Tarping required	1				
C.III	Y	N	Y	N	Code	Other violations	1				
Heater/defroster	1	11	1	- 11	Code	Other violations			Out	t-of-	
Horn/speedometer	 					2 nd Towed Unit	Viola	ition		vice	Disposition
Cab floor	-		-			2 TOWCG OIII	Y	N	Y	N	Code
Wiring						Coupling devices	1	11	1	11	Couc
Fire extinguisher						Mrkr/clear lights/tail					
Warning devices/flags/flares						Tires					
Brake applied/pressure loss						Wheels/lugs/rims					
Low air warning						Brakes					
Parking brake						Air hoses/leaks					
Glass						Frames					
Windshield wipers/washers						Suspensions					
Headlights						Wiring					
Front turn signals						Turn signals					
Clear/id lights/tail						<u> </u>					
Steering tires						Stop signals Mud flaps					
Front wheels/lugs/rims						Rear end prot.	-				
Steering components							-				
			-			Cargo securement					
Front brakes						Tarping required					
Rearview mirrors						Other violations			0		
Fuel system						ord m	T 77 1			t-of-	5
Battery installation						3 rd Towed Unit	Viola			vice	Disposition
Exhaust system	1		1			Carrelli 1 :	Y	N	Y	N	Codes
Air hoses/leaks	1		1			Coupling devices	+	-			
Tires	1		-			Mrkr/clear lights/tail	+				
Wheels/lugs/rims	 					Tires	-				
Brakes	1		<u> </u>			Wheels/lugs/rims	-				
Suspensions			<u> </u>			Brakes	1				
Frames	 					Air hoses/leaks	1				
Coupling devices	1		<u> </u>			Frames					
Rear turn signals	1		ļ			Suspensions	1				
Stop lamps	1		ļ			Wiring	1				
Mud flaps	1		ļ			Turn signals	1				
Rear end prot.	1		1			Stop signals	1				
Cargo securement	1		1			Mud flaps	1				
Tarping required						Rear end prot.	1				
Other violations	ļ					Cargo securement	1				
						Tarping required	1				
						Other violations	1				
	ļ						1				

	DISPOSITION CODES	
(1)	Repaired at Scene	
(2)	Repaired at Scene Towed/Escorted Other (Specify): Not applicable Unknown	
(3) (8)	Other (Specify):Not applicable	-
(9)	Unknown	

National A	Automotive	Sampiin	g Syste	III - Crasi	ı Causai	ion Spec	aai Study	: Exterior Truck				Page 11
								SYSTEM TYPE			Electric	
		BRAK	TE INS	PECTION	1	(2) Hydraulic (9) Unknown						
		AB	S	AI	BS	Adj	uster		Str	oke	Stroke	Length
Axle	System	Insta	lled	Funct	ional		ype	Chamber	T	ype		Ü
Position	Туре	Y	N	Y	N	Man	Auto	Size	Long	Short	Left	Right
1	71											- 8 -
_												
2												
_												
3									+			
3												
4									+			
7												
5												
3												
6												
U												
7												
,												
8												
0												
9												
9												
10												
10												
11				-	-							
11												
10			1									
12												
		A D TEX	NOW ATOM	TT CORE				D 1 T	<u> </u>			
		ADJUS	STIMIEN	T CODE	2			Brake Inspectio	n Notes:			

	ADJUSTINE (T CODE)
Chamber Size	
(00.00) N	Not Examined
(13.34 - 20.56)	Range of Applicable Outside Diameters in cm.
(97.97)	Not applicable
(99.99)	Unknown
Stroke Type	
(0)	Not Examined
(√)	Use Checkmark to Indicate Stroke Type
(7)	Not applicable
(9)	Unknown
Stroke Length	
(0.00)	Not Examined
(3.49 - 7.62)	Range of Applicable Stroke Lengths in cm.
(7.77)	Not applicable
(0.00)	·

Unknown

(9.99)

HAZ	ARDOUS	MAT	ERIAL	S	
				t-of	Disposition
Inspection Item	Examined		Service		
	Y	N	Y	N	
Ship paper/manifest (HA)					
HM license (HB)					
HW registration (HC)					
Placards(HD)					
Packaging (HE)					
Markings (HF)					
Labels (HG)					
Loading/securement HH)					
Cargo/portable tanks (HI)					
Safety equipment (HJ)					
Not applicable					
(Inspection not required)					
	Reportable Quantity?		Waiver?		
CODES	Y	N	Y	N	
					X
	DOUS M				

HAZARDOUS MATERIALS TYPE

- (A) 1.1 (Explosives)
- (B) 1.2 (Explosives)
- (C) 1.3 (Explosives)
- (D) 1.4 (Explosives)
- (E) 1.5 (Explosives)
- (F) 1.6 (Explosives)
- (G) 2.1 (Flammable Gas)
- (H) 2.2 (Non-Flammable Gas)
- (I) 2.3 (Poison Gas)
- (J) 3 (Flammable Liquid)
- (K) 4.1 (Flammable Solid)
- (L) 4.2 (Spontaneous Combustion)
- (M) 4.3 (Dangerous Wet)
- (N) 5.1 (Oxidizer
- (O) 5.2 (Org. Perox.)
- (P) 6.1 (Poi. PG I & II)
- (Q) 6.1 Poi. PG III)
- (R) 6.2 (Infectious Substance)
- (S) 7 (Radioactive)
- (T) 8 (Corrosive)
- (U) 9 (Miscellaneous)
- (V) (Combustible Liquid)
- (W) (ORM-D)
- (X) (Other)
- (Z) (Not applicable)