March 8, 2013 DET-13-035

Mr. Frank S. Borris, II, Director
Office of Defects Investigation
National Highway Traffic Safety Administration
1200 New Jersey Ave., S.E.
Washington, D.C. 20590

Subject: NVS-212-pco/EA12-005

Dear Mr. Borris:

On behalf of Isuzu Motors Limited, Isuzu Manufacturing Services of America, Inc. (collectively, "Isuzu") submits Isuzu's response to your letter requesting peer review information with regard to the above captioned investigation.

General Objections and Scope of Response

Isuzu's responses are set forth below. As a preliminary matter, however, Isuzu objects to the scope of the information request, particularly in a peer review seeking information from a company whose vehicles are not under investigation. The information request seeks detailed information with regard to individual vehicles sold over potentially 17 model years, and dating back approximately 20 calendar years. This breadth is well beyond the document retention requirements in NHTSA's regulations (49 CFR Part 576). Indeed, while the federal Motor Vehicle Safety Act generally authorizes the agency to obtain information from manufacturers (49 U.S.C. §30166(a) and (g)), the purpose of that authorization is clearly geared towards obtaining records to enable the agency to determine whether the manufacturer providing the information has complied with its statutory obligations. *See* 49 U.S.C. §30166(e)(the agency "reasonably may require" a manufacturer to make reports "to enable the Secretary to decide whether the manufacturer . . . has complied or is complying" with the law). Thus, while Isuzu appreciates the periodic need for the agency to obtain peer information during the course of an investigation, peer review information requests should be carefully tailored to elicit information necessary to compare trends in field experience or approaches to design and engineering.

Isuzu considers the definition of "document" in the information request to be unreasonably broad, vague, and ambiguous, and to exceed the scope of records that might reasonably be expected to bear relevant information. For example, in the context of this peer review, "newspaper articles," "agendas," "contracts," "work schedules," "journals," "computer calendars," "appointment books" and numerous other listed documents are unlikely to contain any relevant information. Especially in the context of a peer review information request, the agency should make an effort to tailor the definitions and the requests to elicit necessary information with a minimum of burden on the responding manufacturer.

Isuzu's response to this information request was based on a diligent search for the information requested. This response is based on searches of locations where documents determined to be

Isuzu Manufacturing Services of America, Inc. *734-455-7595*
46401 Commerce Center Drive
Plymouth, MI 48170-2473

responsive to the information request would normally be found and in consultation with current personnel knowledgeable about the information requested. As a result, the scope of this search did not include, nor could it reasonably include, "all of its past and present officers and employees, whether assigned to principal offices or any field or other location, including all divisions, subsidiaries (whether or not incorporated) and affiliated enterprises and all of headquarters, regional, zone and other offices and their employees, and all agents, contractors, consultants, attorneys and law firms and other persons engaged directly or indirectly (e.g., employee of a consultant) by or under the control of Isuzu (including all business units and persons previously referred to), who are or, on or after July 1, 1992, were involved in any way with any of the following related to the subject condition in the subject peer vehicles:

a. Design, engineering, analysis, modification or production (e.g., quality control);
b. Testing assessment or evaluation;
c. Consideration or recognition of potential or actual defects, reporting, record-keeping and information management, (e.g., complaints, field reports, warranty information, part sales), analysis, claims, or lawsuits, or
d. Communications to, from or intended for zone representatives, fleets, dealers, or other field locations, including but not limited to people who have the capacity to obtain information from dealers."

Isuzu construes this request as pertaining to vehicles manufactured for sale in the United States and its territories.

Information Requests and Response

Request No. 1

State within the body of the response letter a summary table, by make, model and model year, the number of subject peer vehicles Isuzu has manufactured for sale or lease in the United States. Separately, for each model subject peer vehicle manufactured to date by Isuzu, state the following:

a. Vehicle identification number (VIN);
b. Model;
c. Model year;
d. Date of manufacture (in "dd/mm/yyyy" date format);
e. Date warranty coverage commenced (in "dd/mm/yyyy" date format);
f. The State in the United States where the vehicle was originally sold or leased (or delivered for sale or lease);
g. The stowed location (e.g., in the rear cargo area, below the cargo area floor, or mounted on the exterior of the rear door, or other location) of the OE supplied spare tire;
h. Whether the vehicle was manufactured with a brush guard, skid guard/plate, or other covering for the underside of the fuel tank (i.e., a protective guard);
i. Whether the vehicle was manufactured with a tow hitch or tow receiver, and if so the duty/class of the hitch or receiver, and
j. Whether the vehicle was manufactured with an electrical harness/connector for trailer lighting purposes.

Response

The peer review information request defines “subject peer vehicles” as model year 1993-2007 and model year 2008-2010 Isuzu Rodeo vehicles. The Isuzu Rodeo was produced in two generations. The Model Year 1993 Rodeo was part of the first generation, which was produced through model year 1997. Production information for that vehicle is provided below under “Rodeo 1.” The second generation was produced from model year 1998 through model year 2004. Production information for that vehicle is provided below under “Rodeo 2.”

Following discussions with NHTSA, Isuzu Trooper vehicles were added to the definition of subject peer vehicles. Production of the Isuzu Trooper ended model year 2002. Production information for these vehicles also is provided below.

Model	Model Year	Total Sales
Rodeo 1	1993	38,154
	1994	56,379
	1995	84,813
	1996	44,054
	1997	51,688
Rodeo 2	1998	65,585
	1999	72,543
	2000	54,034
	2001	57,329
	2002	35,409
	2003	13,019
	2004	10,371
Trooper	1993	17,693
	1994	30,594
	1995	22,518
	1996	17,223
	1997	8,028
	1998	17,610
	1999	23,093
	2000	19,096
	2001	18,657
	2002	12,190

Please refer to the table in Microsoft Access 2000, entitled "SUBJECT PEER VEHICLE PRODUCTION DATA," identified in the attached CD as Attachment 1, for more details. With regard to Request No. 1(i) and 1(j), Isuzu notes that it did not manufacture vehicles with the trailer hitch or wiring harness option. Rather, these options may have been installed by dealers or aftermarket providers. Therefore, Isuzu does not have information responsive to Request No. 1(i) and 1(j). Accordingly, Attachment 1 lists “N” in those columns of the production information spreadsheet.

Request No. 2

State the number of each of the following, received by Isuzu, or of which Isuzu is otherwise aware, which relate to, or may relate to, the subject condition in the subject peer vehicles:

a. Consumer complaints;
b. Field reports, including dealer field reports;
c. Reports involving a crash, or fire, based on claims against the manufacturer involving a death or injury, and notices received by the manufacturer alleging that a death or injury was caused by a possible defect in a subject peer vehicle;
d. Property damage claims;
e. Third-party arbitration proceedings where Isuzu is or was a party to the arbitration; and
f. Lawsuits, both pending and closed, in which Isuzu is or was a defendant or codefendant.

For subparts "a" through "f," state the total number of each item (e.g., consumer complaints, field reports, etc.) separately. Multiple incidents involving the same unit are to be counted separately. Multiple reports of the same incident are also to be counted separately (i.e., a consumer complaint and a field report involving the same incident in which a crash occurred are to be counted as a crash report, a field report and a consumer complaint).

In addition, for items "c" through "f," provide a summary description of the alleged problem and causal and contributing factors and Isuzu's assessment of the problem, with a summary of the significant underlying facts and evidence including any and all photographic evidence, third-party post-crash/inspection reports, deposition materials, etc. For items "c" through "f" identify the parties to the action, as well as the caption, court, docket number, and date on which the complaint or other document initiative the action was filed, and details of the resolution of the matter.

Include reports in which the subject peer vehicle was struck in the rear by another vehicle, or the subject peer vehicle itself, through its own momentum or movement, struck another vehicle or object, such as a tree, pole, or bridge abutment. As used here, the term rear includes crashes in which the subject peer vehicle is struck by another vehicle, or strikes an object, at an angle that included the rear of the vehicle (i.e., clock points 5, 6, or 7), and is not limited to direct crashes to the rear of the subject peer vehicle. Fire reports where the ignition source was from other than the crash are responsive and are to be included in your response. Reports of fuel leaks or fires where no crash occurred, such as fuel leaks that occur in garages or from punctures from running over objects in the road (but unrelated to a crash), are not within the scope of this request. Also, reports in which the fuel leak or fire originated in the engine compartment area, or where the fire was caused by an electrical issue (e.g., dash wiring or seat heater) or from a non-vehicle related source (e.g., a lit cigarette, or a lit match), as opposed to a crash related fuel leak and fire, are also outside the scope of this request.

Response

In accordance with the instruction in the peer review information request that terminology is to be construed consistent with 49 CFR Part 579, Isuzu has construed the request as seeking information consistent with the definitions used in that regulatory provision.

a. Isuzu has not identified any consumer complaints that relate to, or may relate to, the subject condition in the subject peer vehicles.
b. Isuzu has not identified any field reports that relate to, or may relate to, the subject condition in the subject peer vehicles.
c. Isuzu has identified two lawsuits based on claims against one or more Isuzu entities involving a death or injury, which are the same lawsuits identified in response to Request No. 2(f). Although Isuzu identified one additional product liability claim involving a fire following a single vehicle rollover in which there appear to have been multiple contacts between the vehicle and the ground (but apparently none with another vehicle or other object other than the ground), Isuzu believes such claim is not responsive to this request.
d. Isuzu has not identified any property damage claims that relate to, or may relate to, the subject condition in the subject peer vehicles.
e. Isuzu has not identified any third-party arbitration proceedings that relate to, or may relate to, the subject condition in the subject peer vehicles where Isuzu is or was a party to the arbitration.
f. Isuzu has identified two lawsuits (both arising out of the same crash) that relate to, or may relate to, the subject condition in the subject peer vehicles, in which an Isuzu entity is or was a defendant or codefendant. As a summary, the vehicle was struck from the rear at a very high speed and the collision resulted in a fire.

Isuzu's response to Request No. 2 is based on a search of the following data sources:

(1) Customer Relation Center/Database (CATS)
(2) Techline/Technical Assistance Database
(3) Field Engineering Report Database
(4) Field Product Report Database
(5) Legal Department Files

Request No. 3

Separately, for each item (complaint, report, claim, notice, or matter) within the scope of your response to Request No. 2, state the following information:

a. Isuzu's file number or other identifier used;
b. The category of the item, as identified in Request No. 2 (i.e., consumer complaint, field report, etc.);
c. Cause: 1) Whether the subject condition occurred due to the failure of or damage to a subject component or 2) Isuzu's assessment of the cause of the fire or fuel leak, or 3) whether the subject condition occurred due to an unknown, undetermined, or ambiguous causation.
d. Vehicle owner or fleet name (and fleet contact person), address, and telephone number;
e. Vehicle's VIN;
f. Vehicle's model;
g. Vehicle's model year;
h. Vehicle's mileage at time of incident;
i. Isuzu's estimate of the impact speed of the striking vehicle or object that contacted the rear of the subject peer vehicle;

j. The basis and/or analysis that substantiates the estimate provided in item i;
k. Incident date;
l. Report or claim date;
m. Whether a fire is alleged;
n. Whether property damage is alleged;
o. Number of alleged injuries, if any; and
p. Number of alleged fatalities, if any.

Response

Information responsive to Request No. 3 is provided within the table entitled "REQUEST NUMBER TWO DATA," identified in the attached CD as Attachment 2.

Request No. 4

Produce copies of all documents related to each item within the scope of Request No. 2. The documents requested specifically include, but are not limited to, the following:

a. Any police reports relating to, or that may relate to, the crash, fuel leak or fire;
b. Any and all accident reconstruction reports and documents prepared by or for Isuzu or by or for any other party;
c. Any and all reports and exhibits related to the subject condition prepared by expert witnesses in support of a claim against Isuzu or in anticipation of testimony in any state or federal proceeding in which Isuzu was a party;
d. Transcripts and/or video recordings and exhibits of any and all depositions of persons designated as experts in any state or Federal proceeding related the subject condition in which Isuzu was a party;
e. Transcripts and/or video recordings of any and all depositions of Isuzu employees in any state or Federal proceeding relating to the subject condition in which Isuzu was a party; and
f. Any and all documents consulted, created, or relied upon by Isuzu supporting its characterization or conclusions related to the causation of any fuel related leak and/or fire related to the subject condition.

Response

Per agreement with ODI staff, Isuzu has not searched its records at this time for detailed investigation files relating to the lawsuits identified in response to Request No. 2, and will discuss with the agency any requests in the future for additional information or documents. Isuzu reserves its right to make what it considers to be appropriate objections to such requests.

Request No. 5

For each subject peer vehicle model and model year, provide the following:

a. Model, model year, and platform designation;

b. Type of material the fuel tank is composed of (e.g., HDPE plastic);
c. Side, rear, and top view drawings showing the placement of the subject components and related components that secure them in the vehicle;
d. A bottom view drawing or photograph showing the full vehicle undercarriage in the fully built configuration including the locations of the subject components.
e. Overall length of vehicle (in/cm);
f. Wheel base (in/cm);
g. Track width (in/cm);
h. Curb weight (lb/kg);
i. Gross vehicle weight rating (lb/kg);
j. Front gross axle weight rating (lb/kg);
k. Rear gross axle weight rating (lb/kg);
l. Interior volume (passenger and storage area);
m. For any subject peer vehicles manufactured with a fuel tank located behind the rearmost axle, state the horizontal distance (in/cm) from aft most point of the rear axle to forward most point of the fuel tank;
n. For any subject peer vehicles manufactured with a fuel tank located behind the rearmost axle, state the horizontal distance (in/cm) from aft most point of the fuel tank to the aft most point of the vehicle's rear bumper;
o. For any subject peer vehicles manufactured with a fuel tank located behind the rearmost axle, state the vertical distance (in/cm) from bottom/lower most surface of the fuel tank to bottom/lower most surface of vehicle's rear bumper at center line position (positive value indicates the tank surface is above bumper, negative value below the bumper);
p. For any subject peer vehicles manufactured with a fuel tank located behind the rearmost axle, state the vertical distance (in/cm) from the ground/road surface to the bottom/lower surface of i) the vehicle's rear bumper at center line position, and ii) the vehicle's tow hitch at center line position (when equipped with a tow hitch);
q. If not originally equipped with, whether or not a protective guard for the fuel tank was optionally available, and if so, the part number of the optionally available protective guard; and
r. Whether the vehicle was equipped with an ORVR/Onboard Refueling Vapor Recovery system.

Response

Please refer to the information identified in the attached CD as Attachment 3, MODEL INFORMATION, for information responsive to Request No. 5.

Request No. 6

Describe all assessments, analyses, tests, test results, design studies, studies, surveys, simulations, investigations, inquiries and/or evaluations (collectively, "actions") that relate to, or may relate to, the subject condition in the subject peer vehicles, and including all testing to Federal Motor Vehicle Safety Standard (FMVSS) No. 301 or any other contemplated or applicable corporate or internal fuel system integrity standards that have been conducted, are being conducted, are planned, or are being planned by, or for, Isuzu. For each such action, provide the following information:

a. Action title or identifier;

b. The actual or planned start date;
c. The actual or expected end date;
d. Brief summary of the subject and objective of the action;
e. Results and related documents for FMVSS 301 testing including video and photos;
f. Engineering group(s)/supplier(s) responsible for designing and for conducting the action; and
g. A brief summary of the findings and/or conclusions resulting from the action.

For each action identified, provide copies of all documents related to the action, regardless of whether the documents are in interim, draft, or final form. Organize the documents chronologically by action.

Provide copies of any and all internal or corporate fuel system integrity standards used by Isuzu in the design and development of the subject vehicles that relate to the subject condition or to fuel system crash integrity in general, including those that exceed the requirements of federal standards or FMVSS 301.

Response

Information responsive to Request No. 6 is provided in the folder identified as Attachment 4, TESTING INFORMATION, in the attached CD. The information includes FMVSS related certification, compliance and validation testing in English. Although the docket shows the agency has agreed to limit the scope of testing to be produced by other peer review respondents, Isuzu is also voluntarily producing the relevant developmental test reports in its possession. Those developmental test reports, as well as internal cover sheets for certification tests, are not translated into English in the normal course of business, and at this time, Isuzu has not undertaken the burden of translating them. However, Isuzu will be happy to assist with necessary translation of individual reports if requested by, and after discussion with, the agency. Consistent with the fact that peer review respondents have not provided such information, Isuzu reserves the right to withdraw voluntarily produced development testing if confidentiality is not granted.

If you have any questions or require additional information, please contact me at 734-582-9262.

Sincerely,

Jeffery A. Marsee
Chief Representative
Emissions and Safety
Isuzu Manufacturing Services of America, Inc.

Enclosures

EA12-005

ISUZU

3-8-2013

Attachment 2

Isuzu IR Response

Request No. Two Data

PERSONAL IDENTIFYING INFORMATION REDACTED

EA12-005
Isuzu Peer Vehicle Information Request Response
REQUEST NUMBER TWO DATA

a. Claim ID	b. Category	c. Cause	d. Vehicle Owner	e. VIN No.	f. Model	g. Model Year	h. Mileage	i. Speed Estimate	j. Basis	k. Incident Date	l. Claim Date	m. Alleged Fire	n. Alleged Property Damage	o. Alleged Injuries	p. Alleged Fatalities
2001-0336	Lawsuit Product Liability	Isuzu does not believe the fire/crash was due to a defect in the vehicle.	[redacted] (Died)	4S2CY58[ ]	Isuzu Rodeo	1994	Unknown	Bullet vehicle traveling at up to 90 mph	--	1/6/2001	9/5/2001	Yes	No, but subject vehicle badly damaged	One	None
2001-0338	Lawsuit Product Liability	Isuzu does not believe the fire/crash was due to a defect in the vehicle.	[redacted] (Decedent)	4S2CY58[ ]	Isuzu Rodeo	1994	Unknown	Bullet vehicle traveling at up to 90 mph	--	1/6/2001	9/5/2001	Yes	No, but subject vehicle badly damaged	None	One

EA12-005

ISUZU

3-8-2013

Attachment 3

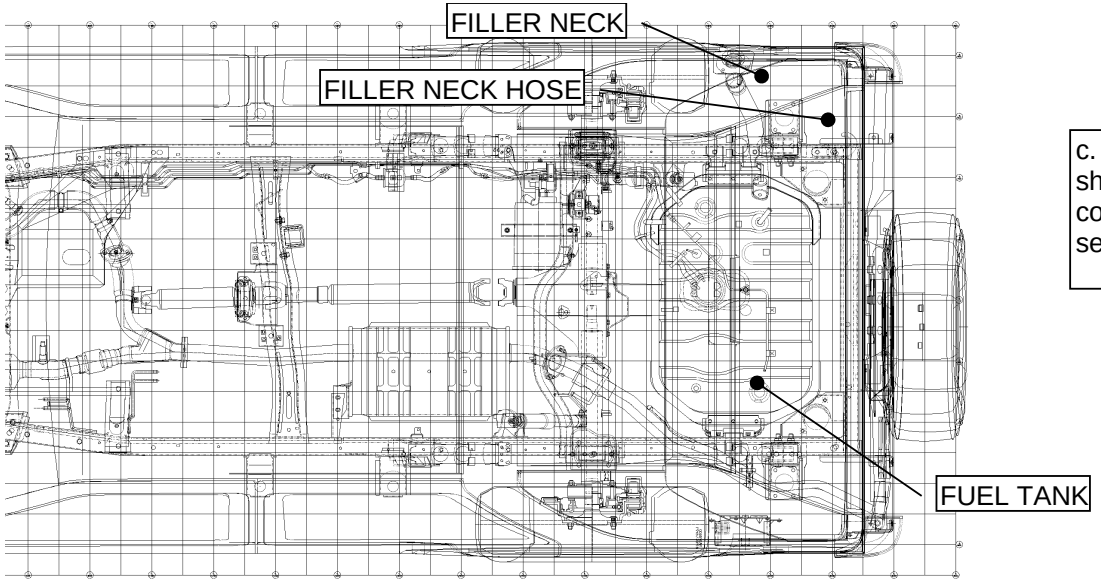
MODEL INFORMATION

Isuzu IR Response

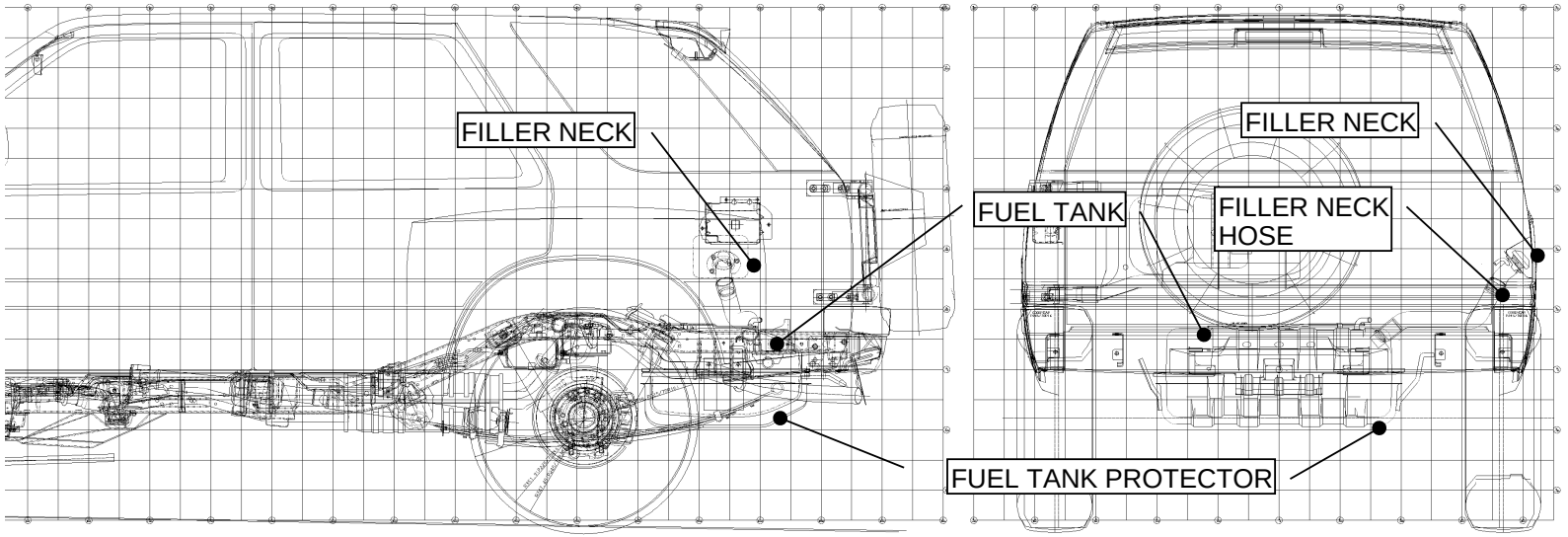
Request No. Two Data

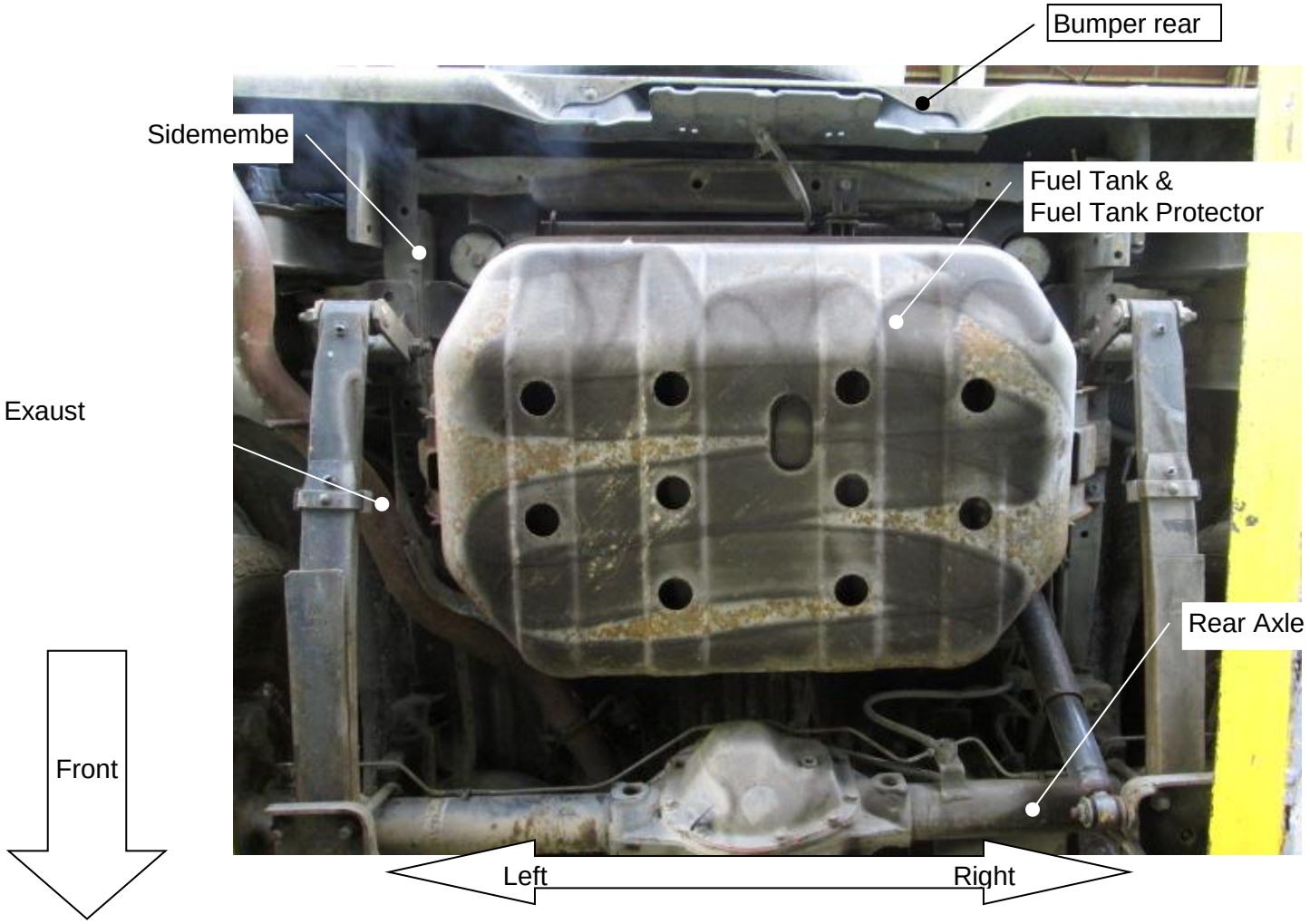
5. For each subject peer vehicle model and model year, provide the following:

a. Model, model year, and platform designation;	Model	Rodeo		Rodeo		Rodeo		Rodeo		Rodeo	
	Model year	1993		1994		1995		1996		1997	
	Platform designation	UC		UC		UC		UC		UC	
	Tire Size	With P225/75R15	With 31X10.5R15 tire	With P225/75R15	With P245/70R16 tire	With P225/75R15	With P245/70R16 tire	With P225/75R16	With P245/70R16 tire	With P225/75R16	With P245/70R16 tire
b. Type of material the fuel tank		Steel (Pb-Su Plating)		<-	<-	<-	<-	<-	<-	<-	<-
c. Side, rear, and top view drawings		See attached sheet "c UC drawing"		<-	<-	<-	<-	<-	<-	<-	<-
d. A bottom view drawing or photograph		See attached sheet "d UC picture"		<-	<-	<-	<-	<-	<-	<-	<-
e. Overall length of vehicle (in/cm);	Without outside spare tire	176.4/448		<-		<-		<-		<-	
	With outside spare tire	184.8/469.5	185.8/472	183.8/467	184.6/469	183.8/467	184.6/469	184/467.5	184.6/469	184/467.5	184.6/469
f. Wheel base (in/cm);		108.7/276		<-		<-		<-		<-	
g. Track width (in/cm);	Front	56.7/144	57.3/145.5	56.7/144	57.7/146.5	56.7/144	57.7/146.5	56.9/144.5	57.3/145.5	56.9/144.5	57.3/145.5
	Rear	56.9/144.5	57.4/146	56.9/144.5	57.9/147	56.9/144.5	57.9/147	57.1/145	57.5/146	57.1/145	57.5/146
h. Curb weight (lb/kg);		3535/1605 - 4120/1870		3545/1610 - 4050/1835		<-		3705/1680 - 4170/1895		3705/1680 - 4170/1895	
i. Gross vehicle weight rating (lb/kg);		4550/2065 - 4900/2220		<-		<-		4550/2065 - 5000/2271		<-	
j. Front gross axle weight rating (lb/kg);		2100/950 - 2300/1045		<-		<-		2100/950 - 2350/1065		<-	
k. Rear gross axle weight rating (lb/kg);		2700/1225 - 2800/1270		<-		<-		2700/1225 - 2850/1290		<-	
l. Interior volume (passenger and storage area);		131 cu. ft		<-		<-		<-		<-	
m. Horizontal distance (in/cm) from aft most point of the rear axle to forward most point of the fuel tank;		2.64 / 6.7		<-		<-		<-		<-	
n. Horizontal distance (in/cm) from aft most point of the fuel tank to the aft most point of the vehicle's rear bumper;		10.3 / 26.1		<-		<-		<-		<-	
o. Vertical distance (in/cm) from bottom/lower most surface of the fuel tank to bottom/lower most surface of vehicle's rear bumper		-6.3 / -16		<-		<-		<-		<-	
p. Vertical distance (in/cm) from the ground/road surface to the bottom/lower surface of i) the vehicle's rear bumper		20.3/51.5	21.4/54.3	20.3/51.5	20.6/52.2	<-		20.7/52.7	20.6/52.2	<-	
q. Part number of the optionally available protective guard		Originally equipped		<-		<-		<-		<-	
r. ORVR/Onboard Refueling Vapor Recovery system.		No		<-		<-		<-		<-	



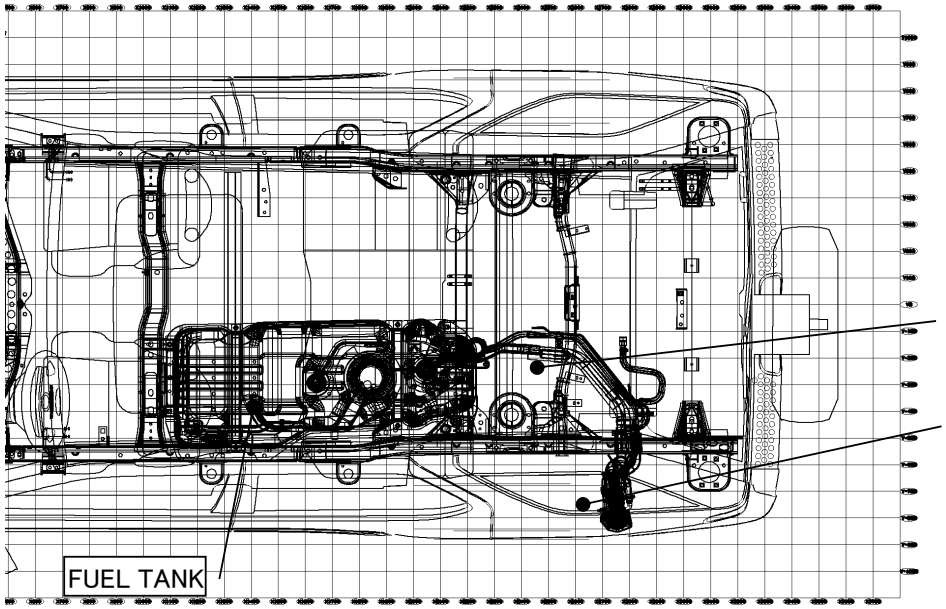
c. **Side, rear, and top view drawings** showing the placement of the subject components and related components that secure them in the vehicle;



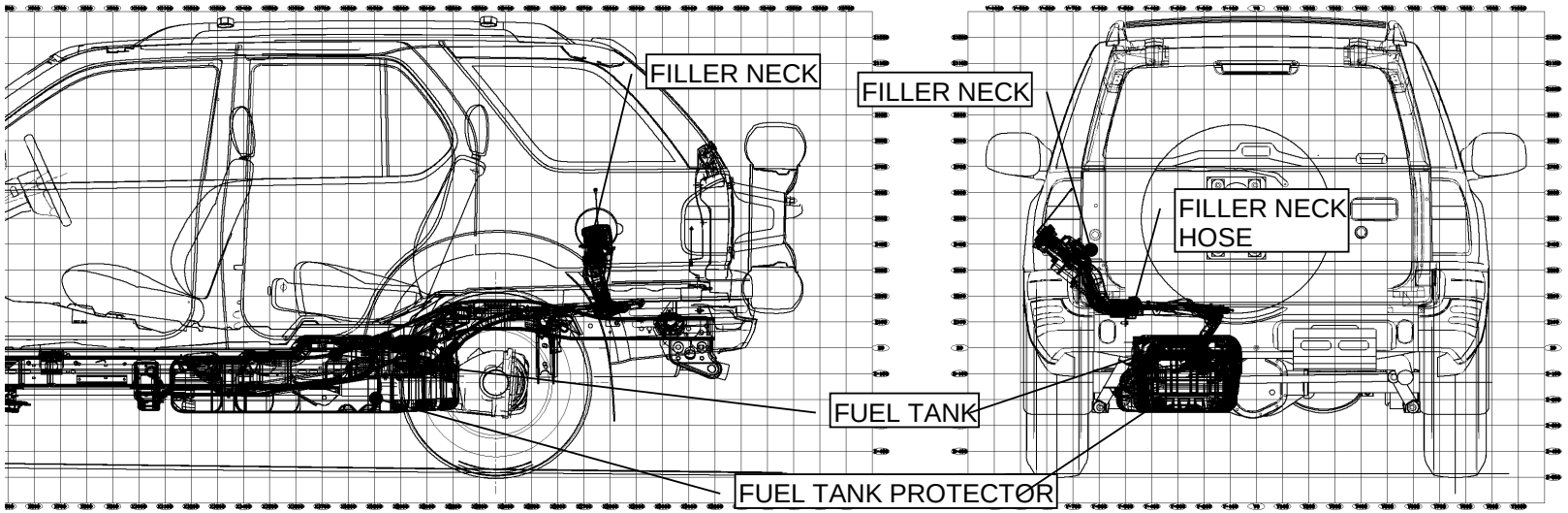

Bumper rear
Sidemembe
Fuel Tank &
Fuel Tank Protector
Exaust
Rear Axle
Front
Left
Right

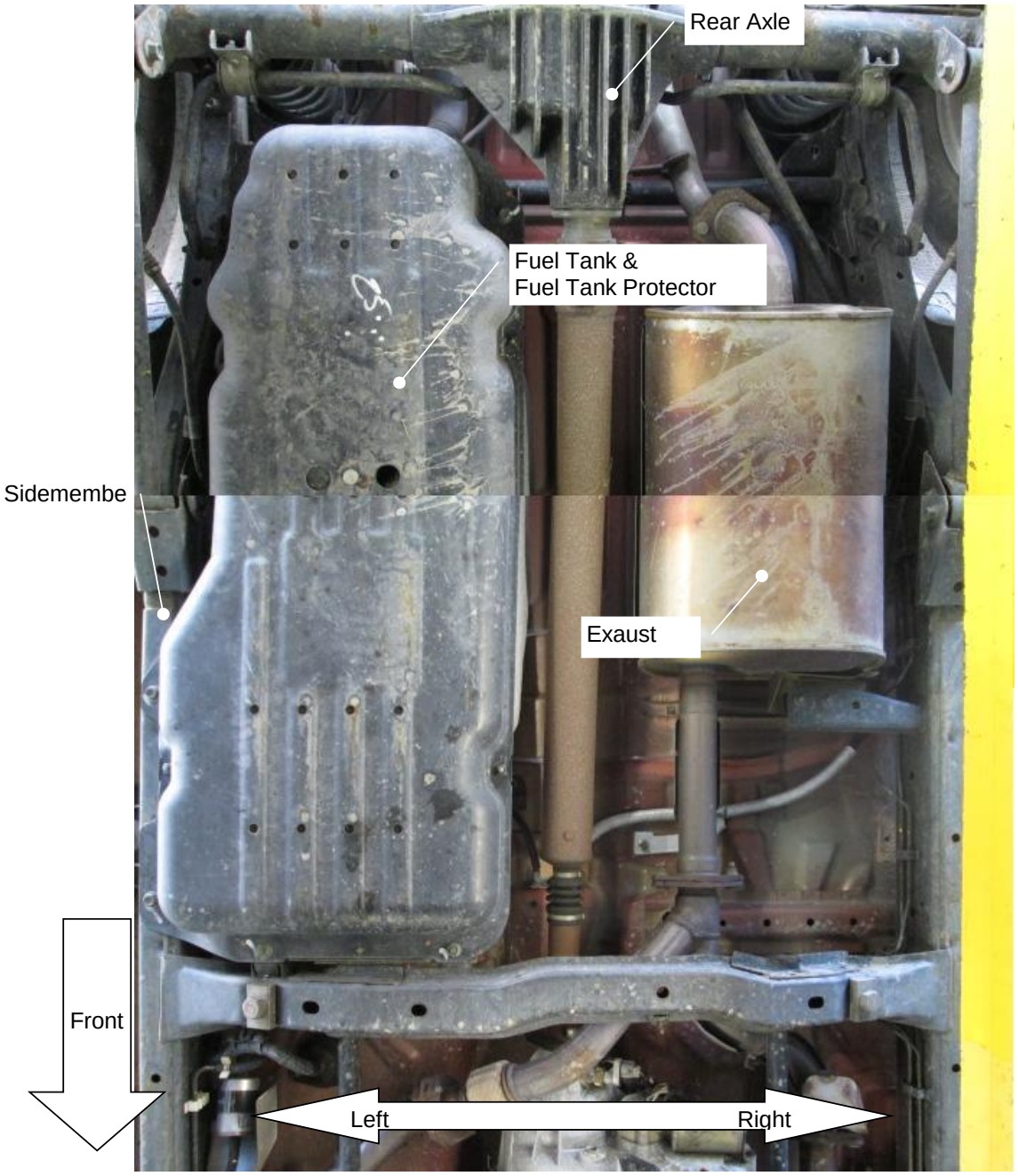
5. For each subject peer vehicle model and model year, provide the following:

a. Model, model year, and platform designation;	Model	Rodeo	Rodeo	Rodeo	Rodeo	Rodeo	Rodeo	Rodeo
	Model year	1998	1999	2000	2001	2002	2003	2004
	Platform designation	UE	UE	UE	UE	UE	UE	UE
b. Type of material the fuel tank		Steel	<-	<-	Plastic	<-	<-	<-
c. Side, rear, and top view drawings		See attached sheet "c UE drawing"	<-	<-	<-	<-	<-	<-
d. A bottom view drawing or photograph		See attached sheet "d UE picture"	<-	<-	<-	<-	<-	<-
e. Overall length of vehicle (in/cm);	Without outside spare tire	176.7/449	<-	177.5/451	<-	<-	<-	<-
	With outside spare tire	183.2/466 - 183.4/467	<-	<-	<-	<-	NA	NA
f. Wheel base (in/cm);		106.4/270	<-	<-	<-	<-	<-	<-
g. Track width (in/cm);	Front	59.6/151.5	<-	<-	<-	<-	<-	<-
	Rear	59.8/152	<-	<-	<-	<-	<-	<-
h. Curb weight (lb/kg);		3355/1525 - 3810/1730	3495/1585 - 3926/1780	3671/1665 - 4163/1888	<-	3750/1701 - 4209/1909	<-	3836/1740 - 4209/1909
i. Gross vehicle weight rating (lb/kg);		4550/2064 - 4850/2200	<-	4750/2155 - 5200/2359	<-	<-	<-	4950/2245 - 5200/2359
j. Front gross axle weight rating (lb/kg);		2400/1089	<-	2500/1134	<-	<-	<-	<-
k. Rear gross axle weight rating (lb/kg);		2700/1225	<-	2900/1315	<-	<-	<-	<-
l. Interior volume (passenger and storage area);		123.1 Cu.ft	<-	<-	<-	<-	<-	<-
m. Horizontal distance (in/cm) from aft most point of the rear axle to forward most point of the fuel tank;		N/A	<-	<-	<-	<-	<-	<-
n. Horizontal distance (in/cm) from aft most point of the fuel tank to the aft most point of the vehicle's rear bumper;		N/A	<-	<-	<-	<-	<-	<-
o. Vertical distance (in/cm) from bottom/lower most surface of the fuel tank to bottom/lower most surface of		N/A	<-	<-	<-	<-	<-	<-
p. Vertical distance (in/cm) from the ground/road surface to the bottom/lower surface of i) the vehicle's rear bumper		N/A	<-	<-	<-	<-	<-	<-
q. Part number of the optionally available protective guard		N/A	<-	<-	<-	<-	<-	<-
r. ORVR/Onboard Refueling Vapor Recovery system.		No	<-	<-	Yes	<-	<-	<-



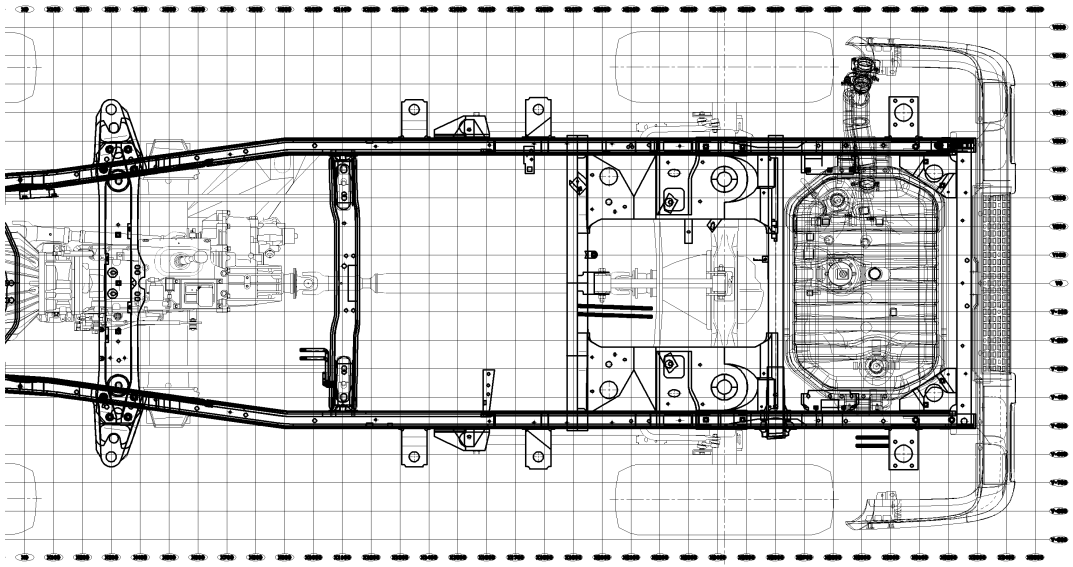
c. **Side, rear, and top view drawings** showing the placement of the subject components and related components that secure them in the vehicle;



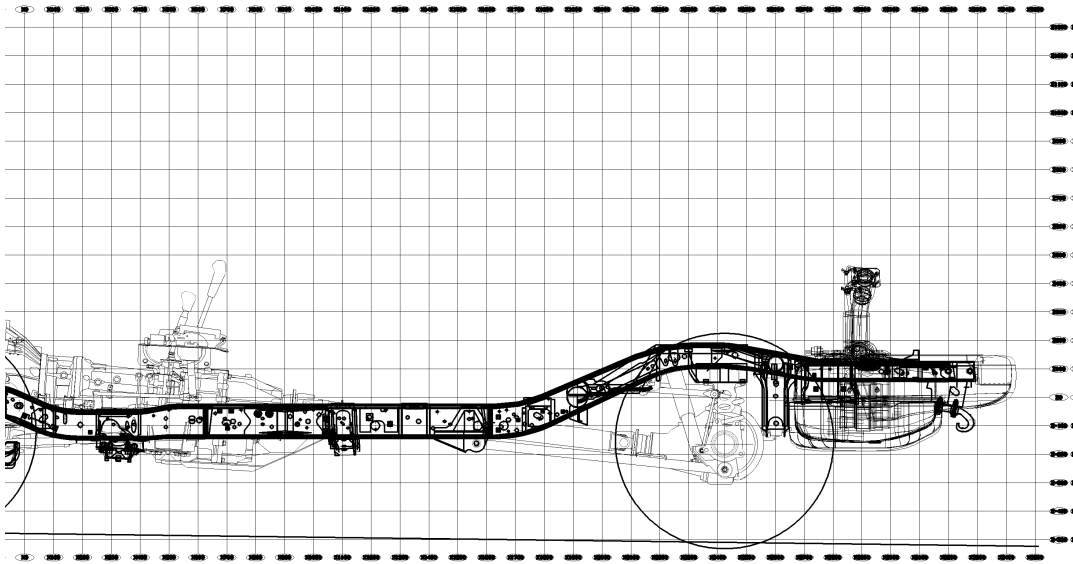

Rear Axle
Fuel Tank &
Fuel Tank Protector
Sidemembe
Exaust
Front
Left
Right

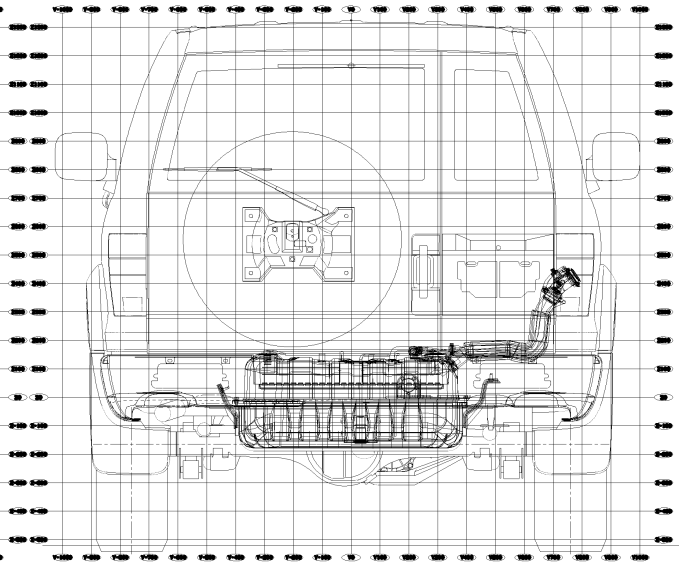
5. For each subject peer vehicle model and model year, provide the following:

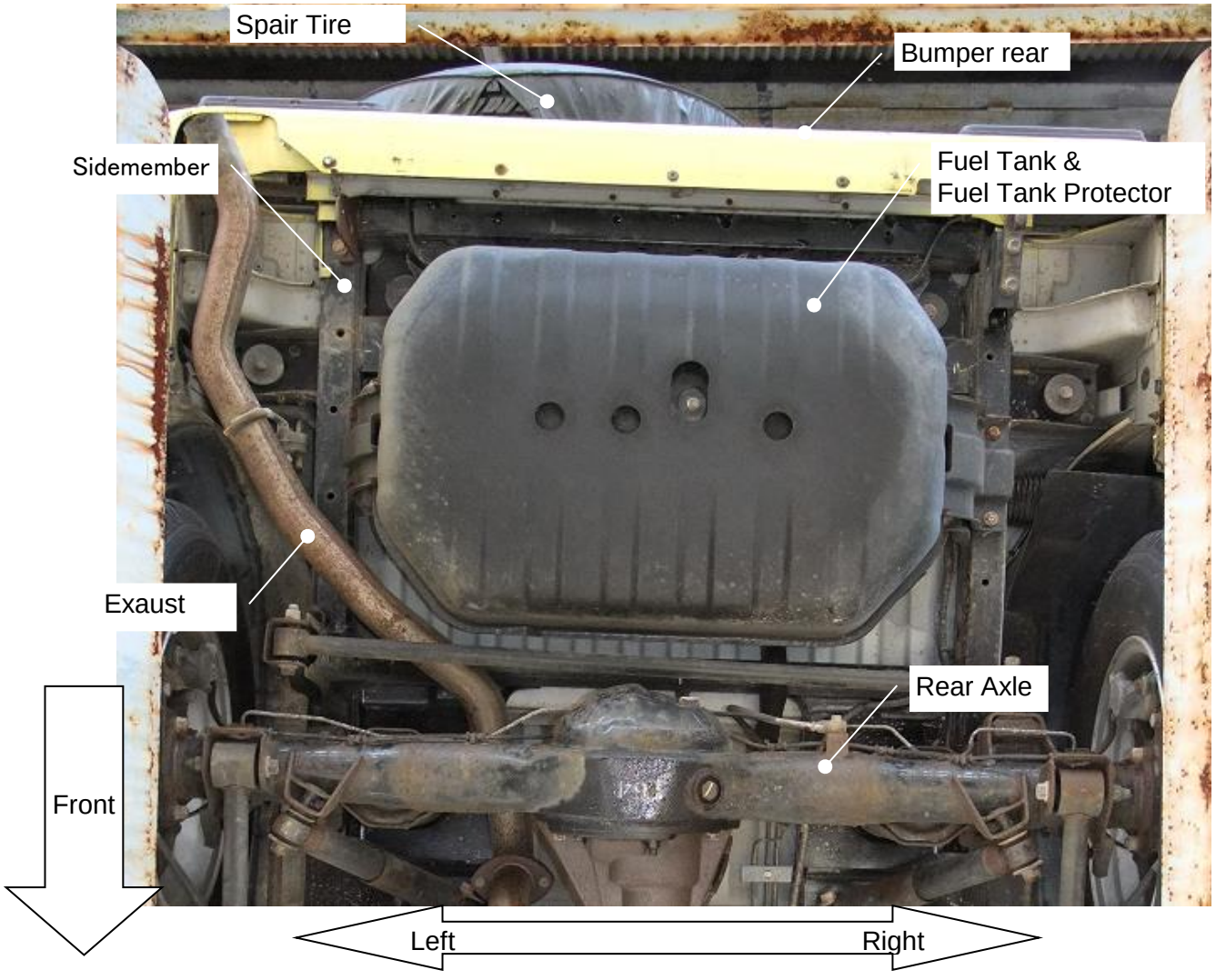
a. Model, model year, and platform designation;	Model	Trooper		Trooper		Trooper		Trooper		Trooper	Trooper	Trooper	Trooper	Trooper	Trooper								
	Model year	1993		1994		1995		1996		1997	1998	1999	2000	2001	2002								
	Platform designation	UX		UX		UX		UX		UX	UX	UX	UX	UX	UX								
		4 Door	2 Door	4 Door	2 Door	4 Door	2 Door	4 Door	2 Door	4 Door	<-	<-	<-	<-	<-								
b. Type of material the fuel tank		Steel (Pb-Su Plating)		<-		<-		<-		<-	<-	<-	<-	<-	<-								
c. Side, rear, and top view drawings		See attached sheet "c UX		<-		<-		<-		<-	<-	<-	<-	<-	<-								
d. A bottom view drawing or photograph		See attached sheet "d UX picture"		<-		<-		<-		<-	<-	<-	<-	<-	<-								
e. Overall length of vehicle (in/cm);	Without outside spare tire	NA		<-		<-		<-		<-	<-	<-	<-	<-	<-								
	With outside spare tire	183.5/466	166.5/423	<-		<-		<-		<-	187.8/477	<-	<-	<-	<-								
f. Wheel base (in/cm);		108.7/276	91.7/233	108.7/276	91.7/233	108.7/276	91.7/233	108.7/276	91.7/233	108.7/276	<-	<-	<-	<-	<-								
g. Track width (in/cm);	Front	57.3/145.5		<-		59.6/1515		<-		<-	<-	<-	<-	<-	<-								
	Rear	57.5/146		<-		59.8/1520		<-		<-	<-	<-	<-	<-	<-								
h. Curb weight (lb/kg);		4210/1910 - 4295/1948	4060/1845 - 4100/1860	4210/1910 - 5510/2499	4060/1845 - 4100/1860	4275/1939 - 5510/2499	4165/1889 - 4205/1907	4275/1939 - 5510/2499	4165/1889 - 4205/1907	4275/1939 - 4640/2105	4530/2054 - 4615/2093	<-	<-	<-	<-								
i. Gross vehicle weight rating (lb/kg);		5510/2500		5510/2500		5510/2500		5510/2500		5510/2500	<-	<-	<-	<-	<-								
j. Front gross axle weight rating (lb/kg);		2755/1250		2755/1250		2755/1250		2755/1250		2750/1250	<-	<-	<-	<-	<-								
k. Rear gross axle weight rating (lb/kg);		3085/1400		3085/1400		3085/1400		3085/1400		3080/1400	<-	<-	<-	<-	<-								
l. Interior volume (passenger and storage area);		195.5 cu. ft	164.2 cu. ft	<-		<-		<-		<-	<-	<-	<-	<-	<-								
m. Horizontal distance (in/cm) from aft most point of the rear axle to forward most point of the fuel tank;		3.0/7.5		<-		<-		<-		<-	<-	<-	<-	<-	<-								
n. Horizontal distance (in/cm) from aft most point of the fuel tank to the aft most point of the vehicle's rear bumper;		8.9/22.6		<-		<-		<-		<-	<-	<-	<-	<-	<-								
o. Vertical distance (in/cm) from bottom/lower most surface of the fuel tank to bottom/lower most surface of vehicle's rear bumper		-5.4/-13.8		<-		<-		<-		<-	<-	<-	<-	<-	<-								
p. Vertical distance (in/cm) from the ground/road surface to the bottom/lower surface of i) the vehicle's rear bumper		19/48.2		<-		<-		<-		<-	<-	<-	<-	<-	<-								
q. Part number of the optionally available protective guard		Originally equipped		<-		<-		<-		<-	<-	<-	<-	<-	<-								
r. ORVR/Onboard Refueling Vapor Recovery system.		No		<-		<-		<-		<-	<-	<-	<-	<-	Yes								



c. Side, rear, and top view drawings showing the placement of the subject components and related components that secure them in the






Spair Tire
Bumper rear
Sidemember
Fuel Tank &
Fuel Tank Protector
Exaust
Rear Axle
Front
Left
Right