

FRAME AND BUMPERS

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DESCRIPTION AND OPERATION

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DESCRIPTION AND OPERATION

FRAME AND BUMPERS

FRAME

DESCRIPTION

Jeep Cherokee vehicles do not have a conventional frame. They are constructed as a unitized body and frame. Jeep unibodies are constructed from special high strength steel and coated metals. This process reduces weight and provides strength to withstand the forces applied against structural members. The structural members provide a unibody that has great structural strength.

BUMPERS

DESCRIPTION

The bumpers on the Jeep Cherokee are made up of the main bumper beam, the end caps, air deflector (front bumper) and mounting brackets. Some Cherokee models also have a tow hook support bracket.

OPERATION

The bumpers are fastened to the unitized body frame rails. The bumper end caps are fastened to the bumper and the body side sheet metal.



BUMPERS

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REMOVAL AND INSTALLATION

FRONT BUMPER END CAP

REMOVAL

- (1) Remove the rivet attaching the end cap to the air deflector.
- (2) Remove the bolts and nuts attaching the end cap to the bumper (Fig. 1).
- (3) Pull back the wheelhouse liner and remove the screws attaching the end cap to the front fender.

- (4) Lifting the end cap from the bottom, tilt slightly upward and slide it outward to disengage the retainer tab from the bumper (Fig. 2).
- (5) Separate the end cap from the bumper.

INSTALLATION

- (1) Position the end cap on the bumper and engage the retaining tab.
- (2) Install the screws attaching the end cap to the front fender.
- (3) Install the bolts attaching the end cap to the bumper. Tighten the nut to 9 N·m (7 ft. lbs.) torque.

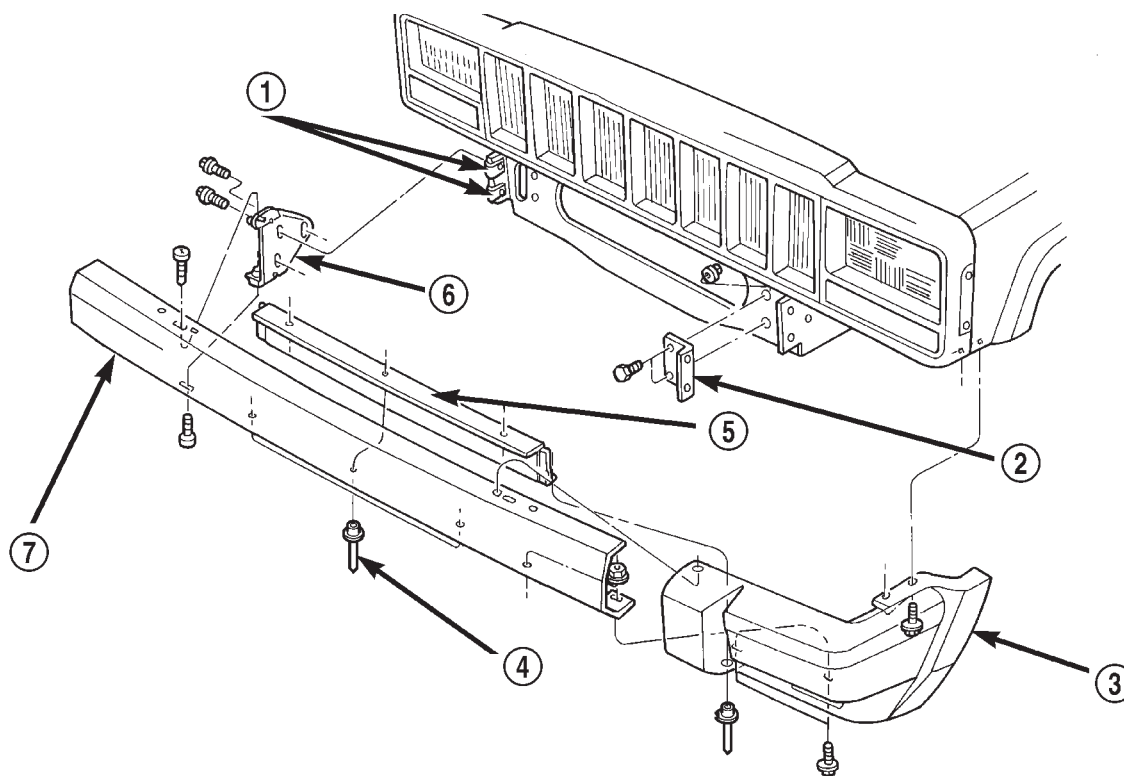
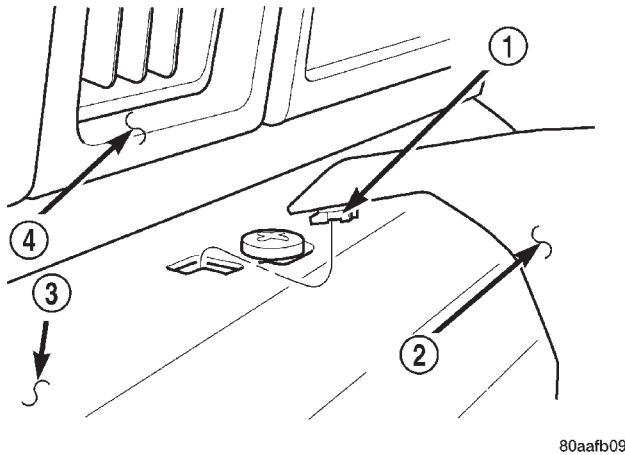


Fig. 1 Front Bumper

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- | | |
|------------------------------|----------------------|
| 1 - U-NUT | 5 - AIR DEFLECTOR |
| 2 - TOW HOOK SUPPORT BRACKET | 6 - MOUNTING BRACKET |
| 3 - END CAP | 7 - BUMPER |
| 4 - RIVET | |

REMOVAL AND INSTALLATION (Continued)



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Fig. 2 Bumper End Cap

- 1 - RETAINER TAB
- 2 - BUMPER END CAP
- 3 - BUMPER
- 4 - GRILLE

(4) Install the rivet attaching the end cap to air deflector.

FRONT BUMPER

REMOVAL

- (1) Remove bumper end caps.
- (2) If equipped, disengage fog lamp wire harness connectors.
- (3) Disconnect vacuum line from reservoir (Fig. 3).
- (4) Remove Torx-head bolts that attach bumper to mounting brackets (Fig. 1).
- (5) Remove bumper from vehicle.
- (6) If necessary, remove bolts attaching bumper mounting brackets to frame.

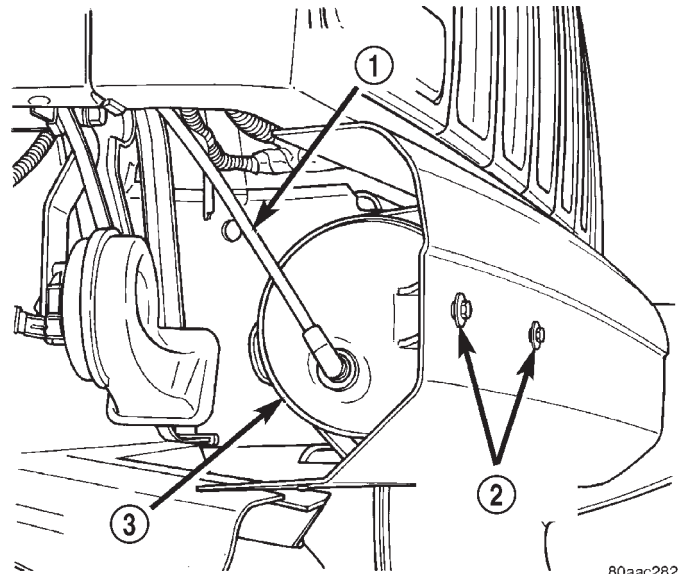
INSTALLATION

- (1) If removed, install bolts attaching bumper mounting brackets to frame. Tighten bolts to 55 N·m (41 ft. lbs.) torque.
- (2) Position bumper on front of vehicle.
- (3) Install Torx-head bolts that attach bumper to mounting brackets. Tighten bolts to 55 N·m (41 ft. lbs.) torque.
- (4) Connect vacuum line to reservoir.
- (5) If equipped, engage fog lamp wire harness connectors.
- (6) Install bumper end caps.

FRONT TOW HOOK

REMOVAL

- (1) Remove bolts attaching tow hook to tow hook reinforcement (Fig. 4).
- (2) Separate tow hook from reinforcement.

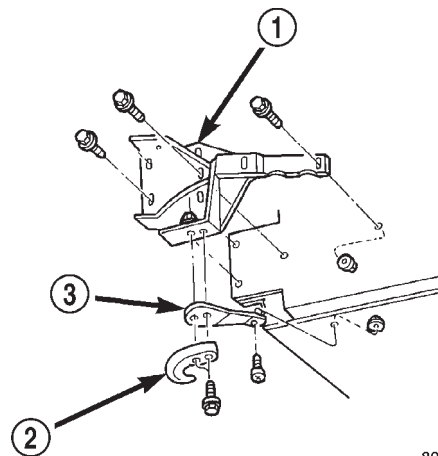


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Fig. 3 Vacuum Reservoir

- 1 - VACUUM LINE
- 2 - RESERVOIR SCREWS
- 3 - VACUUM RESERVOIR

(3) If necessary, remove bolt attaching tow hook reinforcement to frame.



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Fig. 4 Front Tow Hook

- 1 - MOUNTING BRACKET
- 2 - TOW HOOK
- 3 - TOW HOOK REINFORCEMENT

INSTALLATION

- (1) If removed, install bolt attaching tow hook reinforcement to frame. Tighten bolt to 30 N·m (22 ft. lbs.) torque.
- (2) Position tow hook on reinforcement.
- (3) Install bolts attaching tow hook to tow hook reinforcement. Tighten bolts to 100 N·m (74 ft. lbs.) torque.

REMOVAL AND INSTALLATION (Continued)

REAR BUMPER END CAP

REMOVAL

- (1) Remove the screws attaching the bumper end cap to the quarter panel and the bumper (Fig. 5).
- (2) Lift the end cap slightly upward and slide it rearward to release it from the retainer.
- (3) Separate the end cap from the vehicle.

INSTALLATION

- (1) Position the end cap on the rear of the retainer and the outer edge of the bumper.
- (2) Slide the end cap forward onto the retainer. Ensure the end cap overlaps the lip of the rear wheelhouse liner.
- (3) Install the screw attaching the front of the end cap to the underside of the quarter panel and bumper.

REAR BUMPER

REMOVAL

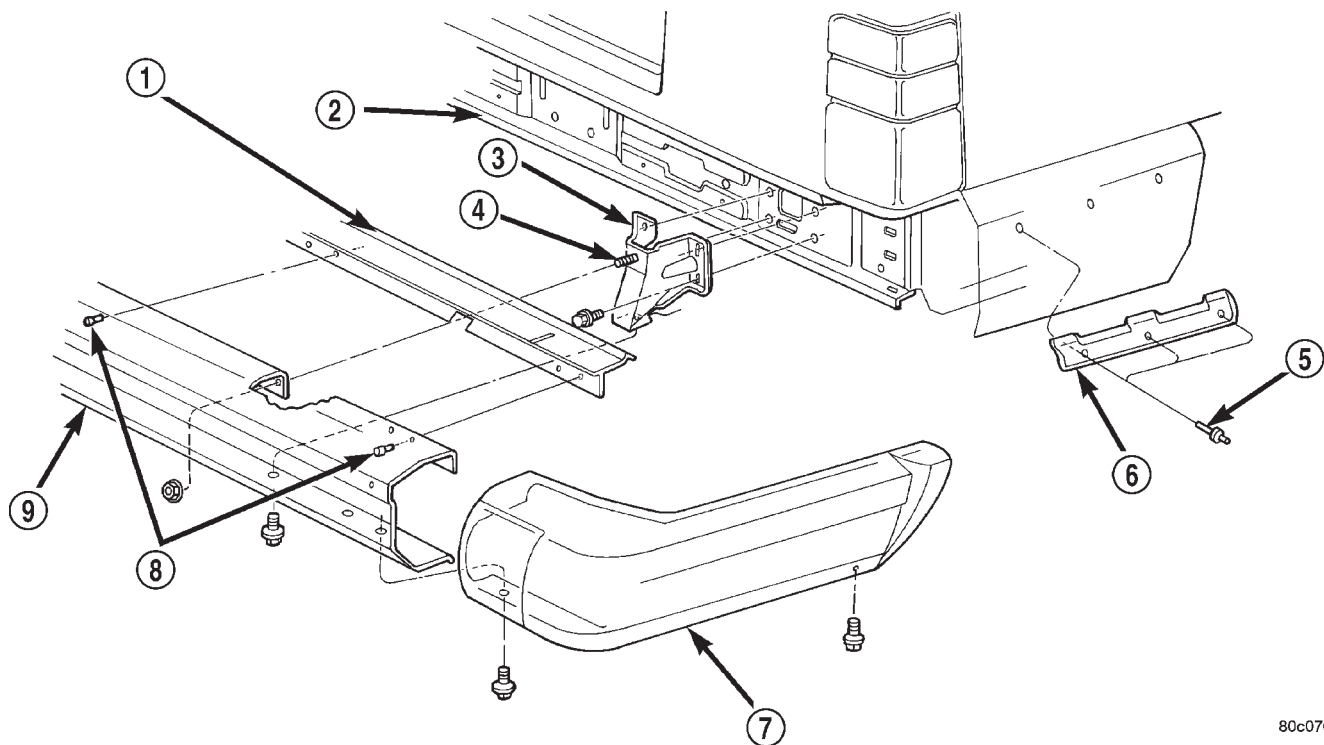
- (1) For vehicles equipped with a trailer hitch, remove hitch before removing bumper. If necessary,

refer to removal procedure within Group 13, Frame and Bumpers.

- (2) Remove bumper end caps.
- (3) Remove upper nuts that attach bumper to bumper support brackets (Fig. 5).
- (4) Remove lower bolts that attach bumper to bumper support brackets.
- (5) Remove bumper from vehicle.
- (6) If necessary, remove bumper support brackets from the rear sill.

INSTALLATION

- (1) If removed, install bumper support brackets on the rear sill. Tighten bolts to 55 N·m (41 ft. lbs.) torque.
- (2) Position bumper on support brackets.
- (3) Install bolts that attach bumper to bumper support brackets. Tighten nuts to 55 N·m (41 ft. lbs.) torque.
- (4) Install bumper end caps.
- (5) If removed, install trailer hitch.



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Fig. 5 REAR BUMPER END CAP

- | | |
|-------------------|-------------------------|
| 1 - SPLASH SHIELD | 6 - RETAINER |
| 2 - REAR SILL | 7 - END CAP |
| 3 - BRACKET | 8 - PLASTIC BLIND RIVET |
| 4 - STUD | 9 - BUMPER |
| 5 - RIVET | |

REMOVAL AND INSTALLATION (Continued)

REAR TOW HOOK

REMOVAL

- (1) Remove bolts that attach tow hook bracket and tow hook to frame rail (Fig. 6).
- (2) Remove bracket and tow hook from frame rail.

INSTALLATION

- (1) Position bracket and tow hook on frame rail.
- (2) Install bolts that attach tow hook bracket and tow hook to frame rail. Tighten bolts to 94 N·m (70 ft. lbs.) torque.

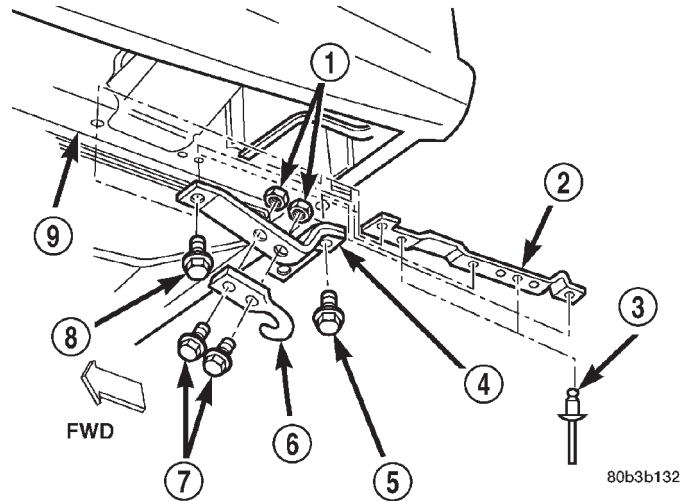


Fig. 6 Rear Tow Hook

- 1 - WELD NUT
- 2 - FRAME REINFORCEMENT BRACKET
- 3 - RIVET
- 4 - SUPPORT BRACKET
- 5 - BOLT
- 6 - TOW HOOK
- 7 - BOLT
- 8 - BOLT
- 9 - FRAME RAIL

FRAME

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REMOVAL AND INSTALLATION

FRONT SKID PLATE

REMOVAL

- (1) Remove the screws that attach skid plate to side sills.
- (2) Remove the nuts that attach the skid plate to the crossmember (Fig. 1).
- (3) Remove the skid plate from the vehicle.

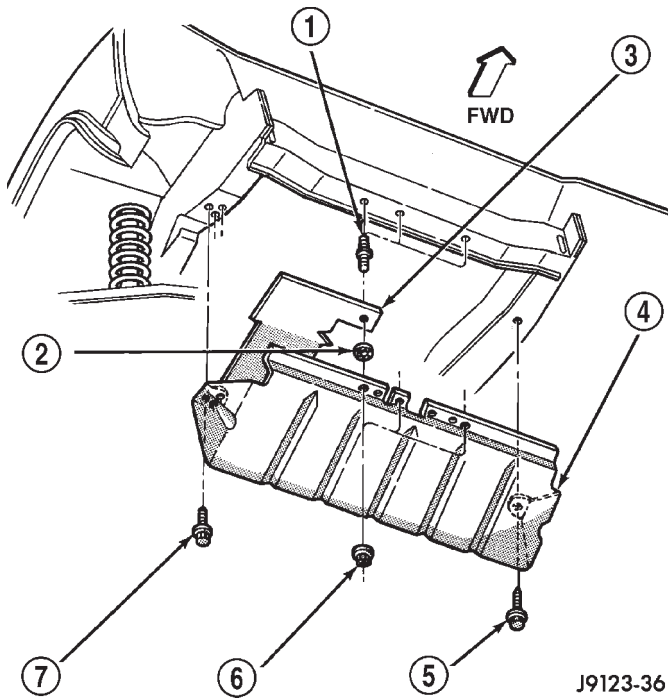


Fig. 1 Front Skid Plate

- 1 - STUD
- 2 - PUSH NUT
- 3 - SPLASH SHIELD
- 4 - SKID PLATE
- 5 - SCREW
- 6 - NUT
- 7 - SCREW

INSTALLATION

- (1) Position the skid plate at front crossmember and side sills.
- (2) Install the nuts to attach the skid plate to crossmember.
- (3) Install the screws to attach skid plate to side sills.

TRANSFER CASE SKID PLATE

REMOVAL

- (1) Support skid plate.
- (2) Remove bolts that attach skid plate to transmission support crossmember and frame sill (Fig. 2).
- (3) Remove support and skid plate from vehicle.

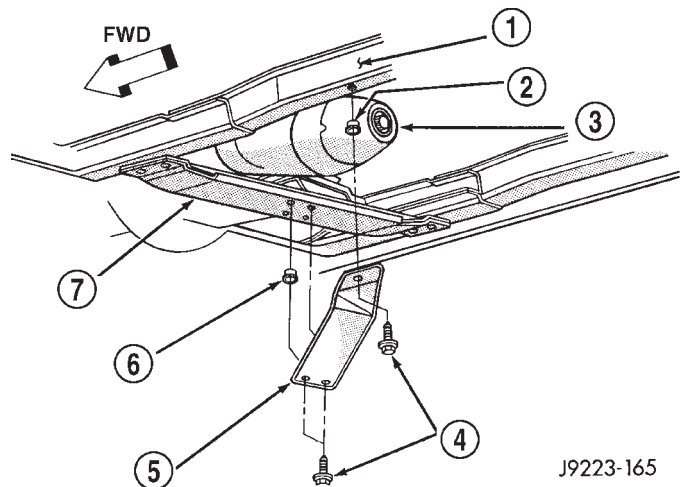


Fig. 2 Transfer Case Skid Plate

- 1 - FRAME SILL
- 2 - NUT-SERT
- 3 - TRANSFER CASE
- 4 - BOLT
- 5 - SKID PLATE
- 6 - NUT-SERT
- 7 - CROSSMEMBER

INSTALLATION

- (1) Position and support skid plate at frame sill and transmission support crossmember.
- (2) Attach skid plate to frame sill and crossmember with bolts. Tighten bolts to 22 N·m (16 ft. lbs.) torque.

REMOVAL AND INSTALLATION (Continued)

FUEL TANK SKID PLATE

REMOVAL

- (1) Position a support under skid plate.
- (2) Remove bolts that attach skid plate to underbody side rails (Fig. 3).
- (3) Remove support and skid plate from vehicle.

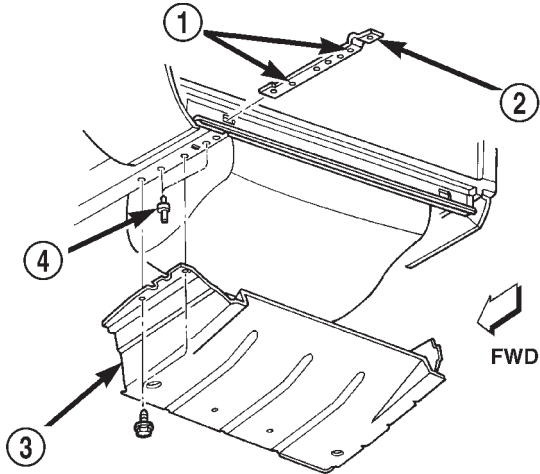


Fig. 3 Fuel Tank Skid Plate

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- 1 - RIVET HOLES
- 2 - REINFORCEMENT
- 3 - FUEL TANK SKID PLATE
- 4 - BLIND RIVET

INSTALLATION

- (1) Position and support skid plate under fuel tank.
- (2) Install bolts to attach skid plate to underbody rails. Tighten bolts to 74 N·m (55 ft. lbs.) torque.
- (3) Remove support from under skid plate.

TRAILER HITCH

REMOVAL

- (1) If necessary, remove the trailer tow wire harness connector from the hitch (Fig. 4).
- (2) Support the hitch.
- (3) Remove the bolts that attach the trailer hitch to the frame sills and reinforcement brackets (Fig. 5).
- (4) If equipped, remove the fuel tank skid plate.

NOTE: The reinforcement brackets are held on the frame sills with two blind rivets.

INSTALLATION

- (1) Install frame reinforcement brackets, if removed. Slide the brackets through the vehicle rear sill openings and attach to the frame sills with blind rivets.
- (2) Using an adequate lifting device, position hitch at the proper location for installation on vehicle and support it.
- (3) If equipped, position fuel tank skid plate on vehicle frame sills.

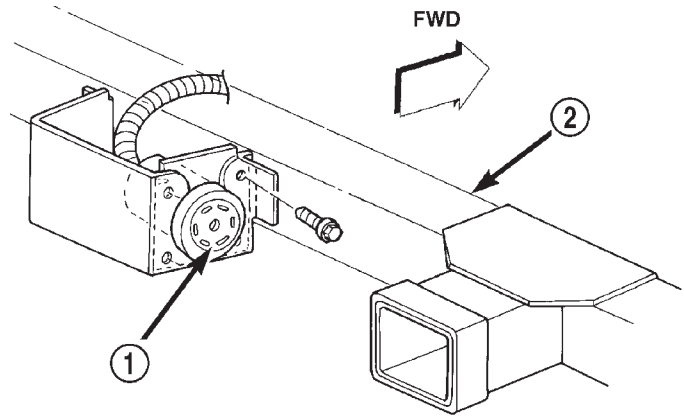


Fig. 4 Trailer Hitch Harness Connector

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- 1 - CONNECTOR
- 2 - TRAILER HITCH

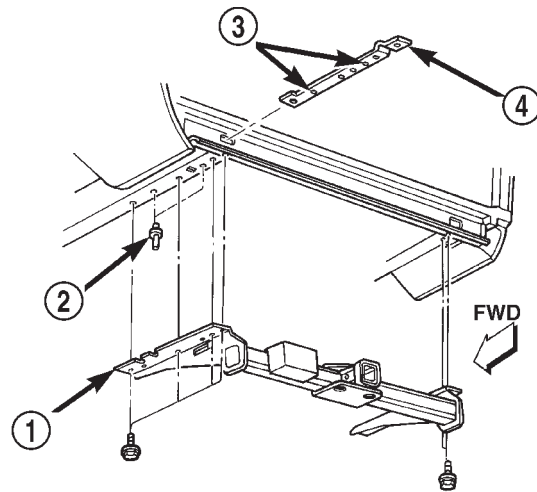


Fig. 5 Trailer Hitch

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- 1 - TRAILER HITCH
- 2 - BLIND RIVET
- 3 - RIVET HOLES
- 4 - REINFORCEMENT

- (4) Loosely install the bolts to attach the trailer hitch (and the skid plate) to frame sills and reinforcement brackets.

- (5) Tighten all bolts/nuts to 74 N·m (55 ft. lbs.) torque.

- (6) Remove the lift/support.

- (7) If removed, attach the trailer wire harness connector to the hitch.

SPECIFICATIONS

FRAME DIMENSIONS

Frame dimensions are listed in millimeter scale. All dimensions are from center to center of Principal Locating Point (PLP), or from center to center of PLP and fastener location (Fig. 6).

SPECIFICATIONS (Continued)

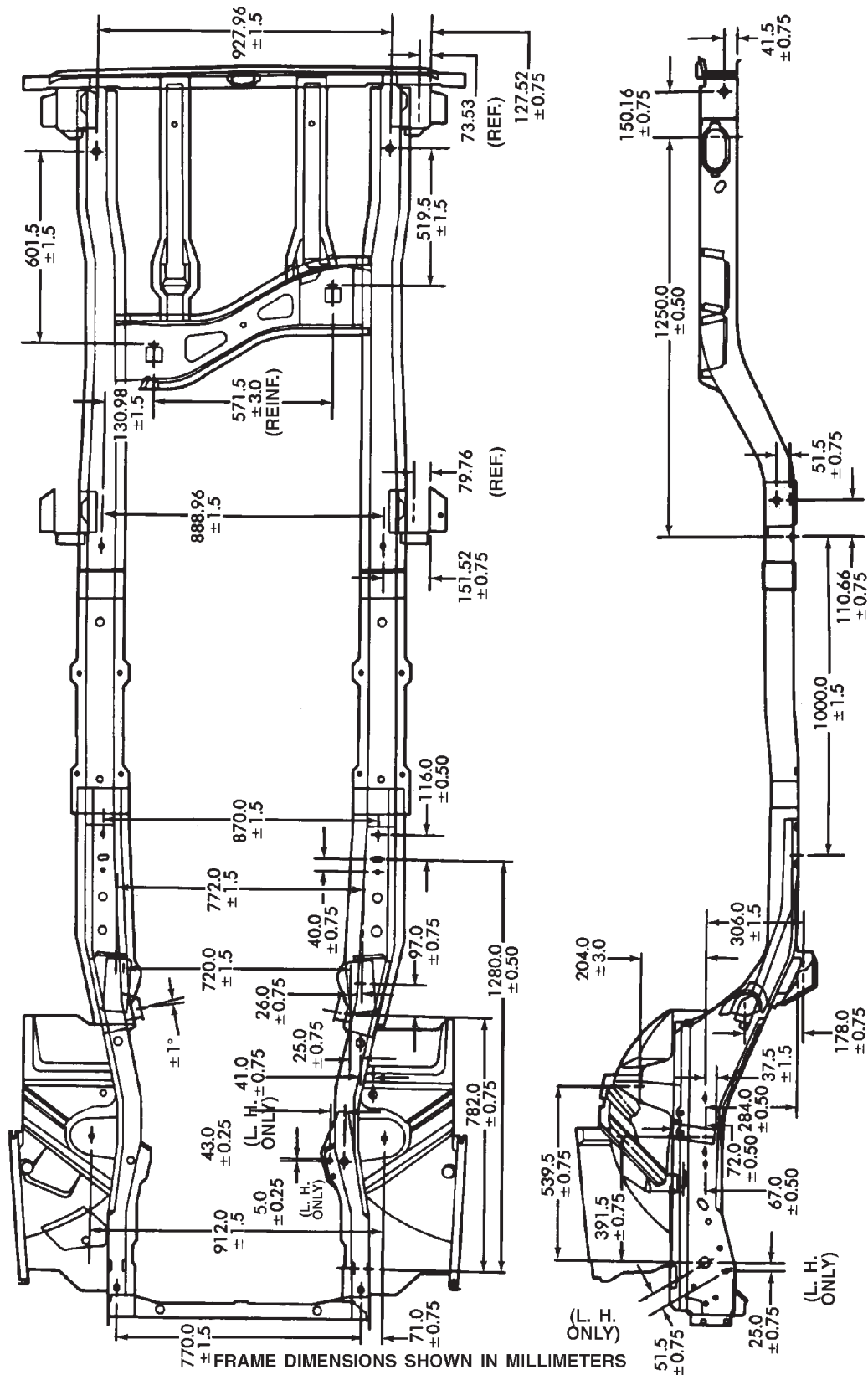


Fig. 6 Frame Dimensions

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SPECIFICATIONS (Continued)

FRAME TORQUE SPECIFICATIONS

DESCRIPTION	TORQUE
Front Skid Plate Screw	42 N·m (31 ft. lbs.)
Front Skid Plate Nut	17 N·m (125 in. lbs.)
Transfer Case Skid Plate Bolt . .	22 N·m (16 ft. lbs.)
Fuel Tank Skid Plate Bolt	74 N·m (55 ft. lbs.)
Front Bumper End Cap to Mounting	
Bracket Nut	9 N·m (7 ft. lbs.)
Front Bumper Mounting Bracket to	
Frame Bolt	55 N·m (41 ft. lbs.)
Front Bumper to Mounting Bracket Bolt . .	55 N·m
	(41 ft. lbs.)
Front Tow Hook Bolt	100 N·m (74 ft. lbs.)
Front Tow Hook Reinforcement Bolt	30 N·m
	(22 ft. lbs.)
Rear Bumper to Mtg. Bracket Nut	55 N·m
	(41 ft. lbs.)
Rear Bumper Mtg. Bracket to Rear	
Sill Bolt	55 N·m (41 ft. lbs.)
Rear Tow Hook Bolt	94 N·m (70 ft. lbs.)
Trailer Tow Reinforcement Brkt Bolt	74 N·m
	(55 ft. lbs.)

