

4. Insert 1/2" bolts with bolt plates down through the frame and into the bracket. Place a 3/8" thick spacer between the frame and the bracket at each rear mounting hole. Install conical washers and nuts on the bolts.

5. Tighten the nuts in the following order. First torque the 3/8" nuts to 35 ft•lb.. Then torque the 1/2" nuts to 70 ft•lb..

NOTE: SIDE BRACKETS WILL DEFLECT WHEN TIGHTENED



- 2. Instan the center section of the inicit as shown with the name brackets of the outside of the center section. Bolt through the holes shown. Use the 3/8" bolts with 3/8" flange nuts. **NOTE:** Be sure to use four holes to bolt the brackets to the center section. Tighten enough for the brackets to make full contact with the center section.
- 3. With the 1/2" drill, drill the two forward holes. Install fasteners as shown. Install 1/2" conical washers, and nuts on the bolts. Leave the nuts loose at this time.
- 4. Tighten the nuts in the following order: First torque the 3/8" nuts to 35 ft-lb. Then torque the 1/2" nuts to 70 ft-lb
- Then torque the 1/2" nuts to 70 ft-lb.

FRONT



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PICTURE ABOVE DOES NOT SHOW INNER MOUNTING BRACKET ON CROSS TUBE FOR CLARITY - SHOWN ON PAGE 9



1988-2000 CHEVY & GMC (CLASSIC):

- 1. Remove the 12mm diameter bolts at the end of the frame. Some vehicles have an 8mm diameter bolt on the passenger's side. Remove the bolt and reinstall it with the head on the bottom of the frame.
- 2. If your vehicle has rivets on the bottom of the frame, you will need to install one 3/8" thick spacer between the frame and the bracket at each bolting location. These are needed for clearance between the bracket and the rivet head. The bracket can not be bolted directly against the rivets.
- 3. Using the supplied 12mm diameter bolt, 1/2" conical washer and fasten the bracket to the frame where the 12mm diameter factory bolt was removed. See the illustration. For short beds use hole 2. For long beds use hole 1. NOTE: SOME DUAL PIPE EXHAUST SYSTEMS WILL HIT THE BRACKET. THE EXHAUST WILL NEED TO BE MODIFIED.
- 4. (Short Beds): Insert 1/2" bolts with bolt plates down through the 1" diameter holes in the frame and into the holes (4) in the bracket. Install a 1/2" flat washer, lock washer and nut on each bolt. Leave the nuts loose at this time.
- 5. (Long Beds): Insert 1/2" bolts with bolt plates down through the 1" diameter holes in the frame and into the holes (3) in the bracket. (On some models the forward hole may be 1/2".) Install a 1/2" conical washer and nut on each bolt. Leave the nuts loose at this time.
- 6. Place the center section between the brackets as shown. The spare tire may need to be loosened. Bolt through the center section and the bracket with 3/8" bolts, and 3/8" flange nuts. **NOTE:** Be sure to use four holes to bolt the brackets to the center section.
- 7. Tighten the nuts in the following order:
- First torque the 3/8" nuts to 35 ft•lb.
- Then torque the 1/2" nuts to 70 ft•lb, and the 12mm bolts to 75 ft•lb.
- 8. Retighten the spare tire if it was loosened.
- 9. Be sure that the spare tire is not rubbing against the brake hose. If needed, bend the bracket that the hose mounts to a little so that you have clearance between the tire and the brake hose.



REAR

PICTURE ABOVE DOES NOT SHOW INNER MOUNTING BRACKET ON CROSS TUBE FOR CLARITY - SHOWN ON PAGE 9

4



2000-2006 TOYOTA TUNDRA :

1. Use existing hole at the rear of the frame and install the 1/2" bolts through the bolt plates and into the frame. With the 1/2" conical washer and 1/2" nut, bolt the brackets to the frame. Leave the bolts loose enough to center bracket on frame of truck. Do not install fasteners in the forward hole in the brackets at this time.

- 2. Install the center section to the brackets as shown. Use the bolting location indicated. Install 3/8" bolts through the center section and the bracket as shown. Install 3/8" flange nuts on the bolts.
- 3. Using the forward most holes in the brackets as a guide drill a 1/2" hole and install the 1/2" bolts with 1/4" bolt plates through the frame and brackets. Then install the 1/2" conical washers and 1/2" nuts.

NOTE: Be sure to use four holes to bolt the brackets to the center section.

 Tighten the nuts in the following order: First torque the 3/8" nuts to 35 ft•lb. Then torque the 1/2" nuts to 70 ft•lb.

NOTE: SIDE BRACKETS MAY DEFLECT WHEN TIGHTENED



1971-1993 Dodge Pick Up:

1. Insert a 1/2" bolt with a 1/4" bolt plate down through the 1" diameter hole at the end of the frame. Do this on both sides. Fasten the frame brackets as shown, to the frame with 1/2" conical washers and nuts. Leave the bolts loose enough to center bracket on frame of truck.

NOTE; On some special frames all holes will have to be drilled as followed.

Loosely attach parts as noted in step 2. Clamp hitch to frame so the first and last hole in bracket is able to be used as drill guides to the frame.

- 2. Install the center section between the brackets as shown. Bolt through the center section and the brackets with 3/8" bolts, and 3/8" flange nuts. Use the holes shown. Leave the nuts finger tight at this time. Some spare tire carriers may need to be modified if the hitch hits the carrier. NOTE: Be sure to use four holes to bolt the brackets to the center section.
- 3. Using the hole in the bracket as a guide, drill a 1/2" diameter holes through the frame. Use the farthest front hole. Do this on both sides.
- 4. Insert 1/2" bolts with 1/4" bolt plates down through the frame and the bracket. Install 1/2" conical washers and nuts on the bolts.
- 5. Tighten the nuts in the following order: First torque the 3/8" nuts to 35 ft•lb.

Then torque the 1/2" nuts to 70 ft•lb.

NOTE: SIDE BRACKETS WILL DEFLECT WHEN TIGHTENED



1994-2001 Dodge Pick Up Short Bed - All Models:

2002 Dodge Pick Up Short Bed 2500 & 3500 Series ONLY:

- 1. The spare tire may need to be loosened for installation.
- 2. Bolt the brackets to the frame as shown with a 1/2" bolt and 1/4" bolt plate inserted through the 1" diameter hole in the end of the frame. Install two 3/8" thick spacers between the frame and brackets at the rear bolting locations. Install 1/2" conical washers and nuts on the bolts. NOTE: For some models, the exhaust hanger will need to be unbolted from the frame.
- 3. Install the center section between the brackets as shown. Use the hole pattern that works best for your truck. Insert 3/8" bolts through the center section and the brackets. Install 3/8" flange nuts on the bolts. Finger tighten the bolts at this time. **NOTE:** Be sure to use four holes to bolt each bracket to the center section.
- 4. Using the hole in the bracket as a guide, drill a 1/2" hole through the frame. Use the hole shown in the diagram. Install 1/2" bolts with bolt plates into the holes. Be sure to insert two 3/8" thick spacers between the frame and the brackets. Install 1/2" conical washers and nuts on the bolts.
- 5. If the exhaust hanger was removed, drill a 3/8" hole through the hanger and attach it to the hitch bracket in one of the holes provided in the bracket. Use the 3/8" hardware provided to re-attach the exhaust hanger.
- Tighten the nuts in the following order: First torque the 3/8" nuts to 35 ft•lb. Then torque the 1/2" nuts to 70 ft•lb.
- 7. If the spare tire was loosened, retighten it now.



1994-2001 Dodge Pick Up Long Bed - All Models:

2002 Dodge Pick Up Long Bed 2500 & 3500 Series ONLY:

- 1. The spare tire may need to be loosened for installation.
- 2. Bolt the brackets to the frame as shown with a 1/2" bolt and 1/4" bolt plate inserted through the 1" diameter hole in the end of the frame. Install two 3/8" thick spacers between the frame and brackets at the rear bolting locations. Install 1/2" conical washers and nuts on the bolts. **NOTE:** For some models, the exhaust hanger will need to be unbolted from the frame.
- Install the center section between the brackets as shown. Use the hole pattern that works best for your truck. Insert 3/8" bolts through the center section and the brackets. Install 3/8" flange nuts on the bolts. Finger tighten the bolts at this time. NOTE: Be sure to use four holes to bolt each bracket to the center section.
- 4. Insert a 1/2" bolt with a 1/4" bolt plate through the 1" hole in the frame and into the bracket as shown. Insert two 3/8" thick spacers between the frame and the bracket. Install a 1/2" conical washer and nut on the bolt. Do this on both sides.
- 5. If the exhaust hanger was removed, drill a 3/8" hole through the hanger and attach it to the hitch bracket in one of the holes provided in the bracket. Use the 3/8" hardware provided to re-attach the exhaust hanger.
- 6. Tighten the nuts in the following order: First torque the 3/8" nuts to 35 ft•lb.
- Then torque the 1/2" nuts to 70 ft•lb.
- 7. If the spare tire was loosened, retighten it now.



(VIEW OF BOTTOM PASSANGER SIDE FRAME)

2004 - 05 FORD F-150 (NEW BODY STYLE) WITHOUT VIBRATION DAMPENER ON FRAME

- 1. Lower spare tire for ease of installation.
- 2. Apply masking tape to the bottom of frame in area "A" and area "B". Same on both frame rails .
- 3. Measure from the outside of the frame inward 1 5/16" and make a line the length of area "A".
- 4. Measure from the outside of the frame inward 1 5/8" and make a line the length of area "B".
- 5. Measure from rear of spring shackle 2 3/4" and make a mark in area "A". From that mark, measure 14 5/8" forward and make a mark in area "B".
- 6. Hold side bracket up to bottom of frame. Double check hole 2 and 4 in side bracket for proper line up with marks. If they don't line up, adjust the marks in area "B".
- 7. Center punch and pilot drill with 1/4" drill bit . Total of 4 holes (2 per frame rail).
- 8. Enlarge the pilot hole with 9/16" drill bit.
- 9. Loosely install side brackets as shown. Include the angle reinforcement on the inside of the frame and blocks under the frame.
- 10. Install the cross tube assembly between the side brackets and secure it with (4) 3/8" bolts per side.
- 11. Tighten the 3/8" crosstube bolts first to 35 ft•LB. Then tighten the 1/2" frame mounting bolts to 70 ft•LB.
- 12. Using the top slot of the frame angle reinforcement placed inside the frame in step 8. Drill a 1/2" hole in the side of the frame as far forward as slot will permit.
- 13. Install the M-12 fasteners through the frame side as shown and tighten to 75 $ft\mbox{-}LB$.
- 14. Raise spare tire.



IMPORTANT INFORMATION ON TOWING

TOWING EQUIPMENT OWNERS: Make sure all operators of your equipment read and understand this information before towing. Save for reference. This will help you properly select, use, and maintain your towing equipment. Refer to owner's manuals for your tow vehicle, trailer, and other parts of your towing system. Learn the capabilities and limitations of each part. GROSS TRAILER WEIGHT and TONGUE WEIGHT are two of the most important items to consider. THESE WEIGHTS MUST NEVER EXCEED THE LOWEST RATING OF ANY PART OF YOUR TOWING SYSTEM. GROSS TRAILER WEIGHT is the weight of the trailer plus all cargo. Measure GROSS TRAILER WEIGHT with the fully loaded trailer on a level surface. The WEIGHT is the downward force exerted on the ball by the trailer coupler. Measure TONGUE WEIGHT with the fully loaded trailer on a level surface. The coupler must be at its normal towing height. Use a commercial scale or a bathroom scale. Set up the bathroom scale as shown for heavy tongue weights.



METHOD FOR MEASURING GROSS TRAILER WEIGHT YOUR TOWING EQUIPMENT

TRAILER HITCHES, RECEIVERS, AND BALL MOUNTS

Select these products by their gross trailer weight and tongue weight ratings. Select hitches and receivers for specific vehicles.

HITCH BALLS

Select by gross trailer weight rating, mounting platform thickness, hole size, and coupler socket size. Platform must be at least 3/8 inch thick. Hole must not exceed threaded shank diameter by more than 1/16 inch. Use lock washer. Tighten per instructions. When tightened, shank must protrude beyond bottom of nut. Gross trailer weight rating and ball diameter are marked on **REESE** balls.

TRAILER COUPLERS

The coupler socket should be smooth, clean, and lightly lubricated. Tighten or adjust per coupler manufacturer's instructions.

SAFETY CHAINS

Connect safety chains properly **EVERY TIME YOU TOW**. Cross chains under coupler. Attach securely to the hitch or tow vehicle so they can't bounce loose. Leave only enough slack to permit full turning. Too much slack may prevent chains from maintaining control if other connections separate. Don't let chains drag on the road.

TRAILER LIGHTS, TURN SIGNALS, ELECTRIC BRAKES, AND BREAK AWAY SWITCH CONNECTIONS

Make these safety-critical connections **EVERY TIME YOU TOW**, no matter how short the trip. Check operation, including electric brake manual control, before getting on the road.

SWAY CONTROLS

Sway controls can lesson the effects of sudden maneuvers, wind gusts, and buffeting caused by other vehicles. We recommend them for trailers with large surface areas, such as travel trailers. Adjustable friction models can help control trailers with low tongue weight percentage.

OTHER USEFUL EQUIPMENT

AIR SPRINGS, AIR SHOCKS, or HELPER SPRINGS are useful for some hitch applications. A **TRANSMISSION COOLER** may be necessary for heavy towing. Many states require **TOWING MIRRORS** on both sides.

TIRE INFLATION

Check often. Follow tow vehicle and trailer manufacturers' recommendation. Improper tire inflation can cause trailer sway.

CHECK YOUR EQUIPMENT / REPLACE WORN PARTS

Check ball, coupler, chains, retaining pins and clips, and all other connections EVERY TIME YOU TOW. Re-check at fuel and rest stops.



METHOD FOR MEASURING TRAILER TONGUE WEIGHT SAFE TOWING TIPS

NO PASSENGERS IN TRAILERS!

NEVER allow people in trailers while towing, under any circum stances.

TRAILER LOADING

Proper loading helps prevent sway. Place heavy object on the floor ahead of the axle. Balance the load side-to-side. Secure it to prevent shifting. Tongue weight should be 10-15 percent of gross weight for most trailers. Too low a percentage of tongue weight can cause sway. **NEVER** load the trailer rear-heavy. **LOAD THE TRAILER HEAVIER IN FRONT.**

DRIVING

The additional weight of a trailer affects acceleration, braking and handling. Allow extra time for passing, stopping, and changing lanes. Severe bumps can damage your towing vehicle, hitch, and trailer. Drive slowly on rough roads. STOP AND MAKE A THOROUGH INSPECTION IF ANY PART OF YOUR TOWING SYSTEM STRIKES THE ROAD. CORRECT ANY PROBLEMS BEFORE RESUMING TRAVEL.

CHECK FOR EXCESSIVE SWAY AND ELIMINATE IT

Excessive sway can lead to loss of control. Sway motion should settle out quickly. Sway tends to increase on a downgrade. Starting slowly, increase speed in gradual steps. If sway occurs, adjust your trailer load and equipment. Repeat until the trailer is stable at highway speed. Do this whenever your trailer loading changes.

IF TRAILER SUDDENLY STARTS TO SWAY

Turbulence from another vehicle, a wind gust, or a downgrade can cause sudden sway. So can a shift of the trailer's load or a trailer tire blowout. IF THE TRAILER SWAYS, IT IS THE DRIVER'S RESPONSIBILITY TO ASSESS THE SITUATION AND TAKE APPROPRIATE ACTION. Below are suggestions that may apply, depending on conditions:

DO

- Reduce your speed gradually.
- Hold the steering wheel as steady as possible.
- If your trailer has electric brakes, apply the brakes alone, without using the tow vehicle's brakes.

DON'T

- Don't hit your brake pedal hard unless absolutely necessary. A "jackknife" can result.
- Don't try to steer out of the sway condition. Sudden or violent steering
- can make it worse. - Don't speed up. Sway increases as you go faster.
- Don't continue towing a trailer that tends to sway. You may lose

control during an emergency maneuver or if the conditions listed above occur.

WARNING

DO NOT MODIFY REESE PRODUCTS. INSTALL ONLY ON SPECIFIED VEHICLES IN GOOD CONDITION. REESE TOWING PRODUCTS ARE DESIGNED TO TOW TRAILERS. USE ONLY FOR THIS PURPOSE. Do not attach cargo carriers, motorcycle carriers, boat hoists, or coupler alignment devices. Do not extend the original structure. Do not use to pull or push the towing vehicle. Do not use as a jacking point. Do not attach anything with or in place of the ball. Any exceptions to the foregoing require written approval of REESE PRODUCTS, Inc. DO NOT TOW MULTIPLE TRAILERS. Towing one trailer behind another may cause severe instability and loss of control. FAILURE TO HEED WARNINGS AND FOLLOW INSTRUCTIONS MAY RESULT IN VEHICLE CRASH, PROPERTY DAMAGE AND PERSONAL INJURY

DON'T OVERLOAD ANY PART OF YOUR TOWING SYSTEM