

Catalog No. **6320**

INSTALLATION INSTRUCTIONS

READ THOROUGHLY BEFORE BEGINNING

6320 RAIL KIT - 1988 through 2000 – Chevrolet/GMC Pickup w/6 ft. bed, 1999 Chevrolet C/K LS and GMC Sierra Classic w/6 ft. bed (old body style). For use with Gooseneck Hitch Part Number 6300 & 8339

IMPORTANT!

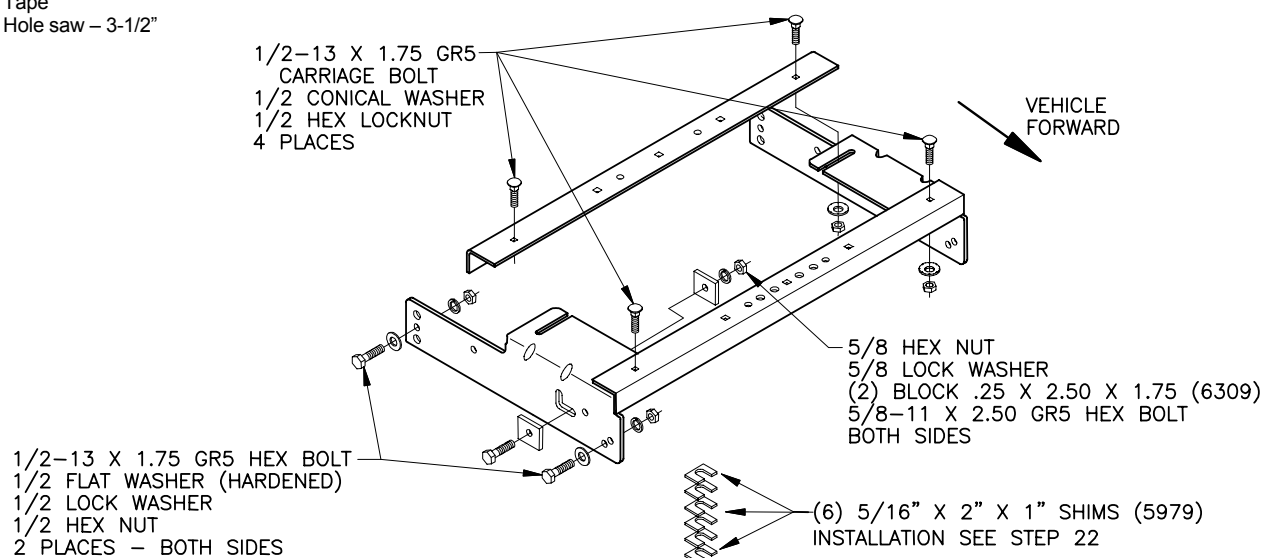
This product is intended for installation on 1988 to 2000 Chevrolet/GMC Pickup w/6 Ft. bed, 1999 Chevrolet C/K LS and GMC Sierra Classic w/6 Ft. bed. For use with Gooseneck Hitch Part Number 6300 & 8339. This installation instruction describes the installation of Rail Kit 6320 and Gooseneck Hitch 6300 & 8339. Give this installation instruction to vehicle owner after installation is complete.

-THE MAXIMUM RATING-**DO NOT EXCEED VEHICLE MANUFACTURER'S RATING FOR 5th WHEEL TOWING****TOOLS REQUIRED:**

Hand drill
 Drill bits - 1/4" (.250), 1/5" (.500), 1/2" (.500), 5/8" (.625)
 Sockets and wrenches – M13, 9/16, 3/4, 7/8, 15/16, 1-1/8
 Center punch
 Torque wrench
 Saber saw
 Files - round & flat
 Hammer
 Tape
 Hole saw – 3-1/2"

PARTS LIST:

Forward cross angle P/N 6323
 Rear cross angle P/N 6324
 Driver's side bracket P/N 6321-001
 Passenger Side bracket P/N 6321-002
 Fastener Kit P/N 6328



NOTE: CHECK HITCH FREQUENTLY, MAKING SURE ALL FASTENERS ARE PROPERLY TIGHTENED. A HITCH OR BALL WHICH HAS BEEN DAMAGED SHOULD BE REMOVED AND REPLACED. OBSERVE SAFETY PRECAUTIONS WHEN WORKING BENEATH A VEHICLE AND WEAR EYE PROTECTION. FOLLOW VEHICLE MAKER'S SPECIFICATIONS FOR MAXIMUM TRAILER WEIGHT. DO NOT CUT ACCESS OR ATTACHMENT HOLES WITH A TORCH.

TOWING PRODUCTS
 PLYMOUTH, MI 48170
 3-15-07, Rev A

INSTRUCTION PART NO. N6320
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INSTALLATION INSTRUCTIONS:

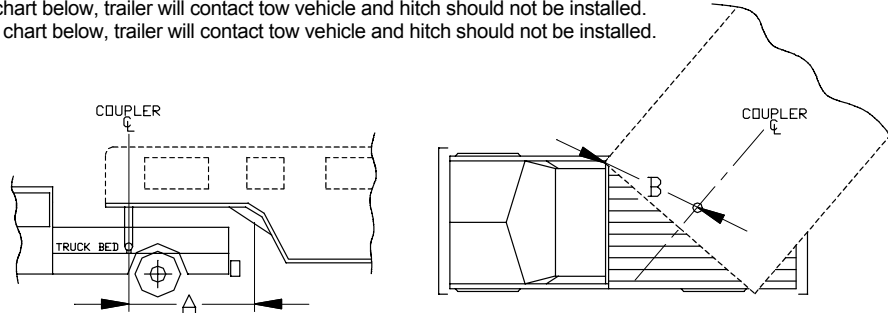
⚠ WARNING Fuel lines, brake lines and electrical wires are located along the inside of the driver's side frame rail. The hanger(s) for lines will need to be loosened and/or moved during the installation. Be careful not to kink, puncture or damage these lines. After installation, do not allow these lines to rub against any of the side bracket fasteners. When enlarging attaching holes, examine the back side of the frame before drilling to be sure there are no lines, wires or fuel tank that can be damaged when drill breaks through the frame. If a fuel tank is on the back side, a shield of wood or metal must be used to protect the fuel tank from being punctured.

TRAILER/VEHICLE CLEARANCE DETERMINATION:

Before beginning installation, measure your Gooseneck trailer to determine that your trailer will have adequate clearance to your tow vehicle. Measure from the center of the coupler to the nearest vertical component on your trailer that could swing during a turn and contact your tow vehicle. Record this dimension (A) _____. Measure from the center of the coupler diagonally to the forward corner of the trailer nose, this part of the trailer could contact your cab during a turn. Record this dimension (B) _____.
 If (A) measures less than (A) listed on the chart below, trailer will contact tow vehicle and hitch should not be installed.
 If (B) measures more than (B) listed on the chart below, trailer will contact tow vehicle and hitch should not be installed.

Sportside w/6' Bed (A) = 65.25"
(B) = 32.75"

Fleetside w/6' Bed (A) = 65"
(B) = 31.75"

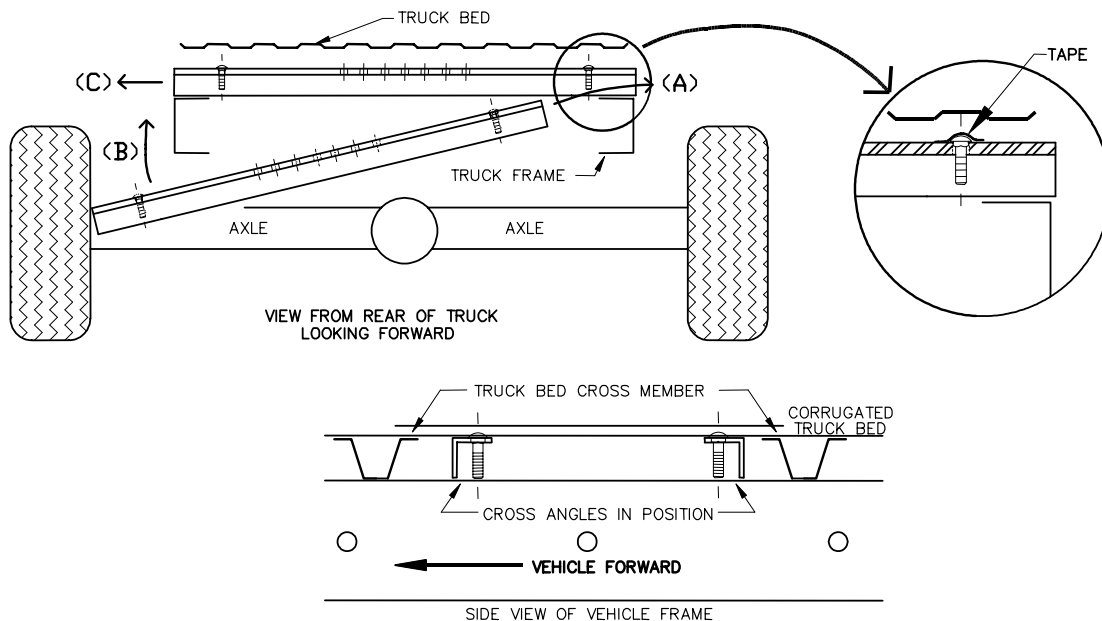


NOTE: The measurements above are guidelines. If your measurements are close to these numbers re-check clearances. If vehicle and/or trailer has any added bed vicinity accessories (i.e. fairings, airdams, ground effects, bed rails, etc.). Added dimensioning and clearance checks have to be made.

6300 & 8339 INSTALLATION

CROSS ANGLE INSTALLATION:

1. The side brackets and cross angles can be installed without loosening the bed of the truck or removing the rear wheels if the truck is raised by the frame on a hoist.
2. Place a 1/2-13 x 1.75 GR5 (Grade 5) carriage bolt in each of the square holes in the cross angles. It may be helpful to tape the carriage bolt heads to the cross angles during this step of installation.
3. The forward cross angle (the angle that has 9 holes in the center) is installed first with the vertical leg of the angle facing forward. From behind the driver's side rear tire, slide the angle over the axle. (A) Push the angle up and slide it over the top of the passenger side frame rail. (B) Swing the angle up and (C) slide it over the driver's side frame rail. Center the angle so an equal amount extends past the frame on each side.
4. Repeat for rear cross angle (this angle has 5 holes in the center). The vertical leg of the rear angle must face the rear of the vehicle.

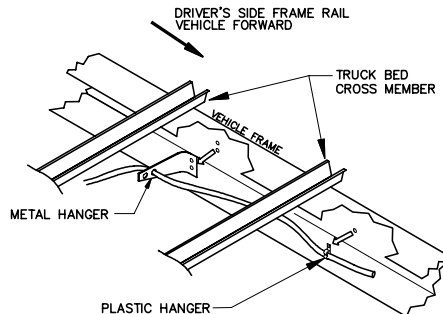


SIDE BRACKET INSTALLATION:

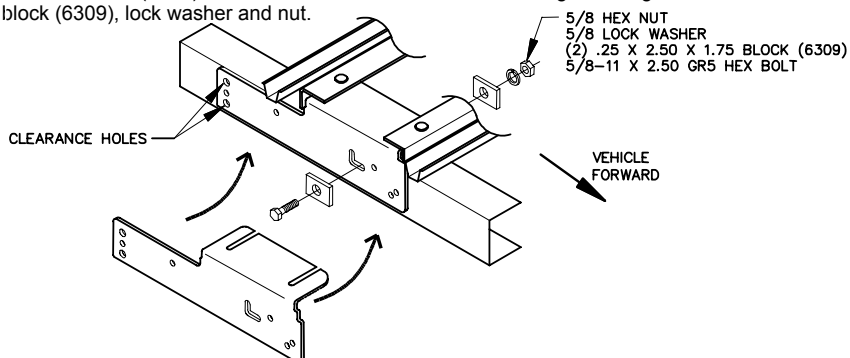
- The driver's side bracket is the first to be installed.
- Remove M8 bolts from plastic brake line/electrical hangers located on the inside of the driver's side frame rail above the rear axle. Brake lines, fuel lines and/or electrical lines must be loosened and repositioned to allow clearance for fasteners and bolts.

⚠ WARNING Do not kink, puncture or in anyway damage these lines.

- The metal hanger located on inside of truck frame on driver's side just rear of the axle has two M8 bolts. One of these bolts needs to be removed. The bolt to be removed varies depending on vehicle configuration. To determine which bolt to remove, hold the side bracket up against the outside of the frame. Push bracket upward against the cross angles until cross angles contact bottom of truck bed. Remove the metal hanger bolt that lines up with the center hole in the rearward part of the side bracket. The second bolt fits into either the top or bottom $\frac{3}{4}$ " diameter clearance hole and does not need to be removed. The hole that the bolt was removed from will be enlarged later in the installation.



- Raise side bracket against the outside of the frame and slide the tip leg of the side bracket under the cross angles so that the carriage bolts in the cross angles engage the slots in the top leg of the side bracket.
- Hold side bracket against the outside of the frame and push upward so that the side bracket forces the cross angles against the bottom of bed. Install a $.25$ " x 2.50 " x 1.75 " block (6309) over $5/8$ - 11 x 2.50 " GR5 hex bolt, through the large hole in side bracket and loosely fasten with $.25$ " x 2.50 " x 1.75 " block (6309), lock washer and nut.



- Place a conical toothed washer and locknut on the $\frac{1}{2}$ - 13 carriage bolts that are hanging through the cross angles and slot in the top leg of the side bracket. Loosely tighten.
- Enlarge to $\frac{1}{2}$ " diameter, the hole for the hanger bolt that was removed in Step 7. Install a hardened flat washer on a $\frac{1}{2}$ - 13 x 1.75 GR5 hex bolt and fasten hand tight with lock washer and nut.

⚠ WARNING Be careful while drilling this hole. The fuel tank (on earlier models the rear fuel tank was optional) is located behind this hole. A wood or metal shield must be placed between the frame and the fuel tank to prevent puncturing the fuel tank when the drill breaks through the frame.

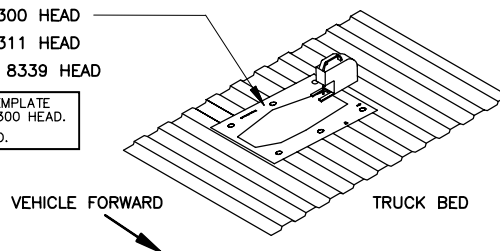
- The forward bolt will now be installed. There are two $\frac{1}{2}$ " diameter holes in the front of the bracket. On some models, a hole in the frame will line up with one of these holes and will be used for the attachment. In another case, a small hole will line up with one of these two holes and it will need to be enlarged. The other possibility is that no holes in the frame will line up with either hole in the bracket. In this case, either hole can be drilled and used for the attachment. Install a hardened flat washer on a $\frac{1}{2}$ - 13 x 1.75 GR5 hex bolt and fasten hand tight with lock washer and nut.
- Repeat the above steps for the passenger's side bracket.
- The side brackets and cross angles are loosely installed. The cross angles need to be centered on the vehicle. This is done by lining up the center hole in each cross angle with the center corrugation in the truck bed. After proper alignment, and with side brackets holding cross angles up against bottom of truck bed, tighten the $5/8$ hex bolts in the center attachment to 150 LB-FT. Tighten the $\frac{1}{2}$ - 13 fasteners to 75 lb. ft.

Be sure to reattach any fuel lines, brake lines, electrical wires or cable. Be certain that they cannot rub against the tightened fasteners.

15. With the cross angles and side brackets properly aligned and tightened, from under the truck, use the holes in the cross angles as a template to drill 5/8" diameter holes through the truck bed. Not all holes will be able to be drilled from under the truck, but will be done later from inside the bed. **WARNING, DO NOT DRILL THROUGH OUTERMOST SQUARE HOLES IN CROSSMEMBERS.**
16. Lower hoist and truck.
17. Align the holes on the template (provided with the gooseneck hitch) with the holes previously drilled through the bed. Be sure that the template is properly oriented toward the front of the truck. Center punch the holes that will be used to cut the opening in the bed. If the truck is equipped with a bedliner, a section of the bedliner must be cut out so the gooseneck platform can contact the bed corrugations.
18. Drill 1/4" pilot holes (size will depend on width of blade in saber saw).

19. Cut out truck bed. File the edges as needed.
 - TEMPLATE P/N 5978 FOR USE WITH 6300 HEAD
 - TEMPLATE P/N 8316 FOR USE WITH 8311 HEAD
 - TEMPLATE P/N 100134 FOR USE WITH 8339 HEAD

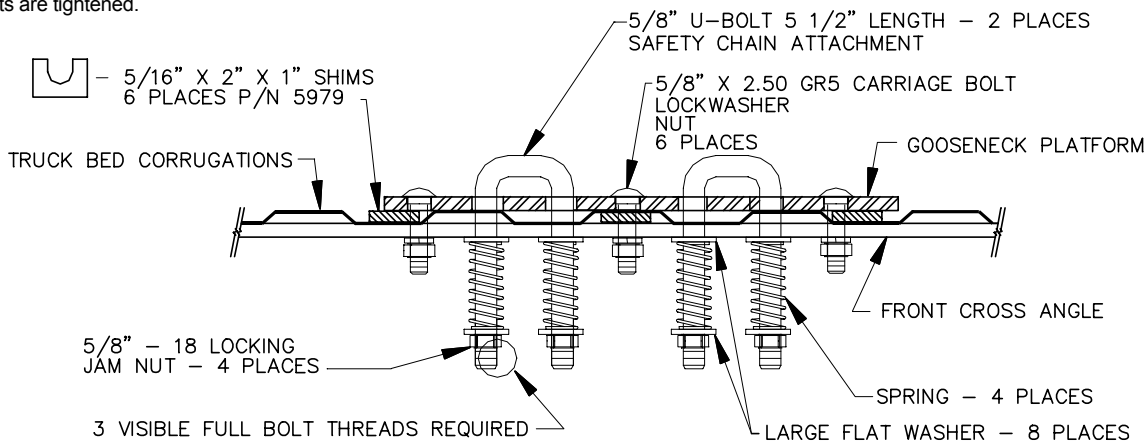
A DURABLE AND REUSABLE STAINLESS STEEL TEMPLATE
P/N 6467 IS ALSO AVAILABLE FOR USE WITH 6300 HEAD.
A TIME SAVER FOR CUTTING BED LINER AND BED.



20. Install platform into opening.
21. Use the installed platform as a guide to drill 5/8" diameter holes that could not be drilled from below the vehicle.

WARNING The fuel tank and/or other vehicle components are located below some of the holes. A wood or metal shield must be placed between the frame and the fuel tank to prevent puncturing the fuel tank when the drill breaks through the bed.

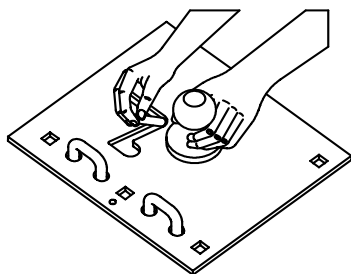
22. Before installing 5/8" carriage bolts through the platform, U-block shims (P/N 5979) must be placed between the platform and the bed and between the cross angles and the bottom of the bed. These shims are necessary to prevent the bed corrugations from collapsing when the bolts are tightened.



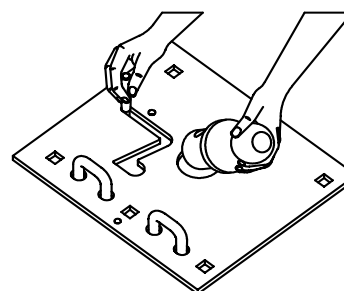
23. Install 5/8" x 2.50" GR5 carriage bolts through the platform, shims and cross angles. Secure with lock washers and nuts. Torque nuts to 150 LB.-FT.
24. Install the 2 U-bolts through the platform and from under the truck install large flat washer over the U-bolt followed by a spring, another large flat washer and secure with a thin 5/8" jam nut. Repeat for the other legs of the U-bolts. The 5/8" jam nuts are to be tightened until 3 threads are visible past the bottom of the jam nut.

6300 REMOV-A-BALL® GOOSENECK BALL INSTALLATION AND OPERATION

25. After installation, with a finger in the Z-slot raise the handle pulling it rearward and sliding it toward the side of the truck. This will allow the hitch ball to be installed into the tube. Orient the through hole in the ball so it lines up with the sliding pin. Move the handle toward the ball and then push it forward in the Z-slot to lock the handle into a closed position.



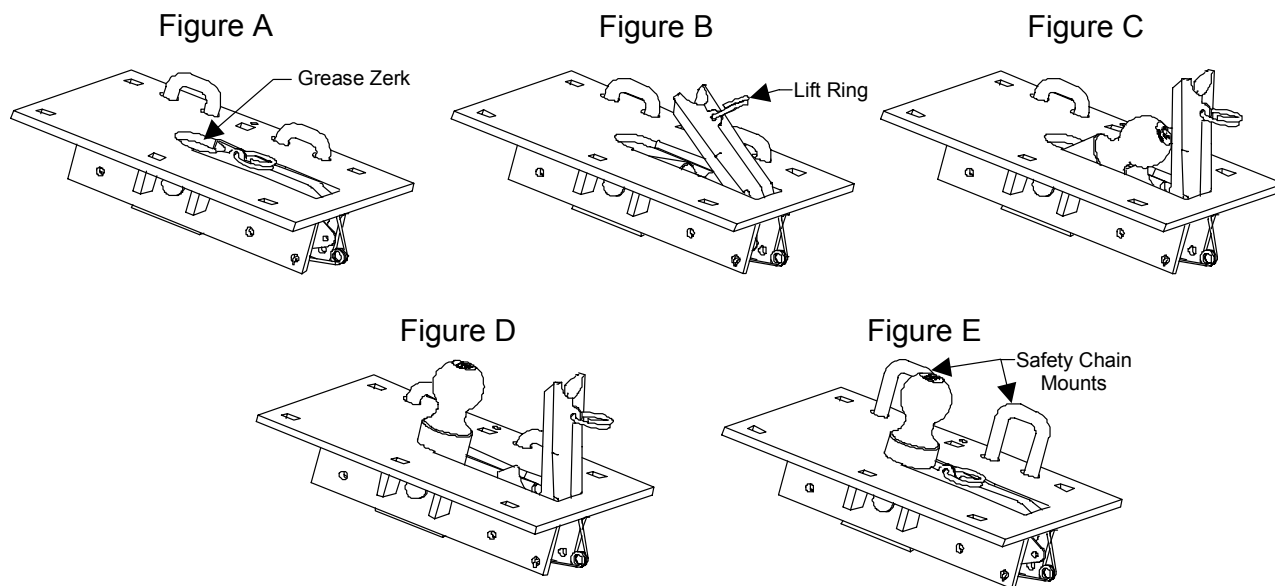
A durable hitch ball storage bag P/N 6352 is available to store greasy ball when not in use.



26. Cover the slot with the magnetic cover provided. This cover will keep road mud and debris out of the bed and away from your cargo.

8339 FOLDING BALL GOOSENECK OPERATION

27. The ball assembly offers several features with the user in mind.
- Easily accessible lift ring (figure B).
 - Two spring loaded safety chain mounts. (figure E).
 - Easily accessible grease zerk (figure A).
 - Ball detent lock backup to provide double coverage in preventing ball from opening unintentionally.
 - Spring loaded folding mechanisms to assist actuation and prevent rattle.
 - Chrome plated decorative ball.
28. To raise ball in upright position, follow these procedures:
29. Grasp lift ring and raise cover until the spring holds the cover open. Grasp ball and rock it to its vertical position. See figures **A-D**.
30. Lower lift ring and cover such that it locks ball in upright position. See figure **E**.
31. Lift spring loaded safety chain U-bolts to attach safety chain.
32. To lower ball into horizontal position, repeat steps 30 then 31.

**8339 FOLDING BALL GOOSENECK MAINTENANCE**

- Keep ball envelope and pivoting mechanism free from dirt and debris.
- Lube ball cover pivot monthly with light weight oil or equivalent.
- Grease ball pivot at grease zerk monthly (See figure A)
- Lube ball detent regularly with light weight oil. Keep free from dirt and debris.
- Retorque all hardware monthly.

AFTER SYSTEM INSTALLATION AND BEFORE TOWING:

33. Connect trailer to the tow vehicle following coupler manufacturer's operating instructions.
34. The coupler must be adjusted to provide about six inches (6") of clearance between the bottom of the trailer nose and the top of the pickup bed sides.
35. Slowly back the trailer to a jackknifed position to the tow vehicle while checking to see there is adequate clearance between the gooseneck trailer and the rear of the vehicle. Also check to see if there is adequate clearance between the forward corners of the gooseneck trailer and the cab of the truck. Slowly jackknife the truck and trailer in the opposite direction and check the clearances to the end of the truck and the cab.

GOOSENECK HITCH SYSTEM

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 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 VERTICAL LOAD are the two 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 cargo. Measure GROSS TRAILER WEIGHT by putting the fully loaded trailer on a vehicle scale. **VERTICAL LOAD** is the downward force exerted on the ball by the trailer coupler. Use a vehicle scale to measure **VERTICAL LOAD** with the fully loaded trailer on a level surface and the coupler at normal towing height.

TRAILER COUPLERS

The coupler should be smooth, clean and lightly lubricated. Adjust per coupler manufacturer's instructions.

SAFETY CHAINS

Connect safety chains properly **EVERY TIME YOU TOW**. Attach securely though the U-bolts provided so they can not bounce loose. Leave only enough slack to permit full turning. Too much slack may prevent chains from maintaining control if other connections separate.

TRAILER LIGHTS, TURN SIGNALS, ELECTRIC AND BREAKAWAY 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.

OTHER USEFUL EQUIPMENT

AIR SPRINGS, AIRSHOCKS, or HELPER SPRINGS are useful for some 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 manufacturer's recommendations.

CHECK YOUR EQUIPMENT/REPLACE WORN PARTS

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

NO PASSENGERS IN TRAILER!

Never allow people in the trailer while towing, under any circumstances.

TRAILER LOADING

Place heavy objects on the floor ahead of the axle. Balance the load side-to-side. Secure it to prevent shifting. **NEVER** load the trailer rear heavy. **LOAD THE TRAILER HEAVIER IN THE FRONT, BUT NOT GREATER THAN TONGUE WEIGHT RATING OF THE HITCH.**

DRIVING

The additional weight of a trailer affects acceleration, braking and handling. Allow extra time for passing, stopping, and changing lanes. A gooseneck trailer requires a large turning radius as the trailer tracks to the inside of turns. 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.**

WARNING

DO NOT MODIFY. INSTALL ONLY ON SPECIFIED VEHICLE IN GOOD CONDITION. Do not tow one trailer behind another, which may cause loss of control. Failure to heed warnings and follow instructions may result in serious personal injury or death, vehicle crash, and/or property damage.