

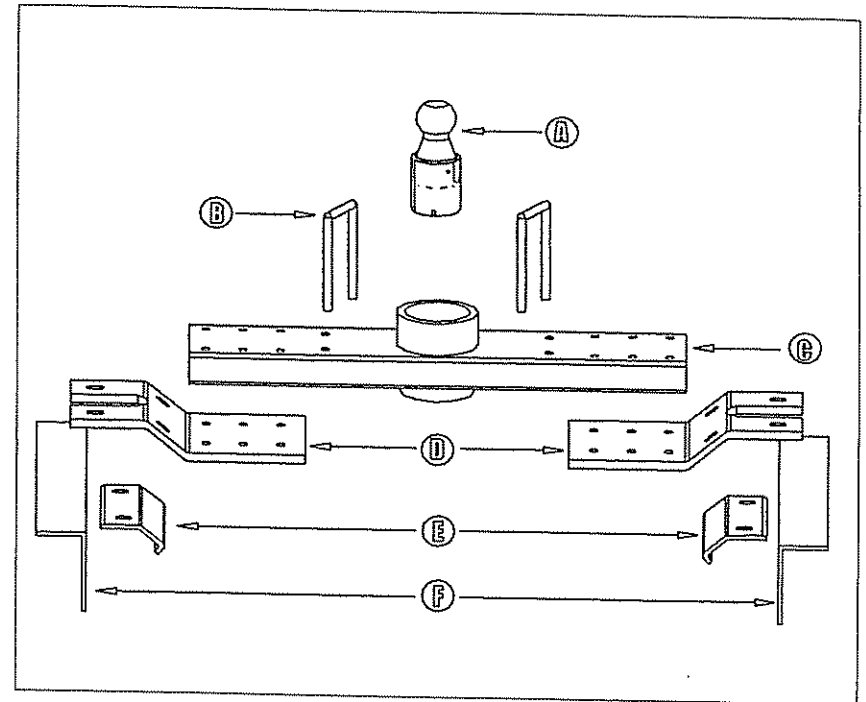


# SAFETY NOTES FOR THE DIAMOND HITCH

1. Read all instructions and safety precautions before proceeding with installations.
2. Do not use any open flame under the truck bed to cut or weld. There is extreme danger of explosion or fire.
3. Vehicle must be securely blocked and brakes set before working underneath.
4. Do not clamp hitch over any wiring or brake lines.
5. Always make sure trailer is loaded slightly tongue heavy. Do not pull a trailer that is lighter on the tongue end.
6. The ball is properly latched when the flat surface of the ball stud is level with the cylinder. When the ball is in the latched position it will not rotate or move up and down.
7. Retorque the bolts after the first 500 miles of trailer towing; thereafter check during normal service.
8. The installer must instruct the operator on proper ball installation and locking procedures.



# PARTS LIST



- A:** Ball Stud: Twin Lock or Inverta (1x)
- B:** Safety Chain Loop (U-Bolt) (2x) left +right
- C:** Rectangular Tube (2"x6") and Receiver Cylinder
- D:** Z Assembly (Gator plate) (2x) left+right
- E:** Fulton Clamp (2x) left+right
- F:** L Bracket (2x) left+right



# Inverta Ball Installation and Removal

## To install the Inverta Ball

1. Align pin (A) with slot (B) in hitch, drop into receiver cylinder, depress locking tab if required.
2. Twist the ball 30° clockwise while lifting slightly until ball drops into position and locking tab snaps in the slot.

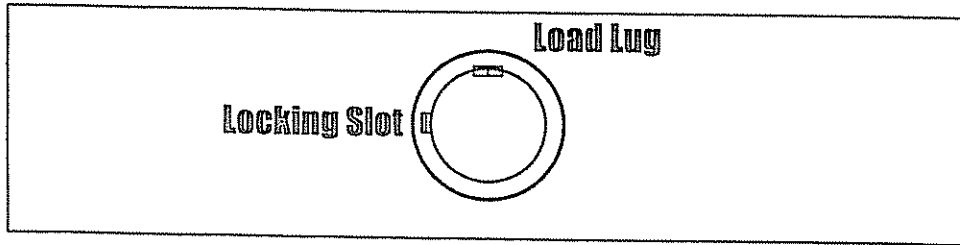
## To remove Inverta Ball

1. Push in the locking tab and then lift and rotate the ball assembly counterclockwise. Continue rotating and lifting until the ball stud clears the receiver cylinder.

## To store Inverta Ball

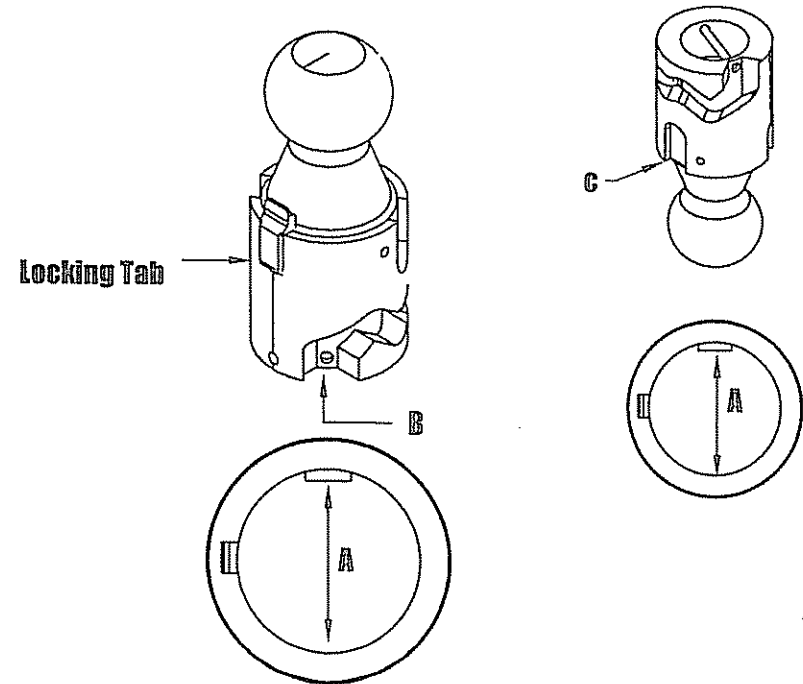
1. Align pin (A) with slot (C) in hitch.
2. Push in the locking tab and let the ball assembly to drop into the receiver cylinder.
3. Pull the ball straight up to remove it.

Front of Vehicle



Install the Cross member with the locking slot toward the driver's side.

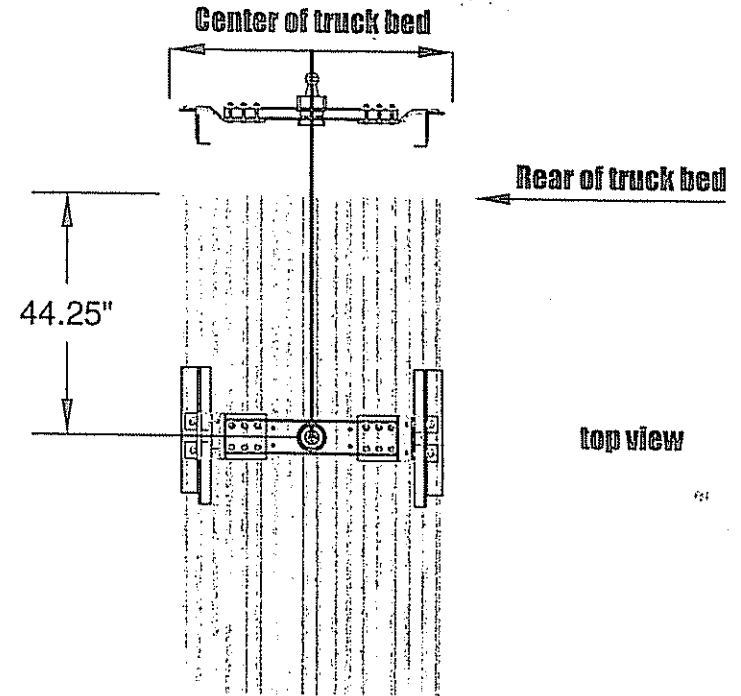
The load lug in the cylinder should be toward the cab or front of the vehicle.



**DIAMOND HITCH INSTALLATION INSTRUCTIONS CHEVY/GMC  
 LONGBED AND LONGBED HD SERIES - 2500 - 1999 to Present IGM-3021  
 LONGBED AND LONGBED HD SERIES - 3500 - 1999 to 2003 IGM-3021  
 \*\*\*\*\* NOTE: 2004 to Present 3500 Longbed requires GM-301 \*\*\*\*\***

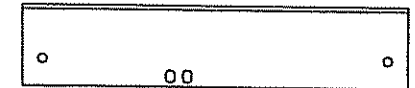
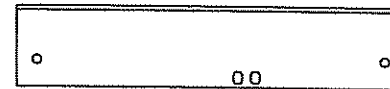
1. Remove the spare tire.
2. Remove the heat shield from underneath bed.
3. Release the rear tailpipe hanger, lower rubber portion.
4. Measure from the rear of the bed along the center of the truck bed:  
**Long Bed:** 44.25 inches  
**Long Bed HD:** 44.25 inches
5. Cut a four inch diameter hole in the center using a quality hole saw.
6. Insert 1/2" x 3-1/4" bolts with flat washers on the head into the 2" x 6" rectangular tube assembly. Four bolts each side.
7. Attach one 1/2" x 6" Z assembly to the 2"x6" rectangular tube using 1/2" flange nut.  
 Torque bolts to 75 ft/lbs.  
 Note: Position the rectangular tube with the locking slot in the top of the cylinder toward the driver side.
8. Insert the 2"x6" rectangular tube from the bottom of the bed, Z assembly toward the tailpipe, support the tube from the top side of the bed.
9. Attach the second 1/2" x 6" Z assembly to the 2"x6" rectangular tube using the bolts inserted in step 6, with a 1/2" flange nut. Torque to 75 ft/lbs.
10. Install the Fulton Clamp using 1/2" x 2" bolts with flat washers and flange nut. Be sure leave the bolts loose.
11. Install the outer L-brackets (slots on the 3" leg toward the front) using the 1/2" x 1-1/2" bolts and 1/4" square washers on the inside of the frame.  
 Longbed and Longbed HD - Insert the bolt in front vertical slot on the 5" leg.  
**Fastener Sequence on L-Bracket from the inside of the frame outward:**  
 Front Round Hole: 1/2" x 1-1/2" bolt, flat washer, frame, L-bracket, flat washer, flange nut.  
 Middle Slot: 1/2" x 1-1/2" bolt, 1/4" square washer, frame, L-bracket, flat washer, flange nut.  
 Rear Round Hole: 1/2" x 1-1/2" bolt, flat washer, frame, L-bracket, flat washer, flange nut.
12. Install 1/2" x 1-1/2" bolts with flat washers and lock nuts into the outside slots on the Z assembly through the outer L-bracket with nuts facing down.
13. Release the 2"x6" rectangular tube from the upper support.
14. Tighten Bolts to **75 ft-lbs of torque** as follows:
  - Eight 1/2" x 3 1/4" bolts through the 2"x6" rectangular tube to the Z assembly.
  - Four 1/2" x 2" bolts through the Z assembly to the Fulton Clamp, adjust as needed for frame taper, slide up as far as possible inside of the frame.
  - Four 1/2" x 1 1/2" bolts attaching the Z assembly to outside L-bracket.
  - Two 1/2" x 1 1/2" bolts attaching the outside L-bracket to the truck frame elevation of the L-Bracket, flush with the top of the frame.
15. Drill four 1/2" holes through the pre punched L-bracket and through the frame. Insert 1/2" x 1-1/2" bolts as described above, **torque to 75 ft/lbs.**
16. Drill four 1/2" holes through upward through the 2"x6" rectangular tube and truck bed.
17. Install Safety Chain Loops with one spring and nut per leg, lift above the bed ~ 1-1/2 inches.

# General Installation Procedures



Right side passenger

Left side driver



## HARDWARE

- 8 1/2" X 3 1/4" Bolts
- 8 1/2" X 2" Bolts
- 6 1/2" X 1 1/2" Bolts
- 22 1/2" Flange Nuts
- 2 1/4" Square Washers
- 40 1/2" Flat Washers

