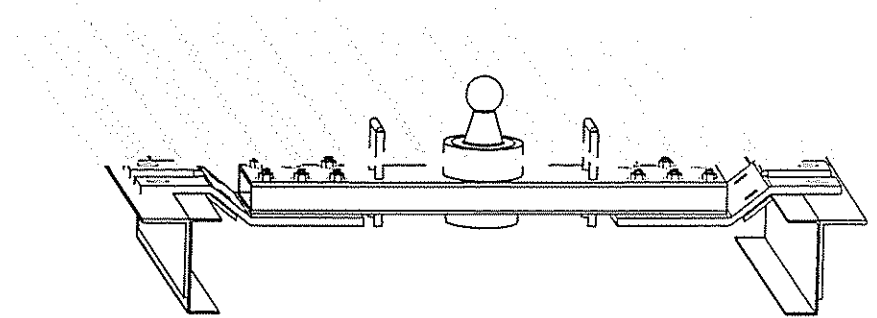


# The Diamond Hitch

**America's Premium Gooseneck Hitch**

DH1301



**The Diamond Hitch is rated to 30,000 lb. Gross Towing Weight and  
7,500 lb. tongue weight.**

\*\*\*\*\* **WARRANTY CAUTION** \*\*\*\*\*

**INSTALLATION MUST BE PERFORMED BY A QUALIFIED MECHANIC WITH  
TECHNICAL KNOWLEDGE OF BASIC MECHANICAL SKILLS**

## **INSTALL & SAFETY GUIDE**

### **• WARRANTY CAUTION •**

**INSTALLATION MUST BE PERFORMED BY A QUALIFIED MECHANIC WITH  
TECHNICAL KNOWLEDGE OF BASIC MECHANICAL SKILLS.**

**Blue Ox**

**One Mill Road, Industrial Park**

**Pender, NE 68047**

**Phone 402-385-3051 Fax 402-385-3360**

**Online: <http://www.blueox.us>**

**<http://www.diamondhitchinc.com>**

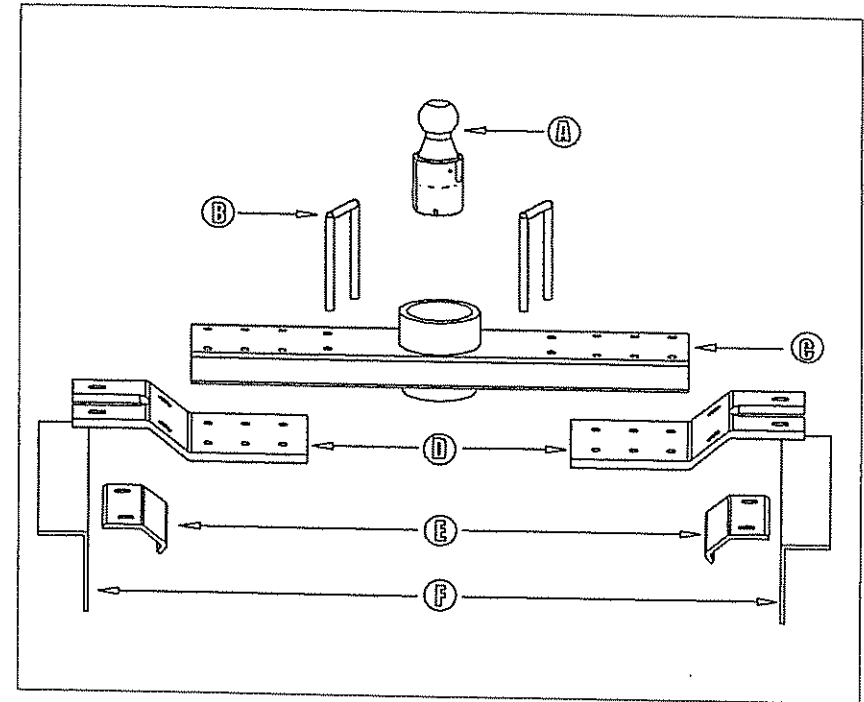
**E-mail: [sales@diamondhitchinc.com](mailto:sales@diamondhitchinc.com)**

# 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.



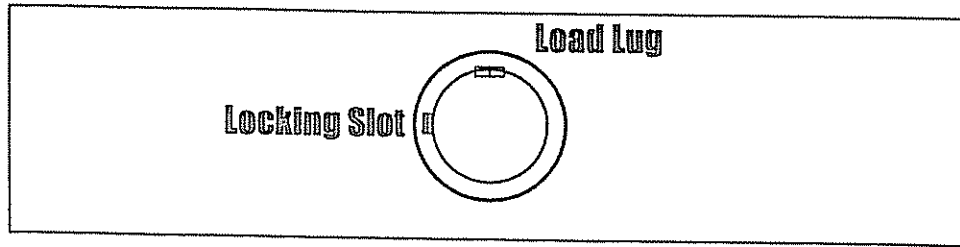
# PARTS LIST



- 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



## 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.

## Inverta Ball Installation and Removal

### To install the Inverta Ball

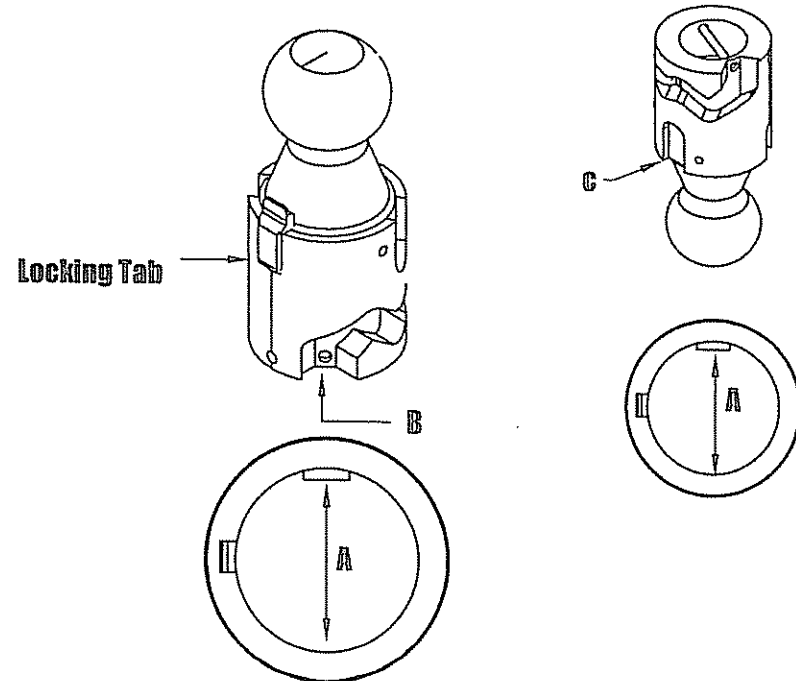
1. Align pin (A) with slot (B) in hitch, drop into receiver cylinder, depress locking tab if required.
2. Twist the ball 30° clockwise while lifting slightly until ball drops into position and locking tab snaps in the slot.

### 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

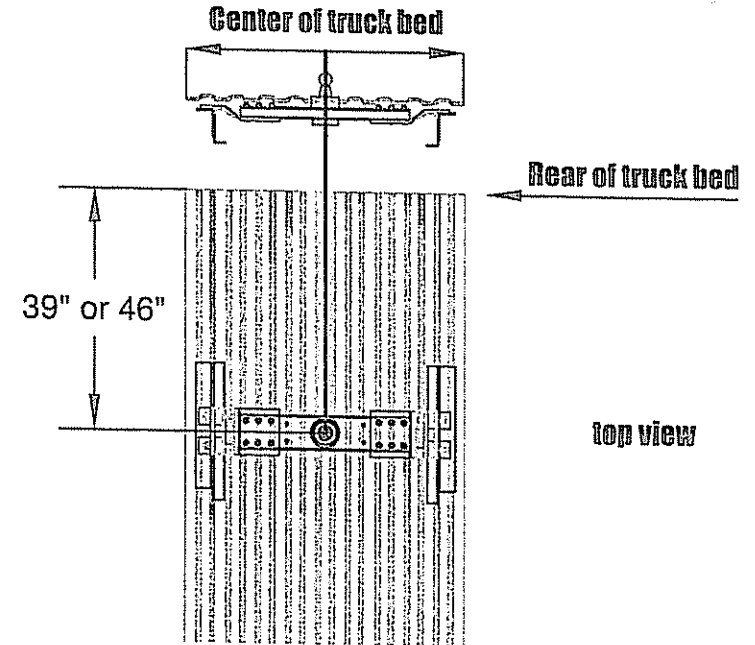
1. Align pin (A) with slot (C) in hitch.
2. Push in the locking tab and let the ball assembly to drop into the receiver cylinder.
3. Pull the ball straight up to remove it.



**DIAMOND HITCH INSTALLATION INSTRUCTIONS GM SHORTBED AND  
HD SERIES SHORT AND DUALY MODELS 1999 to Present  
2004-3500-Single Wheel Longbed IGM-3011**

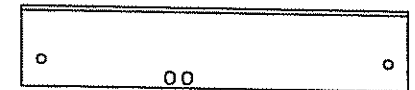
1. Remove the spare tire.
2. Remove the heat shield from underneath bed.
3. Release the rear tailpipe hanger, lower rubber portion.
4. Measure from the rear of the bed along the center of the truck bed:  
**Short Bed HD:** 39 inches  
**Long Bed Dually:** 46 inches
5. Cut a four inch diameter hole in the center. Installation requires cutting through the bed and bed brace below. If the hole saw bottoms out, bend the wings of the bed brace away from the center of the hole and continue sawing.
6. Slide the Z assembly between the frame and bed. The forks on the Z assembly fit on either side of the bed. The single 1/2" round hole on the angled portion and narrow fork goes toward the front.
7. Insert the 2"x6" rectangular tube from under the bed, support the tube from the top side of the bed.  
 Note: Position the rectangular tube with the locking slot in the top of the cylinder toward the driver side.
8. Insert twelve 1/2" x 3-1/4" bolts upward through the Z assembly into the 2"x6" rectangular tube, no flat washer on the head of the bolt.  
 Secure with 1/2" flange nut. Move the tailpipe, as needed, to insert passenger side bolts.
9. Install the Fulton Clamp using 1/2" x 2" bolts with flat washers and flange nut. Be sure to leave the bolts loose. The open-ended slot goes toward the front of the vehicle on both parts.
10. 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 Washer on the inside of the frame.  
**Shortbed** - Insert bolt in front vertical slot on the 5" leg.  
**Dually** - Insert the bolt in the rear 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.
11. Install 1/2" x 2" bolts with flat washers and flange nuts into the outside slots on the Z assembly through the outer L -- bracket with nuts facing down.
12. Release the 2"x6" rectangular tube from the upper support.
13. Tighten Bolts to **75 ft-lbs of torque** as follows:  
 Twelve 1/2" x 3 1/4" bolts through the 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 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.
14. Drill four 1/2" holes through the pre punched holes in the L-bracket and through frame. Insert the 1/2" x 1-1/2" bolts, **torque to 75 ft/lbs.**
15. Drill four 1/2" holes through upward through the 2"x6" rectangular tube and truck bed.
16. Install the Safety Chain Loops (U-Bolts) with one spring and nut per leg, lift above the bed ~ 1-1/2 inches.
17. Hang the tailpipe with hangers provided to prevent tailpipe contact with the hitch.

# General Installation Procedures



Right side passenger

Left side driver



## HARDWARE

12 1/2" x 3 1/4" Bolts

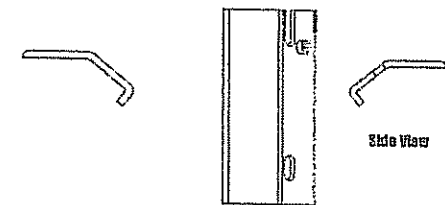
8 1/2" x 2" Bolts

6 1/2" x 1 1/2" Bolts

26 1/2" Flange Nuts

2 1/4" Square Washers

1 Tailpipe Hanger



Top View

Side View

Fulton clamp

40 1/2" Flat Washers

