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GOOSENECK SURGE AIR HITCH & SHIFT LOCK COUPLER INSTALLATION GUIDE

Patent #'s 11,370,257 B1 & D898,628 - More Pending

INSTALLATION - STANDARD STEM

- -On level surface, measure coupler tube bottom to trailer frame sleeve bottom. Transfer measurement to Shocker Hitch.
- •Remove original coupler (inner) tube: loosen set bolt(s), pull safety pin, slide out.

-Insert Shocker Hitch into trailer's outer tube. Reinstall pin & set bolt(s). Standard red frame: air bag faces trailer rear (Figure 1). 9" offset black frame: air bag faces vehicle cab/trailer front (Figure 2). Ensure hitch sits straight & parallel with trailer (Figures 3 & 4).



Figure 1: Standard red frame models: Air bag faces toward trailer.

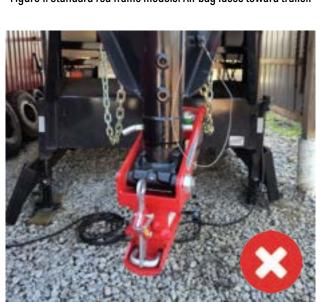


Figure 3: Hitch is crooked. Readjust at stem &/or trailer pin.



Figure 2: Offset black frame models: Air bag faces toward truck cab.

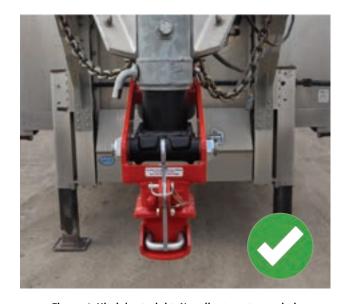


Figure 4: Hitch is straight. No adjustments needed.

•Torque locking bolts to trailer manufacturer's recommended specifications or 125 ft. lbs. Before hooking up, lubricate coupler u-bolt & ball. See "HOW TO USE THE SHIFT LOCK COUPLER".

INSTALLATION - MULTI-FIT (UNIVERSAL) ROUND STEM

- •On level surface, measure coupler tube bottom to trailer frame sleeve bottom. Transfer measurement to Shocker Hitch.
- •Remove original coupler (inner) tube: loosen set bolt(s), pull pin, slide out.
- -Slide Multi-Fit round stem into trailer tube to desired hole. Secure with 3/4" pin (Figure 5).
- -For regular frames (red), rotate until straight with trailer frame with air bag towards trailer (Figure 6) & secure with pin (Figure 7). If 9" offset frame (black), rotate until straight with trailer frame with air bag towards truck & secure with pin. Tighten trailer set bolt(s) and jam nut(s) first, then tighten Multi-Fit stem set bolt and jam nut (Figure 8).
- -DO NOT tow if hitch is crooked (Figures 9 & 10).
- -Adjust as needed for alignment. See angle guide for different positions (Figures 11-13).
 - •Top hole: 4" Round Stems with 10°-20° Angled Pin Holes.
 - •Middle hole: 100mm Round Stems with 20°-30° Angled Pin Holes.
 - -Bottom hole: Round Stems with Straight Pin Holes.



Figure 5: Slide Multi-Fit stem into trailer tube to desired pin hole and secure with 3/4" pin.



Figure 6: Slide red frame section into Multi-Fit system with air bag toward trailer.



Figure 7: Rotate red frame section until straight with trailer frame and secure with provided pin.



Figure 8: Tighten smaller set-bolt snug. Tighten jam nut.



Figure 9: Hitch is crooked. Readjust at universal stem &/or trailer through pin.



Figure 10: Hitch is straight. No adjustments needed.



Figure 11: Top hole: For 4" round stems with 10°-20° angled pin holes.



Figure 12: Middle hole: For 100mm round stems with 20°-30° angled pin holes.



Figure 13: Bottom hole: Round stems with straight pin holes.

-Torque locking bolts to trailer manufacturer's recommended specifications or 125 ft. lbs. Before hooking up, lubricate coupler u-bolt & ball. See "HOW TO USE THE SHIFT LOCK COUPLER".

-SKU: SH-RND-SL Shocker 30K Gooseneck Air Hitch with Multi Fit Round Stem & Shift Lock Coupler for 2-5/16" Ball - (Replaces 4RND-ANG-SL, 4RND-STR-SL, 4RND-BLK-SL, 100RND-ANG-SL, 100RND-STR-SL)
-SKU: SH-RND-KP Shocker 30K Gooseneck Air Hitch with Multi Fit Round Stem & Kingpin - (Replaces 4RND-ANG-KP, 4RND-BLK-KP, 100RND-ANG-KP, 100RND-STR-KP)

INSTALLATION - CRANK HANDLE STEM

- -Remove 3/8" bolt & handle assembly. Loosen set bolts & remove existing coupler stem. Transfer bearing & 3/8" washer to Shocker Hitch stem.
- •Grease stem threads generously. Slide into trailer until engaged. Tighten set screws. Add 3/8" washer to exposed crank stem.
- Reinstall crank handle with 3/8" bolt before vehicle hook-up.
- Hook up trailer & adjust coupler to level trailer.
- -Note: Bulldog brand couplers require additional 3/8" washer (supplied with Shocker Hitch). Torque locking bolts to trailer manufacturer's recommended specifications or 125 ft. lbs. Before hooking up, lubricate coupler u-bolt & ball. See "HOW TO USE THE SHIFT LOCK COUPLER".



Figure 14: Provided 3/8" washer for top crank goosenecks.

HOW TO USE SHIFT LOCK COUPLER

- -To connect: Move handle to unlocked position (Figure 15), lower trailer onto ball (Figure 16), move handle to locked position, insert quick clip pin.
- •Check lock: u-bolt should stick out \sim 1" from coupler rear when locked (Figure 17). If you do NOT see this, repeat steps 1 & 2 until u-bolt is visible from rear of coupler.
- Manual lock option available if handle is damaged (Figure 18).



Figure 15: Shift Lock coupler in unlocked position, lower hitch onto gooseneck ball.



Figure 16: Shift Lock coupler lowered onto gooseneck ball.



Figure 17: Shift Lock coupler in correct locked position 1" of the u-bolt stick out.



Figure 18: Optional manual lock pin on back of u-bolt (driver's side).

SETTING AIR PRESSURE & MAINTENANCE

-Start at 15 PSI. Test drive & adjust in 5 PSI increments until optimal. High winds may require added PSI. NEVER exceed 100 PSI in air bag, this will damage air bag.

-Grease hitch ball & pivot bolt regularly using the grease zerk on base of stem. Recommended to grease every 6-12 months based on usage to reduce wear.

CLEARANCE FOR AIR BAG & RECESSED FLATE BED PICKUPS



Figure 19: Hitch must rotate at an 18" radius around the ball to prevent contact with items in bed (red frame).



Figure 20: Hitch must rotate at an 16" radius around the ball to prevent contact with items in bed (black offset frame).

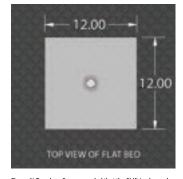


Figure 21:Top view: Recommended that the Shift Lock coupler have a minimum clearance of 12"x 12".

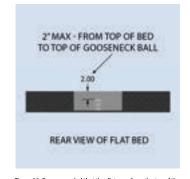


Figure 22: Recommended that the distance from the top of the bed to the top of the ball be a maximum of 2" for Shift Lock coupler.

MAXIMUM WEIGHT RATINGS FOR SHOCKER GOOSENECK SURGE AIR HITCH MODELS & SAFETY

Maximum weights for Shocker 30K Gooseneck Surge Air Hitch & Coupler with 2-5/16" Shift Lock Coupler or Kingpin: 30,000 lbs GTW & 7,000 lbs & Tongue Weight (offset stem is 6,000 lbs TW). QuickAir 5th to Gooseneck is 24,000 lbs GTW & 6,000 lbs tongue weight.

Maximum weights for Shocker 40K Gooseneck Surge Air Hitch with 3" Shift Lock Coupler or Kingpin: Towing Capacity is 40,000 lb GTW & Tongue = 8,000 lbs Tongue Weight.

Safety Notice: Towing capacity is limited by the lowest rated component. Always keep the area around the gooseneck hitch clear when attached to a tow vehicle. Use only a 2 5/16" gooseneck ball for 2-5/16" coupler and use 3" gooseneck ball for 3" coupler. V-19 rated. Do not exceed G.V.W.R. of ball being used.

ADDITIONAL INFO - SCAN QR CODES







Air Pressure Guide

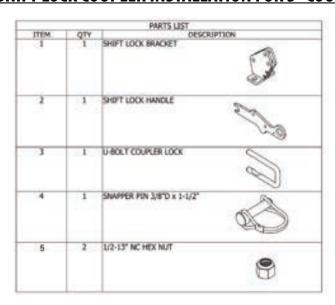


Warranty Registration



YouTube Channel

SHIFT LOCK COUPLER INSTALLATION FOR 3" COUPLERS



- -Insert u-bolt (item 3) into bottom holes on Gooseneck Surge hitch front, above coupler guard (Figures 23 & 24).
- -Center Shift Lock assembly (items 1-3) on u-bolt. Slide onto protruding bolts (Figures 25 & 26).
- -Tighten nylon lock nuts (item 5) on Shift Lock bracket with $\frac{3}{4}$ " socket. Ensure no play between red frame & bracket (Figures 27 & 28).

