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COMPONENTS®

GOOSENECK
CONNECT™



Gooseneck Connect™ 21K Pin Box Installation and Owner's Manual (For Aftermarket Applications)

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Gooseneck Connect Pin Box Kit

Part #	Description
2020043670	Gooseneck pin box kit to convert 21K Rhino pin box to gooseneck pin box compatible. Hardware included.



Gooseneck Connect™ 21K Pin Box

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Introduction

The Gooseneck Connect pin box provides a safe and LCI-approved method of converting a new Rhino pin box-equipped trailer to a gooseneck pin box compatible with a gooseneck hitch. The gooseneck pin box fits the new hole pattern of the single header Space Saver Upper Deck.

Additional information about this product can be obtained from lci1.com/support or by using the myLCI app. Replacement kits can be ordered from <https://store.lci1.com/> or by using the myLCI app.

The myLCI app is available for free on iTunes® for iPhone® and iPad® and also on Google Play™ for Android™ users.

iTunes®, iPhone®, and iPad® are registered trademarks of Apple Inc.

Google Play™ and Android™ are trademarks of Google Inc.

Images used in this document are for reference only when assembling, installing and/or operating this product. Actual appearance of provided and/or purchased parts and assemblies may differ.

Safety

Read and understand all instructions before installing or operating this product. Adhere to all safety labels. This manual provides general instructions. Many variables can change circumstances of instructions, i.e., the degree of difficulty, operation and ability of the individual performing the instructions. This manual cannot begin to plot out instructions for every possibility, but provides the general instructions, as necessary, for effectively interfacing with the device, product or system. Failure to correctly follow the provided instructions may result in death, serious personal injury, severe product and/or property damage, including voiding of the LCI limited warranty.

WARNING

THE "WARNING" SYMBOL ABOVE IS A SIGN THAT AN INSTALLATION PROCEDURE HAS A SAFETY RISK INVOLVED AND MAY CAUSE DEATH, SERIOUS PERSONAL INJURY OR SEVERE PRODUCT AND/OR PROPERTY DAMAGE IF NOT PERFORMED SAFELY WITHIN PARAMETERS SET FORTH IN THIS MANUAL.

WARNING

THE TRAILER MUST BE SUPPORTED PER MANUFACTURER'S RECOMMENDATIONS BEFORE WORKING UNDERNEATH. FAILURE TO DO SO MAY RESULT IN DEATH OR SERIOUS PERSONAL INJURY.

WARNING

FAILURE TO FOLLOW THESE INSTRUCTIONS MAY RESULT IN DEATH OR SERIOUS INJURY.

CAUTION

THE "CAUTION" SYMBOL ABOVE IS A SIGN THAT A PROCEDURE HAS A RISK INVOLVED THAT MAY CAUSE PERSONAL INJURY OR PROPERTY DAMAGE IF NOT PERFORMED SAFELY AND WITHIN THE PARAMETERS SET FORTH WITHIN THIS MANUAL.

CAUTION

FAILURE TO CHECK AND FOLLOW TOW RATINGS COULD RESULT IN TOW VEHICLE DAMAGE OR TOW VEHICLE AND TRAILER SEPARATION WHILE TOWING. TRAILER AND ITS CONTENTS MUST NOT EXCEED TOW VEHICLE, HITCH AND/OR TRAILER TOW RATINGS.

CAUTION

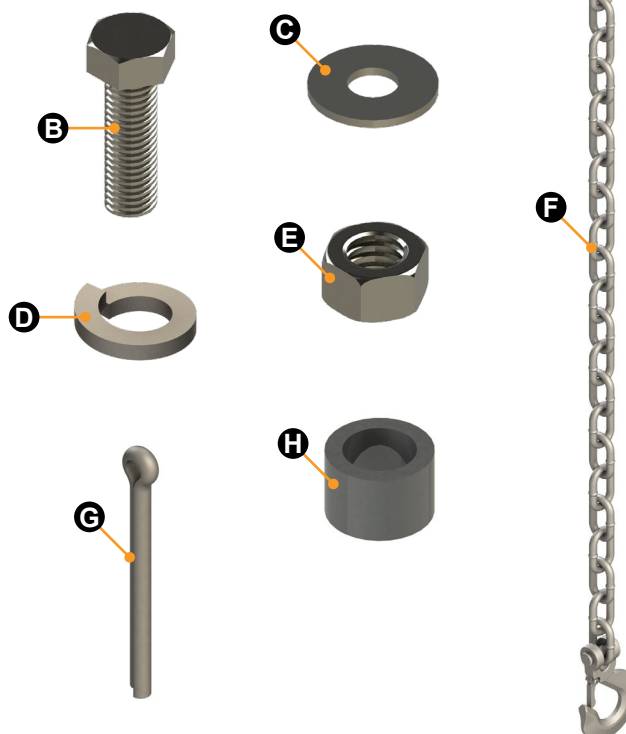
MOVING PARTS CAN PINCH, CRUSH OR CUT. KEEP CLEAR AND USE CAUTION.

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Parts List



Gooseneck Connect Kit #2020043670

Letter	PN	Description	Qty
A	859275	Gooseneck pin box	1
B	131619	Bolt, 5/8" - 11, Grade 5	10
C	118130	Flat washer, 5/8"	10
D	118166	Lock washer, 5/8"	4
E	129086	Hex nut, 5/8" - 11, Grade 5	4
F	2020043835	38" safety chain	2
G	2020221702	Cotter pin	2
H	2020222622	Tube	4

NOTE: Part numbers are shown for identification purposes only. Not all parts are available for individual sale. All parts with a link to the Lippert Store can be purchased.



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Resources Required

- Two people
- Cordless or electric drill or screw gun
- Appropriate drive bits
- Torque wrench
- Impact wrench or ratchet
- Sockets
- Drift/centering pin
- Second drift/centering pin (optional)
- Hammer (optional)
- Tape measure

Preparation

⚠ WARNING

THE TRAILER MUST BE SUPPORTED PER MANUFACTURER'S RECOMMENDATIONS BEFORE WORKING UNDERNEATH. FAILURE TO DO SO MAY RESULT IN DEATH OR SERIOUS INJURY.

⚠ CAUTION

DUE TO THE WEIGHT OF THE PIN BOX, IT IS RECOMMENDED THAT AT LEAST TWO PEOPLE INSTALL THIS SYSTEM.

⚠ CAUTION

MOVING PARTS CAN PINCH, CRUSH OR CUT. KEEP CLEAR AND USE CAUTION.

Removal of Factory Pin Box

1. Support the trailer in front and back per the manufacturer's recommendations.
 2. Remove breakaway switch and cable from the Rhino pin box but note the location in order to remount on the gooseneck pin box.
 3. Remove electrical harness and other wiring as needed.
 4. Properly support the pin box assembly.
- NOTE:** The pin box assembly may require two people to complete the removal and installation. A forklift may also be used to remove and replace the pin box.
5. Remove fasteners that hold the original pin box in place.
 6. Remove Rhino pin box from the mounting wing (Fig.1).

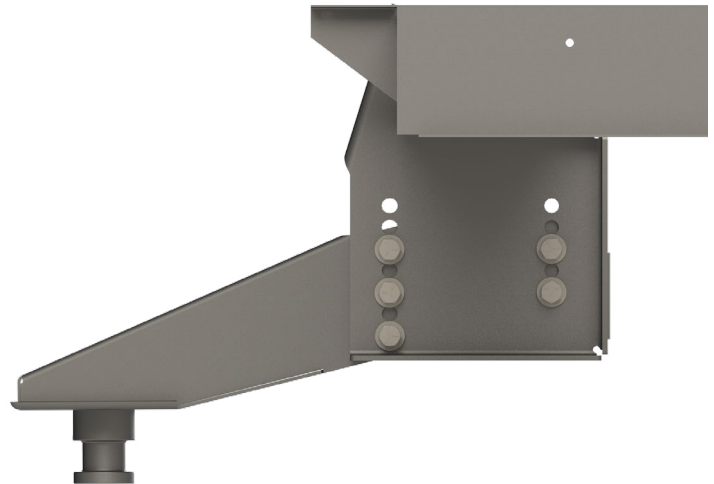


Fig.1

Gooseneck Connect™ 21K Pin Box

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Installation

Install new pin box

NOTE: Mount the gooseneck ball in the tow vehicle according to the instructions supplied by the manufacturer. Instructions will vary depending on the type and complexity of the hitch system. The height of the gooseneck pin box can be adjusted by several inches using higher or lower holes in the wing.

1. Hoist the gooseneck pin box into place.
 2. Use a second person to line up the pin box to the bolt holes in the mounting plate.
 3. Using a drift/centering pin or screwdriver, center the bolt holes and install at least one bolt on the roadside of the trailer at the rear of the mounting wing.
 4. Install one bolt on the curbside of the trailer at the front of the pin box.
 5. Determine if these hole locations create the proper gooseneck pin box height.
 - A. The height will vary based on a number of factors:
 - I. The height of the gooseneck ball in the truck since they are manufactured in a variety of different lengths.
 - II. The Gross Vehicle Weight Rating (GVWR) of the trailer and the tow vehicle.
 6. Utilize the holes in the wing to adjust the height of the gooseneck pin box so the trailer is level and there is a minimum of 6" of clearance between the top of the bed of the truck and the underside of the trailer (**Figs.2 and 3**).
- NOTE:** The height measurement must be made with the coupler attached to the tow vehicle and the landing gear fully retracted.
7. With the hardware in the kit, install the bolts, washers, lock washers and nuts.
 - A. The attachment sequence for the front set of holes is just bolt and flat washer on the outside. Because there is a support plate that runs above these holes, the box itself has nuts that are welded on during the box assembly.

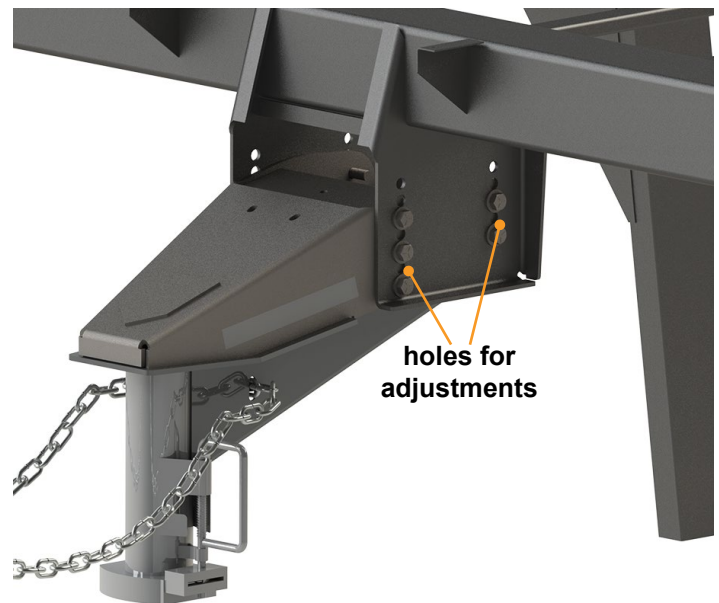
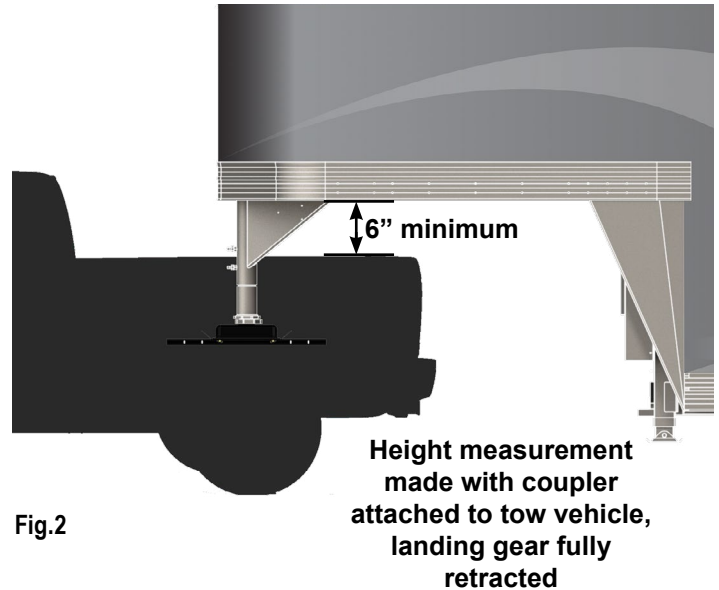


Fig.3

- B. For the rear set of holes, install bolt and washer on the outside and lock washer and nut on the inside of the pin box.
8. Torque the fastening hardware to 110 to 125 ft-lbs.



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Operation

⚠ CAUTION

THE GOOSENECK PIN BOX CAN BE USED ONLY WITH A 2 5/16" BALL. A SMALLER BALL WILL NOT FUNCTION AS INTENDED AND ITS USE COULD RESULT IN DAMAGE TO THE TOW VEHICLE AND/OR THE TRAILER.

1. Grease gooseneck ball. Use any of the recommended brands of grease. See Maintenance section.
 2. Make sure the 2 5/16" ball is centered under the coupler.
- NOTE:** Two people, including a driver and a spotter, may be required to ensure the ball is centered under the coupler.
3. Unlatch the coupler by pulling up on the handle and raising the pin. Flip handle into a locked position and ensure the plate is moving freely.
 4. Lower the trailer onto the ball by fully retracting the landing gear.
 5. Latch coupler by swinging the handle out of the catch and letting the pin drop straight through the hole in the plate. Check to ensure the latch is in the locked position.
 6. Attach the two safety chains to the tow vehicle.
 7. Mount breakaway switch on the gooseneck pin box in the same location as the Rhino pin box and attach cable.
 8. Reconnect the electrical harness and other wiring removed previously.
 9. Make sure lights are functioning.



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Grease gooseneck ball before each use. The grease will reduce wear on the ball and coupler. Use any of the recommended brands.

- 1. Periodically check the torque values of the mounting hardware and tighten loose fasteners to 110 to 125 ft-lbs.**

WARNING

DO NOT MIX LITHIUM, CALCIUM, SODIUM OR BARIUM COMPLEX GREASES. MIXING OF THESE INCOMPATIBLE COMPOUNDS CAN CREATE A CORROSIVE AND/OR TOXIC CHEMICAL WITH FUMES THAT CAN RESULT IN A SERIOUS HEALTH RISK IF EXPOSED TO SKIN OR LUNGS. WHEN CONVERTING FROM ONE GREASE TO ANOTHER, MAKE SURE ALL OLD GREASE IS REMOVED COMPLETELY PRIOR TO APPLYING NEW GREASE.

Approved Sources - Bearing Grease

Mobil Oil	Mobilgrease HP
Exxon/Standard	Ronex MP
Kendall Refining Co.	Kendall L-427
Ashland Oil Co.	Valvoline Val-plex EP Grease
Pennzoil	Premium Wheel Bearing Grease 707L

Notes

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Notes



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