AFTERMARKET MANUAL

GOOSENECK PIN BOX

NOTICE BEFORE PURCHASE/INSTALLATION

Purchase verification required. See instructions below for pin weight measuring process.

Returns will not be accepted once product has been installed.

Purchase Verification

The CURT® Helux Gooseneck Pin Box is offered in different pin weight ratings. To accurately order the Gooseneck that supports the weight of your 5th Wheel, you will need to know the pin weight. The best way to attain the pin weight is to take your 5th Wheel to a certified scale, i.e. CAT Scale.

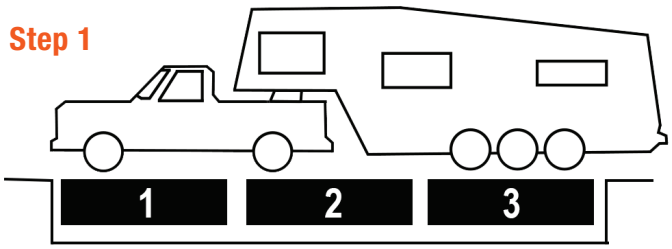
For additional information, visit https://catscale.com/how-to-weigh/.

Note: Be sure your 5th Wheel is fully loaded with everything you would normally have when traveling or camping including ATVs, golf cart, motorcycles, snowmobiles, etc.

1. Connect the 5th Wheel to the tow vehicle and drive onto the scale; front axle on Scale 1, rear axle on Scale 2 and the RV axles on Scale 3.
2. Note these weights and total the weights from #1 and #2.
3. Disconnect the 5th Wheel and reweigh just the tow vehicle on scales #1 and #2.
4. Note these weights and total the weights from #1 and #2.
5. Subtract the weight total in step 4 from the weight total in step 2 to find the actual hitch weight.

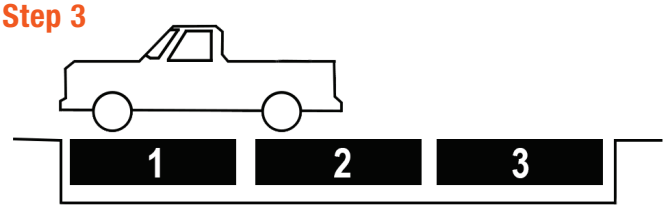
Pin weight can also be approximated by multiplying the GVWR of the 5th Wheel by 22% (0.22). This weight result will provide you with approximate pin weight to match with the chart below. Depending on actual RV weight and load distribution, approximate weight could vary from actual weight. For best results, getting the actual weight is preferred.

Step 1



Step 2: Scale #1 + Scale #2 = A

Step 3



Step 4: Scale #1 + Scale #2 = B

Step 5: A - B = Pin Weight

Weight Carrying Capacity - CURT Helux Gooseneck Pin Box Kits

Pin Weight Calculated, see Purchase Verification

Part Number	Pin Weight[1] (Loaded - lb.)	Min. Pin Weight[2]	Max. Pin Weight[3]
2024044575	1650 - 2144	1350	2350
2024044574	2145 - 2484	1550	2700
2024044576	2485 - 2984	1800	3200
2024044577	2985 - 3469	2200	3900
2024044578	3470 - 3964	2450	4300
2024044579	3965 - 5000	2800	5000

[1]Optimal pin weight value range when choosing a Curt Helux Gooseneck Pin Box.
[2]Unloaded - No cargo and empty fresh, black, and gray water tanks.
[3]Loaded - Cargo loaded including toy hauler area, tanks travel-ready.

Note: The Gooseneck models are determined by the weight rating of the spring used between the upper and lower jaws.

Product Photo

Fig. 1

Note: Cable release can either be stowed in the hook or lay free in the tow vehicle once coupler latch has been closed.

Level of Difficulty

Moderate

Installation difficulty levels are based on time and effort involved and may vary depending on the installer level of expertise, condition of the vehicle, and proper tools and equipment.

Tools Required

SAE socket set	SAE wrenches
Tape measure	Box-end wrench set
Safety glasses	Air compressor
Level	--

SAFETY INSTRUCTIONS

Safety glasses should be worn at all times while installing this product.

⚠ WARNING

Never exceed the vehicle manufacturer's recommended towing capacity.

NOTICE

Before you begin installation, read all instructions thoroughly.

Proper tools will improve the quality of installation and reduce the time required.

This installation requires:
Two or three people to help support the weight of the pin box as it is being lifted.

To help prevent damage to the product or vehicle, refer to the torque requirements when securing hardware during the installation process.

ASSEMBLY

Parts List

#	Qty	Description
1	1	Gooseneck assembly
2	10	Hex bolt, 5/8"-11 x 1 3/4", grade 5
3	10	Serrated-flange nut 5/8"-11, grade 5
4	2	Safety Chains
5	1	Cable Release

Note: Cable can either be stowed in the hook or lay free in the tow vehicle once coupler latch has been closed.

Product Registration and Warranty

CURT stands behind our products with industry-leading warranties. To get copies of the product warranties, register your purchase or provide feedback, visit: **warranty.curtgroup.com/surveys**

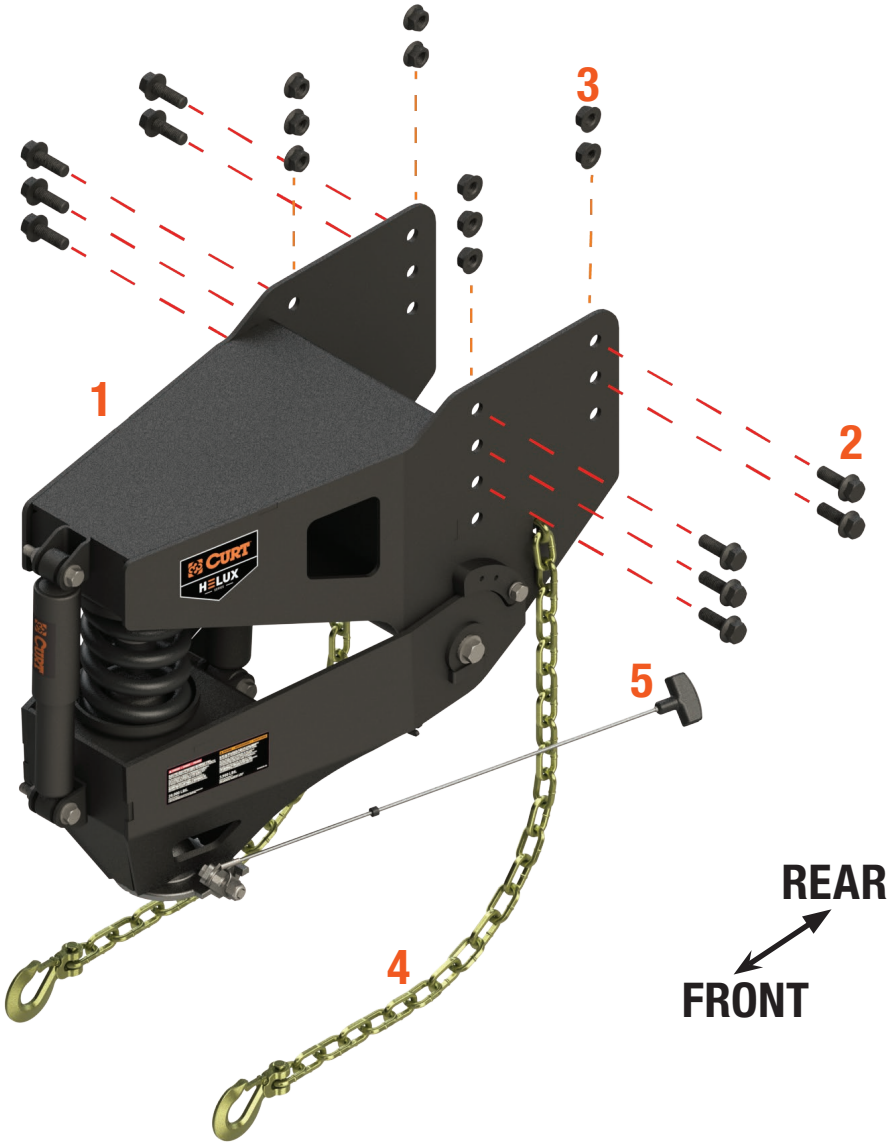


Fig. 2

INSTALLATION

⚠ WARNING

An unsupported pin box during product removal can result in death, serious personal injury, severe product and/or property damage. Properly support current pinbox throughout removal and the new Gooseneck during installation.

NOTICE

The pin box assembly weighs 170 pounds. Installation and removal of pin boxes requires a minimum of two people. A forklift may be used to lift the Gooseneck into position.

The pin box height should be adjusted using the trailer bracket holes to ensure two critical conditions: a level towing setup, and a minimum clearance of 7 inches between the top of the truck bed and the underside of the front of the 5th Wheel.

The 5th Wheel should always be towed while level. Adjustment of the Gooseneck mounting height, the tow vehicle height or suspension may be necessary to accomplish a level towing condition.

⚠ CAUTION Be mindful of pinch points while handling the Gooseneck. Any place on the Gooseneck with moving parts or where two parts come together can be a pinch point and cause serious physical damage. Spring and shock areas (Fig. 3A), the coupler and locking mechanism (Fig. 3B) and the pivot point of the upper and lower jaw (Fig. 3C) are all designated pinch points.

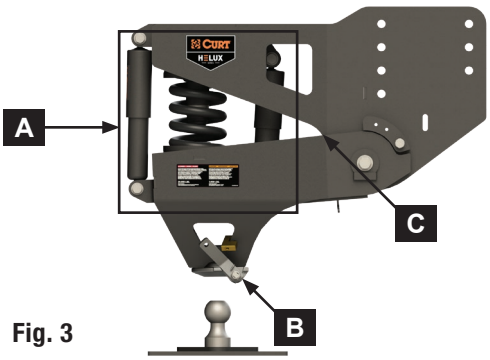


Fig. 3

Step 1

Level the RV front-to-back using the landing gear.

⚠ WARNING Be sure to properly support pin box before removing mounting bolts.

Remove fasteners securing the old pin box and carefully lower it from the mounting bracket and move it from the area.

Note: The Gooseneck kit includes new mounting hardware. Do NOT reuse the mounting hardware from the previous pin box.

Step 2

Back the tow vehicle under the 5th Wheel's upper deck.

Step 3 - Measurements

Familiarizing yourself with these measurements will aid in the correct pin box positioning to ensure a level towing condition and a minimum clearance of 7 inches between the truck bed rails and the 5th Wheel.

From the bottom of the ball up to the first set of hole(s), (Fig. 4A) on center, in the upper deck mounting brackets (X). Each hole above may be graduated by one inch, depending on manufacturer.

Top mounting hole height (Fig. 4B) from the bottom of the ball (X).

Bottom of Gooseneck coupler to center of first mounting hole is 15 ½" (Fig. 5).

Each set of holes above the first hole are graduated in 2" increments (Fig. 5), allowing the Gooseneck ample adjustment for correct mounting.

Bottom of Gooseneck coupler to center of top mounting hole is 21 ½" (Fig. 5).

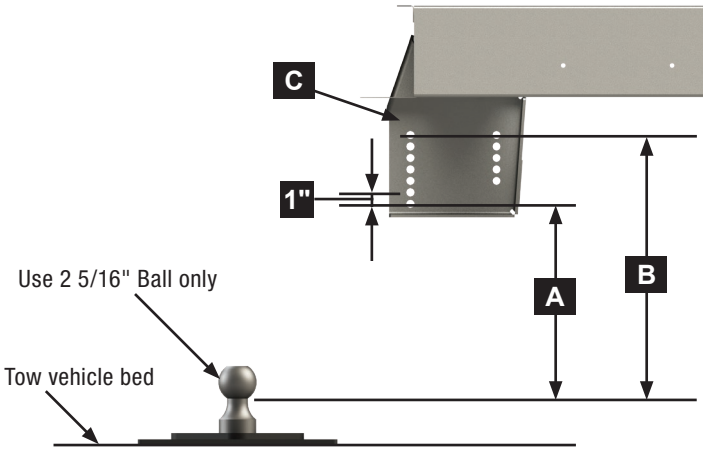


Fig. 4

Step 4

Pull the tow vehicle away from the 5th Wheel before installing the Gooseneck.

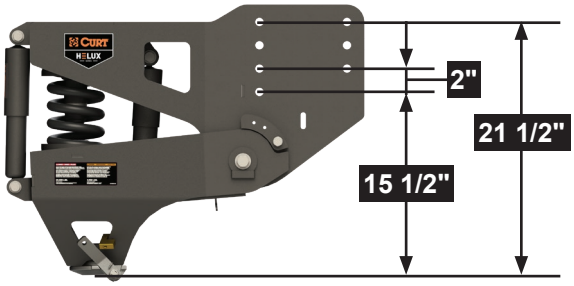


Fig. 5

Step 5

Keeping in mind the measurements in Step 3, lift the new Gooseneck and support it while positioning it at a height that ensures a level towing condition and a minimum clearance of 7 inches between the truck bed rails and the 5th Wheel.

Install five hex bolts and flange nuts on each side, three fasteners in the forward position (Fig.6A) and two fasteners in the rearward position (Fig. 6B).

Step 6

Once the Gooseneck is positioned and secured with the supplied hardware, torque the mounting bolts (Figs. 6A and 6B) to 120 ft-lb±5 ft-lb.

⚠ WARNING Failure to properly torque the mounting bolts can result in a failure, causing property damage, severe personal injury or death.

Note: The CAUTION label (Fig. 6C) provides instructions for the coupler lock.

Step 7

The Breakaway Switch Kit may be located on either the RV mounting bracket (Fig. 6D) or the previous pin box itself. If it is installed on the previous pin box, uninstall the Breakaway Switch Kit and install it per the manufacturer's recommendations.

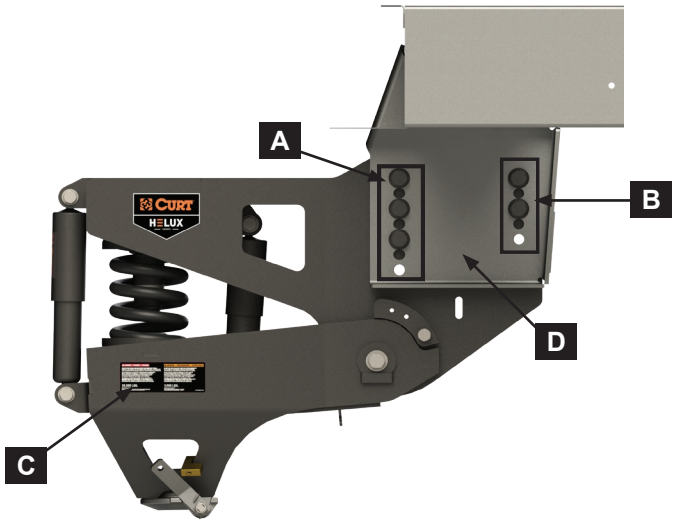


Fig. 6

HITCHING

⚠ WARNING

Failure to follow hitching instructions may result in death or serious injury.

NOTICE

Note: Be sure to consult your hitch manufacturer's owner's manual for proper hitching procedure.

Step 1

Place chocks firmly against the front and rear of each RV tire to prevent movement.

If necessary, lower the tow vehicle's tailgate to allow the Gooseneck to clear.

Note: The clearance of the lowered tailgate to the RV needs to be monitored during hookups, since some combinations of tow vehicle and RV have little or no clearance.

Note: Be sure the clearance between RV and the tow vehicle's cab and bedrails is a minimum of 7 inches with a level RV to avoid contact while hitching and turning.

Step 2

Measuring for Gooseneck clearance:

A. With the tailgate down, measure from the ground to the bed of the tailgate (Fig. 7A).

B. Measure from the tow vehicle bed to the top of the hitch ball (Fig. 7B).

C. Add (Figs. 7A & 7B) together to find (Fig. 7C).

D. The measurement to the bottom of the coupler must be ≥2" (Fig. 7D).

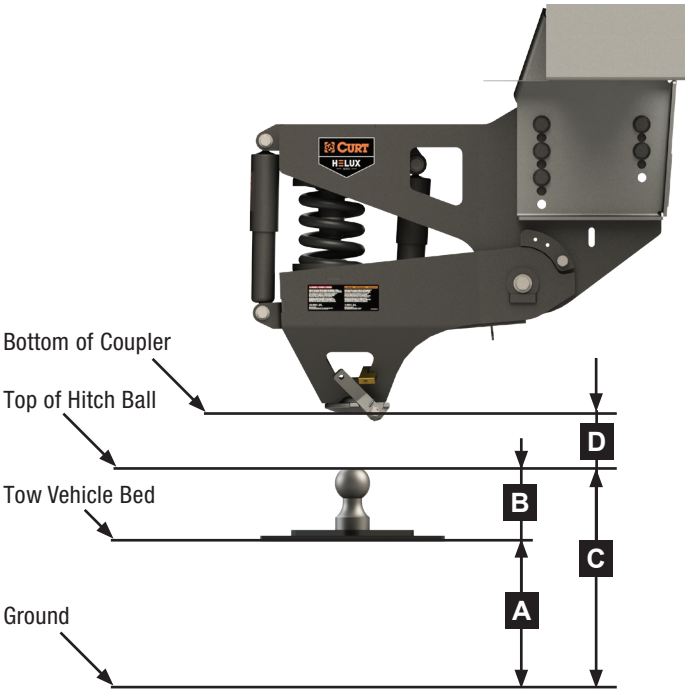


Fig. 7

Step 3

Back the tow vehicle slowly toward the RV and position the coupler directly over the hitch ball.

Note: Be sure to place the tow vehicle in PARK and set the parking brake before lowering the coupler onto the hitch ball.

⚠ WARNING

Failure to secure the tow vehicle and RV from movement during latching could result in severe property damage, serious personal injury or death.

Step 4

Lower the RV until the coupler automatically latches (Fig. 8A).

Note: Be sure to connect the safety chains to the tow vehicle anchors.

Step 5

A coupler lock, (Fig. 8B) is a padlock with a 2.5” lock pin length and 11/32” max pin diameter, and can be locked in the hole on the Gooseneck (Fig. 8C).

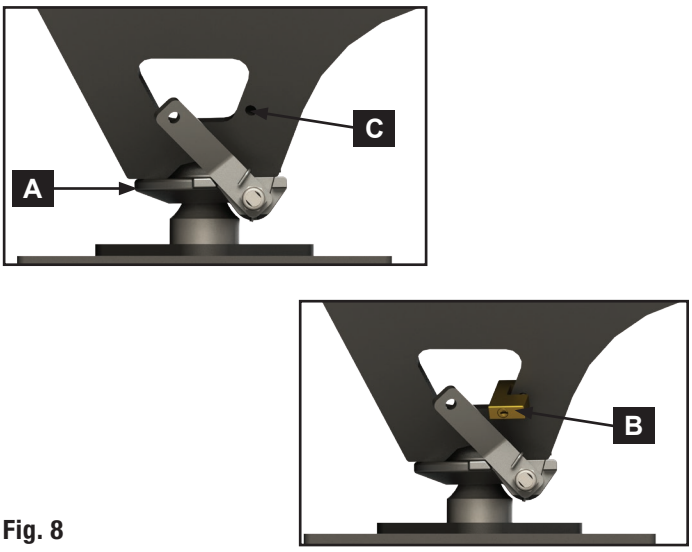


Fig. 8

⚠ WARNING

Verify the coupler latch is in the locked position (Fig. 9A). If the latch is in the unlocked position (Fig. 9B), a failure to latch may result in severe property damage, serious personal injury or death.

Step 6

Connect the 7-pin power cable and the breakaway switch connector to the tow vehicle.

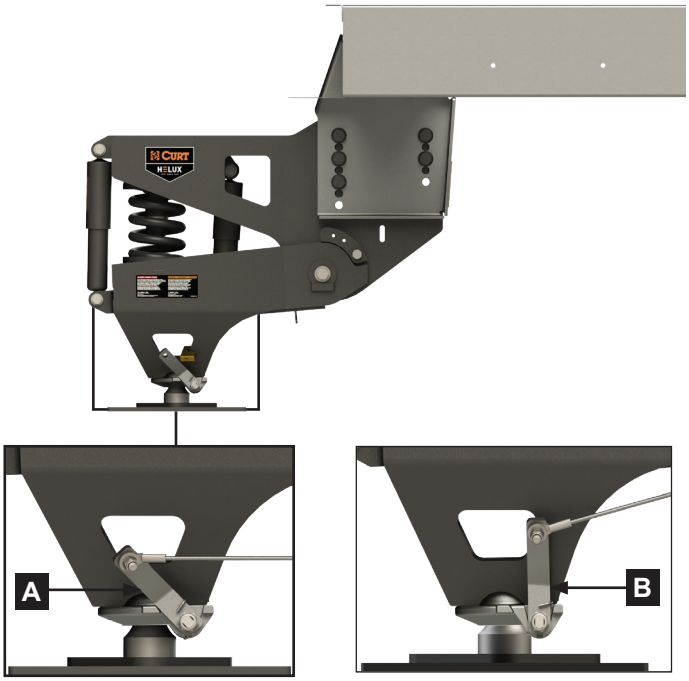


Fig. 9

UNHITCHING

Step 1

Park the 5th Wheel, and chock the tires firmly, front and rear.

Note: Be sure to place the tow vehicle in PARK and set the parking brake before unlatching the coupler from the hitch ball.

Remove the coupler lock, if installed (Fig. 8B).

Disconnect the 7-way power plug,breakaway switch connection, and safety chains at the tow vehicle.

Step 2

Disengage the Gooseneck coupler by pulling the cable release toward the rear in the "hold open" position, locking it into the cable hook (Fig. 10A).

⚠ WARNING Do not tow the RV with the coupler latch in the unlatched position.

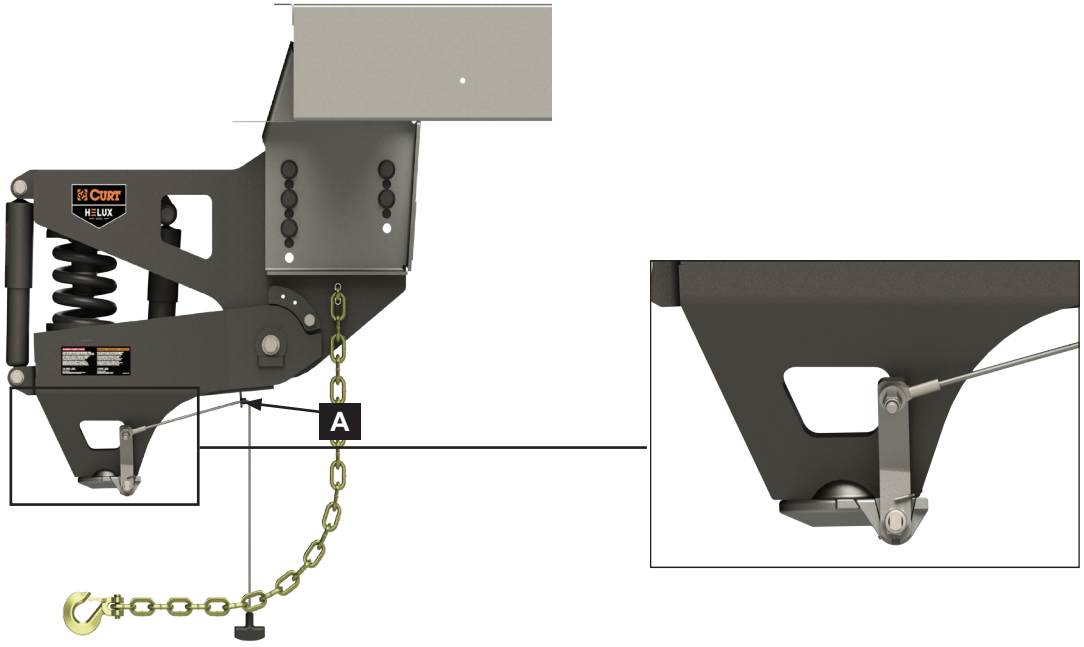


Fig. 10

Step 3

Extend the landing gear to lift the front of the 5th Wheel until the Gooseneck clears the hitch ball. Release the cable release from the hook.

Note: Cable release can either be stowed in the hook (Fig. 10A) or rest free from the cable release lever once coupler latch has been closed.

⚠ CAUTION Safety chains and the cable release must be stowed to avoid catching on the tow vehicle. Property and personal damage could occur.

Step 4

Pull the tow vehicle clear of the 5th Wheel and level the RV.

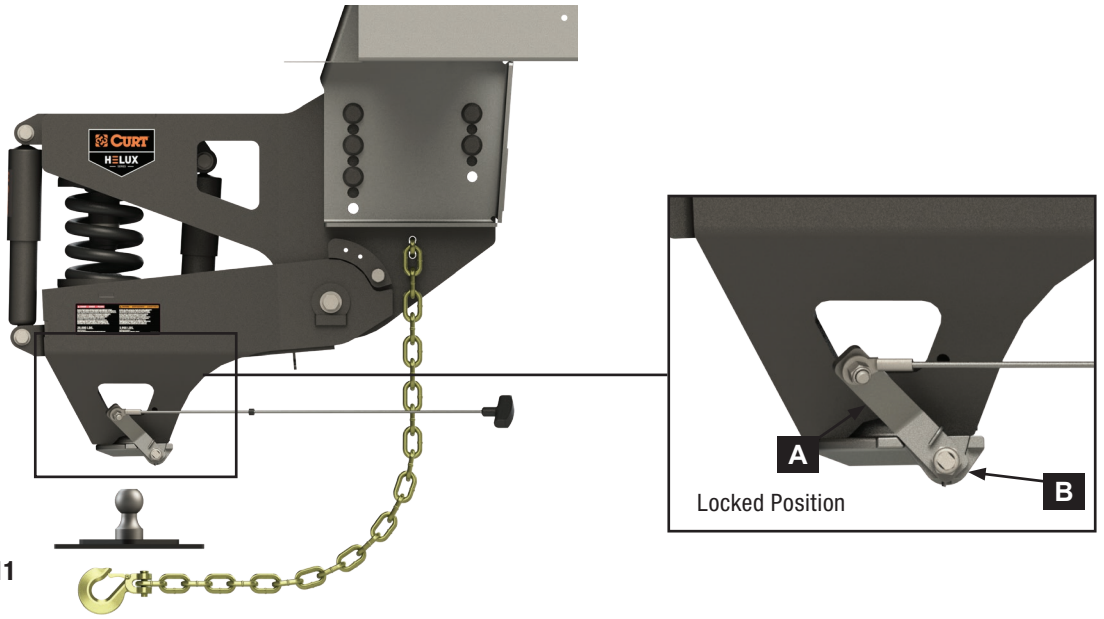


Fig. 11

TROUBLESHOOTING & MAINTENANCE

What is happening	What should be done
RV not level	Adjust Gooseneck or hitch ball accordingly.
Excessive chucking in tow vehicle	Inspect Gooseneck coil spring for condition and any possible damage. Be sure cargo is balanced from side to side and front to back.
Excessive noise from Gooseneck area	Verify that the Gooseneck is securely attached to the 5th Wheel. Check the condition of the coil spring and replace if damaged or broken. Look for damage on shock or a disconnected shock. Reconnect or replace shock if needed. Hitch mechanisms can also cause noise. Verify that unwanted noise is not coming from the hitch. The hitch manufacturer can provide guidelines for this check.
Gooseneck coupler is open	Observe the Gooseneck and hitch ball area once the RV is loaded. The Gooseneck coupler must close with the coupler lever in the forward position (Fig. 11A).
The hitch ball could have excessive wear.	There is a grease zerk in the Gooseneck coupler (11B, not visible in image). Apply grease to hitch ball and coupler ball socket to avoid galling of similar metals.

Maintenance

Always check Gooseneck and its components for damage or any loose nuts and bolts.

Be sure the RV pulls in a level condition before traveling.

The coupler needs checked for grease and maintained. The hitch ball should also have an application of grease.

For Service Manual, Replaceable Parts and Additional Troubleshooting

Scan the QR code: