

INSTALLATION MANUAL

16602

Level of Difficulty

Moderate

Weight Capacity

Gross trailer weight (GTW)	20,000 lbs.
Vertical load	5,000 lbs.

Parts List

Item	Qty	Description
1	1	Base weldment
2	1	Upper weldment
3	1	Lower coupler assembly
4	1	Lube plate
5	2	Hex bolt, 1/2"
6	2	Nylock nut, 1/2"
7	1	Bushing
8	1	Hex head cap screw, M20
9	1	Nylock nut, M20
10	1	Flat washer, M20
11	2	Lynch pin
12	1	Carriage bolt, M20 x 130mm
13	1	Carriage bolt, M20 x 90mm
14	1	Flange nut, M20
15	1	Jam nut, M20
16	2	Clevis pin
17	2	Hex head cap screw, M14
18	2	Nut, M14
19	1	Gooseneck ball coupler
20	2	Plastic pad*
21	2	Bed support rail*

*Not included, shown for reference only

Tools Required

Ratchet	Torque wrench
Socket set	Wrench set

Torque Specifications

1/2" bolt	65 ft-lbs.
M14 bolt	50 ft-lbs.
M20 bolt	300 ft-lbs.
M20 carriage bolt	100 ft-lbs.

Use above torque setting unless otherwise noted

Product Registration

CURT stands behind our products with industry-leading warranties. Provide feedback and help us to improve our products by registering your purchase at: warranty.curtgroup.com/surveys

⚠ DANGER ZONE PRECAUTIONS

Block all trailer tires in front and behind with appropriate wheel chocks. Do not substitute objects such as, but not limited to: stones, wood blocks, etc. Front trailer lifting jacks must be supporting the trailer and resting on a firm and level surface.

Towing vehicle must be stationary with automatic transmission in park (manual in neutral), emergency brake applied and engine off.

⚠ WARNING

Fully instruct and demonstrate the operation of this 5th wheel hitch to the end user. Include the importance of observing all warnings contained herein, including warning labels on 5th wheel hitch main body. Provide this manual in its entirety to the end user. Serious injury or death may result if the warnings above are not observed.

Do not expose hands, body parts or clothing between the truck and trailer or the truck's bed sides and trailer. If you must place any part of your body under trailer or between truck and trailer, you must:

1. Block all trailer tires with wheel chocks.
2. Make sure trailer landing gear / jacks are resting on a firm, level surface.
3. Towing vehicle must be stationary with auto transmission in park (manual in neutral), emergency brake applied and engine off.

Never exceed the towing capacity (trailer and contents combined) of any towing system component or your vehicle.

Improperly coupled trailers can separate or drop without notice, causing serious injury or death. To reduce the chance of serious injury or death:

Never attempt to couple trailer without reading and following all instructions thoroughly.

Always follow operating instructions to secure trailer to tow vehicle. Make sure the hitch is secure before towing.

Prior to towing, ensure all components and hardware are structurally sound and secure.

Always chock the trailer to prevent movement while coupling the hitch.

Always ensure lynch pins are installed through handle before towing.

Always perform a pull test prior to towing. See 'pull test' later in this instruction manual.

Never position anyone under the trailer's kingpin area during coupling and uncoupling.

Do not torque upper M20 head pivot bolt (#6). The nut is designed to only make contact but not apply clamping force. If bolt is torqued it could cause bolt to fail causing hitch separation during use leading to severe injury or death. If hitch head appears loose the 20mm bolt can be removed and inspected for damage if any cracks or damage is visible immediately discontinue use of hitch.

Product Photo



ASSEMBLY

NOTICE

Before you begin installation, read all instructions thoroughly.

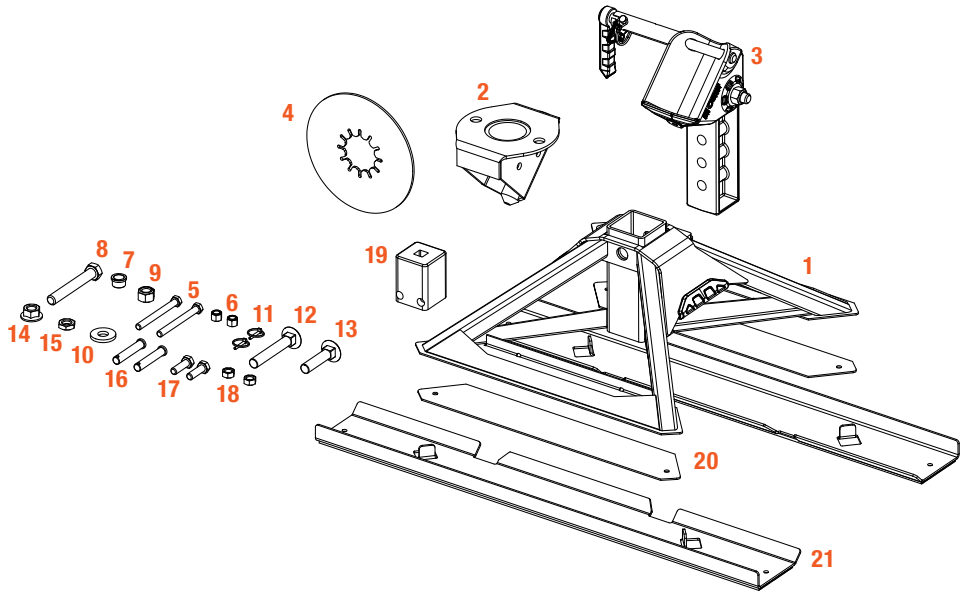
Proper tools will improve the quality of installation and reduce the time required.

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

Parts List

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21	2	Bed support rail*

*Not included, shown for reference only



CALCULATING HEIGHT

Before you begin

Assembly includes measuring the height requirement for the 5th wheel head in relation to the trailer ride height at the kingpin box and skid plate. Ideally, the trailer should ride as near to level as possible.

The 5th wheel is adjustable from 17-1/2" to 21-1/2", from the truck bed rails to the top of its skid plate. Adjustment is attained by adjusting the lower coupler assembly up or down, in relation to the legs, in 2" increments (typical clearance between the truck bed rails and the trailer should be a minimum of 5-1/2"). Follow the steps below to measure.

Step 1

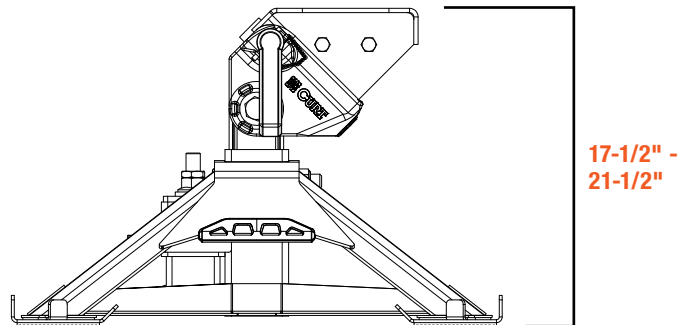
With the trailer on a firm and level surface, set chock blocks in front of and behind the tires. Do not substitute wood blocks, rocks, etc. for chock blocks. Extend front trailer lifting jacks, adjust as required to set trailer at or near level.

Step 2

Measure from the ground to under the trailer's kingpin box skid plate or lube plate, if used. This will be the portion in contact with the 5th wheel's skid plate once coupled.

Step 3

Measure from the ground to the surface of the truck bed. Subtract the measurement taken in Step 2 from Step 1. This value will be near the height requirement for the 5th wheel.



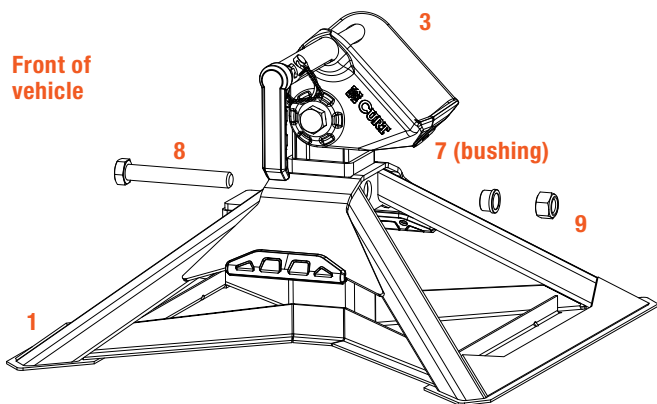
MAIN BODY ASSEMBLY

Before you begin

Once you have determined the height adjustment required for the 5th wheel, assemble the lower coupler assembly to the base weldment using the appropriate holes. Occasionally, the trailer's kingpin pin box will require adjustment to facilitate correct ride height.

Step 1 - Lower Coupler Attachment

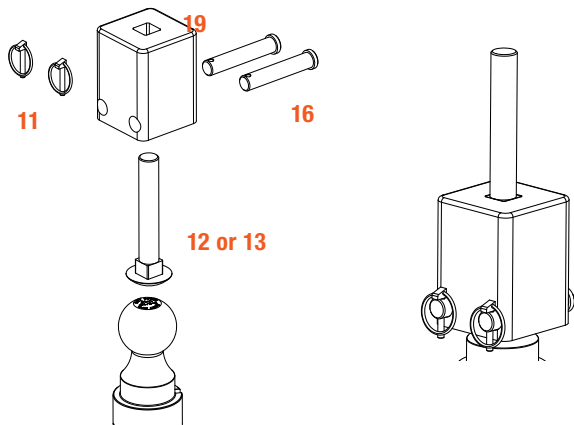
Attach lower coupler assembly (#3) to base weldment (#1) using the fasteners shown (#7, #8, #9) in the height position determined in the previous steps. Make sure the bushing is installed as shown and is toward the rear of the vehicle. Torque 20mm bolt and nut to 300 ft-lbs.



Step 2 - Place Coupler on Gooseneck Ball

Place either the 90mm long or the 130mm long 20mm diameter carriage bolt (#12 or #13) into the gooseneck ball coupler (#19). Make sure the square neck of the carriage bolt is seated into the coupler. **Note:** The longer carriage bolt is used for lower gooseneck balls and the shorter bolt is used for taller gooseneck balls.

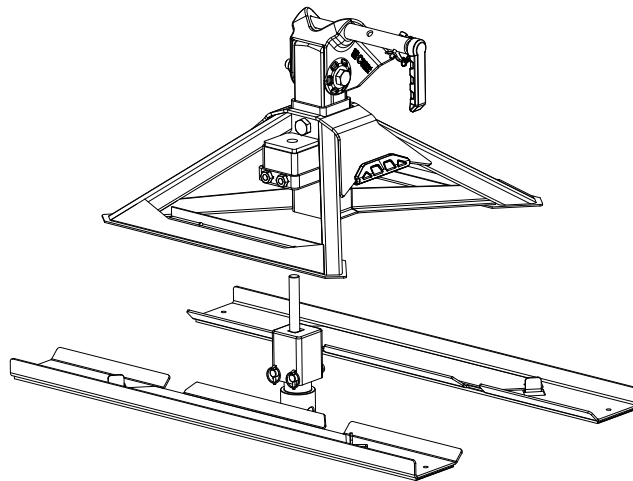
With the carriage bolt in place, lower the gooseneck ball coupler onto the gooseneck ball. Insert both clevis pins (#16) into the gooseneck ball coupler (#19) and secure with lynch pins (#11). The lynch pins should face to the front of the vehicle. **Note:** The gooseneck ball coupler will only work with a 2-5/16" diameter gooseneck ball.



Step 3 - Mount hitch to gooseneck coupler

Place the assembled hitch onto the carriage bolt that is inserted into the gooseneck coupler, making sure the lynch pins face forward as shown below. Pull the carriage bolt through and make sure the square neck of the carriage bolt is seated into the square opening in the gooseneck coupler.

Note: The plastic pads and bed support rails shown are sold in a separate kit but are required for installation into a traditional pickup truck bed. Failure to use bed support rails and plastic pads in certain applications may void the vehicle warranty.

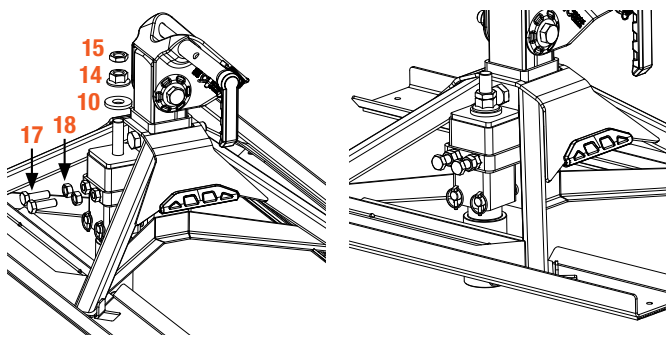


Place a 20mm flat washer (#10) over the carriage bolt and secure with a 20mm flange nut (#14). Torque the 20mm flange nut to 100 ft-lbs. Place a jam nut (#15) on top of the flange nut and tighten. Thread the two 14mm hex head cap screws (#17) into the 14mm nuts (#18) and place into the 14mm weld nuts on the hitch. Torque each 14mm hex head cap screw to 50 ft-lbs. Tighten the 14mm nuts.

Note: Make sure the 14mm hex head cap screws are allowed to place pressure on the gooseneck hitch coupler.

⚠ WARNING

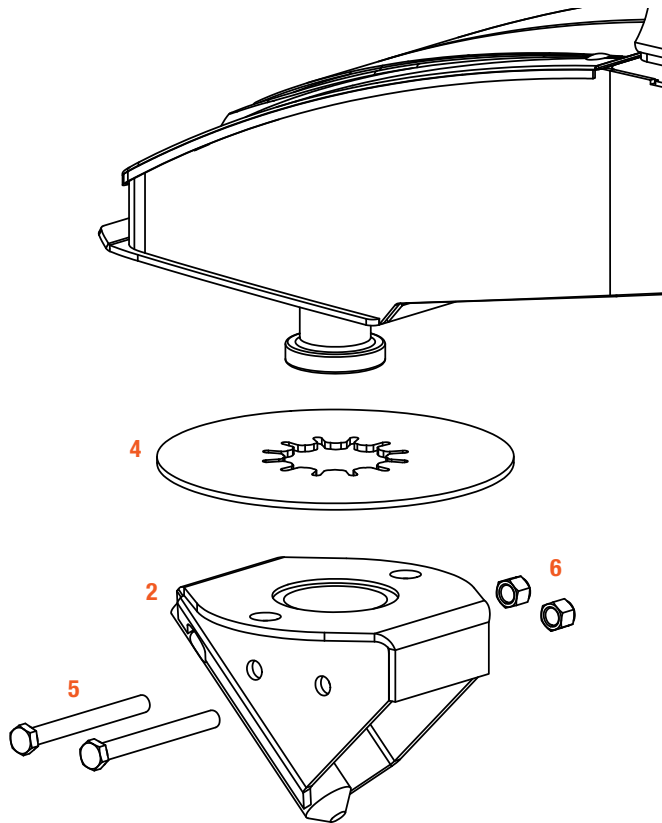
The 20mm carriage bolt must completely protrude through the 20mm flange nut and 20mm jam nut. In addition, the 14mm hex head cap screws must be allowed to make contact with the gooseneck coupler. If either of these conditions do not occur, it may indicate that the gooseneck ball is at too low of a position to work with the hitch. This condition could cause the carriage bolt to fail causing hitch separation during use, leading to severe injury or death. If the gooseneck coupler appears loose, the 20mm carriage bolt should be removed and inspected for damage. If any cracks or damage is visible, immediately discontinue use of hitch.



UPPER COUPLER INSTALLATION

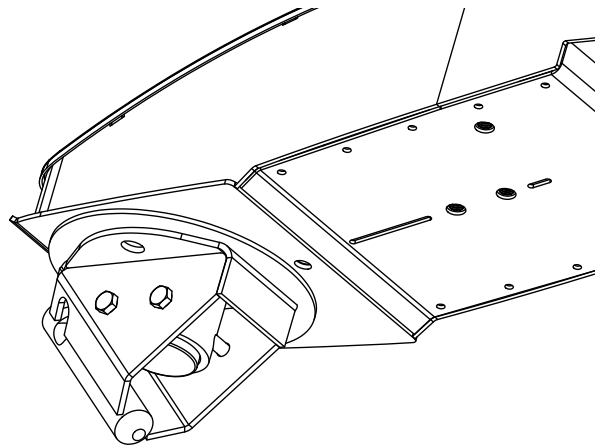
Step 1

Place upper weldment (#2) and lube plate (#4) as shown, on trailer king pin. While holding the upper weldment tight against the pin box, insert two 1/2" hex bolts (#5) through the upper weldment and secure with 1/2" nylock nuts (#6).



Step 2

Torque the 1/2" hex bolts and nuts to 65 ft-lbs.



Step 3

Make sure the the upper weldment (#2) spins freely around the king pin.

COUPLING & LOCKING

⚠ WARNING

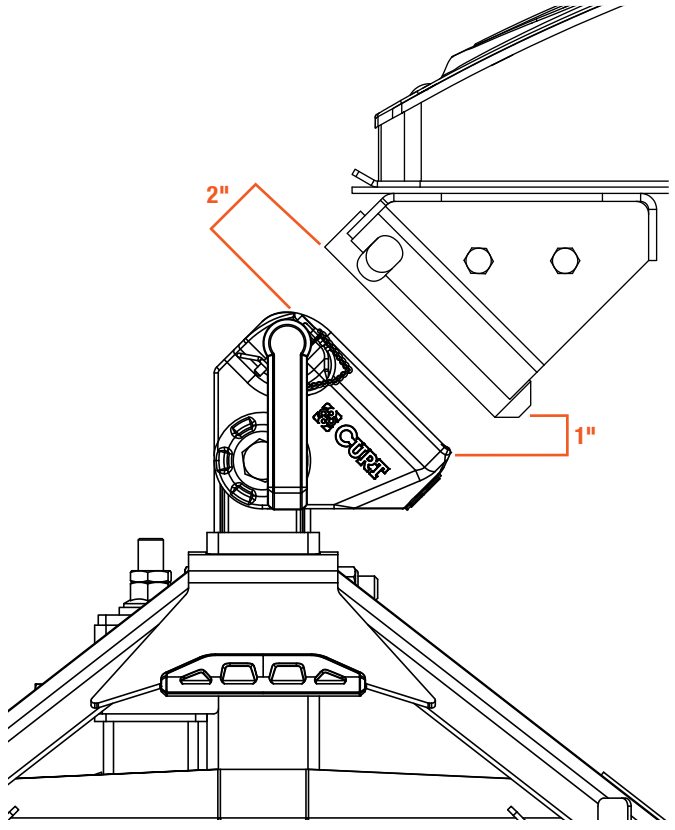
Never position yourself or others under the trailer's kingpin area (danger zone) during coupling and uncoupling. If for any reason, you must position any part of your body under the trailer or between the truck and trailer or between the trailer kingpin and 5th wheel hitch, you must follow the steps in the 'Danger Zone Precautions' on page 1.

Preparing the vehicle and trailer to couple

It is advised to perform trailer connections to the 5th wheel on a firm and level surface. Multiple wheel chocks should be used in front of and behind the trailer tires. Do not substitute objects such as, but not limited to: stones, wood blocks, etc.

Open or remove tailgate as required to safely back the tow vehicle under the trailer and center the trailer coupler with the opening on the hitch head. Stop the tow vehicle when the trailer's coupler is approximately 2" from the coupler on the fifth wheel trailer.

Ensure the trailer wheels are chocked and proceed to raise or lower the trailer jacks to position the coupler 1" above the hitch head as shown.



Step 1 - Preparing the 5th wheel to couple

Check for any signs of damage to the locking mechanism. If any of components are missing or damaged, do not attempt to use the hitch until it has been repaired.

Check to make sure 20mm bolt holding the lower coupler assembly to the base is not loose if needed re-torque to 300 ft-lbs.

Step 2 - Preparing the 5th wheel to couple

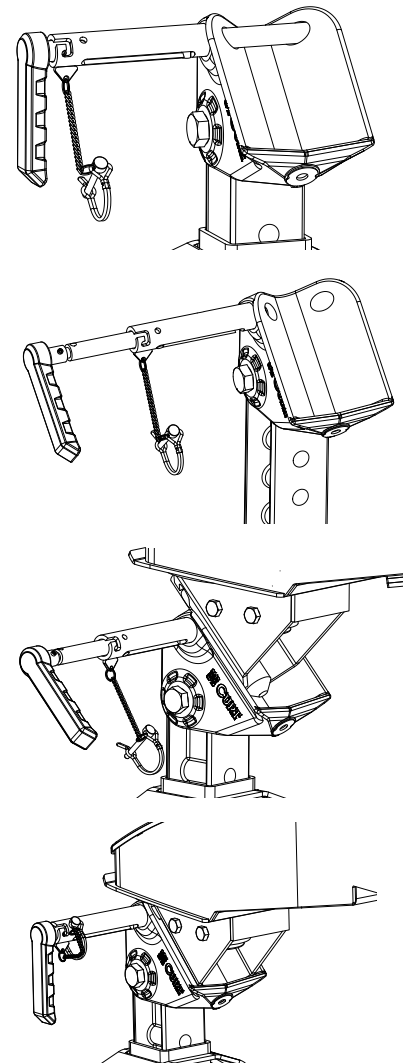
Ensure the locking mechanism is free of excessive dirt, rust, grease, snow, ice or other foreign material preventing it from cycling properly. Clean excessive dirt, snow or ice with warm soap water. Lightly lubricate exposed surfaces with a rust inhibitor to restore proper operation. Components with excessive amounts of rust may require replacement to restore proper functionality.

Step 3 - Coupling & Locking

Remove the safety pin on the 5th wheel's handle. Push handle in and turn counterclockwise until rotation stops. Then pull handle completely out to allow coupling.

Back the tow vehicle the rest of the way slowly until trailer coupler contacts face of hitch. Set the parking brake and raise the jacks on the trailer until trailer coupler has seated fully into hitch coupler (if coupler does not seat fully, the vehicle might need to be moved slightly forward to relieve tension on the hitch)

Push the hitch handle in and turn clockwise to the locked position and re-insert the safety pin. Check to make sure handle is fully inserted and safety pin is in place prior to performing pull test, raising camper jacks fully and removing wheel chocks.



COUPLING & LOCKING (CONT)

Pull test

After coupling and prior to removing trailer wheel blocks and / or raising front trailer jacks, you must do the following.

Set towing vehicle in a forward gear and lightly tug on the trailer to ensure that 100% coupling has taken place. If resistance is felt, release forward pressure, set vehicle to park (if equipped with an automatic transmission) and activate the emergency brake. Place in neutral if equipped with a standard transmission and activate emergency brake.

If resistance is not felt, trailer may not be coupled correctly. Do not continue applying forward pressure, immediately stop and back towing vehicle into original position. Do not allow the truck and trailer to separate. Separation can cause damage to the towing vehicle, 5th wheel hitch and / or trailer. Serious injury or death may result if all warnings are not observed.

Review coupling instructions, apply corrective action and repeat coupling steps.

Preparing to tow

Confirm handle safety latch pin has been installed.

Attach electrical harnesses.

Attach lanyard and insert electric brake break-away plunger. If hydraulic surge brakes are present, attach lanyard from the surge brake assembly as required.

Fully retract front trailer lifting jacks.

Close truck tailgate or reinstall tailgate as required.

Remove tire chock blocks.

Check running lights, directional signals and brake lights for proper operation.

Pull forward a few feet and apply brakes to check that trailer brakes are activating. Adjust the electric brake controller if necessary.

UNCOUPLING & RESETTING

Step 1

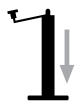
Park on a firm and level surface. Set automatic transmission vehicles to park and activate emergency brake. Set standard transmission vehicles to neutral and activate emergency brake.



Chock the trailer wheels. Multiple wheel chocks should be used, both in front and behind the tires. Do not substitute objects such as stones, wood blocks, etc.



Disconnect all harnesses, lanyards, safety devices, etc. as required to separate the trailer from the tow vehicle. Lower or remove truck tailgate as required.



Begin extending the front trailer lifting jacks. The lifting jacks should be extended just enough to remove the weight of the trailer from the 5th wheel skid plate.

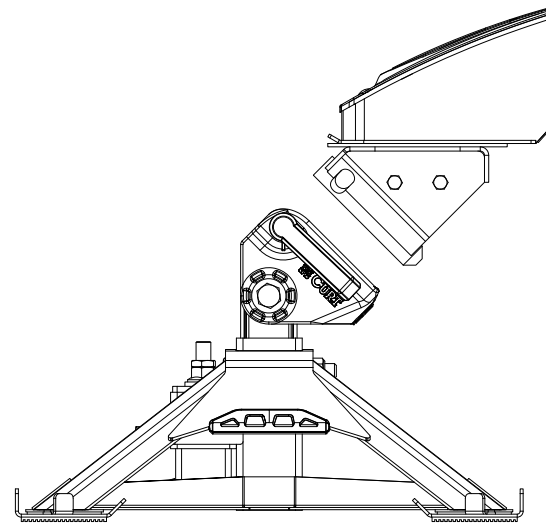
Note: Do not lift rear of vehicle with trailer jacks as this will make it difficult to pull handle out.

Step 2

Remove the safety pin on the 5th wheel's handle.

Push handle in and turn counterclockwise until rotation stops. Then pull handle completely out.

Lower jacks until trailer coupler clears hitch coupler.



Step 3

Remove the parking brake and slowly drive the tow vehicle out from under the trailer. If resistance is encountered, determine the corrective action and repeat uncoupling steps.

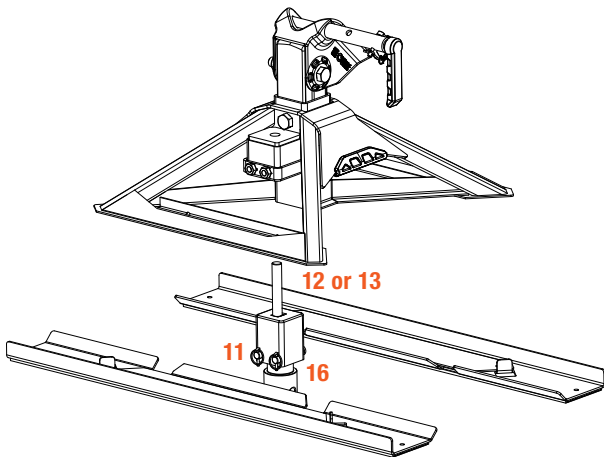
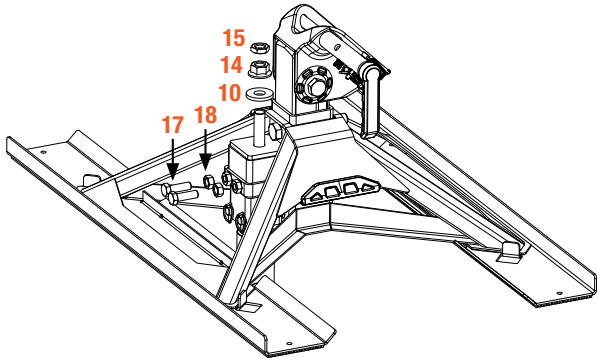


REMOVE & REINSTALL

Removal

To remove the entire 5th wheel hitch from the base rails, follow the steps and diagram below.

1. Loosen the 14mm jam nuts (#18) and 14mm hex head cap screws (#17)
2. Remove the 20mm jam nut (#15), 20mm flange nut (#14) and 20 mm washer (#10)
3. Lift the hitch off from the 20mm carriage bolt (#12 or #13)
4. Remove the lynch pins (#16) and clevis pins (#11) from gooseneck ball coupler



Re-installation

Reinstall the 5th wheel in the reverse order it was removed.

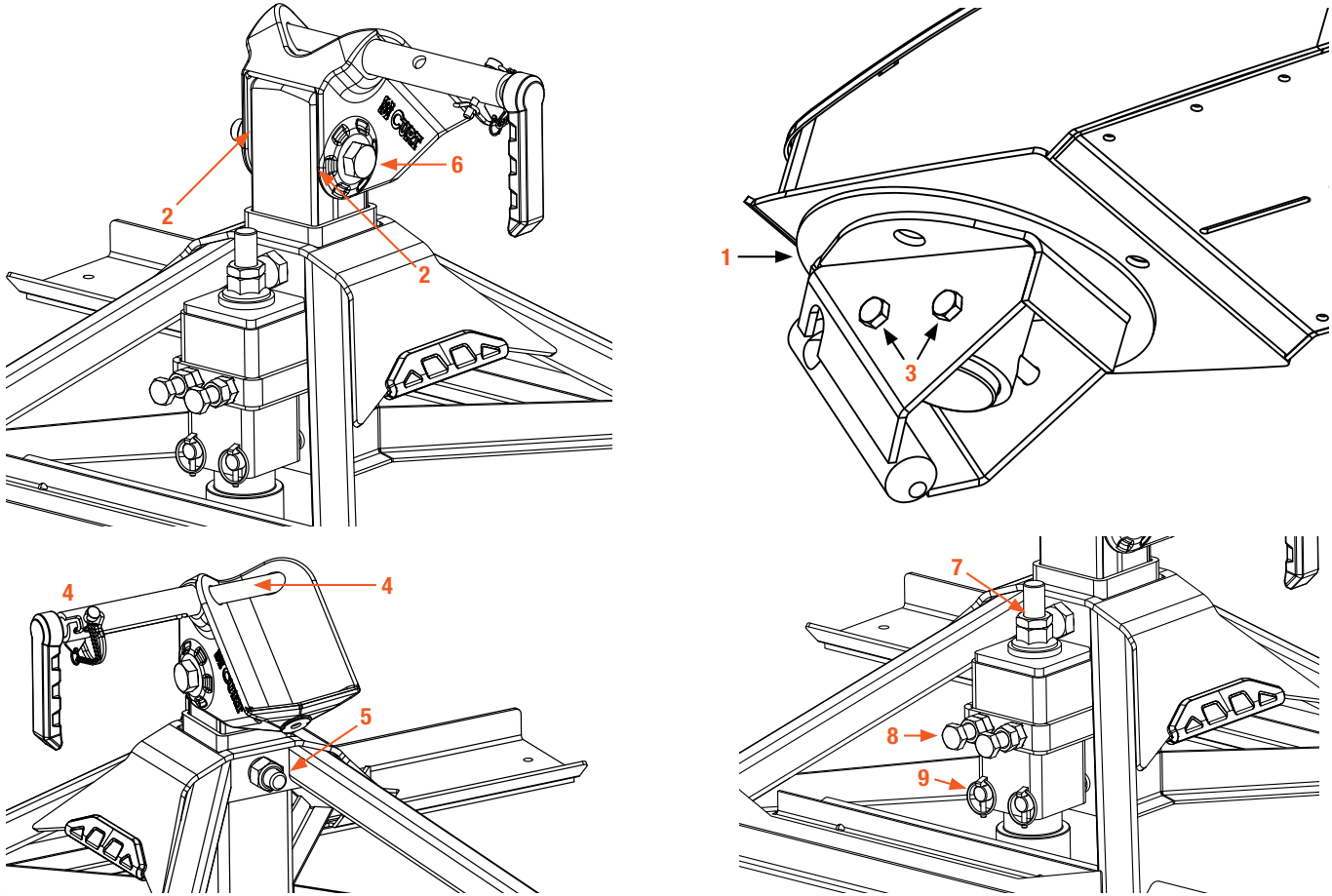
⚠ WARNING

Do not torque upper M20 head pivot bolt (#6) nut is designed to only make contact but not apply clamping force. If bolt is torqued it could cause bolt to fail causing hitch separation during use leading to severe injury or death. If hitch head appears loose the 20mm bolt can be removed and inspected for damage if any cracks or damage is visible immediately discontinue use of hitch.

MAINTENANCE

Maintenance

The CURT 5th wheel hitch has been designed to offer years of safe and reliable service. To achieve the best performance and the longest possible service life, please follow the maintenance schedule below.



Component	Frequency	Instructions
Inspect lube plate	Before each use and every 1,000 miles	Inspect the condition of the lube plate (#1). If worn replace with (CURT# 16722)
Lubricate the head pivot point	Before each use	spray light dry film lubricant (#2)
Torque the 1/2" bolts	Every 1,000 miles	Torque the two 1/2" hex bolts (#3) to 65 ft-lbs. Re-torque after initial 500 miles and every 1,000 miles thereafter.
Handle pin	Before each use	spray light dry film lubricant (#4)
Torque lower M20 bolt	Before each use and every 1,000 miles	Torque lower bolt to 300 ft-lbs (#5)
Clean the 5th wheel hitch	After each use and before long term storage	For optimal service life, clean your 5th wheel hitch after each use with warm soapy water and dry with towels or compressed air. It is also recommended that the 5th wheel is removed from the vehicle or covered when not in use for extended periods of time. Spray exposed surfaces with a light coat of rust inhibitor before long term storage.
20mm carriage bolt and nuts	Before each use and every 1,000 miles	Torque 20mm flange nut on 20mm carriage bolt to 100 ft-lbs and secure 20mm jam nut (#7)
14mm bolts and 14mm jam nuts	Before each use and every 1,000 miles	Torque 14mm bolts to 50 ft-lbs and secure 14mm jam nuts (#8)
Lynch pins and clevis pins	Before each use and every 1,000 miles	Inspect lynch pins and clevis pins for wear or damage (#9)