

# **21+ FORD BRONCO** TIRE CARRIER INSTALLATION INSTRUCTIONS

Thanks for purchasing a Reaper Off-Road tire carrier for your 21+ Ford Bronco. Our team has worked to ensure that this product is the premium in performance, quality, and fitment. We are proud to say that this product will enhance the look and off-road performance of your vehicle. We encourage you to read through the following steps, and check the included Bill of Materials before beginning. Please follow these steps to ensure that your installation goes as planned.

Our products are specifically designed with ease of installation in mind. However, if you are uncomfortable with the following instructions please seek professional assistance. Reaper Off-Road will not be held liable for harm or injury to yourself or your vehicle during installation or use of this product.



### Recommended Tool / Items List

- Metric socket set
- Inch socket set 1-7/16" socket required
- Ratchet
- Hex key set
- Breaker bar or long handle ratchet
- Blanket or towel
- Bearing Grease



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#### DISASSEMBLY

Steps may vary depending on trim level and optional equipment. If you are installing both a tire carrier and one of our rear bumpers, you must install the tire carrier first.

- **1.** Begin by removing the rear bumper. Disconnect the wiring harness from the back of the license plate light.
- 2. Use an 18mm socket to remove (4) bolts under the frame rail (2) at each side. Remove tow hooks (if equipped).
- **3.** Use a 13mm socket to remove (2) bolts from the tabs at the outside of the frame (1) per side. Remove the bumper from the vehicle.
- 4. Remove the spare tire by loosening the (3) lug nuts.
- 5. Remove the factory tire carrier by removing the (8) bolts holding it to the rear door using a 13mm socket. You may want to open the rear door and hang the bracket to the inside, to avoid damage to the paint.
- 6. Remove the 3rd brake light housing from the carrier by removing the (4) T30 torx screws holding it to the tire carrier.
- 7. Open up the 3rd brake light housing by removing (6) T25 torx screws.
- 8. Unplug the 3rd brake light and remove it from the housing by removing (2) T25 torx screws. Keep these screws for reassembly.
- 9. Remove the camera housing and stud plate by removing the (2) torx screws at the front face of the tire carrier.
- **10.** Unplug the camera wiring from the back of the camera. Do not remove the camera from the housing.



Detail 2: Remove OEM hardware



Detail 6-7: Remove 3rd brake light housing



Detail 8: Remove 3rd brake light



Detail 10: Disassembled carrier

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#### ASSEMBLY

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- 11. Begin by installing the FTC01-A mounting bracket to the frame. Slide the bracket onto/around the PAGE 3 passenger side frame rail.
- **12.** At the bottom side of the frame rail install (2) 12mm bolts(H), (2) lock washers(X), and (2) washers(N). *Make sure you are using the correct thread on this step to match the OEM hardware. These bolts will be marked with "8.8" on the head. If you can not turn the bolts by hand, double check that the correct item is being used.*
- 13. At the body mount install (2) 1/2" bolts(I), (2) lock washers(X), (4) washers(N), and (2) nuts(U). Insert the bolts from the underside.
- 14. Under the spindle install (1) 1/2" bolt(I), (1) lock washer (X), (2) washers(N), and (1) nut(U).
- **15.** Towards the center of the frame, top to bottom install (1) 1/2" bolt(K), (1) lock washer(X), (2) washers(N), and (1) nut(U). Insert the bolt from the underside.
- 16. Towards the center of the frame, front to back install (1) 1/2" bolt(J), (1) lock washer(X), (2) washers(N), and (1) nut(U).
- **17.** Fully tighten all mounting hardware.
- 18. Slide the seal onto the spindle. The gold side should be up, and the black side down.
- **19.** Pack the bearings with bearing grease. The grease should be fully worked in and around the rollers.
- 20. Set the inner bearing race onto the spindle, and push it into place just above the seal. The direction of the taper should be large at the bottom, small at the top. Install the outer race onto the bearing.



Detail 17a: FTC01-A installed



Detail 17b: FTC01-A installed



Detail 18: Pack bearings with grease



Detail 19: Install bearing onto spindle

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#### **ASSEMBLY** (cont.)

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- TIRE CARRIER
- 21. Prepare the swing arm (FTC01-B) by installing the bearing outer races into the sleeve. PAGE 4 Be sure to install these in the correct orientation - the taper should be smaller at the inserted end, and larger at the outward-facing end to match the taper of the rollers. You do not need to press-fit these items in - simply start them into the sleeve. The nut will press them into place.
- **22.** Install the swing arm onto the spindle.
- 23. Pack some additional grease into the assembly, between the bearings.
- 24. Insert the second taper bearing small side down, large side up.
- 25. Install the 1" washer(O) and lock nut(V). Secure with 1-7/16" socket until the swing arm is secure do not over tighten. Check that the arm swings smoothly.
- 26. Install the spindle cap (TCS03).
- 27. Accent plates should be painted in advance if you choose to do so. Install the logo accent plate to the swing arm using the provided 1/4" hardware (2) screws(B), (2) washers(L), (2) nuts(R). Use a 7/16" wrench and a 5/32" hex key to secure.
- 28. Prepare the tailgate mounting bracket (FTC01-E1) by installing the foam weatherstripping around the outer and inner edges, as shown below. Cut gaps for bolt holes where needed.
- 29. Install the tailgate mounting bracket to the rear door using (6) bolts(E) and (6) washers(M) skip the (2) holes at the upper left for this step. Use a 13mm socket to secure.
- 30. Install the polyurethane bumper into the catch bracket, using (3) bolts(C), (6) washers(L), and (3) nuts(R). Use a 7/16" wrench to secure. Do not overtighten the bumper piece is soft, you will see it begin to compress before it feels tight.
- 31. Install the catch bracket at the top left corner of the tailgate plate. Use (2) bolts(E), and (6) washers (M).



Detail 21: Outer races installed into sleeve



Detail 26: Spindle cap installed



Detail 28: Attach seal to tailgate plate



Detail 31: Tailgate plate and catch bracket installed

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#### **ASSEMBLY** (cont.)

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- 32. Install the tire height bracket (FTC01-C) to the swing arm. The mounting height is adjustable PAGE 5 depending on your tire size. The lowest setting is for 35" or smaller, the middle is for 37", and the highest setting is for 40". Use the provided 8mm hardware (4) bolts(E), (4) lock washers(W), (8) washers(M), and (4) nuts(T). Use a 13mm socket and wrench to secure.
- **33.** Assemble the links. Install (2) jam nuts(S) to (1) threaded rod(D). Install (2) rod ends(Y) and set the center to center length to about 4-1/4". Tighten the jam nuts to each rod end. Repeat for the second link.
- 34. Install the links to connect the swing arm to the tailgate plate. Use (1) 8mm bolt(F), (1) spacer(P), (1) washer(M), and (1) nut(T) at each of the (4) connections. The spacer must be used at the head side of the bolt. The link should rest flat across the two tabs. Use a 13mm socket and wrench to secure each. Check that the door opens and closes properly, and adjust as needed.
- **35.** Install the tire depth bracket (FTC01-D) into the height bracket. Use (2) spacers(Q) between the brackets and (2) bolts(G), (2) lock washers(W), (4) washers(M), and (2) nuts(T). One set of hardware will be used in the round hole, and the other will be used in the slot. The depth of this bracket will vary depending on your wheel offset and tire width hardware should be left loose at this time until the depth is set.
- **36.** Set the depth by mounting your spare to the studs on the depth bracket. Use your lug nuts to pull the wheel tightly to the plate. Slide the tire back until the rubber contacts the swing arm. Grab a marker and reach inside the wheel to mark the current position.
- 37. Remove the lug nuts and remove the spare tire.
- **38.** Find the mark you made on the depth bracket. Make another mark at a position about 3/8" deeper. Slide the bracket to that position and secure the hardware with a 13mm socket and wrench.



Detail 32: Tire height bracket installed - 35" position



Detail 33: Assemble links



Detail 34: Links installed



Detail 38: Tire depth bracket installed

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#### **ASSEMBLY** (cont.)

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- **39.** The OEM plastic camera housing will not be used. Remove the camera and the retaining bracket. PAGE 6 Reinstall these items into the provided camera bracket with the included #8 screw(A).
- 40. Pull the camera wiring through the hole in the depth bracket.
- **41.** Reconnect the wiring to the camera.
- **42.** Install the camera housing onto the studs.
- 43. Install the rear camera cover (FTC01-F) by sliding into position over the studs.
- 44. Install the spare tire onto the carrier and secure with your lug nuts.
- **45.** Prepare the 3rd brake light bracket (FTC01-G1) by installing the OEM 3rd brake light using the original screws removed in step 8. Use a T25 torx screwdriver to tighten.
- **46.** Install the light bracket into the center tower of the swing arm. The height of this bracket is adjustable depending on the tire size. Choose the setting that best fits your tire, and secure in place using 1/4" hardware (4) screws(B), (8) washers(L), and (4) nuts(R).
- 47. Reconnect the wiring for the 3rd brake light.



Detail 42: Camera housing installed



Detail 43: Camera cover installed



Detail 47: 3rd brake light bracket installed

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