

Expedition One

FJ Rear Smooth Motion Tire Carrier Install Instructions

Parts list:

Carrier Arm
Door mount plate
Tire mount plate
1 Bump Stop
2 Hind Joints Joined with Rod
2 Races – pre-installed in carrier hub (Picture 2A & 2B)
2 Bearings, one large, one small
1 Grease Seal
8 Spacer Sleeves
Engraved Aluminum Hub cover
Anti-seize lubricant

FJ Carrier Hardware

½ "x13x4 ½ " GR 5 ZP Hex Cap Bolt (qty 1)
½ "x13 x 4" GR 5 ZP Hex Cap Bolt (qty 1)
½ " SAE GR 8 ZP Hard Flat Washer (qty 4)
½ "x13 GR 8 ZP Nylon Locking Nut (qty 2)
1" SAE ZP Hard Flat Washer (qty1)
1" ZP Nylon Locking Nut Thread pitch14 (qty1)
Tire Mount Bolts, nuts and washers
3– ½ x 1 ½ grade 8 bolts
3– ½" Nylon Locking Nut
6– SAE grade 8 hard flat washers

Install is similar to JK Rear carrier install–see YouTube video at <http://www.youtube.com/ExpeditionOneTV> The FJ has only 1 Bump Stop which mounts to carrier arm instead of the door; hind joints and spacer sleeves are used instead of coupling. Be sure to use anti-seize lubricant on hub cover threads (not shown on video).

Prepare to Install Spare Tire Carrier onto Bumper:

Prepare tire mount for later installation of tire: THIS MUST BE DONE BEFORE INSTALLING CARRIER ARM TO BUMPER
When installing the tire mount, IT IS IMPORTANT to have the tire snug against the tire carrier. The best thing to do is to fit the tire on the tire carrier mount while on the ground to avoid lifting a heavy tire and wheel repeatedly.
PLEASE MAKE SURE YOUR TIRE IS NOT INFLATED OVER 35 LBS.

We recommend this method:

1. Lay the tire and wheel face down. Set the tire mount on the backside of the hole pattern.
2. Slide the carrier in place and lay it on the tire. (Picture 1A)
3. Make a mark using a marker (or something you can see) to indicate the flush mounting point (Picture 1B).
4. Install the tire mount on the carrier moving it back about 1/4" to 3/8" from the marked position JUST FAR ENOUGH TO COVER YOUR MARKING LINE. Use the 3 supplied 1/2" x 1 1/2" bolts with washers and nylock nuts. The tire should then fit snug on the carrier when installed later.



Picture 1A



Picture 1B

Attach Door Mount Plate to FJ rear gate
(after removal of OEM tire mount bracket)



Install the rubber bump-stop on the carrier.



Installing the Spare Tire Carrier:

Prepare Hub/Spindle

APPLY PLENTY OF GREASE TO BEARINGS AND GREASE SEAL– USE HIGH TEMPERATURE WATERPROOF GREASE.

IMPORTANT NOTE: Installing the grease seal. The grease seal can be installed 2 ways. It can be put on the spindle and pushed in place while installing the carrier hub over the spindle. For some this way is easier, but we would recommend the 2nd method. This method requires putting the bearing in the hub first and then putting in the grease seal (See YouTube video) before placing hub on spindle.

Grease both bearings as directed. Then install the greased large bearing into the lower hub opening (and the grease seal if you use that method).

With the small bearing greased and ready to install, you are ready to put the carrier assembly loosely on the spindle. Put the hub over the spindle, resting it on the bottom bearing, then insert the top bearing and seat the bearing. If everything is correct the carrier should be able to stand up in correct position without being held. Install washer and nylock nut to top of spindle and tighten until snug.

DON'T WALK AWAY FROM THE CARRIER WHILE IT IS OPEN!!! IT COULD SWING INTO YOUR VEHICLE. You can gently rest the carrier against the bump-stop.

The large spindle nut can now be tightened to snug. **BE CAREFUL NOT TO OVER TIGHTEN.** There is a difference between the effort needed for a petite young woman (install video) and a typical guy.

NOTE: Picture to right shows the proper configuration for the bearing assembly.



Connect Carrier Arm to Door Mount Plate using bolts, joints, and spacers as shown in these photos:



DO NOT TIGHTEN BOLTS WITH NUTS UNTIL ADJUSTMENTS ARE COMPLETE

Overall, you want the carrier to be snug against the rear door. The coupling joints are the key to this. With the rear gate and carrier in the closed position, you can now start the adjustment of the coupling joints. You may need to adjust the height of the coupling joints with the spacers so it doesn't bottom-out. NOTE: The door and the carrier swing at slightly different angles.

With the tire carrier installed and the door in the closed or almost closed position, the bump-stop needs to be making contact with the door. Adjust the coupling joint so that when the door is open and is 1 to 2 inches from closing, the bump-stop initially contacts the door mount plate on the tail gate (this may need to be adjusted later when the spare tire is mounted to the carrier). You want the carrier to shut and be snug but not overly tight.

If the door swings with little or no binding the installation can now be completed. Once it is tight, check the swing. If there is little or no binding you may move to the post install section and finish the install.

Post installation

If the carrier is swinging properly free of binding on the door and the joints, you can now tighten down all bolts and install the engraved aluminum cap or hub cover. It is a good idea to use an anti-seize lubricant on the cap threads

Install the spare tire on the tire mount plate, which was previously secured to the carrier after insuring proper fit in the "*Prepare tire mount for later installation of the tire*" section above.

NOTE::: You may want to come back and check all the bolts in a few weeks or after a nice off road trip. The bolts can loosen a bit.

Extra pictures for install help:

Top bearing race check:

Picture 2A



Picture 2B



If you have questions or comments, please email us at info@expeditionone.biz or call 1-877-366-3099

THANKS FOR PURCHASING THE EXPEDITION ONE REAR BUMPER AND SMOOTH MOTION SPARE TIRE CARRIER SYSTEM!!

