



Smittybilt Scout Tent Rack Lift Strut Installation Instructions

Thank you for your purchase of the Habitat Offroad Lift Strut Kit designed for the Smittybilt Scout Overland trailer. The following instructions outline the installation of this kit. Please read the entire instructions before beginning the installation.

The Habitat Offroad Lift Strut Kit is designed to assist Smittybilt Scout owners in lifting and lowering their trailer mounted roof top tents. The kit allows full extension of the trailer tent rack, with the lowest position being 6" above the tent main body. This allows for the greatest amount of extension without placing long oversized gas struts in damage prone areas. The gas strut kit is designed to assist the user in lifting and lowering the tent, it is not an automatic system. Before starting the installation, please read the entire installation instructions. Please contact us with any questions before starting at sales@habitatoffroad.com or by calling +1(214)973-0504.

Items Included:

- (4) Gas lift struts
- (4) Upper strut mounts
- (4) Lower strut mounts
- (8) M10 x 1.5mm x 60mm BH cap screws
- (8) M10 x 1.5mm nyloc nuts
- (16) M10 washers
- (8) M6 x 1.0mm x 16mm BH cap screws
- (8) M6 x 1.0mm nyloc nuts
- (16) M6 washers
- (4) 5/16"-18 nyloc nuts
- (4) 5/16" washers

Tools Needed:

- Ratchet
- 17mm socket
- 8mm Allen wrench
- 4mm Allen wrench
- 10mm wrench
- 1/2" wrench
- 1/2" socket
- Torque wrench
- Drill
- 1/8" drill bit
- 1/4" drill bit
- Center punch
- Tape measure
- Safety glasses
- Copper anti-seize
- Masking tape
- A friend

Installation Time: 1 hour

Disclaimer of Liability: Installing, operating, or otherwise utilizing this device in any way, indicates the owner of this device and/or vehicle it is installed in has read, and accepted, these terms and conditions and limits of liability and warranty. **Use of this device is at the owner's own risk.** Habitat Offroad LLC shall not be held liable for any damages whatsoever resulting from the use or installation of this product regardless of the cause, including but not limited to defect in material or workmanship, misuse or improper installation of the device, accident regardless of cause, or negligent or faulty design. The owner hereby waives all liability claims against Habitat Offroad LLC and associated personnel.



Smittybilt Scout Tent Rack Lift Strut Kit



Instructions

Step 1: Park trailer on flat, level surface. Verify trailer parking brake is applied, and wheels chocked. Work smart, be safe. As with any outdoor assembly utilizing stainless hardware, we HIGHLY recommend using copper anti-seize on all fasteners to prevent galling and seizure.

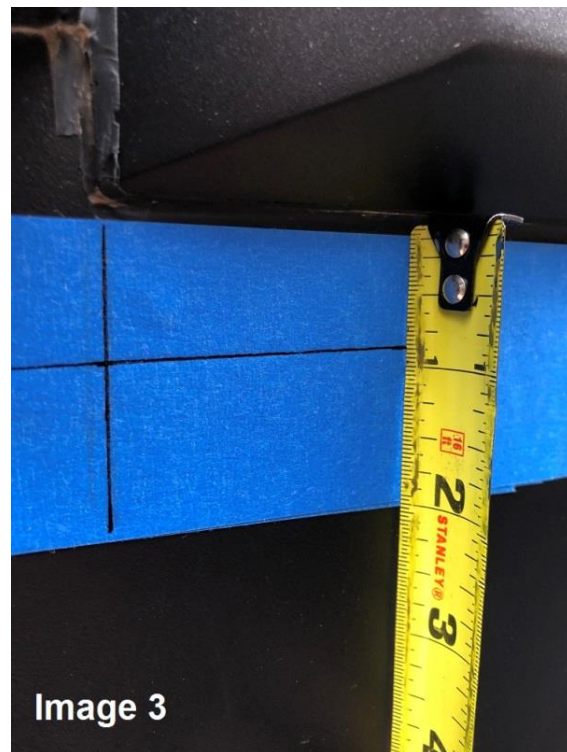


Image 1

Step 2: The kit can be installed with or without a roof top tent installed, but final setup will take place once the tent is installed. With a friend, position the tent mounting rack in the highest setting; the mounting pins should be in the 9th hole. Mounting pins should be installed from the outside of the rack (you will have to open the generator door and kitchen door to install front pins). Rotate the 4 upper tie-down eyelets to vertical use a pair of pry bars, crescent wrenches or equivalent.

Step 3: Apply tape to trailer body towards the inside of each tent rack mounting tubes, below the body gusset as shown in Image 1. Repeat this step for all 4 mounting tubes.

Step 4: Using one of the upper mounts as a straight edge, hold the mounting surface to the inside of the main rack mount and scribe a vertical line with the pen onto the tape; see Image 2. Measure from the base of the body gusset down 7/8" and mark a horizontal dash. Repeat this towards the middle of the trailer to establish a horizontal index. Using a straight edge, connect the dashes; see Image 3. Repeat on all 4 taped areas.



Step 5: Using the lower strut mount, align the outside edge of the mount with the vertical line you drew in Step 4. Center the mount vertically on the horizontal line; see Image 4. Mark the hole locations on the tape and remove the lower mount. Repeat this step on all 4 taped locations. Do not drill as this time. Continue with Step 6, as we will verify the lower mount location.

Step 6: Install the upper mounts with the mounting flanges with the strut mount tab running parallel with the length of the trailer and tabs pointing towards the middle of the trailer using the M10 x 1.5mm x 60mm stainless button head cap screws, M10 washers, and M10 nyloc nuts; see Image 5. Don't forget the copper anti-seize. Torque the M10 fasteners to 15ft/lbs. Once installed, measure from the center of the upper strut mounting hole, down to the horizontal line we drew in Step 4. The measurement should be $27\frac{13}{16}$ ".

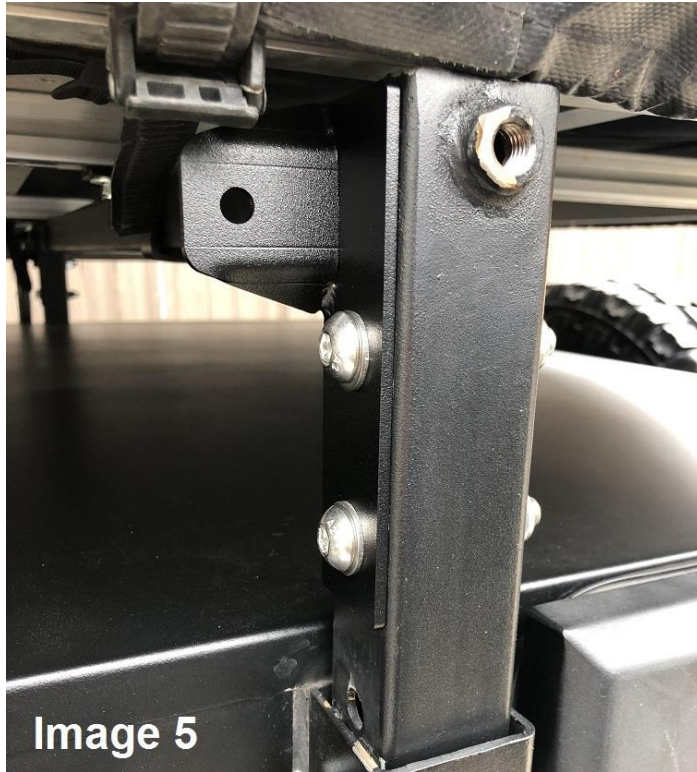


Image 5

Step 7: After verifying the measurement, center punch the mounting location of the two holes for the lower strut mount. Drill lower mount holes; we recommend starting with an 1/8" pilot drill bit and finishing with the 1/4" drill bit. Repeat on all 4 mounting locations and deburr holes.

Step 8: Install lower mounts with M6 x 1.0mm x 16mm stainless button head cap screw, M6 washers, and M6 nyloc nuts. Have a friend assist you in tightening the nuts from the inside of the trailer. Don't forget the copper anti-seize!

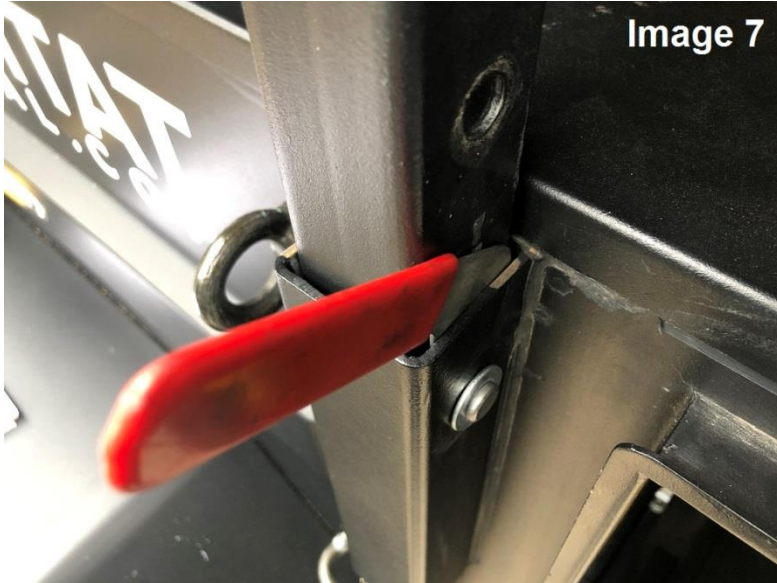
Step 9: Remove ball stud clips from the gas struts using a small screwdriver or your fingernail; see Image 6. Be sure to not lose any of the clips as they are easy to misplace. Next, remove the ball studs from the gas struts. Install 4 of the ball studs into the lower mounts, tightening with the 1/2" wrench. Install the remaining ball studs into the upper mounts utilizing the 5/16"-18 nyloc nuts and 5/16" washers.

Step 10: Install the gas struts with the main body towards to top. It is easier to install the lower ball cup onto the lower ball stud first, and then the upper. If all measurements are correct, you should have to slightly compress the gas strut to install onto upper ball stud.



Image 6

Step 11: You have now reached the most important step of the installation. **DO NOT SKIP THIS STEP!** Before attempting to raise or lower the tent, we must first align the mounting rack to make sure everything is as straight and square as possible. With the roof top tent mounted and fastened, loosen the rear tent mounting hardware on the trailer rack. Place a small shim of wood, sheet metal or small



wood, sheet metal or small screwdriver into the front rack mounting tube in order to center the front tube within the larger mounting square; see Image 7. Now adjust the rear mounting rack against the tent mount to center the rack within the larger mounting tube. Once close, tighten down the tent mounts and verify the position. Be patient and work from side to side, this step is important.

Step 12: Raise and lower your tent. The position of your tent, awning, etc. on the trailer will affect

the weight distribution on the rack and subsequent gas struts. Remember this when attempting to raise and lower your tent. If you have more overhang off the front of the rack, you will need to provide the manual lift assistance more towards the front when raising, and more towards the rear when lowering to offset the overhang. With practice, raising and lowering can be a quick one person job. The most important thing to remember is to have a light touch when assisting the struts. If you try to lift or lower too quickly from one corner, you will cause a bind in the rack mounts. Work slowly and allow the gas struts to assist in raising the unit. Thank you for being part of the Habitat Family!

