

WJ Modular Front Bumper Outer Wings DIY Assembly

1999-2004 Jeep Grand Cherokee WJ

Part number: DPL-WJ-FBSW, Revision 10/16/18

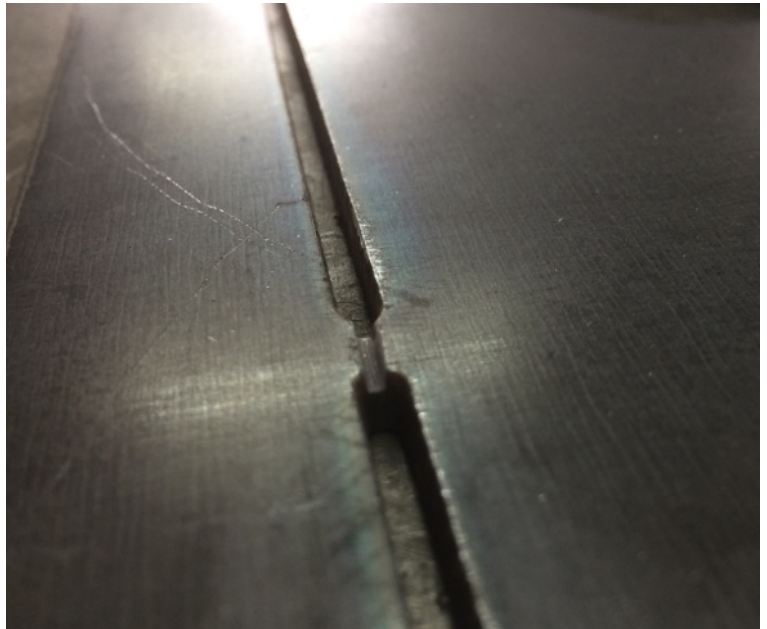
Thank you for purchasing the Trail Forged DIY WJ Modular Bumper - Outer Wings. We hope you will be as pleased with this product as we are. Tag us in a review on Facebook and we'll hook you up with 10% off your next order. We love seeing pictures of our products in action too; send photos to info@trailforged.com or tag us on FB or IG for a chance to be our feature rig.

Installation should only be performed by an experienced mechanic, if you do not have all the necessary tools, experience, or confidence to undertake this project, please seek help before beginning.

This is the DIY WJ Modular Bumper - Outer Wing assembly instructions for both the High clearance and Mid clearance options. After assembly, please see the wing installation instructions.

Step 1: Once unboxed, the wings are ready for building. The left and right wings are symmetrical, so the two must be folded in opposite directions to create mirror images for the two sides of the vehicle.

Step 2: On the face that will be visible, we recommend scoring the outside of each bend tab about halfway through to ease the hand bending process and keep the weld gaps smaller. (See picture to right)



Step 3: Hand bend all sections of the wings to their final shape (Note: If a piece cracks off don't worry, just realign and tack weld in place). Ensure that all weld seams are aligned, and tack weld the corners to fix the shape in place.

Step 4: Tack weld each wing at evenly spaced intervals to set every bent flange in their final position, and start preparing for finish welding. When approaching the finish weld process, do not concentrate too much heat in any specific area, so it is highly advisable to shift around and evenly distribute the heat along with letting things cool after longer welds. (See picture to right)



Step 5: Weld all seams, bouncing around to balance heat input as described. Once welded, you can choose to leave the welds exposed or grind them back to a nice bevel for a smooth appearance depending on your desired outcome. Note the final tab just inboard of the slot for the D ring is not finish welded yet, this will happen during the following steps.(See picture below)



Step 6: At this point you should have the shell of each wing half completed but not yet installed on the vehicle, prepped to your desired surface finish.

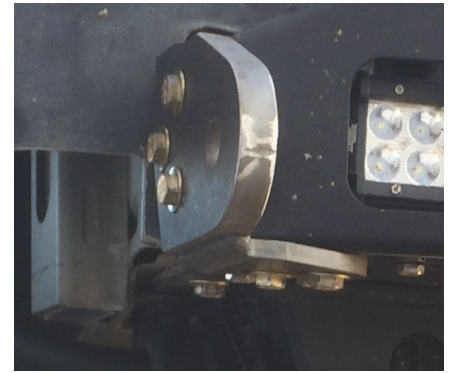
Note: If you have the Mid wing option (vs the High clearance option), there are additional supplied gussets to be installed inside the shell as shown in the below picture. These are the long “lightning bolt” looking plate components, which need to be scored and folded (or completely severed) and installed in the triangulated fashion shown below. These are an option meant to increase the wing’s rigidity, so their installation is highly recommended. (Note in the following image, there is a 3rd gusset to the left not supplied with the production kit, as it was deemed unnecessary.)



Step 7: To complete the next step of welding the bumper to your D ring tabs, you must have the sheetmetal removal part of the installation instructions completed, so proceed with those to create the room necessary for the final steps of the fabrication process. (See: Mid OR High Clearance Wing - Installation Instructions depending on your order).

Step 8: Once enough room has been cleared for the wing to set in place properly, we are ready to complete them. Bolt the two components of the D ring tab to the bumper, aligning them for a nice open corner joint for welding.

Step 9: With the D rings on the bumper (they can be welded at this point, or as convenient), the wing can be slotted over the D ring tab and aligned by hand. This is when the crucial alignment process occurs. Make sure the tab inboard of the D ring is flushed up against the stubby bumper, there is a nice even gap under the headlight, and ensure overall alignment looks acceptable before tacking the wing to the D ring.



Step 10: Tack both sides in place and compare them left to right, making sure to maintain symmetry for the best final outcome. Once satisfied with the alignment of both wings, tack them to the D ring tabs in a few more spots to make sure they don't shift in the following steps. Much of the finish welding between the D ring and wings can be done on the vehicle if you can find a comfortable position, otherwise it is acceptable to remove the assembly and do the finish welding on a bench for convenience.



Step 11: At this point the wings are basically complete. It is recommended to remove them (if not already unbolted) for any finish cleaning and painting, before reinstalling for the final time. Then you're ready to enjoy your new additions!

