



EVO Manufacturing

Jeep Wrangler JL and JT Gladiator 2018+

JL/JT Axle End Forging C2 Gusset Kit

EVO-3050





Before starting installation procedure please read <http://evomfg.com>Returns-Warranties-Shipping>

CAREFULLY READ AND FOLLOW ALL INSTRUCTIONS IN THIS MANUAL AND KEEP FOR FUTURE REFERENCE. IF YOU HAVE ANY QUESTIONS ABOUT THE PRODUCT CALL EVO MANUFACTURING. FAILURE TO FOLLOW GUIDELINES COULD RESULT IN MALFUNCTION OF PARTS OR INJURY. PLEASE HAVE A TRAINED PROFESSIONAL ASSIST WITH OR INSTALL ALL PRODUCTS. INSTALLING EVO MFG PRODUCTS OR KITS DEMANDS SPECIFIC KNOWLEDGE, TOOLS AND EXPERIENCE. GENERAL KNOWLEDGE OF HOW TO USE LATER SPECIFIED TOOLS AND/OR LIMITED EXPERIENCE WITH EVO MFG PRODUCTS MAY NOT BE ENOUGH TO PROPERLY COMPLETE THESE TASKS. SOME OF EVO MFG PRODUCTS MAY REQUIRE TWO OR MORE PEOPLE TO INSTALL SAFELY AND CORRECTLY. DO NOT ATTEMPT ALONE, ALWAYS ENLIST THE HELP OF TRAINED PROFESSIONAL WHEN NEEDED.

Notes: Set Up Before installation

Designed on Rubicon axles, Sport and Sahara mat need slight modification.

Recommended weld with axle suspended not under load of vehicle.

Some grinding may be required

Installer needs to do a full inspection for clearance on all surrounding components prior to welding

READ BEFORE INSTALL:

Gussets should be welded alternating sides from ends to middle.

Make sure to clean axles as well as possible.

ALWAYS wear safety glasses and other approved safety gear when working on a vehicle.

Some grinding / sanding may be required to achieve your desired fitment.

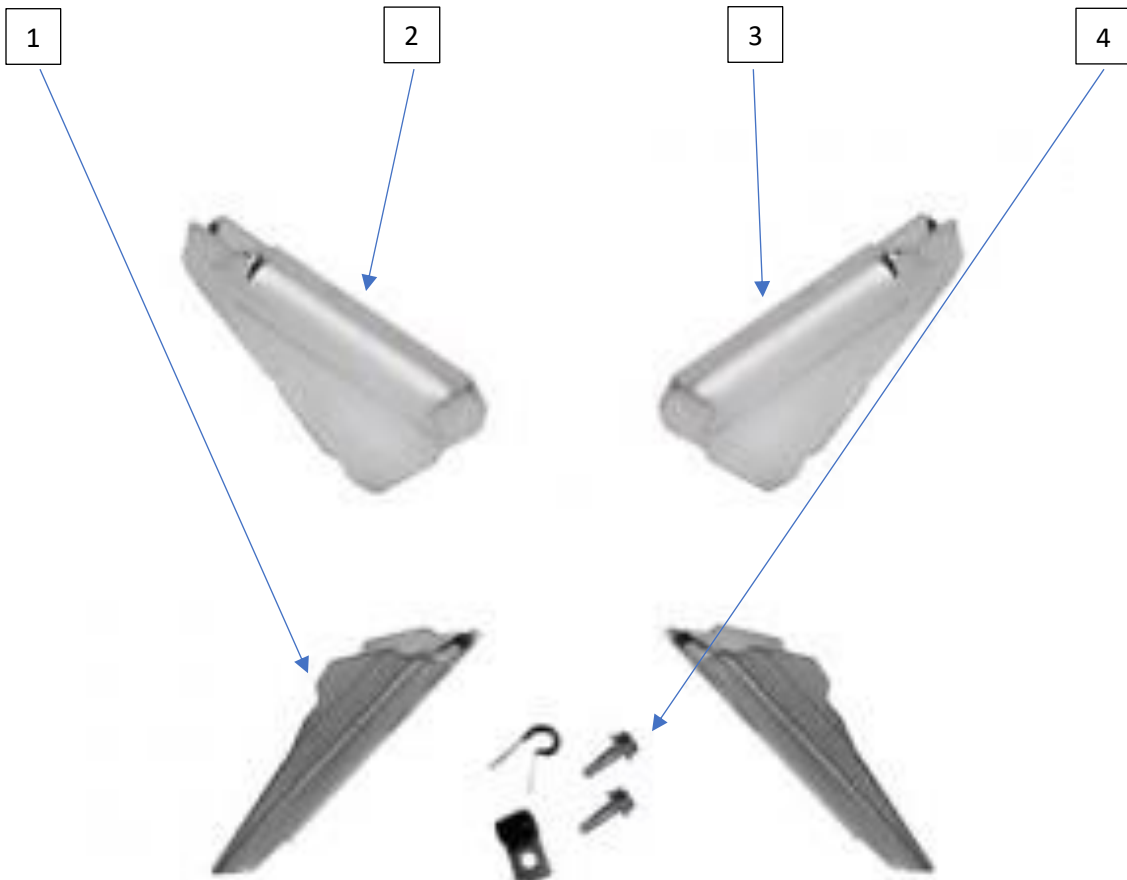
It is recommended all installation be performed by a trained professional. Some modification may have to be done.

Recommended to remove tires and that ball joints are removed/ replaced (use Jeep ball joint puller)



Parts included: Table below shows Jeep JL/JT C2 Axle End Forging Gusset Set

Description	#	Part #	Quantity
C2 Axle End Forging Gusset Lower	1	EVO-12390	2
C2 Axle End Forging Gusset Upper Driver	2	EVO-12388	1
C2 Axle End Forging Gusset Upper Passenger	3	EVO-12389	1
Hex Head Drilling Screws	4	EVO-900438	2





Recommended Tools:

- Welder
- Welding Materials
- Welding Clamps
- Rubber Mallet
- Grinder
- Wrenches
- Welding helmet + safety equipment



Safety Steps for installation

- For installing EVO MFG products always use wheel chokes to block rear tires from rolling.
- Always make sure you have everything necessary ready before install.
- If you have to, carefully lift front of vehicle by front frame rails extending suspension until tires leave the ground, place frame on approved jack stands for vehicle. Verify all lines/wires are not over extended.
- Remove tires if needed for easier install.
- Make sure to wear safety equipment (eye protection, hand protection, foot protection etc.) at all times during installation.
- Make sure all safety precautions have been taken.
- Always check and replace any part of vehicle that is worn or broken before starting install.
- Do not mix anything EVO with weaker alternatives.
- It is generally a good idea to apply liquid threadlock to all bolts.
- Tighten included hardware to torque specifications in bottom table unless it is otherwise specified, factory bolts should be torqued to factory Jeep specifications.
- Welding creates a very bright arc that should not be looked at without an approved protective shield/clothing. Welded surfaces and areas in their vicinity will be very hot for a long time. All welding should be performed by a professional. USE CAUTION





1. Using an impact or something similar, take the provided bolt and insert it into upper gusset, it is self tapping, make sure bolt is straight into hole and that it only inserted to seat flush with gusset bracket. **Do not strip hole/bolt by over tightening.**
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2. Using the picture as reference, use grinder with a cutting wheel to cut metal wire retainer for the brake line.
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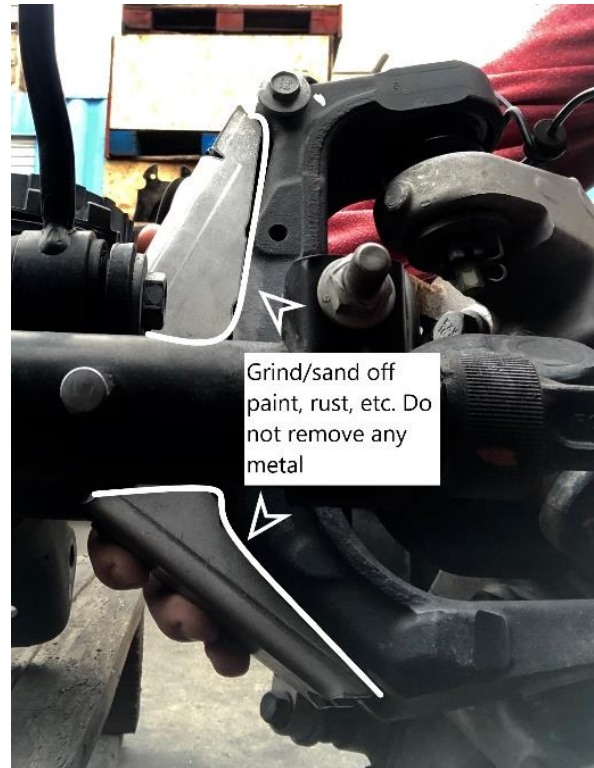
3. Remove bolt holding metal brake line retaining wire and push out of the way.
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4. Prepare axles for welding by placing C2 Axle Gussets on top and bottom of driver side axle by hand. Mark axle with paint pen/marker where all surfaces are to be grinded/sanded to remove paint/surface contamination.

Grind/sand, repeat on other side.

Do not grind deep into metal, just take off paint layer and any rust.



5. Place Upper Gussets in place on both driver and passenger side. Make sure that C2's seat fully against spring perch. Tap with rubber mallet if required. Some grinding of bracket may be necessary to fit on axle.

Sahara and sport models will require grinding, start from coil side of bracket and remove material until preferred fitment. Make sure bracket does not contact coils.

Verify that all coating/paint is cleaned and acceptable fitment has been achieved from all areas to be welded. Tack in place in multiple areas top and bottom.



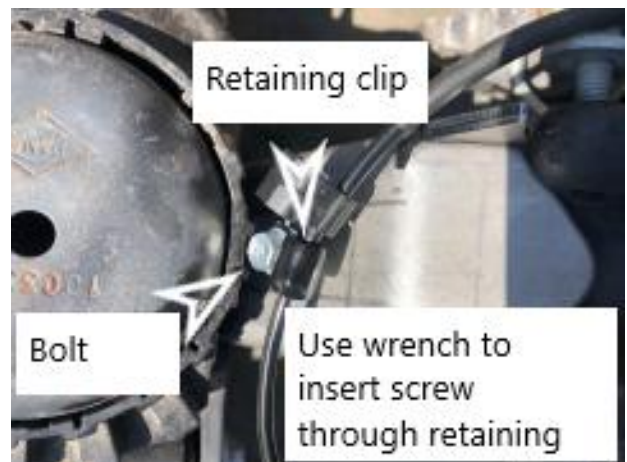
6. Place lower Axle C2's in place on driver side and verify all coating/paint is cleaned from all areas to be welded. Grind bracket to fit on axle if necessary.

Verify that all coating/paint is cleaned from all areas to be welded. Tack in place and repeat on other side.



7. Weld gussets in no more than 1 inch increments alternating from driver to passenger sides after every incremental weld. After welding one increment, let welded surface cool before alternating to the opposite side.

8. Insert brake line into retaining clip, put bolt through bolt holes in retaining clip and bolt into upper C2 bracket through hole.
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Note: Paint all exposed metal.



After Install:

- Tighten all bolts securing purchased parts to specified locations.
- After completing installation using provided instructions, go through all steps again to make sure nothing was missed, not tightened or improperly assembled.
- Some components may need to be purchased separately.
- Check turn signals, headlights, fog lights (if applicable), taillights, blinkers and windshield wipers.
- Adjust mirrors, speedometer and headlights if needed.
- Make sure all gauges are fully operational.
- Drive the vehicle slowly for a couple minutes, looking and listening for abnormal noises while driving. After modification of a vehicle there will be differences in driving experiences and capabilities, be mindful of that.
- Inspect and Retorque all Bolts after 500 miles of completed installation and regularly thereafter.
- Some modification may be required.

Recommended Torque:

Size	Grade 2		Grade 5		Grade 8		18-8 S/S	
	Coarse	Fine	Coarse	Fine	Coarse	Fine	Coarse	Fine
#4*	-	-	-	-	-	-	5.2	-
#6*	-	-	-	-	-	-	9.6	-
#8*	-	-	-	-	-	-	19.8	-
#10*	-	-	-	-	-	-	22.8	31.7
1/4	4	4.7	6.3	7.3	9	10	6.3	7.8
5/16	8	9	13	14	18	20	11	11.8
3/8	15	17	23	26	33	37	20	22
7/16	24	27	37	41	52	58	31	33
1/2	37	41	57	64	80	90	43	45
9/16	53	59	82	91	115	129	57	63
5/8	73	83	112	128	159	180	93	104
3/4	125	138	200	223	282	315	128	124
7/8	129	144	322	355	454	501	194	193
1+	188	210	483	541	682	764	287	289