



EVO Manufacturing

Jeep Wrangler JL and JT Gladiator 2018+

JL/JT Axle Tube and Differential Truss Kit

EVO-3051





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**

**Recommended weld with axle suspended not under load of vehicle.**

**Only weld to cast if you are experienced in the process, welding to cast is not required.**

**Be sure that your axle is a JL Dana 44.**

**1-1/2 inch minimum bump stop extensions required for truss, 2" with bridge installation.**

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

**READ BEFORE INSTALL:**

**Truss should be welded alternating sides from ends to middle. Not to be welded while under vehicle load and recommended to be welded while slightly preloaded/tensioned in opposite direction.**

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.

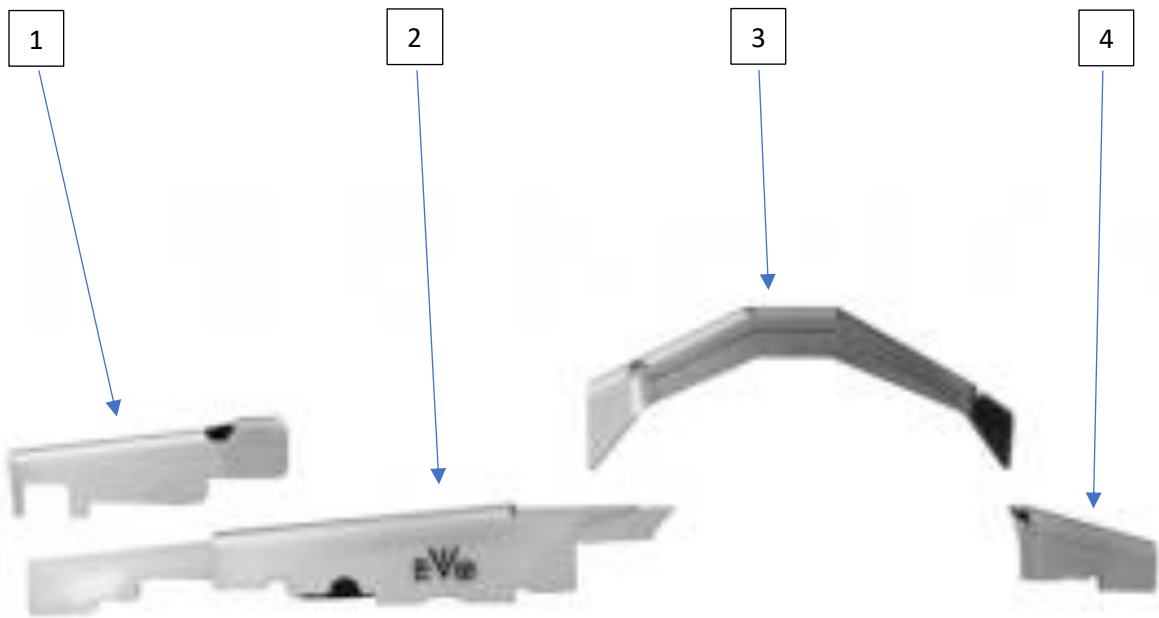
It is recommended all installation be performed by a trained professional. Some modification may have to be done.

Recommended to remove tires.



Parts included: Table below shows Jeep JL/JT D44 M210 Advantec Axle Truss Kit

Description	#	Part #	Quantity
Truss FAD Overlay Section	1	EVO-12385	1
Main Pass Truss Section	2	EVO-12384	1
Over Differential Truss	3	EVO-12387	1
Driver Truss Section	4	EVO-12386	1





### Recommended Tools:

- Welder
  - Welding Materials
  - Welding Clamps
  - Rubber Mallet
  - Grinder
  - Standard Tool Set
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### 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





## Install

1. Safely park vehicle on a flat surface, put in park and chalk tires.

Jack vehicle up using frame, take vehicle load off axle, use jack stands under axle for safety.

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2. Prepare axles for welding by grinding or sanding on the upper half of the axle tubes and top of FAD (only grind the part that is cast into axle)
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**Do not grind deep into metal, just take off paint layer and any rust.**

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3. Remove track bar from axle end of Jeep.
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4. Place EVO Passenger side long and short truss sections on top of axle as shown in illustration. Ensure the trusses are seated to your axle. May have to grind truss edges to fit more precise.

**Wear proper safety equipment when grinding.**

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5. Ensure truss sections seat in place and adjust as needed. Some taps with a mallet may be necessary to align.
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6. Tack weld ends/corners to the axle in multiple locations at the ends of all brackets. Once you are satisfied with the fit, weld the EVO Short and Long passenger truss sections.

**Be sure to alternate weld segments from end to middle in 1-2 inch increments as picture specifies.**

**Note:** When welding, **do not** weld long sections in one weld. Alternate side to side, left to right, front to back, etc, until all weld sections are made.



7. Place EVO Bridge on axle as shown in illustration. Verify acceptable fitment and tack weld bridge to truss in multiple locations prior to fully welding.
8. Once tacked into place weld bridge to driver and passenger truss sections, then weld the upper pinch seams.

**Note:** When welding, **do not** weld long sections in one weld. Alternate side to side, left to right, front to back, etc, until all weld sections are made.







**Note:** Paint all exposed metal, reinstall trackbar and torque to factory specification

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