Superior ENGINEERING

PREMIUM 4x4 ACCESSORIES

CBWD-A-R1502

Superior Chassis Brace/Repair Plates Suitable For Ram 1500 DT 2019 On – Installation Instructions

IMPORTANT

Due to regulatory variations throughout Australia, it is recommended that prior to fitment of this part being carried out, confirmation from your local/ state transport authority needs to be obtained as to the correct welding procedure required for approval. Superior Engineering recommends that the minimum welding requirement must meet or exceed Australian Standard AS 1554 Structural steel welding. In general, for approval purposes, this part needs to be fitted by a certified welded who has performed and understands the correct welding procedure that is required and can supply required certification or paperwork as deemed.

If you are unsure about any of the following steps, please contact Superior Engineering's Sales Team – (07) 5433 1411

WARNINGS

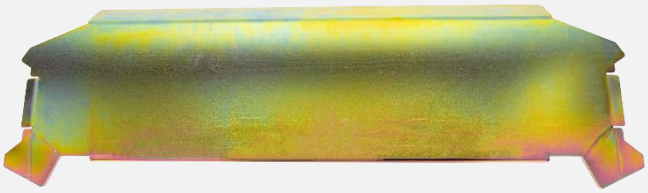
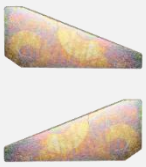
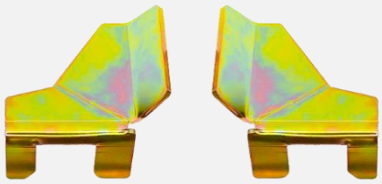
- Estimated installation time: 6-8 Hour(s)
- The following steps are the installer's responsibility.
- Ensure all parts have been received correctly and are suitable for the intended vehicle before undertaking any installation.
- Ensure sure all fasteners are tightened to the advised torque settings, and 262 Loctite is used on all threads unless otherwise specified.
- Recheck all fasteners within 500Kms of installation, and at every service interval thereafter.
- This product must be installed as per these instructions, only using the hardware supplied by Superior Engineering unless given prior written consent from Superior Engineering.
- This product is not to be fitted differently or modified in any way other than specified by Superior Engineering.
- This product is not to be used on any other vehicle than those specified by Superior Engineering.
- Once the product has been installed ensure all OE and Aftermarket components within proximity of the installed Superior Engineering component clear through the full range of your vehicle's Steering & Suspension movement.

CAUTION

All welding inspection shall be carried out by the AP / Compliance Personnel in accordance with as-a-minimum trade level competency, up to AS. 1554 Section 6 using any of the methods documented in the Standard.

All welds shall be examined for their compliance with standards and procedures outlined in this document, utilising NCOP VSB14 section LZ as a recommended minimum reference for weld acceptance levels in regard to each weld configuration, parent metal and weld metal type specified. All defective welds shall be repaired in an approved manner.

PART(S) CHECKLIST

DESCRIPTION	QTY	IMAGE
Superior Chassis Brace/Repair Plate Suitable For Ram 1500 DT 2019 On – Passenger Side	*1*	
Superior Chassis Brace/Repair Plate Suitable For Ram 1500 DT 2019 On – Driver's Side	*1*	
Superior Chassis Brace/Repair Plate Suitable For Ram 1500 DT 2019 On – Top Centre	*1*	
Superior Bump stop Brace/Repair Plate Suitable For Ram 1500 DT 2019 On	*2*	
Superior Chassis Side Brace/Repair Plates Suitable For Ram 1500 DT 2019 On	*2*	
Superior Brake Line Mount Relocation Plate Suitable For Ram 1500 DT 2019 On	*1*	
Superior Chassis Brace/Repair Plates Suitable For Ram 1500 DT 2019 On - Bolt Kit ***1x** M8 x 1.25 x 30 Hex Head Bolt* ***1x** M8 x 1.25 Nyloc Nut* ***2x** M8 Flat Washer* ***2x** M10 x 1.25 x 60 Hex Head Bolt* ***4x** M10 Flat Washer* ***2x** M10 x 1.25 Nyloc Nut*	*1*	
Superior Bump Stop Rear Replacement Rubber	*2*	

TORQUE SETTINGS

SIZE	TORQUE (Nm)	TORQUE (lb.ft)
M8	25	18
M10	49	36

CAUTION

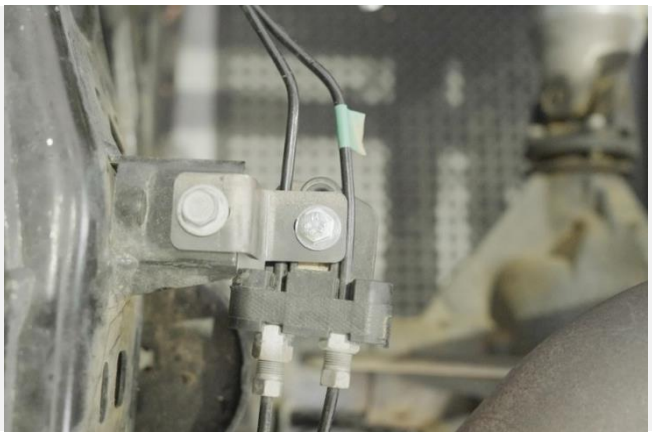
Ensure all bolts are tightened to the correct torque setting with 262 Loctite. Re-check in 500km and at every service interval thereafter

INSTALLATION STEPS

STEP 1	Park the vehicle on a level surface and ensure it is secure. Alternatively, position the vehicle securely on a hoist, using the manufacturer's designated lifting points.
STEP 2	Review the kit's components and confirm that all parts are supplied. ***Refer to the above parts checklist***
STEP 3	Before undertaking any work, inspect the Driver and Passenger Side Chassis Rails, Coil Spring seats, and Bump stop mounts to ensure they are straight and true according to OE specifications and have no cracks or fractures that need attention before fitting this item.

This Product cannot be installed if any prior damage is identified. Any prior damages must be addressed before this item can be installed.

STEP 4	Remove the rear tyres and Tray or Tub from the vehicle, the vehicle will also require removal of the Fuel tank and possibly the exhaust system from the rear of the cab to the end of the vehicle.
STEP 5	Remove and reposition all heat sensitive items away from the chassis, such as wiring harness', Brake lines, Bump Stops, Coils, Airbag/lines, and rubber bushes.
STEP 6	Located on the Passenger side chassis rail, the brake line is required to be relocated. Supplied in the kit is a Brake Line relocation bracket and bolt kit. Removing and Retaining the OEM fastener, fit the Relocation bracket and clamp the brake lines onto this bracket using the supplied M8 Bolt, Flat Washer and Nyloc nut.



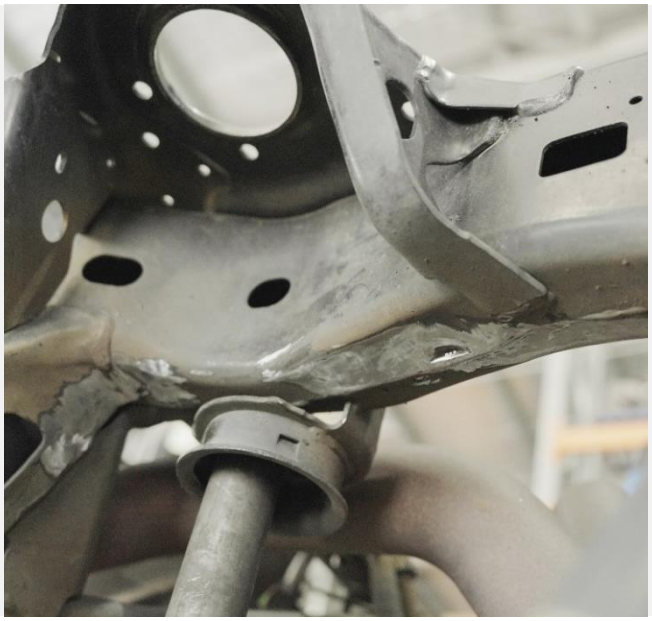
STEP 7	Working with one bracket at a time - Clamp the Superior Engineering Chassis Repair Plates into position. Equally position the plates to provide adequate room to weld each edge.

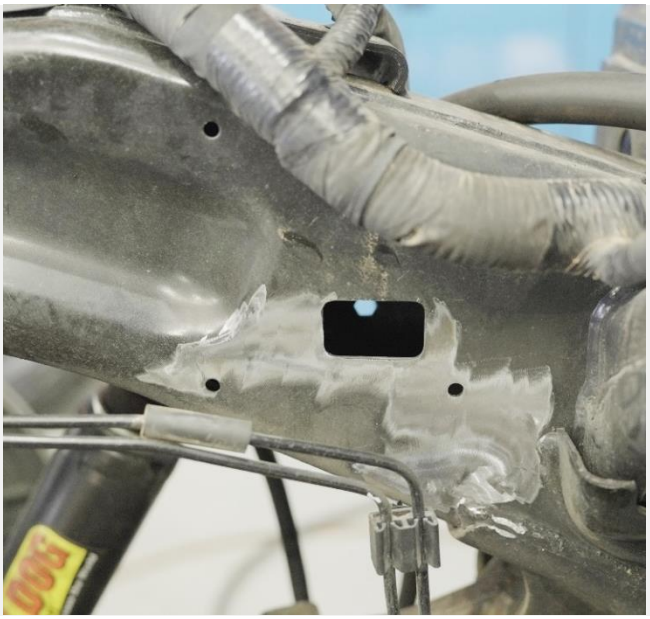
STEP 8

Trace around the Superior Engineering chassis repair plate using a white marker pen, leaving an outline of the plate on the chassis rail.

STEP 9

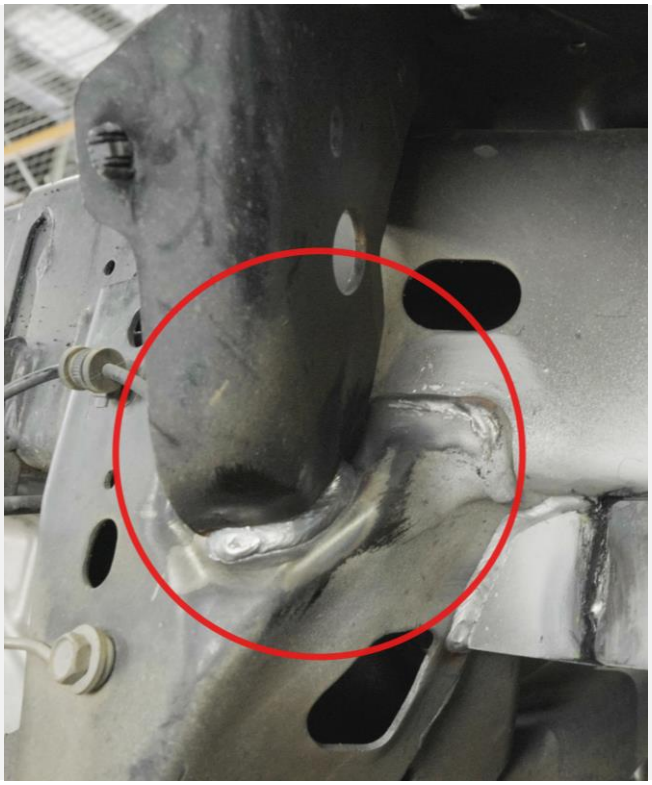
Remove the Superior Engineering chassis repair brace plates. Prep the Chassis by removing the OE chassis paint using a light sanding disc in the areas marked out in step 8.





STEP 10

The OEM welds on the Coil towers are not complete from factory, and we highly recommend lengthening the welds to the end of the metal. Repeat this step on both Driver and Passenger sides.



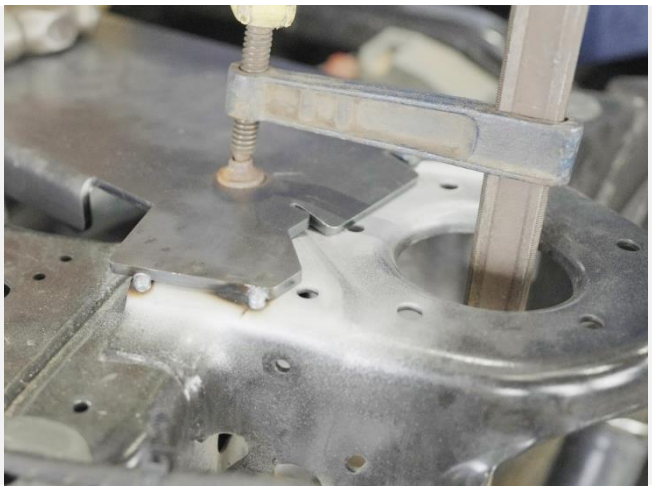
STEP 11

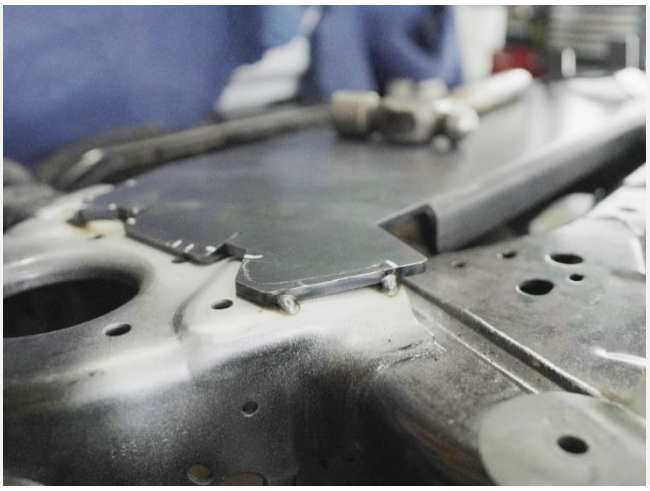
Prep the Chassis Plates by removing the Zinc Coating from the edge of the plate(s).

(It is recommended to use a wire wheel or a light grade sanding disc)

STEP 12

Evenly coat all weld locations/areas that you have removed with a Weld-Through Primer. Once the Weld-Through Primer has dried ***(Refer to product for correct dry time)*** clamp the Superior Engineering chassis repair plates back into position ready to weld. Place initial tack welds at strategic points within the grooves cut for welding around the plate (laser cut weld cut outs).



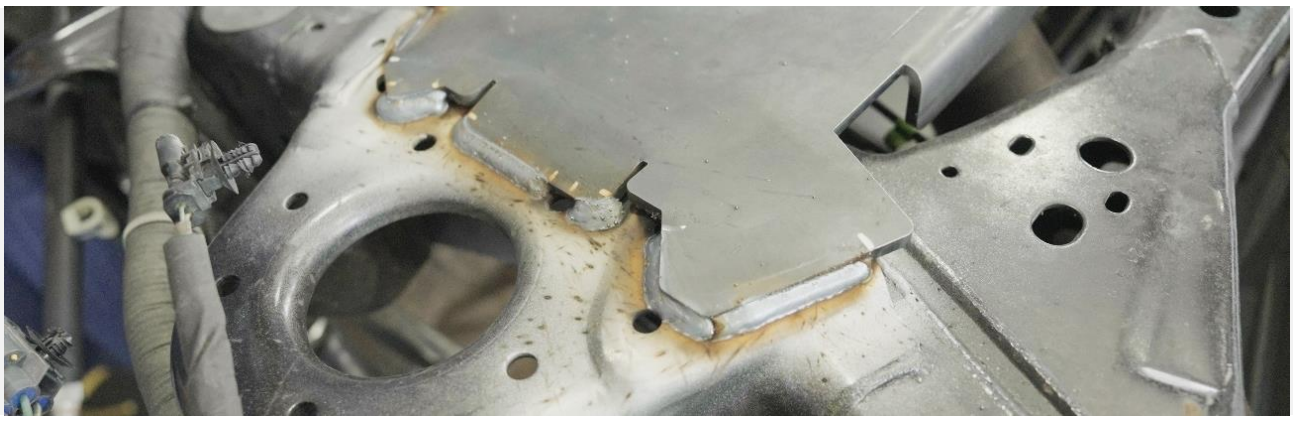


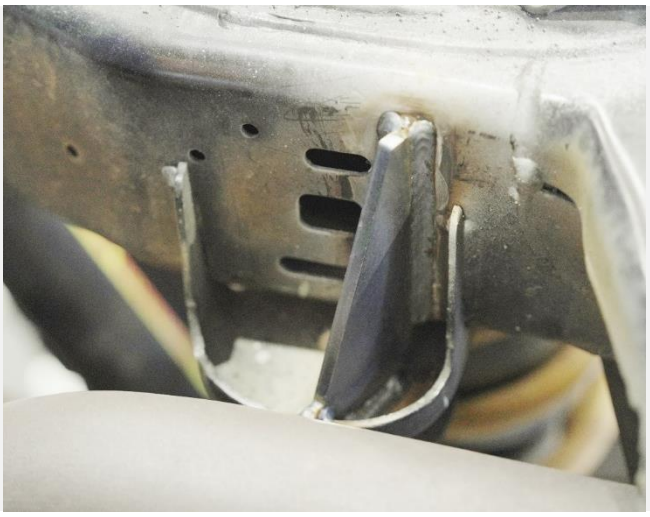
Welding of the Bump stop Brace plates should be first as they will not be accessible after the Top plate is installed.

STEP 13

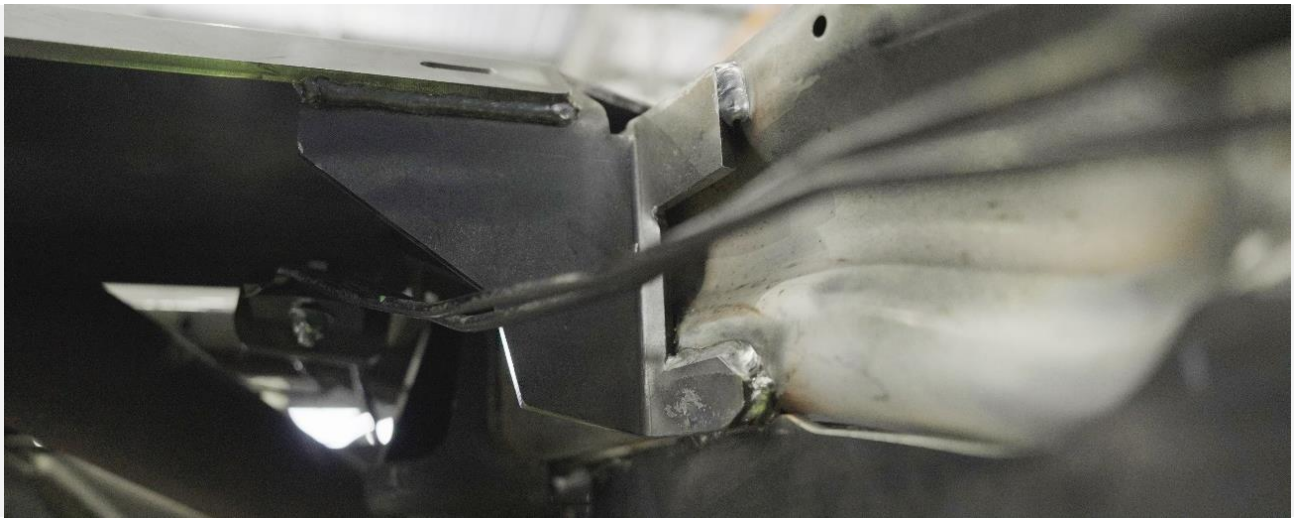
Weld all plates in place, ensure the correct procedure and welding sequence is maintained, you should aim to balance the thermally induced stresses during installation.

Weld Sequence: Weld within the grooves. When moving from the first to the second weld, shift to the opposite side and weld another section. Continue this process, alternating back and forth in a zigzag/diagonal pattern, welding in the grooved sections on opposite sides as you progress. ***Allow brief cooling periods between welds.***



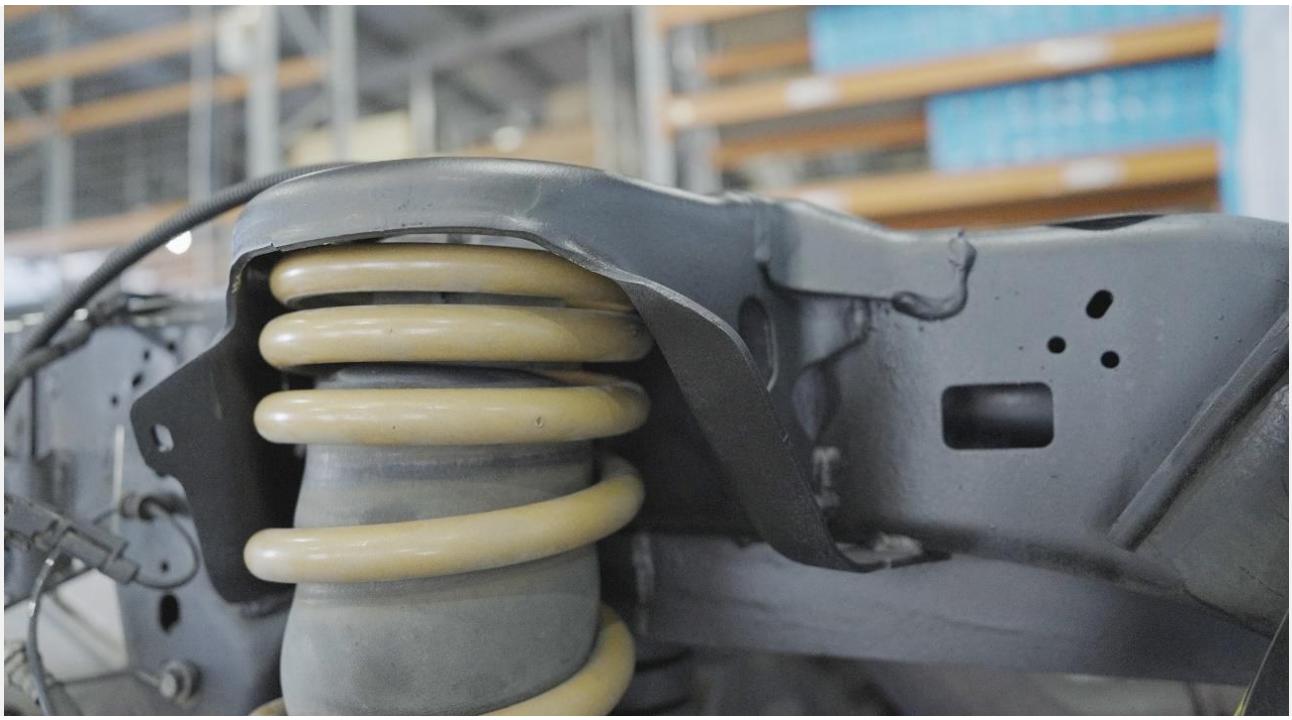


STEP 13 CONT.

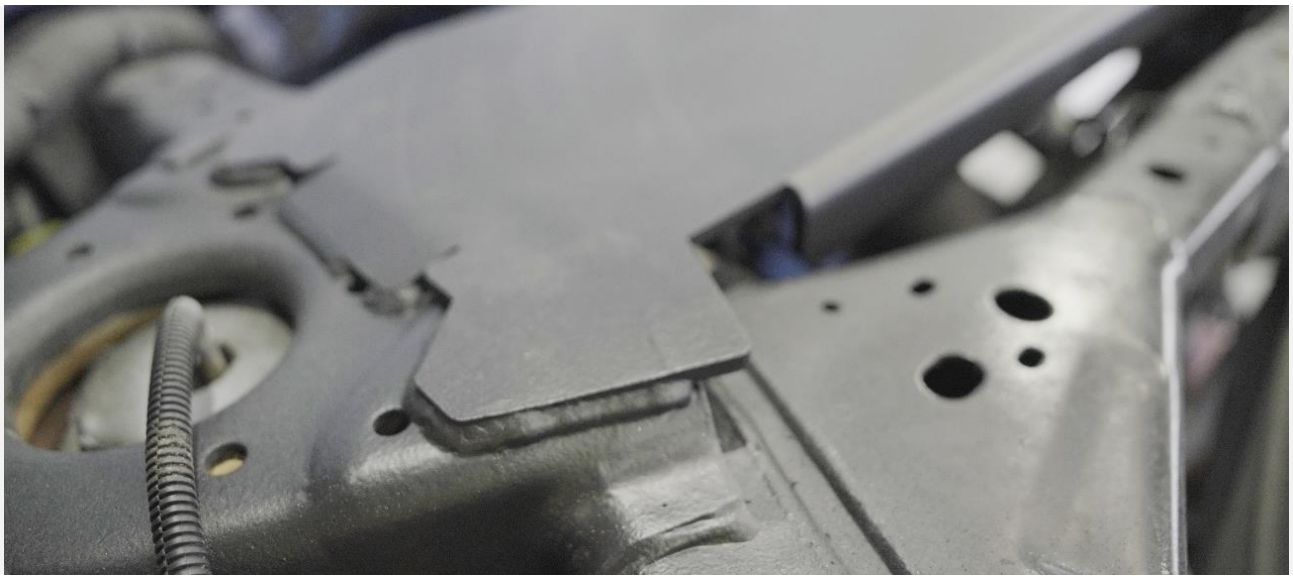


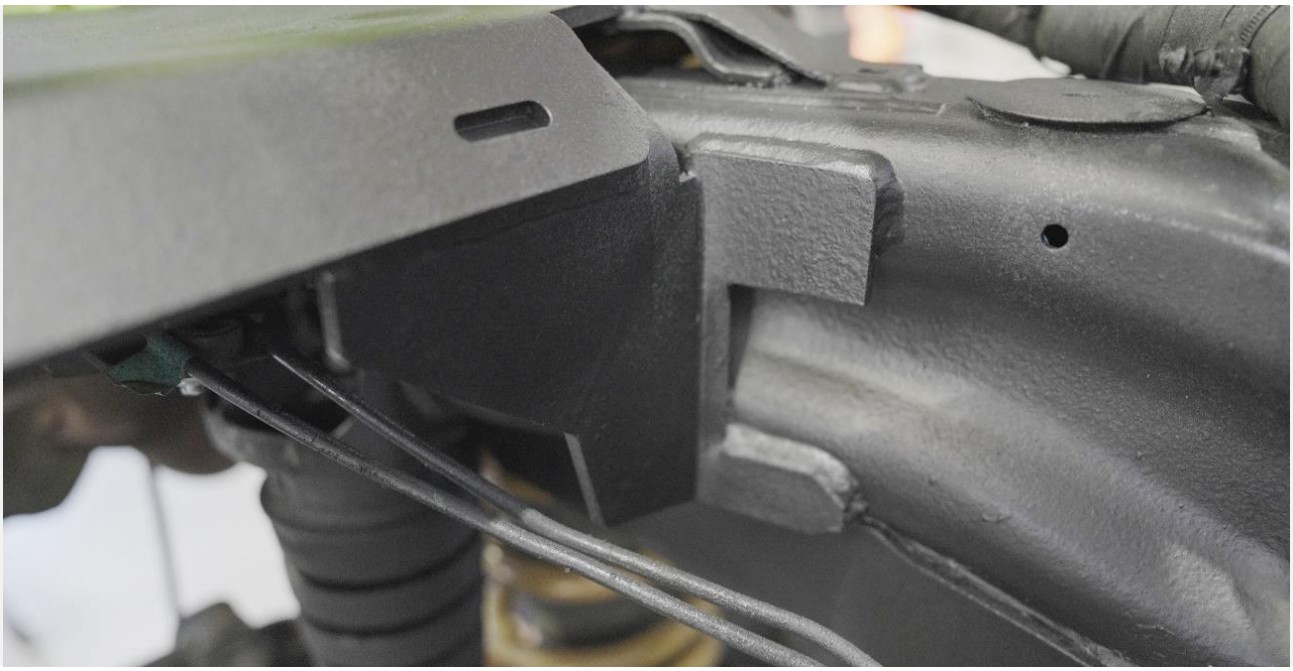
STEP 14

Use Sikaflex 227 or an equivalent product to seal off all un-welded sections of the chassis plate once the chassis is cool to touch. Once the Sikaflex/Sealant has dried, paint all modified chassis areas in a 2-Pack Paint or Urethane based bedliner such as Raptor Coat.

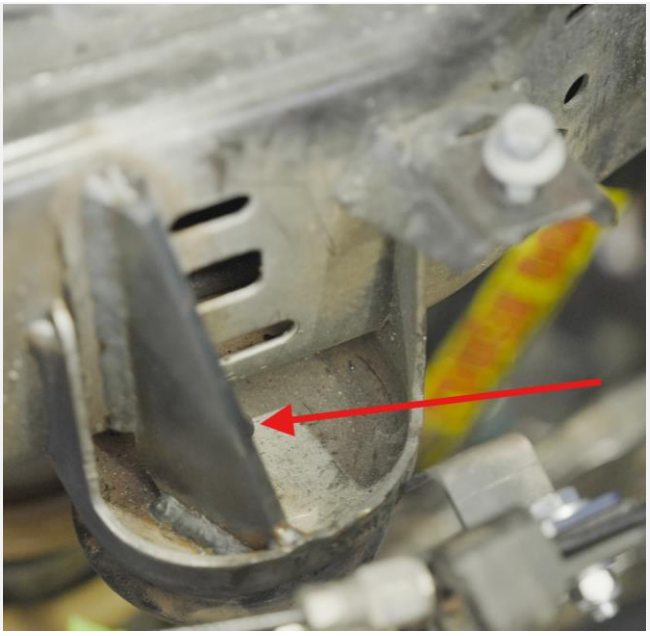


STEP 14 CONT.





STEP 15	Wax coat inside of the Chassis Rail for added protection. ***(For example: WURTH CAVITY WAX TRANSPARENT)***
STEP 16	Install the supplied Bump stops, utilising the supplied M10 x 1.25 x 60 Hex Head Bolts, 2x M10 Flat Washers, and M10 x 1.25 Nyloc Nuts. These fit over the vehicles factory location, feeding the Hex Head bolt with flat washer in through the bottom of the Bump stop and installing another Flat washer and Nyloc Nut on the top side of the mount.



STEP 17	Re-Fit all the wiring harness', Brake lines, Coils, Airbag/lines, and rubber bushes that may have been removed during installation. And Refit the Mudguards/Toolboxes or Plastic Inner Guard Liners.
STEP 18	Inspect all work performed to ensure that all surfaces are Welded, painted and/or tightened before handing off to the customer.

Regular Chassis Rust Prevention Maintenance <u>MUST</u> be performed.

CONTACT DETAILS

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