

Superior **ENGINEERING**

PREMIUM 4x4 ACCESSORIES



BUCA-A-HLX11-A

Superior Billet Series 6061 - T6 Alloy Gen 2 Adjustable Upper Control Arms Suitable For Toyota Hilux – Installation Instructions

IMPORTANT

Please read and understand these installation instructions before beginning the installation process. Retain these installation instructions for future reference. It is recommended that this item be installed by a qualified person(s) with sound knowledge of 4x4 Steering & Suspension Geometry and/or 4x4 Accessories.

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

WARNINGS

- Estimated installation time: 3-4 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.

PART(S) CHECKLIST

DESCRIPTION	QTY	IMAGE
Superior Billet Series Alloy Adjustable Upper Control Arm – Driver (Right) Side	1	
Superior Billet Series Alloy Adjustable Upper Control Arm – Passenger (Left) Side	1	
Superior Billet Series Alloy Adjustable Upper Control Arm – Adjuster Tool	1	
Superior Billet Series Alloy Adjustable Upper Control Arm – Inner Spacer Kit 4x M14 x 56 x 3 Machined Washer	1	
Superior Billet Series Alloy Adjustable Upper Control Arm – Bolt Kit 4x M6 x 1.0 x 10mm Socket Head 8x M6 x 1.0 x 50mm Socket Head 8x M6 x 1.0 Nyloc Nut 16x M6 Plain Washer 4x 6mm P-Clamp	1	

TORQUE SETTINGS

SIZE	TORQUE (Nm)	TORQUE (lb.ft)
M6	13	10

CAUTION

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

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INSTALLATION STEPS

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.
2. Review the kit's components and confirm that all parts are supplied. *Refer to the above parts checklist*
3. Remove the Front Wheels from the Vehicle and remove the Swaybar link, Upper Control Arm Split Pin and castle nut, and ABS line. *Refer Figure 1 A Ball Joint splitting tool, may be needed to apply pressure to the nut to free the ball joint from the steering knuckle.*

For 48V models, follow steps 4-10. All other models skip to step 11

48V Models

4. Open and secure the bonnet, locate the intake hose on the passenger side of the engine bay. *Refer Figure 2*
5. Remove the Vacuum line from the intake hose, ensuring it is out of the way.
6. Locate the clips on either side of the intake hose and push the end of the clip outward and up to free it from its clamped state. *Refer Figures 3 and 4*
7. With all clips free, the intake hose can be removed by giving it a gently pull from either side.
8. Removal of the Drive Belt is required; this can be done by locking the tensioner with a large pin or bolt and leveraging off the adjuster mount locations. *Refer Figures 5 and 6*
9. With the Drive belt separated from the Tensioner assembly, remove the 3 mounting bolts holding the tensioner assembly onto the generator / alternator. *Retain all hardware! Refer Figure 7*
10. The Tensioner assembly can now be manoeuvred allowing clearance for the Upper Control Arm bolt to slide past. *Refer Figure 8*

Continue through to steps 11-21, then follow Steps 4-10 in reverse order. Ensuring to tighten all hardware to manufacturer's torque specifications.

Upper Control Arm Instructions Continued

11. Loosen the Upper Control Arm inner retaining bolt and remove it from the vehicle. *Retain the OEM Hardware for later use. Refer Figure 9*
12. The Adjuster mounts may be preassembled, adjust them to the same distance as the factory arm, this is a good starting point but will need to be adjusted later during a wheel alignment. The mounts feature double adjusters that are locked in place with M5 Socket Head screws pre-fitted. *Refer Figure 10*
13. With the Adjuster mounts installed, loosely install the Adjuster clamp bolts into the arm making use of the supplied **4x M6 x 1.0 x 50 Socket Head bolts 4x M6 x 1.0 Nyloc Nuts 8x M6 Plain Washers**. *Refer Figure 10*
14. Install the Superior Engineering UCA to the OE chassis mount reusing the OE mounting bolt and washers, including the supplied **56mm Stainless Washers** to the inner side of the chassis mount. *Refer Figures 11 and 12*
15. Fit the ball joint into the tapered hole in the spindle where the factory arm was fitted to, then fit the castle lock nut onto the thread on the underside of the spindle. Tighten to the correct torque settings then fit the split pin through the aligned hole. *If the nut and hole is not an aligned tighten until it is aligned, never loosen the castle nut to align. Refer Figure 13*
16. Mount the ABS line using the supplied insulated **2x 6mm P-Clamps** and **2x M6 x 1.0 x 10mm Socket Head Screws** running along the Upper control arm. Check the ABS lines clear all components and at full suspension travel. *Refer Figure 14*
17. Locate all grease nipples and fill with quality grease, take care NOT to over grease the Ball joint.
18. Repeat the steps 3-17 on the opposite side.

19. Refit the wheels and lower the vehicle back on the ground, roll the vehicle backwards and forwards to let it settle at ride height.
20. Double check over all the hardware and ensure everything is tighten and torqued to the recommended torque setting outlines above.
21. Have the vehicle wheel alignment completed by a qualified person with sound knowledge of suspension geometry. To adjust the upper arms, release the four M6 single bolts that clamp through the UCA, and the four M5 double adjuster locking screws. Adjustments can be made with the adjuster nut using the supplied adjuster socket, it can be moved in or out depending on the desired adjustment.
22. Take the vehicle for a test drive, ensuring the operation of the Upper Control Arms are correct and no issues are present. If a fault is found, inspect your work again to address any issues. *Refer Figure 15 for final fitment example*

REFERENCE IMAGES

FIGURE 1

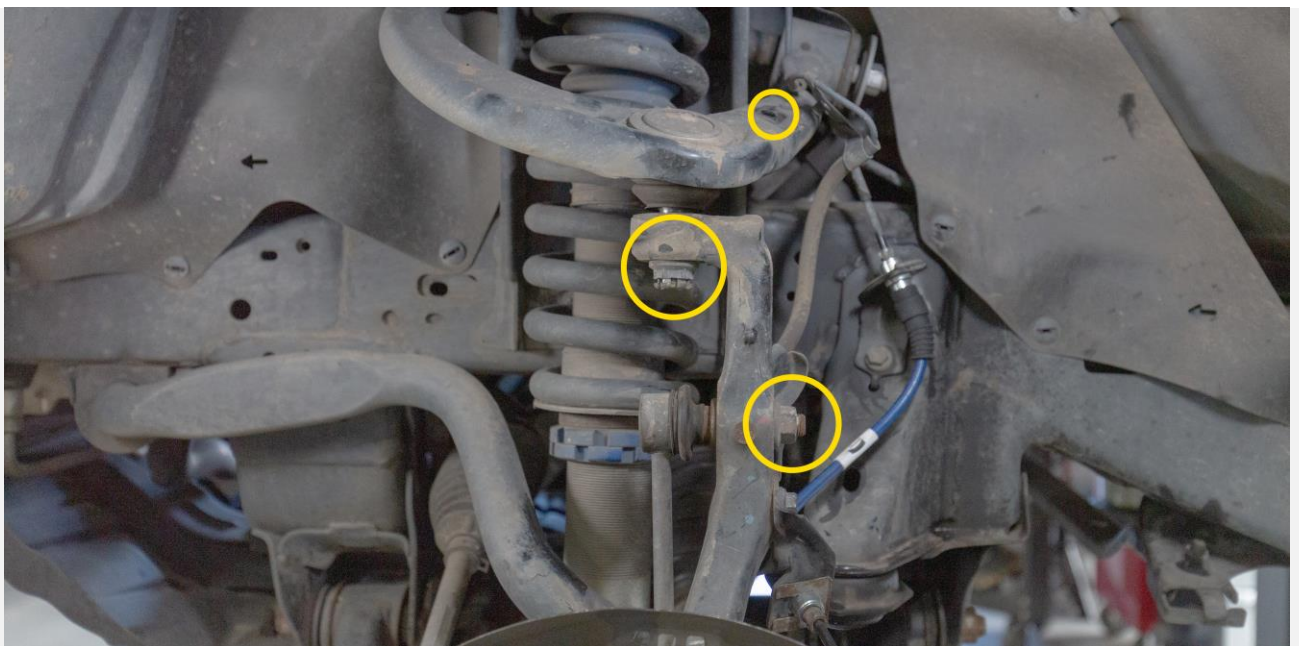


FIGURE 2



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FIGURE 3

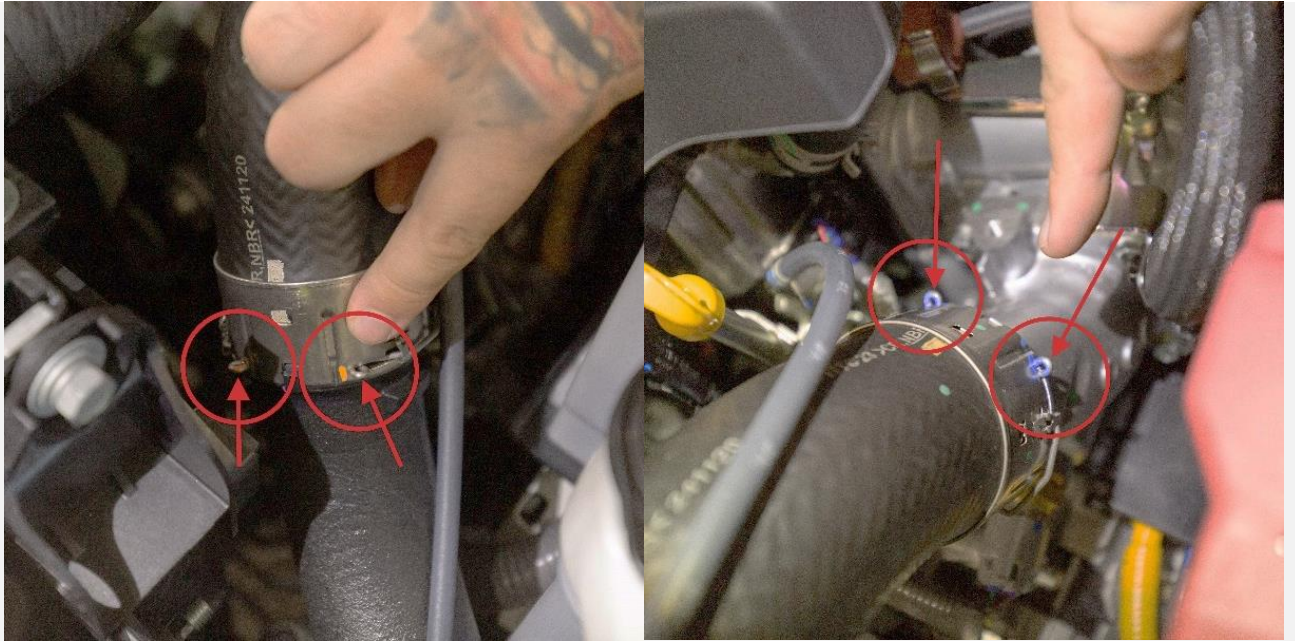


FIGURE 4

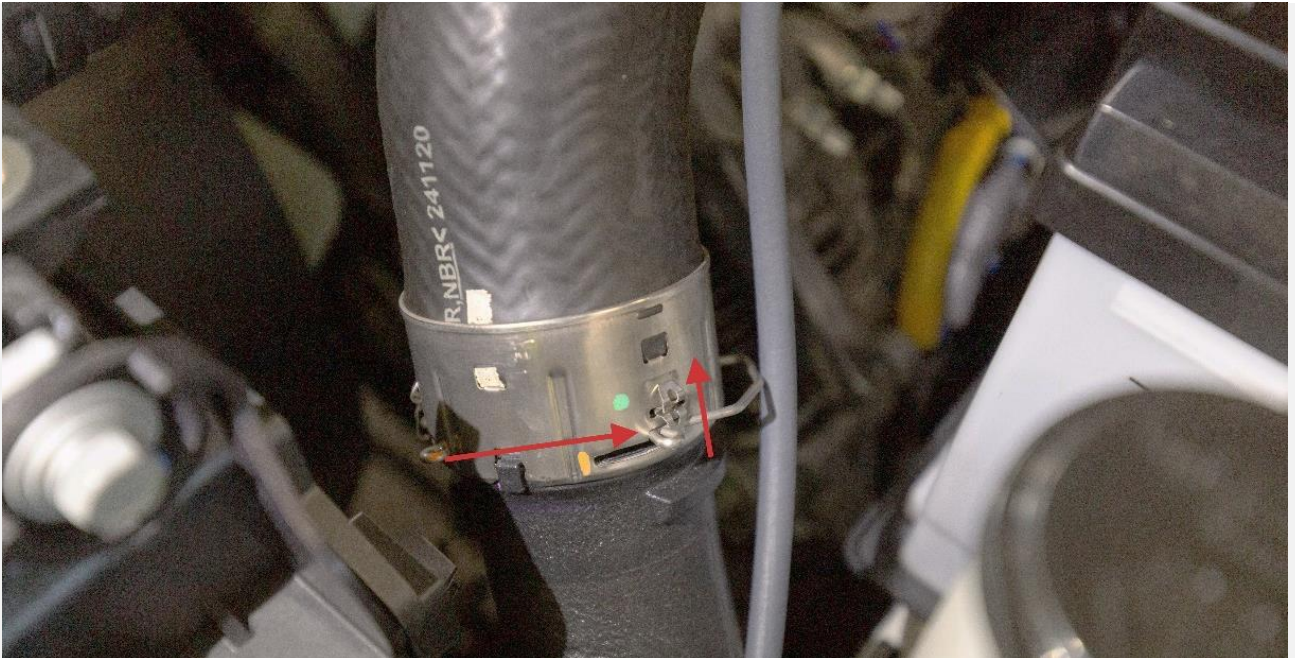
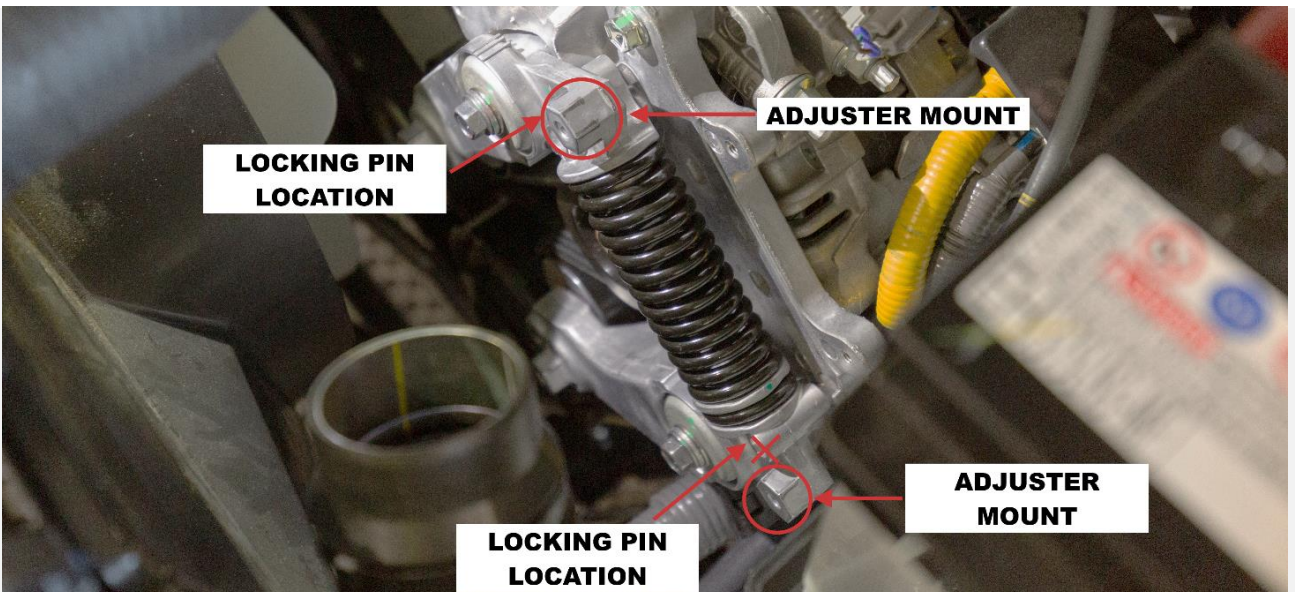


FIGURE 5



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FIGURE 6

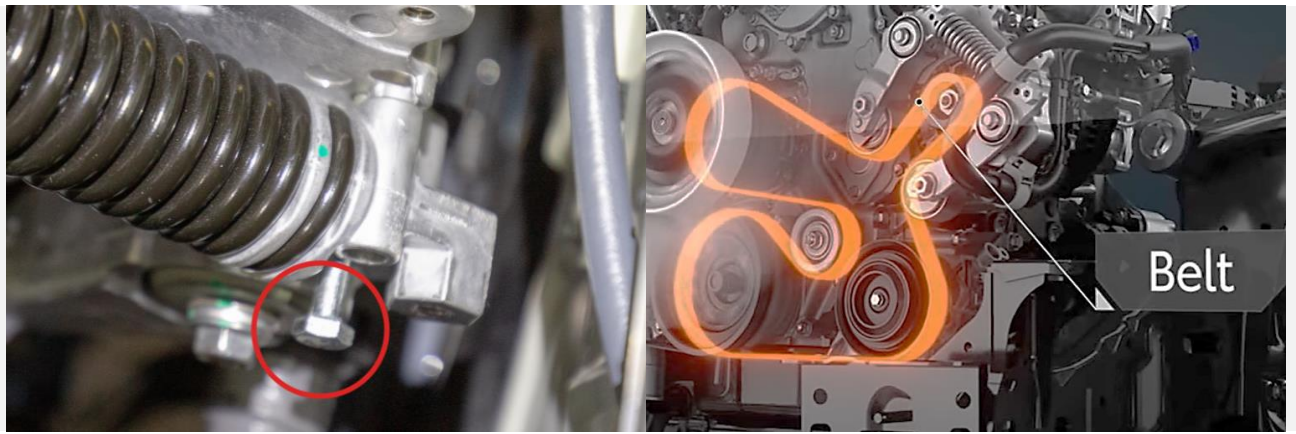


FIGURE 7

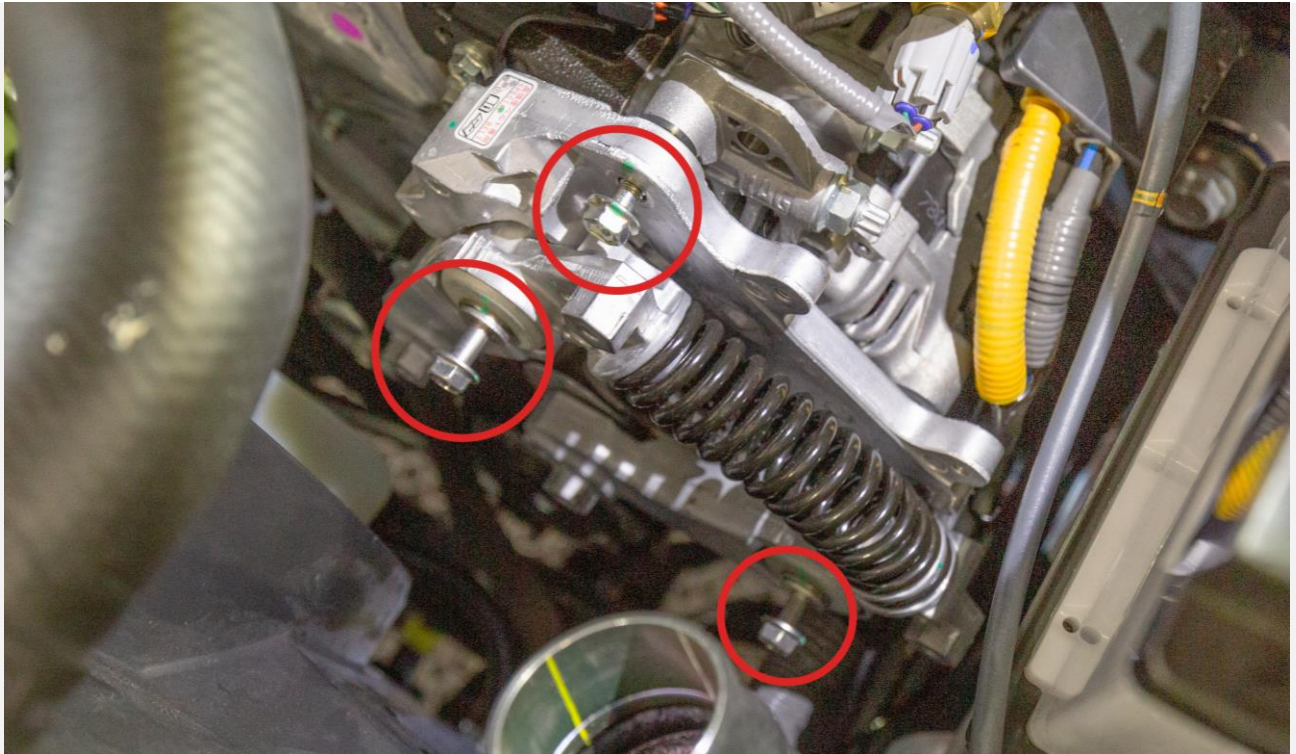
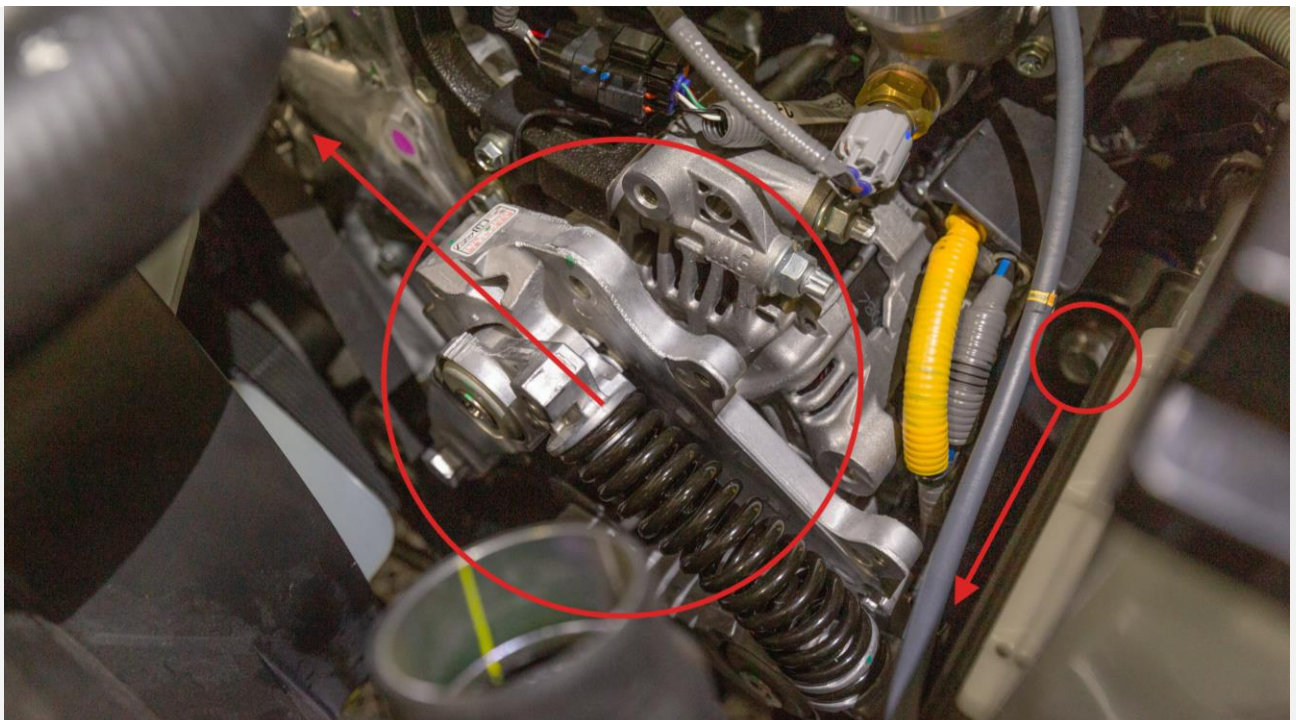


FIGURE 8



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FIGURE 9



FIGURE 10

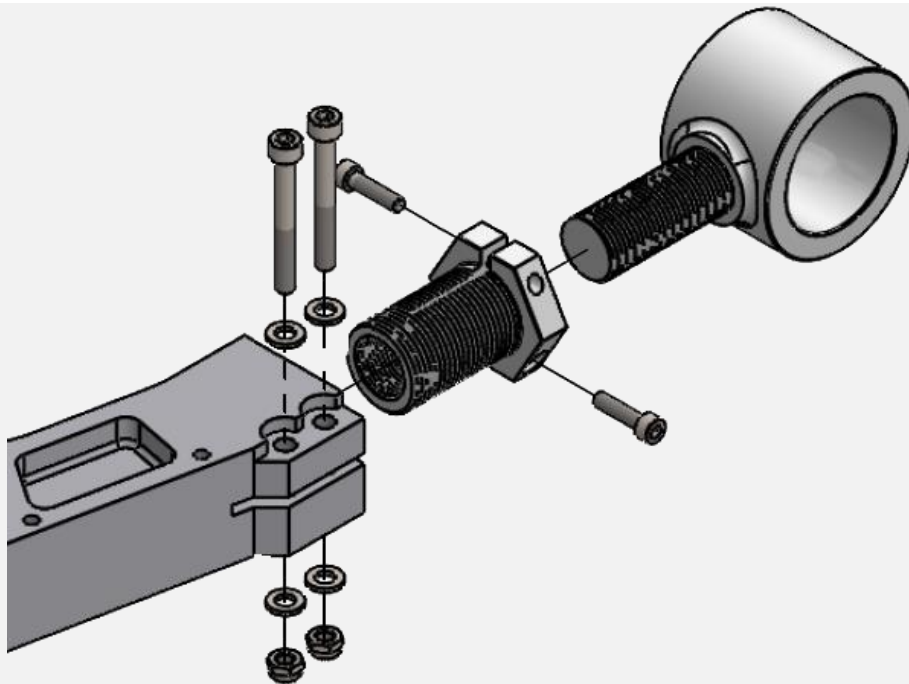
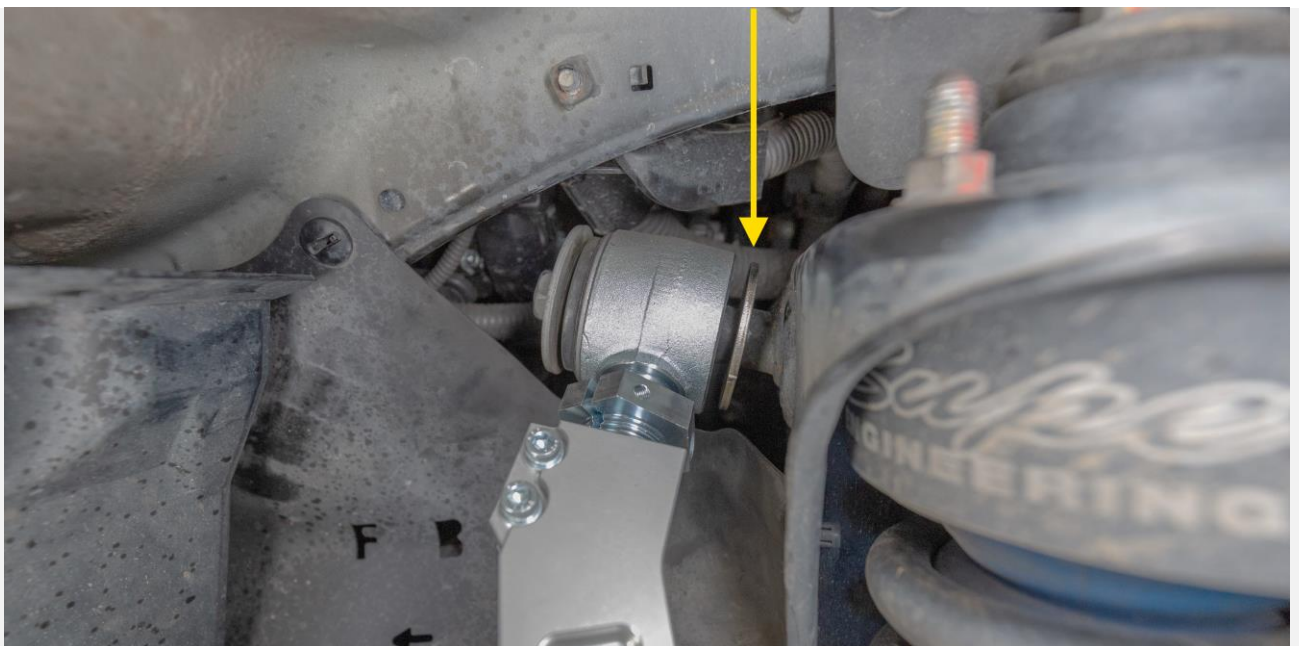


FIGURE 11



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FIGURE 12



FIGURE 13



FIGURE 14



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FIGURE 15



CONTACT DETAILS

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