03.16.22

CAMBURG

1.00 Uniball Performance Upper Arm Instructions

Toyota Tacoma Pre/4wd 96-04 | 4-Runner 2wd/4wd 96-02

PARTS SUPPLIED

QTY	Description	ID
8	Polyurethane pivot bushings	7
8	Large flat washers (plated)	6
4	7/8" od x 9/16" id x 2.03" sleeves	18
4	90 deg. zerk grease fittings (self-tapping)	8
2	5/8" press-in uniball spindle adaptors	20
2	5/8" upper uniball spacers	21
2	Spindle adaptor snap rings	25
2	M14 x 1.50 nyloc nuts	19
2	M14 flat washers	24
2	5/8-18 x 4.5" G9 hex bolts	22
2	5/8-18 stover nuts	23
2	10-32 x 3/4" allen bolts	11
4	10-32 stainless flat washers	9
2	10-32 nyloc nuts	12
2	Rubber insulated clamps	10
4	Grease packets	
4	Camburg 8.5" stickers	

** REFER TO EXPLODED CAD DRAWING ON **
** OTHER SIDE FOR PARTS REFERENCE NUMBERS **

Thanks for purchasing a set of our Camburg uniball performance upper a-arms for your vehicle. Please follow all instructions. If you are not installing these yourself have a qualified shop do so. These arms are designed for 1-3" of lift from coilovers and to be used with stock OEM spindles. These are NOT designed to be used with cheap spacer type lifts. Make sure to check the parts list to make sure you have every component prior to starting. Camburg Engineering has made every attempt to insure you receive the highest quality components in the most complete manner. This is a guide to help you through the process with recommended torque specs. It's your responsibility to ensure parts are being installed correctly using the correct tools and procedures.

Tools & Supplies Required

Eye protection | Jack | Jack stands | Needle nose pliers
2-3 lb. mini sledge hammer | Deburring tool | 19mm socket & wrench
22mm socket | 4wd ball-joint removal tool kit | Snap ring pliers
15/16" socket & wrench | 5/32" allen wrench | 3/8" wrench
1/4" wrench | Torque wrench | Brake cleaner | Anti-seize | Red Loctite

1.0 Setup

Park the vehicle on level ground and set the parking brake and chock both rear wheels. Jack up the front end from the chassis until the front tires are off the ground. Place jack stands under the front frame rails and set down. Make sure the vehicle is supported correctly and the front tires are still off the ground. Place the jack under the driver side lower arm and raise the tire 1/2", then remove the wheel while keeping jack under lower a-arm to support the suspension. Read these instructions start to finish before moving forward and review diagrams.

2.0 Removal

Using needle nose pliers, remove the cotter pin from the upper ball-joint at the spindle. Using a 19mm socket, loosen the castle nut but do not fully remove. With a mini sledge hammer strike the top of the spindle numerous times to release the ball-joint tapered stud. This can be a little difficult since it's a press fit, heating up the spindle to get it to expand will help if need be. Once the ball joint releases from the spindle, then remove the castle nut. This will allow you to position the upper arm and spindle out of the way. Make sure to position & support the spindle so that it doesn't pull on the brake line and on 4wd models that it doesn't pull out the inner CV or strain the CV boots and axles. Using a 19mm socket & wrench, loosen and remove the OEM upper a-arm bolt. Remove the stock upper arm.

3.0 Pre-installation

Using a 1/4" wrench install the self-tapping zerk fittings into the Camburg arms. Do not bottom out the fittings into the arms. Position them pointing outward for grease gun access. Now press the polyurethane bushings into the arms. Using the supplied bushing grease, apply grease onto the OD of the inner pivot sleeves and press into the bushings. Wipe excess grease onto outer bushing face and apply additional grease if needed. See diagram on other side for reference.

4.0 Installation

Install the driver side Camburg upper arm to the frame using the original M14 bolt with four of the supplied zinc-plated washers on either side of the polyurethane bushings. To insure you're installing the correct arm, the zerk fittings will be pointed downward, pivot gussets are on top and the longer a-arm tube towards the front of the vehicle. With the M14 bolt pushed all the way through clean the threads using brake cleaner and install the supplied washer and nyloc nut with red loctite. Using a 19mm wrench and 22mm socket torque to 85 ft/lbs. Cycle the arm up and down to make sure there are no clearance issues. See diagram for reference.

Using snap ring pliers, remove the retaining clip securing the factory ball-joint at the top of the spindle. Using a 4wd ball-joint removal tool kit (available at most auto parts stores), press the upper ball-joint out of the spindle from the bottom. You may need to disconnect the tie rod from the spindle and the brake line on the spindle and frame to angle the spindle out enough to work on.

Prior to installing the uniball spindle adaptor into the spindle, make sure the spindle bore is clean and free of debris. Do not modify the spindle bore. Using the ball-joint tool, press the spindle adaptor in from them bottom making sure it is straight. Do not use a hammer or light duty clamp. Once fully seated, re-install the factory retaining clip or the supplied snap ring. Make sure the snap ring is fully seated into the adaptors groove.

Apply anti-seize to the uniball spacer surfaces shaded gray in the diagram. Swing down the upper arm so the spindle adaptor inserts into the uniball. You may need to jack up the lower arm and move the uniball joint. Make sure the lower spacer is fully seated in the uniball or damage will occur as the spacer can get caught on the bearing race and/or snap ring. Insert the upper uniball spacer into the top of the uniball and bolt together with the supplied 5/8" G9 bolt and locking nut. Using a 15/16" wrench and 15/16" socket, torque to 125-135 ft/lbs. Make sure the spacers are fully seated in the uniball prior to tightening. Do not over-tighten or use an impact gun. See diagram for reference.

Remove the sheet metal bracket that attachs the ABS speed sensor wire to the stock upper arm, being very careful not to damage the wire. Using the supplied 10-32 hardware and rubber clamps, attach the ABS speed sensor wire to the backside of the upper arm using a 5/32" allen and 3/8" wrench. Make sure to route the wire so that is has proper clearances.

Repeat steps 1 through 4 to install passenger side arm

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5.0 Alignment

You will need to have your vehicle aligned by a qualified shop. Additional caster is built into the Camburg arms to correct alignment issues that are inherent with lifting the vehicle. Have your alignment shop increase/maxout positive caster, then set camber and toe to factory OEM specifications. Having an increase in caster helps with straight line stability and cornering precision for performance driving on and off-road.

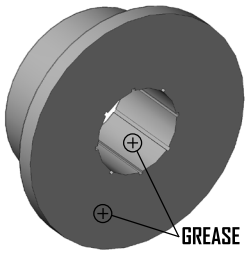
6.0 Maintenance & Care

Uniballs are precision parts with tight tolerances which can lead to occasional noise when they become dirty. Occasionally wipe off the top and underside of the uniball with a clean rag to remove road grime and dirt. Cleaning and lubricating them with WD-40 or a PTFE dry film lube like "Tri-Flow" can minimize any noise from stiction. Do not use harsh chemicals or grease/oil that attracts dirt to clean & lubricate the uniball as it will damage and wear the PTFE liner that is bonded internally. Over time the pivot bushings will also need to be cleaned and lubricated. Use grease that's designed specifically for polyurethane bushings. Not using the correct grease can cause the bushings to squeak abnormally and wear faster. The best method to grease the bushings is to remove the arms from the vehicle, disassemble, clean and lubricate. When using a grease gun, loosen the upper arm bolts so you're able to pull the washers slightly away from the outer bushings to relieve pressure prior to greasing them slowly. Most grease guns operate at 1500+ psi. and can damage the bushings applying too much pressure. Neglecting care and upkeep will wear parts out faster. We recommend greasing the poly bushings 1-2 times per year or every 6-10k miles depending on use.

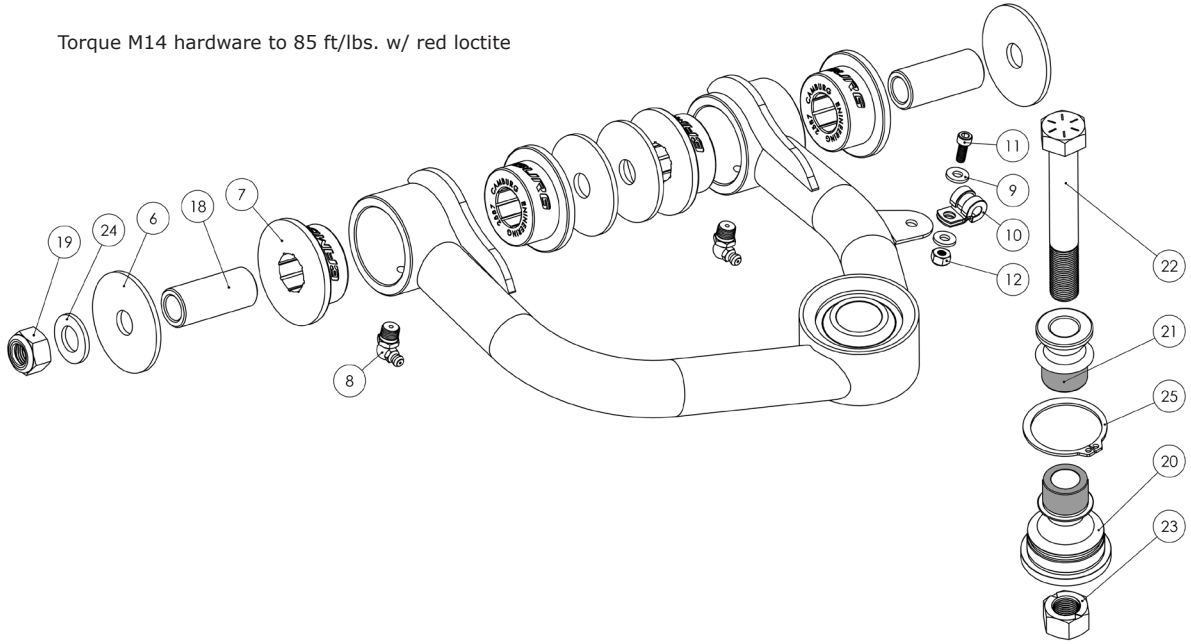
Inspect and re-torque all hardware and components after 500 miles and whenever using the truck off-road.

Notes

Recommended tire size: 285/75/16, 285/70/17
Recommended wheel size: 16x8, 17x8
Maximum wheel backspacing = 4.75"



Torque M14 hardware to 85 ft/lbs. w/ red loctite



Torque 5/8" hardware to 125-135 ft/lbs. w/ red loctite