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BD Cam Caster Adjustor

Ford F250/F350/F450/F550 2011-2022

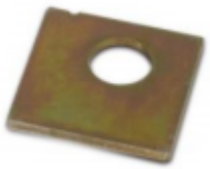
1032103	**Ford F250/F350/F450/F550 2011-22**

This kit is not compatible with F-250 and F-350 2wd models with independent front suspension

BD Engine Brake Inc.
Plant Address: 33541 MacLure Rd. Abbotsford, BC, Canada V2S 7W2
U.S. Shipping Address: 88-446 Harrison St, Sumas, WA 98295 U.S. Mailing Address: P.O. Box 231, Sumas, WA 98295
Phone: 604-853-6096 | Fax: 604-853-8749 | Internet: www.bddiesel.com

Kit Contents

1302112-1	1302112-2	1302112-3
		
Cam Adjuster; Plate 1	Cam Adjuster; Plate 2	Sleeve; Cam Bolt
Qty: 2	**Qty: 2**	**Qty: 2**

1302112-5	1302112-6	1302112-7	1302107
			
Drill Jig; Caster Adjustment	Washer; Caster Lock	Washer; Eccentric Adjuster	Bolt; M18x2.5 – 160mm
Qty: 1	**Qty: 2**	**Qty:2**	**Qty: 2**

FT-11113743	1302110	1302109	1312058
			
Bolt; M14x2 – 130mm	Washer; M18	Lock Nut; M18x2.5	Nylock Nut M14x2
Qty: 2	**Qty: 4**	**Qty: 2**	**Qty: 2**

FT-0204922	FT-0161815	FT-90700
		
Hole Saw; ¾” Carbide	Bolt; M6-1.0x35 Flange CZP	Nut; M6-1.0 Flange CZP
Qty: 1	**Qty: 1**	**Qty: 1**

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Introduction

Suspension lifts, level kits or even larger tires can cause reduced handling characteristics, resulting in potential wandering, wobble, pulling, stiff steering or even the inability to keep your truck on the road.

The BD Control Arm Caster Adjustor Kit allows adjustment from zero degrees to 2.5 degrees of additional castor to help keep the wheels stable.

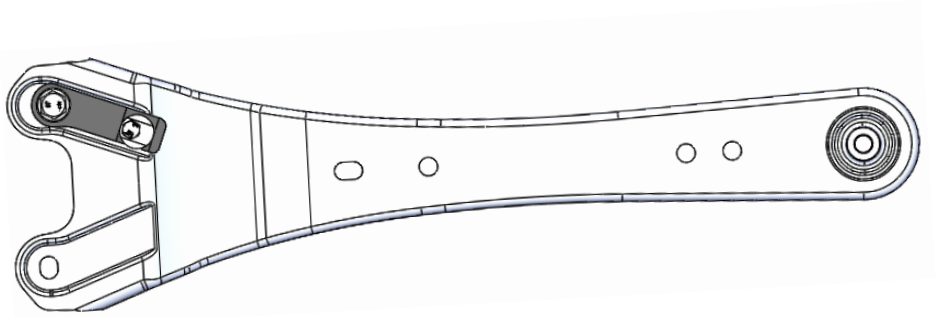
This kit is intended for lifted trucks and will allow you to adjust the caster back into the stock specified range.

Installation should occur on a vehicle properly secured to prevent rolling. Always wear your eye and ear protection when using power tools and avoid inhaling any fumes when cleaning, prepping or welding.

Installation

With the vehicle on a hoist, block the wheels and set the parking brake. Once the vehicle is safely secured, slightly lift the front end of the truck to remove some of the spring tension. Do not lift it off the ground.

The Cam Caster Adjuster will be installed on the top mounting bolt on both radius arms.



1. Remove the ABS wire support brackets from both radius arms.

NOTE: Depending on the model there will be a push in clip or a 13mm bolt.

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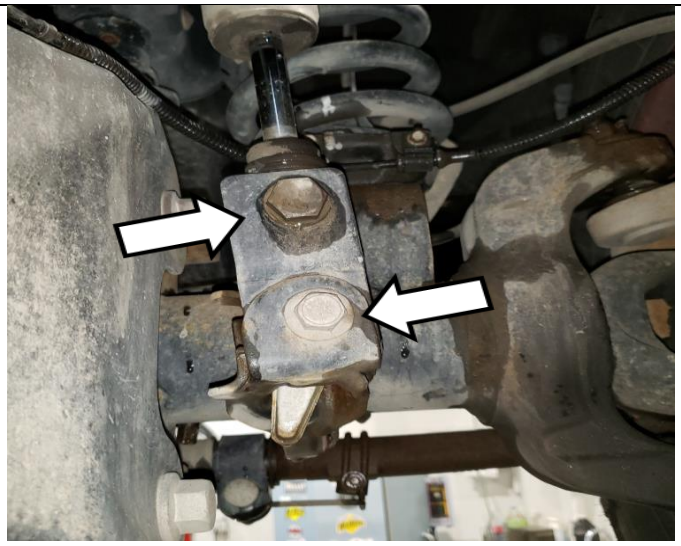
2. Remove the lower mounting bolts on the shock absorber from both sides of the vehicle. (18mm socket) then move the bottom of the shock out of the mount.



3. **NOTE:** Only loosen the bolts at this time. DO NOT REMOVE.

   Loosen the three mounting bolts located on ONE radius arms and remove the rear mounting bolt on the driver's side radius arm.

   The lower section of the shock will need to be moved away, to gain access to the bolts.

4. Removing the front two bolts on the radius arm, will release the arm from the vehicle.

   Important: Make sure the axle is chalked in place.

5. Remove the driver's side radius arm.

   NOTE: Only remove and work on one radius arm at a time.

   Install the cam/castor adjustment and reinstall the first arm before proceeding to the second.

6. The driver's side radius arm will require the weld-nut to be ground flat. Cut the weldments off and grind flush.

   NOTE: Do not cut through the radius arm.

7. The adjustment slot must be added to the top hole on the radius arm.

   The factory slotted hole of the radius arm is positioned on the bottom.

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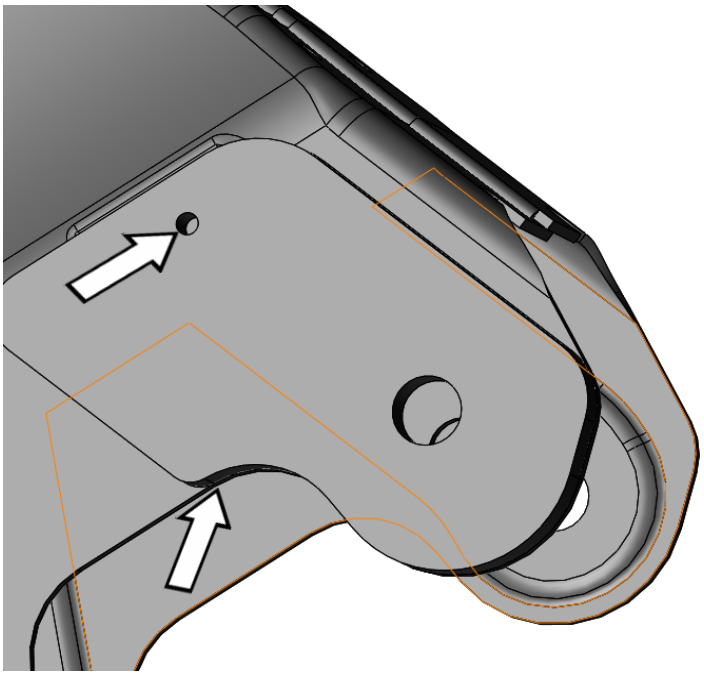
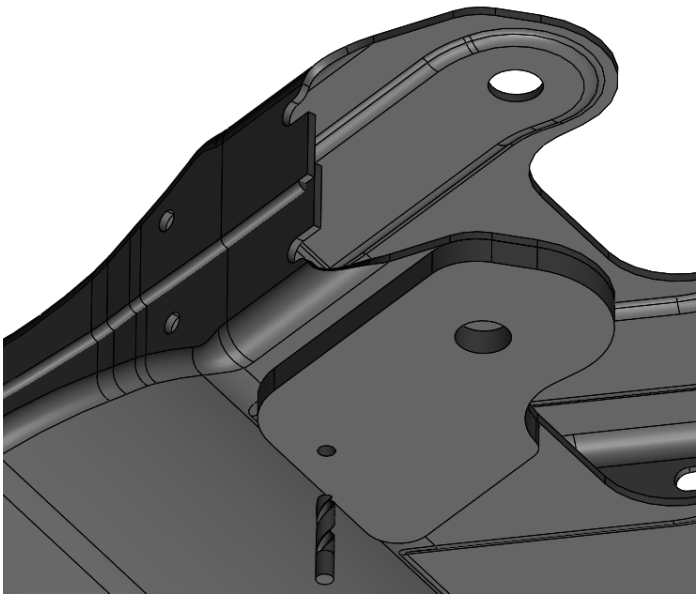
8. Clamp the drilling jig (1302112-5) on to the radius arm and set the plate's position by ensuring the cutout edge of the plate is flush with the edge of the radius arm. Secure in to place using a c-clamp or vice.

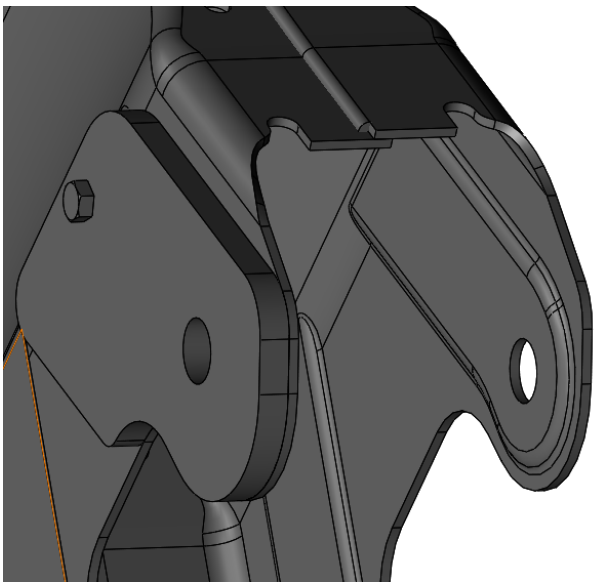


9. Drill pilot hole on the radius arm using 0.25" drill bit.



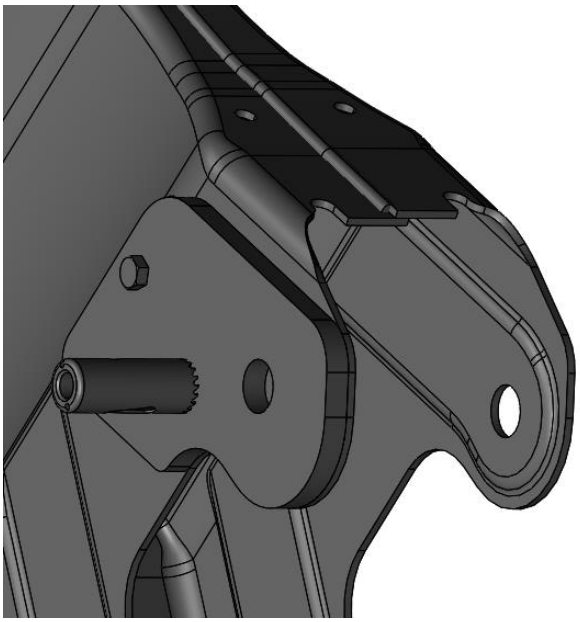
10. Put the supplied M6 bolt (FT-0161815) and M6 nut (FT-90700) through drilled hole and tighten.

    Use the M6 bolt in addition to a C-clamp or vice.



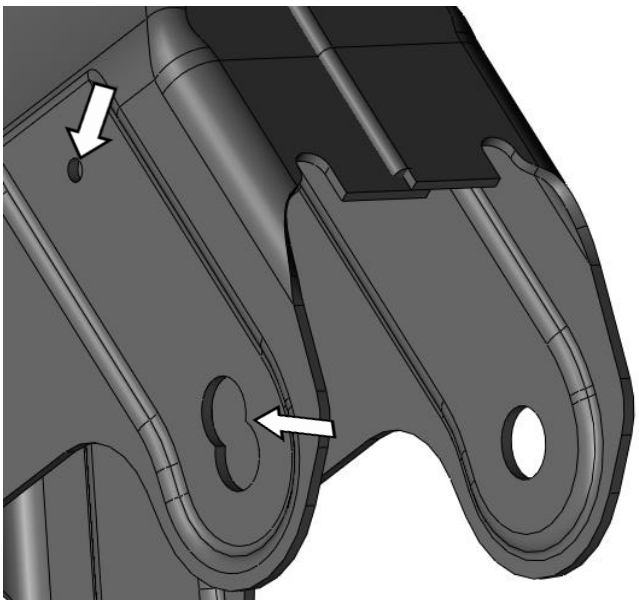
11. Drill the radius arm using supplied Ø3/4” hole saw.

    NOTE: Oil or coolant should be used to prevent drill bit wear.

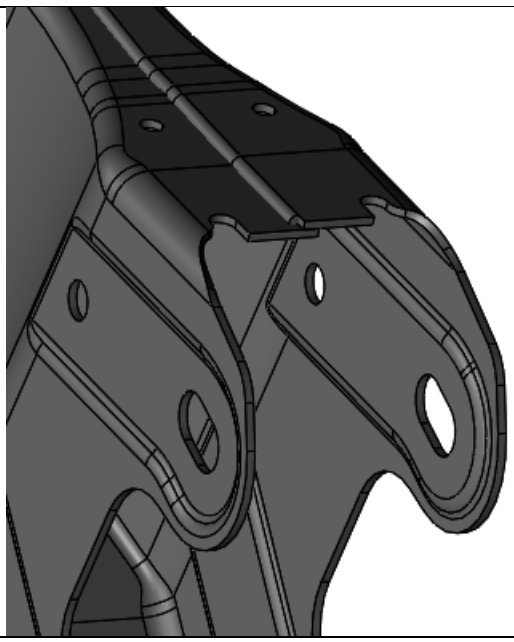


12. Remove the drill jig and re-drill the ¼” hole to 9/16”.

13. Die-grind the lip of the ¾” hole so that it makes a smooth oval. The M18 bolt should easily slide through this slot.



14. Re-mount the drill jig and repeat for the second side of the same radius arm.



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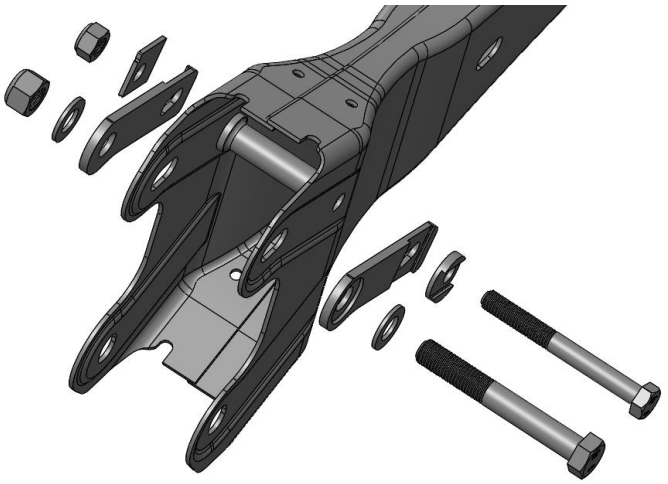
15. Install both caster adjustment plates, M14 bolts (FT-11113743), and 1302112-3 sleeve.

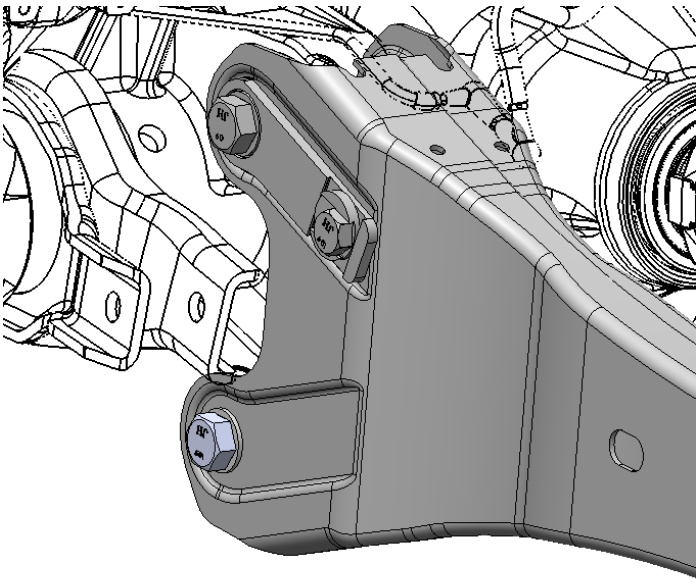
    Final part orientation shown for reference.



16. Place radius arm on the truck and install the M18 bolts. Use the supplied longer M18 bolt (FT-11114467), M18 nut (1302109), and M18 washer (1302110) through the new castor plates.

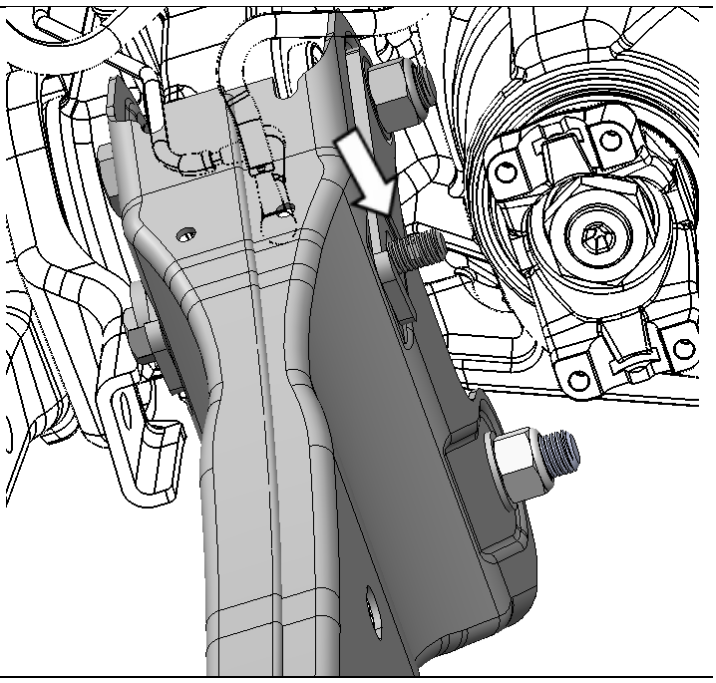
    Do not install the square washer at this point.

    NOTE: With the nuts installed, do not tighten the bolts at this point.



17. Reminder: Do not install the square adjustment lock washer.

    The square lock washer will be installed once both radius arms have been upgraded and the desired castor has been set.



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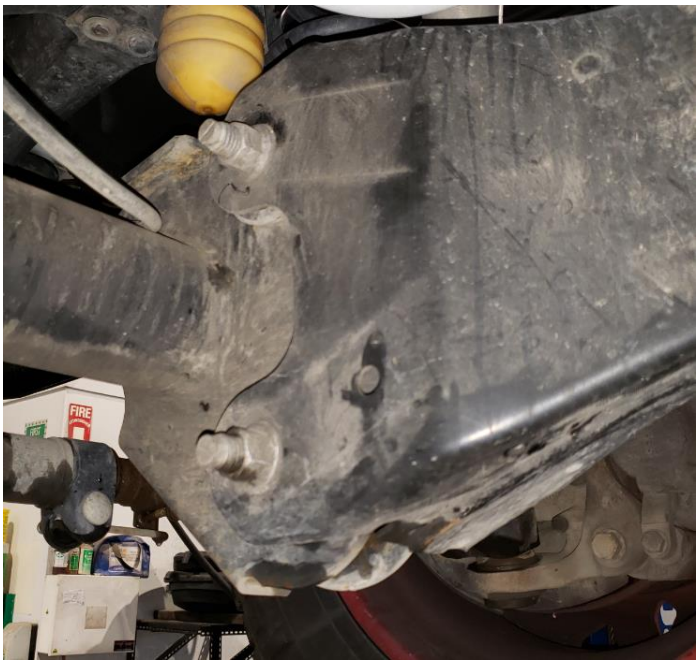
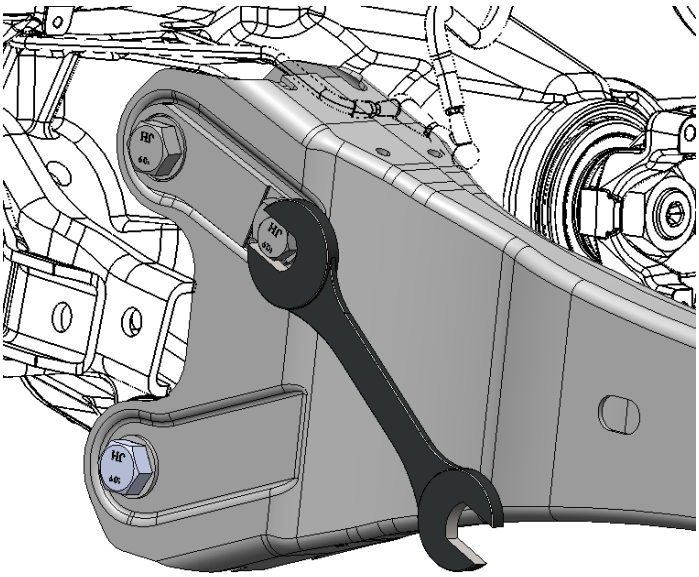
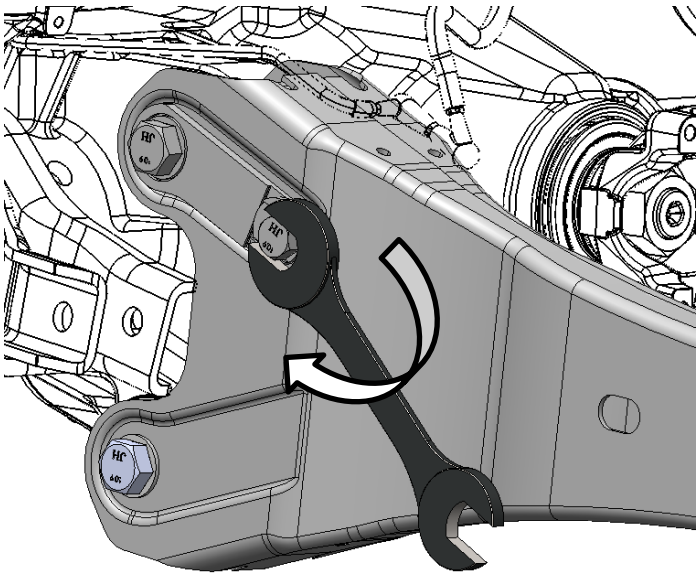
18. Repeat steps 4-17 on the second radius arm before proceeding.



19. Using a 21mm wrench, rotate the eccentric washer in the keyway until it reaches the desired castor angle.





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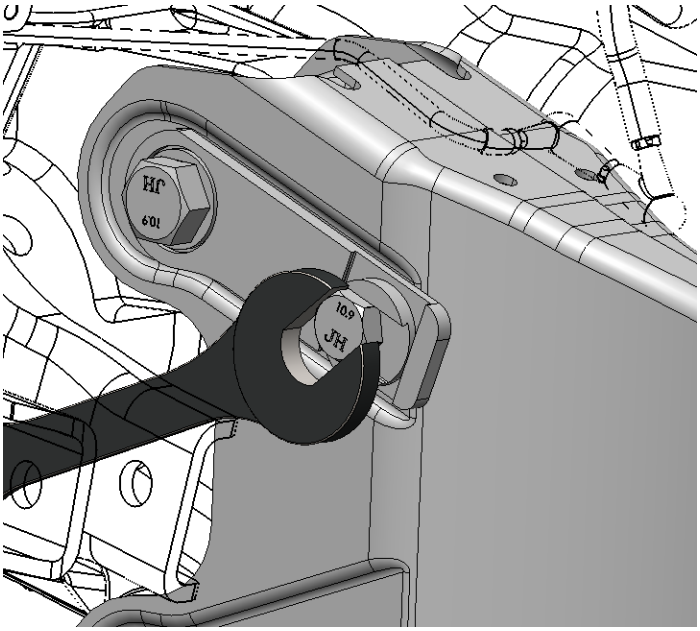
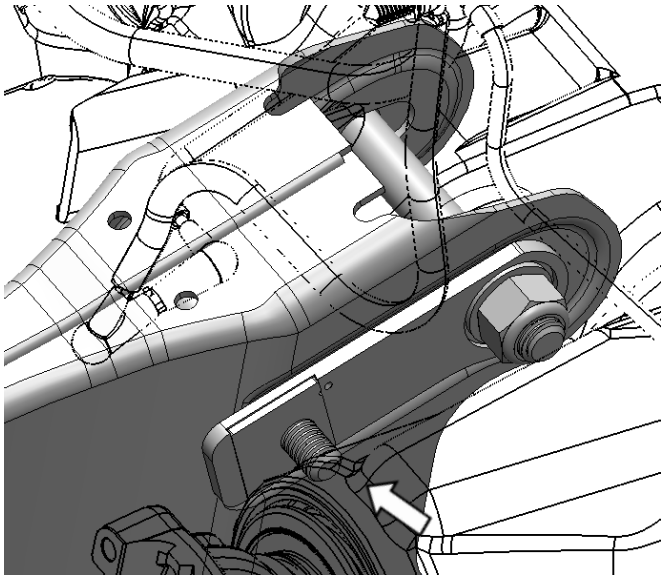
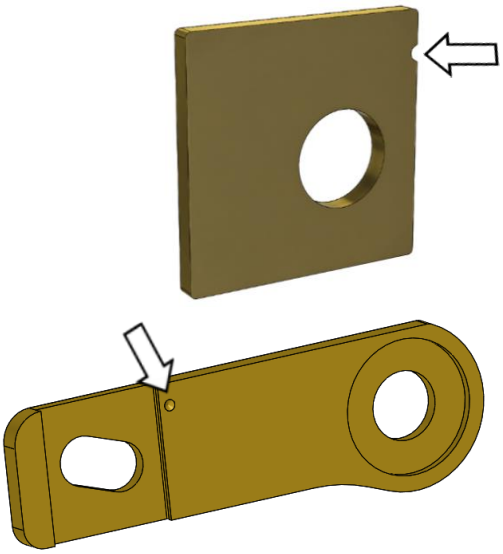
20. The orientation shown is the maximum caster angle that can be reached.



21. Once the desired castor has been reached, place the square washer (1302112-6) into the keyway on the castor adjuster plate (1302112-2).

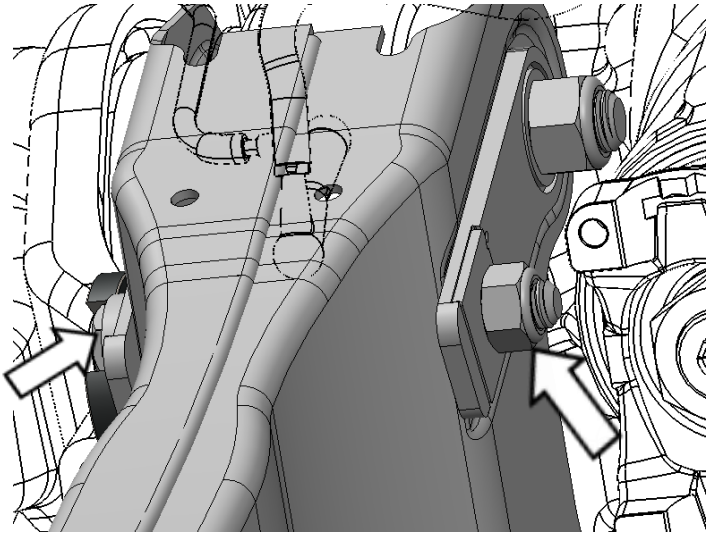


22. The square washer (1301221-6) has max angle mark to align with the mark on 1301222-2. This indicates the max angle.



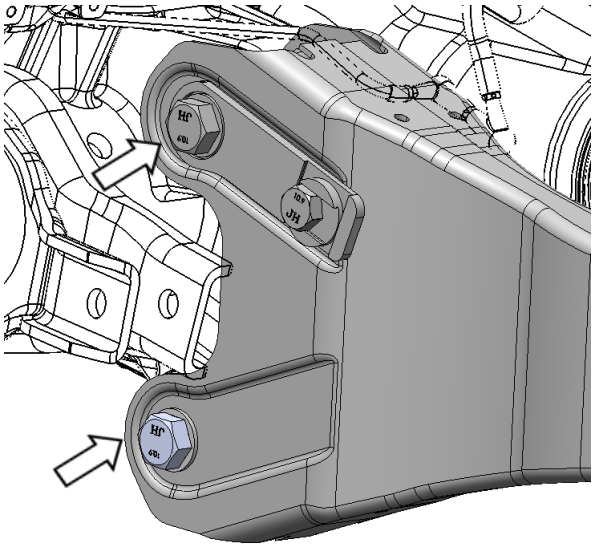
23. Tighten the M14 bolt (ft-11113743) and nut (1312058).

    Torque to 100 lb-ft.



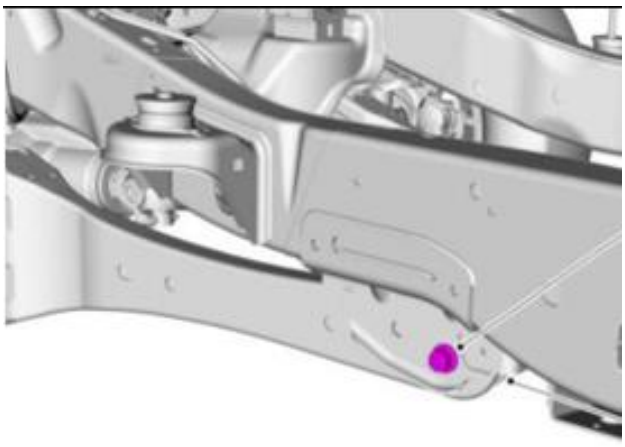
24. Tighten the upper, lower M18 radius arm bolts and nut.

    Torque to 240 lb-ft.



25. Tighten the rear radius arm bolt and nut.

    Torque to 221 lb-ft.



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The vehicle is now ready for a front-end alignment.
We suggest the vehicle be taken to an alignment shop for proper alignment.

The factory caster angle specification is positive 1.6°-4.2°.

DO NOT DRIVE THE VEHICLE WITHOUT COMPLETING A PROPER ALIGNMENT.

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