PATENT NO. US 7,513,514 B1

FORD F150 ADJUSTABLE UPPER ARMS

This part should only be installed by personnel who have the necessary skill, training and tools to do the job correctly and safely. Incorrect installation can result in personal injury, vehicle damage and / or loss of vehicle control.

Plan Ahead - Read All Instructions BEFORE installing part.

Check for loose or worn parts, proper tire pressure, and odd tire wear patterns before beginning alignment.

- 1. Raise vehicle and support by frame. Remove front tire and wheel assembly.
- 2. Ensure lower control arm bolts are centered in mounting slots. Use SPC P/N 86250 or SPC P/N 86252 for easy adjustment.
- 3. Remove OE front upper control arm per manufacturer's procedure. Break taper between ball joint stud and knuckle using **SPC P/N 8370** or equivalent.
- 4. Install SPC control arm into frame pockets. Reinstall upper control arm mounting hardware and torque to manufacturer specification.
- 5. Install ball joint stud into knuckle with provided castle nut. Tighten castle nut to 45 lb-ft, then tighten more as necessary until cotter can be installed.
- Install star plate over hex on ball joint per chart below to achieve desired caster change. Insert ball joint up through bottom of arm, indexing star plate in machined slot, and then install washer and nut. Slide ball joint to midpoint of travel in arm slot and tighten nut snug.



TECH TIP: Use a magnetic adjustable camber gauge (SPC P/N 81139) to rough in camber change without needing to reinstall tire and wheel assembly.

- 7. Reinstall tire and wheel assembly and lower vehicle. Torque shock absorber lower nut and bolt to manufacturer's specification.

 NOTE: Tightening fasteners with vehicle in raised position may cause premature bushing failure.
- 8. Adjust camber by sliding upper ball joint in slot. Adjust caster by rotating ball joint on star plate. Fine tune camber, caster, and wheel position using lower control arm adjustment with SPC P/N 86250 or SPC P/N 86252.
- 9. When finished adjusting, torque top ball joint nut to 150 lb-ft. Torque OE fasteners to manufacturer's specification.
- 10. Grease ball joint with NLGi #2, Grade LB with 3%-5% Molybdenum Disulfide grease. 5 to 10 pumps of grease is sufficient at each lubrication.

WARNING: FAILURE TO GREASE AND MAINTAIN THIS BALL JOINT WILL RESULT IN PREMATURE FAILURE AND VOID WARRANTY.

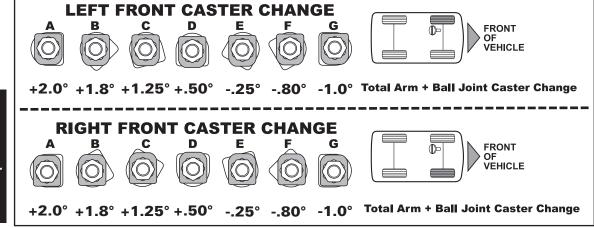
11. Complete alignment and road test vehicle.

Always check for proper clearance between suspension components and other components of the vehicle.

Maintenance:

Lubrication Interval - SPC recommends adding 5 to 10 pumps of grease to ball joint at each oil change, or after operating vehicle in wet or dusty conditions.

Note: With SPC logo facing away from the tire (Position D) this arm will give +.5° additional caster. Using the star plate, caster change can be adjusted from -1.0° to +2.0°.





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