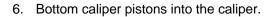
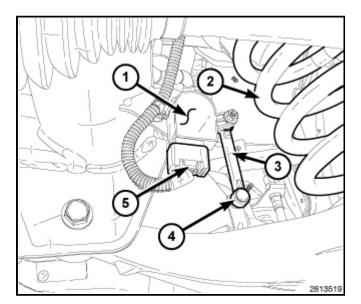
### 2012 WK - Rear Suspension/SPRING(S)/Removal

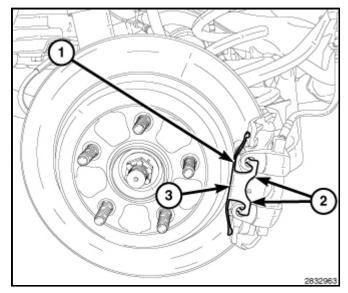
# WITHOUT AIR SUSPENSION

- Raise and support the vehicle (Refer to 04 -Vehicle Quick Reference/Hoisting - Standard Procedure).
- 2. Remove the tire and wheel.
- 3. If the spring is to be reused and there is no part number tag, mark the position of the spring for proper alignment on installation.
- 4. Remove the half shaft nut.
- 5. If equipped with a height sensor (1), disconnect the linkage (3) from the ball stud at the lower control arm bracket by prying with a small screwdriver (4).



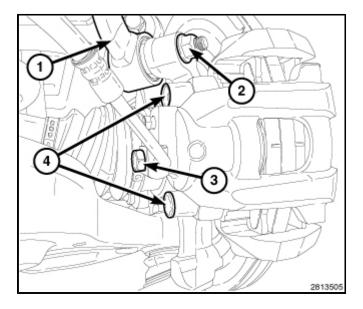
7. Remove the brake caliper tension clip (1) by pressing forward on the back of the clip (3) while pulling out on the front of the clip (2).



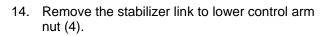


- Remove the caliper slide dust bolt shields and loosen the brake caliper slide bolts (guide pins) (4).
  - NOTE: Never allow the disc brake caliper to hang from the brake hose. Damage to the brake hose will result. Provide a suitable support to hang the caliper securely.

- 9. Remove the brake caliper from the caliper adapter and hang the brake caliper.
- 10. Support the outer end of the lower control arm with a suitable holding fixture.
- 11. Remove the tension link to knuckle nut (2) and bolt.

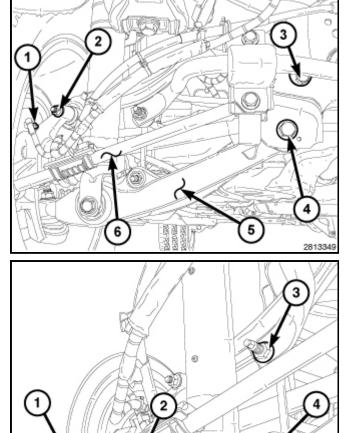


- 12. Remove the wheel speed sensor bolt (1) and remove the sensor.
- 13. Remove the camber link to knuckle bolt/nut (2).



- 15. Remove the shock lower nut/bolt (5).
- 16. Remove the toe link to knuckle nut (1) and bolt (2).

CAUTION: Never allow the half shaft to hang unsupported from the axle. Damage to the joints may result. Provide a suitable support to hang the half shaft securely.



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17. Remove the half shaft from the hub by tilting and

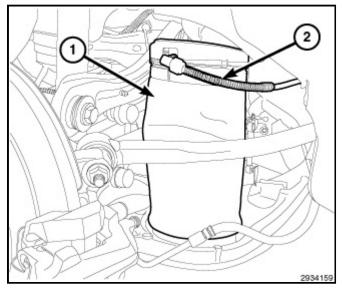
pulling the knuckle away from the vehicle while pushing the half shaft toward the axle.

18. Carefully lower control arm support until spring is loose, and remove the spring from vehicle.

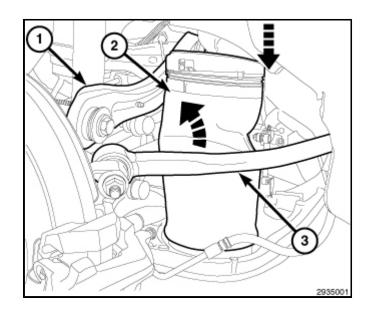
#### 2012 WK - Rear Suspension/SPRING(S)/Removal

## WITH AIR SUSPENSION (SER)

- WARNING: All pressurized air suspension components contain high pressure air (up to 220 psig). Use extreme caution when inspecting for leaks. Wear safety goggles and adequate protective clothing when inspecting or servicing the air suspension system. A sudden release of air under this amount of pressure can cause possible serious or fatal injury.
- WARNING: Support the vehicle by supplemental means before performing any work on the air suspension system to prevent the vehicle from changing height. Before any given component is to be serviced it must be deflated. Servicing the air suspension system without supplemental support, or with pressure in the specific component, can cause possible serious or fatal injury.
- CAUTION: When removing an air line from a component and the air line is to be reused, do not remove the 90° fitting or the brass fitting from the air line. If either is removed, the air line must be replaced. New components have air line fittings attached; however if the original air line is used the original fitting must also be used. Do not remove protective caps or plugs from air lines or components until ready to install the air line to prevent moisture or dirt intrusion. All air line fittings must be hand started to avoid cross threading.
  - Raise and support the vehicle (Refer to 04 -Vehicle Quick Reference/Hoisting - Standard Procedure).
  - 2. With a scan tool, using the routines under the ASCM, perform the following:
    - Disable the air suspension system.
    - Run the Spring Deflate To Reservoir routine on the air suspension spring to be removed.
  - 3. Remove the tire and wheel.
    - NOTE: Do not remove the fitting from the air line. During installation the same fitting will be used. If the fitting is removed from the air line, the air line must be replaced.



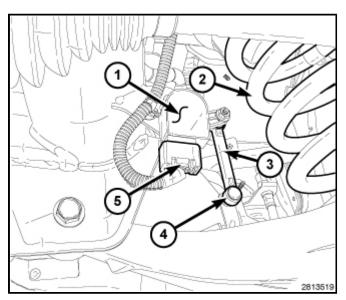
- 4. Remove air line fitting and air line (2) from the air spring.
- 5. To remove the air spring (2), push down on the air spring (2) to compress, tilt the top out and lift the air spring (2) from the lower control arm between the tension link (3) and camber link (1).



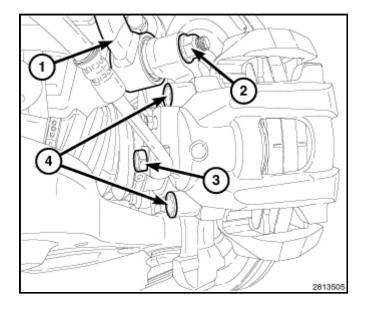
### 2012 WK - Rear Suspension/SPRING(S)/Installation

## WITHOUT AIR SUSPENSION

- 1. If necessary, position the spring insulators (2) in the control arm (1) and cradle.
  - NOTE: A new spring will have a part number tag. To properly position the spring, the tag must be positioned to face straight out from the vehicle. If the existing spring is being installed (and no part number tag), align the markings made during removal.
- 2. Position the spring in the pocket of the lower control arm (1).
- 3. While holding the spring in position, carefully raise the lower control arm (1) with a support fixture at the outer end of the lower control arm to normal ride height.



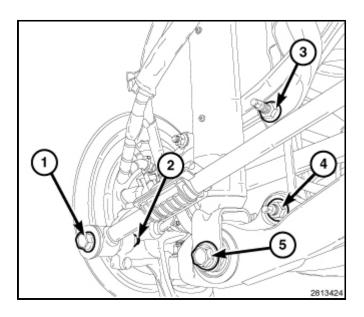
- 4. Align the knuckle to the axle shaft and install the axle through the hub/bearing. Install the half shaft nut and tighten to 310 N·m (229 ft. lbs.).
- 5. If equipped with a height sensor (1), position the height sensor linkage (3) to it's ball stud (4) and press together to seat.
- 6. Position the tension link, install the nut (2) and tighten to 108 N·m (79 ft. lbs.).



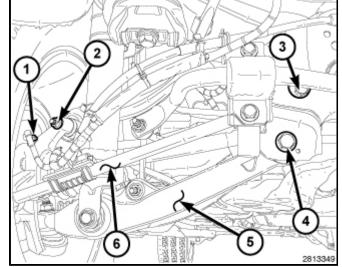
- 7. Position the toe link, install the nut (1, 2) and tighten to 108 N·m (79 ft. lbs.).
- 8. Install the shock lower bolt (5) and nut and tighten

to 235 N·m (173 ft. lbs.).

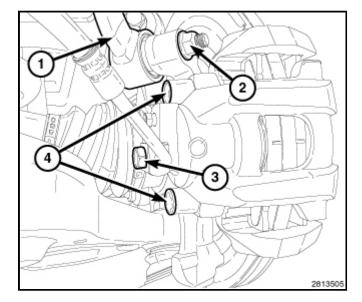
 Install the stabilizer link to lower control arm nut (4) and tighten to 110 N·m (81 ft. lbs.).



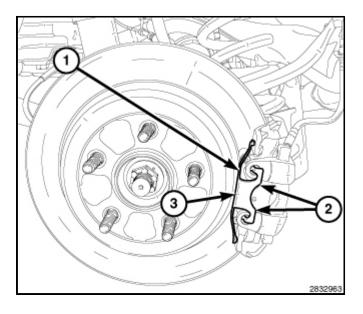
- 10. Install the camber link to knuckle bolt/nut (2) and tighten to 110 N·m (81 ft. lbs.).
- Install the wheel speed sensor and sensor retaining bolt (1) and tighten to 10.7 N·m (95 in. lbs.).



- 12. Position the brake pads and caliper, install the brake caliper slide bolts (guide pins) (4) and tighten to 27.5 N·m (20 ft. lbs.).
- 13. Install the caliper slide bolt dust shields.



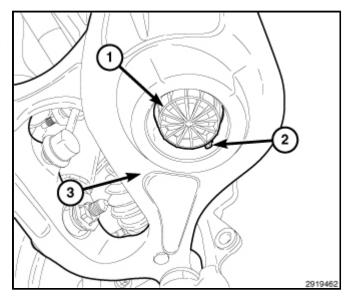
- 14. Install the brake caliper tension clip (1).
- 15. Install the wheel (Refer to 22 Tires and Wheels/Wheels Standard Procedure) .
- 16. Remove the support and lower the vehicle.
- 17. Pump the brake pedal until caliper pistons and brake pads are seated and a firm brake pedal is obtained.



#### 2012 WK - Rear Suspension/SPRING(S)/Installation

## WITH AIR SUSPENSION (SER)

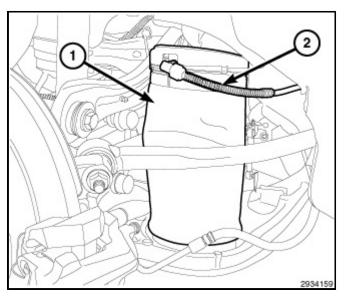
- WARNING: All pressurized air suspension components contain high pressure air (up to 220 psig). Use extreme caution when inspecting for leaks. Wear safety goggles and adequate protective clothing when inspecting or servicing the air suspension system. A sudden release of air under this amount of pressure can cause possible serious or fatal injury.
- WARNING: Support the vehicle by supplemental means before performing any work on the air suspension system to prevent the vehicle from changing height. Before any given component is to be serviced it must be deflated. Servicing the air suspension system without supplemental support, or with pressure in the specific component, can cause possible serious or fatal injury.
- CAUTION: When removing an air line from a component and the air line is to be reused, do not remove the 90° fitting or the brass fitting from the air line. If either is removed, the air line must be replaced. New components have air line fittings attached; however if the original air line is used the original fitting must also be used. Do not remove protective caps or plugs from air lines or components until ready to install the air line to prevent moisture or dirt intrusion. All air line fittings must be hand started to avoid cross threading.
  - Position the rear air spring (1) with the lower alignment tab (2) into the slot in the lower control arm (3) and align the upper portion of the rear air spring (1) into the upper pocket as when removed.



- 2. If a new rear air spring is used, remove the cap/fitting from the air line connection of the rear air spring.
- 3. Using the original fitting, connect the air line (2) to the rear air spring and tighten to 3.5 N-m (31 in. lbs.).
- 4. With a scan tool, using the routines under the Air

Suspension Control Module (ASCM), perform the following:

- Run the Fill Spring From Reservoir routine on the spring that was installed. **Choose the Short Time Fill** option from the menu selections and the spring will inflate for approximately one second, then verify the air spring is properly seated into its mounting sockets, and any wrinkles in the air bag have unfolded properly.
- Run the Fill Spring From Reservoir routine on the spring that was installed. **Choose the Complete Fill** option from the menu selections.
- 5. Install the tire and wheel (Refer to 22 Tires and Wheels/Wheels Standard Procedure) .
- 6. Remove the support and lower the vehicle.



- 7. With a scan tool, using the routines under the Air Suspension Control Module (ASCM), perform the following:
  - Command the vehicle to Normal Ride Height.
  - Run the Air Mass Calculation routine on the air suspension system.
  - If necessary, add to the system or deflate to atmosphere using the ASCM routines, then repeat the Air Mass Calculation routine again until system responds with Air Mass OK (188 216 bar-liters).
  - Enable the air suspension system.
- 8. Perform the ASCM Verification Test (Refer to 28 DTC-Based Diagnostics/MODULE, Air Suspension Control (ASCM) Standard Procedure).