

Front Alignment Cams

Ford Super Duty | 2005-2024

Part #: 129105

Rev. 053124



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SAFETY WARNING

BDS Suspension Co. recommends this system be installed by a professional technician. In addition to these instructions, professional knowledge of disassembly/ reassembly procedures and post installation checks must be known.

IMPORTANT

2024+ Ford Super Duty Only: This kit includes ball joint cams to achieve optimum performance both on and off-road. For vehicles equipped with non-selectable passenger side hub-lock on the front axle along with these ball joint cams, it is required to replace the non-selectable with a selectable hub-lock. Part number (PC3Z-3B396-A) is needed to prevent a grinding noise from the front axle for these applications. If your vehicle is not factory equipped with them, see **Figure A**. You may also need vacuum lines (3C125-A and/or 3C124). You can reference Section 307-07A of the Workshop Manual or Bulletin SSM 52423 for more information. For trucks with the vacuum tube as shown in **Figure B**, this step is not needed.

FIGURE A



FIGURE B



INSTALLATION INSTRUCTIONS

1. Park the vehicle on a clean, flat surface and block the rear wheels for safety.
2. Raise the front of the vehicle and support the axle with jack stands.
3. Remove the wheels.
4. Remove the cotter pin from the upper ball joint.
5. Loosen the upper ball joint stud until the nut is level with the top of the stud. Strike the axle "ear" near the upper ball joint to release the ball joint to sleeve taper (Fig 1).

Note: The top of the stud can also be struck using a soft blow hammer to aid in loosening the taper. Take care not to damage the stud/nut threads.

FIGURE 1



6. Remove the OE ball joint sleeve from the axle using the appropriate removal tool (SPC #41550 or equivalent) (Fig 2).

FIGURE 2



7. Install the new sleeve with the arrow on the top of the sleeve pointing toward the front of the vehicle. 2 different sleeves are included. The sleeve marked "2.3 degrees" should be used on the driver's side and the sleeve marked 2.6 degrees should be used on the passenger's side. Using the old sleeve, pound down on the new sleeve to seat it on the ball joint taper. Make sure that the flat of the sleeve is flush with the flat of the axle (Fig 3).

FIGURE 3



8. Install and torque the OE ball joint nut to 69 ft-lbs. Install the cotter pin. Note: Do not loosen the nut to install the cotter pin (Fig 4).

FIGURE 4



9. Install the wheels.
10. Check all hardware for proper torque.
11. Check hardware after 500 miles.