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## 2007-2017 TOYOTA TUNDRA 4WD CSS-T3-3 7" HIGH-CLEARANCE KIT



## READ THE FOLLOWING NOTES PRIOR TO INSTALLATION

DO NOT ALTER THE FINISH OF ANY COMPONENTS. CHANGING THE FINISH SUCH AS CHROMING, ZINC-PLATING, OR ANY TYPE OF PAINTING CAN CAUSE STRUCTURAL FATIGUE OF COMPONENTS.

PRIOR TO INSTALLATION, COMPARE THE PARTS LIST WITH THE COMPONENTS RECEIVED IN THE KIT. IF ANY PIECES ARE MISSING PLEASE CONTACT YOUR LOCAL RETAILER OR CST PERFORMANCE SUSPENSION AT 951-571-0212, AND YOU WILL BE TAKEN CARE OF IN A TIMELY MANNER.

READ ALL INSTRUCTION FROM START TO FINISH BEFORE BEGINNING INSTALLATION. IF THESE INSTRUCTIONS ARE NOT PROPERLY FOLLOWED, SEVERE FRAME, TIRE, OR SUSPENSION DAMAGE MAY RESULT TO THE VEHICLE. IF YOU INCUR A PROBLEM DURING THE INSTALLATION OF THIS KIT, FIRST BE SURE YOU HAVE FOLLOWED THE INSTRUCTION FROM START TO FINISH ACCURATELY AND IF SO PLEASE

CALL 951-571-0212; WE WILL DO OUR BEST OVER THE PHONE TO ASSIST YOU WITH YOUR PROBLEM, OR DIRECT YOU ACCORDINGLY.

VEHICLES THAT RECEIVE OVER SIZED TIRES SHOULD CHECK BALL JOINTS, TIE ROD ENDS AND PIVOT POINTS, AS WELL AS GENERALLY INSPECT THE ENTIRE SUSPENSION FRONT TO REAR EVERY 2500 – 5000 MILES FOR WEAR AND REPLACE PARTS AS NEEDED.

## **INSTRUCTIONS:**

- 1. JACK UP THE TRUCK AND SUPPORT IT UNDER THE FRAME WITH JACK STANDS. NEVER WORK UNDER AN UNSUPPORTED VEHICLE.
- 2. REMOVE THE WHEELS. (2000 22MM SOCKET)
- 4. REMOVE THE BOLTS THAT HOLD THE BRAKE LINE TO THE SPINDLE, AND THE BRAKE LINE TO THE FRAME. CUT A SLOT IN THE BRACKET THAT HELD THE BRAKE LINE TO THE SPINDLE AND REMOVE THE BRACKET. BE CAREFUL NOT TO DAMAGE THE BRAKE LINE. (೨) 12MM SOCKET)
- 5. REMOVE THE COTTER PIN FROM THE TIE ROD END. SEPARATE THE TIE ROD END FROM THE SPINDLE. DO NOT STRIKE THE TIE ROD END WITH A HAMMER, YOU MAY DAMAGE IT. USE A REMOVAL TOOL, OR STRIKE THE SPINDLE WITH A HAMMER TO JAR THE TAPER LOOSE. (2000) 24MM SOCKET)
- 6. REMOVE THE BRAKE CALIPERS AND HANG THEM OUT OF THE WAY USING BRAKE HOOKS, DO NOT LET THEM HANG ON THE BRAKE LINES. SLIDE THE ROTORS OFF OF THE HUBS. (2000) 17MM SOCKET FOR 07-15 AND 19MM SOCKET FOR 16 AND UP)
- 7. REMOVE THE DUST CAP FROM THE HUB. REMOVE THE COTTER PIN AND THE AXLE NUT. (2000) 1 9/16 SOCKET)
- 8. SEPARATE THE UPPER ARM FROM THE SPINDLE. (2) 19MM SOCKET)
- 9. REMOVE THE 2 LARGE BOLTS THAT HOLD THE BOTTOM OF THE SPINDLE TOGETHER. DO NOT BREAK THE LOWER TAPER LOOSE. USE A RUBBER MALLET TO TAP THE AXLE OUT OF THE HUB. REMOVE THE SPINDLE AND SET IT ON THE BENCH. (2) 22MM SOCKET, RUBBER MALLET)
- 10. REMOVE THE SWAYBAR LINKS. (2000 19MM SOCKET)
- 11. LOOSEN THE LOWER ARMS.
- 12. REMOVE THE SKIDPLATE. (2000 10MM SOCKET, 12MM SOCKET)
- 13. REMOVE THE FRONT SHOCKS. (2=24MM SOCKET, 14MM WRENCH)
- 14. REMOVE THE LOWER ARMS. (2=24MM WRENCH, 24MM SOCKET)
- 15. REMOVE THE REAR BUMPSTOPS WITH A LARGE WRENCH.
- 16. SEPARATE THE FRONT DRIVESHAFT FROM THE FRONT DIFFERENTIAL. USE A TIE DOWN TO KEEP THE FRONT OF THE DRIVE SHAFT HELD UP TEMPORARILY. (2)—14MM SOCKET)
- 17. UNPLUG THE WIRE LOOM AND DISCONNECT THE VACUUM LINES FROM THE FRONT DIFFERENTIAL.

- 18. SUPPORT THE FRONT DIFFERENTIAL WITH A TRANSMISSION JACK, REMOVE THE BRACKETS THAT HOLD IT IN PLACE AND REMOVE THE FRONT DIFFERENTIAL. (1998) 19MM SOCKET, 21MM SOCKET)
- 19. THE FACTORY CROSS MEMBER NEEDS TO BE CUT OUT TO MAKE ROOM FOR THE DIFF ONCE IT IS DROPPED. MARK THE CROSS MEMBER WHERE IT NEEDS TO BE CUT, ON THE DRIVERS SIDE MARK A LINE 2 3/4" FROM THE CENTER OF THE SLOT. THE LINES SHOULD BE VERTICAL. USE THE PHOTOS FOR REFERENCE.





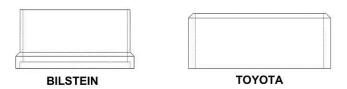
20. THE PASSENGER SIDE IS NOT CRITICAL WHERE IT IS CUT. MARK IT JUST AFTER THE CURVED PART OF THE CROSS MEMBER. USE THE PHOTOS FOR REFERENCE.



- 21. CUT THE CROSS MEMBER OUT USING A SAWSALL.
- 22. WELD THE SUPPLIED RAW METAL PLATES ON TO THE EXPOSED ENDS. SPRAY PAINT TO PREVENT RUST.
- 23. OPEN PARTS BAG # 1
- 24. INSTALL THE FRONT SUBFRAME USING THE SUPPLIED 7/8 BOLTS, DO NOT TIGHTEN AT THIS TIME.
- 25. GREASE THE URETHANE BUSHINGS AND PUSH THEM INTO THE DIFF DROPS. GREASE THE CRUSH SLEEVES AND PUSH THEM INTO THE BUSHINGS.
- 26. BOLT THE DRIVERS SIDE FRONT DIFF MOUNT TO THE DIFF USING THE STOCK 3 BOLTS AND LOCKTITE. TIGHTEN THESE BOLTS SO FLUID DOES NOT RUN OUT OF THE HOUSING. (2000) 19MM SOCKET)
- 27. BOLT THE PASSENGER SIDE DIFF DROP TO THE DIFF USING THE SUPPLIED 9/16 x 2 BOLTS. DO NOT TIGHTEN AT THIS TIME.



- 28. RAISE THE FRONT DIFF INTO PLACE USING A TRANSMISSION JACK AND ATTACH IT TO THE FRONT SUBFRAME USING THE SUPPLIED 9/16 BOLTS. DO NOT TIGHTEN AT THIS TIME.
- 29. REMOVE THE FACTORY VENT LINE AND REPLACE IT WITH THE SUPPLIED LINE. REATTACH THE VENT LINES AND WIRES FOR THE FRONT DIFFERENTIAL.
- 30. INSTALL THE REAR SUBFRAME USING THE SUPPLIED 18MM BOLTS. DO NOT TIGHTEN AT THIS TIME.
- 31. BOLT THE REAR DRIVERS SIDE DIFF DROP TO THE DIFF USING THE STOCK BOLT. ATTACH THE STOCK DIFF DROP MOUNT TO THE REAR SUBFRAME ON THE INSIDE USING THE STOCK NUT. ATTACH THE OUTSIDE OF THE STOCK DIFF DROP MOUNT TO THE BOTTOM SIDE OF THE TAB THAT STICKS OUT ON THE SUBFRAME USING THE SUPPLIED 9/16 X 2 ½ BOLT. DO NOT TIGHTEN AT THIS TIME.
- 32. INSTALL THE LOWER ARMS INTO THE SUBFRAMES USING THE STOCK CAM ADJUSTERS. THESE CAMS WILL NOT BE TIGHTENED UNTIL THE KIT IS FULLY INSTALLED AND THE TRUCK IS SITTING ON THE GROUND.
- 33. TIGHTEN ALL OF THE BOLTS FOR THE SUBFRAMES, AND ALL OF THE DIFF MOUNTING HARDWARE, EVERYTHING EXCEPT THE ALIGNMENT CAMS ON THE LOWER ARMS. (2)—2 13/16 WRENCH, 7/8 SOCKET, 1 1/4 SOCKET, 1 1/4 WRENCH, 27MM SOCKET, 27MM WRENCH, 19MM WRENCH)
- 34. ATTACH THE DRIVE SHAFT TO THE DIFF USING THE STOCK NUTS AND LOCKTITE. (5—0 15MM SOCKET)
- 35. OPEN PARTS BAG # 2
- 36. USE CAUTION WHEN WORKING ON COMPRESSED COIL SPRINGS. TAKE THEM TO A SHOP THAT HAS THE PROPER EQUIPMENT IF YOU DO NOT HAVE A STRUT COMPRESSOR. USING A STRUT COMPRESSOR, REMOVE THE COIL FROM THE FRONT COILOVERS. REMOVE THE BOTTOM PLATE THAT HOLDS THE BOTTOM OF THE COIL AND INSTALL THE MACHINED SPACERS (ONE PER SHOCK). REASSEMBLE THE COILOVERS.



- 37. ATTACH THE COILOVER SPACERS TO THE COILOVERS USING THE STOCK NUTS AND LOCKTITE. THE PART OF THE SPACER WITH THE FLAT EDGE GOES TOWARD THE OUTSIDE OF THE SHOCK (THE TOP OF THE SHOCK HAS AN ARROW AND "OUT" STAMPED ON IT.) (2000 14MM WRENCH)
- 38. INSTALL THE COILOVERS USING THE SUPPLIED 7/16 LOCKNUTS AND WASHERS ON THE TOP AND THE STOCK BOLT ON THE BOTTOM. (2)—11/16 SOCKET, 22MM SOCKET, 22MM WRENCH)
- 39. INSTALL THE BUMPSTOP MOUNTS USING THE SUPPLIED ½" BOLTS TO ATTACH THEM TO THE REAR SUBFRAME, AND THE SUPPLIED 10MM BOLTS TO ATTACH THEM TO THE STOCK BUMPSTOP MOUNT ON THE FRAME. (2)—0 17MM SOCKET, ¾" SOCKET)
- 40. INSTALL THE STOCK BUMPSTOP INTO THE BOTTOM OF THE NEW MOUNT USING THE SUPPLIED 10MM NUT.
- 41. REMOVE THE SEALS THAT ARE PRESSED INTO THE STOCK SPINDLES AND PRESS THEM INTO THE NEW SPINDLES.
- 42. REMOVE THE HUBS FROM THE STOCK SPINDLES AND INSTALL THEM INTO THE NEW SPINDLES USING LOCKTITE. YOU MUST REUSE THE DUST SHIELD. (2)—17MM WRENCH)
- 43. OPEN PARTS BAG # 3
- 44. INSTALL THE SPINDLES. MAKE SURE THE AXLE SLIDES INTO THE HUBS PROPERLY AND BOLT THE SPINDLES TO THE LOWER ARMS USING THE STOCK BOLTS AND LOCKTITE. TIGHTEN THE AXLE NUTS AND REPLACE THE COTTER PINS. REINSTALL THE DUST COVERS. (೨── 22MM SOCKET)
- 46. REMOVE THE OUTER TIE RODS AND INSTALL THE NEW ONES, THREAD THEM DOWN TO APPROXIMATELY THE SAME POSITION AS THE STOCK ONE WAS.
- 47. INSTALL THE ANTILOCK WIRES USING THE STOCK BOLTS AND LOCKTITE (REMOVE THE PLASTIC COVER FROM THE ANTILOCK SENSOR TO MAKE IT FIT). (2000) 6MM ALLEN WRENCH)
- 48. BOLT THE BRAKE LINE DROP BRACKET TO THE FRAME USING THE STOCK BOLT. CAREFULLY BEND THE BRAKE LINE DOWN AND BOLT IT TO THE BRACKET USING THE SUPPLIED 5/16" BOLTS. (2)—2 12MM SOCKET, ½" SOCKET, ½" WRENCH) SEE THE PICTURE ON THE NEXT PAGE.



- 50. ATTACH THE TIE ROD TO THE SPINDLE WITH THE INCLUDED NUT.
- 51. REMOVE THE SWAYBAR.
- 52. OPEN PARTS BAG # 4
- 53. BOLT THE SWAYBAR DROP BRACKETS TO THE BOTTOM OF THE FRAME USING THE STOCK HARDWARE AND LOCKTITE. THE STOCK BOLTS GO INTO THE LARGE HOLES ON THE BRACKETS, THE HOLES WITH THE NUTS WELDED IN GO DOWN AND TO THE FRONT.
- 54. BOLT THE SWAYBAR TO THE DROP BRACKETS USING THE SUPPLIED 7/16 BOLTS AND WASHERS.





- 55. INSTALL THE NEW HEIM JOINT SWAYBAR LINKS USING THE STOCK HARDWARE ON THE BOTTOM (WITH THE PROVIDED SLEEVES) AND THE SUPPLIED BOLT ON THE TOP. THE CLOCKING ON THE HEIM JOINTS ARE SET UP DIFFERENTLY FOR DRIVER AND PASSENGER, MAKE SURE THEY GET USED ON THE CORRECT SIDE SO THE HEIMS LINE UP PROPERLY.
- 56. INSTALL THE SKIDPLATE USING THE SUPPLIED 3/8" BOLTS. (2000) 9/16" SOCKET)
- 57. ATTACH THE BRAKE LINE TO THE SPINDLE USING THE SUPPLIED ADEL CLAMP AND ¼" BOLTS. RUN THE ANTILOCK WIRE ALONG SIDE THE BRAKE LINE AND ATTACH IT WITH ZIP TIES.
- 58. CARRIER BEARING INSTALLATION:

- 59. LOCATE THE CARRIER BEARING; IT IS THE BEARING THAT SUPPORTS THE PIVOT IN BETWEEN THE TWO PIECE DRIVESHAFT. PUT A STRAP UNDERNEATH THE DRIVESHAFT SO IT WILL NOT FALL DURING INSTALLATION.
- 61. BOLT THE FRONT VALANCE SUPPORT TO THE FRAME USING THE STOCK BOLTS. ATTACH THE VALLANCE TO THE BRACKET USING THE SUPPLIED BOLTS.



## 62. REAR INSTALLATION:

- 63. LOCATE THE UPPER ANTILOCK WIRE BRACKET THAT IS UNDER THE BED, NEXT TO THE FRAME. BEND THE BRACKET DOWN TO GAIN SLACK IN THE ANTILOCK WIRE.
- 64. REMOVE THE BOLTS THAT HOLD THE BRAKE LINES TO THE TOP OF THE REAR DIFFERENTIAL.
- 65. FLIP THE CLAMPS OVER AND REATTACH THEM. INSTALL THE BENT BRACKET TO RAISE THE LINES UP. INSTALL THE BRACKET TO RAISE THE STOCK BRACKET ON THE TOP OF THE DIFF. USE THE PHOTO BELOW FOR REFERENCE. (2)—2 12MM SOCKET, 1/2 WRENCH, 1/2 SOCKET)



66. LOCATE THE ANTILOCK WIRE BRACKET THAT IS BETWEEN THE DRIVERS SIDE LEAF SPRING AND THE CENTER OF THE DIFFERENTIAL. REMOVE THE BOLT AND INSTALL

THE SUPPLIED BRACKET USING THE STOCK BOLT AND LOCKTITE. BOLT THE STOCK BRACKET TO THE SUPPLIED BRACKET USING THE SUPPLIED 5/16 BOLT. (2) 12MM SOCKET, 1/2 WRENCH, 1/2 SOCKET)

67. INSTALL THE E-BRAKE CABLE BRACKET ON THE DRIVERS SIDE OF THE REAR DIFF.



- 68. REMOVE THE REAR SHOCKS. (2000) 17MM SOCKET, 17MM WRENCH)
- 69. LOOSEN ALL OF THE NUTS FOR THE U-BOLTS, DO NOT TAKE THEM ALL THE WAY OFF, JUST BACK THEM OFF ABOUT 1/4".
- 70. SUPPORT THE REAR END WITH A FLOOR JACK. REMOVE THE U-BOLTS FROM ONE SIDE OF THE TRUCK. LIFT THE BUMPSTOP UP OFF OF THE LEAF PACK AND SET THE SUPPLIED ½" THICK U-BOLT PLATE ON TOP OF THE LEAF PACK WITH THE PIN SIDE UP. SET THE BUMPSTOP ON TOP OF THE U-BOLT PLATE. MAKE SURE IT IS ORIENTED IN A WAY THAT MOVES THE POSITION OF THE U-BOLTS AND THE BUMPSTOP TOWARD THE FRONT OF THE CAR.
- 71. LOWER THE REAR AXLE DOWN WITH THE FLOOR JACK ABOUT 5 INCHES. INSTALL THE LIFT BLOCK, AND INSTALL THE NEW U-BOLTS AND SNUG THEM UP A LITTLE.
- 72. REPEAT THE LAST 2 STEPS FOR THE OTHER SIDE OF THE TRUCK. TIGHTEN ALL OF THE U-BOLTS. (2)—2 7/8 SOCKET)
- 73. INSTALL THE NEW REAR SHOCKS. ( 17MM SOCKET, 17MM WRENCH, 19MM WRENCH)
- 74. INSTALL THE WHEELS AND SET THE TRUCK ON THE GROUND.
- 75. TIGHTEN ALL OF THE BOLTS FOR THE UPPER AND LOWER CONTROL ARMS.
- 76. ADJUST THE TIE RODS TO GET THE TOE APPROXIMATELY STRAIGHT.
- 77. TORQUE THE LUG NUTS TO 100 FT.LBS. TORQUE THE U-BOLTS TO 85 FT.LBS.
- 78. MAKE SURE THE BRAKE LINES AND ANTILOCK WIRES DO NOT RUB ON ANYTHING OR GET PINCHED DURING SUSPENSION TRAVEL AND TURNING.
- 79. MAKE SURE THE BRAKE CALIPERS DO NOT COME IN CONTACT WITH THE LOWER ARM DURING TURNING.
- 80. HAVE THE TRUCK PROFESSIONALLY ALIGNED.
- 81. RE CHECK ALL OF THE BOLTS AFTER 1000 MILES INCLUDING THE LUG NUTS.

CST TECHNICAL SUPPORT – (951) 571-0212