02-05 GM 1500 4WD Avalanche, Suburban, Tahoe, & Yukon
6” Suspension Lift
Installation Instructions

* **Safety Glasses**
* **Metric / Standard Wrenches & Sockets**
* **Allen Wrenches**
* **Assorted Drill Bits**
* **Floor Jack**
* **Jack Stands**
* **Measuring Tape**
* **Torsion Bar Tool**
* **Torque Wrench**
* **Transmission Jack**
* **Reciprocating Saw**
* **Grinder**

Before beginning the installation, thoroughly & completely read these instructions & the enclosed driver’s WARNING NOTICE. Affix the WARNING decal in the passenger compartment in clear view of all occupants. Please refer to the Parts List to insure that all parts & hardware are received prior to the disassembly of the vehicle.

Make sure you park the vehicle on a level concrete or asphalt surface. Many times a vehicle is not level (side-to-side) from the factory & is usually not noticed until a lift kit has been installed, which makes the difference more visible. Using a measuring tape, measure the front & rear (both sides) from the ground up to the center of the fender opening above the axle. Record this information below for future reference.

Driver Side Front: _____ Passenger Side Front: _____

Driver Side Rear: _____ Passenger Side Rear: _____

IMPORTANT NOTES:

- This lift is **not** designed for Autoride Models.
- This lift is determined from the amount of lift to the front of the vehicle, while only lifting the rear to a position level with the front.
- If larger tires (10% more than the stock diameter) are installed, speedometer recalibration will be necessary. Contact your local GM dealer or an authorized dealer for details.
- After installation a qualified alignment facility is required to align the vehicle to factory specifications.

Kit Box Breakdown:

C9631A:

ITEM#	DESCRIPTION	QTY
C966L	GM 1/2T,6 LUG,LEFT KNUCKLE	1
C966R	GM 1/2T,6 LUG,RIGHT KNUCKLE	1
C96AVTBD-S	GM AVL TORSION BAR DROP BK	2
HB-C963-TBB	HDWR BAG:TORSION BAR BRKTS	1
I-C9631	INSTR:99-06 GM 1/2TN 4WD 6"	1

Hardware Bag Breakdown:

HB-C963-TBB Torsion Bar Brackets

ITEM#	DESCRIPTION	QTY
916X3FTB	9/16 X 3 FINE THREAD BOLT	2
916FTN	9/16-18 NYLON INSERT LOCKNU	2
916SAEW	9/16 SAE WASHERS	4
5MMX12SHB	5MM X 12MM.80 KNUCKLE BOLTS	2

C9631B:

ITEM#	DESCRIPTION	QTY
C9662FCM-B	GM 1/2T FRONT CROSS MEMBER	1
C9662RCM-B	GM 1/2T REAR CROSS MEMBER	1
C9662BSB-D	99-06 GM1500 DRV BMPSTP BRK	1
C9662BSB-P	99-06 GM1500 PAS BMPSTP BRK	1
C9662FDB-B	99-06 GM1500 FRT DIFF BRKT	1
C9662SKD-S	99-06 GM 1500 DIFF SKD PLT	1
C966PS-S	GM 1/2T DIFF DROP BKT,PASSENGER	1
C966CVS-D	C966 AXLE SPACER,DRIVER, 3.35"W	1
C966CVS-P	C966 AXLE SPACER,PASSENGER 1.175"W	1
ARBP42-B	AVALANCHE REAR BUMP STOP LR	2
ARLBD-B	AVALANCHE REAR LK BRKT-DRVR	1
ARLBP-B	AVALANCHE REAR LK BRKT-PASS	1
C96RTB-B	GM SUV REAR TRACK BAR BRKT	1
SBE1125	FRONT,OE SWAY BAR LK,6" PR	1
SBE506-L	REAR,SWAY BAR END LK,SINGLE	2
HB-C963RCAB	HDW BAG:C963 RR CONTROL BRK	1
HB-C963RBS	HDWR BAG:C963 RR BUMP STOPS	1
HB-RSBL963	HDWR BAG:REAR END LKS/C9631	1
HB-C963BLE	HDWR BAG:RR BRK LN EXT,C963	1
HB-C9662-CM	HDWR BAG/X-MEMBER GM 1/2TON	1
HB-C966-CVS	HDWR BAG/CV SPACERS GM 1/2T	1
HB-C9662FDB	HDWR BAG:C9662 FRT DIFF BRK	1
HB-H268-RTBB	HDWR BAG:H2 RR TRK BAR BRKT	1
HB-SKD	HDWR BAG: DIFF SKID PLATE	1

Kit Box Breakdown:

Hardware Bag Breakdown:

SBE1125 Sway Bar End Links

ITEM#	DESCRIPTION	QTY
SBE1125-S	OE SWAY BAR LINK / 11.25"	2
SBE-CBSH	END LINK BUSHING	2

HB-C963RCAB Rear Links

ITEM#	DESCRIPTION	QTY
916X312FTB	9/16 X 3 1/2 FINE THRD BOLT	2
916X4FTB	9/16 X 4 FINE THREAD BOLT	2
12X114FTB	1/2 X 1 1/4 FINE THD BOLT	2
916FTN	9/16-18 NYLON INSERT LOCKNU	4
12FTN	1/2-20 FINE N/I LOCK NUT	2
916SAEW	9/16 SAE WASHERS	8
12SAEW	1/2 SAE WASHER	4
SS1545	AVAL SLEEVE:ARLBD-B DRIVER	1

HB-C963RBS Rear Bump Stops

ITEM#	DESCRIPTION	QTY
716X1FTB	7/16 X 1 BOLT,FINE THD GRD8	4
716FTN	7/16-20 FINE N/I LOCK NUT	4
716SAEW	7/16 SAE WASHER	8

HB-RSBL963 Rear End Links

ITEM#	DESCRIPTION	QTY
HOURGLASS 5/8	HOURGLASS 5/8 SHOCK BUSHING	4
142121	ES24 SLEEVE, 1.38" LONG	4
12X3FTB	1/2 X 3 FINE THREAD BOLT	4
12FTN	1/2-20 FINE N/I LOCK NUT	4
12SAEW	1/2 SAE WASHER	8
38X1FTB	3/8 X 1 FINE THREAD BOLT	2
38FTN	3/8-24 FINE N/I LOCK NUT	2
38SAEW	3/8 SAE WASHER	2

HB-C963BLE Rear Brake Line Ext

ITEM#	DESCRIPTION	QTY
C963BLE-R	BRAKE LINE EXT/REAR - C963	1
516X1FTB	5/16 X 1 FINE THRD BOLT	1
516FTN	5/16" FINE THRD N/I LOCKNUT	1
516SAEW	5/16 SAE WASHER	2

Kit Box Breakdown:

HB-SKD **Diff Skid Plate**

ITEM#	DESCRIPTION	QTY
516X1FTB	5/16 X 1 FINE THRD BOLT	4
516FTN	5/16" FINE THRD N/I LOCKNUT	4
516SAEW	5/16 SAE WASHER	8

HB-C9662-CM **Front & Rear Cross Member**

ITEM#	DESCRIPTION	QTY
58X412FTB	5/8 X 4 1/2 FINE THREAD BLT	2
58X512FTB	5/8 X 5 1/2 FINE THREAD BLT	2
58FTN	5/8-18 NYLON INSERT LOCKNUT	4
38CTN	3/8-16 COARSE N/I LOCK NUT	2
58SAEW	5/8 SAE WASHERS	8
38SAEW	3/8 SAE WASHERS	2
BPPY	BUMP STOPS, PYRAMID SHAPE	2

HB-C966-CVS **C.V. Spacers**

ITEM#	DESCRIPTION	QTY
10MMX60MMB	10 X 60 METRIC BOLT/10.9	6
10MMX110MMB	10 X 110 METRIC BOLT/10.9	6
LT100	Loctite 427 1 ML TUBE	1

HB-C9662FDB **Front Differential Brackets**

ITEM#	DESCRIPTION	QTY
10MMX60MMB	10 X 60 METRIC BOLT/10.9	3
14X80MMB	14MM X 80 METRIC BOLT/ 10.9	1
14MMN	14MM NYLON INSERT LOCK NUT	1
38SAEW	3/8 SAE WASHER	3
916X2CTB	9/16 X 2 COARSE BOLT,GR. 8	2
916CTN	9/16 COARSE THD NYLON LKNUT	2
916SAEW	9/16 SAE WASHERS	6
LT100	NUTS N' BOLTS 427 1 ML TUBE	1
SP3445	GM 1/2T,3/4T TORSION BUSHG	2
TBBS1590	TORSION BAR SLEEVE,1.590"L	1

HB-H268-RTBB **Rear Track Bar Bracket**

ITEM#	DESCRIPTION	QTY
916X312FTB	9/16 X 3 1/2 FINE THRD BOLT	1
12X112FTB	1/2 X 1 1/2 FINE THRD BOLT	1
38X112FTB	3/8 X 1 1/2 FINE THRD BOLT	1
38X1FTB	3/8 X 1 FINE THREAD BOLT	1
916FTN	9/16-18 NYLON INSERT LOCKNU	1
12FTN	1/2-20 FINE N/I LOCK NUT	1
38FTN	3/8-24 FINE N/I LOCK NUT	2
12SAEW	1/2 SAE WASHER	2
38SAEW	3/8 SAE WASHER	4
916SAEW	9/16 SAE WASHERS	2

FRONT DISASSEMBLY:

1. With vehicle on flat level ground set the emergency brake & block the rear tires. Place a floor jack under the lower control arm's front cross member & raise the vehicle. Place jack stands under the frame rails, behind the front wheel wells & lower the frame onto the stands.

2. Remove both the front OEM skid plates located in front of & under the front differential using a 15mm socket. (See Photo # 1)

   WARNING: Be extremely careful when loading or unloading the torsion bars. There is a tremendous amount of stored energy (load pressure) in the bars. Keep your hands & body clear of the adjuster arm assembly & puller tool in case anything slips or breaks.

   NOTE: A special PULLER TOOL is required for SAFE REMOVAL/ INSTALLATION of the torsion bars. This special puller can be purchased from a GM Dealer (Tool #J36202) or from Kent Moore Tool Group, Roseville, MI (800) 345-2233 or (313) 774-9500 (Part #J-22517-C).

3. Locate the torsion bar adjuster bolt on the bottom of the rear cross member, measure & record the length of the torsion bar adjusting bolt that is exposed below the nut & remove the torsion bar adjusting bolt. Apply a small amount of lubricating grease to the puller threads & the puller shaft-to-adjuster arm contact point. Position the puller & load the adjuster arm until the adjuster nut can be removed from the cross member. With the bar unloaded, slide it further forward into the lower control arm. If the bar seems lodged, use a hammer & punch through the hole in back of the cross member. When the bar shifts forward, the adjuster will fall free. (See Photo # 2) Repeat this process on the passenger side.

4. With the torsion bars removed from the rear cross member, remove the torsion bar cross member using a 21mm socket. With the cross member removed, remove the torsion bars from the vehicle. **Note:** Be sure to mark the driver & passenger for reinstallation.

5. Remove the front tires & remove the front shocks using a 21mm socket & 15mm wrench. Remove the front sway bar links using a 9/16 wrench.

6. Remove the tie rod end nut from the knuckle using a 18mm socket. Remove the tie rod end from the knuckle by striking the knuckle to dislodge the tie rod end. **Note:** Be careful not to damage the tie rod end. (See Photo # 4)


Photo # 1


Photo # 2


Photo # 3


Photo # 4

7. Disconnect the ABS line at the top of the frame rail. Remove the brakeline retaining bracket from the top of the steering knuckle using a 10mm wrench. **Note:** It will not be necessary to disconnect the actual banjo fitting at the caliper. Remove the caliper using a 18mm socket. Wire the caliper out of the way so that there is no stress on the brakeline. With the caliper removed, remove the rotor. (See Photo # 5)

8. Remove the outer axle nut dust cover to allow access to the outer axle nut. Remove the outer axle nut & washer using a 1 7/16" socket. (See Photo # 6)

9. Mark the cv-shaft prior to removal so that shaft can be reinstalled the same as removed. **Note:** Be sure to mark left & right. Remove the cv-shaft from the front differential using a 15mm socket. (See Photo # 7)

10. Remove the upper & lower a-arm ball joints from the knuckle using a 18mm socket. **Note:** It may be necessary to strike the knuckle to allow the ball joints to dislodge. Remove the knuckle from the vehicle.

11. Remove the spindle bearing from the knuckle using a 15mm socket. (See Photo # 8)

12. Remove the lower a-arm from the frame using a 18mm socket & 15/16" wrench. (See Photo # 9)

13. Disconnect the front driveshaft using a 7/16" wrench. **Caution:** Be sure to mark the u-joint & yoke at the differential. The drive shaft **must** be installed the same way during reinstallation. Failure to realign the u-joint & yoke in the exact same point could result in vibration after install. (See Photo # 10) **Note:** Do not remove the driveshaft, simply strap it out of the way.

    NOTE: GM front drive shafts are balanced on each vehicle due to driveline vibrations. It is **very** important that drive shaft is reinstalled the same as factory.


Photo # 5


Photo # 6


Photo # 7


Photo # 8


Photo #9


Photo # 10

14. Locate the factory rear two piece differential cross member. Locate the point on the driver side where the cross member is welded to the frame. It will be necessary to grind off the welds so that the cross member can be removed. (See Photo # 11)

15. With the welds ground off, remove the cross member mounting bolts using a 18mm wrench. Remove the rear cross member assembly. (See Photo # 12)

16. While supporting the front differential with a transmission jack, remove the passenger side differential mounting bolts using a 21mm socket & disconnect the actuator line from the passenger side of the front differential. (See Photo # 13)

17. Remove the driver side upper differential bolt using a 21mm socket. Disconnect the vacuum hose on the driver side of the front differential & remove the differential using a transmission jack. (See Photo # 14)

18. On the passenger side differential tube pad, locate the rearward mounting hole. Measure 1/2” from the outside edge of the hole to the outside edge of the mount & make a mark. Using a reciprocating saw, cut along the mark. (See Photo # 15 & # 16)

19. Locate the rear cross member mount on the passenger side frame. Grind off the bottom bolt sleeve flush with the frame. (See Arrow in Photo # 17).

REAR mounting point on passenger side diff tube.


Photo # 11


Photo # 12


Photo # 13


Photo # 14


Photo # 15


Photo # 16


Photo # 17

20. Locate the rear cross member mount on the driver side frame. Grind the front outside edge smooth. (See Photo # 18)


Photo # 18

FRONT ASSEMBLY:

21. Locate the upper mount of the differential & make a mark across the lower portion of the differential mount. Using a reciprocating saw, remove the factory upper differential mount. **Note:** Be extremely careful not to cut into the diferential housing. (See Photo # 19) Use a grinder to clean up any imperfections or uneven cuts. (See Photo # 20) Some models will require the removal of the lower differential casting tab for rear cross member clearance. (See Photo # 21)


Photo # 19

22. Insert the two poly bushings (SP3445) & sleeve into the eyelet of the new Skyjacker driver side differential bracket. Install the driver side differential bracket to the factory differential using the three 10mm x 60mm bolts & washers. (See Photo # 22) **Note:** Use the supplied thread lock compound when installing these differential bolts.

23. Install the new Skyjacker passenger side differential bracket. The bracket will install with the open end to the inside & the longest end on top. Use the OEM hardware to attach the upper part of bracket to the OEM mount. (See Photo #23)


Photo # 20

24. Support the front differential & attach the differential to the passenger side bracket using the two 9/16" x 2" coarse thread bolts, washers, & nuts.

25. Attach the new Skyjacker polyurethane bump stops to the new Skyjacker bump stop brackets, using the 3/8" coarse thread nuts & washers. Install the new Skyjacker bump stop brackets by hooking to the factory upper frame bracket. (See Arrow in Photo # 24)


Photo # 21


Photo # 22


Photo # 23


Photo # 24

26. Install new Skyjacker rear cross member using the 5/8" x 5 1/2" fine thread bolts, washers, & nuts at the upper mount. (See Photo # 25)

27. Attach the rear of the differential to the rear cross member using the OEM hardware. Push the differential back toward the rear of the vehicle & tighten the bolts. Reattach the front vacuum line & front actuator line.

28. Install the new Skyjacker front cross member using the 5/8" x 4 1/2" fine thread bolts, washers, & nuts at the upper mount.(See Photo # 26) ***If installing a Skyjacker Single Stabilizer Part # 7196 or Dual Steering Stabilizer Part # 7296, refer to those instructions at this time.***

29. Attach the driver front differential bracket to the new front cross member using the 14mm x 80mm bolt, washers, & nut. (See Photo # 27)

30. Install the lower a-arms to the new cross members using OEM hardware. **Note:** Do not tighten at this time.(See Photo # 28)

31. Install the new Skyjacker heavy-duty steering knuckles. Attach the upper & lower a-arm ball joints using the OEM hardware. (See Photo # 29)

32. Reinstall the hub bearing assembly to the new knuckle using the OEM hardware. Torque the flange bolts to 125 lbs. Reinstall the brake rotor & caliper. Torque the caliper bolts to 30 lbs.

33. **Install the driver & passenger side cv-shaft spacers, using the larger 3.35" wide spacer on the driver side & the smaller 1.175" wide spacer on the passenger side.** The spacer will install between the cv-shaft & differential. The spacer will install with the male end against the differential. Use the 10mm x 110mm bolts on the driver side & the 10mm x 60mm bolts on the passenger side. **Note:** Be sure to use thread lock compound on the bolts. (See Photo # 30) Torque bolts to 45 lbs. Reinstall the cv-shaft retaining nut & outer dust cover.


Photo # 25


Photo # 26


Photo # 27


Photo # 28

Driver side shown with 3.35" cv-shaft spacer.


Photo # 29


Photo # 30

34. Install the new Skyjacker front differential skid plate to the front & rear cross members using the four 5/16" x 1" bolts, washers, & nuts. (See Photo # 31)


Photo # 31

35. Attach the brake line retaining clip to the new knuckle using the 5mm x 12mm bolts. Slide the ABS clip up so that it will meet the mount. It may be necessary to spray the line with a lubricant to allow it to slide. (See Photo # 32) **Note:** This step must be performed in order to prevent damage to the ABS line & brakeline.


Photo # 32

36. Install the new Skyjacker sway bar end link bushing (Part # SBE-CBSH) on the stud of the pivoting end of the new Skyjacker sway bar end link with the larger diameter end facing the boot of the sway bar end link. Align the sway bar end link bushing with the OEM mounting location of the OEM a-arm & install the new Skyjacker sway bar end link. Note: Be sure to install the sway bar end link with the pivoting end at the a-arm. (See Photo # 33)

37. Install the new Skyjacker front shocks & reinstall the front drive shaft. Be sure to reinstall the drive shaft the same as OEM. (See Photo # 34)


Photo # 33

38. Install the new Skyjacker torsion bar drop brackets by attaching the brackets to the OEM mounts on the frame using the 9/16" x 3" fine thread bolts, washers, & nuts. (See Photo #35)

39. With the torsion bar brackets installed, reinstall the OEM torsion bar cross member using the OEM hardware.

40. Reinstall the OEM torsion bars. **Note:** Be sure to install the adjuster bolts to the same length as OEM. (See Photo # 36)

41. Reinstall the front tires & let the weight of the vehicle on the ground. At this time, check all bolts & hardware for proper installation & torque.


Photo # 34

Rear Installation:

42. Raise the rear of the vehicle & support the frame rails using jack stands.

43. Remove the rear tires / wheels using a 7/8" socket.


Photo # 35


Photo # 36

44. Loosen the lower & upper control arm bolts using a 21mm socket. (See Photo # 37)

45. Remove the OEM rear shocks using a 21mm socket & remove the OEM rear sway bar end links using a 18mm socket. (See Photo # 38)

46. Disconnect the emergency brake cable from the driver side axle & passenger side frame using a 13mm socket. Disconnect the brakeline from the center of the axle.

47. Lower the axle & remove the OEM coil springs. **Note:** Be sure to retain the OEM upper & lower rubber isolator pads. (See Photo # 39)

48. Disconnect the OEM upper & lower control arms from the frame rail. **Note:** Only remove one side at a time so that the axle does not move. Install the new Skyjacker control arm relocation bracket. **Note:** On the driver side, be sure to install the supplied anti-crush sleeve (Part # SS1545) into the OEM upper control arm position. The sleeve is welded to the new Skyjacker bracket on the passenger side. Attach using the OEM hardware in the OEM locations. Attach the upper arm to the new bracket using the 9/16" x 3 1/2" fine thread bolts, washers, & nuts. Attach the lower control arm to the new bracket using the 9/16" x 4" fine thread bolts, washers, & nuts. (See Photo # 40) **Note:** Be sure to install the 1/2" x 1 1/4" fine thread bolt, washers, & nut into the bottom of the bracket. The bolt will line up with the OEM hole in the bottom of the frame. (See Arrow in Photo # 41)

49. Loosen the track bar mount bolt on the differential using a 21mm socket & remove the track bar bolt from the frame.

50. Install the new Skyjacker track bar bracket by sliding it into the OEM bracket. Install using the 9/16" x 3 1/2" fine thread bolts, washers, & nut in the OEM bolt hole. Install the 3/8" x 1" bolt in the inside lower OEM hole. Install the 3/8" x 1 1/2" bolt in the upper inside hole. **Note:** Be sure to use washers & nuts with both. (See Photo # 42)


Photo # 37


Photo # 38


Photo # 39


Photo # 40


Photo # 41


Photo # 42

51. It will be necessary to drill a new hole through the back of the OEM bracket into the new bracket. It is recommended to first drill a small pilot hole, then drill using a 17/32” drill bit.

52. Once drilled, install the 1/2" x 1 1/2” fine thread bolt, washers, & nut. (See Photo # 43) Attach the track bar to the new bracket using the OEM hardware. (See Photo # 44)

53. Attach the rearward hole of the new Skyjacker bump stop bracket to the OEM mounting hole on the axle using a 7/16" x 1” fine thread bolt, washers, & nut. To access the front mounting hole it will be necessary to lower the bottom control arm out of the way. (See Photo # 45)

54. Mark & drill the front hole using a 29/64” drill bit. Once drilled, install the 7/16" x 1” fine thread bolt, washer, & nut.

55. Install the new Skyjacker coil springs using the OEM upper / lower rubber isolator pads. (See Photo # 46)

56. Insert the 5/8” polyurethane hourglass bushings into each end of the new Skyjacker sway bar end links. Insert the 1/2" x 1 1/2” sleeve into each bushing. Attach the new sway bar end links to the OEM mounts using the 1/2" x 3” fine thread bolts, washers, & nuts. (See Photo # 47)

57. Install the new Skyjacker rear brakeline relocation bracket. Attach the bracket to the axle using the OEM hardware. Attach the the brakeline to new bracket using the 5/16" x 1” fine thread bolt, washers, & nut. (See Photo # 48)

58. Install the rear tires / wheels & lower the vehicle to the ground.

59. Install the new Skyjacker rear shocks.


Photo # 43


Photo # 44


Photo # 45

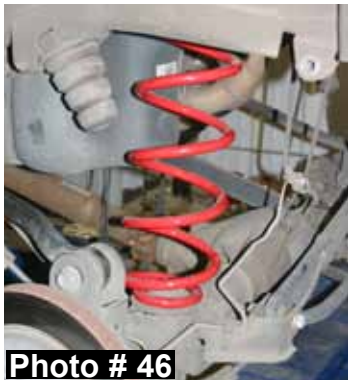
Photo # 46


Photo # 47


Photo # 48

FINAL NOTES:

- After the installation is complete, double check that all nuts & bolts are tight. Refer to the following chart below for the proper torque specifications. (Do not retighten the nuts & bolts where thread lock compound was used.)

- With the vehicle placed on the ground, cycle the steering lock to lock & inspect the steering, suspension, brake lines, front & rear drivelines, fuel lines, & wiring harnesses for proper operation, tightness, & adequate clearance.

- Have the headlights readjusted to the proper settings.

- Have a qualified alignment center realign the front end to the factory specifications.

- Retorque all the bolts after the first 100 miles.

TORQUE SPECIFICATIONS

INCH SYSTEM			METRIC SYSTEM		
Bolt Size	**Grade 5**	**Grade 8**	**Bolt Size**	**Class 8.8**	**Class 10.9**
5/16	15 FT LB	20 FT LB	6MM	5 FT LB	9 FT LB
3/8	30 FT LB	35 FT LB	8MM	18 FT LB	23 FT LB
7/16	45 FT LB	60 FT LB	10MM	32 FT LB	45 FT LB
1/2	65 FT LB	90 FT LB	12MM	55 FT LB	75 FT LB
9/16	95 FT LB	130 FTLB	14MM	85 FT LB	120 FT LB
5/8	135 FT LB	175 FT LB	16MM	130 FT LB	165 FT LB
3/4	185 FT LB	280 FT LB	18MM	170 FT LB	240 FT LB

- **The above specifications are not to be used when the bolt is being installed with a bushing.**

Seat Belts Save Lives, Please Wear Your Seat Belt.