

# 2011 - 2015 Chevy / GMC 2500HD / 3500 4WD

6" & 7" <u>Suspension Lift</u> Installation Instructions

#### **REQUIRED TOOL LIST:**

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



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:**

- If larger tires (10% more than the OEM 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 the OEM specifications.

I-C1178 REV7 11-14 Pg 1

# **Component Box Breakdown:**

# Part #: C1168A (6" Lift Box)

Item #	Description	Qty	Item #	Description	Qty
C1178L	LEFT STEERING KNUCKLE	1	C1178TBD-S	TORSION BAR DROP BRACKET	2
C1178R	RIGHT STEERING KNUCKLE	1	HB-C1178-TBB	HDWR BAG:TORSION BAR BRKT	1

# **Hardware Bag Breakdown:**

#### **Part # HB-C1178-TBB**

Item #	Description	Qty	Item #	Description	Qty
916X4FTB	9/16 X 4 FINE THREAD BOLT	2	916FTN	9/16-18 NYLON LOCK NUT	2
916SAEW	9/16 SAE WASHER	4			

## **Component Box Breakdown:**

# Part #: C1178A (7" Lift Box)

Item #	Description	Qty	Item #	Description	Qty
C1178L	LEFT STEERING KNUCKLE	1	C1178R	RIGHT STEERING KNUCKLE	1

# Part #: C1178B / C1178BH (6" & 7" Lift Box)

Item #	Description	Qty	Item #	Description	Qty
C1178FCM-B	FRONT CROSS MEMBER	1	H-BOX C1178B	HDWR BOX: C1178B COM BOX	1
C1178RCM-B	REAR CROSS MEMBER	1		(Included With C1178B Box)	
C1178BSB-DF	DRV FRT BUMP STOP BRKT	1	H-BOX C1178BH	HDWR BOX: C1178BH COM BOX	1
C1178BSB-PF	PASS FRT BUMP STOP BRKT	1		(Included With C1178BH Box)	
C1178SKD-S	FRONT DIFF SKID PLATE	1	I-C1178	INSTRUCTION SHEET: C1178	1

# **Hardware Box Breakdown:**

#### Part # H-BOX C1178B / H-BOX C1178BH

Item #	Description	Qty	Item #	Description	Qty
C1178CVS-D	DRIVER SIDE CV SPACER	1	HB-C1178-BLE	HDWR BAG: BRAKE EXT BRKT	1
C1178DDS-B	DRIVER SIDE DIFF BRKT	1	HB-C1178-BSB	HDWR BAG: BUMP STP BRKT	1
C1178PDS-B	PASS SIDE DIFF BRKT	1	HB-C1178-CM	HDWR BAG: CROSS MEMBER	1
GMBL70	FRONT/REAR SET BRAKELINES	1	HB-C1178-CVS	HDWR BAG: CV SPACER	1
SBE1125	FRONT SWAY BAR END LINKS	1	HB-C1178-DB	HDWR BAG: DIFF BRKTS	1
RB57	5.5" BLOCK	2	HB-C1178-SKD	HDWR BAG: DIFF SKID PLATE	1
58X318X1612U	5/8 X 3 1/8 X 16 1/2 SQ U-BOLT	4	HB-58	HDWR BAG:5/8" NYL LOCK NUT	1
	(Included With C1178B Box)				
58X318X1812U	5/8 X 3 1/8 X 18 1/2 SQ U-BOLT	4			
	(Included With C1178BH Box)				

#### Part #: GMBL70

Item #	Description	Qty	Item #	Description	Qty
GMBL70S	FRONT/REAR BRAKE LINE	4	I-BL	INSTRUCTIONS: BRAKE LINES	1

#### Part #: SBE1125

Item #	Description	Qty	Item #	Description	Qty
SBE1125-S	OE SWAY BAR LINK / 11.25"	2	HB-SBE-CBSH	HDWR BAG: SBE-CBSH	1

# **Hardware Bag Breakdown:**

## Part # HB-SBE-CBSH

Item #	Description	Qty
SBE-CBSH	END LINK BUSHING	2

## Part #: HB-C1178-BLE

Item #	Description	Qty	Item #	Description	Qty
RBLE11-S	EMER BRAKE EXT BRKT	1	516X1FTB	5/16 X 1 FINE THREAD BOLT	2
RBLE60U-S	REAR BRAKE EXT BRKT	1	516FTN	5/16" FINE THRD N/I LOCK NUT	2
516X34TCFB	5/16 X 3/4 THRD CUT FLG BOLT	1	516SAEW	5/16 SAE WASHER	4

## Part #: HB-C1178-BSB

Item #	Description	Qty
38X1TCFB	3/8 X 1 THRD-CUT FLG BOLT	10

## Part #: HB-C1178-CM

Item #	Description	Qty	Item #	Description	Qty
18X130MMB	18MM X 130MM BOLT/ 10.9	2	18MMFW	18MM FLAT WASHER	8
18X150MMB	18MM X 150MM BOLT/ 10.9	2	18MMN	18MM-2.5 NYLON LOCK NUT	4

## Part #: HB-C1178-CVS

Item #	Description	Qty	Item #	Description	Qty
10MMX80MMB	10 X 80 METRIC BOLT/ 10.9	8	LT100	NUTS N' BOLTS 427 1 ML TUBE	1

#### Part #: HB-C1178-DB

Item #	Description	Qty	Item #	Description	Qty
12X40MMB	12 X 40 METRIC BOLT/10.9	5	716USSW	7/16 USS FLAT WASHER	11
12X90MMB	12 X 90 METRIC BOLT/ 10.9	1	BTIE-K	BLACK BOOT TIE	4
12MMN	12 MM NUT	5	LT100	NUTS N' BOLTS 427 1 ML TUBE	1

## Part #: HB-C1178-SKD

Item #	Description	Qty	Item #	Description	Qty
516X1CARB	5/16 X 1 CARRIAGE BOLT	4	516SAEW	5/16 SAE WASHER	4
516CTN	5/16-18 COARSE N/I LOCK NUT	4			

### Part #: HB-58

Item #	Description	Qty
58FTN	5/8-18 NYLON LOCK NUT	8

#### **Component Box Breakdown:**

### Part #: C1178TR (7" Lift Box)

Item #	Description	Qty	Item #	Description	Qty
C1178TBR-D	DRV RAISED TORSION BAR BRK	1	C1178TBR-P	PAS RAISED TORSION BAR BRK	1

### Part #: C1178N (6" & 7" Lift Box)

Item #	Description	Qty	Item #	Description	Qty
N8095	NITRO SHOCK W/RED BOOT	2	N8064	NITRO SHOCK W/RED BOOT	2

# **Front Installation:**

- 1. With the vehicle on flat level ground, set the emergency brake, & block the rear tires / wheels.
- 2. Place a floor jack under the lower control arm's front cross member & raise the front of the vehicle. Place jack stands under the frame rails, behind the front wheel wells & lower the frame of the vehicle onto the jack stands.
- 3. Remove the front tires / wheels using a 7/8" socket. (See Photo # 1)
- 4. Remove the front OEM skid plates located in front & under the front differential using a 15mm socket. (See Photo # 2)

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

**NOTE:** A special PULLER TOOL (Kent - Moore Part # CH-48809 is required for the SAFE REMOVAL / INSTALLATION of the torsion bars. This special puller can be purchased from a GM dealer or auto parts store.

5. Locate the OEM torsion bar adjuster bolt on the bottom of the OEM torsion bar cross member, measure & record the length of the OEM torsion bar adjusting bolt that is exposed. Apply a small amount of lubricating grease to the puller threads & the puller shaft-to-adjuster arm contact point. Position the puller & load adjuster arm until the adjuster nut can be removed from the OEM torsion bar cross member using a 21mm socket. (See Photo # 3) With the OEM torsion bar unloaded, slide it forward into the OEM lower control arm & remove the OEM torsion keys. If the OEM torsion bar seems lodged, use a hammer & punch through the hole in back of the OEM torsion bar cross member. When the OEM torsion bar shifts forward, the adjuster will fall free. Repeat this process on opposite side of the vehicle.



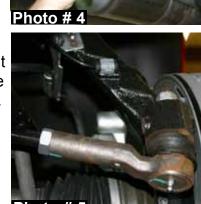




- 6. With the OEM torsion bars removed from the OEM torsion bar cross member, remove the wire clips from the front of the OEM torsion bar cross member & remove the OEM torsion bar cross member using a 21mm socket. (See Photo #4) With the OEM torsion bar cross member removed, remove the OEM torsion bars from the vehicle. **Note:** Be sure to mark the OEM torsion bars driver & passenger side for reinstallation.
- 7. Remove the OEM front sway bar end links using a 15mm socket.
- 8. Remove the OEM tie rod end nuts from the OEM steering knuckles using a 21mm socket & tie rod removal tool. (See Photo # 5) Note: It may be necessary to strike the the OEM steering knuckle to dislodge the OEM tie rod end. Be careful not to damage the OEM tie rod end.
- 9. Disconnect the OEM ABS lines & brake line retaining brackets from the OEM steering knuckles using a 10mm wrench. (See Photo # 6) Remove the OEM brake caliper assemblies using a 21mm socket & wire the OEM brake caliper assemblies out of the way so there is no stress on the OEM brake lines.
- 10. Remove the OEM outer cv-axle nut dust covers to allow access to the OEM outer cv-axle nuts & remove the OEM outer cv-axle nuts using a 1 5/16" socket. (See Photo # 7) Remove the OEM brake rotors using a T30 torx bit.
- 11. Remove the OEM hub bearings & backing plates from the OEM steering knuckles using a 21mm socket & remove the OEM inner o-rings from the OEM steering knuckles. (See Photo # 8) The OEM o-rings will be reused later in the installation process.
- 12. Remove the OEM upper & lower a-arm ball joints from the OEM steering knuckles using a 18mm & 24mm socket & remove the OEM steering knuckles. Note: It may be necessary to strike the OEM

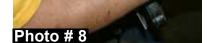
steering knuckle to dislodge the OEM ball joints. Be careful not to damage the OEM

ball joints.

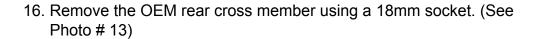








- 13. Mark the OEM cv-axles prior to removal so the OEM cv-axles can be reinstalled the same way as removed. **Note:** Be sure to mark them left & right. Disconnect the OEM cv-axles from the OEM front differential using a 15mm socket & remove the OEM cv-axles. (See Phot # 9)
- 14. Remove the OEM front shocks & lower a-arms using a 21mm socket. (See Photo # 10 & # 11)
- 15. Disconnect the OEM front drive shaft at the OEM front differential using a 11mm socket. **Note:** Be sure to mark the OEM u-joint & yoke at the OEM front differential before disconnecting. The OEM drive shaft must be installed the same way during reinstallation. Failure to realign the OEM u-joint & yoke in the exact same point could result in vibration after installation. (See Photo #12) Do not remove the OEM drive shaft all together. Simply strap it out of the way. GM front drive shafts are balanced on each vehicle due to driveline vibrations. It is very important that the drive shaft is reinstalled the same as OEM.



- 17. Disconnect the electrical connector from the OEM front differential actuator & remove the wire from the plastic wire retainers along the top of the OEM front differential.
- 18. While supporting the OEM front differential with a transmission jack, remove the OEM passenger side differential mounting nuts using a 21mm socket. (See Photo # 14)
- 19. Remove the OEM driver side differential bolts using a 15mm & 18mm socket. Disconnect the vacuum hose on the driver side of the OEM front differential & remove the OEM front differential using a transmission jack.







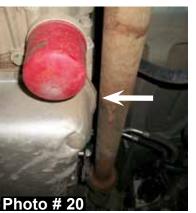


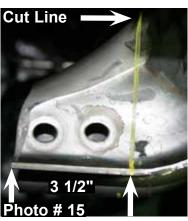




- 20. It will now be necessary to cut the OEM rear cross member bracket for front differential clearance when the lift is installed. Locate the OEM driver side rear cross member bracket, measure from the edge of the OEM bracket over 3 1/2" & draw a line along the outer face of the bracket. (See Photo # 15) Connect the lines drawn on the front & rear sides of the bracket in order to have a single cutting reference line. Cut along the drawn line using a reciprocating saw or similar tool.
- 21. Install the new Skyjacker passenger side differential bracket to the OEM mount using the OEM hardware & 21mm socket. The new passenger side differential bracket will install with the open end to the inside & the longer end toward the front of the vehicle. (See Photo # 16)
- 22. Install the new Skyjacker driver side differential bracket to the OEM mount using the supplied 12mm x 40mm bolts, 12mm x 90mm bolt, 7/16" USSW washers, 18mm socket, & 19mm socket. The new driver side differential bracket will install with the open end to the outside & the longer end toward the front of the vehicle. (See Photo # 17)
- 23. Support the OEM front differential & attach the front differential to the new Skyjacker passenger side differential bracket using the supplied 12mm x 40mm bolts, 7/16" USSW washers, 12mm nuts, 18mm socket, & 19mm socket. (See Photo # 18)
- 24. Attach the OEM front differential to the front & middle mounting holes of the new Skyjacker driver side differential bracket using the OEM bolts, supplied 7/16" USSW washers, 12mm nuts, & 19mm socket. Attach the front differential to the rear mounting hole of the new Skyjacker driver side differential bracket using the supplied 12mm x 40mm bolt, 7/16" USSW washer, & 18mm socket. (See Photo # 19)
- 25. Apply thread locking compound to the OEM hardware & reattach the OEM front drive shaft using a 11mm socket. **Note:** Be sure to reinstall in the exact same position with the marks made to the OEM u-joint & yoke from Step # 15. Some models, may require the OEM transmission pan flange to be slightly ground for clearance of the OEM front drive shaft. (See Arrow in Photo # 20)













- 26. Attach the electrical connector to the the OEM front differential actuator & attach the wire to the top of the OEM front differential using the supplied plastic tie.
- 27. Install the new Skyjacker rear cross member using the supplied 18mm x 150mm bolts, 18mm washers, 18mm nuts, & 1 1/16" socket at the upper mount. Use the OEM hardware for the two horizontal mounting holes located on the passenger side. (See Photo # 21)
- 28. Install the new Skyjacker front cross member using the supplied 18mm x 130mm bolts, 18mm washers, 18mm nuts, & 1 1/6" socket at the upper mount. (See Photo # 22) **Note:** If you have purchased separately the Skyjacker dual steering stabilizer kit (Part # 7211), install it at this time using the supplied I-7211 instructions.
- 29. Install the new Skyjacker front differential skid plate to the new Skyjacker front & rear cross members using the supplied 5/16" x 1" carriage bolts, 5/16" SAE washers, 5/16" nuts, & 1/2" socket. (See Photo # 23)
- 30. Install the OEM lower a-arms to the new Skyjacker cross members using the OEM hardware & 21mm socket. (See Photo # 24)
- 31. Attach the OEM backing plates & hub bearing assemblies to the new Skyjacker steering knuckles using the OEM hardware & 21mm socket.

**Note:** Reinstall the OEM o-rings & use thread locking compound on the bolts. (See Photo # 25)

- 32. Install the new Skyjacker steering knuckles. Attach the OEM upper & lower a-arms to the new steering knuckles using the OEM hardware, 18mm, & 24mm socket. (See Photo # 26)
- 33. Attach the OEM ABS lines & brake line brackets to the new Skyjacker steering knuckles using the OEM hardware & 10mm wrench. **Note:** If necessary, spray lubricant may be used on the OEM rubber ABS line mount for optimal positioning of the ABS line.







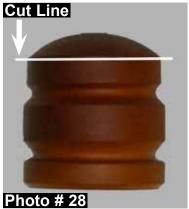






- 34. Install the OEM passenger side cv-axle using the OEM hardware & 15mm socket. Install the OEM driver side cv-axle using the new Skyjacker aluminum cv-axle spacer & supplied 10mm x 80mm bolts, & 17mm socket. The new cv-axle spacer will install between the OEM cv-axle & front differential with the male end against the front differential. Note: Use thread lock compound on these bolts. (See Photo # 27)
- 35. Reinstall the OEM cv-axle retaining nuts & dust covers using the OEM hardware & 1 5/16" socket.
- 36. <u>6" Lift:</u> Remove the OEM foam bump stops from the OEM front bump stop brackets & remove the domed portion of the OEM foam bump stops by cutting along the illustrated line using a reciprocating saw or similar tool. (See Photo # 28) Attach the shortened OEM foam bump stops to the lower cups of the new Skyjacker bump stop brackets. Place the new Skyjacker bump stop brackets over the OEM bump stop brackets & align the cups of the OEM bump stop brackets & new Skyjacker bump stop brackets. Apply pressure to the lower portion of the new Skyjacker bump stop brackets or secure with a c-clamp to hold in place. Mark, center punch, & drill the mounting holes using a 5/16" drill bit. Once drilled, attach the new Skyjacker bump stop brackets using the supplied 3/8" x 1" thread cutting bolts & 9/16" socket. (See Photo # 29)
- 37. <u>7" Lift:</u> Remove the OEM foam bump stops from the OEM front bump stop brackets & attach the OEM foam bump stops to the lower cups of the new Skyjacker bump stop brackets. Place the new Skyjacker bump stop brackets over the OEM bump stop brackets & align the cups of the OEM bump stop brackets & new Skyjacker bump stop brackets. Apply pressure to the lower portion of the new Skyjacker bump stop brackets or secure with a c-clamp to hold in place. Mark, center punch, & drill the mounting holes using a 5/16" drill bit. Once drilled, attach the new Skyjacker bump stop brackets using the supplied 3/8" x 1" thread cutting bolts & 9/16" socket. (See Photo # 29)
- 38. Attach the OEM tie rod ends, brake rotors & brake caliper assemblies to the new Skyjacker steering knuckles using the OEM hardware, T30 Torx bit, & 21mm socket.
- 39. Disconnect the OEM front brake lines at the frame & attach the new Skyjacker brake line extensions to the OEM brake lines. Attach the new Skyjacker brake line extensions to the OEM brackets using the OEM hardware. (See Photo # 30)

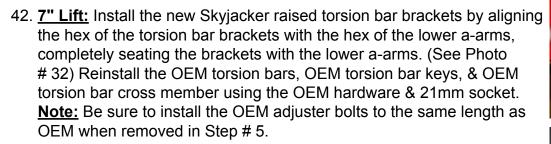


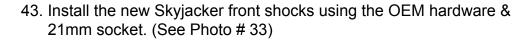






- 40. Install the new Skyjacker sway bar end link bushings (Part # SBE-CBSH) on the studs of the pivoting end of the new Skyjacker sway bar end links with the larger diameter end facing the boot of the new Skyjacker sway bar end links. Align the new Skyjacker sway bar end link bushings with the OEM mounting location of the OEM a-arms & install the new Skyjacker sway bar end links. Note: Be sure to install the new Skyjacker sway bar end links with the pivoting end at the a-arm.
- 41. <u>6" Lift:</u> Install the new Skyjacker torsion bar drop brackets to the OEM torsion bar cross member frame mounts using the supplied 9/16" x 4" bolts, 9/16" SAE washers, & 9/16" nuts. Reinstall the OEM torsion bars, OEM torsion bar keys, & OEM torsion bar cross member using the OEM hardware & 21mm socket. (See Photo # 31) <u>Note:</u> Be sure to install the OEM adjuster bolts to the same length as OEM when re moved in Step # 5.





44. Install the front tires / wheels using a 7/8" socket & lower the vehicle to the ground.

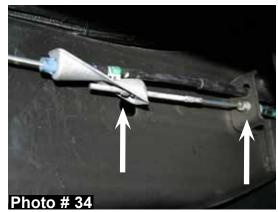
# **Rear Installation:**

- 45. Block the front tires / wheels, raise the rear of the vehicle, & support securely with jack stands.
- 46. Remove the rear tires / wheels using a 7/8" socket.
- 47. Disconnect the OEM ABS lines & remove the OEM rear shocks using a 21 mm socket.
- 48. Disconnect the OEM driver's side E-brake cable from the OEM E-brake cable union & bracket. Relocate the OEM E-brake cable below the OEM rear leaf spring & connect the OEM driver's side E-brake cable to the OEM E-brake cable union & bracket. (See Arrows Photo # 34)





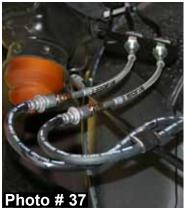


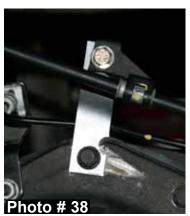


- 49. Remove the OEM E-brake cable wire hanger bracket from the frame using a 13mm socket. (See Photo # 35)
- 50. Install the new Skyjacker E-brake cable bracket to the frame using the OEM hardware & 13mm socket. Mark, center punch, & drill the second mounting hole using a 1/4" drill bit. Once drilled, install the supplied 5/16" x 3/4" thread cutting bolt using a 1/2" socket. Insert the OEM driver's side E-brake cable thru the OEM E-brake cable wire hanger & install to the new E-brake cable bracket using the supplied 5/16" x 1" bolt, 5/16" washers, 5/16" nut, & 1/2" socket. (See Photo # 36)
- 51. Remove the OEM rear U-bolts using a 1 1/6" socket. **Note:** The rear axle will now be free to move, so support securely with a floor jack.
- 52. Disconnect the OEM rear brake lines at the frame & attach the new Skyjacker brake line extensions to the OEM brake lines. Attach the new Skyjacker brake line extensions to the OEM bracket using the OEM hardware. (See Photo # 37)
- 53. Remove the OEM E-brake cable bracket from the differential using a 13mm socket. With the offset of the new Skyjacker E-brake cable bracket towards the front of the vehicle & the notch to the passenger side, install the new E-brake cable bracket using the OEM hardware, supplied 5/16" x 1" bolt, 5/16" washers, 5/16" nut, 13mm socket, & 1/2" socket. (See Photo # 38)
- 54. Install the new Skyjacker rear lift blocks with the taller end of the blocks toward the rear bumper, between the OEM leaf spring & axle pad.
- 55. Raise the axle up to the OEM rear leaf springs. **Note:** Be sure the rear leaf spring center tie bolts & block pins align in the proper holes & are completely seated. Install & tighten the new Skyjacker u-bolts using a 1 1/6" socket. Attach the OEM ABS lines to the outside of the new Skyjacker u-bolts using the supplied plastic ties.
- 56. Install the new Skyjacker rear shocks & rear tires / wheels using a 21mm & 7/8" socket & lower the vehicle to the ground.









#### **BLEEDING THE BRAKE SYSTEM:**

Fill the master cylinder with D.O.T. approved brake fluid. Pump the brake pedal & hold down. While the brake pedal is down, open the bleeder screw to release any air out of the brake system. Tighten the bleeder screw & re-pump the brake pedal. Continue the pumping / bleeding process until no air is being expelled. Make sure your master cylinder is full of brake fluid after each bleeding process. The brake pedal will not "pump up" or will have excessive down-travel if all the air is not out of the brake system. It is the customer's responsibility to check the brake lines for any leaks, abrasion, proper clearances, & brake line fittings after the first 100 miles & after every off-road activity.

#### **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 vehicle to the OEM specifications.
- Retorque all the bolts after the first 100 miles.

	TORQUE SPECIFICATIONS						
	<u>INCH SYSTEM</u> <u>METRIC SYSTEM</u>						
Bolt Size	Grade 5	Grade 8	Bolt Size	Class 8.8	<b>Class 10.9</b>		
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		
<u>5/8</u>	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		

<sup>•</sup> 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.**