

#21-NA-222: Various Vehicle Handling Concerns Suspension Noise or Damaged Suspension Components Due to Vehicle Modifications - (Oct 13, 2021)

**Subject: Information on Various Vehicle Handling Concerns Suspension Noise
 or Damaged Suspension Components Due to Vehicle Modifications**



This bulletin replaces PIT5403H,. Please discard PIT5403H.

Brand:	Model:	Model Year:		VIN:		Engine:	Transmission:
		from	to	from	to		
Cadillac	Escalade Models	2007	2021				
Chevrolet	Avalanche	2007	2013				
	Silverado	2007	2019				
	Silverado 1500 (New Model)	2019	2019				
	Silverado LD	2019	2019				
	Silverado 2500/3500	2019	2022				
	Silverado 1500 Models	2020	2022				
	Suburban	2007	2021				
	Tahoe	2007	2021				
GMC	Sierra	2007	2019				
	Sierra 1500 (New Model)	2019	2019				
	Sierra Limited	2019	2019				
	Sierra	2019	2022				

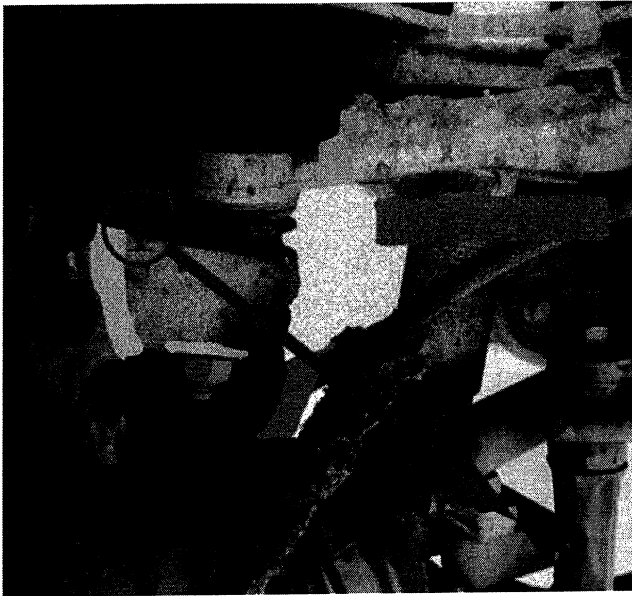
Brand:	Model:	Model Year:		VIN:		Engine:	Transmission:
		from	to	from	to		
	Sierra 1500 Models	2020	2022				
	Yukon Model	2007	2021				

Involved Region or Country	North America
Condition	Some customers may comment on various handling, vehicle dynamics concerns, noises from the suspension or underbody, or issues related to damaged suspension components.
Cause	This condition may be caused by the vehicle's suspension system has been modified by using aftermarket suspension lift or lowering kits, or making modifications to the vehicle including adjusting components beyond factory specifications such as, but not limited to adjusting torsion bar suspensions to change suspension height and/or aftermarket wheels and/or tires installed.
Information	<p>Before any in-depth diagnostics are performed, be aware that various issues could occur if the vehicle has been modified and inform the customer the conditions noted may not be covered under warranty.</p> <p>Most of the larger lift kits are easy to identify because of the major modifications made as compared to a stock vehicle.</p> <p>This bulletin will help identify some of the smaller changes that can still drive concerns.</p> <p>If there is any question regarding potential modifications, compare the truck with concerns to a like vehicle looking for modified components.</p>

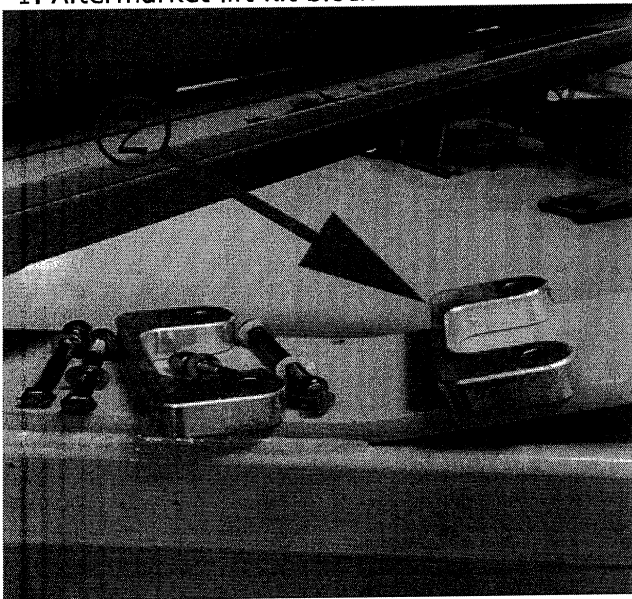
Possible Modified Components

Note: Modified vehicles may have an upfitter placard affixed to the driver's door or door jamb. All issues with the suspension, steering, tires, wheels or noise related to driveline angles or suspension modifications should be referred to the party noted on the upfitter placard for warranty coverage. Vehicle that may be modified can be identified by RPO ALP and/or RPO B3P. These RPO's indicate that the vehicle was shipped to a third-party upfitter from the production facility.

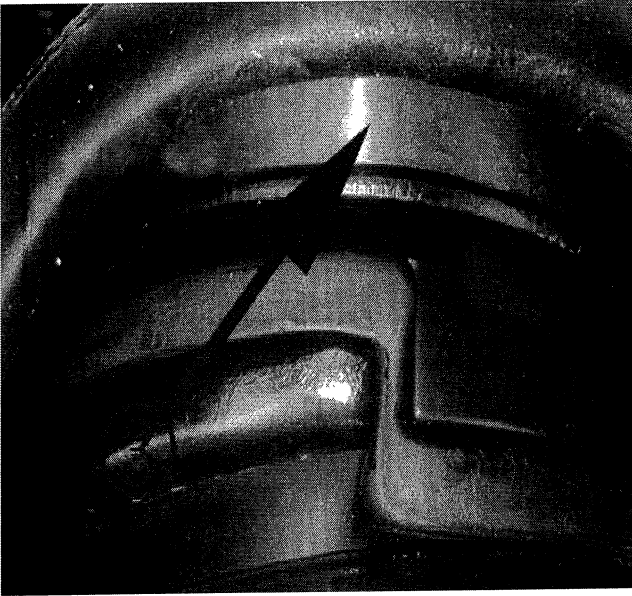
Inspect for installed aftermarket suspension components such as but not limited to the examples below:



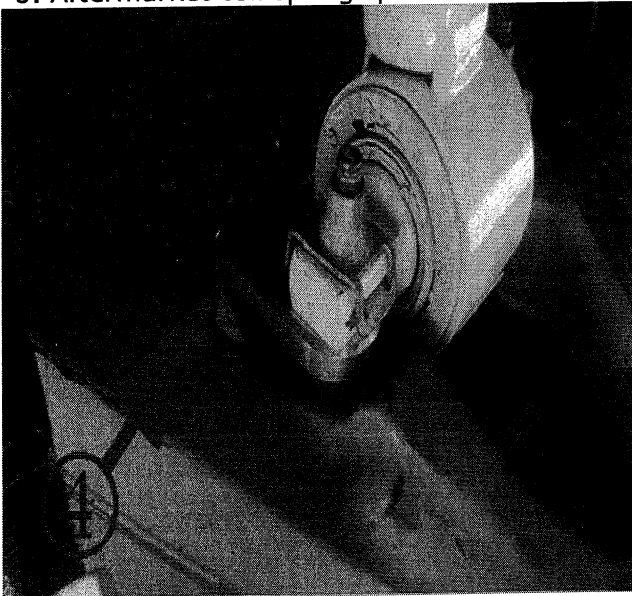
1. Aftermarket lift kit block



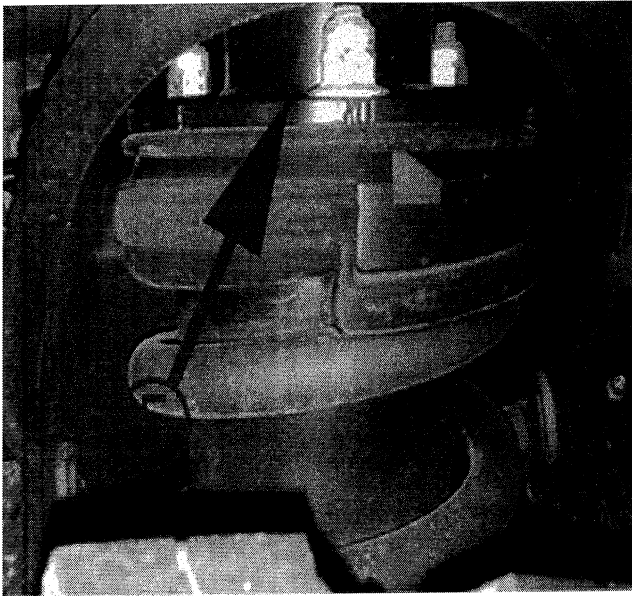
2. Aftermarket lift kit blocks removed from a truck



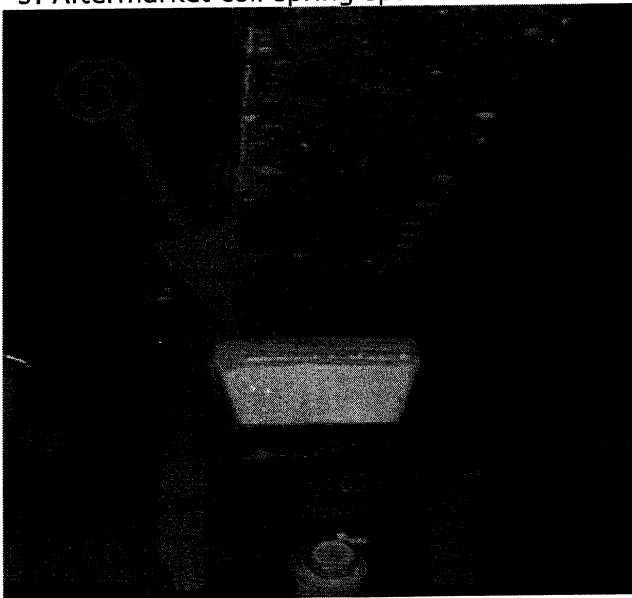
3. Aftermarket coil spring spacer



4. Aftermarket lift kit blocks installed

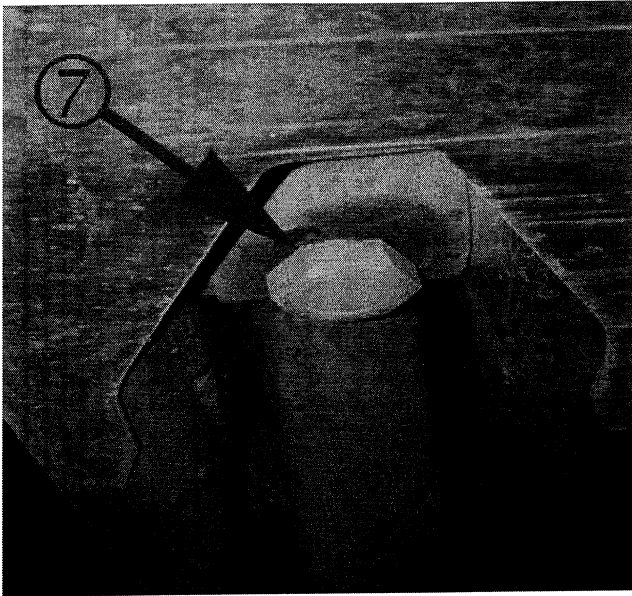


5. Aftermarket coil spring spacer

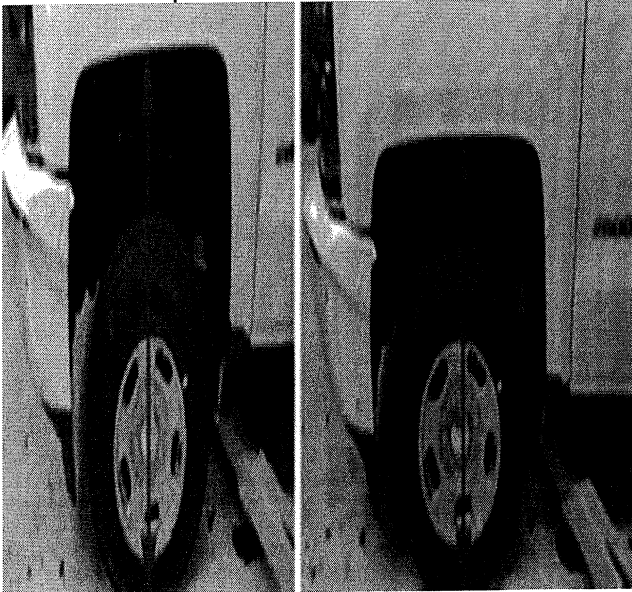


6. Aftermarket rear leaf spring lift block

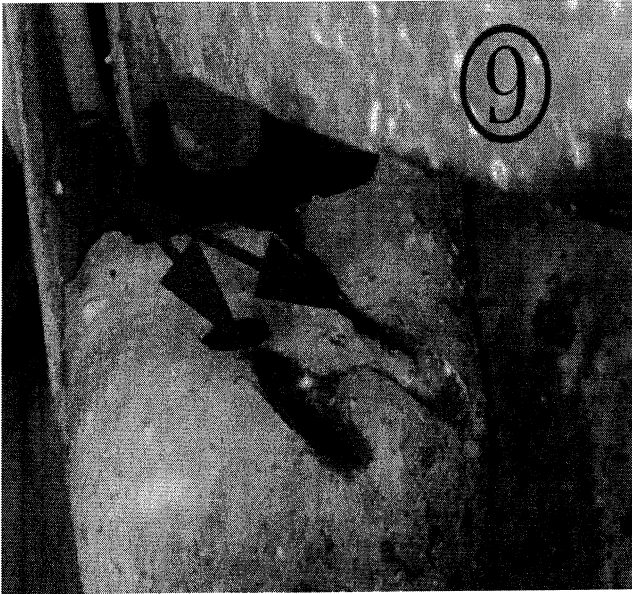
Inspect for improperly adjusted torsion bars (shown below #7) resulting in improper Z-height adjustments. For this example, the Z-height for this truck would be above the specifications but there is not an actual lift kit installed.



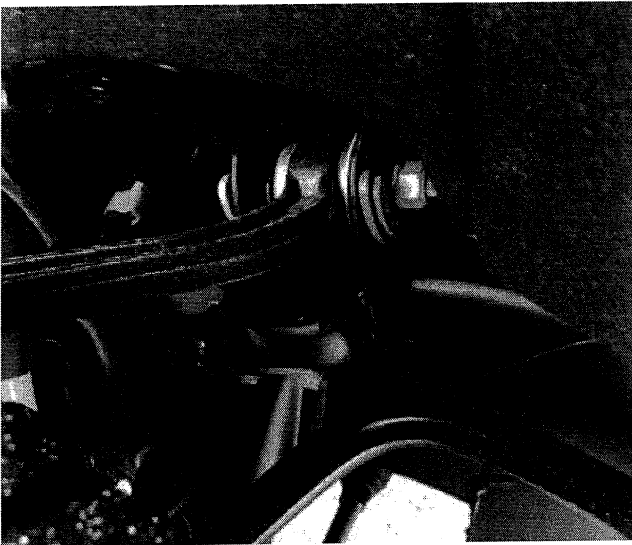
Below is an example of lift provided by improperly adjusting the z-height. In this example, the front suspension has been raised about 3 inches.

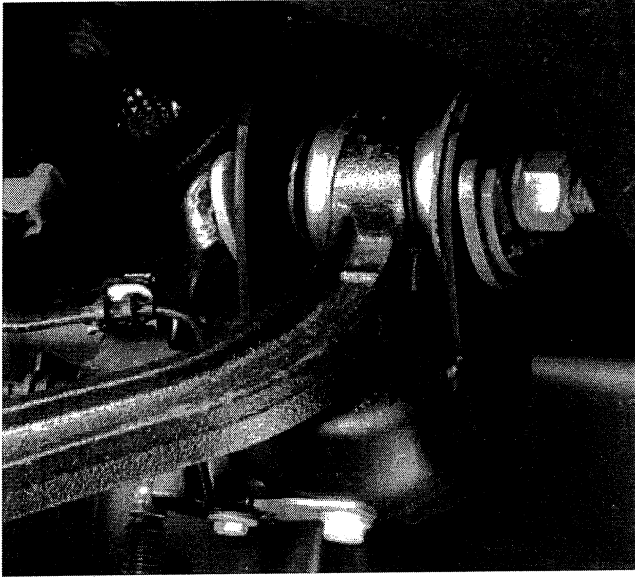


If the torsion bars have been improperly adjusted as shown above, also inspect for contact between the upper control arm (shown below #9) and the frame (shown below #10). If contact is found inspect the upper ball joint for looseness, as it may have been damaged by the modification.

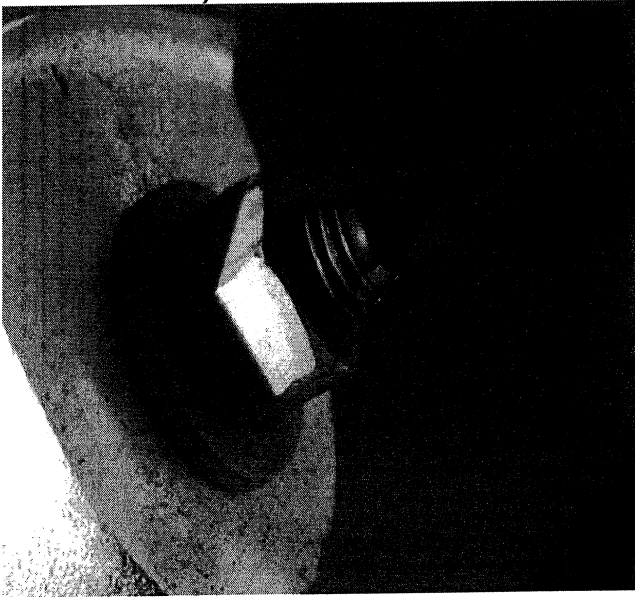


Below is an example of a vehicle sitting at factory ride height (A) with 25 mm gap between upper control arm and bump stop, and a vehicle that has had the torsion bar adjusted (B) has a 5 to 10 mm gap between upper control arm and bump stop.

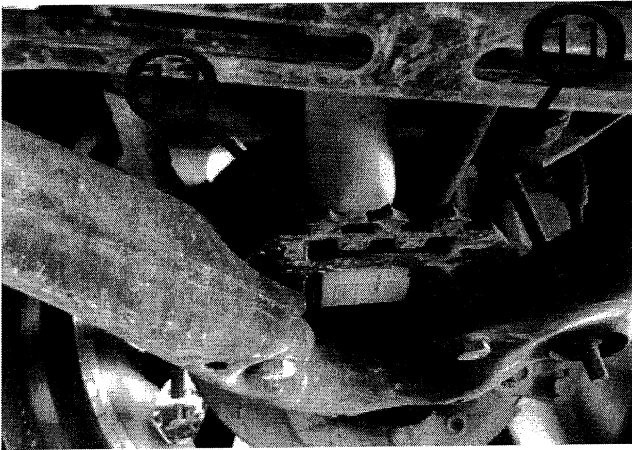




When determining if a vehicle has been modified additional clues can be found by inspecting for quality control marks (shown below #8) from the factory that are not aligned (especially on new trucks):



Note: The green quality control marks do not line up indicating this vehicle has been tampered with.



11. Aftermarket Lift Kit Block installed



12. Aftermarket Coil Spring Spacer installed

Warranty Information

Any concerns or damage that occurs as a result of vehicle modification may not be covered under the Terms of the New Vehicle Limited Warranty. Reference the latest version of TSB 09-00-89-016 (Warranty Administration – Labor Operation 0600014 – Suspected Tampering or Vehicle Modifications) if needed.

Please follow this diagnostic or repair process thoroughly and complete each step. If the condition exhibited is resolved without completing every step, the remaining steps do not need to be performed.

Version	1
Modified	Released October 13, 2021

Additional Keywords

align alignment axle ball bar break broke broken control C0710 damage drag end front high inch inches inner joint kit left lift link loose low lower lowering modified noise outer plow rack rear right rod snow stabilitrak stability steer steering susp suspension sway tcs tie tire tires torsion traction turn underbody unwanted unwanted upper wear wheel wheels worn

GM bulletins are intended for use by professional technicians, NOT a "do-it-yourselfer". They are written to inform these technicians of conditions that may occur on some vehicles, or to provide information that could assist in the proper service of a vehicle. Properly trained technicians have the equipment, tools, safety instructions, and know-how to do a job properly and safely. If a condition is described, DO NOT assume that the bulletin applies to your vehicle, or that your vehicle will have that condition. See your GM dealer for information on whether your vehicle may benefit from the information.



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