

TOP TIPS

Maintaining Proper Ride Height

Maintaining the proper ride height of a vehicle is crucial not only for ride quality and customer experience but also for gas mileage and overall aerodynamics. Ride height can be affected by several factors. A broken or worn suspension component is one cause, but sometimes customers change ride height intentionally for vehicle aesthetics or off-road use. Usually, unless an alignment is being performed, ride height is commonly overlooked during the diagnostic process.

Continue reading to learn about common misconceptions around suspension ride height diagnostics and how you can provide an accurate and quality suspension system service.

1

VERIFY THE VEHICLE RIDE HEIGHT.

It can be a tricky process to diagnose suspension issues on modern vehicles, especially when a vehicle can be equipped with a variety of suspension configurations. Ensuring the vehicle is at a proper ride height is always a good first step when addressing a suspension related customer complaint.

Depending on the type of vehicle you are diagnosing, you may need to verify with the customer that the ride height has not previously been altered. If the ride height has been changed from the stock setting, a different diagnosis strategy may be necessary. A truck with a lift, depending on how high the lift is, will wear suspension and driveline components alike at a higher frequency than a pickup truck at a stock ride height. Even if the vehicle isn't at its stock height, it is still valuable to know what the baseline ride height is.

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CHECK FOR WORN SUSPENSION COMPONENTS.

There are various indicators that can show signs of worn suspension components. For example, uneven tire wear can be a sign of a worn strut assembly or shock absorber. When these components fail, you will start to see cupping or bald patches due to road vibrations and extra suspension travel.

Worn suspension components can often lead to customer complaints about excessive bouncing or jolting when driving over rough or uneven roads. When specifically checking for these types of issues, taking the vehicle on a road test is a good place to start. Make sure to attempt to duplicate the customers' driving conditions as closely as possible. Proper road testing is one of the most crucial parts of the diagnostic process. This can help pinpoint where the noise or ride issue may be located.

3

DIAGNOSE STRUT RELATED ISSUES.

While suspension concerns are generally considered simple to solve, your diagnostic process may not always lead you in the direction of a failed strut. Commonly, the integrity of struts degrades over time, eventually leaking oil until the proper ride quality can no longer be maintained. The spring within the strut assembly can also fracture or crack, causing a clunking noise and severely impacting ride quality for the customer. Normally, a proper visual inspection can identify these types of failures. You can also physically bounce or rock the vehicle in your service bay to duplicate a suspected suspension noise.

Squeaking or creaking noises can signify a worn or dried-out strut mount. These issues can be easily diagnosed with the use of a remote microphone kit, specialized to attach to suspension components. The kit also includes a pair of headphones to ensure you can hear the suspected noise as clearly as possible. You can then take the vehicle on a test ride and verify the source of the noise.

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4

SELECT THE CORRECT REPLACEMENT STRUT.

After the customer complaint is pinpointed to a strut, a decision must be made regarding replacement. While it is possible to repair the strut by replacing only the component that has failed, you cannot guarantee how long the other individual components will last. Have total assurance in your repair by using Duralast® loaded struts. Using a Duralast loaded strut, sometimes called a “quick strut,” not only saves time on the repair, but also assures the customer they’re getting a brand-new suspension component with OE ride quality. Replacing struts in a pair assures the highest ride quality for the customer. It is also important to consider that the sway bar links may need to be replaced when removing and installing a strut assembly. Duralast also offers a selection of premium sway bar links if a pair is needed during the strut replacement procedure.

5

CHECK THE ALIGNMENT.

It is always a good idea to realign a vehicle when the ride height is altered. Whether you are taking a vehicle and restoring it back to a stock ride height or lifting/lowering a vehicle at the request of a customer, the alignment angles of the vehicle will change. Altering ride height affects camber angles the most, with total toe being offset slightly. Usually, but not exclusively, a lift will cause a negative camber effect, where lowering a suspension affects the camber positively. Failure to adjust the alignment back into proper specifications can cause ride quality issues as well as uneven tire wear.

6

RECALIBRATE ADAS EQUIPMENT.

Advanced Driver Assistance Systems (ADAS) are becoming more popular on modern vehicles. If the ride height is changed on cars equipped with these high-tech systems, you’ll need to recalibrate the ADAS cameras. In severe cases, it may make the system inoperable. If the ride height of a vehicle is altered and the ADAS equipment is deemed as malfunctioning, the system may need to be recalibrated. If the procedure to reset the system does not work, the only option would be to return the vehicle’s ride height to factory specifications.

For more information on Duralast ride control, visit www.autozonepro.com/ridecontrol.

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