

When to Replace Heavy Duty Shocks

Reduce Down Time with Regular Inspection

Today's low friction classes 3 - 8 suspensions and tires require high functioning shocks to minimize wear and protect from vibration damage. Worn shocks also increase driver fatigue because they cannot properly dampen the suspension oscillation that gets transferred to the truck cab of today's sophisticated suspension systems.

A program of regularly scheduled shock absorber inspections and maintenance will help avoid down time and reduce wear on other components. In between these regularly scheduled reviews, watch for signs that wear is occurring.

Indications that maintenance may be required and shocks should be checked for replacement include:

- Uneven Tire Wear (cupping)
- Broken or Torn Air Springs
- Premature Wear of other suspension components
- Sagging Taper Leaf Springs
- Ride Deterioration
- Excess Vibration

Visual signs that it's time to replace shock absorbers:



Leaking



Upper or lower
mount broken



Upper or lower
bushing torn



Broken internally
or jammed in
collapsed position



Improper
installation



Dust tube
broken



Truck mount
failure



Bent or dented

The above inspection shows the visual signs of shock failure, but when a shock has failed internally it is visually undetectable. Therefore, it is a good maintenance practice to perform the Gabriel Heat Test on the following page of this bulletin. For videos and more information on checking heavy duty shocks or to get your own Gabriel HD Shock Tester, please visit CheckYourShocks.com.

When to Replace Heavy Duty Shocks Take the Gabriel Heat Test

If visual inspection has been completed with no issues, it is now time to perform the following Gabriel Heat Test within a few minutes of operating the equipment.

Shock absorbers function at temperatures ranging from ambient to 350° F. Shocks dampen the oscillation of the vehicle's springs by transforming energy produced by the spring into heat, then dissipating it. As a result, the shock should be slightly warm to hot after normal use.

1. Drive the vehicle at moderate speeds for at least 15 minutes.
2. Within five minutes after parking, establish a reference temperature of the vehicle chassis frame using an infrared thermometer gun. Next, check the temperature of the shock absorber body below the dust tube (about 1" from the bottom cap: see photo).
WARNING: DO NOT touch the shock as it may be hot and could cause a burn injury – an infrared thermometer gun or similar measuring device is recommended.
3. All shock absorbers should be warmer than the chassis. Suspect a failure in any shock absorber that is noticeably cooler than its mate on the other end of the axle. Remember this...

If it's COLD, it's OLD!