

Gleaming Alloy Core Front Spacer Lift - Fact Sheet

Construction

Spacer Clamps: 3/16" (4.76mm) A513 & A36 carbon steel w/Class 12.9 hardware
Relocation Brackets: 12 Ga. A36 carbon steel w/Class 10.9 hardware
Finish: Zinc plated w/clear chromate

Lift Table

Lift Class	Spacer Height	Net Yield	Variability*	Driveline Stress**
1.0 Inch	24mm	1.0"	± 0.1"	Minimal
1.3 Inch	30mm	1.3"	± 0.1"	Minimal
1.7 Inch	36mm***	1.6"	± 0.2"	Moderate
2.0 Inch	42mm****	1.9"	± 0.2"	Moderate - High

* Variables such as vehicle weight, springs, struts, tires, etc. will affect the actual lift height realized, but in most cases will fall within this range.

** A net yield of 2" or greater puts you in the 'high' driveline stress category.

*** Some of the most popular lifts for the Cherokee (KL) have 36mm spacers but are marketed as 2" lifts.

**** 42mm is the tallest strut spacer that can be safely installed on the Cherokee (KL).

Combining w/Long Struts

Long struts are available for the Cherokee (KL) platform from manufacturers such as Dobinsons and Rough Country. Long struts can be combined with the Core Front Spacer Lift to produce a higher lift. You should add the advertised additional height of the long strut to the 'Net Yield' in the above table to calculate the total lift height that will be achieved on your vehicle. For instance, the Dobinsons C29-150B front springs advertise 1.25" of lift on a Cherokee Trailhawk. Combined with our 36mm spacer, that yields a total lift of 2.85", which is slightly under 3". Combined with our 42mm spacer, that would yield a total lift of 3.15", which exceeds 3" and is generally considered too much lift for this platform (not recommended, use at your own risk).

Alignment Issues

The Jeep Cherokee (KL) platform has no provision to independently adjust the caster or camber of the front suspension. Only the toe angles can be changed. As you lift your Jeep, the front camber angles gradually increase. The accepted range is from -0.05° to +0.15°. The 42mm spacer lift will push your camber very close to 0.15°, and may even exceed it. This will have minimal effect on handling and tire wear but if it is a concern to you, scale your lift decision back to 36mm. Keep in mind that combining with long struts will exceed the camber specification even more.

Spacer Multiplication

The spacer height and net yield of the lift is not a 1:1 relationship. This is because the suspension is not linear, but instead, follows the arc of a circle. Thus depending on the suspension design and where the spacer is added within its geometry, there will be a multiplication factor that amplifies the amount lift relative to spacer height. The Cherokee (KL) platform uses McPherson struts in the front. Lift is achieved by adding spacers on the strut to effectively lengthen them and lowering the ball joint, producing a net lift. Since the struts are normally angled outward, lengthening them is increasing the length of a hypotenuse on an imaginary triangle. This means the multiplication factor is less than 1 and thus you would achieve less lift than the spacer height. However, the knuckle and axle hub extend beyond the ball joint, and its the change in their angle that brings the multiplication factor back above 1 (it's also what produces an increase in camber angle the higher you lift). That all said, the multiplication factor is not linear. This is because the rest of the system responds to the lift in different ways. For example, your tires will respond to the change in camber angle, and introduces variability into the actual amount of lift realized.