



Overview:

The open-ended titanium lug nuts serve 2 purposes: reduced weight over OEM and other aftermarket lug nuts and increased brake cooling by allowing heat to escape through the wheel studs.

Compatibility:

The lug nuts will fit any Viper 1992-2017 along with other vehicles with a 1/2-20 thread wheel stud. The nuts have a 60 degree seat angle.

The design is a 17mm 12 point head, and is compatible with this type of socket. An example of a compatible socket driver is Sunex Tools 267217.

Outer diameter is 23.5mm requiring a 26mm minimum wheel port.



Lug nut installed on a Viper ACR

Construction:

These are a high-strength forging of 6AL-4V Titanium which are fully CNC machined after the fact to achieve precise threads and seats. They are available without finish (bare), or with a dark, durable Teflon-infused coating.

Galling:

A frustrating problem with lug nuts / studs is galling (cold welding). In severe cases the nut can be seized permanently to the stud and/or stick enough to break the stud – neither are a quick fix as they require stud replacement. This can happen with any lug nut material – even OEM nuts over OEM studs.

Galling is made worse for those who track their cars due to the conditions and processes commonly used, often in time-limited situations. The following should be avoided if possible:

- Removal / installation of the nut with an impact wrench or other high speed power tool.
(quicker spinning nut increases heat and friction – use a slower speed or manual ratchet)
- Heat contributes significantly to galling – take extra care after sessions where the brakes/hubs are likely hot.
- Don't use the nut to "pull" the wheel on more than necessary – more force = more heat.
- If the nut doesn't seem to be easily spinning, slow down, remove, and inspect the threads to check for damage.

Other than being aware of the above scenarios, an easy way to reduce the risk of galling is applying a high-temp anti-seize (nickel) to the studs/nuts. The lubrication greatly reduces friction and heat when installing or removing the lug nuts.

The DSE titanium nuts have been coated with a durable Teflon-infused coating so anti seize is not required unless the coating becomes damaged. If you have purchased the bare titanium lug nuts, a high temp anti-seize should be applied to the studs prior to installation. *Note – the reduction in friction also requires a reduction in installation tightening torque to 80% spec (see installation instructions below).*

Weight:

Each lug nut weighs 0.036lbs; 39% of the weight of an OEM Viper lug nut.

Ordering Information:

dougshelbyengineering.com

DSE-LN-TI-001: ½'20 Open Ended Titanium Lug Nuts (set of 25)

Installation Guide:

- Hand tightening with a torque wrench is recommended to preserve the finish. Do not use an impact wrench. Take caution to avoid damage due to worn/damaged studs or damage due to over-torque or incorrect installation.
- The coating provides a reduced-friction surface similar to anti-seize and therefore requires a torque adjustment to maintain the intended force. Torque the lug nuts to ~80% of the recommended torque spec (roughly 80 ft-lbs for Vipers – check torque specs for your model year).

Inspection and Maintenance:

- As with any lug nut, check the torque again after the first drive to ensure they are still tightened to spec.
- On track days check the torque after each session.
- Periodically inspect the coating on the threads. If significant damage or wear of the coating occurs over time use Permatex Anti-Seize or equivalent to prevent galling.
- Inspect nuts before and after each installation and discarded if any damage or out-of-spec thread tolerance is observed.

Thank you for your purchase!

Your business is appreciated and customer satisfaction is our top priority! Don't hesitate to contact us via email with any questions or feedback. Word of mouth is the best form of advertising so if you are satisfied please spread the word!

Disclaimer of Liability:

Doug Shelby Engineering assumes no liability expressed or implied for the improper installation or use of this product or its components. Doug Shelby Engineering is NOT responsible for any damage, consequential or otherwise for equipment failure after installation.

Vehicle Modification:

Modification of your vehicle with the parts identified above may alter its stock performance; the buyer hereby expressly assumes all risks associated with any such modification.

Disclaimer of Warranty:

Seller disclaims any warranty express or implied with respect to the parts sold hereby whether as to merchantability, fitness for particular purpose, or any other matter.