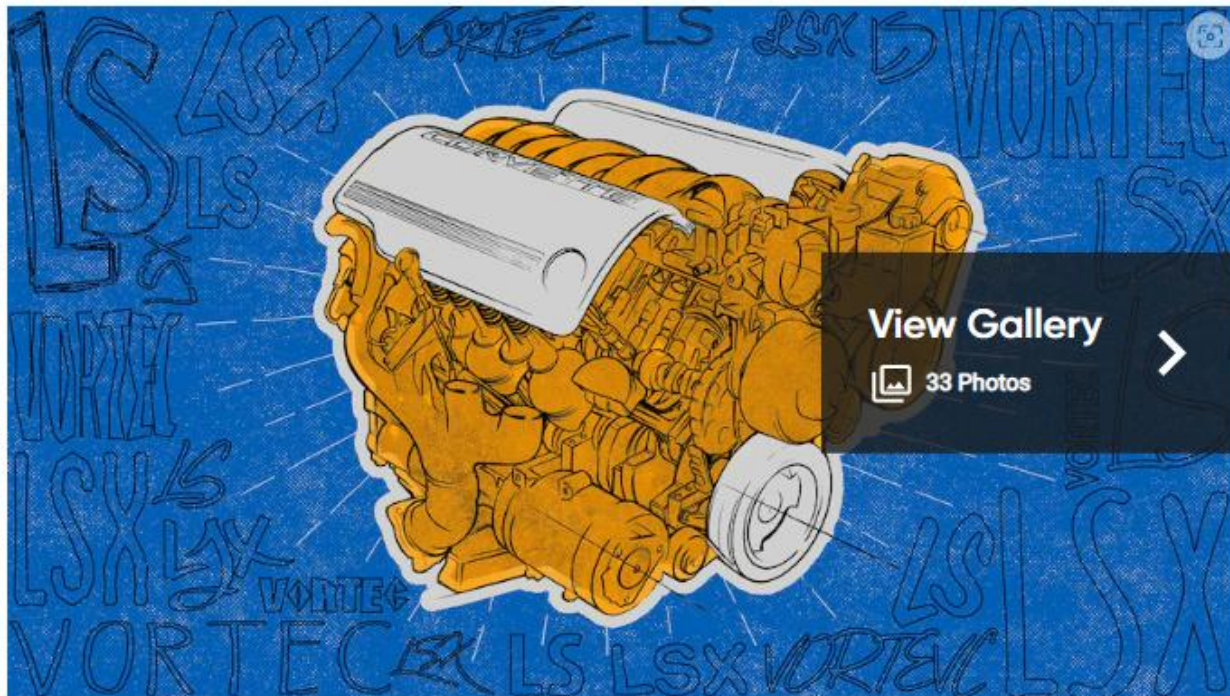


Everything You Need to Know About LS, LSX, and Vortec Engines: Specs, History, Swaps, and More

A complete guide to the history of the LS and Vortec engine brands, the differences between them, and their components

<https://www.motortrend.com/how-to/chevy-ls-lsx-lsa-engine-history>



Back in the early 1990s the Gen II LT1 and LT4 engines powered GM's hottest performance cars, but GM read the tea leaves and knew that this platform would not be able to get them where they would eventually need to be in terms of emissions, CAFE standards, or even performance. A new V-8 was needed and in 1993 work began on what would eventually be labeled the LS1. Replicating the success of the original small-block was a huge undertaking. GM kept the basic structure of a single cam pushrod V-8, but nearly everything else was reworked, from the deep-skirt block to the firing order. A coil-near-plug arrangement replaced the trouble-prone Opti-Spark and to save weight the blocks would be cast aluminum with iron sleeves. The new LS1 displaced 5.7 liters, which pencils out to 346 cubic inches, very close to the 350ci engines they were slated to replace.

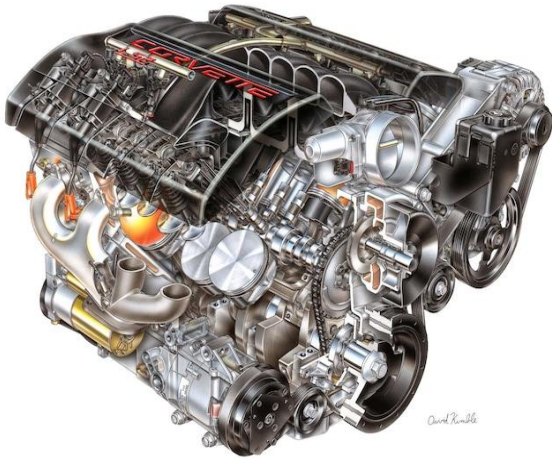
The LS1 debuted in the 1997 Corvette and moved to the Camaro in 1998. In 1999, different versions of the LS design, such as iron blocks with varying displacements, started showing up in trucks and SUVs. Over 18 years of production, GM came up with many variants suited for different applications.

What Does LS Stand For In Engines?

Ask 10 people this question and you'll most likely get 5 or 6 different answers. The most common one you'll hear is that the LS stands for Luxury Sport. This comes from the use of LS and LT in the context of car trim levels ('LT' meaning Luxury Touring). While this is true of cars, we don't think that is what they were going for when they came up with the LS1 designation. The previous Gen2 engine, the LT1

(the Optispark-equipped one, not the direct-injected one) was being replaced and the LS tag was just an engine design

nation code much like Z28. We've heard people say it stands for "long stroke" and even that it was somebody's initials, but the truth is that it was just a way for GM to refer to the new engine series.



LS1
2002 5.7L V8 (LS1)
with Air Injection Reaction
for Camaro and Firebird



Chevrolet Corvette Z06

LS7
2006 7.0L V-8 (LS)



LS6
2002 5.7L V8 (L



Which engine is the best? In terms of performance it would have to be a tossup between the LS7 and the LS9. With its dry sump(ish) setup, titanium rods and insane heads the LS7 was a revolutionary engine, so it would be our pick. But it's hard to dismiss the solid design and power output of the blown LS9. In the end we would say the best LS engine is the one you can afford to stuff into your hot rod.

LS1: The Engine That Changed it All

LS2: More Displacement and Wider Use Across GM

LS3: A Better Design for the Fourth-Generation V-8

LS4: Transaxle LS Power

LS7: A Special Camaro Deserved a Very Special Engine

LS9: The Most Powerful LS to Date Thanks to Boost

LSA: A Little Bit of Blower Adds a Lot of Performance

L20 4.8-Liter LQ4: Iron Block Vortec For Trucks and SUVs

LC9 5.3-Liter: The Most Common LS Variant on the Planet

LQ9 6.0-Liter: More Displacement for Larger SUVs and Trucks

L9H 6.2-Liter: Harder To Find High Performance Version

LSX376-B8: Low-Boost-Ready Aftermarket Crate Engine

LSX-454 and LSX-454R: The Biggest Aftermarket LS Engines Offered by Chevrolet

LS376-B15: Built to Handle More Boost for Even Greater Performance

LS376/515: Carburetor-Ready Crate Engine

Heads, Cranks, Rods and Pistons and Crate Performance Engines



MOTORTREND HOTROD MAGAZINE, HOW-TO - ENGINE AND DRIVETRAIN, LS, LSX, LSA, and Vortec Engines: Everything You Need to Know About Their Specs, History, Swaps, and More (motortrend.com)