Memorandum

**To:** Supercar buyer

**CC:** Other interested parties

**From:** Gregory Asher

**Date:** 06-28-2016

**Subject:** Consider this when purchasing a new supercar

## Introduction

There are three options available for a first time supercar buyer: 2016 Ferrari California, 2017 Audi R8, and 2016 McLaren 570s. Factors involved in this decision are: engine specifications, like horsepower, torque, and number of cylinders; standard features, like convertible top options, cargo (trunk) space, engine location, and drivetrain; 0 to 60 time; power to weight ratio (horsepower divided by weight); price; and cost per horsepower (price divided by horsepower).

## Engine Specifications

Engine specifications include engine size, peak horsepower, and engine torque.

The 2016 Ferrari California comes equipped with a 3.9 liter V8 engine that produces 553 peak horsepower at 7500 rpm and 557 lb-ft of torque at 4500 rpm (Ferrari).

The 2017 Audi R8 comes equipped with a 5.2 liter V10 engine that produces 540 peak horsepower at 8250 rpm and 398 lb-ft of torque at 6500 rpm (Duff).

The 2016 McLaren 570s comes equipped with a 3.8 liter V8 engine that produces 562 peak horsepower at 7500 rpm and 443 lb-ft of torque at 5000 rpm (Duff).

## Standard Features

Standard features are the options included by default with purchase of the specified vehicle.

The 2016 Ferrari California includes these standard features:

* a front-engine, rear-wheel drive car
* an automatic retracting hard top convertible
* 8.5 cubic feet of trunk space with the top down, 12 cubic feet of cargo space with the top up
* a 20.6-gallon fuel capacity

The 2017 Audi R8 includes these standard features:

* a mid-engine, 4-wheel drive car
* no convertible option available
* 8 cubic feet of cargo space
* a 19.3-gallon fuel capacity.

The 2016 McLaren 570s includes these standard features:

* a mid-engine, rear-wheel drive car
* no convertible option available
* 5.3 cubic feet of cargo space
* a 19-gallon fuel capacity.

## 0 to 60 Time

A 0 to 60 time is determined by the amount of time it takes for the vehicle to go from a standstill (0 mph) to 60 mph.

Table 1 displays a breakdown of the three cars’ 0-60 times.

Table 1: 0-60 times for the Ferrari California, Audi R8, and McLaren 570s

|  |  |  |  |
| --- | --- | --- | --- |
| **Criteria** | 2016 Ferrari California | 2017 Audi R8 | 2016 McLaren 570s |
| **0-60 time** | 3.6 seconds | 3.2 seconds | 3.2 seconds |
| Duff, Mike. "2017 Audi R8 - First Drive Review." *2017 Audi R8 First Drive – Review – Car and Driver*. Car and Driver, June 2015. Web. 24 June 2016. <http://www.caranddriver.com/reviews/2017-audi-r8-first-drive-review>.  Duff, Mike. "McLaren 570S / 570GT - Car and Driver." *McLaren 570S / 570GT Reviews*. Car and Driver, May 2015. Web. 24 June 2016. <http://www.caranddriver.com/mclaren/570s-570gt>.  "Ferrari California T: Ferrari.com." *Ferrari GT*. Ferrari, 2016. Web. 24 June 2016. <http://auto.ferrari.com/en\_EN/sports-cars-models/car-range/california-t/#specifications>. | | | |

## Power-to-weight ratio

The power to weight ratio is determined by taking the horsepower (hp) and dividing by the weight of the vehicle.

The power-to-weight ratio of a Ferrari California is 0.145 hp per lb.

The power-to-weight ratio of an Audi R8 is 0.154 hp per lb.

The power-to-weight ratio of a McLaren 570s is 0.177 hp per lb.

## Price

The price is determined by MSRP from the dealership.

A 2016 Ferrari California costs $202,723 from a Ferrari dealer.

A 2017 Audi R8 costs $162,900 from an Audi dealer.

A 2016 McLaren 570s costs $187,300 from a McLaren dealer.

## Cost per horsepower

Cost per horsepower is determined by taking the price of the vehicle and dividing it by the horsepower of the car. This figure can be used to determine value.

The Ferrari California has a value of $366.60 per horsepower.

The Audi R8 has a value of $301.70 per horsepower.

The McLaren 570s has a value of $333.30 per horsepower.

## Conclusion

When making the final decision on whether to choose the Ferrari California, the Audi R8, or the McLaren 570s you can inspect: engine specs, standard options, 0 to 60 time, power to weight ratio, price, and cost per horsepower.

* If you desire max horsepower, the 2016 McLaren 570s is the best choice
* If you desire max torque, the 2016 Ferrari California is the best choice.
* If you desire least expensive supercar, the 2017 Audi R8 is the best choice.
* If you desire the most expensive supercar, the 2016 Ferrari California is the best choice.
* If you desire the best cost per horsepower, the Audi R8 is the best choice.
* If you desire a convertible supercar, the 2016 Ferrari California is the only choice.
* If you desire maximum cargo space, the Ferrari California is the best choice regardless of convertible top usage.

## Recommendation

Due to the pricing, level of uniqueness, and power I believe the McLaren 570s is the best value. The Audi R8 simply blends in too well with normal traffic and the price of the Ferrari is too great to make it worth it.

**[word count: 917 – 138 (references + this line + table) = 779]**

## References

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