

Section III: Build of the car

The build of the car can be split between the power unit, aerodynamics and the chassis. Mercedes had the best engine, this is because in the summer of 2011 Formula One announced new regulations that would change the engine to a v6 turbo hybrid engine from the 2014 season.

With an experienced team of engineers due to making engines for McLaren for the last two decades, Mercedes built an engine focused on maximum performance. They used a split turbo engine design splitting the compressor and the exhaust into separate parts improving it immensely (Onestopracing, 2021)

Looking at the aerodynamics aspects that Mercedes used during 2014-2020 the team used neat tricks for better airflow management. At the front of the car the team used a conjoined lower wishbone, which narrows the gap between the two legs in order to turn it into one larger aerodynamic fairing, keeping the airflow coming off the front wing correctly improving the performance of the downstream. While also moving the steering arm inline with the upper wishbone for better airflow. The rear of the car was just as impressive, the rear wing no matter the configuration had a twin mounting pillar arrangement, creating stability instead of the beam wing that had been removed due to the new regulations (Autosport, 2021)

