Formula 1 revolution in 2014

1 Front wing: Width reduced by ***150mm*** to ***1,650mm***. Change will significantly affect airflow around both inside and outside of front wheels

Low-pressure void behind each wheel increases drag

3 Front bulkhead: Lowered to ***525mm*** to increase safety

4 Fuel: Limited to maximum of ***100kg*** per race, down from 150kg average in 2013. Fuel flow limited to ***100kg/h*** – currently unlimited. Changes require ***30%*** improvement in engine efficiency

5 Lower beam wing: Downforce-producing device at base of rear wing banned

6 Gearbox: Eight forward gears – one more than in 2013. Ratios chosen ahead of season

Intercooler

7 Sidepods: Wider to accommodate extra turbocharger and ***Energy Recovery System*** radiators

500mm mid-section of wing must remain neutral

2 Nose tip: Height reduced to ***185mm*** – 365mm lower than in 2013

Single tailpipe

Air intake

F1's new power unit

Comprises engine plus Energy Recovery System (ERS)

8 Engine: Turbocharged 1600cc 90-degree V6, capped at ***15,000rpm***, 3,000rpm less than outgoing 2.4-litre V8.

Engine plus turbocharger will produce more than ***600 brake horsepower*** *(608PS, 447kW)* – three times more power than 1600cc street car engine

Turbocharger: Exhaust drives compressor, increasing density of intake air to generate more power

Exhausts

9 Energy Store (ES): Decides when and how much fuel to use. Also controls two ***motor generator units*** – ***MGU-H*** and ***MGU-K*** – which convert heat and kinetic (mechanical) energy to electrical energy and vice versa

ERS provides engine with additional 160bhp per lap

10 MGU-H: ***Motor generator unit-heat*** converts excess energy from spinning turbine shaft to electricity to charge battery or to drive ***MGU-K***. Also acts as motor to speed up turbo during acceleration, to avoid ***turbo lag***

11 MGU-K: ***Motor generator unit-kinetic*** harvests energy from rear wheels during braking. Also uses energy from ES to increase power via engine crankshaft

Sources: FIA, Autosport, Renault

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