



# McLAREN MERCEDES

PRESS RELEASE

## MP4-29 TECH SPEC

### Chassis

#### **Monocoque**

#### **Safety structures**

Carbon-fibre composite incorporating driver cockpit controls and fuel cell  
Cockpit survival cell incorporating impact resistant construction and penetration panels, front impact structure, prescribed side impact structures, integrated rear impact structure, front and rear roll structures

#### **Bodywork**

Carbon-fibre composite. including engine cover, sidepods, floor, nose, front wing and rear wing

#### **Front suspension**

Driver-operated drag reduction system  
Carbon-fibre wishbone and pushrod suspension elements operating inboard torsion bar and damper system

#### **Rear suspension**

Carbon-fibre wishbone and pullrod suspension elements operating inboard torsion bar and damper system

#### **Weight**

Overall vehicle weight no more than 690kg without fuel

Weight distribution between 45.5% and 46.5%

(Subject to tyre weight adjustments and axle weight limits)

#### **Electronics**

McLaren Applied Technologies. Including chassis control, engine control, data acquisition, alternator, sensors, data analysis and telemetry

#### **Instruments**

McLaren Applied Technologies dashboard

#### **Lubricants & fluids**

Mobilith SHC™ 1500 Grease – high-temperature drive-shaft tripod lubrication

Mobilith SHC™ 220 Grease – low rolling-resistance ceramic wheel bearing lubrication

Mobil SHC™ Hydraulic Oil – high-pressure, high-temperature hydraulic fluid used for driver, transmission and power-unit control actuators

#### **Brake system**

Akebono calipers and master cylinders

Akebono 'brake by wire' rear brake control system

Carbon discs and pads

#### **Steering**

McLaren Racing power-assisted

#### **Tyres**

Pirelli P Zero

#### **Race wheels**

Enkei

#### **Radio**

Kenwood

#### **Paint**

AkzoNobel Car Refinishes system using Sikkens products

### Power Unit

#### **Type**

Mercedes-Benz PU106A Hybrid

#### **Minimum weight**

145 kg

#### **Primary PU components**

Internal Combustion Engine (ICE)

Motor Generator Unit – Kinetic (MGU-K)

Motor Generator Unit – Heat (MGU-H)

Energy store (ES)

Turbocharger

Control electronics

### Internal Combustion Engine

#### **Capacity**

1.6 litres

#### **Cylinders**

Six

#### **Bank angle**

90 degree vee angle



### MEDIA CONTACTS

Matt Bishop  
matt.bishop@mclaren.com

Steve Cooper  
steve.cooper@mclaren.com

Silvia Hoffer Franipane  
silvia.hoffer@mclaren.com

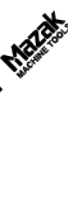


# McLAREN MERCEDES

PRESS RELEASE



<b>No of valves</b>	24
<b>Max speed</b>	15,000 rpm
<b>Max fuel flow rate</b>	100kg/hour (above 10,500 rpm)
<b>Fuel consumption</b>	100kg 'lights to flag' regulated fuel capacity limit
<b>Fuel injection</b>	500bar direct injection, single injector per cylinder
<b>Pressure charging</b>	Single-stage compressor and exhaust turbine, common shaft
<b>Lubricant</b>	Mobil 1™ Engine Oil – high-protection low-friction lubricant and coolant, for high durability and improved fuel economy
<b>Fuel</b>	ExxonMobil High Performance Unleaded (5.75% bio fuel)
<b><u>Energy Recovery System</u></b>	
<b>Architecture</b>	Integrated Hybrid energy recovery via Motor Generator Units Crankshaft coupled electrical MGU-K Turbocharger coupled electrical MGU-H
<b>Energy store</b>	Lithium-Ion battery, between 20 and 25 kg Maximum energy storage, 4 MJ per lap
<b>MGU-K</b>	Maximum speed, 50,000 rpm Maximum power, 120 kW Maximum energy recovery, 2 MJ per lap
<b>MGU-H</b>	Maximum energy deployment, 4 MJ per lap Maximum speed 125,000 rpm Maximum power, unlimited Maximum energy recovery, unlimited Maximum energy deployment, unlimited
<b><u>Transmission</u></b>	
<b>Gearbox</b>	Carbon-fibre composite case
<b>Gears</b>	Eight forward and one reverse
<b>Gear selection</b>	McLaren Racing hand-operated seamless-shift
<b>Differential</b>	Epicyclic differential with multi-plate limited-slip clutch
<b>Clutch</b>	Carbon/carbon, hand-operated
<b>Lubricant</b>	Mobil 1 SHC™ Gear Oil – Low traction-loss, high-efficiency gear and bearing lubricant and coolant



### MEDIA CONTACTS

Matt Bishop  
matt.bishop@mclaren.com

Steve Cooper  
steve.cooper@mclaren.com

Silvia Hoffer Franipane  
silvia.hoffer@mclaren.com