

Williams FW15C

As Damon Hill takes the drive vacated by Nigel Mansell, motor racing enthusiasts wait to see if the son of former World Champion Graham Hill can help Williams to retain the constructors' title

Engine
Renault RS5, 3.5 litre, naturally aspirated, 4-stroke petrol engine, 750bhp, 10 cylinders

Fuel
200 litre fuel bag behind driver, made of 5 layers of Kevlar and rubber. Full tank represents over 30 per cent of car's total weight

Tyres
Maximum width reduced this season (front – from 33cm to 30cm, rear – from 46cm to 38cm). Soft tyres give best grip but are less durable than hard tyres

Brakes
Carbon fibre disc brakes and brake pads can stop a car from 290kmh in 3.5 seconds. Brakes operate at up to 400° centigrade

Survival shell
Carbon fibre monocoque body acts as the chassis, carries the stress of car's suspension and is impact resistant

Reactive suspension
Computer-controlled hydraulic cylinders

Gears selected by levers behind wheel

Halon fire extinguisher

Pedals
Glass fibre-reinforced nylon

Chassis
Carbon Aromid epoxy composite

Radiators
Six times the size of a saloon car. Two water radiators and two oil/water heat exchangers

Front wing
Angle of wing controls downforce. Front and back wings must balance to prevent oversteer or understeer

Rear wing
Angle of wings is adjusted to generate downforce. Increased downforce slows the car but improves cornering

Gear box
Six speed Williams transverse semi-automatic. Gears are not synchromesh and changes are made within about 0.1 second

