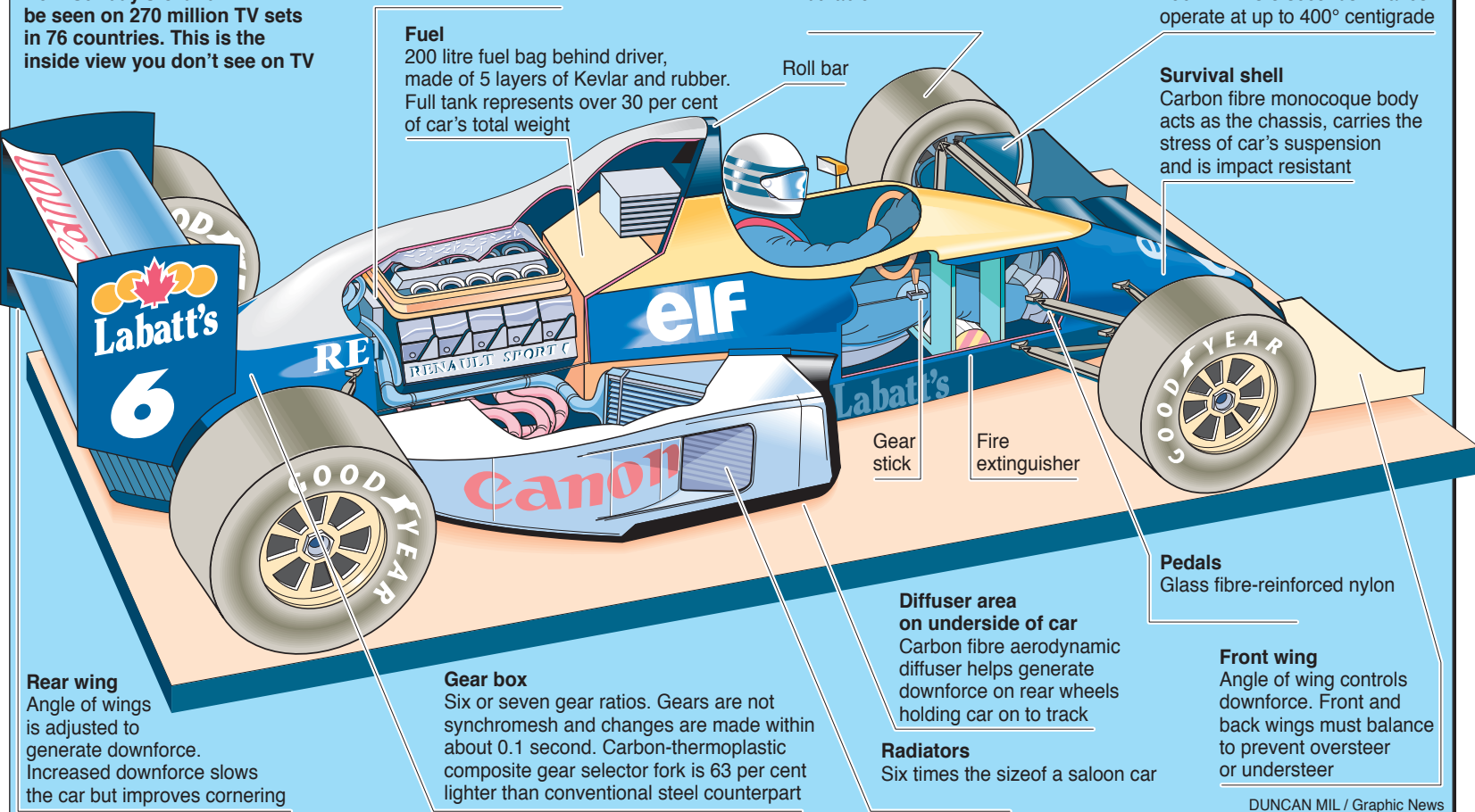


Formula 1: the inside story

Next Sunday's Grand Prix will be seen on 270 million TV sets in 76 countries. This is the inside view you don't see on TV



Engine

3.5 litre, naturally aspirated, 4-stroke petrol engine, 600-700bhp 12 cylinders maximum

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

Soft tyres give best grip but wear quickly. Hard tyres give less grip but are more durable

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

Roll bar

Gear stick

Fire extinguisher

Pedals

Glass fibre-reinforced nylon

Diffuser area on underside of car

Carbon fibre aerodynamic diffuser helps generate downforce on rear wheels holding car on to track

Radiators

Six times the size of a saloon car

Rear wing

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

Gear box

Six or seven gear ratios. Gears are not synchromesh and changes are made within about 0.1 second. Carbon-thermoplastic composite gear selector fork is 63 per cent lighter than conventional steel counterpart

Front wing

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