



FACT SHEET: IndyCar Series Chassis

Guidelines emphasizing improved driver safety and quality car construction were the key specifications stressed to chassis manufacturers that submitted proposals in the year-long process to produce the third generation of IndyCar Series cars. The updated chassis was introduced in 2003 and includes:

- FACT:** The distance between the pedal bulkhead and front bulkhead was increased by a minimum of 3 inches, moving the driver back.
- FACT:** Sidepods must maintain a minimum width of 60 inches along a greater distance.
- FACT:** Energy-absorbent materials were mandated for the driver leg protection.
- FACT:** Front suspension mounting points mandated a bulkhead directly behind them.
- FACT:** Aluminum honeycomb core used in chassis construction must conform to a minimum core density.
- FACT:** Car weight reduced to lessen impact mass.
- FACT:** Each chassis produced must undergo rigorous impact and load tests to meet or exceed FIA standards. Test specifications include an initial impact, second impact and a deceleration impact. The main chassis structure must not be damaged during the chassis impact test.
- FACT:** Mounting points for the cables that are part of the Suspension and Wheel Energy Management System (SWEMS) were integrated into the car design, and minimum sizes for mountings were established.
- FACT:** A shorter, gears-forward transmission was introduced to enhance safety measures at the rear of the car. The shorter gearbox allows for a more effective rear crash structure, similar to the attenuator.
- FACT:** In 2008, the IndyCar Series introduced paddleshifters to all cars. The removal of a gear shift in the cockpit improves driver safety during a crash.
- FACT:** A 7-millimeter thick panel has been applied to each side of the chassis to improve side impact protection. The panel consists of 21 layers of Zylon, which is bonded to the side of the tub. It is the same modification that the FIA has mandated for Formula One in 2008.
- FACT:** A research and development program is currently underway to identify the most effective seat design, structure and seatbelt configuration to provide the drivers with the highest levels of protection. Via Delphi's testing facilities and the use of the THOR-dummy, the IndyCar Series continues to test new seat configurations for our cars, including different materials and angles.
- FACT:** The IndyCar Series is looking to introduce a new tub as early as 2009 that will feature a wider cockpit area with improved head protection. The cockpit would expand in width from 19 to 21 inches, making the extraction of the driver that much easier. The new tub, when introduced, would be the nucleus for a new chassis that could debut as early as 2011. In developing the car, the League would not deviate far from where it is today in terms of the already high safety standards in the sport.

Les Mactaggart, senior technical director of the IndyCar Series is available for interviews to discuss the IndyCar Series chassis specifications. To schedule an interview, please contact Amy Konrath at 317-492-6453 or akonrath@indycar.com.