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The Aston Martin AMR-One: 2011 Le Mans Challenger



After two years of campaigning stylish coupés, Aston Martin Racing has embraced the latest Intercontinental Le Mans Cup regulations by producing a stunning roadster, with mandatory 'shark's fin' bodywork and - surprise of surprises - instead of the familiar V12, a direct-injection, turbocharged straight-six petrol engine...

...with a capacity of just two litres. The latest rules state that, for turbocharged engines in LMP1, this is the maximum permitted capacity (for diesels it's a 3.7-litre, twin-turbo eight-cylinder; normally aspirated petrol cars are now limited to eight-cylinder 3.4-litres). All recent wins at Le Mans have been achieved by big, 'money no object' multi-cylinder factory diesels from Audi and Peugeot.

The 'shark's fin' is an aerodynamic device, mandated in the 2011 regulations, designed to reduce the risk of high-speed yaw causing the prototypes (which can travel at well over 200mph at several points on many circuits) losing contact with the ground and 'flipping' - with potential disastrous consequences for driver and spectators.



The organisers of the Intercontinental Le Mans Cup have radically revised this year's rules to produce closer, more environmentally friendly racing. The cars will be quieter and more equally matched, have smaller tanks (75 litres for petrol, 65 litres for diesel entries, thus encouraging better economy) and will have fewer tyres per race.

The colossal stack of new and used racing rubber has always been a feature of the great, French, 24-hour race. Michelin believes that the smaller-capacity, lighter and more efficient prototypes will be slower in a straight line than before, but faster through the corners - so it does not necessarily follow that they will be easier on their tyres.

As premier suppliers to the top teams - including Aston Martin Racing - they will, no doubt, rise to the task.



Back to the new Aston. The design centre at Gaydon has worked closely with nearby, Banbury-based Aston Martin Racing to produce a flowing design that, while being aerodynamically super-efficient, can also be seen to have modern Aston styling cues. So, the rear lights are configured as per all current production models and the side air-exits have more than a hint of One-77 about them. Both feature an all-carbonfibre chassis.

Interestingly, the company has always set great store by its use of a 'production engine': the 6.0-litre V12, in recent years. Time will tell whether the 2.0-litre turbo-six finds its way into a future road car, although the 540bhp of the 2011 race car's six would be a useful place to start.



Racing specialist Xtrac supplies the bespoke, 6-speed, transverse, semi-automatic pneumatic-shift gearbox, while long-term sponsor Gulf clothes the open car in its iconic pale blue/orange livery. British gentleman's

outfitters Hackett will once more supply team clothing and have the familiar slot on the rear wing end-plates.

It is intended that from the Spa-Francorchamps 6 Hours in May, at least one factory car will enter all rounds of the 2011 Intercontinental Le Mans Cup, with two cars at "selected events". A total of six AMR-Ones will be built. The initial factory line-up has been confirmed as follows:

Car 007: Darren Turner (GB), Stefan Mücke (D), 'To be Confirmed'. Car 009: Adrian Fernandez (MX), Andy Meyrick (GB) and Harold Primat (CH).



Commenting on the launch of the new Le Mans contender, Aston Martin Chief Executive, Dr. Ulrich Bez, said: "Aston Martin's heritage is deeply rooted in endurance sportscar racing so, in 2011, we take the next step, demonstrating that a small team using advanced design and engineering intelligence will be agile and competitive."

Team Principal George Howard-Chappell added: "We have chosen to run with a six-cylinder turbocharged engine because we believe this offers the best potential within the petrol engine regulations. With the ACO's commitment to effectively balance the performance of petrol and diesel Le Mans entrants, our hopes are high that we'll see the closest racing yet in the premier LMP1 category."

"George and the team have been extremely busy over the winter months," said Aston Martin Racing Chairman, David Richards. "They have been working day and night to produce what is not only a stunningly beautiful race car but one which will use the new ACO regulations to best effect."

"Just like the road cars, the AMR-One has been elegantly engineered where simplicity runs throughout to produce what we expect to be a competitive and reliable endurance racer."



2011 Intercontinental Le Mans Cup Calendar:

1. Sebring 12 Hours (Florida, USA) 19 March 2011
2. Spa-Francorchamps 6 Hours (BEL) 8 May 2011
3. Le Mans 24 Hours (FRA), 11-12 June 2011
4. Imola 6 Hours (ITA) 3 July 2011
5. Silverstone 6 Hours (GBR) 11 September 2011
6. Petit Le Mans (Road Atlanta, Georgia, USA) 1 October 2011
7. 6-Hours race in China (circuit to be confirmed) 12 November 2011

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