dallara MAGAZINE
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THE PURSUIT OF EXCELLENCE

DAYTONA

GRAND AM OPENS ITS 2010 SEASON
WITH THE LEGENDARY 24 HOURS OF DAYTONA

ANGELELLI

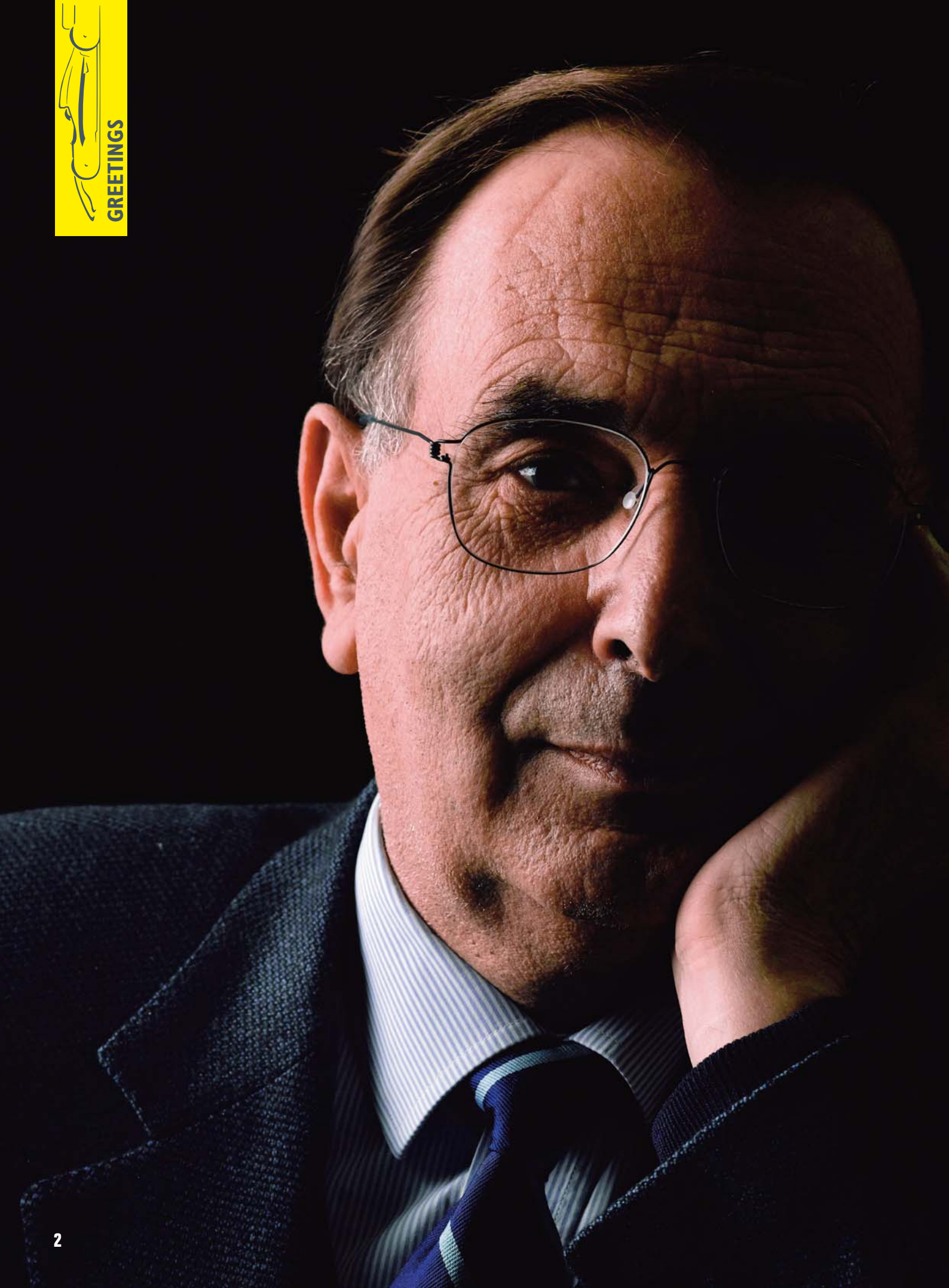
THE ITALIAN EXPLAINS HOW HE PLANS TO TAKE
THE DALLARA SUNTRUST TEAM TO VICTORY

GP3

A NEW CHAMPIONSHIP
SET TO JOIN F1 AND GP2
ON EUROPEAN WEEKENDS
IS READY TO ROLL

KTM X-BOW

THE TINY ROADSTER REVEALS ITSELF TO BE
AN EXTRAORDINARY CAR. DISCOVER IT WITH US



Dear friends

We await the crucial 2010.

In a few months we will have a fully functional driving simulator, giving us a leading edge in a sector in which we have been absent; it will give us a significant advantage over our competitors, it represents an important instrument for research and will lead to new opportunities.

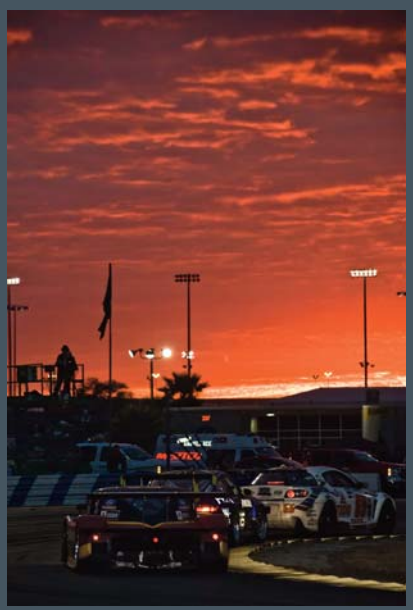
The new GP3 championship will begin in Barcelona in May, reserved for the young hopefuls of international motor sport.

In the next few weeks we will see some of the first GP3 models, the World Series by Renault and F3, with particular attention not only to safety and presentation, but also to construction costs, due to the new demands of the market.

We are setting up a new Dallara base at Indianapolis, which will be able to: construct new components for the IRL; carry out car checks; assemble cars; develop the engineering business for both road and racing cars; and develop the area connected with the simulator.

Also in 2010 we will start designing the Me2, an open road car that is basic, simple, economic and embodies all our racing experience. It will be able to ignite a passion for driving, without the driver being locked inside a glass sphere, without any walls separating the driver from the environment.

And finally, F1. I can say with pride that we have done a good job in design and development, all safety tests have been passed and production has gone ahead. Unfortunately, factors outside our control are slowing the process down, but I am confident that we can find solutions so that our work is not lost.



THE LEGEND OF DAYTONA

The 24 Hour race in Florida is a classic event in motor sport, comparable to the 24 Hours of Le Mans, the Indianapolis 500 Mile Race and the F1 Grand Prix at Monte-Carlo

It was the 5th March 2008 when the first Dallara prototype completed its first few laps in the United States, on the Kershaw track in California. From that day on, the SunTrust team and the Italian constructor quickly made great progress, becoming very important for Grand Am. The 24 Hours of Daytona is the high point of the championship, owned by the France family, and a great start to the season. From its beginning, this historic event earned an important place in motor sport, a race which every driver would like to be in. Along with the 24 Hours of Le Mans, the Indianapolis 500 Mile Race and the F1 Grand Prix at Monte Carlo, it represents the top level in the world of auto racing. A race that lasts a day is a real adventure, for both constructors and drivers. It is not about being quick over one lap, reliability is fundamental in a twenty four hour race, together with the reaction time of the mechanics in the pit lane and the driver who must be clear headed in the numerous lapping phases and the night stage, when tiredness takes over. The length of the Daytona track is clearly inferior to that of Le Mans. As a result, one circuit takes between 1 minute 40 seconds and 1 minute 45 seconds for the prototypes, and slower still are the Gran Turismo cars. This is why lapping becomes continuous, creating quite a few stressful situations for the fastest drivers. Hence the many difficulties inherent in the 24 Hours of Daytona. Last year Dallara laid the foundations when a prototype managed by the SunTrust team finished in an outstanding fourth place after long occupying first place. We continue to cultivate the dream that would have been a historic victory on the debut, but Daytona does not forgive even the smallest of details which make all the difference. This year Dallara will try again with cars assigned to the SunTrust team for Angelelli, Lamy, Wayne Taylor, his son Ricky and Doran (Gidley, Gollin, Jaeger, Johnston). In the three days of testing completed at the start of January, Max Angelelli was clearly the fastest man on-track, and even the Doran prototype was well behaved. Both the teams have done a lot of work on the details, on the drag, testing the best of various components. A good start, which must only bring optimism to leaders of each team and the Dallara engineers who follow the development.

Luca Bergianti, Engineer
Grand Am Program Manager

A LOOK INSIDE A GRAND-AM CAR

In June of two thousand and seven, Dallara's planned its entry into the Daytona Prototype competition, a championship run by closed-wheel two-seater sportscars. The main reason why Dallara decided to enter the Grand-Am championship was to keep the competitive spirit of the company alive.
It is, in fact, one of the few remaining categories of its kind, at a world level, where competition between constructors still exists. Almost all the other championships in which Dallara competes have been monopolised by the company, thanks to the reliability and the performances achieved.

All the Secrets of the Dallara Prototype

Several constructors are involved at present, some with many years of experience. Amongst these are Riley, Crawford and Lola. Also, supplying the engines are Lexus, Ford, GM-Chevrolet, Porsche and BMW.
The Daytona Prototype is, in many ways, very different from the cars currently being constructed by Dallara and this has given many ideas for learning and developing certain areas.
The first important challenge was to build a competitive car whilst only being able to change 30% of the components. The regulations, aimed at reducing costs and levelling performance, define a certain number of specific components that constructors cannot change.
For example, the body (and therefore the aerodynamics) has five-year generations, which means that it is not possible to freely and continually update the form, but it can be done in the intervals outlined by the sanctioning body".
Other components must be strictly commercial (for example wings, hubs etc.), it is obvious that this will drastically reduce the number of variables each constructor can "play" with, to try and make the difference.
In this type of competition, the team factor is crucial and Dallara has put in place its skill and knowledge with the aim of helping the track engineers. For example a spreadsheet was prepared, that contains mechanical and aerodynamic information and a track "library". For every change in set up (suspension, wing angle), the track engineer can predict the effect on the car, and therefore evaluate the effects of modification even before the car is taken out on the track.
Another important question is the length of the race, which makes this car "critical" in two aspects.
The first is the general reliability of the vehicle. Most of the championship is made up of sprint races that only last for around twenty minutes (for example the F3 races). A 24 hour race, on the other hand, requires a distance of around thousand kilometres in one weekend without the chance for revisions and checks, without a parachute. It is like comparing a marathon with a race of one hundred metres. The best, but in particular the most constant, car will win.
The second critical aspect is the "driver factor", in a category where professionals take part (including ex F1, Montoya and Zonta) often

The Doran Racing Dallara-Ford

accompanied by non-professional drivers, sometimes even the team owner. It goes without saying that the space, controls and driving position must allow for these different needs.

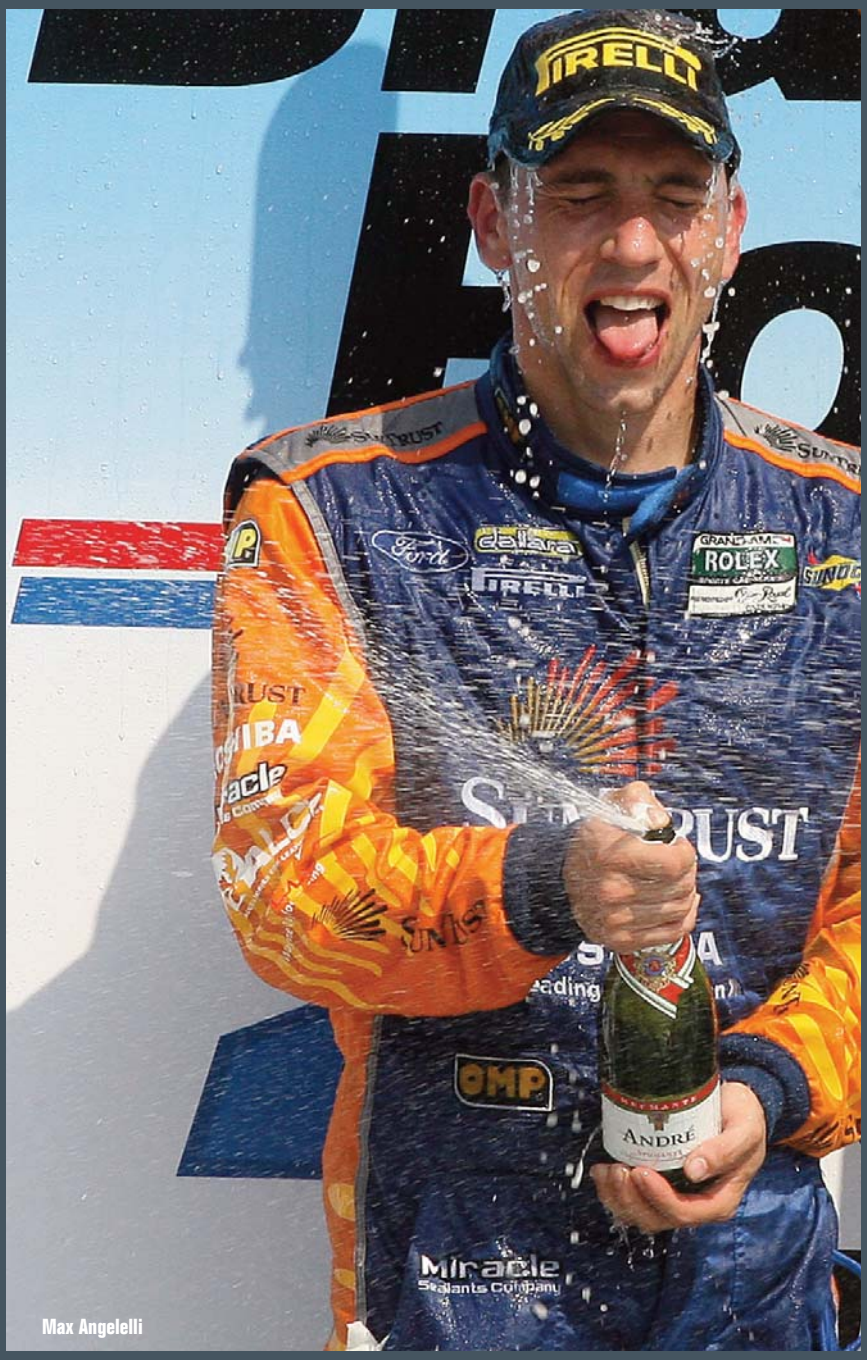
One aspect that should not be underestimated is the cockpit's temperature. Unlike the vast majority of cars produced by Dallara, the Daytona Prototype has a cockpit that is completely covered with a roof, windscreen and windows. This causes a rapid rise in temperature during the race, to around 50 degrees centigrade, as a result of the engine being right behind the diver.

Such temperatures require a type of thermal isolation for the engine space, with air vents to channel cool air to the driver, who the needs to breathe clean air free from any debris, including sand and rubber. Interestingly, the driver's overalls are equipped with a cooling system. The "cool suit" is basically a tube of cool water that goes through the driver's overalls, making it more comfortable. A tube of cool water extends over the surface of the overalls connected to a box filled with ice. The strategy is to reduce the weight of all these components and to position everything as low as possible to lower the centre of gravity, and to do so in a way that the change of drivers happens very quickly.

The operation is, in fact, a fundamental element; it is vital that there is perfect coordination between the mechanics, the driver that is leaving and the driver that is joining the race.

In a few seconds the doors must be opened, seatbelt taken off, radio and cool suit disconnected, and the whole operation done in reverse for the driver joining the race. All this must be done whilst the mechanics are changing the tyres and refuelling. It is such a critical moment that very often races are won and lost in these few seconds. This is the fascinating world of Grand Am and Daytona.

The Dallara-Ford fielded by SunTrust Racing



Max Angelelli

On the eve of the 24 Hours of Daytona, Max Angelelli explains the relationship with Dallara and has no doubt in saying that the team from Parma will soon become number one in its category

"THE FUTURE OF GRAND AM IS HERE"

2010 is the third season for Max Angelelli with Dallara in the Grand Am. The Italian driver of the SunTrust team is one of the supporters of the arrival of an Italian constructor in the American competition, which happened in 2008. In two years, he had three victories, two poles and in 2009 he fought up until the final race to win the championship,
"The Grand Am was a great challenge for both me and the Dallara engineers. With this in mind I linked to them both my own career and also the SunTrust team, in which I also deal with various managerial aspects. I can only say that I feel the weight of this responsibility".

Was the Dallara car ready to manage the situation straight away?
"I took the Italian prototype to the lion's den, to challenge a constructor like Riley who has been in this competition for years, in which he lays down the law.
In spite of everything, Dallara rose to the occasion, fighting for poles and victories race after race. I firmly believe that the car I am driving is the future of Gran Am".

What surprised you about Dallara's venture into Grand Am?
"In addition to the head engineer the team is made up of very young and talented members, from the region around Parma. The technology produced within those walls is incredible, it is not the world leader in many competitions for nothing. When I meet them, I face young engineers who have just finished university. I was surprised to begin with, having always worked with white haired engineers, but then I realised that they were immensely capable and knew how to create an exceptional product. I find that the combination of a well prepared team and the unique experience of the Dallara head engineer is a powerful mix".

What are 2010 prototype's characteristics?
"It is a continuous evolution, a versatile machine, designed and developed for expert drivers such as myself, but also for the other drivers to better express themselves. A perfect commercial product. Now we have only two Dallaras on the track, one for our SunTrust team and another used by the Doran team, but the day when there will be more Italian prototypes is not far away".

What would mean to win at 24 Hours of Daytona?
"Everything. Almost the same as winning the championship; and I say it with certainty having had the luck of being first over the line in 2005. I am convinced that if the Dallara can win at the marathon in Florida, at the end of the year many teams will evaluate if they are still going to drive with the Riley in 2011..."

How have you prepared for the 24 Hours?
"Obsessively taking care of every tiny detail. The old saying, unfortunately still true, that dreams of victory are broken by trivial factors, by pieces that cost a few dollars, it isn't a myth… So we have rigorously examined every detail. Even if the tests are limited and it is not the same as Le Mans 24 Hours where a team can drive for a thousand kilometres before the event. In Grand Am it doesn't work like this, but we have taken advantage of the few tests we have been able to do".

Angelelli will be on the starting line of the 24 Hours of Daytona, the season's first trial for the Grand Am championship, together with Pedro Lamy and owner Wayne Taylor, who will also field his son Ricky.

GP3: FOLLOWING IN F1'S FOOTSTEPS

THE NEW CATEGORY THAT COMPLIMENTS GP2 AND F1 IS READY TO BEGIN. AFTER A LONG AND PRODUCTIVE DEVELOPMENT, THE DALLARA CAR PROVIDES AN IMPORTANT TECHNICAL PACKAGE AND GIVES THE DRIVERS A TOUGH TRIAL

"I have been pleasantly surprised by the new GP3 Dallara. It's my first experience driving the car and I can honestly say it is like driving a small F1 car. A lot of the aspects are what I am already used to, but obviously on a smaller, more junior scale, for example the car has a full paddle-shift gearbox and clutch system". There could be no better compliment to the newly created Dallara. They are in fact the words of an expert in the world of F1, Mark Webber. GP3 will be a new category in motor sport, debuting this year, and the Dallara has been called upon by the organizers of the competition (the same as GP2) to carry out the project. Monocoque body in carbon fibre with aluminium honeycomb safety cells, standard in FIA F1 2006, Hewland 6 speed gearbox, Renault 4 cylinder 2 litre engine, single turbo, able to supply 280 hp at 6500 rpm, fly by wire accelerator system, Pirelli tyres. In short, the Dallare GP3 has been described by all specialists in the field as a real jewel. The organizers intend to create a unique and linear route with the larger GP2, a sort of internal thread that allows the best drivers to emerge, grabbing the attention of F1. Didier Perrin, technical director of GP2 and GP3 stated, "We are right on schedule, not only with our development programme but also with the production process. I am quite satisfied with the level of competitiveness of our car and with its overall behaviour on track, its driveability is very similar to a GP2 car. The reliability of the development car is impressive: we completed over 500 km per day during the last test sessions without encountering any problems and this helps us to work intensively with Pirelli". The calendar is for eight trials, concurrent with GP2 whilst seven of the dates run along side F1. Bruno Michel, GP2 and GP3 organizer added, "Three pre-season test days and eight rounds mean drivers will have a sizeable amount of running during the season, and with seven of those rounds running alongside Formula One, we are confident the series will achieve excellent exposure for the teams and drivers".
Before the end of February, all the signed team will be delivered the three cars set to be lined-up on-track, while the first collective test will be starting at Le Castellet, on February.

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MARK WEBBER

«THE RELIABILITY OF THE OUR TEST CAR HAS BEEN IMPRESSIVE SO FAR: WE COMPLETED OVER 500 KM PER DAY DURING THE LAST TEST SESSIONS WITHOUT ENCOUNTERING ANY PROBLEMS»
DIDIER PERRIN

The 2010 GP3 Series schedule

3-4 March	Le Castellet, France	Test
30-31 March	Le Castellet, France	Test
13-14 April	Barcelona, Spain	Test
8-9 May	Barcelona, Spain	Race
19-20 June	Portimao, Portugal	Race
26-27 June	Valencia, Spain	Race
10-11 July	Silverstone, Great Britain	Race
24-25 July	Hockenheim, Germany	Race
31 July-1 August	Budapest, Hungary	Race
28-29 August	Spa-Francorchamps, Belgium	Race
11-12 September	Monza, Italy	Race

KTM: WHAT A BLAST!

Designed and developed by Dallara, the X-Bow pushes the boundaries of the Track Day car concept to new limits...

That's what happens when a story of technical heritage meets some kind of an old-fashioned concept like track day cars. While you stop for a moment looking back to how much history and success you can see behind, you suddenly realize you've been kicked lapses forward. Hard. The perfect example is here, in orange. Weird-looking unless you meet the track. Then it becomes plain outstanding. KTM, a brand that blown away any kind of competition in the off-road motorbike arena, shook hands with Dallara to create the new ultimate Christmas toy for speed fanatics, the X-Bow. Behind your back, you get an (almost) regular 2.0 Audi TFSI engine while Dallara, of course, takes care of the rest. Carbon fiber chassis, that's what you'd expect, and that's what you get. No hoods, no roofs, no waste of material. Just what it takes to be fast now, delivered. As the car was developed ground-up in the Varano De' Melegari factory, tuning and engineering were pushed to new limits and, at the end of testing, moving through the prototype phase, the effort came down to straights and - most

important - to turns. On the X-Bow, reality matched the early goals: cornering speed is just impossible, for any competition as well as for the unprepared body. It stands out. It's not even about laptime. For that, you can put a 400-to-800-hp carburetor unit with 2000-mile service rebuilds on a 1985 steel frame. It's about having the same technology of a GP2 Series car in your hands, and feeling it clear. It makes a difference. And since it might not be all about times, but you'll have to face the clock some day, Car And Driver put it into time figures at Virginia International Raceway, a track that abruptly upgrades your definition of tricky. On sectors 3, 4, 5, where asphalt starts to twist, the X-Bow wiped away anyone, including Porsche, Lamborghini, Corvette, BMW, Lotus. Overall, just the new 647-hp, 330 Km/h (and 137.000€) Corvette ZR1 got it won, by 0.5 seconds. The Murcielago SV ended up almost 1.5s adrift, followed by the Ferrari 430 (over 2.0s), the Audi R8 V10 (7.2s), the Lotus Exige S260 (12.7s), the BMW M3 and the Porsche 911 Carrera S (over 13.0s). KTM might have seen it right, easy to do the maths. The X-Bow starts from just under 70.000 Euros. And, not least, you put fuel and you're a go. Forget anything mechanical for miles and miles. Because, in times of crisis, an happy customer is a valuable customer. Speed-seeking pertrolheads win.

Three Days in the Dallara GP2 for Michael Schumacher

Michael Schumacher in the Dallara GP2. A nice surprise for the Parma constructor and its staff. The seven-time F1 world champion chose the car from the GP2 Main Series for his training session ahead of the collective F1 test in Valencia which he will do with Mercedes, the team that convinced him to return to F1 after a three-year rest. Schumacher piloted the Dallara at Jerez De La Frontera. He liked the car, made available by the Super Nova team, straight away and he tested it to its limits despite rain disrupting the session. The GP2 project manager, Didier Perrin was also present and he gathered a lot of precious information from the German champion, for the development of the single-seater.

Australian F3, Ready to Start

The Australian 3 championship will be the first National series to take off in 2010. In 2009 the category had an average of fifteen single-seaters on the starting grid, all of them Dallara (models 307, 304 and 301) with Mercedes, Mugen, Opel and Renault engines. The championship will be made up of eight events and the first stage will begin on the weekend of 7th March on the circuit at Wakefield Park.

Introducing the New Dallara Formulino to the United States

A new version of the Dallara Formulino was presented at the Sebring Circuit in Florida before Christmas. As well as the existing Ford Duratec 1600 and Volkswagen 1600 FSI there will also be a new Ford 2000 engine, with 180 horsepower. The Dallara Formulino is available in three different versions (Base, Plus and Pro, based upon the three possible aerodynamic and mechanical configurations) with the ambition of bridging the gap between Karting and Formula 3, which would give young drivers a testing ground thanks the good performance that is achievable, at a cost that is more than reasonable. At the presentation on the track there were journalists, driving school owners and the organizers of the SCCA (Sports Car Club of America), who had already been asked to review the vehicle. For a look at the car, click here:
http://www.youtube.com/user/IndyRacingExperience#p/a/u/0/TPnWyiMVtnA