

WS RENAULT 3.5

AN EXCITING SINGLE-SEATER CAPABLE OF BRINGING OUT THE TALENT IN YOUNG DRIVERS, AND THRILLING THE FANS: THIS IS THE SECRET BEHIND THE COLLABORATION BETWEEN DALLARA AND RENAULT IN AN INCREASINGLY POPULAR CATEGORY. LET'S LIFT THE CURTAIN ON 2012 SEASON AND PRESENT AN INTERVIEW WITH THE ITALIAN DRIVER VENTURINI

RENAULT SPORT

SAFETY

ENGINEER LUCA PIGNACCA PRESENTS THE LATEST DEVELOPMENTS AND THE NEW OBJECTIVES IN THE FIELD OF SAFETY, FROM THE DALLARA SINGLE-SEATER, TO F.1 AND INDYCAR. THE NEW CHALLENGE IS TO GUARANTEE GREATER SAFETY AVAILABLE TO EVERYONE

LIFE AND THE COMPANY

TO WORK AND TO PRODUCE, BUT WITHOUT NEGLECTING THE PERSONAL DIMENSION: THIS IS THE PHILOSOPHY UNDERLYING AN INNOVATIVE PROJECT DEVELOPED BY THE MANAGEMENT AT VARANO IN CONJUNCTION WITH THE FACTORY STAFF. FILIPPO DI GREGORIO, THE HUMAN RESOURCES MANAGER, EXPLAINS...



SAFETY HAS ALWAYS BEEN THE MAIN PRIORITY FOR DESIGNERS IN VARANO, REGARDLESS OF THE CATEGORY. WE HAVE TALKED TO ENGINEER LUCA PIGNACCA ABOUT LATEST DEVELOPMENTS AND NEW OBJECTIVES IN THE FIELD OF SAFETY, FROM THE F.1. TO THE INDYCAR. MODERN SAFETY STANDARDS ARE VERY HIGH, HOWEVER IT IS IMPORTANT TO ENSURE REGULATIONS ARE DESIGNED TO PRODUCE INNOVATIVE SOLUTIONS ALSO AVAILABLE TO LESS "WELL OFF" CHAMPIONSHIPS

«SAFETY BE GUARANTEED TO EVERYONE»



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CSI

Crash-test



The zylon reinforced panels on the new F312



Motor racing safety is an on-going process that will never be completed. Engineer Pignacca, what are Dallara's current objectives in this field?

«Our cars are designed and built in accordance with FIA technical regulations, or Indycar regulations in the case of the cars produced for Indianapolis. Our challenge is to satisfy the requirements of the approval tests using the lightest possible structures, as well as the most aerodynamic forms, bearing in mind that these two aspects do not always coincide. Our most recent objective has been to produce cars that are as safe as their F.1 counterparts, but at a much lower cost, for example the GP2 and the Renault World Series. This enables us to guarantee the safety of young drivers while offering them the opportunity to go almost as fast as their colleagues in F.1, but in a "commercial" car».

Which areas will see the most significant developments in the future: materials,

active safety, electronics?

«Our competition cars currently feature passive safety measures only: we develop and implement materials that offer drivers increasingly effective protection.

By contrast, street cars are produced with more and more built-in safety features that, fortunately, have less and less impact on the overall price. Unfortunately, or fortunately depending on your point of view, the use of electronics in motor racing is limited, and this means that it is not possible to implement active safety systems».

Are the current FIA regulations covering enough the different categories, or do they need to be modified? And if so, how?

«The current F1 regulations are excellent and it must be said that FIA has done a very good work over the last 15-20 years. I was particularly impressed with the idea of extending the zylon panels to zones that were not protected before. There is also a

good chance that we could see cars fitted with air-bags in the not-too-distant future. However, I hope that FIA does not get carried away and attempt to impose solutions that will be prohibitively expensive, with the risk that these are implemented only in F.1 and not in other categories such as GP2. Recently, there have been interesting technical discussions centred on the idea of introducing a transparent "canopy", similar to those used on fighter aircraft, in order to prevent kind of accidents that happened to Surtees or Massa. We are also conducting research in this area: it is an interesting, but highly complex proposal».

Can motor racing still contribute to improving safety in production cars? Which devices currently used on the track are we likely to see on the road in the near future?

«Motor racing demonstrates that certain materials may also be suitable for

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“In F.3, FIA has enforced the use of zylon side panels, and this has enormously increased safety. The same applies to the WSR: however, the decision was taken by Renault acting on our advice, since it was not enforced under the current regulations (F1 2005)”

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applications on street vehicles. Also, it may be possible to adapt certain types of electronic Accident Data Recorders (ADR) that monitor what happens during an accident for use in production cars. With the exception of these two aspects, I have to admit that our “street” colleagues are ahead of us».

How many people are involved in safety aspects at Dallara? And how are they organised?

«All the designers who work on the chassis are de facto safety experts. I should really say that everyone at Dallara is a safety expert: one of the things that Engineer Dallara is absolutely inflexible about is safety, and he has made sure that our highest priority is protecting the drivers and anyone else who may be involved in the motor racing world (stewards, mechanics, public)».

Did Dan Wheldon's fatal accident convince Dallara to increase the excellent safety

standards of the IndyCar even further? Can you describe the features of the new car?

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Let's talk about F.3 and World Series Renault: what are the new safety developments?

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(F1 2005). We have also raised the sides of the cockpit, in accordance with the F1 2010 safety regulations».

How do you manage to reconcile low research costs with improved safety standards?

«You need good designers, a little creativity and hard work. And we have to be willing to accept slightly heavier chassis if that is necessary to make them safer ».

As a car designer, what suggestion would you offer to the designers responsible to build safer circuits?

«This is extremely important. Dan Wheldon might still be alive today if the straights at Las Vegas had been designed differently. I realise that this is a complex matter, but I have always felt that oval circuits should be fitted with transparent safety walls, like ice hockey rinks. Too difficult or expensive? Who knows?».

Stefano Semeraro





AN ON-GOING SUCCESSFUL STORY

THE COLLABORATION BETWEEN DALLARA AND RENAULT IS PREPARING FOR ANOTHER HIGHLY SATISFACTORY SEASON FOR A CATEGORY THAT SEEMS TO HAVE FOUND THE RIGHT FORMULA FOR ATTRACTING ATTENTION: SINGLE SEATERS BRINGING OUT TALENT IN YOUNG DRIVERS, ADVANCED TECHNOLOGY AND “OPEN” WEEKENDS WHERE ANYONE CAN ENTER THE PADDOCKS AND RUB SHOULDERS WITH THE STARS



Although the series is already ten years old it has not started to show its age yet, and in 2012 the fourth generation of the World Series 3.5 will feature new circuits in order to meet the needs of the new racing calendar.

The 13 teams taking part in this year's championship have been delivered with a total of 22 single seaters and 4 kits in two separate stages, the latter around the middle of February.

The championship will open in May with the meeting at the Motorland Aragon circuit, but Dallara's car has already an impressive number of kilometres under its belt. More than 6,000 km were covered during the development tests and three collective test sessions will have been completed before the season gets underway: the first on 13th and 14th March at Paul Ricard circuit, the second in Barcelona between 3rd and 4th April, and finally on 18th and 19th April at Motorland Aragón.

The World Series championship by Renault FR3.5 was unveiled to the press in Paris on 8th March and has been going from strength to strength. Since the first edition in 2002, thanks to the collaboration between Renault and Dallara, the single seater has completely changed. Its mechanical design and performance now comes close to the standards of senior racing categories, keeping costs under control. This ideal mix is the basis of the successful WS 3.5 2012, a category which has always provided the most talented pilots with an excellent launching pad towards the senior categories such as GP2, F1 and Indycar.

This is why, despite current economic crisis, this category is able to fill the starting grid, attracting a healthy number of qualified teams as well as motivated and competitive drivers.

Moreover, Renault Sport can also count on the support of RPM, the company formed by Jaime Alguersuari (for whom designed the T02!), to organise the events: Renault weekends offer something for fans, families, children and young adults, including free access to circuits and paddocks, as well as the chance to win gadgets autographed by drivers and to admire cars and pit areas from close up. The success of Renault Sport weekends can be seen from the impressive attendance figures: over 500,000 people attended the events in 2011 and the 2012 forecasts are even higher... Have fun!

Andrea Burzoni and Daniele Clari
Design Office Department

A GREAT LEAP FORWARD

WITH THE BVM TARGET DRIVER **GIOVANNI VENTURINI** AT THE WHEEL OF THE NEW DALLARA FOR THE WSR 3.5 THAT DEBUTED AT LE CASTELLET. OPTIMUM GRIP, NEW AERODYNAMICS, DSR, PNEUMATIC GEARBOX AND NEW BRAKES OFFER SIGNIFICANTLY IMPROVED PERFORMANCE WITH RESPECT TO THE OLD CAR. AND THE DRIVERS ARE GRATEFUL

Even Renault Sport Technologies managers couldn't have hoped for such a debut. The new Dallara 3.5 single seater was extremely fast during the first collective test sessions for the Renault 3.5 championship, which took place at Le Castellet at the middle of March. At the end of the two day event, the best time, achieved by Robin Frijns (current Eurocup Renault 2.0 champion) was 4"3 quicker than Robert Wickens' record on the same track the previous year. But what are the fundamental points of Dallara's new single seater, equipped with a F.1 style DRS and a new, Zytek derived Renault engine? We asked Giovanni Venturini, the Italian driver who races for BVM Target, and who drove the old model, used for the 2008 to 2011 seasons, during winter testing in 2010 and 2011.

What were your first impressions of the new single seater?

"With no doubt the increased grip on fast corners, thanks to the Dallara's new aerodynamic design. The old car was fitted with a series of skirts under the belly, but these wore out after a few laps. This meant that the ground effect only played a significant role on the initial bends, after which it began to disappear, and the car began to lose stability. The difference with this

Dallara is that, instead of being fitted with skirts, it exploits other aerodynamic solutions, such as front and rear wings, which keep the grip the same from the first fast corner onwards".

Does the DSR offer significant advantages?

"With no doubt, although I was unable to use it to full extend due to a series of problems with the car. However, it's certainly an interesting development, it should be activated when exiting a corner, where it is important to determine when exactly press the button on the steering wheel, before deactivating it again while approaching the following turn. The button should be pressed at all times, and in cases where the DRS remains active even when this button is released, the wing returns to its original position as soon as the driver touches the brakes".

The new features include the pneumatic gearbox that initially caused a few problems for the drivers...

"You have to identify the exact point where the clutch releases otherwise the engine stops. Once you've mastered this procedure, it's just like using other types of gearboxes. The anti-stall can also create problems, as soon as you drop below the minimum number of revolutions, even by a very small

margin, it cuts in and blocks you".

How has the release changed?

"The brakes, although still in carbon, have been an enormous improvement. For example: driving the old car at Le Castellet, using new tyres, it was necessary to start releasing at around ninety metres off the first corner; with the new car and new brakes this is reduced to sixty metres or even less".

The steering wheel now features a number of buttons: are they easy to manage?

"It's not complicated at all. In addition to the DSR button there are two small knobs that are used for mapping the accelerator pedal in order to modify the engine response. There are three different positions: the first gives you a brusque, possibly excessive, "shove" in the back, the second is what you might call the normal setting, whereas the third is for wet conditions. Almost everyone used position two during the first test sessions. There is a third knob that is used to set up the limiter for the start. There are six levels: during the start phase the driver holds the pedal down and the limiter is not deactivated until the car reaches 85 km/h".



Giovanni Venturini

«IN DALLARA WE AIM AT 'FORMULA UOMO'»

HOW DO YOU BALANCE PRODUCTIVITY WITH PRIVATE LIFE? HOW DO RECONCILE EMPLOYEE'S REQUIREMENTS WITH THE REALITY OF THE COMPANY'S WORKING SCHEDULES? IN VARANO, WITH THE "WORK-LIFE BALANCE" PROJECT, WE HAVE ALREADY IDENTIFIED CONCRETE SOLUTIONS AND TOOLS, THANKS THE SUGGESTIONS

AND COLLABORATION OF OUR EMPLOYEES. DALLARA'S HUMAN RESOURCES MANAGER, DR FILIPPO DI GREGORIO, WHO WAS RESPONSIBLE FOR THE PROJECT, EXPLAINS THE CHARACTERISTICS AND THE SPIRIT OF AN INITIATIVE THAT ONCE AGAIN UNDERPINS QUALITY AND INNOVATION.

Dr. Di Gregorio, what does the balancing private and working time project involve and what are the proposals?

«Last July, we submitted a project dealing with the issue of "balancing private and working time" to Prime Minister. This is an important theme that was actively promoted by the Minister of Employment, and which has the potential to affect both company organisational methods and the economic life of employees directly. The main aim of the project was to enhance the balance between employees' personal and professional lives, improving organisational well-being, and

hence the quality of the working environment and the employees' level of physical, psychological and social contentment, without compromising the Company's capacity to remain productive and efficient. Based on the result of the questionnaires compiled by Dallara personnel at the end of June 2011, we decided to concentrate our efforts on the care and management of our employees' children. Our project was approved around the middle of January 2012, which means that we can now implement a baby caring service and a company summer camp (using funds approved under Law 53/2000)".



When will all this become reality?

«The baby caring service, which offers employees the possibility of dropping off their children an hour before nurseries and/or schools open, and of picking them up two hours after they have closed will be available from the middle of May 2012 until May 2014; the summer/holiday camp will be open continuously from the middle of June until the beginning of September during 2012 and 2013 (with the option of extending it to cover Christmas and Easter holidays). Both initiatives will be located in Varano De' Melegari and will be operated by a social cooperative with strong local roots that already runs the nursery school in Varano. This project-service, which will last for 24 months, will be entirely free of charge and reserved to children of Dallara employees. At the end of this period, we will decide whether to continue with the initiative, depending on the level of

participation, approval and the effective benefit to personnel».

Since when has Dallara been interested in these types of issues?

«The concept of balance is very important to this company, and we have already implemented various measures in the past, such as allowing all female employees to work part time if requested (currently, around half our female staff work on a part time basis), introducing flexible working hours where personnel may start work at any time between 8 and 9 o'clock in the morning and finish between 5 and 6 o'clock in the evening (today, more than 60% of our employees enjoy this benefit)».

What are the main requirements that emerged from your survey?

«In addition to the items mentioned above regarding child care, another mentioned issued was the possibility of working at

home: we were however unable to concentrate our efforts in this area for organisational reasons and due to IT and data security issues».

What kind of contribution did the employees give to this initiative?

«The participation has always been very high. A couple of years ago, more than 90% of our employees participated in the first opinion survey conducted at Dallara, when the balance between working and private life emerged as the most important issue. In this latest case, over 75% of our staff participated in the "work-life balance" survey. Over the past few days we have been working closely with around 30 employees in order to finalise the details of the baby caring and summer camp services».

Have you received any collaboration from local authorities?





«The local council in Varano De' Melegari has been very keen to collaborate, especially the Mayor Luigi Bassi, as well as Councillors Claudio Filippini (Public Education), Pierantonio Tanzi (Youth Sport/Policy) and Alfonso Merosini (Social Services), who have supported and promoted this initiative from its start».

Do you think this project could serve as a model for other companies?

«At the moment large numbers of companies are coming to grips with this issue of balance. I am convinced that it's extremely important, especially when dealing with employees in the context of global compensation, with the aim of adding intangible components to the traditional material elements, be they monetary or physical. This provides us with additional options we can use when managing and developing our personnel (Working Environment, Compensation,

Work-Life Balance, Company Social Responsibility)».

Today labour market, companies, productivity are "hot themes" in Italy. Why should a company invest in these types of issues?

«These are closely related themes that have a direct effect on the local community and on people's quality of life. In a globalised world, and societies like the Italian or the European one, the inability to compete with emerging nations in terms of labour costs or on economies of scale means that it is necessary to offer products and/or services with high additional value, and continue to improve productivity in order to ensure companies remain healthy and able to survive in the markets. This implies continuous innovation of products and processes. And which is the basis of this innovation? The human resource!

However, in order to fulfill his role as a key resource, men must become "specialised" players in a modern labour market that places value on jobs requiring high level in skills, and which in turn generates higher paid employment and prosperity in the local community. The policy of creating generic jobs for workers with little or no qualifications, in companies where productivity levels tend to be low, creates fleeting economics well-being and relieves social tensions only in the very short term. For this reason I believe it is essential that governments, businesses and labour movements begin to debate these issues, developing long-term policies aimed at moving beyond the current necessity to reach an agreement and concentrating on greater needs for long-term prosperity. And it seems to me that, in this context, in many cases our current government is obliterating the embarrassment of having to ask ourselves such questions».



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