



Our Formula One Team in 2009

Having finished SIXTH in the 2008 Constructors' Championship, with a best ever points haul of 39 (thanks in part to the team's first **WIN** at the Italian Grand Prix), Scuderia Toro Rosso meets its fourth season in Formula One with a lot to live up to!

THE CAR



STR4 TECHNICAL SPECIFICATION

Official car name	STR4
Engine	Ferrari V8 Type 056
Chassis Material	Composite monocoque structure
Bodywork Material	Carbon fibre composite
Front Suspension	Upper and lower carbon wishbones, torsion bar springs and anti roll bars, Sachs dampers
Rear Suspension	Upper and lower carbon wishbones, torsion bar springs and anti roll bars, Sachs dampers
Steering	Scuderia Toro Rosso
Gearbox	Seven-speed hydraulic



STR4 TECHNICAL SPECIFICATION

Clutch	Sachs Triple-plate pull-type
KERS	Ferrari design in conjunction with Magneti- Marelli
Calipers	Brembo
Pads and Discs	Brembo
Cooling System (Radiators, Heat Exchangers)	Scuderia Toro Rosso
Cockpit Instrumentation	Scuderia Toro Rosso
Seat Belts	Willans
Steering Wheel	Scuderia Toro Rosso
Driver's Seat	Carbon fibre construction, moulded to driver's shape
Extinguisher System	Scuderia Toro Rosso/FEV
Wheels:	Advanti Racing !!!
Fuel Cell	ATL
Overall Weight	>605 kg (including driver and camera)

THE MANAGEMENT

FRANZ TOST – TEAM PRINCIPAL

Biography

As a young lad, Franz Tost's big hero was Jochen Rindt, his bedroom walls were covered with posters of the Austrian ace. Inevitably, Tost found himself behind the wheel, racing a Formula Ford. He was quick enough to win the 1983 Austrian FF Championship, but he felt he would not make it to the top as a driver so a degree in Sports Management from Innsbruck University was next on the agenda. This led to a job at the highly-rated Walter Lechner Racing School at the Zeltweg circuit.

From there Tost moved to a team management role with EUFRA Racing and at the end of 1993, he took the post of team manager with Willi Weber's Formula 3 team. It was here that he crossed paths with Ralf Schumacher and Weber asked Tost to accompany the youngster to Japan. This led to looking after Ralf's interests at Jordan and then Williams, prior to taking on the role of Operations Manager with BMW's Formula 1 programme. From there, he took on the role of Team Principal with the newly formed Scuderia Toro Rosso in 2005.



THE MANAGEMENT

FRANZ TOST – TEAM PRINCIPAL

Franz Tost has been steering the ship since Toro Rosso started racing in 2006.

Franz, how does Toro Rosso at the start of the 2009 season compare with the start of 2008?

“This year is already looking great as we are five races ahead of schedule, given that last year we did not get to race the '08 car until the sixth round of the season - in Monaco! But seriously, with the continued support of Red Bull, Scuderia Toro Rosso has grown in several ways in the past 12 months. The team is bigger, having expanded its facility in Faenza and we have taken on more staff. The 2008 season was good in terms of our on-track performance, which, it's fair to say, exceeded our expectations, with our biggest ever haul of points, a pole position and a win. It's going to be tough to live up to that this year. While the rules have changed, within the team we can rely on a good level of stability, as all the key players on the technical side have been in place for some time now and so understand how to make progress, working together. The other element of our package that remains the same is the support we receive from Red Bull Technology. And right from Red Bull Racing's first test in Jerez it appeared that the car was competitive straight away and that Adrian Newey and his team had come up with a very promising package. The car looks good and shows very promising performance.

“This year marks the third year of our collaboration with Ferrari, which, on both a human and technical level, works very well and it goes without saying that having an engine that won the 2008 Constructors' World Championship can only be a good thing. As for our driver pairing, in 2008 we effectively started the season with two F1 novices, but this time, Bourdais has 18 grands prix under his belt, and this year's rookie, Buemi, has already shown well in winter testing.”

How will the rule changes, technical and sporting, affect the team?

“At Toro Rosso, we support the cost-cutting initiatives instigated by the FIA and FOTA. These are a good thing for a small team like ours, as for example, the reduction in the use of wind tunnel time and Computational Fluid Dynamics has had a minimal effect on our work. In terms of manpower, it means we have not had to let many people go, allocating test team staff to other roles within the company. As everyone feels the effects of a worldwide recession, it is only right that Formula One is seen to acknowledge this and act accordingly, to allow the sport to flourish in a more sensible and less extravagant fashion than in the past.

“Looking at the major changes to the technical regulations, these do have a downside for us, because historically, whenever rules have changed significantly, it is always the bigger, more established teams who have the technical resources and experience to react quickly in adapting to those changes. It was the long period of stability in the rules which allowed Toro Rosso to be so competitive last year.”

Your driver line-up?

“I mentioned the benefit of consistency in our technical line-up and we also have a level of consistency in our driver line-up, as Sébastien Bourdais tackles his second season in Scuderia Toro Rosso colours. In 2008, he produced some good performances in the races and in qualifying, but he was also unlucky at times. We expect him to benefit from the experience he gained last year: he knows the team, the circuits and the F1 environment and this will allow him to tackle the season with confidence. He will also surely enjoy the return to slick tyres, which better suit his driving style. As for the other driver, Sébastien Buemi, who comes from the Red Bull Young Driver programme, he has shown himself to be naturally talented with plenty of speed and, more importantly he is a quick learner. Having invested in his early career Red Bull is keen to see him progress at the top level of the sport. He faces a steep learning curve, but we should not forget he is still very young – he even makes Vettel look like a veteran!”

What are the team's targets for the year?

"All race teams should have the same targets: to win every race they enter! Of course, this is not going to happen and even matching our 2008 showing will be difficult, as the sport enters a new era. Therefore our target has to be to leave every race track on a Sunday night, knowing we have done the best job we could. The results will then depend on how everyone else has done."



BARCELONA, SPAIN - MARCH 09: Drivers Sebastien Bourdais (2nd R) and Sebastien Buemi (R) of team Toro Rosso pose with the team principle Franz Tost (3rd R), technical director Giorgio Ascanelli (2nd L) and Ferrari representative Ernest Knoors (L) as they unveil their new car the STR 4 at the Circuit de Catalunya

THE MANAGEMENT

GIORGIO ASCANELLI – TECHNICAL DIRECTOR

Biography

From Ferrara, Italy, Giorgio has pretty much done it all in a motor sport career that dates back to 1985, when he worked as a calculation engineer at Ferrari. That was followed by a brief spell rallying with Abarth and then three years as Gerhard Berger's race engineer with the Scuderia (the big red team, not Toro Rosso!)

He then moved to Benetton, engineering world champion Nelson Piquet before rejoining Berger at McLaren where he also engineered Ayrton Senna in 1993. Soon it was time to return to Ferrari, again working with Gerhard and also Jean Alesi. Ascanelli then moved away from the race tracks and built up Maserati's very successful sports car racing programme from scratch. But when you have had the F1 virus, it stays with you for life and Ascanelli returned to the grand prix scene to head up Scuderia Toro Rosso's technical operation for the start of 2007.



THE MANAGEMENT

GIORGIO ASCANELLI – TECHNICAL DIRECTOR

It's a common misconception that before the start of the season a big truck turns up in Faenza from Milton Keynes, its back door folds down and, hey presto, a fully-built Toro Rosso car rolls out. In fact, Scuderia Toro Rosso has far more control over its technical destiny, right from the design stage through to construction. Technical Director Giorgio Ascanelli explains:

“Red Bull Technology does extremely significant work in defining the essential characteristics of the new car: its length, wheelbase, weight distribution, its basic metric characteristics. However, with any F1 car, the packaging revolves around an engine and peculiarities from the drivers and, as we run a different engine to our sister team, it involves a different fuel system and fuel tank. Therefore, ours is completely different to the Red Bull Racing car and is designed here by us. “

“The same goes for the water and oil systems linked to the engine. Different engines have different heat rejection and different operating temperatures, with materials specified to different levels. Also, the tolerances, which you have to respect when building an engine, are tuned in such a way that an engine works at its best within a defined temperature range. This in itself conditions the radiators and also all of the internal aerodynamics. That then impacts on the aero side and this work is also done in Faenza. “

“The engine mates to a gearbox via some fixings and a clutch. Here again the clutch installation is completely different between the two cars. In fact, the clutch itself is very different and the work of installing clutch and gearbox is also completely done in Faenza, involving a casing designed in Faenza and using completely different technology to the one Red Bull Technology provides to Red Bull Racing. The same goes for the oil and water radiators and the entire hydraulic and electronic systems. “It’s going to be an interesting season. I think it’s good that the guys here in Faenza get the chance to control their own destiny in a way, but at the moment, we only have about a dozen people on the design side, so we’re a decade out in terms of manpower!”



THE DRIVERS

SÉBASTIEN BOURDAIS – DRIVER, CAR NO. 11

Back when dinosaurs stalked the planet, there was a period in F1 when around half a dozen French drivers would line up on the grid, when three teams hailed from 'L'Hexagone' and when French rivalled English as the language of the paddock. So Monsieur Bourdais' arrival on the scene, in 2008, at a time when F1 seemed to say Non to La France, caused something of a stir in his native land. Bourdais came to F1 as the current and quadruple champion in the US Champ Car series and prior to that, he was the 2002 Formula 3000 Champion.

Racers coming from the States, even those who began their careers in Europe, have found that the F1 pitlane can be a boulevard of broken dreams. At first, it seemed as though this curse would follow Sébastien. He was heading for an amazing fourth place on his Melbourne debut but mechanical problems dropped him down the order. Indeed, bad luck dogged him for much of the year, although things improved in the second half of the season and he regularly qualified in the top 10. Having invested in the Frenchman last year, Red Bull decided Bourdais was the best option for 2009, when he will be able to capitalise on his experience, his knowledge of the circuits and the return to slick tyres that should suit his driving style well. And guess what? His team-mate is a highly-rated product of the Red Bull Junior Driver programme and he's also called Seb...plus ça change, déjà vu, take your pick of appropriate French expressions.

SEBASTIEN BOURDAIS

Born in: France

Place of Birth: Le Mans, France

Date of Birth: 28.02.1979

Lives: Switzerland

Marital Status: Married to Claire, one child

Height: 1,79m

Weight: 72kg

Interests: Keeping fit, movies

Website www.sebastien-bourdais.com



2009	Formula One Scuderia Toro Rosso
2008	Formula One Scuderia Toro Rosso
2007	Champ Car World Series Champion Le Mans 24 Hours 2nd
2006	Champ Car World Series Champion
2005	Champ Car World Series Champion
2004	Champ Car World Series Champion
2003	Champ Car World Series 4th, Rookie of the Year
2002	Formula 3000 Champion Spa 24 Hours 1 st
2001	Formula 3000
2000	Formula 3000 Le Mans 24 Hours 4th
1999	French Formula Three Champion
1998	French Formula Three 6th, Top Rookie
1997	French Formula Renault Championship

1996	French Formula Renault Championship 24 Hours Of Le Mans kart event Champion
1995	French Formula Campus Championship
1991-94	Maine Bretagne League championship karting 1st French Karting Championship 4th French Minimes karting championship 7th

THE DRIVERS

SÉBASTIEN BUEMI – DRIVER, CAR NO. 12

It was Christmas 1993 when his father couldn't think what to buy his son as a present and got him a go-kart. This was something of an easy choice as Sébastien's grandfather once took part in the Le Mans 24 Hours and other events. As the karting grew in importance, it became very much a family event, with a whole tribe of people travelling all over Europe to support the youngster and his cousin Natacha, who also had the racing bug.

Sébastien quickly progressed through the various karting classes, taking Swiss and European titles, before moving up to single-seaters in 2004. In Formula BMW, he was soon spotted by Red Bull, which helped him to take that title before he went on to finish as runner up in Formula 3 and the Asian GP2 series. In 2008, he won twice in GP2, including an amazing victory from 21st on the grid, in tricky conditions, at Magny-Cours. Only six Swiss drivers have ever scored grand prix points, so Sébastien will be hoping to add to that list this year. Just getting to this level is something of an achievement as motor racing is banned in Switzerland, presumably because the noise of the engines might drown out the sound of cow bells or cuckoo clocks.

SEBASTIEN BUEMI

Born in: Switzerland

Place of Birth: Aigle

Date of Birth: 31 October 1988

Lives: Bahrain

Marital Status: Single

Height: 1.77 m

Weight: 62kg

Interests: Music, Tennis, Soccer, Biking

Website: www.buemi.ch



2009	Formula One Scuderia Toro Rosso	2004	Formula BMW Junior Championship
2008	GP2 Asia Second in Championship, 1 win		3rd in Championship
	GP2 Europe Sixth in Championship, 2 wins	2003	Karting ICA Junior Open Italia
	Formula One Red Bull Racing, reserve driver		Champion
2007	F3 Euroseries Team Mücke Motorsport 2nd in Championship		Karting ICA Junior West
	GP2 Series Team ART		Karting ICA Junior European
	Formula One Red Bull Racing, test driver	2002	Championship 4th
2006	F3 Euroseries Team Mücke Motorsport		Karting ICA Junior European Champion
	Formula Renault 2.0 Eurocup 1 win		Karting ICA Junior Swiss Champion
	Formula Renault North European		Karting ICA Junior Open Italia 2nd
	Championship 2 wins	2001	Karting ICA Junior Swiss Championship 2nd
	Formula 3 Masters Zandvoort 3rd		Karting ICA Junior Bridgestone Cup Champion
	Formula 3 Macao Grand Prix 4th	2000	Karting Super Mini Swiss Champion
2005	Formula BMW Junior Championship		Karting Super Mini Kia Cup Champion
	2nd in Championship	1999	Karting Mini Swiss Champion
	Formula BMW Junior World Final Bahrain	1998	Karting Mini Swiss Champion
	2nd		

THE ENGINE

For a third consecutive year, Scuderia Toro Rosso's motive power comes from a short drive up the Autostrada in Maranello. The Ferrari V8 retains the same 056 code number, as a result of the engine freeze, but with new rules concerning how many engines can be used, a reduction in the maximum rev limit and the need to cope with the arrival of KERS, the engine engineers have had plenty to think about while preparing for the 2009 season.

Gilles Simon, Ferrari's Head of Engine and Electronics explains the implications:

"The work of the FIA and FOTA led to several measures aimed at reducing costs in F1 and on the engine front, each driver is now allowed eight engines per season, while the maximum rev limit has been reduced. The average life of an engine therefore goes from around 1,200 to 2,500 kilometres, but how the engines are managed over the course of a race weekend is entirely down to the teams themselves.

"Because of the change in regulations, the FIA has allowed the teams to carry out work on the engines to address reliability issues, with the specification frozen at the end of March '09. The only elements that could be changed concern the inlet trumpets, the position of the injectors and the configuration of the exhaust system. If a reliability issue occurs during the coming season, an engine manufacturer can ask the FIA for permission to take action to resolve it, as long as this is approved by all the other teams.

THE ENGINE

“The 056 Ferrari V8 engine therefore remains the same as last year. It is fitted with a KERS system, designed by Ferrari in co-operation with Magneti Marelli. Running KERS is primarily down to Toro Rosso. However, one additional Ferrari engineer will work on KERS within the Toro Rosso team at the race tracks.

“Ferrari’s policy of supplying engines to customer teams has never been purely a financial one as it also provides additional technical feedback. Obviously, with the ban on in-season testing, our relationship with Scuderia Toro Rosso is of increased importance to us, as it provides further opportunities to test the reliability of the engine and its related systems.”



*There's Only One
Team to Watch*

