

# RED BULL TORO ROSSO HONDA

# STR14

**YEAR 2**

**@tororosso**



**Franz Tost (Team Principal)**

*"We have very good technical people to follow the in-house design, and the reliability of last year's synergy project parts will put us in a more favourable situation..."*

**Q: As always, at the beginning of the year, please sum up the key factors of this upcoming 2019 Season**

FT: I could summarize them in three main points: The team, the car, and the drivers. The aim is to always improve in order to compete at the highest possible level and this winter we have worked intensively to bring a few organizational changes, which we hope will help smooth a few issues we experienced in the past. We have analysed all the internal procedures in order to optimize our strengths and minimize our weaknesses. Compared to other teams, Toro Rosso count on a smaller number of people, but the synergies with Red Bull Technology for the non-listed parts, now that Aston Martin Red Bull Racing will also be equipped with the Honda Engine, will leave more time for our technical working groups to focus more on the details. Attention to detail makes the difference and this translates to more performance.

**Q: Now that AMRBR will be equipped with the same engine, Honda, there will be the possibility to realize the synergies project which Red Bull has always striven for. Can you explain in further detail what the synergies project refers to and which advantages you see?**

FT: Mateschitz decided to buy our team with the idea to educate young drivers from the Red Bull Driver pool and to use one technology centre to supply expertise and parts for two teams. And actually, this is the philosophy we followed until 2010 when the other competitors in the Championship voted for a rule change, which put an end to the project. Following this decision, Scuderia Toro Rosso was forced to create the necessary infrastructures to become a manufacturer team, capable of designing all parts in house. We had to hire many more people and, from around 100 employees at the time, we can now count approximately 400 people, split between the factories in Faenza and Bicester (300/100). The Synergies project will allow us to aim for a step in performance without increasing the number of people; we will buy some parts and have more minds and hands to design and produce all the others (see STR14 Technical specifications below)

**Q: Does this mean that Red Bull Technology will provide Scuderia Toro Rosso with exactly the same specifications used from Aston Martin Red Bull Racing this season?**

FT: Components relative to the power unit will be the same specification as Aston Martin Red Bull Racing, to be used within the regulations. Most of the remaining parts we receive from Red Bull Technology will be last year's specifications. Scuderia Toro Rosso, being a smaller team, could not follow the fast development and production process a bigger team can afford, especially considering that the release of the technical drawing could, for whatever reason, be delayed or delivered last minute.

**Q: So, talking about the car, you see the STR14 as a step forward...**

FT: I do. We have very good technical people to follow the in-house design, and the reliability of last year's synergy project parts will put us in a more favourable situation to develop quicker during the season.

**Q: An important element of the car is the engine. How would you assess the progress Honda made during 2018 and what do you expect from them this year?**

FT: It's been a great decision to move to Honda last year and, despite it being year one of what we hope will turn out to be a very long relationship, the cooperation with them has been amazing. If there's something you can't buy in Formula 1, it's time, and the step forward they made in just one year reflects the enormous commitment they put in the project with us. The confidence that also Aston Martin Red Bull Racing has agreed to be supplied by them will give an additional boost to improve even further.



**Q: And now the drivers: we will have Daniil Kvyat back in the team and the young Alex Albon making the step to Formula 1. Tell us why you think Daniil deserved another chance, and do you think Alex is a quick learner and can adapt quickly to an F1 car to deliver good results?**

FT: I always say that a young driver needs two to three years to understand and deliver in the complicated world of F1, but Daniil showed his natural speed from the very beginning. When the contingency required his move to Red Bull Racing, it seemed that he could be ready for the challenge. He showed some very good performances but to perform under pressure is always a challenge, now we can say with hindsight it was just too early. He had to live through a difficult time when he joined us again in 2016 – it was psychologically tough, but no one has ever doubted his driving skills. I strongly believe he deserves another chance in Formula 1 and I feel the best is yet to come from his side. Having had time to mature as a person away from the races will help him show his undeniable capabilities on track, as well as supporting Alex in his development as a young driver. Alex will have a lot to learn, like any newcomer in Formula 1, but he certainly proved himself in the lower categories like European Formula 3, GP3 and especially in Formula 2, where he was able to win races. In the second half of last year's F2 Championship, he impressed with a lot of overtaking manoeuvres and that's what convinced us he is the right driver to get on board. With Daniil on the other side of the garage, he has an F1 experienced driver with whom he will be learning a lot from, along with the support of the team around him. Scuderia Toro Rosso is very much looking forward to 2019, as with Daniil and Alex we have two young and competitive drivers.

**Q: Having said all this, what are your expectations for 2019?**

FT: In regards to our performance, as is always the case before the start of a season, it's too early to say and we don't want to set a specific target – at least not now. All things considered, the quality of the synergies with Red Bull Technology, the belief in our very high level of in-house technical knowledge, the impressive development trajectory Honda has shown so far, and the couple of strong young drivers we have available make me feel confident we will put ourselves in a strong midfield position in the Championship.



**Alex Albon (Car #23)**

*"Take it step by step"*

**Q: There are many things to take on-board for a rookie in Formula 1 because there is so much different technology to anything you've been used to before. How are you facing the start of the season at the moment?**

AA: Obviously, I think it's going to be a steep learning curve. I'll get four days of testing in Barcelona before Melbourne so we don't have a lot of driving. The main focus is to be comfortable in the car and get up to speed as quickly as possible. We'll see. In terms of my personal preparation, I'll try not to put too much pressure on myself and give it everything I have from day one. It's my opportunity this year to show everyone what I've got.

**Q: You've spent a lot of time in the simulator, presumably to get up to speed with the circuits?**

AA: Exactly, yes. That's the priority right now. Apart from trying to maximise the time in the simulator, I am spending a lot of time just being with the team. Everything is aimed at understanding the car as quickly as possible which will help me for Melbourne.

**Q: What's going to be the biggest change from F2 to F1? Getting used to the hybrid Power Unit?**

AA: Yes, I'd say so. I was fortunate to do some Formula E testing, so when I did that I learned a lot about the powertrain and it's quite surprising how similar the two are. I wouldn't say the technology is the same, but the way you have to save energy and things like that, they're very similar. It was useful to have done that testing, I think it won't be too difficult to adapt to that. The main thing really is just the pure speed of the car. Obviously, these cars are quicker than ever now, even if speeds might drop a little this year. But in terms of the jump from Formula 2 to Formula 1, it's really, really big. That's mainly from the downforce. I think the speed won't be too difficult to deal with, it's more just the pure width of the car I'll have to get used to. Secondly, something which I think people don't realise, is just the sheer amount of people and the work ethic involved in F1. It's different in the sense that you have so many people working for you and they're all striving to be as quick as possible, so for a driver there's a lot of interaction with the team. There's always someone that I need to speak with in order to get the maximum out of the car. In Formula 2, I had two engineers, there was a head engineer and I had two mechanics in total. So that's six or seven people and now I'm going to a team that's got almost 400 people. It's a different ball game but I'm getting used to it - It's a nice problem to have!

**Q: On to more personal matters, why have you chosen 23 as your race number?**

AA: I'm a huge fan of two people: Michael Schumacher and Valentino Rossi. When I was young, my bedroom was red for Ferrari and I had everything 46 - my race number was always 46. I also had "The Doctor" on the side of my car, I was a bit mad about him. I remember even when I was four, five years old, if I was ever upset about anything, my mum would play some kind of Valentino Rossi end-of-year video and find a circuit that he'd won at. When she put that on the TV that was me done - I was stuck in front of the TV and I'd feel better. But in the lower single-seater categories you don't get to choose your number, so when the time came to choose for Formula 1, I felt I couldn't really go with 46, if just for commercial reasons...

**Q: So you've gone for a half-Rossi?**

AA: I've gone for a half Rossi. 23 has always been a good number for me. I've had it a few times. I'm happy with it. There wasn't really too much thinking behind it, but I thought I'd carry on my tradition of wearing the Rossi number somehow.



**Q: Explain what it means to you to race under the Thai flag.**

AA: It's a big deal for me to be a Thai driver. It's been a long time since there's been a Thai in Formula 1 and I'm just hoping to do everyone proud.

**Q: You will be part of a trio of rookies coming into the sport this season.**

AA: I haven't paid much attention to it. It's quite a special year in that sense because you have a lot of F2 drivers coming into F1. I think it's been a very long time since three drivers came from F2 to F1. We know that in Formula 1, the drivers are the best of the best, so it's nice to know that pretty much half the grid is made up of drivers I've kartered with or raced against, with George and Lando. being part of that number as well obviously. It's just nice to be racing at the top level with the guys I've driven against throughout my career to date.

**Q: Is there a story behind your helmet design?**

AA: Yes, there's a bit of a story. In Thailand, the royal family are extremely highly respected and King Rama IX was one of the most respected people in Thailand. King Rama IX did a lot of charity work, a lot for the working class and he passed away in 2016. So I've got the number 9, written in Thai on my helmet, as that was part of his symbol. Another reference to Thailand on the helmet is the Thai flag included in my name.

**Q: Let's stick with Thailand for a bit. We don't race there. Is there a thriving motorsport scene there?**

AA: I'd say so and in fact, a couple of years ago, there was talk of holding a Formula 1 race there. They have a circuit ready that's F1-capable. I think it would be great to have a race there, it would be just amazing. Obviously, Vietnam is coming next year and that's one step closer. That's given me at least something similar to a home race, I'd like to think. Motorsport is getting bigger in Thailand and I'd hope they have someone to root for this year in F1.

**Q: Where are you going to be based?**

AA: Milton Keynes, which is handy for the simulator. I've been living there for a while now.

**Q: And what are your thoughts on working with an Italian team?**

AA: I think it's always good. In motorsport, especially in go-karting, the pinnacle of motorsport is in Italy so you spend all your time in Italy. I'm a bit jealous of people like Daniil who can speak Italian...I really can't! I spent two years there but I didn't really speak to the team in Italian. I can understand a bit of it but not enough. I'll learn throughout the year and I'll try and get better at it.

**Q: Are there any races that you're looking forward to particularly, either because you like the track or for some other reason?**

AA: I would say Japan because Suzuka seems like a great track. When you look at it from the outside, you see the fans and you see the passion. I really like the country as well. I've been there once before. The track is a serious one because it's an old-school, no-mercy circuit. It looks really, really cool to drive. I'd say definitely Japan.

**Q: Sum up your goals for the season.**

AA: In general, the way I've gone about my career and my racing, is I never set any goals on anything. Every year, it was just each race, take it step by step, focus and race in that session - whatever it would be, practice, qualifying, the race. Just take it as it is. If you start setting long-term goals, you just put unnecessary pressure on yourself. I'm just focused on myself and let's see how it all goes.



**Daniil Kvyat (Car #26)**

*"I will enjoy every race this year"*

**Q: When you left Formula 1 and Toro Rosso in 2017, did you think that you'd be back one day?**

DK: Let's just say it's great to be back and it proves you should never give up hope. Last year, I enjoyed my time working with Ferrari, which helped me keep in good shape and in touch with what is going on in Formula 1 on the technical front.

**Q: When was the last time you actually raced?**

DK: It was the 2017 USA Grand Prix, although, apart from all the simulator work last year, I have done a lot of karting which always keeps you sharp.

**Q: Do you feel you have changed and matured since 2017?**

DK: I don't want to say whether I've changed or not. I know there's been a lot of speculation about this and whether I've matured or not and so on, but I prefer to let my driving on the track answer. I just want to get in the car and see what happens. There is plenty of work to do and four days on track in Barcelona before we go racing, which will be very important for everyone.

**Q: Do you think your development role has helped you to become a better driver?**

DK: I really appreciate the opportunity that Ferrari gave me last year. It was a great experience and I gave it everything I had. I really enjoyed working for them. They were very kind to me, so I repaid them by always working hard and never said no to extra days work. It was a pleasure. To be honest, I think even if you only drive in the simulator, nowadays they are very sophisticated, so you can practice and practice and I think by driving a lot there, it's kept me in shape and allowed me not to forget how an F1 car feels.

**Q: You drove our car in the end-of-season test in Abu Dhabi, how did that feel?**

DK: I'd say that after about five laps, everything felt completely normal to me. It was a very good feeling, almost as though it was one of my first ever F1 tests. It was a very happy few days for me leading up to it and a cool experience. I drove 155 laps with no problems. I think now, every time I go on the track it will feel like that, so it's quite nice.

**Q: Apart from the fact you were working with Honda for the first time, when you did the test, could you actually feel much of a change in the cars since you were last racing?**

DK: My last race was 2017, then I was back a year after, pretty much. Yes, there has been an evolution from the car that I last drove for Toro Rosso, but things haven't changed dramatically so I was able to pick it up, not exactly from where I left off, but I was still pretty much in the loop with everything.

**Q: You've been to the factory in Faenza and you've seen a few new faces but also some familiar ones. How do you think the team has evolved since you were last there?**

DK: Honestly, there are more familiar faces than unfamiliar ones. Obviously, the biggest change has been the engine supplier now that we have Honda. Regarding the engineering side, everything is relatively the same compared to when I left. The engineering group around the team is very similar.

**Q: Have you got any particular expectations or goals for 2019?**

DK: We don't know exactly where we're going to be. Like everyone else, we are working hard to put the best package together and the best thing I can do for myself is to work as hard as possible on myself and on my performance. I believe in the guys in the team. They know what they're doing. Me and my engineering crew will do everything we can to squeeze the maximum out of the package we're given by the



team. I think we're looking good and I feel that everyone is motivated and focused. I can see that and it gives me confidence for the future.

**Q: Do you expect to be the natural team leader, given that your team-mate is a complete rookie?**

DK: I'll just go out, do my job, drive the car as fast as I can and give my feedback and then we can decide together which direction to take. It's team work!

**Q: You're still the only Russian on the grid so I guess Sochi will be a highlight. What are you particularly looking forward to this year?**

DK: If I had to wait until Sochi to have a highlight, that would be a long wait! I think I will enjoy every race this year. You take it event by event. Of course Sochi is always very enjoyable, but so too are Australia, Bahrain and China because they are the first three races. I'm really looking forward to the season kicking off. Let's take it step by step. The Barcelona test is first then Australia, then we go race by race. We'll take it that way, I think that's the wisest plan.

**Q: It's going to be an interesting season, because there are several new youngsters like your teammate and you're not the only one coming back, Robert Kubica is as well. Looking at it from the outside, do you think it's going to be a vintage season?**

DK: Yes, I think so. I think there's always interesting aspects to every season in Formula 1. This year, there's quite a reshuffle in terms of drivers and there's a few new regulations coming in. Robert is a very interesting comeback. I've known him since I was quite young and racing against him is something I am looking forward to. He was the guy who first brought me to an F1 paddock in 2009. I was karting and he had a karting team, I won a race and I got a ticket to watch F1 testing in Barcelona. I saw Robert there and he said, "Oh, it's you!" and then he gave me a tour of the BMW garage. He showed me the steering wheel, the car, the engineers' room, everything. That was a cool memory. Regarding the rest, hopefully the battles will be close on track and the gaps between the teams will not be too big, that will be a great incentive for good racing.

**Q: What are your first impressions of Honda?**

DK: I've been following how they are getting on quite closely. What I do know is they're definitely very motivated. They're pushing like hell and working really hard to achieve the best engine possible and that's exactly what the team needs. As long as we work as one mechanism, push each other and always aim as high as possible, that will help.



**Jody Egginton (Deputy Technical Director)**

*"We now have an even more flexible design office and the people involved have really embraced the synergy project and taken on board new challenges."*

**Q: How did Toro Rosso approach the new aero regulations for 2019?**

JE: One of the intended purposes of the 2019 regulation changes was to reduce the amount of outwash generated, which leaves us with the challenge of reconstructing the required flow structures to recover the lost load within the scope of the new regulations. Although the front wing width has been increased, we've lost the winglets and the elements which were on the outboard portion of the main plane and the endplate itself is simplified. Together with the simplification of the front brake ducts, the opportunities for generating the required flow structures and positioning them where you want are different, and require you to recover the size and trajectory of the front wheel wakes and flow structures by identifying key areas for aerodynamic development and exploiting these to the maximum. The aero and design groups have worked hard to achieve this, whilst in parallel also focusing on aspects of the aero development process, focusing on developing a car concept which permits sustainable and regular aero development without the need for major architectural changes. This approach will be required to aerodynamically develop the key areas of the car quickly as a rolling development in season, as we expect to see a rapid development phase early on.

**Q: Has the design and development process changed from last year's car to the STR14? If so, what's different?**

JE: A number of changes have been put in place regarding how we develop the 2019 car, including the approach to how we develop the car aerodynamically. This was a topic which had been under review for a while and whilst there is never an ideal time for such a change, based on what we had learned in 2018 it was decided that now was the time to introduce these changes. Although the timescale for some of these changes was tight, and in the short term these changes have generated some extra work, the development rate of the 2019 car is now strong and responding well to the aero developments being evaluated in CFD and the wind tunnel. Regarding development targets, we have developed a number of metrics which allow specific areas of the car's aerodynamic performance to be tracked and evaluated. This will allow our aero updates to be better targeted against specific identified needs. Ultimately, it's the rate at which we're developing and how quickly we can get these updates onto the car which remains the primary focus. In addition, of equal importance is arriving with updates which bring load to the right areas of the map and which correlate well. In some respects, this is different to the approach of focusing on aero packages, however by adopting a 'rolling' development - especially following a regulation change - there is potential for faster reaction and a more straightforward approach to correlation.

**Q: There's a lot of talk about "synergies" with Toro Rosso receiving parts from Red Bull Technology, how has this impacted the STR14 Design?**

JE: Nothing has changed in terms of the design process of laying the car out, we just have a few less variables to play with. However, within the framework of a fixed amount of available resource, this can provide an opportunity as it allows more focus on other areas of the car concept which in turn can bring performance. In our case, it has allowed increased focus on the design of the chassis structure, packaging of the brake ducts and front suspension, and the integration of the fuel and cooling systems into the chassis. All of this results in packaging and mass reduction benefits and provides the team with more potential for aero development. The chassis itself, as per regulations, is a complete Toro Rosso design and IP as is the front outboard suspension, along with all aspects of the cooling systems, power unit installation & steering column. The 'rear end' has been provided by Red Bull Technology and the key change for Toro Rosso, being





that we are taking a gearbox casing and rear suspension although many of the internals of the gearbox are similar to parts we have used in the past. Having committed to parts supply from Red Bull Technology, a lot of effort has to be put to integrate everything as well as possible and of course, this remains under the sole control of Toro Rosso. In that respect, we're excited to join Toro Rosso and Red Bull Technology. Synergy is a concept we as a team have embraced, it has several positives which gives us the ability to refocus our design effort on other areas and resources that come with it, whilst receiving parts which are proven trackside.

**Q: Toro Rosso will enter its second season using Honda power, how has work progressed over the winter and what has been the effect of Red Bull Racing joining the Honda family?**

JE: We were very impressed at the development rate from Honda during the second half of last season. Now that Red Bull Racing will be using Honda power in 2019, they will be able to take ownership of a lot of the dyno activity and play an important role in the development of the PU. On the design side, we've been able to put more resource into the integration of the car systems, PU integration, and cooling package integration. In terms of in-house manufacturing and assembly, with synergy and Red Bull Racing taking the Honda PU, we have been able to reallocate resource to different activity which has provided some benefit in terms of adding capacity to some areas which up to now were maybe limited. Generally, there are many positives for having a focussed approach to which parts of the car originate in Toro Rosso and which parts are purchased. We now have an even more flexible design office and the people involved have really embraced the synergy project and taken on board new challenges.

**Q: How do you see the development of the Honda Power Unit faring over the course of this season?**

JE: Following some good steps made during 2018, we expect continued strong development of the power unit in 2019 and with two teams now using this PU, the potential for this has increased. The key benefit in having two teams using this PU is that it provides Honda with a lot more data and feedback which will speed up the development, optimisation, and fault resolution process. Regarding how we have all worked together so far, I'd say the process has been very productive, and we've arrived at sound common solutions quite easily without excessive compromise. Having a rear end supplied by Red Bull Technology makes this challenge easier in some respects, but of course there are still challenges to overcome, as is typically the case anyway.

In general, the cooperation process between the three teams has been quite straight forward and the process of discussion and review has been quite efficient. We only see this improving further as the relationship progresses, hopefully allowing both teams to arrive at a better package and allow Honda to continue to develop at a fast rate. However, the more you close the gap the harder it gets to continue closing, but that won't deter us from striving to move up the field.



**Graham Watson (Team Manager)**

*"We're all competitive people, that's why we're in this business."*

**Q: A new season means a new car, but does it also mean a new team?**

GW: This is our second year with Honda, so things should be a little clearer and more stable than year one of the relationship. We've had quite a few changes in terms of our own race team. We have two new Number One mechanics and a couple of new garage technicians, so there's a little bit of a rebuilding process that has taken place over the winter and will continue through testing. The new Number Ones have been with us for several years and deserve their promotion, so I hope they will thrive in their new positions. The change in personnel means we have had to re-align the pit stop crew for 2019 as well. But honestly, between now and the start of the season we should be able to get that under control.

**Q: F1 drivers are getting younger and so it seems are the mechanics...**

GW: That's very true. When I came to Formula 1 many years ago, you had to literally queue up to get into the race team because you had to graduate through the test team and there were fewer races with more people wanting to do the job. Now we operate similar to Formula 1 drivers, as many of our mechanics come from the F2 series. They may be younger, but the good thing is the passion for motorsport remains and they're committed to their jobs.

**Q: Toro Rosso has a history of bringing on new driving talent and this year, we have a complete F1 rookie lining up alongside a returnee. As Team Manager much of your job involves showing the youngsters the ropes. An interesting job?**

GW: Even in my previous team, we were generally working with young guys, so that carried on when I came into this team. It is something I enjoy a lot. Sometimes, if I see a photo taken in the paddock when we are walking to the official Drivers' Meeting, I think, "gosh, it looks like a father and his sons!" It's a great satisfaction to pass your experience on to young people who are so willing to learn and very often this creates very nice personal relationships, which again help pushing each other.

**Q: Last year we had a 21-race season with several back-to-back races and even a triple-header. How close are we to having to consider a rotation system for team members, so that not everyone does every race?**

GW: Honestly, I think we're almost there. We've already started a little bit of a rotation with most of the departments now to help sustain it. However, when it comes to the race mechanics, it's a little bit trickier. Next year, 2020, we're scheduled to have a new race in Vietnam. If that pushes the race total to 22, then I think we will seriously have to reconsider how we operate in terms of personnel at the track.

**Q: At the start of the year in Barcelona for testing, everyone's keen to start, the adrenaline's flowing and in Australia the sun is shining. But by the time we get around to Abu Dhabi at the end of year, as Team Manager, it's your role to make sure that everybody has still got enough motivation to get things done and that the personnel are in good shape physically and mentally. It's a tough workload.**

GW: Definitely. At the beginning of a new season the motivation is high because everyone is excited to get back racing, as well as seeing the hard work from the winter being put on track for the first time. Obviously, if the season starts well it's easier to keep the motivation high, but it becomes difficult to maintain the same kind of motivation when the season doesn't go your way. It's a choice we make when we sign on to work in Formula 1, you have to set your private life aside as you're away from home so much and focus on your work which, very often, brings a lot of stress. We're all competitive people, that's why we're in this business. At the end of the day, it is a sport and I think we've found a reasonable formula but for sure it will be a lot easier this year if we can



have a good season. Part of my job is to keep motivation high, I try to give the guys as much time off as possible, but as the calendar is so busy it's not an easy task.

**Q: This year, Honda is also supplying Aston Martin Red Bull Racing. How will that affect Toro Rosso operationally?**

GW: Honda has been perfectly fair. Basically, we keep 50% of the Honda personnel who worked with us in 2018 and Red Bull gets the other 50%. So both teams get half the 2018 guys and half new Honda personnel. I think that's the best and fairest approach. Given we have new people on board, we need to do our best to integrate them within the team and find the best practices to work efficiently with each other. If the past has taught us anything, this should be a simple process and by the end of the first test everyone will be familiar with one another.

**Q: Toro Rosso has consistently been amongst the fastest when it comes to race pit stops. It's the most obvious area where the work of the mechanics can affect the result. How are we looking on this front for 2019?**

GW: Last year, we were more consistent and faster than we have been in the previous four years. Over this winter, firstly, we've carefully studied videos of our 2018 pit stops and worked a little bit on refinement of positioning. Secondly, we're going to inherit quite a lot of the wheel nut axle and wheel rim design from Red Bull, we believe that a combination of this and the work on positioning will allow us to improve further. I'm pretty confident we'll make another step in the right direction.

**Q: Sum up the season ahead.**

We'll roll the dice and go again!



**Toyoharu Tanabe (Honda F1 Technical Director)**

*"A relationship based on mutual trust and respect"*

**Q: Looking back to 2018, give us a short review about your partnership with Toro Rosso throughout the season.**

TT: Honda is satisfied with the way the partnership with Toro Rosso worked in 2018. Whenever you start working with a group of people for the first time, it can take a while for each group to adapt to the way of working of the other. But with Toro Rosso, I can honestly say, we found a good way very quickly. It was a relationship based on mutual trust and respect and that continues today.

**Q: What did the results you achieved with Toro Rosso last year mean to you?**

TT: In terms of our performance on track, there were some highlights, like Pierre Gasly finishing fourth in Bahrain and our Qualifying result at our home race in Suzuka. However, in general, our performance and reliability had some weak points. But, at Honda, we feel we made better progress than indicated simply by the results. We moved forward during the course of the year and this is encouraging for the 2019 season.

**Q: When did you start development work of the 2019 Power Unit and what areas did you focus on mainly?**

TT: There was no specific date when we began to work on the PU for this year. That's because, with no real changes to the rules regarding the PU, apart from being allowed to use 5 kilos more fuel per car in the race, our development work has really been a continuation of what we have been doing over the past year. Naturally, with no racing over the winter, the work in Japan and Milton Keynes has stepped up in preparation for the new season. Plus, we have had to deal with preparation for also supplying your sister team, Red Bull Racing. By working with the Red Bull Technology group, we have been able to streamline that process, in many areas dealing with matters relating to both cars at the same time. We have been looking at all areas of the PU such as ICE, ERS and Energy store.

**Q: To partner two teams in 2019 will be a big task. How many people from Honda are going to be with each team at the race track and additionally helping from England and Japan?**

TT: The number of Honda engineers at the track will be almost double to deal with two teams. I will be in overall charge of the F1 project, overseeing how we work with both teams and each team will then have its own Honda Chief Engineer. During the race weekend and testing, we have people working in a Mission Control room both in Sakura and Milton Keynes and we have strengthened the functionality there as well, in order to deal with working for two teams.

**Q: Are you going to supply both teams with the same specification PU?**

TT: Yes, we will. It is the most logical method and one which Honda feels is best, not to mention that the regulations state we must supply all teams equally. But it's not just a case of supplying the two teams with the same technical hardware. We will also treat them equally in terms of the resources we allocate to manage our operations and on the development side. This should be quite a straightforward procedure as the two teams are part of the same family and because we can work with Red Bull Technology.

**Q: What are Honda's targets and goals for the 2019 season?**

TT: The usual difficult question! In simple terms, our aim is to achieve better results than in 2018 for both teams. For our partnership with Toro Rosso, that means finishing higher up in the Constructors' Championship, scoring more points, running more reliably and, maybe even repeating last year's Bahrain result or doing better. However, at this stage, we cannot know what to expect, because as in all sports, our result also depends on what our opponents can do.



### STR14 Technical Specifications

Official car name:	STR14
Engine:	Honda RA619H
Chassis :	Scuderia Toro Rosso - carbon composite monocoque.
Front suspension:	Scuderia Toro Rosso/Red Bull Technology - carbon composite wishbones with pushrod operated inboard torsion bars and dampers.
Rear suspension:	Red Bull Technology - carbon composite wishbones with pullrod operated inboard torsion bars and dampers.
Steering:	Scuderia Toro Rosso/Red Bull Technology – power assisted
Gearbox:	Red Bull Technology - carbon composite maincase longitudinally mounted, hydraulically actuated 8 speed.
Differential:	Hydraulically actuated multiplate.
Clutch:	Hydraulically actuated carbon multiplate
Exhaust:	Honda
Brake System:	Scuderia Toro Rosso/Red Bull Technology
Driver's seat:	Scuderia Toro Rosso - driver specific carbon composite
Tyres:	Pirelli
Fuel system:	Scuderia Toro Rosso/Red Bull Technology
Overall weight:	743 kg

