



# THE INDEPENDENT

Eli Solomon catches up with Williams F1 co-founder Patrick Head

Photography: Eli Solomon

For the photojournalist with an open mandate, a Grand Prix weekend can take on a whole new meaning when it comes to staying focused. To my right, there's Eddie Jordan. Look left and there's Jacques Vasseur. Turn around and there's Niki Lauda and Damon Hill. There were no minders, no PR staff to get past and by and large, these gentlemen were very approachable. Finding a member of the Pirelli Club who had been around when V12s mixed it out with V8s and Taybos and when experimentation was not a bad word was going to be a bit tougher.

I got my opportunity, thanks to a good friend who is also a Williams fan. As soon as qualifying was over on Saturday I shot off to Senso's One<sup>95</sup> to listen to Williams' Patrick Head, now 67. No local media giants present, just a simple gathering of a few motorsport enthusiasts in a quiet lounge at the marina listening to Patrick's views about the sport.

Patrick Head and Sir Frank Williams go back a long way. Williams, once he found that barnstorming for components and his own motor racing career weren't going anywhere, became a roving mechanic in Formula Three and by the mid-1960s had established Frank Williams Racing Cars, acting as a Brabham agent and often working on a shoestring budget. In 1968 he established Frank Williams (Motor Racing) Ltd and ran Piers Courage in Formula Three. The ex-Courage Brabham BT30 eventually ended up with Hong Kong's Albert Poon.

Both Frank and Patrick have seen world champions come and go. They were there when Senra crashed at Tamburello in 1994. They are still very much part of top flight motor racing and are equally well represented at the Formula 2 level with Jonathan Palmer's very exciting series.

Patrick Head, long time partner to Frank Williams and the Williams Formula 1 team, has never minced his words. His view on Formula 1 is that it ultimately needs to be a meritocracy. He is keen to see more opportunities for teams to come into Formula 1 and to be competitive. Admittedly it's never going to be an even playing field as the four new Cosworth-engined teams will find out over the course of 19 or so races next year.

"The FIA do a very good job on the safety aspect... Within what's called the technical working group, it's very productive towards safety, but in terms of regulations they're all massively cautious about opening up any freedoms." Patrick has been at the pinnacle of motorsport since 1977 and had the opportunity to operate when there was much greater freedom. Motor racing today is nothing like what Jim Hall and Colin Chapman lived through. No longer will a Gordon Murray be given the sort of latitude to conjure up a car with twin fans that sucked the ground up. No monkey spit in fuel tanks.

"Now... I'm not saying all the cars are identical but you could say that if you mixed up all the sponsor colours there's a lot of people who wouldn't be able to tell one car from another from the shapes. I would like to see something that didn't have a 2.4-litre V8 of 90 degree angle, all of which were the same length within 5mm and the same width within 2mm but it's quite difficult to do without opening up a window that might cause a lot of costs, because, in general, one team always does a better job than others and then everybody then has to scrap their cars and design a new car... bigger and expensive. It is something I regret... how inhibited we are as engineers but that's how it is at the moment."



Throughout history there have been very advanced cars in both single-seater and sports car racing. The race engineer needs to remember those that made a strong impression and influenced his thoughts. For Patrick Head, the first to come to mind was "a thing called a Chupatal J car that was known as the 'sucker car', actually quite basic but quite clever where it had a 500cc twin-cylinder motorcycle engine [actually a single 500cc 274cc, 2-cylinder JLO Rockwell snowmobile engine] and two big fans and Lexan skirts, all controlled by the suspension to go up and down and it literally evacuated the underside of the car... Jackie Stewart drove it one time and said it was mind-blowing...there have been some extraordinarily interesting racing cars."

The [Williams] FW15 was similar in some respects, incorporating the latest technology available at the time and delivering it in a single and very sophisticated package. The FW15 had 'active ride, electro-hydraulic power steering...very high resolution as the driver braked into a corner, it automatically transferred the braking across to the outside and it was literally looking after each wheel individually and keeping it on the limit of adhesion...although it wasn't legal at the time." Much of this could have been introduced to road cars, allowing drivers to adjust various variables. It was probably one of Head's most exciting cars from an engineering point of view, packaging all the bits into a very small space.

The biggest development in recent times has been the Kinetic Energy Recovery Systems or KERS. It was something that Williams were seriously developing for the 2010 season only to see the rules change. "I have to say we've been working on KERS project internally for a couple of years. We've got a flywheel based system...When we first got involved in the KERS project we went to a number of companies outside, and they all wanted a very large amount of money to develop something for us so we ended up deciding to do it internally. We got our own motor generator...It's about the size of a quarter-used laundry roll and yet can produce over 80 horse power, weighs about 3.5kg. The inverter and controller is also done in-house."

The decision to restrict the use of KERS for 2010 has baffled a lot of people, given the amount of money some of the manufacturers have put into its development. Head feels the same way. To him, it's "rather backward that FOTA, driven by manufacturer teams, is saying no KERS next year." He's very surprised that even McLaren have agreed to the abandonment of KERS for 2010. Philips, Williams' sponsors, are very keen on sustainability, keen to see the company developing sustainable forms of energy going forward. But there are issues and he contends that, "If we were the greatest company in Formula 1 but occupied 19th and 20th on the grid, I don't think it would be very impressive to our sponsors."

In terms of what we can expect out of Williams in 2010 Patrick notes that, "...it's more micro development of every aspect, suspensions, making them stronger, lighter. How to make our rear suspension invisible and disappear, as you've probably seen in the Red Bulls with a very low upper deck on it...We'll see a few very interesting rear suspension layouts next year."

"We're always working on micro improvements...whether it's making a 13kg wing boom weigh 11kg...There's less areas for blue sky development, mainly because we're restricted in the rules."

Given that both Patrick and Frank had been involved with the sport for so many years, I was intrigued to find out what his favourite circuits were. "I'd like to go back to Watkins Glen," he said, "a great race in the States. You know this man has been around. What tends to happen at the moment is

that we go to places where Bernie can do very commercial deals to get Formula 1 to go there. For the sponsors involved in Formula 1, certainly for the car manufacturers involved, they'd like to see a race in the US and a good one...I'd like to see us go back to the US because there was a pretty strong fan base there as well."

"I'm sure Abu Dhabi will be a stunning race...some stunning architecture...ultimately, should all new Formula 1 tracks be these sort of trophy tracks which are only sustainable from that type of company, in truth, new Formula 1 venues need to be genuinely sustainable."

As for the new entrants such as Peter Windsor's USF1, "I hope they make it. They're working away. USF1, they're called, although Bernie objects to them using the letters 'F1'. That's really what Formula 1 needs as an activity is to get genuine interest back in the States." Patrick sees very little viability from USF1 with rumours of them being well behind although a recent article in the New York Times (Special Report, Weekend Edition, 26-27 September 2009) suggests otherwise.

Branding in Formula 1 is a big thing and Patrick noted that, "Lotus has been a big name in Formula 1...It's still a big brand name...It's probably still a good name to use."

"I think it'll be very healthy for Formula 1 if there are new teams...I suspect a few of them might not be right down at the back of the grid. The Manor team which Nick Wirth's organisation, they're all serious people with Virgin support...The Campos Team, Dallara are doing the car. Dallara are a very good company. They'll have the same tyres as everybody else." Patrick's involvement with Tony Fernandez and Air Asia would have given him a bit of additional insight on the Malaysian Lotus team. "He'll [Air Asia] still be with us as Air Asia as a sponsor for next year. I'm not sure beyond that."

Reverting back to giving the engineer and aerodynamicist a free hand in developing a car was, to Patrick, "a bit like the eating of the apple in the garden of Eden. In a way it might seem a pity. One would like a completely open meritocracy...I don't mean like the America Cup...I think if you could open the rules up so that the car didn't come out at the beginning of the year so similar, it would be good but I suspect that you'd have to do something rather the way that happens in DTM. You'd have to have something to balance things up...It would get very boring."

"I'd like to see the rules more opened up. You'd have to be very certain over budgetary controls...A lot of the companies in Formula 1 have multiple things going on...At Williams we've got various other activities. We've got this Williams Hybrid power activity...we've got our support of Jonathan Palmer's Formula 2 activity as well. We're supposed to police ourselves at the moment..."

So how does Williams F1 rank in terms of technological capabilities? Patrick Head was quick to point out that they had grown beyond the old fashioned term 'garagiste' and we're right up there with the manufacturers. "...Although Toyota's [facility] is bigger than ours, they don't have any technology that makes their racing car any better than ours. I don't think we are worried about manufacturer or country-backed Formula 1." Head agrees that the manufacturer presence in Formula 1 needs to stabilise. "You go back a year and the manufacturers were spending vast sums of money, completely unsustainable...Well, if you've got five boards all saying that [they would provide the necessary budgets to win the world championship], after a bit they're going to work out that they all can't win the championship." It ended up with Honda pulling out rather dramatically.

"Somehow we'll survive." ■

