

RED BULL

RACING

SEASON 2009

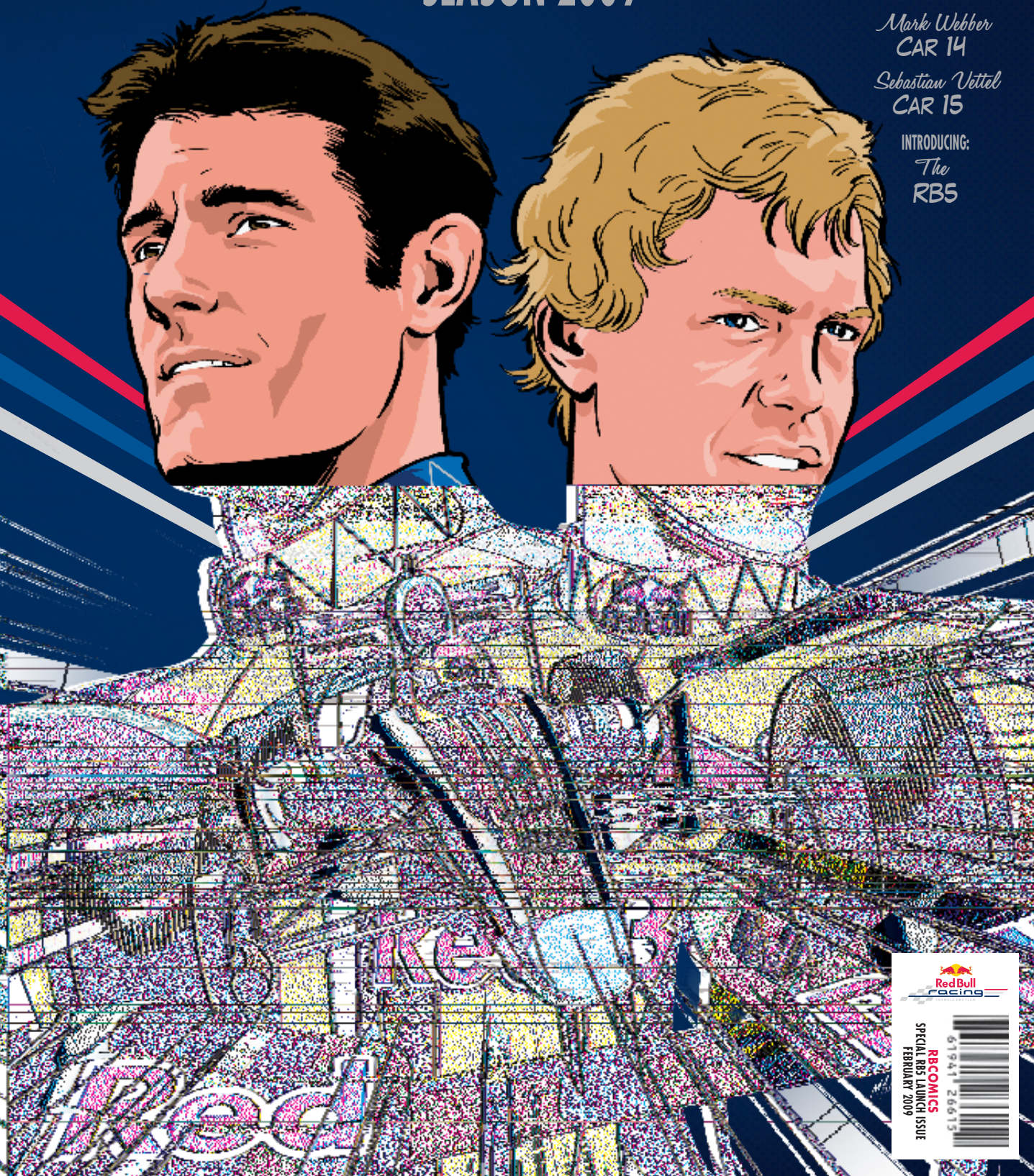
STARRING:

Mark Webber
CAR 14

Sebastian Vettel
CAR 15

INTRODUCING:

The
RBS



Red Bull racing

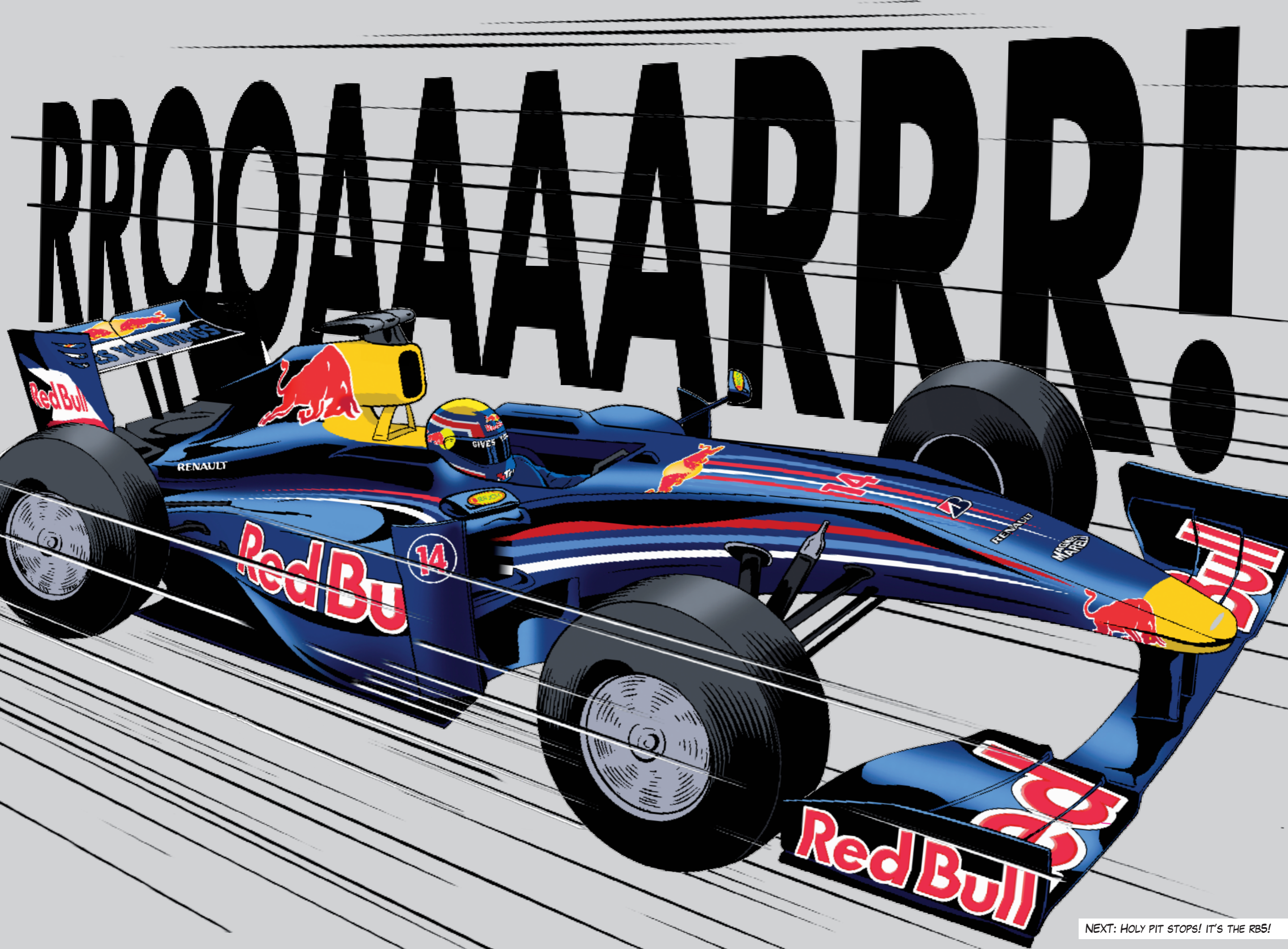
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REC O M I C S

SPECIAL RBG LAUNCH ISSUE

FEBRUARY 2009





NEXT: HOLY PIT STOPS! IT'S THE RB5!

2009: A NEW F1 SEASON, NEW RULES AND A HOST OF NEW CHALLENGES! BUT FOR RED BULL RACING, WHICH THIS YEAR FIELDS AN EXCITING DRIVER LINE-UP IN MARK WEBBER AND SEBASTIAN VETTEL, THE TARGET REMAINS THE SAME: TAKE ON THE ESTABLISHED ORDER AND WIN THROUGH! THE SEASON STARTS HERE!!!

Red Bull Racing - Challenging the Establishment!

The 2009 season will see Red Bull Racing embark on its fifth year in F1, although its parent company's links with the sport began a couple of decades earlier. An obvious Austrian connection between Red Bull and Gerhard Berger meant the driver was signed up as Red Bull's first athlete and, as the drinks company went on to establish a reputation for backing extreme sports, it continued to strengthen its F1 involvement. Its colours graced many a grand prix driver's drinks bottle and its logo featured on the Sauber team cars. Then, in 2004, Red Bull went one stage further and bought what had been Jaguar Racing and lined up at the start of

the 2005 season with David Coulthard and Christian Klien sitting in the cockpits of the team's RB1 car.

From the outset, the team's on-track performance was respectable, but what really set Red Bull Racing apart from its peers was the fresh approach it brought to its F1 programme: the Red Bulletin daily paddock newspaper, the Formula Una girls, the Energy Station that played host to the entire paddock and stunning movie co-operations in Monaco. The team has always done things differently.

Red Bull Racing achieved its first podium in Monaco in 2006, which proved to be a transitional year for the team.

There was investment in new staff and new equipment, while a key appointment was made in the form of renowned designer Adrian Newey. Wind tunnels and other simulation tools were developed and, as the team worked hard on the RB3, the first car to be designed by Adrian Newey's technical team, the foundations of the team were firmly established. Later the same year the team confirmed a deal to run Renault engines that had been good enough to win back-to-back Championship titles in the previous two seasons.

Since 2006 the team has been consistent with a podium finish in 2007

with Mark Webber at the Nurburgring and a further podium finish for David Coulthard in Canada in 2008. This year will see the team fielding a very strong driver line-up, blending the experience of Mark Webber with the youthful talent of Sebastian Vettel. In a sport where money did all the talking, the new rules, which go some way to ruling out the cash advantage of the biggest teams, could well see a shake-up in how the grid lines up. Certainly Red Bull Racing, having just completed another major upgrade of its technical facility at Milton Keynes, is perfectly placed to challenge Formula One's established order.

The HIT LIST

2005: THE TEAM MAKES A BIG IMPACT IN ITS FIRST SEASON BEING A REGULAR POINTS SCORER AND OCCASIONALLY CHALLENGING FOR PODIUM FINISHES. IN ALL THE TEAM COLLECTS 34 POINTS: 24 FOR DAVID COULTHARD, 9 FOR CHRISTIAN KLIEN AND 1 FOR VITANTONIO LIUZZI.



2006: FIRST PODIUM FINISH, MONACO. DAVID STARTS FROM SEVENTH ON THE GRID, BUT THE TEAM MAKES A STRATEGY CHANGE AND CONVERTS TO AN EARLY ONE FUEL-STOP PLAN, WHICH MOVES HIM INTO A PODIUM POSITION. THE TEAM'S FIRST EVER PODIUM THUS COMES AT THE WORLD'S MOST GLAMOROUS RACE AND DAVID GRACES THE ROYAL PODIUM WEARING A RED CAPE, AS RED BULL HAVE TIED IN A PROMO WITH THE SUPERMAN RETURNS FILM OVER THE GRAND PRIX WEEKEND.

2006: THE TEAM ENDS THE SEASON IN SEVENTH POSITION WITH A HAUL OF 16 POINTS: 14 FOR DC AND 2 FOR KLIEN.

2007: MARK WEBBER JOINS THE TEAM AND CLAIMS PODIUM NO. 2 AT THE NURBURGRING WITH A GREAT THIRD PLACE IN TERRIBLE CONDITIONS. DC BACKS UP THE AUSSIE WITH A USEFUL FIFTH PLACE.



2007: RED BULL RACING ENDS THE '07 CAMPAIGN IN FIFTH PLACE WITH 24 POINTS: 14 FOR DC AND 10 FOR WEBBER.



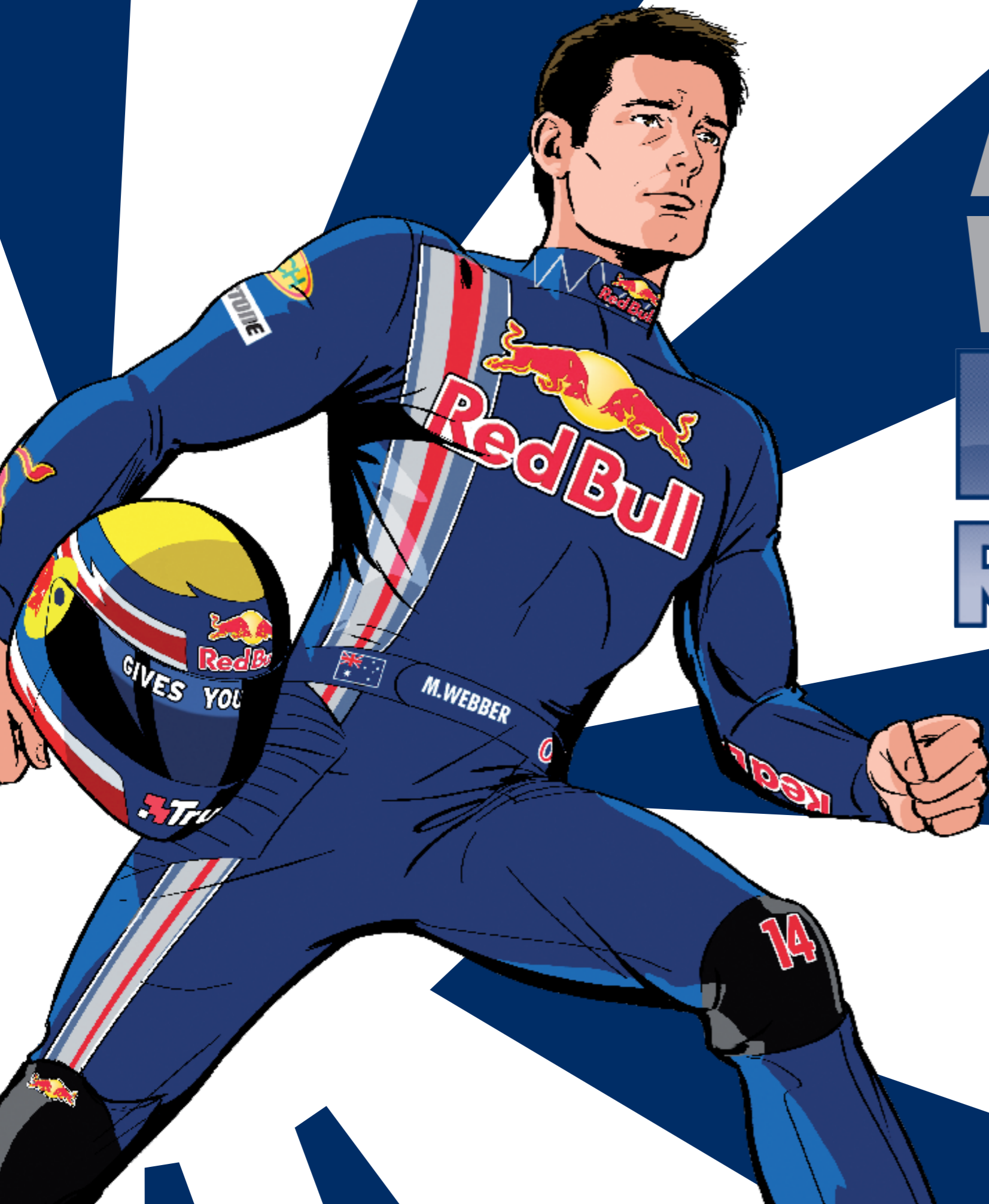
2008: DC CLAIMS THE LAST PODIUM FINISH OF HIS CAREER IN MONTREAL, COMING THROUGH RACE DAY CARNAGE FROM 'UNLUCKY 13' ON THE GRID TO FINISH IN THIRD PLACE. A MONTH LATER, WEBBER CLAIMS THE TEAM'S FIRST FRONT ROW START WITH A BRILLIANT LAP IN QUALIFYING AT THE BRITISH GP.

2008: CAN RED BULL CLAIM TO HAVE WON A GRAND PRIX? YES IT CAN, BECAUSE MILTON KEYNES IS ALSO HOME TO THE BOFFINS OF RED BULL TECHNOLOGY AND THE CAR THEY DESIGNED FOR SCUDERIA TORO ROSSO BEAT EVERY OTHER CAR ON THE GRID AT THE 2008 ITALIAN GRAND PRIX.



2008: SEBASTIAN VETTEL SIGNS FOR THE TEAM FOR THE 2009 SEASON. THE TEAM BIDS FAREWELL TO DC AS HIS RACE CAREER COMES TO A CLOSE IN BRAZIL. RED BULL RACING ENDS THE SEASON WITH FIVE MORE POINTS THAN THE PREVIOUS SEASON, BUT THE CAMPAIGN IS SUCH AN OPEN ONE THAT THE TEAM FINISHES SEVENTH IN THE CONSTRUCTORS' CHAMPIONSHIP.

COMING SOON: RB5 UNVEILED!



MARK WEBBER IN ROAD TO RECOVERY

Mark Webber starts his third year in Red Bull Racing colours as the senior driver in the squad, hoping to produce the results of which we know he is capable. Occasionally dogged by misfortune, his road accident back in November was very, very bad luck, but he worked hard over the winter to speed through his recovery.

Webber made his Formula One debut with Minardi in 2002. It was a fairytale first: the team had not scored a point since 1999 and Mark finished his maiden race, at home in Australia, in fifth place, ending the season as the undisputed rookie of the year. Eleven years after the inevitable start in karts, Webber was beginning to make his mark in the sport's top discipline. After karts and Formula Ford in his native Australia came the equally inevitable move to England for more single-seater experience and he put his name on the map by winning the prestigious Formula Ford Festival at Brands Hatch. Formula 3 followed, but then Mark's career followed a path pioneered by Michael Schumacher, when he was taken on by the Mercedes sports car team.

Unfortunately, Webber's time with the tin tops is best remembered for twice flipping the car at huge speed (through

no fault of his own) at the Le Mans 24 Hours weekend in 1999. This led to him racing more sensible cars and he ended up coming into Formula One through the more conventional Formula 3000 route.

Mark has spent half his F1 life in Milton Keynes-based teams. His maiden Minardi season was followed by two years with Jaguar. Then after a couple of seasons at Williams, he returned to 'MK' and Red Bull Racing. A third placed podium finish in the 2007 European GP has been the highlight of his time with the team to date. In 2008, Mark was Mr Consistency in the first half of the season, regularly bringing home points, but after a front-row start at Silverstone, life got tougher and he ended the year 11th on 21 points.

Apart from his on-track commitment, Mark is a long-standing director of the Grand Prix Drivers Association, while the end of his F1 season means just one thing – the Mark Webber Pure Tasmania Challenge, which allows Webber to indulge his passion for all outdoor pursuits, with the possible exception of cycling from now on! The event has so far raised more than a million dollars for The Leukaemia Foundation and the Save the Tasmanian Devil program.

TWO WEEKS AFTER THE END OF THE F1 SEASON AND MARK IS RELAXING, AS ONLY HE CAN...

C'MON YOU GALAHS, ALMOST THERE NOW. NOT LONG TO GO.



SUDDENLY, AS THEY HIT THE ROAD SURFACE...

AND MIRACULOUSLY...

UNBELIEVABLE, HE FOUND FOUR TENTHS ON THAT LAST SECTOR, HE'S THE QUICKEST GUY OUT THERE. WHAT A RECOVERY!



BUT WEBBER KNEW SOMETHING MYSTERIOUS HAD HELPED AND LATER...



I KNEW THERE WAS SOMETHING ELSE GOING ON. COULD THAT BE THE REASON I FELT SO GOOD IN THE CAR? WAS OLD SIR JACK HELPING ME? COULD THESE PINS IN MY LEG BE BRABHAM'S 'OLD NAIL'? WE'LL SEE IN MELBOURNE.



LATER, IN HOSPITAL...



MR WEBBER, I'VE GOT TO TELL YOU, WE'VE HAD TO PUT TWO METAL PINS IN YOUR LEG. IT'S GOING TO BE A LONG ROAD BACK... AND THERE ARE NO GUARANTEES.

NO GUARANTEES? THAT'S WHAT HE THINKS. I'LL BE ON THAT GRID, NO MATTER WHAT.

AND AFTER THREE MONTHS OF INTENSIVE THERAPY, MARK WAS FINALLY READY TO TEST THE NEW RB5...



OK MARK. THE CAR'S SHAPING UP WELL AND IT SEEMS YOU ARE TOO. READY TO GET BACK TO SOME RACING?

DEFINITELY! LET'S GO.

MARCH 28TH IN MELBOURNE, QUALIFYING...



RIGHT, FINAL TWO TURNS - 15 IN SECOND GEAR, 80KPH AND THEN UP TO FOURTH FOR 16 AND 180KPH. BUT NOW I THINK I CAN DO BETTER...

"AND WEBBER'S ON FIRE TODAY. JUST A FEW MONTHS AGO IT WAS DOUBTFUL THAT HE'D BE HERE BUT HE'S PUTTING IN A GREAT FINAL FLYING LAP. HE'S JUST 0.6 OFF POLE WITH THE FINAL SECTOR LEFT..."

BUT OUT ON TRACK...

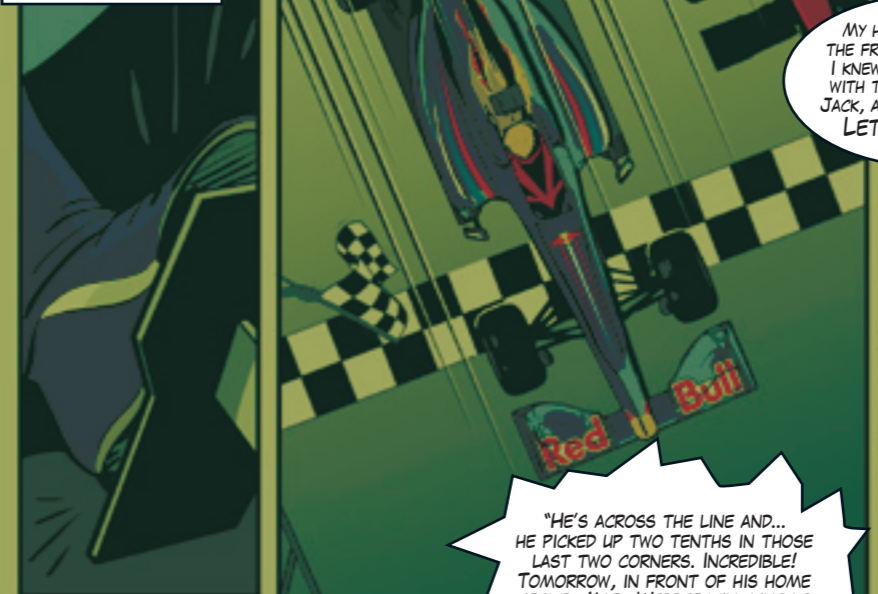


THE CAR'S GOOD ALL RIGHT, BUT THERE'S TOO MUCH UNDERSTEER, IT'S LIKE TURNING A BOAT. BETTER BACK OFF A LITTLE AND CHANGE A FEW THINGS.

BUT INSTEAD...



AND SURE ENOUGH...



MY HOME RACE AND ON THE FRONT ROW. BRILLIANT. I KNEW I COULD DO IT, BUT WITH THE HELP OF OLD SIR JACK, ANYTHING'S POSSIBLE... LET'S GO RACING!

"HE'S ACROSS THE LINE AND... HE PICKED UP TWO TENTHS IN THOSE LAST TWO CORNERS. INCREDIBLE! TOMORROW, IN FRONT OF HIS HOME CROWD, MARK WEBBER WILL LINE UP ON THE FRONT ROW FOR THE AUSTRALIAN GRAND PRIX."

Free advertisement.



“Being able to walk and run is not to be taken for granted.”

David Coulthard.

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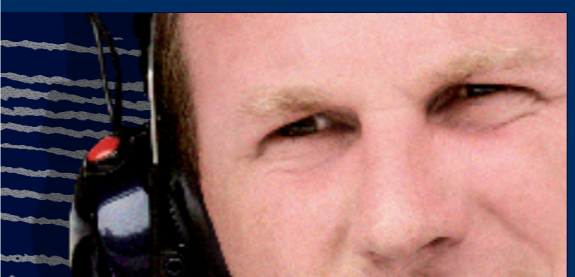
www.wingsforlife.com

CHRISTIAN HORNER

Team Principal
RED BULL RACING



THE SAME ENTHUSIASM AND DRIVE!!



WE ARE IN GOOD SHAPE...
...IN A GOOD POSITION!

When Red Bull Racing first hit the track in 2005, much was made of the fact that Christian Horner seemed a bit young to be running an F1 team, even if this ignored historical precedent: Ron Dennis and Sir Frank Williams were of similar age when they started their Formula One careers. Five years down the line, Horner is naturally older and wiser, but his enthusiasm and drive remain the same.

'A COMPLETELY NEW FORMULA'

“Going into 2009, the team is now well placed to take advantage of the rule changes, not just the technical ones that we have known about for some time, but also those established through the efforts of FIA and FOTA last December. Red Bull Racing and Red Bull Technology carried no excess weight anyway in terms of manpower, so adjusting to the new rules has, for us, been relatively straightforward and we are in good shape for the future.

“The changes caused few interruptions to our workflow and they will also assist the larger manufacturer teams in cutting costs, in terms of manpower. Over the past year, we had invested strategically, and therefore, with the rules as they now stand, we are in a good position to capitalise on them, as they present an opportunity for teams to compete on a more level playing field.

“2009 will also see us benefit from greater stability in terms of how we run the operation, with all our key players in the technical group having

been with us for at least two years. We should not forget they designed a car that won a grand prix in 2008, in the hands of Sebastian Vettel and Scuderia Toro Rosso. There is no reason to believe we cannot do that again with these new rules. The regulation changes almost constitute a new formula for the sport and it will be interesting to see how the teams interpret them. Certainly in the early part of this season we expect to see a much bigger spread in terms of performance between the teams than we have over the past two years.

PLACE OF BIRTH: ROYAL LEAMINGTON SPA, UK COMPETITION DEBUT: KARTING AT THE AGE OF 12 CAREER HIGHLIGHTS:

- 1990 THIRD IN BRITISH KARTING CHAMPIONSHIP
- 1991 FORMULA RENAULT SCHOLARSHIP
- 1992 FORMULA RENAULT
- 1993 SECOND IN THE BRITISH F3 NATIONAL CLASS WITH FIVE WINS
- 1994-6 BRITISH F3
- 1997 FORMED ARDEN INTERNATIONAL F3000 TEAM, RETIRED FROM RACE DRIVING
- 2000 ARDEN WON F3000 TEAM TITLE
- 2002 ARDEN WON FIA F3000 TEAM AND DRIVERS' CHAMPIONSHIP WITH TOMAS ENGE. (UNFORTUNATELY ENGE'S DRIVERS' TITLE WAS LATER RESCINDED)
- 2003 ARDEN WON THE FIA F3000 TEAM AND DRIVERS' CHAMPIONSHIP WITH BJÖRN WIRDHEIM
- 2004 ARDEN WON THE FIA F3000 DRIVERS' TITLE WITH VITANTONIO LIUZZI
- 2005 APPOINTED TEAM PRINCIPAL OF RED BULL RACING

YOUR PULL-OUT-AND-KEEP RB5

Tech Spec Poster!

DRIVEN TO SUCCEED

Christian Horner: "We're excited about our driving pairing. Mark's made a great recovery from his broken leg in a very short space of time and the injury had limited impact on his preparation for the season. In Sebastian, we've got one of the sport's most exciting young talents and he will be looking to build on his very impressive rookie season. Over the winter, he adapted very quickly to working with his new team."

A BLESSING OR A KERS?

Geoffrey Willis: "KERS is a big engineering challenge.

Looking at the extent of the changes to the car design required, we made the decision not to test a KERS 'mule' car at the end of the 2008 season but to test it only on the new '09 car. The high-power, high-voltage motors and batteries are new technologies to F1 and much lab testing has been needed to understand the technology and develop a safe and reliable solution. While there have been some safety concerns in early testing by a few teams, fundamentally safe operation is dependent on good design and proper procedures. F1 has learned to deal safely with a lot of potentially dangerous systems – this is just a new technology to learn to deal with. The additional challenges for KERS are to minimise the detrimental effects to chassis performance resulting from the additional weight, compromised braking stability and increased cooling requirements.

The teams will judge where and when to use KERS by balancing these chassis performance penalties with the obvious gains."

SLICK MOVES...

Geoffrey Willis: "The conversion from grooved to slick tyres of the same dimensions has led to a substantial mismatch with the front tyres too strong for the rears. However, there was some resistance to changing this since the new aerodynamic regulations had been developed around the existing tyre sizes. This leaves a big challenge for the teams to match the cars' weight distribution to suit the tyre characteristics as well as a challenge for the drivers to deal with the rear tyres 'going off' faster than the fronts. We'll only have four compounds to choose from this year and we won't have two adjacent compounds in terms of their characteristics, so we will either have compounds 1 and 3 or compounds 2 and 4 on a sliding scale of soft to hard. The new regulations have hit both downforce and aero efficiency. While the gains from the tyres will make up for this, it will be interesting to see how close to 2008 levels the teams can get."



RB5 TECH SPEC

CHASSIS: COMPOSITE MONOCOQUE STRUCTURE, DESIGNED AND BUILT IN-HOUSE, CARRYING THE RENAULT V8 ENGINE AS FULLY STRESSED MEMBER

TRANSMISSION: SEVEN-SPEED GEARBOX WHICH IS LONGITUDINALLY MOUNTED WITH HYDRAULIC SYSTEM FOR POWER SHIFT AND CLUTCH OPERATION. AP RACING CLUTCH

WHEELS: OZ RACING. **FRONT:** 12.7IN X 13IN,

REAR: 13.4IN X 13IN

TYRES: BRIDGESTONE

FRONT: ALUMINIUM ALLOY UPRIGHTS, CARBON-COMPOSITE DOUBLE WISHBONE WITH TORSION BAR SPRINGS AND ANTI-ROLL BARS, MULTIMATIC DAMPERS

REAR: ALUMINIUM ALLOY UPRIGHTS, CARBON-COMPOSITE DOUBLE WISHBONE WITH TORSION BAR SPRINGS AND ANTI-ROLL BARS, MULTIMATIC DAMPERS

BRAKES: BREMBO CALIPERS, BREMBO CARBON DISCS AND PADS

ELECTRONICS: FIA (MESL) STANDARD CONTROL UNIT

FUEL: TOTAL GROUP

KERS: RENAULT F1/MAGNETI MARELLI

RENAULT ENGINE RS27

NUMBER OF CYLINDERS: 8

CAPACITY: 2400CC

MAX RPM: 18,000RPM

NUMBER OF VALVES: 32

VEE ANGLE: 90 DEGREES

POWER OUTPUT: NOT DISCLOSED

ENGINE CONSTRUCTION: CYLINDER BLOCK

IN CAST ALUMINIUM

ENGINE MANAGEMENT: FIA (MESL) STANDARD

CONTROL UNIT TAG310B

OIL: TOTAL GROUP

WEIGHT: FIA MINIMUM WEIGHT OF 95KG

GIVES YOU WINGS: PART 1

Adrian Newey: "The rear wing is narrower and higher, the aim being to reduce its effect on a following car. It's a bit like a mushroom cloud, in that the narrower and taller you make it, the less effect it has behind it."

COOL YOUR ENGINES...

The new rules now only allow holes at the rear of the bodywork for the exhausts, which therefore reduces cooling capacity, a potential handicap given Adrian Newey's penchant for tightly packing components under the bodywork. **Adrian Newey:** "Apart from the little gap around the exhausts, all the cooling air has to come out the back of the car, which is a more difficult solution. It means you have to make the back of the car bigger, while the situation is further complicated by KERS, which increases cooling requirement by 10%." **Geoffrey Willis:** "Up until now it's always been fairly easy to modify cooling by fitting top panels with gills or having other ventilated panels. Now we can only vary cooling by changing the rear exit of the bodywork. This clearly places the emphasis on the teams getting their cooling calculations right first time. Given that the early races are usually hot, some teams may find themselves struggling to engineer their way out of an under-cooled car."

GIVES YOU WINGS: PART 2

The front wing is now adjustable by the driver (twice per lap). **Adrian Newey:** "It's oddly proportioned! It's lower and wider and to my eye looks like an indoor go-kart. The idea is that the centre of the front wing is most susceptible to disturbance and this solution makes the centre very neutral, while the tips of the wide span wing are heavily loaded with this design. The lack of appendages such as winglets, barge boards and so on causes a loss of downforce, but they don't affect the fundamental behaviour of the car. However, the behaviour will be different, because of the front wing and the diffuser, which is now moved further back and is higher. Being alongside the rear wheels, instead of in front of them, it now works in a different way."

NEXT: RB5 IN 'FORMULA OF FURY!'

