FASTEST street-leg/al cars IR ARAERICA

Mario Andretti DRIVES THE:

McLaren FI
Ferrari 550 Maranello
Ruf Porsche CTR 2
Hennessey Viper 600 GTS
Lingenfelter Corvettes
Toyota Supra Turbo by HKS



AUGUST 1998 \$3.50 Canada \$4.50 UK £2.30 http://www.roadandtrack.com AOL keyword: road To this day the Porsche-reputation for fine quality and innovative engineering comes from the white-hot crucible of competition. So, to celebrate this 50th year-of-Porsche, we went to the Sebring race circuit to sample six legendary race cars from the Porsche Museum: the 1951 Gmünd 356 SL coupe, 1959/60 RS 60, 1970 917K, 1970 908/03, 1978 935 "Moby Dick" and the 1986 Rothmans 962.
 Our driver: The articulate Brian Redman, who brings a unique perspective=from

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the driver's seat of a factory ride. The cars: Watched over by the vigilant eye of museum "Leiter" Klaus Bischof—who also happened to be one of Redman's mechanics with the factory Porsche team in 1969.

Rothmans/

Gulf



FROM FAST FROM FAST TO FUNCTION OF THE STATE OF THE STATE

BY BRIAN REDMAN PHOTOS BY JOHN LAMM

356 SL Coupe

BODYWORK OF ALUMINUM garnered from scrap airplanes fabricated by skilled craftsmen. Hand-crafted in the tiny Austrian village of Gmünd, with the mechanicals finished in Stuttgart during that extraordinarily difficult time for Porsche immediately following World War II. Powered by a modified 1100-cc Volkswagen engine giving only 44 bhp. The front and rear wheels faired-in for greater aerodynamic efficiency, great efforts made to save weight wherever possible, even to the extent of using aluminum airboxes and intake manifold. Frenchmen Auguste Veuillet and Edmond Mouche scored the first victory for an official Porsche works entry at the 1951 24 Hours of Le Mans by winning the 1100-cc class and finishing 20th overall at an average speed of 73.545mph.

Looking at the Gmünd coupe at Sebring, I don't think it appears so ancient—hard to believe that this graceful racer is almost 50 years old.

Getting into the seat, I can almost "touch" history. Plexiglass side windows, yes, also from scrap aircraft. Oil-pressure and -temperature gauges as well. I examine the narrow 5.25 x 16 tires; Klaus says, "Yes, they are old." This Gmünd coupe has the larger production engine of 1488 cc, delivering 70 bhp. She fires immediately. Easing into 1st gear, I trundle carefully off down the track, feeling the action of the swing-axle rear suspension. Everything has lots of movement, and it's a long way across the gate to select gears. A long brake-pedal travel. Gently pressing a little harder on everything reveals that the handling is not all that bad; yes, the back will swing around but it's quite controllablepossibly because we're not going very fast! The brakes? Well, the car weaves around somewhat but little more than might be expected. Acceleration? To be kind, not exactly brisk. Still, the start of a dynasty from which would spring a great succession of ever faster, ever more reliable, ever more successful racing cars.

1959/60 type 718 RS 60 Spyder

ON MARCH 15, 1954, the 5000th car left the Stuttgart-Zuffenhausen production line. Now, Porsche was firmly established as a manufacturer of high-quality, high-performance automobiles. By 1959 it had already won an outstanding reputation for performance and reliability with the 550, 550A and RSK models, including a class victory at the arduous Carrera Panamericana Mexico by Hans Herrmann, and outright victories at the Targa Florio with Umberto Maglioli and at Avus with Jean Behra.

By 1959 America was fertile ground for Porsche. Drivers Roger Penske, Bob Holbert, Ken Miles, Don Sesslar and Joe Buzzetta in the Type 718 RSK and RS 60/61 models were prolific race and class winners. Holbert would go on to win the SCCA E sports racing championship with an RS 61 in both 1961 and 1962. Americans Dan Gurney, Carroll Shelby, Masten Gregory, Joe Buzzetta and Ed Hugus would race the cars in Europe. The RSK was also the basis for the single-seat Formula 2 car that would ultimately lead Porsche to Formula 1. After winning his class at Le Mans, Jean Behra persuaded the Porsche factory to convert the 2-seater RSK into a single-seater by modifying the cockpit opening with aluminum and moving the seat and steering wheel (but not the steering box!) to the center. In two weeks, the work was done. Behra shocked the racing world, winning at Reims.

What a difference from 1951. The lovely silver 1959/60 RS 60, used as a model for the new Boxster by designer Grant Larson, sits in front of the Sebring pits. I get in. The windshield has an extra wiper—on the inside! The fuse box sits readily to hand, right on the dashboard. There's a vestigial roll hoop-driver safety not being high on the list of priorities in those days. Everything from the controls to the instrumentation is frugal, practical. The 1587-cc flat-4 engine gives an outstanding 160 bhp at 7800 rpm, running hard and easily up to today's 7500 limit. The gearshift is quick and easy. For the first time, Porsche has dropped the rear swing axle and now has regular wishbone suspension, which, with the 4-in.longer wheelbase, gives a considerable improvement in handling. The ride over the bumpy Sebring surface is excellent. Balance through the turns is good; mild understeer going in, quite easy to provoke gentle oversteer with the throttle coming out. What a lovely little car.

At the Monterey historic races in August, I'm slated to race the Collier Museum RS 61, powered by the Formula 1, 8-cylinder engine. It can't come soon enough.

1970 917K

HELL HATH NO fury like a Ford scorned and when Enzo Ferrari resolutely refused the proffered hand, Henry II vowed to hit where it hurt and ordered an unlimited-budget attack on what is arguably the world's most famous motor race—Les Vingt-





A classic design that inspired the Boxster, aluminum-bodied RS 60 Spyder was one of the first tube-frame Porsche racing cars, unlike the unit-body Gmünd 356 SL coupe that was essentially production-car derived. Brian gets a preflight briefing from Klaus Bischof. And chuckles at inside-mounted windshield wiper.



quatre Heures du Mans.

Predictably victorious in 1966 and 1967 with its powerful and reliable 7.0-liter GT40 Mk II and Mk IV, driven by the best drivers money could buy, Ford could hardly have been surprised when for 1968 the Paris-based worldwide governing body of motorsport, the Federation Internationale de l'Automobile (FIA) effectively banned the mighty machines from competition by instituting a maximum engine size of 5.0 liters for what they termed "production" race cars with a minimum run of 50 identical models. At the same time, a new prototype category was introduced with no minimum production, but with a maximum displacement of 3.0 liters.

Up to this point, the highly respected Porsche company had produced firstrate, small-engined race cars that could, with some luck, compete for overall honors. Now, it was but a small step to upgrade its 2.2-liter prototypes to 3.0 liters and be contenders for outright championship honors. To add a little mustard to the sauce, early in 1968, with no 5.0-liter "production" cars other than the venerable 5.0-liter Ford GT40 and 302-cu.-in. Chevy-engined Lola T70 in sight, the FIA announced that the minimum number required would be cut from 50 to 25, thus opening a window of opportunity completely unforeseen by this ruling body.

Expecting that it would be manufacturers like Aston Martin, Jaguar, Maserati, Ford, Chevrolet, et al, which already had 5.0-liter production engines that would take the initiative, the FIA was completely outmaneuvered when Porsche went into a massive development program and built 25 4.5-liter racing cars. Through a slow and painful gestation, one of the greatest and most successful endurance-racing cars of all time came into being: the



917. Unable to believe that any racing car builder could produce 25 identical cars, the FIA demanded that all the cars be shown for inspection at the same time. Thus, one cold day in April members of the FIA visited Stuttgart and were forced to accept that Porsche had done the seemingly impossible and fully met all their requirements.

Because of the immense work load, there was little time for testing and development. With crashes during testing and the death of the first private owner, John Woolfe, in a fiery accident on the first lap of the 1969 Le Mans race, the 917 quickly acquired a fearsome reputation.

One day in April, 1969, whilst working in the garden of my Lancashire, England, home, I received a call from Weissach to "come and test the new 917." Alarm bells rang. Why me? They had 10 would-be heroes living within a couple of hours of the factory. Promising to call back within the hour, I rang co-driver Jo "Seppi" Siffert in Switzerland. "Seppi, have you tested the 917?" A long silence—"No, no, Bri-on, we let ze uzzers find out what breaks first!" It turned out I had an important prior engagement that could not be broken.

With an unprecedented 10-driver, five-car team driving 3.0-liter Langheck (long-tail) 908/01 coupes



and short-tail open-top 908/02s, Porsche quickly clinched the 1969 championship-but still did not win the greatest prize of all, Le Mans. In the closest finish to date, Jacky Ickx, with a brilliant final session, partnered by Jackie Oliver driving the Gulf Oilsponsored, John Wyer-managed, GT40, gained the victor's laurels by 30 seconds from poor Hans Herrmann and Gérard Larrousse. Given the choice of a new untested 908 spyder with a long tail, and a 917 coupe, codriver Seppi and I drove both in practice and decided that our best chance lay with the 908. Indeed, three hours into the race we were leading-but alas, an hour later we were out with an overheated gearbox.

For 1970 it was decided that John Wyer's J.W. Automotive Engineering, backed by Gulf Oil, would run the factory-supported 917 team, Seppi and I being retained by Porsche; Pedro



If you were the competition, chances are that the taillights were all you saw of the 917K, Porsche's first overall Le Mans winner. Huge, 580-bhp flat-12 warmed the backside of driver who sat in the rather cramped cockpit.



Hillclimb car-derived 908/3 with 3.0-liter flat-8 weighed in at a mere 1200 lb. (note drilled-out footrest). Engine and gearbox were ahead of differential, driver far forward for better front grip. No wonder that it won Targa Florio outright in 1970.



Rodriguez and Leo Kinnunen by Wyer. In addition, Porsche Konstruktionen KG (Porsche Salzburg) would enter a two-car team for drivers Vic Elford, Dickie Attwood, Kurt Ahrens and veteran Hans Herrmann.

The Wyer cars quickly established themselves as the cars to beat and for Le Mans in 1970, Wyer added an additional car driven by multiple former world motorcycle champion Mike "The Bike" Hailwood and David Hobbs. Dickie Attwood and Hans Herrmann deliberately chose the lower-powered 4.5-liter engine for their Salzburg car, but after qualifying in a lowly 14th place, thought they'd made a mistake. In typical Le Mans fashion, the race started in pouring rain. Within four hours Rodriguez was out with a broken fan-drive shaft and Mike Hailwood was out after crashing into an Alfa Romeo, which had itself crashed at the Dunlop Curve. Before 7:00 p.m. no less than three of the top five Ferraris 512s were eliminated in a multi-car accident. At 2:00 a.m. Siffert and I held a tremendous 4-lap lead. Nine minutes later, right in front of the pits, Seppi missed a gear and overreved the engine. We were out. Now the Attwood/ Herrmann 917 took the lead, which it would hold to the finish. On the podium, great veteran Hans Herrmann shed tears of joy and retired from racing. Porsche had not only won Le Mans for the first of many times, but also took 2nd and 3rd places.

In 1971 the 917 entered by Martini Racing and driven by Helmut Marko and Gijs van Lennep would win, but for 1972, the FIA would change the rules yet again, restricting the engines to 3.0 liters. Porsche withdrew. Ferrari with the Formula 1-based 312 PB would become dominant.

Getting into the beautifully restored museum 917 brought a flood of memories:

My first time in the car, 1969 practice at Spa, rain falling, told to go out and practice, knees against the back of the steering wheel, helmet touching the roof, turning on the gigantic windshield wiper, which immediately flew off and into the pits, 3 slow laps....

Le Mans test, 240 down the straight. John Woolfe's co-driver Digby Martland spinning at 200 mph whilst traveling over the "hump" at the end of the Mulsanne Straight during practice. Digby drove back to the pits, got out and announced, "I have now retired from racing." Begging John to let factory test driver Herbert Linge start the race. He would not. That appalling plume of black smoke from the White House curve on the first lap....

Spa, 1970, three tires coming off their rims on three consecutive laps at over 180 mph in practice; then, the following day, winning the fastest road race ever run at an average of over 149 mph....

The cockpit is a tight fit; no rules about minimum dimensions in those days. As always, the great engine idles quietly, completely tractable with its fuel-injected, twin-plug, dual-ignition system. We ease out of the pits. Is it really 28 years since we raced the 917 here? It feels like yesterday. I quickly acclimatize to the controls; yes, it weaves under heavy braking, same as always. The synchromesh gearbox is slower than a modern racing box— Porsche always insisted that this was in the interest of street-car development. The great engine whirls and whistles, producing a mighty 620 bhp at 7800 rpm. Strong torque gives a constant, relentless thrust in the back all the way from 5000 rpm.

Very few gauges: rev counter, oil pressure, oil temperature. Lots of colored lights, and it doesn't matter what they're for—if one glows, pit. Gradually reaching the limits of adhesion, the 917 is well-balanced, a touch of understeer, nice, progressive rear-end breakaway once the rear tires lose their grip. What a car. Looking at it today, I'm reminded of what Juan Manuel Fangio II said a couple of years ago after sitting in Gerry Sutterfield's 917 at Moroso Motorsports Park. "Brian, you mean to say you actually raced these things?"

1970 908/03

NOT CONTENT TO rest on its laurels with the 917 and 908/02, Porsche produced yet another new design for 1970. Visiting Weissach for the Porsche Christmas Party in 1969, I was taken to a dark corner of the workshop and asked if I'd like to see the new 908/03. When the dust sheets were pulled off, there sat one of the neatest, smallest racing cars I'd ever seen. Based on the Type 909 Bergspyder, it had the transmission placed ahead of the final drive, thus pushing the driver farther forward. So far forward that one's feet are ahead of the front wheels. Designed by Ing. Manfred Bantle and his team only for the 170turn Nürburgring and the 900-plus-



For better balance at the Ring and at the Targa Florio with their myriad turns, driver sat in middle of the 908/03, straddling rails of its tubular aluminum chassis. Car used no add-on spoilers to achieve downforce.

turn Targa Florio, this little rocket was 20 seconds a lap faster than the 908/02, with the same 370-bhp engine, at the Ring. Amazing. Codriver Seppi Siffert and I had a great, trouble-free drive to win the 1970 Targa Florio ahead of teammates Pedro Rodriguez and Leo Kinnunen, and the Ferrari 512 of local hero Nino Vaccarella and Ignazio Giunti.

Just one year later, I heard Ing. Helmut Flegl's instructions, "Herr Redman, if you must crash, do not crash on ze right side" (where the fuel tank sat next to the driver). Twenty miles into the first lap, in spite of this sage piece of advice, I would have the most frightening accident of my career: a steering failure and hitting a concrete post right in the fuel tank. Tremendously lucky to get out, I was soaked in fuel, afire from head to foot, blinded, had no medical help for 45 minutes, was taken to the wrong hospital, and found there 12 hours later by Richard Attwood and Pedro Rodriguez. Motor racing is fun.

Twelve years ago we returned to Sicily with the subject of today's test, the Porsche museum 908/03/009 for a re-creation of the Targa Florio. Thought at first to be simply a parade around the 44-mile circuit, it turned into a flat-out blast with speed restricted only in the three villages. Hans

Herrmann and I would take the win.

Now it's 1998 and I'm reunited with the 908/03 at Sebring. Climbing carefully into this beautiful little car and quickly settling into the small but comfortable seat, I turn the key. Instantly the flat-8 fires, the cooling fan whirring, the inlet trumpets popping and banging as the motor warms. The 5-speed gearbox is unusual; 5th gear is out of the Hpattern gate to the right and forward, alongside 3rd. The reason: Because 1st gear is used frequently, whilst 5th is engaged only three times a lap at the Nürburgring and only once a lap at the Targa Florio, the chance of a missed shift, or worse, is greatly reduced. After a quick familiarization with the gauges (mostly the oil pressure), off we go.

Immediately, the car feels as comfortable as an old glove. On cold tires the handling is good, no excess understeer or oversteer. Within 2 laps we are up to speed, reveling in the crisp engine note, the surge of power. Only 370 bhp? Yes, but also only 1200 lb. The feeling of being one with the car. Like a well-trained thoroughbred horse, this 908 is ready for every change of pace, every change of direction. At the end, we perform orchestrated turns and stops for John Lamm's photography. Thinking we're out of sight of the pits, and the watchful eyes of museum chief Klaus Bischof, I deliberately throw it into a series of spin turns.

Arriving back at the pits, a sternfaced Klaus walks over: "Brian, did you spin ze car?"

"Er, yes."

"Brian, you remember, for every spin, a bottle of wine for ze mechanics!"

Right! Guess who will drive this little beauty at Meadow Brook, Monterey and Watkins Glen?

1978 935 "Moby Dick"

HISTORY REPEATS ITSELF. Today, for so-called cost reasons, the premier FIA endurance-racing championship is supposed to be based on production cars. The fact that these cars cost over a million dollars and bear little relation to their true production brothers matters little. In 1975, for the same misguided reasons, the FIA mandated a change from prototypes like the Porsche 908, Ferrari 312 PB and Alfa Romeo T33 to production-based race cars. Yes, there were some great cars; the Porsche RSR turbo, 934 and 935, all based on the 911. The Ford "Cologne" Capri and the BMW CSL. Did it save money? Of course not.

With the 934/935's cockpit-controlled turbo boost, it was a real art to extract the maximum from these engines without blowing them up. When I was first driving 935s for the Garretson Engineering-prepared Dick Bar-

A 911 at heart, long-tail fiberglass-bodied 935 was dubbed "Moby Dick" because of its whale-like appearance (and size!).



Catch us if you can.



March 15, ABC 1:30 p.m. EST Marlboro Grand Prix of Miami Presented by Toyota

March 28, ABC 2:00 p.m. EST Budweiser 500 - Motegi, Japan

April 5, ESPN 4:00 p.m. EDT Toyota Grand Prix of Long Beach

April 26, ESPN 12:30 p.m. EDT Bosch Spark Plug Grand Prix Presented by Toyota - Nazareth, PA

> May 10, ABC 3:30 p.m. EDT Rio 400 - Rio De Janeiro, Brazil

Motorola 300 - Madison, IL

Miller Lite 200 - West Allis, WI

ITT Automotive Detroit Grand Prix

June 21, ESPN 5:00 p.m. EDT Budweiser/G.I. Joe's 200 Presented by Texaco/Havoline - Portland, OR

July 12, ABC 12:30 p.m. EDT Medic Drug Grand Prix of Cleveland

> July 19, ABC 3:00 p.m. EDT Molson Indy Toronto

July 26, ABC 1:00 p.m. EDT U.S. 500 Presented by Toyota Brooklyn, MI

August 9, ABC 4:00 p.m. EDT Miller Lite 200 - Lexington, OH

August 16, ESPN 3:30 p.m. EDT Texaco/Havoline 200 - Elkhart Lake, WI

September 6, ESPN 5:00 p.m. EDT Molson Indy Vancouver

September 13, ESPN 3:00 p.m. EDT Grand Prix of Monterey Featuring the Texaco/Havoline 300

October 4, ABC 4:00 p.m. EDT Texaco Grand Prix of Houston

October 18, ESPN 8:00 p.m. EDT IndyCarnival - Gold Coast, Queensland, Australia

November 1, ESPN 8:00 p.m. EST Marlboro 500 Presented by Toyota Fontana, CA

(Broadcasts subject to change)





one race in the prestigious International Motor Sports Association championship. Because of this unprecedented success, in 1980 John Bishop, president of IMSA, wrote new rules, which favored racing prototypes with no minimum production number. Although initially beaten by Lola-Chevrolets, Porsche soon came back with the 962-and once again dominated.

Redman and Bischof: discussing allowable

935's boost knob, shifter and anti-roll adjuster used special mount. Factory's one-of-a-kind

bour team in 1978, Dick said to me,

"Brian, whatever you do, don't touch

the boost." After qualifying slower than

I should have a couple of times, I de-

boost? With no real platform beneath them,

bodywork inspired 935 copycats.

But back to our 935. Designed by Norbert Singer especially for Le Mans and the long Mulsanne Straight, where it reached 227.5 mph, the extraordinary "Moby Dick" 935 with its tube-frame, water-cooled cylinder heads and special Langheck body finished in Martini colors is quite a sight. Built to production rules that predicated the original silhouette be maintained, it is extraordinary to see the rear windshield in place



with the new roofline and new rear windshield over it.

As I start the engine, Klaus Bischof walks over: "Brian, the tires are very old, and the differential is locked." Knowing that this will make the car push, I approach the last turn before the pits at a very moderate speed indeed-and immediately go into one of the biggest understeer conditions I've ever experienced. On absolutely full-right lock, the front tires squealing in distress, I go straight on, missing the solid bank by a margin too close for comfort. Handling? What handling? With over 750 bhp on tap from the 3.2-liter engine, there is noticeable throttle lag; then when the boost kicks in-you'd better be sure that the car is more or less in a straight line. Great fun.

When discussing with Bischof which cars the ex-factory drivers at the three supported race meetings would drive, I suggest this would be an excellent car for George Follmer.

Sorry, George.





1986 962

NEW FIA REGULATIONS for 1982—you guessed it—that banned production-based cars brought a further series of magnificent Porsche prototypes to the racetracks of the world. For the first time Porsche produced an aluminum monocoque chassis. Also for the first time, Porsche employed the technology known as "ground effects," in which the air going under the car is used to produce downforce. Porsche would finish 1-2-3 at Le Mans in 1982 and win the much coveted World Manufacturers Championship in 1982-83-84-85.

The 956 carried out Porsche design philosophy regarding correct weight distribution for maximum performance. As in the 908/03, the driver sat a long way forward. In America, with its litigious society, IMSA racing rules specified that the driver's feet must be behind a line drawn through the center of the front wheels. Therefore, the 956 could not race here. So, at the instigation of U.S. director of motorsport Al Holbert, Porsche produced a modified version known as the 962 that ultimately superseded the 956. This model would carry Porsche to yet another outstanding series of race wins and three IMSA championships, mainly in the hands of Holbert himself, co-driving with Britain's Derek Bell. It would be produced in vast numbers, more than 100, and different manufacturers would build their own versions. This would include chassis constructed by Holbert himself and by Jim Chapman in California for Holbert, which would carry the "HR" (Holbert Racing) suffix, officially recognized by the Porsche factory. Today, the 962 is one of the most sought-after cars in vintage-racing circles.

Climbing into this 1987 Le Mans winner (Hans Stuck/Bell/Holbert) isn't too easy, but once installed in the comfortably padded driver's seat, you discover it's all action. Gauges, lights and switches are everywhere. Lights indicate problems with fan belt, fuel, alternator and oil pressure. Thankfully, there are just three gauges: a large rev counter sits in the center; to the left, oil temperature; to the right, oil pressure. Mandated by FIA law, there is more room than in the 917. I get into a long and complex discussion with Klaus about the fuel-reserve system. Not surprising that it ran out of fuel in 1983 and the driver didn't know how to work the reserve!

As usual, the 2.6-liter, 6-cylinder turbocharged engine with watercooled twincam cylinder heads starts at the turn of the key and idles quietly at 1250 rpm. There's a lock-out on 1st gear to prevent accidental engagement. To engage 1st, you must have come from 2nd, so sliding the lever to the left and forward engages 2nd, and a pull back with pressure to the left and you're in 1st. It's not necessary, or desirable, to rev the engine much, for you can idle away almost as in a street car, a great tribute to modern ignition and fuel injection technology. Again, with the great advances in shock-absorber design, the 962 rides easily and comfortably over the Sebring bumps. The engine, subdued by the turbocharger, whistles quietly away.

Give it full throttle and hold tight. Six hundred twenty bhp and less than 2000-lb. weight equal tremendous, relentless acceleration. You're at 190 mph, the final turn before the pits comes up, you stand on the brakes, and the phenomenal braking capability, aided by ground effects, creates enormous stopping power, almost forcing the breath from your body. Select 3rd gear, back on the power, first of all gently, and then hard for the final part of the turn. Not a slip or a slide, just stuck to the road like hair to your head. Wonderful.