1982 IMPORT CAR PREVIEW

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MOTOR TREND

Full Test:
DE LOREAN vs.
FERRARI • PORSCHE • MASERATI • 'VETTE

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BUICK CENTURY: *3-Liter Luxo-Sedan*
A: *The New Front-Drive 510*
GON: *All-Purpose Turbocar*

De Lorean Versus The Great Names

John Z's baby squares off against the GT Establishment

by Tony Swan

PHOTOGRAPHY BY RON HUSSEY

ROAD TEST

We lit them off and rolled at dawn. Well, actually it wasn't really dawn anymore, because we had to hit the car wash. Can't have you guys looking at dirty exotics, right? So 10 o'clock then. Wait a minute, where's the Corvette? At the *airport?* Okay, make that 10:30.

Naturally, there was confusion about the route. But by noon we were all well clear of the visible atmosphere of Los Angeles, standing at a country crossroads talking cars, etc. Well, actually three of us were standing at a country crossroads talking cars, etc. This trio consisted of the drivers of the Maserati Merak, Ferrari Mondial, and Porsche 928. But we knew the other two guys would be along any minute, right? Sure.

And they were. The yellow Corvette popped out of the orange groves. Both seats were occupied. Uh-oh. Where's the subject of the test?

Turned out that Dianna and Smith were able to bump start it the first time it quit, back in L.A. Thanks for the muscle, Kevin. It tried to stall a couple more times going over Sepulveda Pass, but Dianna managed to nurse it as far as the San Fernando Valley before it retired without further comment. The De Lorean folks were already en route, so we motored back to the stricken car to await the impending rescue.

By this time, we'd already accumulated a substantial list of gleeful little bitchings about each of these high-priced stallions. The Ferrari had somehow dropped the up-

per hinge pin from its driver's side door. Its oil warning light tended to activate itself from time to time for no reason. Its door handles rattled—a design flaw—and its left-hand remote mirror didn't remote any more. The Corvette's warning flashers, once ignited, seemed to be intent on perpetuity. Smith had to get tough with them. The Maserati, a much-traveled test unit that has known many harsh hands, had extremely reluctant 1st- and 2nd-gear synchros and was slewing to the right under hard braking. And the 928's brakes seemed to be taking a bit of a bite without invitation. Sticking is the scientific term. The Porsche also exhibited a strange—to us—tendency toward surge at low-speed steady throttle. And the inside rearview mirror seemed to buzz at virtually all operating speeds.

So you see, all the cars were steeped in some sort of sin. But the De Lorean's sin was the Original and Unforgivable. It wasn't running.

The De Lorean guys arrived, and it developed that the sin wasn't quite so unforgivable. The alternator was shot. They set out to change it there on the spot, and we passed a bit of time pondering the precise ambient temperature of stainless steel under a hot sun. Smith, who had become something of an expert in moving De Loreans by hand that morning, estimated this temperature to be 179°F, noting that this figure increases by at least 20° when you're pushing.

> All things considered, the De Lorean performed reasonably well against this backdrop of all-stars.

It quickly became apparent that our exotic entourage—which at that point included two De Loreans with wings rampant—was attracting too much attention. A couple of drivers actually pulled off onto the shoulder to ask questions about the cars. Not good. We decided to move the still-mobile members of the group to the next off-ramp, and four drivers prepared to move out. Naturally, the Highway Patrol arrived at this precise moment. The cars were creating a hazard, they said. A "non-emergency stop on the freeway," they said. Actually, the Young Guy said all that. He was filled with righteous zeal about the hazards of the situation, and thus prolonged said hazards by some 45 minutes as the afternoon commute traffic thickened rapidly.

A bike cop came up and said, "Why don't you just let them go so they can get out of here?"

The Young Guy said, "Nope, I'm gonna write 'em all."

Actually, we weren't even on the freeway. It was the shoulder of an on-ramp. He wrote 'em all.

These were hardly what you'd call auspicious beginnings to the Great De Lorean GT Value Lux-Out, but once the officer

had finished acting on behalf of The People of California, the rest of the trip went very well indeed. Although the De Lorean was to disgrace itself again a few days later back in L.A., it performed well enough during the rest of an intensive two-day wring-out. And to be fair, a couple of the other contenders in this pricey roundup experienced some sort of debilitating mechanical problem during the course of their stay at *MT*. The Porsche's starter motor went away, the Corvette ate an alternator belt, and the Ferrari began showing zero oil pressure in hard cornering situations. Which just goes to show that expense is no defense against things going snap, crackle, and pop in the night.

DE LOREAN

It agonized through such a long gestation that many feared the De Lorean might already be obsolete before reaching the marketplace. The stainless-skinned shape, though low enough to be distinctive, did lose some impact through all its pre-introduction exposure. And its squared edges and high nose are about half a generation back of the latest aerodynamic thinking.

Similarly, no one has chosen a rear-engine layout for a performance car in over a decade. De Lorean has sought to offset the presence of that great bob-weight hanging out behind the tail with sticky Goodyear NCT radials and supple independent suspension (wishbones and coils all around). The 4-wheel-discs are faithful stoppers, and unassisted rack-and-pinion steering gives both quickness and light effort thanks to the lightly weighted front end. The engine is the Peugeot-Renault-Volvo 2.8 liter OHC V-6, with electronic fuel injection, delivering power through a Renault 5-speed transaxle.

This car is a curiosity, a status symbol, as demonstrated by prices pushed far beyond the factory's suggested $25,000. Whatever the car does or doesn't do on the road, it must be considered an initial marketing success.

SPECIFICATIONS

GENERAL	
Vehicle type	Front-engine, rear-drive 2+2 coupe
Price as tested	$42,940
ENGINE	
Type	4,474cc SOHC V-8
Compression ratio	9.0:1
Fuel system	K-Jetronic injection
Horsepower (SAE net)	220 at 5,250 rpm
Torque (lb.-ft., SAE net)	254 at 3,600 rpm
Power-to-weight ratio	15.2 lb./hp
DRIVETRAIN	
Transmission	5-speed manual
Final drive ratio	2.75:1
DIMENSIONS	
Wheelbase	98.4 in.
Track, F/R	61.1/60.2 in.
Length	175.1 in.
Width	72.3 in.
Height	51.7 in.
Curb weight	3,351 lb.
Weight distribution, F/R	50/50%
Fuel capacity	22.7 gals.
SUSPENSION	
Front	Independent, upper A-arms, lower trailing arms, coil springs, anti-roll bar
Rear	Independent, upper A-arms, lower trailing arms, coil springs, anti-roll bar
STEERING	
Type	Rack and pinion, power assist
Turns lock-to-lock	3.1
Turning circle, curb-to-curb	31.5 ft.
BRAKES	
Front	11.1-in. discs, power assist
Rear	11.4-in. discs, power assist
WHEELS AND TIRES	
Wheels	7 x 16 cast alloy
Tires	225/50VR16 Pirelli P7

The Field

We'd been waiting quite some time for a De Lorean to come our way. Regular readers will remember our preview (May '81) and Northern Ireland driving impressions (June), which we expected to follow up with a full road test long before now. A couple of times it seemed that this was indeed about to happen, and on each occasion we assembled a small fleet of comparo cars. But each time the De Lorean failed, for one reason or another, to materialize. This was long after De Loreans had begun to appear at dealerships, and we were also aware that not one of our European colleagues had been able to secure a test drive on that side of the pond. So just when we'd begun to think the De Lorean Motor Company didn't really care to have its product subjected to critical scrutiny—it took the threat of borrowing a car from a dealer to produce action—a test car suddenly became available.

We scrambled to get together a field of interesting cars that would provide a comprehensive and meaningful contrast with John Z's stainless steel batmobile.

To give you some perspective on our approach to this comparo, let us say we didn't feel at all bound to limit the field strictly to sports cars. *Au contraire*. Our experiences in Ulster had convinced us the De Lorean concept was much more luxury GT than lean and mean sports car. This led us to pick the front-engined Porsche 928 over the rear-engined 911SC, even though the 911SC appears in a lot of De Lorean's early promotional literature.

The Corvette was a natural. From the beginning, it's been John Z's primary target car, and while the price of the De Lorean has soared well past that of the 'Vette, the 'Vette market is one John Z understands chapter and verse. And as far as that goes, the positioning of this new car in the market really doesn't have all that much to do with questions of acceleration, braking, and lateral g. The critical quality for De Lorean at this stage is image.

Image, of course, is precisely what so many of these Great Names have accumulated. Which made it clear that we'd be seriously deficient without a Ferrari in the test mix. After all, automotive image was invented at Ferrari, at least as far as true

Ferraristi are concerned. We would have preferred a 308 GT, but we happened to have a Mondial in the house, having just completed a cross-country test (November), and in truth, this new mid-engined 2+2 Grand Tourer from Maranello is a bit closer to the De Lorean in performance than the sports car.

The Maserati that rounded out our fleet of exotics was graciously supplied by Kjell Qvale of the Maserati Import Company in Compton, California. Although the mid-engined Merak, smaller brother of the now extinct Bora, has reached the end of its nine-year production run, we felt it merited inclusion because it was (a) unquestionably a great name, (b) relatively close to the De Lorean in terms of horsepower, and (c) available.

As you might expect, availability wound up playing an important role. We thought a Jaguar XJS would lend an interesting dimension to the field, but there simply wasn't one to be had on such short notice. And while there was a BMW 633CSi tester in our locale, it had unfortunately suffered a heavy brush with the scenery about a week earlier and was unfit for further combat until new parts arrived. We dismissed the Datsun 280ZX Turbo because of its automatic transmission (patience, power-shifters; the 5-speed will be here in January) and because it doesn't really seem to be in step with the kind of exclusivity offered by most of the other Great Names represented, the turbo Z's blazing performance notwithstanding.

De Lorean in Review

Previous reports in these pages have detailed the small miracle wrought by John Zachary De Lorean in his ongoing attempt to immortalize himself in stainless sheet metal, so we'll confine ourselves here to the briefest of reviews.

The De Lorean Motor Company traces its history to 1974, when John Z began raising money to build a revolutionary sports car to rival the Corvette. De Lorean's remarkable record of achievement during 16 years at General Motors, his impressive presence, and some $4 million of his own bucks helped him raise $200 million in venture capital, most of it ($170 million-plus) from the British government. Although Parliament is only too familiar with the vicissitudes of automobile manufacture, thanks to its stewardship of perpetually perishing BL, the need to create employment in Northern Ireland overrode questions concerning the long-term viability of the De Lorean proposal. So it was that a brand-new factory sprouted at Dunmurry, on the outskirts of Belfast, reaching production readiness in just over two years.

The car that is the lynchpin of this unlikely series of events is far from being the revolutionary machine originally envisioned by John Z and then chief engineer Bill Collins, another GM renegade. Instead of being the first passenger car in history to employ a plastic frame (the original plan

FERRARI MONDIAL

Perhaps no name in the history of driving enthusiasm has aroused passions the way Ferrari has. The cars from Maranello haven't had to be extremely fast (though many have been) nor the best looking (though many have been) nor wildly expensive (though many have been) to become some of the most desired objects in the automotive universe. And the brilliant tradition of racing heritage, craftsmanship and sheer prestige will not tarnish as a result of the latest prancing horse.

This is a Pininfarina-styled 2+2 member of the 308 family, replacing the Bertone-drawn 308 GT4. The mid-mounted 4-cam V-8 and 5-speed transaxle are lifted intact from the current 308 GTB and GTS. With K-Jetronic injection and electronic ignition added last year, the latest 308 cars display an agreeable and dependable nature that makes them clearly the most usable Ferraris ever.

The Mondial continues the Ferrari practice of mounting steel and aluminum body panels on a tubular frame. The requisite chassis credentials—independent suspension, disc brakes, rack-and-pinion steering—give this more capacious Ferrari all the road manners its lineage promises.

SPECIFICATIONS

GENERAL

Vehicle type	Mid-engine, rear-drive 2+2 coupe
Price as tested	$70,000 (approx.)

ENGINE

Type	2,926cc DOHC V-8
Compression ratio	8.8:1
Fuel system	K-Jetronic injection
Horsepower (SAE net)	205 at 6,600 rpm
Torque (lb.-ft., SAE net)	181 at 5,000 rpm
Power-to-weight ratio	17.1 lb./hp

DRIVETRAIN

Transmission	5-speed manual
Final drive ratio	4.06:1

DIMENSIONS

Wheelbase	104.3 in.
Track, F/R	58.9/59.7 in.
Length	180.3 in.
Width	70.5 in.
Height	49.6 in.
Curb weight	3,500 lb.
Weight distribution, F/R	44/56%
Fuel capacity	22.2 gals.

SUSPENSION

Front	Independent, upper and lower A-arms, coil springs, anti-roll bar
Rear	Independent, upper and lower A-arms, coil springs, anti-roll bar

STEERING

Type	Rack and pinion
Turns lock-to-lock	3.4
Turning circle, curb-to-curb	39.4 ft.

BRAKES

Front	11.1-in. discs, power assist
Rear	11.7-in. discs, power assist

WHEELS AND TIRES

Wheels	180 x 390 (mm) cast alloy
Tires	240/55VR390 Michelin TRX

	DE LOREAN	CHEVROLET CORVETTE	FERRARI MONDIAL	MASERATI MERAK	PORSCHE 928
Acceleration					
0-60 mph	9.98 secs.	8.25 secs.	8.20 secs.	9.39 secs.	7.38 secs.
Quarter-mile	17.61 secs. @77.40 mph	16.52 secs. @83.80 mph	16.29 secs. @84.50 mph	16.91 secs. @83.80 mph	15.77 secs. @85.80 mph
Braking					
30-0 mph	35 ft.	39 ft.	39 ft.	38 ft.	32 ft.
60-0 mph	144 ft.	147 ft.	164 ft.	167 ft.	142 ft.
MPG					
MT 73-mile loop	26.8 mpg	19.3 mpg	17.1 mpg	19.1 mpg	20.6 mpg

MASERATI MERAK

Maserati's U.S. presence was a bit spotty for a while. Like many small-volume specialty makers, the company felt the pinch of Washington's regulations and the slack world economy. But Maserati Import Company now has a steady-looking operation moving Quattroportes and anticipating the arrival of the new, smaller 2-door. Production of the mid-engined 2+2 Merak has, sad to say, wound down, but this remains an impressive car.

Conceived in 1972 as a lower-priced version of the V-8 Bora, the Merak grew out of the then-recent linkup between Maserati and Citroen. A 3-liter version of the V-6 Maserati supplied for the Citroen SM, together with that car's 5-speed transaxle, went into a mildly simplified Bora body/chassis.

A peaky 180-hp engine will never get 3,200 lbs. into motion with great gusto. But once spinning over 3,000 rpm, the 4-cam six wakes up and goes to work. The beautifully balanced and responsive chassis makes the car a delight to drive quickly, while the nicely-finished cockpit and racy driving position provide a wonderful vantage point for enjoying the ride. And the sound of that engine at 6,000 rpm will surely bring out the Latin in anyone's spirit.

SPECIFICATIONS

GENERAL

Vehicle type	Mid-engine, rear-drive 2+2 coupe
Price as tested	$41,000

ENGINE

Type	2,965cc DOHC V-6
Compression ratio	8.5:1
Fuel system	3 2-bbl. carburetors
Horsepower (SAE net)	180 at 6,000 rpm
Torque (lb.-ft., SAE net)	185 at 3,000 rpm
Power-to-weight ratio	17.8 lb./hp

DRIVETRAIN

Transmission	5-speed manual
Final drive ratio	4.37:1

DIMENSIONS

Wheelbase	102.3 in.
Track, F/R	58.0/58.0 in.
Length	170.0 in.
Width	69.6 in.
Height	44.6 in.
Curb weight	3,200 lb.
Weight distribution, F/R	47/53%
Fuel capacity	22.4 gals.

SUSPENSION

Front	Independent, upper and lower A-arms, coil springs, anti-roll bar
Rear	Independent, upper and lower A-arms, coil springs, anti-roll bar

STEERING

Type	Rack and pinion
Turns lock-to-lock	3.0
Turning circle, curb-to-curb	34.3 ft.

BRAKES

Front	11.0-in. discs, power assist
Rear	11.8-in. discs, power assist

WHEELS AND TIRES

Wheels	7.5 x 15 cast alloy
Tires front	185/70VR15 Michelin XWX
rear	205/70VR15 Michelin XWX

called for extensive use of Elastic Reservoir Molding), the De Lorean uses a massive backbone chassis with a fiberglass/plastic sub-body supporting the stainless steel skin. The plastic chassis concept disappeared when Colin Chapman and his Lotus design staff were called in to consult on the project, whereupon they promptly argued, quite reasonably, that John Z was biting off quite enough without getting into real technological pioneering. Which is why the De Lorean chassis looks very familiar to Lotus *cognoscenti;* it shares many commonalities with the Lotus Esprit.

In the end, John Z's list of non-negotiable design elements shrank to four items. The car must have gullwing doors. The car must have stainless steel body panels, one of the corrosion-resistance tenets of De Lorean's original "ethical car" concept. The car must employ some sort of synthetic sub-body structure, a point that was part ethical car and part reduced manufacturing cost. And the car must be rear-engined, which was critical to the preservation of the exterior design.

For all the adjustments that have been made to the car, it still looks very much like the original clay produced by Giorgetto Giugiaro's Ital Design studios in 1975. And while this shape may no longer be on the cutting edge of contemporary design philosophy, it nevertheless continues to be unique. Of the various product attributes important to a car in the high-profile market, unique is probably worth any other five put together.

Lux-Out Value Vote-Off

Perceived Dollar Value

PORSCHE 928	23
DE LOREAN	19
MASERATI MERAK	13
CHEVROLET CORVETTE	12
FERRARI MONDIAL	8

Points awarded on a basis of 5 for first place, 4 for second, etc.

The Lux-Out Ballot Breakdown

	DE LOREAN	CHEVROLET CORVETTE	FERRARI MONDIAL	MASERATI MERAK	PORSCHE 928
Quality	16	6	19	9	25*
Styling	13	8	20	24*	10
Comfort	14	6	18	12	25*
Ride	15	7	17	11	25*
Handling	11	5	21*	17	21*
Engine response	10	14	18	10	24*
Total Points	79	46	113	83	130

*Points awarded on a basis of 5 for first place, 4 for second, etc. *Indicates category winner.*

The *MT* De Loreans

There were two of them, the second a substitute for the first, which came to unscheduled halt No. 2 in the middle of our 73-mile mpg test loop. The problem on this occasion was said to be nothing more serious than a fuel line that had come partially adrift at the pump. De Lorean No. 2 didn't exhibit the high state of finish of its predecessor, but both cars were almost totally free of the numerous fit and finish flaws that plagued the early production cars we sampled last spring in Ulster. Where those early numbers had interior pieces literally falling off them, both these cars were tight and exuded a gratifying sense of cozy, understated luxury. This contrast between the early Ulstercars and our own U.S. test units applies in particular to the doors. They're sexy and they're the styling element that makes this car command a healthy price, but they were also the biggest headache in the car's production genesis. When we visited Ulster, the factory had not yet installed its hard tooling for the doors. As a result, they were being laboriously hand-installed, and none too well. However, aside from door locks that must have been designed for use in the Kingdom of Balk, and a lot of unsightly black calking compound around the inset windows on De Lorean No. 2, the doors on our U.S. test cars operated smoothly, fit perfectly and pulled to with a very satisfying thunk. The big difference, we under-

CHEVROLET CORVETTE

The long-heralded 1983 Corvette arrives in a year, to choruses of "it's about time" from enthusiasts. The current model has been little changed since its 1968 debut, and was technologically dated under its fiberglass even then. But a car of the Corvette's volume draws low priority at megalithic GM, particularly when the bread-and-butter cars need re-engineering.

It's not too hard to like this American phenomenon. Sure, the 'glass-body-on-ladder-frame construction is uninspired in conception and imperfect in execution, and the 350cid V-8 has lost much of its bite to emissions and fuel consumption regulations. But it still gets recognized like few cars on the road, and that (now) big-bore motor pulls it off the line with good resolve.

Heavily optioned (sound system, air conditioning and the rest), the 'Vette is a pleasant place to spend time, though it becomes decidedly less so when pushed hard over mountain roads. Vague power steering and generous chassis flex let the car hunt and dart. Fortunately, the big vented discs and wide Eagle GTs help keep things under control.

The '83 car will have modern lines, plus the plastic single-leaf rear spring and fuel injection that have crept into the package recently.

SPECIFICATIONS

GENERAL

Vehicle type	Front-engine, rear-drive 2-pass. coupe
Price as tested	$18,671

ENGINE

Type	5,736cc OHV V-8
Compression ratio	8.2:1
Fuel system	4-bbl. carburetor
Horsepower (SAE net)	190 at 4,200 rpm
Torque (lb.-ft., SAE net)	280 at 1,600 rpm
Power-to-weight ratio	17.4 lb./hp

DRIVETRAIN

Transmission	4-speed manual
Final drive ratio	2.72:1

DIMENSIONS

Wheelbase	98.0 in.
Track, F/R	58.7/59.5 in.
Length	185.3 in.
Width	69.0 in.
Height	48.1 in.
Curb weight	3,307 lb.
Weight distribution, F/R	48/52%
Fuel capacity	24.0 gals.

SUSPENSION

Front	Independent, upper and lower A-arms, coil springs, anti-roll bar
Rear	Independent, lower A-arms, halfshafts as upper arms, trailing arms, transverse leaf spring

STEERING

Type	Recirculating ball, power assist
Turns lock-to-lock	2.6
Turning circle, curb-to-curb	40.4 ft.

BRAKES

Front	11.75-in. discs, power assist
Rear	11.75-in. discs, power assist

WHEELS AND TIRES

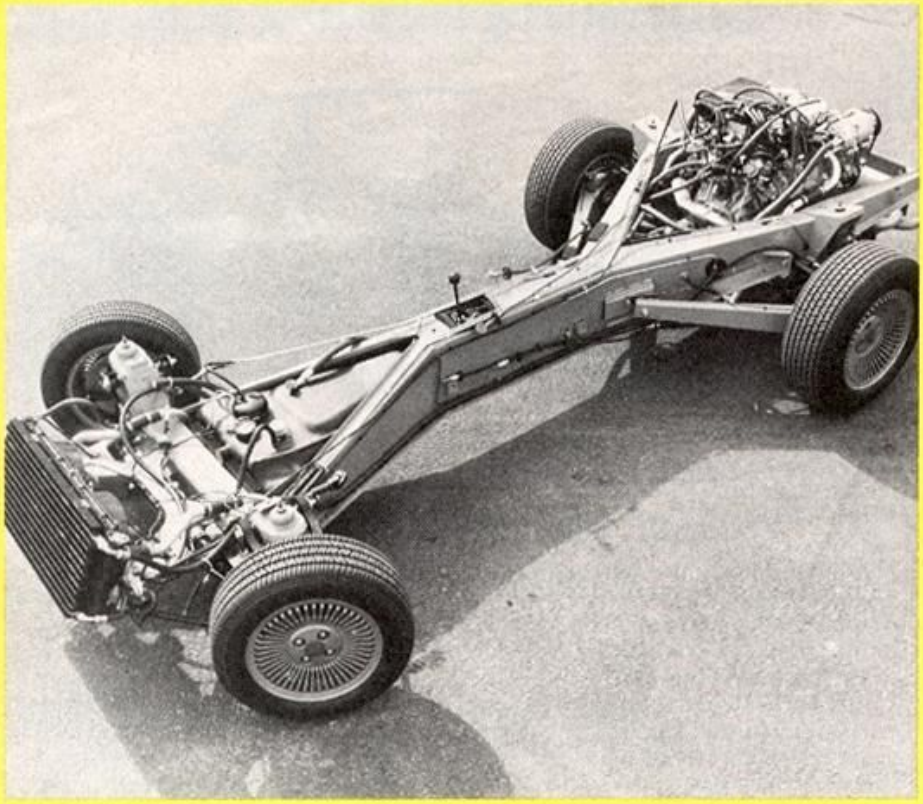
Wheels	8 x 15 cast alloy
Tires	P255/60R15 Goodyear Eagle GT

stand, is a new centering device that keeps the clasp mechanism from rattling around during the moment of truth, a device reportedly dreamed up by De Lorean West Coast Manager Dick Brown.

Satisfying is a word that also applies to being inside a De Lorean. The handsome black leather interior (also available in gray) is perhaps the most appealing feature of the car—after the gullwing doors, of course. With the exception of the adjustment for the steering wheel rake, all controls are within easy reach and are well marked. Instrumentation is comprehensive and legible, although a couple of drivers complained that the top of the leather-wrapped steering wheel interfered with their view of the instrument panel.

The leather-clad seats are thoroughly comfortable. They don't hug the driver like the Porsche's leather Recaros, but there isn't much chance for the De Lorean driver to bounce around when the g-loads begin coming at odd angles, since the seats nestle down below the car's backbone and door sills. Leg room is as good as that of any car in the test, although a dead-pedal rest for the left foot would be a welcome addition. Location of the control pedals is good, and even though the heel-and-toe relationship of the throttle and brake is awkward, we suspect not many of this car's buyers will complain. After all, how much heeling and toeing does it take to get down Rodeo Drive?

Two operational complaints about the De Lorean's command center. First, the car's gearshift location, atop the backbone, is an awkward reach, poorest of the five cars we tested. Second, and more serious, is the driver's sightlines. They're limited straight ahead by his inability to see the sharply sloping nose, depriving him of a reference point in negotiating traffic and/or curves. In the front quarters, the sightlines are restricted by the massive front pillars, which cut into peripheral vision. At the sides, the frames of the inset windows



X Marks the Limiting Factor

Technical impressions of the De Lorean chassis

With its gullwing doors and stainless steel body panels, the De Lorean is nothing if not visible. But from the point of view of the handling engineer, the car's most significant feature is its backbone chassis—a design that was chosen for its compatibility with the original exterior lines, and one which places a number of arbitrary limits on the De Lorean as a road machine.

Basically, the De Lorean qualifies as an X chassis design. Viewed from the top, the frame forms an X, with a longitudinal section added at the center. Since this places all the chassis down the center of the passenger compartment, the occupants can be situated quite low, on each side of the backbone, with consequent benefits to center of gravity.

At the front, the suspension is attached to the points of the X, with the gas tank snuggled into the crotch of the forward V—all positive touches. But at the rear, because the engine is too wide to fit into the aft V, it is mounted *behind* the axle, with the transmission positioned ahead of the axle. This engine location gives the car its most undesirable characteristics: a high rear-bias weight distribution (35/65), and a very high polar moment of inertia. The designers' concern for this significant weight bias is evident in the choice of tires and wheels—14x6 on the front and 15x8 at the rear. This represents an attempt to reduce the rear tire slip angle and promote understeer.

To illustrate the effect of polar moment, visualize a long barbell and a short dumbell lying side by side on the floor. If you try to rotate them about their vertical axes, the barbell will be much harder to spin, even if both weigh the same. Conversely, once in motion, the barbell would be more difficult to stop.

Although simplified, this same principle applies to the vehicle in motion. Inertia tends to keep it moving straight ahead, and any force—side wind, steering input, cornering loads—that tries to rotate it about its vertical axis must overcome this inertia. Thus, a vehicle with high polar moment of inertia is difficult to rotate or deviate from a straight line, but once it *is* rotating it is extremely difficult to stop.

One other engineering problem with the De Lorean is the rear axle locating system. The trailing links angle toward the centerline of the chassis and allow the wheels to change toe-in (or toe-out) as a function of body roll. This causes the rear wheels to steer their end of the car during the transition from straight line to cornering, a handling trait that is something less than endearing.

Relating this to the real world, you find that, at a constant speed, on a constant-radius corner, the De Lorean is a picture of stability, exhibiting just the right amount of understeer. However, alter either the vehicle speed or the radius of the turn, and the car becomes extremely twitchy, requiring constant steering corrections to maintain the desired line. This is directly related to high polar moment and the roll steer effect of the rear suspension. The effect is also conspicuous entering corners at a high rate of speed, because the car must change from its steady-state condition to its cornering attitude, bringing both roll steer and high polar moment into play.

Understand that these effects become pronounced only at speeds in excess of what the National Highway Traffic Safety Administration regards as normal; in most situations the car is very predictable and stable. But as speeds increase, stability diminishes, particularly in contrast to

intrude on the picture. In the rear quarters, the blind spots are bigger than average and qualify as troublesome even in a fleet of cars that has more blind spots than a mother's love. The mailbox-slot rear window offers vision that would be favorably comparable to the similarly restricted Ferrari and Maserati, if it weren't for the louvers, but these create additional interference.

However, aside from the reservation about outward vision, the De Lorean's cockpit is a thoroughly pleasant place to be, particularly in night running, when the various multi-hued dash lights contribute to the sense of interplanetary scoutcraft intimacy. Surprisingly little noise filters forward from the engine bay, and while the plastic sub-body seems to resonate road noise in a way the other cars don't, the car is quiet. Considered as something to snuggle into for a cross-country trip, the De Lorean compares very favorably with its exotic adversaries.

You'll notice that we've all scored the cars for styling, as distinct from design. Obviously, this is purely subjective stuff—which shape produces the most glandular activity in the beholder. While the Merak found a place in most of our hearts on this score, the De Lorean certainly has its points and was No. 1 with passers-by. We do feel the car would look better if it sat a couple inches lower, and that it would probably benefit from the addition of paint, an adjustment the De Lorean people expect many owners to make once the charm of the stainless steel body has become boring or tarnished or both. It is a fact that stainless steel will stain—John Z's preoccupation with it has more to do with its corrosion resistance than its startling beauty—and it also acquires a visible reminder of every hand laid on it. This means you can't close the doors without leaving your mark, which is irritating.

Irritating also applies to the gas filler ar-

Text continued on page 99.
More De Loreans on overleaf.

the Ferrari and Maserati. With their race-bred unequal length A-arm suspensions (no roll steer) and central engine location (lower polar moment), these two Italian thoroughbreds are very stable into and through corners at high speeds. They are nicely balanced with predictable understeer, and throttle oversteer is available if needed. During part of the test we were able to drive the cars in a controlled environment through corners in the range of 100 to 125 mph. The Ferrari, Maserati, and Porsche could be driven right through these sweepers at speeds limited only by the ability of the driver. But the De Lorean's speed was restricted by its inherent high-speed cornering limitations—and the drivers' white knuckles.

The Porsche was the best of the lot, for my money, in terms of absolute cornering force and stability, and is an excellent example of racing technology improving the product line.

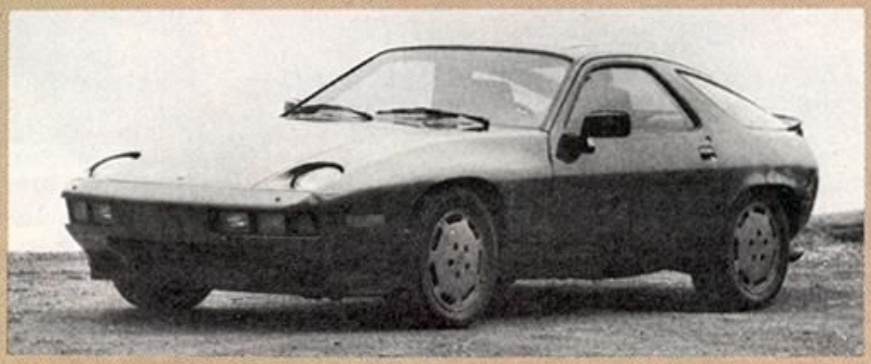
The De Lorean did have its strong points, particularly braking, which was very linear and fade-free, with no pulling, squealing, or lockup. The braking stability and exceptionally high braking force are due in part to the excellent tires and the higher rear axle weight allowing higher braking power at the rear.

Another section of our test involved high gear full throttle for extended periods. Neither the De Lorean nor the Ferrari were able to pull redline in top gear, indicating a need for a lower (numerically higher) final drive. Standard gearing is 3:44:1, but a 3.60:1 would help considerably in acceleration and top speed without detracting from real-world fuel efficiency.

Basically, the De Lorean is a likeable car, even though I think it misses the mark in a couple of engineering areas. It is an admirable 2-seat performance machine for people who like to travel by car, and I think its faults will be important only to a very few of its potential customers. Most people will find it an attractive, exciting, desirable piece with which to cruise the Beverly Hills Grand Prix—at a stately six-tenths.

—Ron Grable

PORSCHE 928



Old-line Porschephiles cold-shoulder it and econopaths from the diminished-expectations school abhor it. But Porsche's flagship 928 awes anyone with a taste for ultimate engineering.

Introduced in late 1977, the 928 (with the more humble 924) was Porsche's way of leaping straight into the future of performance automobiles. The engine was mounted up front but the 5-speed transmission was left in unit with the final drive between the rear wheels. With its major masses at opposite ends of the wheelbase, the car is less prone to sudden changes of direction, both laterally and vertically, and becomes more steady in ride and handling. And the even weight distribution gets good tractive effort from all four tires.

The 928's 4.5-liter aluminum V-8 is one of the most sophisticated engines on the market; its chassis exhibits high-standard execution throughout, topped off with vented disc brakes and rack-and-pinion steering, both power assisted. Also, the cockpit is efficient and most habitable, especially with the snug leather Recaro seats that came, along with spoilers and 16-in. P7s, in our test car's optional Competition Group package. The 928 truly stands as a present-day high-water mark in the auto maker's art.

SPECIFICATIONS

GENERAL

Vehicle type	Rear-engine, rear-drive 2-pass. coupe
Price as tested	$25,000

ENGINE

Type	2,849cc DOHC V-6
Compression ratio	8.8:1
Fuel system	K-Jetronic injection
Horsepower (SAE net)	130 at 5,500 rpm
Torque (lb.-ft., SAE net)	162 at 2,750 rpm
Power-to-weight ratio	20.9 lb./hp

DRIVETRAIN

Transmission	5-speed manual
Final drive ratio	3.44:1

DIMENSIONS

Wheelbase	94.8 in.
Track, F/R	62.6/62.5 in.
Length	168.0 in.
Width	78.3 in.
Height	44.9 in.
Curb weight	2,712 lb.
Weight distribution, F/R	35/65%
Fuel capacity	13.5 gals.

SUSPENSION

Front	Independent, upper and lower A-arms, coil springs, anti-roll bar
Rear	Independent, upper and lower A-arms, trailing arms, coil springs

STEERING

Type	Rack and pinion
Turns lock-to-lock	3.2
Turning circle, curb-to-curb	30 ft.

BRAKES

Front	10.0-in. discs, power assist
Rear	10.5-in. discs, power assist

WHEELS AND TIRES

Wheels, front	6 x 14 cast alloy
rear	8 x 15 cast alloy
Tires, front	195/60HR14 Goodyear NCT
rear	235/60HR14 Goodyear NCT

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rangement up front. It has its own separate little door, and it's all too easy to get gas into the surrounding area, which then finds its way into the limited forward trunk space. We understand, however, that De Lorean plans to make a running production change to correct this, eliminating the trap door altogether.

All of this sounds like a substantial list of complaints, but the De Lorean was far from being last in quality in this distinguished group.

Performance

The spec charts tell the story here, specifically the power-to-weight figures. The De Lorean gives away 45 hp to the Merak, 55 to the 'Vette, 70 to the Mondial, and 90 to the 928. This wouldn't be totally hopeless if there were a corresponding disparity in *avoirdupois,* but there's not. The De Lorean scales in 488 lb. lighter than the next heavier car in the field—the Merak again—but still saddles each horsepower with over 20 lb. of car. Add CAFE-inspired downhill gearing to the mix, and it's hardly surprising that the De Lorean is not classifiable as quick.

But it's not really slow, either, and that tall gearing will generate impressive top speeds, given sufficient room to achieve them. We've seen 120 mph, which translates to about 4,500 rpm in 5th gear, and the PRV V-6 went about its business with virtually no complaint and not much noise. As you'd expect of low horsepower and high gearing, the car will actually go faster in 4th gear. Naturally, this legginess—mated to limited displacement—helps to make the De Lorean the mpg champ in a field that tends to disdain this virtue. Rated at 19 mpg city, 29 highway, the De Lorean hit 26.8 mpg on the *MT* 73-mile loop. The Porsche was the only other entry to crack the 20-mpg ceiling. The Merak's twin-cam six with its Weber carburetors displayed the healthiest thirst, as well as an impressive appetite for oil.

Our first impressions of the De Lorean's handling qualities, acquired in the Ulster outback, were of stability and predictability. Now, fresh from the contrasts of the other cars, plus an opportunity to test the car's suspension and Goodyear NCT tires against some real high-speed sweepers, we wish to amend that initial impression slightly. As the ratings indicate, we feel really fast work of this kind is better left to the thoroughbred specialists. Both the 928 and the Ferrari, though very different cars, generated instant confidence in the test drivers. The Maserati, despite a few quirks presumably accumulated in previous frolics, was also thoroughly predictable and a trusty ally when the scenery began approaching rapidly. The De Lorean never did anything evil in the special stages, but as the speeds climbed, the feeling of stability gave way to one of nervousness. As one of our irreverents put it, "Maybe the independent suspension is *too* independent." It would be excessive to call it twitchy, but as the speedometer advances, there is definitely a growing consciousness of all that mass hung out there behind the rear axle. Rapid transitions begin to feel rubbery, and even though it would take a giant with a big spatula to flip this squat little silverfish on its back, it's not at all difficult to imagine backing it into something hard at an inadvisable speed. No one provoked the De Lorean into oversteer during our barnstorming, and no one seemed particularly anxious to try. For all this nervousness, though, the De Lorean's positive rack-and-pinion steering helped it rate as a better companion for sports driving than the Corvette. The 'Vette's virtual absence of road feel, sopped up as it is by the power steering, made the world of decreasing radii and changing camber feel like an exercise in peril.

Fortunately, the 'Vette and the De Lorean both have the brakes to compensate for some of their handling shortfalls. The De Lorean in particular distinguished itself on this score, the combination of big discs at all four corners, low weight and sticky tires making it the second best stopper in the group. Control is excellent, and the system generates impressive power and control.

All things considered, the De Lorean performed reasonably well against this backdrop of all-stars. Although it has subaverage muscle for a car operating in this class, it stops very well and handles well enough for most ordinary touring situations. We've come to think of it as a very good 6/10ths car. It's not much fun to drive in town—something that can be said for every car displayed here save the 928—but, assessed as an open-road luxo long hauler, it scores very well indeed.

Conclusions

All of which brings us to the question of perceived value. As the charts show, the De Lorean finished in mid- to low-pack in all our rating categories, which were totally dominated by the 928, although the Merak's sharklike lines won the style show. The Mondial ran the 928 a solid second in most categories, but it finally received a resounding boo in the value voting, thanks to its unabashed price tag. Even the much-maligned 'Vette, with a rather startling price tag of its own (over $19,000!), looked like a better buy than the Ferrari.

But even more startling to us here was the De Lorean's finish in the value derby. Although it came in for a lot of sniping during our brief cross-California tour—Dianna called it "an answer to a marketing question no one has asked"—it wound up rated as a solid second in the value polling. We've marveled at ads in the *Los Angeles Times* classified section listing De Loreans for as much as $49,000. While this is clearly a price that falls into the Twilight Zone of car buying, at $25,000 the De Lorean emerges as a far more viable entry than we'd expected. Lovers of high performance should shop elsewhere, in particular at their Porsche dealers. But for a high-content, high-quality, highly unique profile piece that'll get you there in comfort and enviable style, John Z's dream car looks like something of a bargain. MT