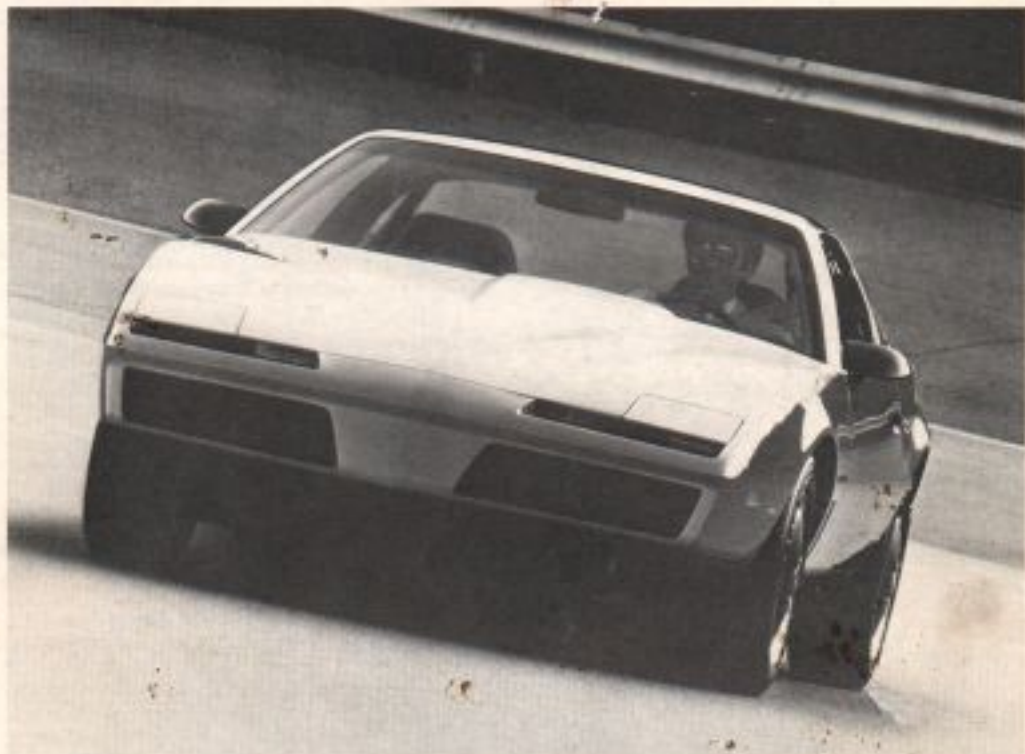


Your Time Has Come



NOW THE EXCITEMENT REALLY BEGINS!

THE 1982 FIREBIRD BOOK



**INFORMATION FOR THE
PONTIAC CERTIFIED
PRODUCT SPECIALIST**

NOTE: THIS STUDY GUIDE SHOULD BE INSERTED IN THE CPS TEXTBOOK

Pontiac is a Car Company
Known for Innovative Styling and
Engineering that Results in
Products with Outstanding Performance
and Roadability.

THE NEW MARKET

In recent years, automobile customers have become increasingly aware of what constitutes good design. At the same time they have become increasingly disillusioned with foreign — and domestic — manufacturers' claims that a fuel efficient automobile has to look like a box. With the introduction of the J2000 in May of 1981, Pontiac showed the world that an automobile could be both highly styled ... and highly fuel efficient. Today, general consensus indicates that there is a growing number of shoppers who are even willing to concede a little fuel economy in the interest of owning an automobile that they can be proud to drive.

Of course, these shoppers share the same concerns as the rest of the car market. Besides sophisticated styling, the cars they will consider must also possess a high degree of quality workmanship. The fits and finish must be superb...the structural integrity—unqualified. Durability...reliability...even functionality, are attributes which they know can be built into an exciting automobile.

Today, these customers are beginning to express their awareness both vocally ... and with their purchasing power. As this public sophistication increases, the demand for quality built, effectively designed and visually exciting automobiles will become a universal requirement around the world.

From within this group of design or styling conscious customers emerges a segment of buyers that can be defined as the sporty car enthusiasts. In addition to sophisticated design and styling, these buyers demand an automobile with excellent handling or "roadability" characteristics, high technology engineering and—to considerably varying degrees—performance.

On one end of the performance scale, they are looking for a highly styled automobile with good fuel economy, and are not necessarily concerned with out-and-out performance per se. This group is typically more cost-conscious than the other sporty car buyers and places a great deal of emphasis on value, functionality and a reasonable cost to buy and own. These prospects now own or are considering such competitive makes as the Chevy Camaro, Ford Mustang/Capri and EXP/IN7, Chrysler Challenger/Sapporo, Toyota Celica and Datsun 200SX.

On the other end of the performance scale are those prospects willing to concede high fuel economy for excellent 0 to 60 performance. They want a car with a high visual impact and superior drivability and handling characteristics. Because their automobile is such an integral element of their life-style, they want a car that makes an impressive personal statement. These buyers

now own or are considering such competitive makes as the Chevy Corvette and Camaro Z28, Ford Mustang Cobra, new GT and Capri RS and Dodge Charger 2.2.

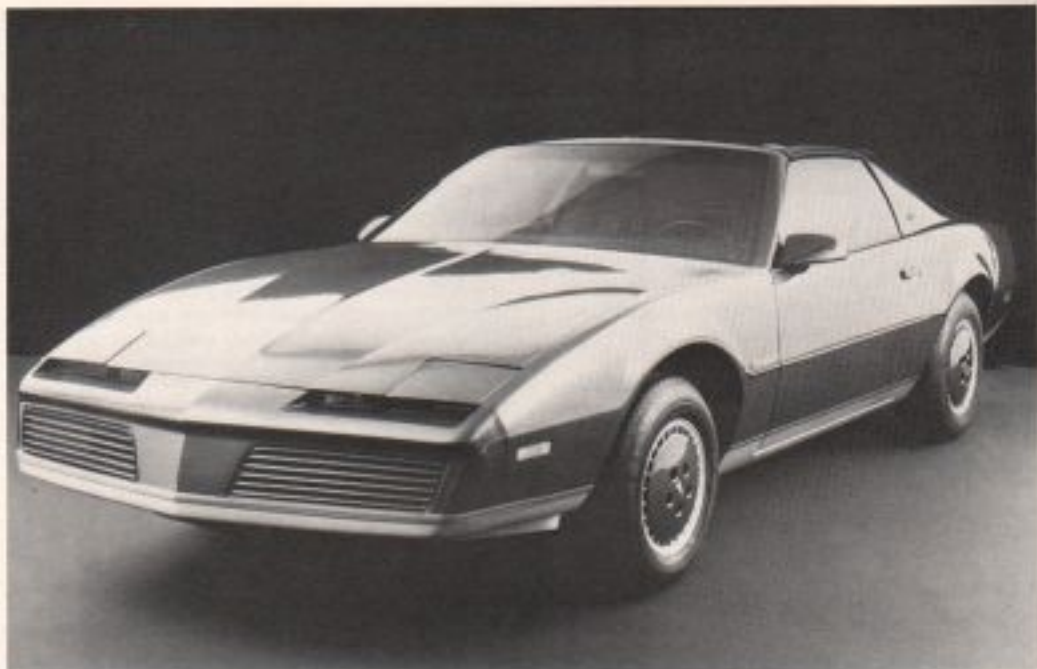
Between these two levels of shoppers has developed a relatively new segment of contemporary, "new values" type sporty car buyers. These people want good performance and handling, but also demand reasonable fuel economy. They like cars that make a strong visual impression, but in a subtle, more sophisticated way. Additionally, they prefer luxurious comfort and convenience, with a smooth, grand touring ride ... and don't mind paying a little extra to get it. Most recently, these prospects have turned to the sporty imports to find what they were looking for. Popular competitive models in this segment include: the Datsun 280 ZX ... Honda Prelude ... Mazda RX7 ... Porsche 924 ... Toyota Celica Supra ... and VW Scirocco.

The increasingly large number of competitive models entering this sporty car market is indicative of the opportunity available for an automobile whose design and engineering direction was targeted at this group from its inception. If salespeople had at their disposal just such an automobile ... and the product knowledge necessary to sell that vehicle to today's sophisticated customers ... they would have in their possession the hottest sales package to hit the automotive market in recent years.

Today that car exists. Pontiac Motor Division has designed and developed a line of automobiles that meet the designated requirements of the sporty car market exactly. And if you are currently in the favorable position of being a Pontiac salesperson, you need wait no longer...

Your Time Has Come!





INTRODUCING THE 1982 FIREBIRDS

For 1982, Pontiac offers a totally new lineup of Firebird models that represent the ultimate in sports car excitement. Collectively designed to meet sports car enthusiasts' universal demands for exquisite exterior and interior styling, excellent handling and roadability and high technology engineering, each individual model will appeal to a specific segment of the new sports car market.

The exquisite styling of the contemporary Firebird coupe, hot Firebird Trans Am and sophisticated Firebird SE is self-evident. The sleek good looks of this new breed of American automobile will capture the immediate and undivided attention of sports car enthusiasts everywhere from the moment it hits the road.

Once drawn to the Firebird by its striking visual impact, these enthusiasts won't be disappointed. The '82 Firebirds boast a level of handling and roadability superior to that of the '81 models, with noticeable improvements in road isolation and structural rigidity. Additionally, the high level of standard equipment on every model will make these new "Birds" especially attractive to those individuals now considering a foreign competitor.

Though the 1982 Firebirds are similar in their universal appeal to the sports car market as a whole, they are uniquely distinctive in their individual "personalities."

The new Firebird coupe is Pontiac's fun sports car. The lightweight, aerodynamic body, together with an Electronic-Fuel-Injected 4-cylinder engine and 4-speed manual transmission, gives this impressive model excellent fuel economy with surprisingly good performance. The lowest priced of the three Firebird models, the coupe will have a broad appeal to the majority of driving enthusiasts looking for smart, sporty car looks, good ride and handling characteristics, and exceptional value...at an affordable price.

The 1982 Firebird Trans Am, in the tradition of the Pontiac classic, carries on the heritage of an exciting, highly styled road car. Sporting a standard 5.0 liter 4-barrel V-8 engine...heavy-duty suspension and handling package...functional exterior wheel opening and rear deck spoilers...high contrast black exterior accents...and interior instrumentation that puts the Trans Am driver in total command of the road...this imposing automobile is just what the out-and-out performance shoppers are looking for.

For even more performance, the Trans Am can be ordered with a dual TBI cross-ram fuel-injected 5.0 liter V-8 engine and special performance handling package that takes the car from 0 to 60 mph in an exhilarating nine seconds. That's better than last year's hottest Trans Am! The most surprising part is that, due to the

reduced weight, improved drivetrain efficiency and superb aerodynamics of the new Trans Am, this greater performance has been achieved together with a substantial improvement in fuel economy.

Pontiac's new premier Firebird is the luxury touring SE. With an exterior finish of rich two-tone paint combinations and finely detailed black trim, this stunning beauty exudes subtle, understated sophistication. Standard with a 2.8 liter V-6 engine, the SE offers the optimal blend of good fuel economy with exceptional performance.

Standard contenting includes luxury interior trim with Viscount bucket seats (available in leather) and an extensive list of comfort and convenience features additional to that standard on the other models. This high level of standard equipment will make the Firebird SE especially attractive to those contemporary shoppers now contemplating the purchase of a sporty import model.

And the Firebird SE holds nothing back when it comes to the attributes most sought by driving enthusiasts. With the same heavy-duty suspension package and interior instrumentation standard on the Trans Am, the only difference in the handling and roadability of this model will be the quiet ride due to the SE's added acoustical insulation.

Because of the distinctive—and extensive—differences in the buying preferences of today's sports car shoppers, each 1982 Firebird model was designed for a high degree of versatility. Because it is impossible to equip a

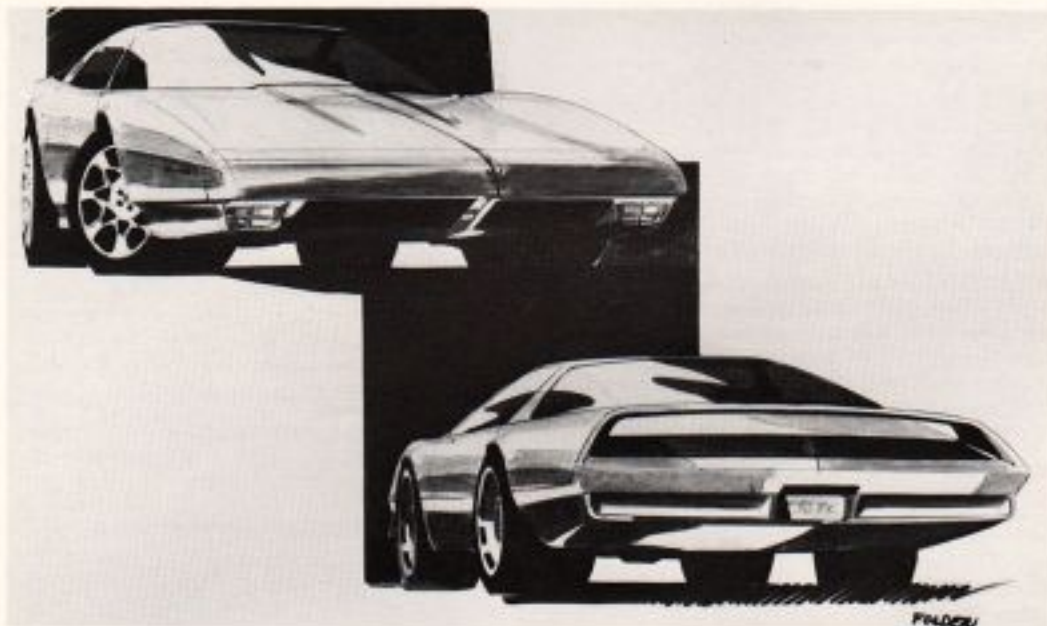
particular model precisely to the wants and desires of every buyer enthusiast in its targeted group, Pontiac is inviting '82 Firebird buyers to have a greater say in the personalized contenting of their automobiles than ever before.

Powertrains, suspension, interior trims and optional accessories and components, previously more or less specific to a particular model, now enjoy a higher degree of interchangeability between models.

So the Firebird coupe can be ordered with a 2.8 liter V-6 or 5.0 liter V-8 engine for more performance... or additional acoustical insulation and custom interior trim for more luxury. An SE can be equipped with the 2.5 liter EFI I4 engine for higher fuel economy, the 5.0 liter V-8 for more performance... or special performance handling package for superb roadability. And the Trans Am can be personalized by opting for the comfort and convenience of luxury interior trim, a rear hatch wiper/washer and added acoustical insulation.

The result of this strategy is higher adaptability to the new market's present and ever evolving demands for "personalized" automobiles. With the number of possible equipment combinations practically limitless, Pontiac customers can custom-content their Firebird to their personal specifications... and Pontiac salespeople have something for everyone in the sporty car market seeking excellent value for their money.





FIREBIRD INNOVATIVE DESIGN

Exterior Design

Automotive design is the process in which market demands and new technologies are transformed into tangible, aesthetically pleasing products. Typically, new technologies are of a mechanical nature, and can be incorporated into an automobile's design with little influence on the vehicle's physical appearance. Aerodynamics, on the other hand, is a very technical discipline with the unique distinction of being extremely visual in its nature. Fortunately, the soft curves, flowing lines and smooth surfaces that contribute to excellent aerodynamics also result in an automobile of extraordinary good looks and outstanding market appeal.

Aerodynamics was a leading element of the 1982 Firebird's design from the "F" car program's inception. Technically, the result is the lowest drag coefficient of any production car on the road today ... an amazing .351 (342 for the Firebird Trans Am). Aesthetically, this painstaking attention to aerodynamics resulted in a lineup of fantastic looking automobiles that radiate pure excitement.

Pontiac's design engineers started with an extremely low profile hood, retractable hidden headlamps and a wrap-around integral air dam. At the windshield and rear liftback, the glass is flush-mounted to the sheet metal at a low, sloping angle. The large glass liftback is the most sophisticated glass ever applied to a high production automobile, and is as aesthetically pleasing as it is aerodynamically clean. The dual exterior sport mirrors

are semi-patch-mounted and wind tunnel tested ... and the wipers retract fully beneath the hood, for minimal wind resistance. Contributing more to good looks than aerodynamics, the low, protruding twin venturi air intakes provide optimal engine cooling ... while at the rear, a full-width tail lamp lens identifies a sophisticated yet familiar Firebird.

Other design elements contributing to the Firebird's low drag coefficient resulted from meticulous attention to aerodynamic detail in the wind tunnel. When the movement of a molding by one eighth of an inch can result in the gain or loss of a half mile per gallon in fuel economy, the benefits of this attention certainly justifies the effort. In



this regard, the Firebird's close fits and tight exterior continuity provide aerodynamic benefits equal in value to (though not as visual as) their benefits of good looks.

Other detailed elements that contribute to the Firebird's low drag coefficient include: the rounded contours of the front bumper ... the cleanly designed windshield pillars ... the gradual tapering of the roof, sail panel and backlight glass ... the flat, smooth wheel covers ... and the flush integration of the rear bumper to the quarter panels.

The less disturbance a car causes as it moves through the air, the lower the drag induced upon it. The more "streamlined" a car is, the less disturbance it will cause. As a streamlined car moves through the air, the air will "hug" the exterior shell. As the air passes the rear of the car it must be cleanly "lost," or it will continue to hug the car—and slow it down. To effectively "lose" the airflow at the rear of the Firebird, the deck lid and rear quarter panels are "squared-off," forcing the air to break cleanly away from the moving car.

The Firebird's rigorous wind tunnel testing yielded more than just a low drag coefficient and good looks. Exploiting other aspects of vehicular aerodynamics, Pontiac design engineers also tailored the Firebird's exterior skin to assure effective ventilation of the passenger area ... proper cooling of the radiator, engine compartment and brake assemblies ... ideal airflow patterns for the reduced accumulation of dirt, salt and moisture on the car's surface ... and even the proper lift and high-speed directional stability for optimal vehicle handling.



Automotive Wind Tunnel Fan

Though of paramount importance to the vehicle's good looks and fuel economy, the Firebird's aerodynamic exterior skin is just one element of the automobile's total design. Other design applications that will contribute immensely to the 1982 Firebird's market appeal include:

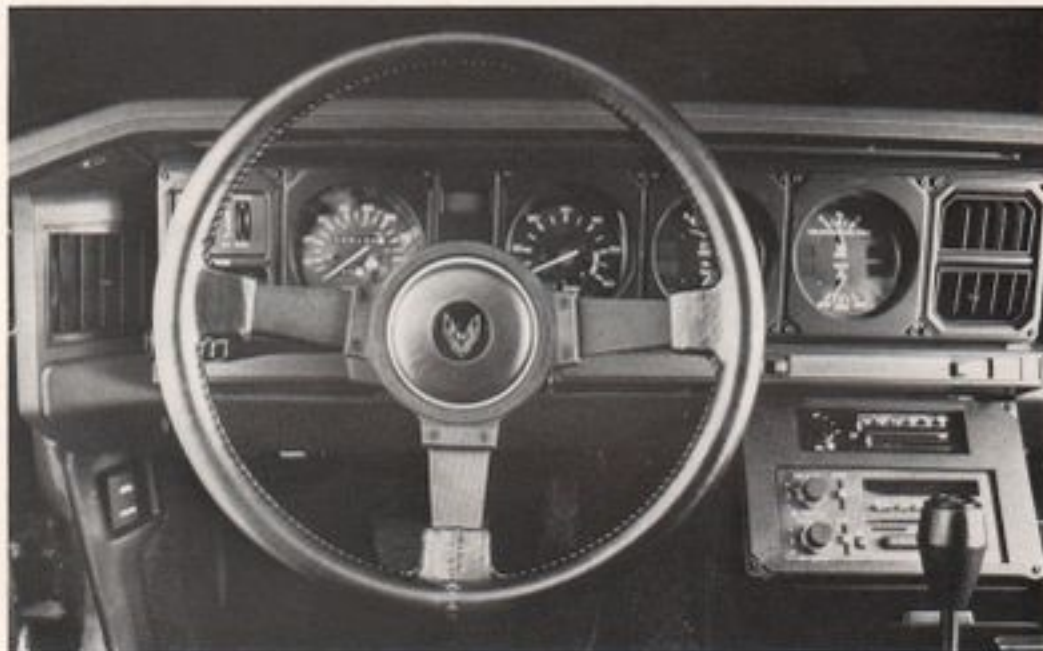
- The use of unitized body construction instead of a body-on-frame design. Especially adaptable to computer aided design and manufacturing (CAD/CAM) techniques, this integral body and frame construction process allowed precise tailoring to meet Firebird's program objectives of excellent aerodynamics, space utilization and structural integrity, with an appreciable reduction in overall vehicle weight.



- The "conventional" front engine/rear-wheel-drive design was maintained for 1982 because it is the optimal configuration for an aerodynamic, fine handling performance car. Rear-wheel drive locates the transmission behind the engine instead of underneath it, allowing lower mounting of the engine and resulting in the Firebird's extremely low, sloping hood and "fast" windshield. Additionally, with the weight of the transmission and differential further back and over the driving wheels, the ideal front-to-rear weight distribution, essential to good handling, is achieved.
- To further reduce weight and improve fuel economy, the '82 Firebirds feature much smaller exterior dimensions than last year's models, resulting in easier close-quarter maneuverability...yet their interior dimensions have remained virtually the same.
- Though the wheelbase has been shortened by over seven inches, the front and rear tread width are essentially equal to last year's model. This closer tread-to-wheelbase ratio results in a noticeably solid road stance on the highway complemented by superb cornering characteristics on the blacktop.



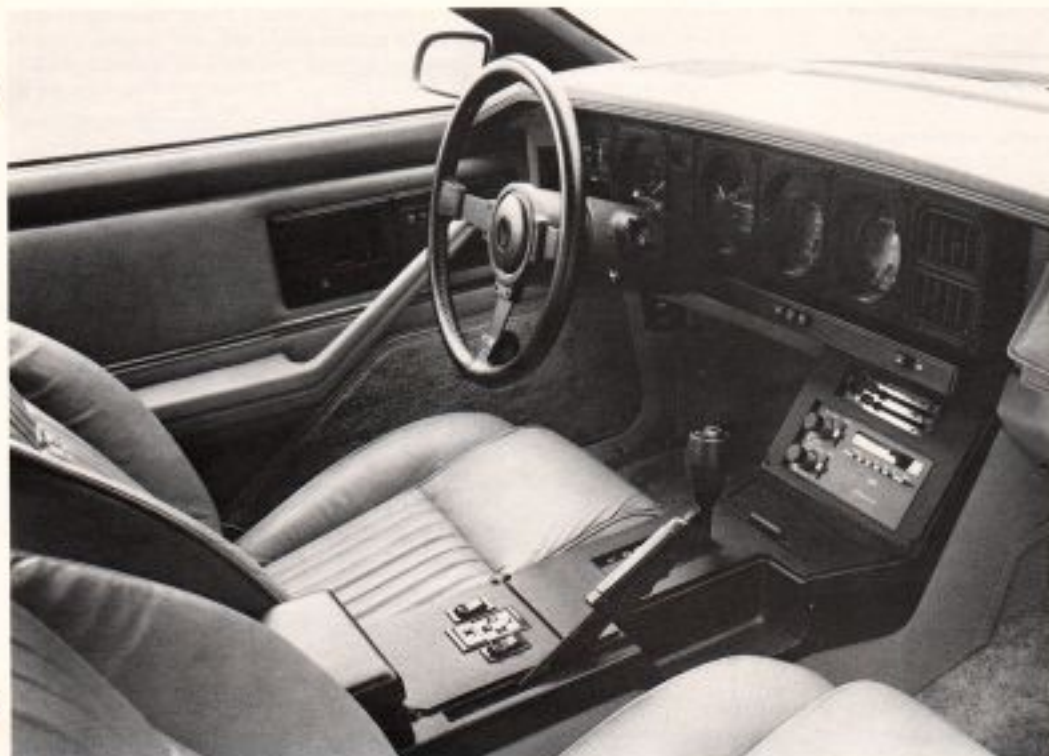
- The fold-down rear seat and rear liftback design opens up a whole new dimension of functionality to Firebird owners, expanding the cargo area to an accommodating 30.9 cubic feet...and transforming this 4-passenger beauty into an enchanting two-seater.



Interior Design

Today's automotive interior designers are charged with the challenging task of capturing the emotion expressed by the vehicle's exterior and transferring that flavor inside. In addition, they must adhere to safety restrictions and a number of

criteria set up by the government. Mandated guidelines for serviceability, sight lines, the placement of switches, etc. ... must all be taken into consideration as the aesthetics of the car's interior is designed and developed.



To complement the futuristic, functional sophistication of the Firebird exterior, Pontiac's design engineers chose an aircraft cockpit theme for the interior. Totally new in concept and design, the interior layout and appointments provide a "high-tech" functional look with a high level of comfort and driver-oriented convenience.

Because of the windshield's severe 62 degree angle, the color-keyed instrument panel was designed around a large, flat black upper IP pad to minimize reflections in the windshield. Key instrument panel controls and gauges were positioned out toward the driver for easy sighting and/or operation.

Emphasizing aircraft-look instrumentation, the IP features a fairly long cluster with larger and more pronounced gauges than before. The Firebird coupe has two round openings for the speedometer and fuel gauges, with warning lights in four rectangular openings...while the Trans Am and SE add a tachometer and extra gauges in a total of four large horizontally positioned round openings for optimum visibility. Heater, air conditioning and radio controls are centrally located in the lower IP console for easy access by both the driver and passenger.

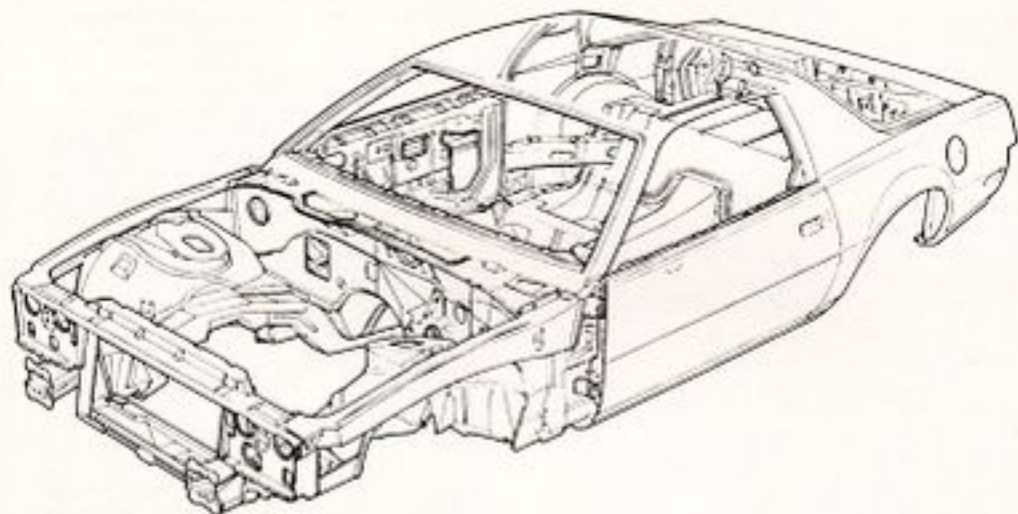
Everything is very mechanical and functional in appearance and operation, and the new rocker switch controls and "component-look" Delco 2000 series radios inte-

grate well into the theme. There is no traditional wood-grain and very little chrome, stressing a no-frills "quality" look that appeals to today's sophisticated enthusiast.

Major emphasis was placed on the new Firebird's seating, perhaps a sore point of the past. Reclining bucket seats are standard and feature a high level of contour and lateral support not exhibited by many domestic cars. Front seat travel has been increased from 5 to 7 1/2 inches so now anyone can find a comfortable driving position, and the deeply sculptured rear seats are much more attractive and comfortable than before.

Maintaining the distinct identities of the three Firebird models in the interior was a special challenge for Pontiac design engineers. The results of their efforts are impressive, with the SE's quieter, more sophisticated tone-on-tone theme reflected by its interior appointments, and the Trans Am's functional performance image expressed with the heavy use of interior black accents throughout.

Inside and out, the 1982 Firebird design is sure to make an immediate and lasting impression on all who experience it. The look is clean, functional sophistication, and the appeal will be to those who demand more than just a good looking car. The 1982 Firebirds express an intrinsic "personality" that no competitor, foreign or domestic, can match.



FIREBIRD INNOVATIVE CONSTRUCTION AND ASSEMBLY

A number of innovative construction and assembly approaches applied during the 1982 Firebird's manufacturing result in an automobile of incredible quality and value. Some of these techniques are incorporated to ensure an automobile of outstanding structural integrity...others result in improved exterior and interior fit and finish...while some provide the road isolation and acoustic insulation that is such an important contributor to the Firebird's smooth, quiet ride.

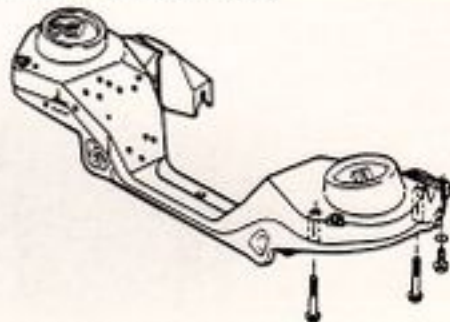
Often, an individual technique results in more than one of these benefits. In every case, the new process was selected for its conformance to the 1982 Firebird program objectives of improved structural rigidity, for a more durable "Feel"...reduced variations in vehicle-to-vehicle assembly quality...meeting the corporate target goal of 5-year cosmetic/10-year corrosion protection...and significantly improving fuel economy via the utilization of lightweight materials and/or new construction techniques wherever possible.

Some of the construction techniques utilized to meet these objectives include:

- The application of a unitized body construction design. Eliminating the need for an independent frame, unitized body construction integrates the structural prop-

erties of a frame into the body assembly. The result is a measurable reduction in vehicle weight, with no loss of structural rigidity or interior space.

- Unique underfloor longitudinal rails provide structural rigidity at the front-of-dash area.



- A stamped-steel crossmember transverses the lower engine compartment and is securely bolted to the body structure on either side. Besides providing torsional rigidity, this unit also supports the engine and provides mounting provisions for the front springs and lower control arms.

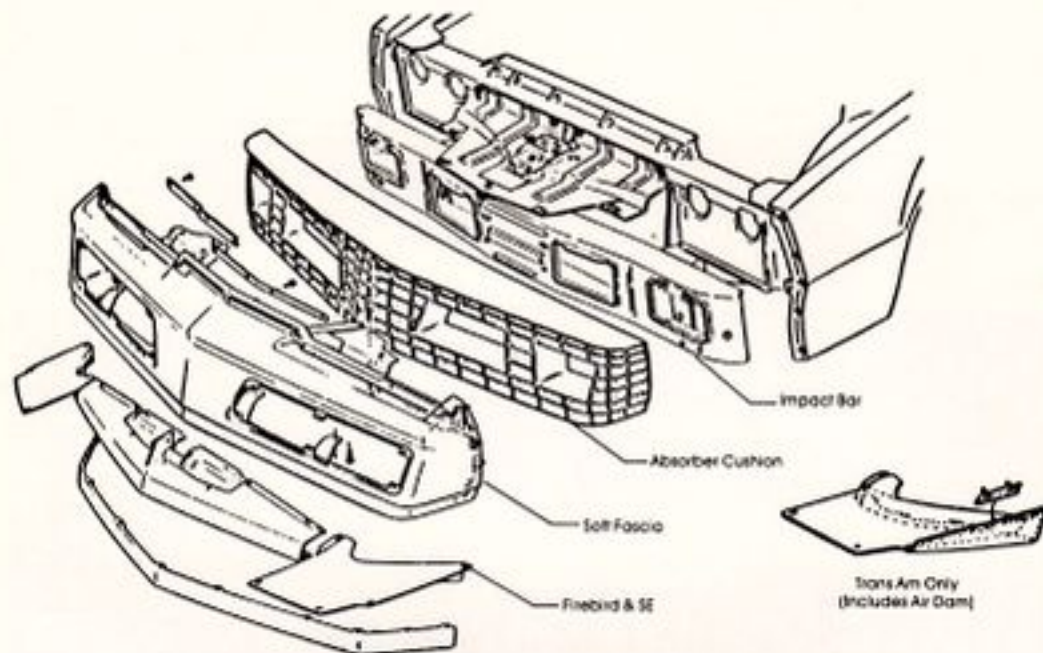
- The transmission (with L4 engine) features a sub-assembly support mounted to the primary support with rubber cushions, for additional vibration isolation from the passenger compartment.
- The radiator support is now an integral part of the body assembly and features upper and lower "cradle-type" insulators for vibration control. The radiator features aluminum cores for optimal heat dissipation and plastic end tanks for light weight.
- The roof features a stamped, one-piece outer panel with integral windshield opening for optimal structural integrity and quality glass fits. The improved fit and flush mounting of the windshield not only help aerodynamics but also result in reduced wind noise and water leaks.
- Though it is an option, the 1982 Firebirds' glass hatch panels exhibit a quality construction that is a direct result of their design as an integral part of the vehicle. When the roof panels are in place, body rigidity is equal to a base car without the hatch option. With the panels removed, torsional strength is much improved over a similarly equipped '81 F. Water leaks, wind noise and appearance have all been significantly improved because of a new double seal.
- The wheelhouse outer panels are galvanized for corrosion protection and then welded to the outer quarter panel.
- After all of the Firebird's major body components are assembled, the entire unit is treated in the cathodic EPO primer dip, an immersion bath process that electrically bonds a corrosion resistant coating to all body and sheet metal surfaces.
- The front fender wheelhouses feature black molded polypropylene liners to eliminate road spray from the engine compartment, and to protect against stone throw and corrosion damage to the body.
- As an added deterrent to rust, an anti-corrosive wax coating is applied to the inside of the lower fender, from the feature line to the bottom edge.
- The unsightly lower rear bracket that secures the fender to the body is now hidden by a special plastic shield.
- Plastisol spray is applied below the feature line on the Firebird's exterior, to the front fenders, doors and rear quarter panels, and along the full length of the rocker panel... for protection of these highly visible and vulnerable metal panels against stone throw and rust damage.
- To reduce weight, aluminum hoods are used on models with a high level of optional equipment. These units not only help fuel economy, but have the added advantage of being completely corrosion resistant. The retractable headlamp doors are also aluminum.



- All nameplates and emblems are adhesive backed, eliminating the need for sheet metal piercing and its attending problems of rust. Additionally, all moldings feature black plastic backings and end caps that isolate the molding from the paint finish and fill the molding to metal gap that usually occurs. Improved appearance, reduced wind noise and the elimination of paint chipping and body corrosion is the result.
- The front side marker lamp requires no bezel.
- The flush-mounted windshield is 5.3mm thick glass and features a black urethane molding that effectively seals out moisture and corrosion and reduces wind noise.
- The liftback window features a 6mm thick frameless glass design. Hinged to the rear roof rail with through the glass "beauty bolts," operating the hatch will be

simple and effortless due to counterbalanced dual pneumatic struts. An integral shade band cuts glare and reduces heat caused by the sun.

- The soft-fascia front and rear bumpers feature the same polyethylene constructed egg-crate design first introduced on earlier Firebirds and present today on the J2000. These innovative units offer five mph collision protection equal to the conventional shock absorber-type bumpers of other automobiles, yet accomplish it with a substantial savings in weight and space. Upon impact, these bumpers collapse, spread out the load, and then spring back to their original shape. A high strength, stamped steel beam extends the width of the car behind the bumper to protect against heavier impact.



Inside the Firebird, the attention to quality construction, fits and finishes continued... while isolation of the passenger compartment from extraneous noise, temperature extremes, and engine and road vibration also received major emphasis.

- The 3mm molded foam headliner is bonded directly to the roof's outer panel. A fiberglass filler eliminates the need for additional acoustical insulation. The inside garnish moldings normally found at the windshield and backlight have been eliminated for a "cleaner" look and the headliner is now "tucked under" around these openings.

- Whether vinyl or cloth, the interior door trim panels are fabricated as one-piece — for easy installation and consistent fits, and foam-backed — for good acoustical insulation.

- The carpet is one-piece and foam-backed and covers the entire floor. The carpet includes amberlight and a sound barrier as an integral part of its assembly.

- The rear load floor area will feature an acoustical layer assembly made up of amberlight and mastic under the carpet, and sound absorbers behind all of the cargo area's molded plastic trim.

- The one-piece instrument panel is securely fastened to the console—which in turn is fastened to the floor—to provide increased stability for reduced squeaks and rattles. Electrical wiring has been routed with clips rather than tape.
- Rather than piercing the console trim plate to accommodate the switches for optional accessories such as the power windows and mirrors, **eight specific trim plates are now made**, each accommodating a particular configuration of possible switch combinations.

In the last few years, the automobile industry has moved rapidly to supplement manually operated assembly procedures with computer and robot supported automation. Not only do these innovative manufacturing approaches provide the inherent benefit of complete control over the basic quality of the final product, but the consistency of that quality is predictable and unquestionable.

To achieve a level of quality assembly even greater than that exhibited by any previous models, Pontiac engineers worked closely with General Motors Assembly Division (GMAD) plant personnel to select the optimal fabrication techniques necessary to assure the highest degree of structural soundness, excellent fits, and superb finish for the new '82 Firebird.

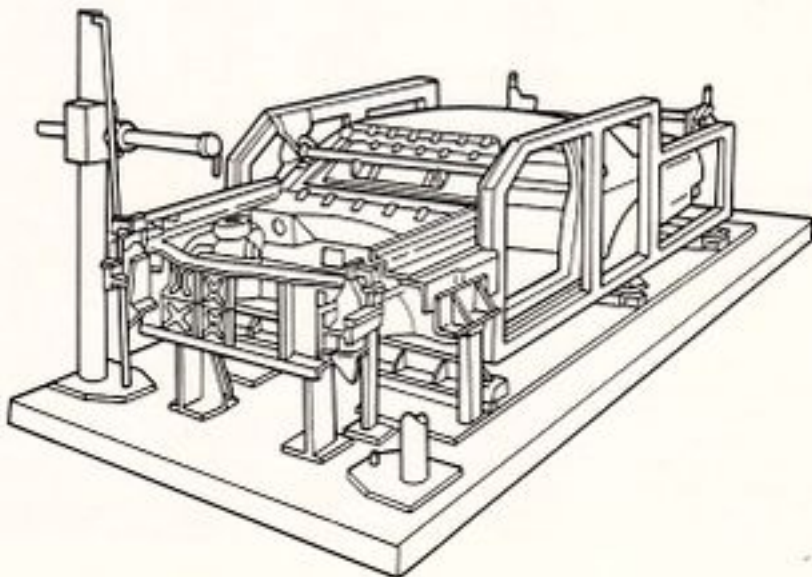
Some of the '82 Firebird's quality assembly techniques include:

- **Bolting** (rather than welding) on the front end sheet metal with a special squaring fixture for improved body fits and consistent assembly quality. This procedure is performed in the body shop so that the front end

sheet metal is painted with the rest of the body, and paint match and finish damage problems are avoided.

- A computerized torque mounting system will ensure that critical fasteners are tightened to specification—not too tight or too loose.
- Computer assisted front end alignment and automatically match-mounted tires and wheels will complement the suspension systems with ensured alignment and wheel balance performance.
- On-line electrical testers will be utilized during assembly to inspect the entire IP harness and other critical systems during 100% of production.
- The "net hole concept" is incorporated during the Firebird's assembly—where the engine compartment upper rail assembly meets the body side frame ... where the roof, windshield opening and hatch lid are secured to the body ... and where the sheet metal is bolted to the front end.

First used in the assembly of the J2000 to assure uniformity of construction, the "net hole concept" is also being applied during the Firebird's assembly. What the "net hole concept" means is that interlocking assemblies or body panels must line up exactly, because there is only a single hole in each unit through which the fastening bolt can be secured. Previously, slots or multi-hole configurations allowed variations in the build process that compounded as the vehicle was assembled. The "net hole concept" will help to assure both visible and unseen "structural" assembly quality for the Firebird that is predictable and consistent.





FIREBIRD INNOVATIVE ENGINEERING

Of course, no new automobile in today's highly competitive sporty car market is likely to make it on good looks and structural integrity alone. Fortunately, Pontiac not only has the best design staff in the business, but the best mechanical engineers as well.

In addition to state-of-the-industry design and quality construction, fit and finish, the objective for the '82 "F" car program was to achieve the highest level of handling and performance—together with much-improved ride and interior comfort—despite the fact that the new "F" would be smaller and considerably lighter than previous models. A final and all-important objective, and perhaps the engineers' greatest challenge, was to package all of these "road-car" attributes into a sporty automobile that would deliver "real world" fuel economy.

Of course, the 1982 "F" car program objectives were achieved...and the results will be a shot in the arm for all those American driving enthusiasts who had begun to question their confidence in good old Yankee ingenuity!

1982 Firebird mechanical components include:

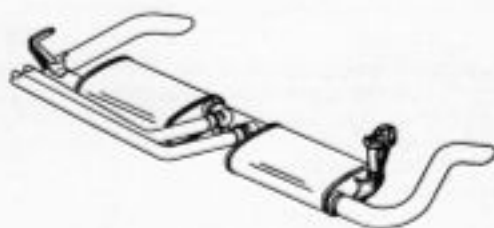
- A 2.5 liter Electronic-Fuel-Injected (EFI) I4 engine that develops 90 horsepower at 4000 rpm (see EFI Bulletin—1982 Phoenix Study Guide pages 4 and 5). Combining the high technology sophistication of EFI with the rugged dependability of the proven, Pontiac-designed "Iron Duke" engine, results in a responsive powerplant of predictable reliability and performance.



A stainless steel tubular exhaust manifold is used on Firebirds equipped with this engine. The manifold provides more efficient exhaust flow, faster preheat for inlet air during warmup and significant weight savings, and is the first volume usage of such a design within GM.

This engine is standard in the Firebird coupe...a credit option in the SE...and not available in the Trans Am.

- A 2.8 liter 2-barrel V-6 engine that develops 102 horsepower at 5100 rpm is standard in the SE...available in the coupe...and not available in the Trans Am.
- A 5.0 liter 4-barrel V-8 engine that develops 145 horsepower at 4000 rpm is standard in the Trans Am...and available in both the coupe (only with automatic transmission) and the SE. (Heavier front springs are included when this engine is ordered in the coupe or SE.)
- A 5.0 liter Dual Throttle Body Injected (TBI) V-8 engine offers the ultimate in performance. Developing 165 horsepower at 4200 rpm, this engine will only be available on the Trans Am. (See the Trans Am section of this Study Guide for more details about this engine.)
- GM's Computer Command Control (C3) monitors the engine electronically, controlling the air/fuel ratio for lower exhaust emissions and efficient operation under all driving conditions. C3 is standard on all gasoline-powered GM automobiles.
- The exhaust pipe and transverse mounted muffler feature heat shields to protect the gas tank, while the catalytic converter has an upper shield for insulation of the passenger compartment... and a lower shield for isolation from underbrush while the car is parked.



The Trans Am features a dual resonator exhaust system with dual tailpipes. Resonators produce a deep, "throatier" sound than mufflers for a strong "performance" car personality. This exhaust system is also included when the 5.0 liter V-8 engine is ordered in the SE, but to maintain the SE's "subtle" image it is not included when an automatic transmission is ordered, unless the special performance handling package (option W56) is also specified.





• A Muncie 4-speed manual transmission is standard with the 2.5 liter L4 and 2.8 liter V-6. It has a high 3.50:1 first gear ratio for quick acceleration and a 1:1 direct-drive fourth gear ratio for efficient highway operation. Combined with the EFI L4 engine's high torque at low rpm (132 @ 2800) and accompanying 3.42:1 axle ratio, the 0 to 60 time with this transmission is 14.5 seconds and the EPA estimates are 24 city/34 highway (same in CA, 24/35 without air conditioning in federal areas). With the V-6 engine and 3.23:1 axle ratio, the 0 to 60 time is 13.5 seconds and the fuel economy estimates are 20 city/32 highway (a 4-speed manual transmission is not available with the V-6 engine in California).

• A heavy-duty Borg Warner 4-speed manual transmission is standard with the 5.0 liter 4-barrel V-8 engine with a 2.73:1 axle ratio. This powertrain gives 0 to 60 performance of 10 seconds with fuel economy estimates of 16 city/24 highway (_____ in CA). A 3.23 rear axle ratio is included when the special performance handling package is ordered. The 0 to 60 performance with this combination is 9.5 seconds.

Both manual transmissions have been redesigned for simplicity and lighter weight and have a push down to reverse feature. A neutral start switch only allows the engine to be started when the transmission is in neutral. The Dual TBI V-8 engine is not available with a manual transmission.

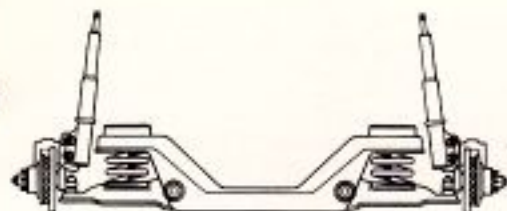
• A 3-speed automatic transmission is available for all models and features a torque converter clutch that locks into direct-drive at highway speeds to eliminate internal slippage. This transmission features a cable parking lock system that mechanically locks the

transmission lever in park when the keys are removed, for safety and security. With the EFI L4 engine and 3.08:1 axle ratio, the 0 to 60 time is 16 seconds and the EPA fuel economy estimates are 23 city/35 highway (same in CA).

With the V-6 engine and 3.08:1 axle ratio, the 0 to 60 time is 14.5 seconds and the fuel economy estimates are 20 city/32 highway (19/31 in CA). With the V-8 engine and 2.73:1 axle ratio, 0 to 60 performance is 10.5 seconds and fuel economy estimates are 17 city/23 highway (17/24 in CA). When the special performance handling package is ordered with this powertrain, a higher, 3.23 rear axle ratio is included. The 0 to 60 performance with this combination is 10 seconds. With the Dual TBI V-8 engine and 2.93:1 axle ratio, 0 to 60 performance is 9.0 seconds and fuel economy estimates are 16 city/24 highway (_____ in CA).

NOTE: The preceding axle ratios are those standard with each particular powertrain/suspension specified. For higher performance—with an accompanying reduction in fuel economy—a 3.23:1 axle ratio is available with the Dual TBI 5.0 liter engine. 0 to 60 performance with this combination is 8 seconds.

• The 16 gallon steel fuel tank is mounted to the underbody between the rear axle and cargo area and features anti-squeak strips that eliminate body to tank contact. The tank also features an interior baffle to lower splashing noise and reduce sudden weight transfer. A plastic shield secured to the wheelhouse inner panel protects the filler pipe from mud, salt and stone damage. With the standard powertrain, the Firebird's cruising range is 384 miles city and 544 miles highway.



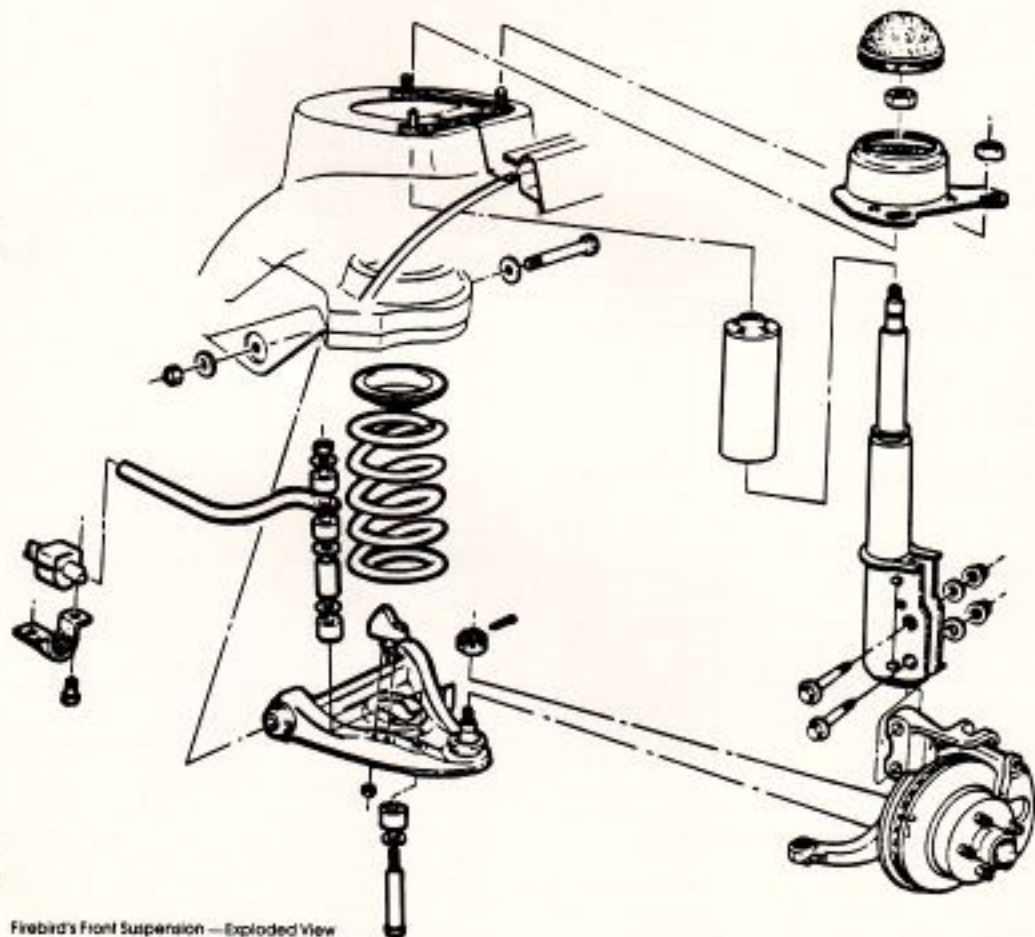
• A modified MacPherson strut front suspension represents the first application of a MacPherson strut in a rear-wheel-drive automobile for General Motors.

The major difference between the Firebird's and a typical MacPherson strut is that the shock absorber and coil spring are not assembled as one unit (see diagram). The shock extends from the lower control arm

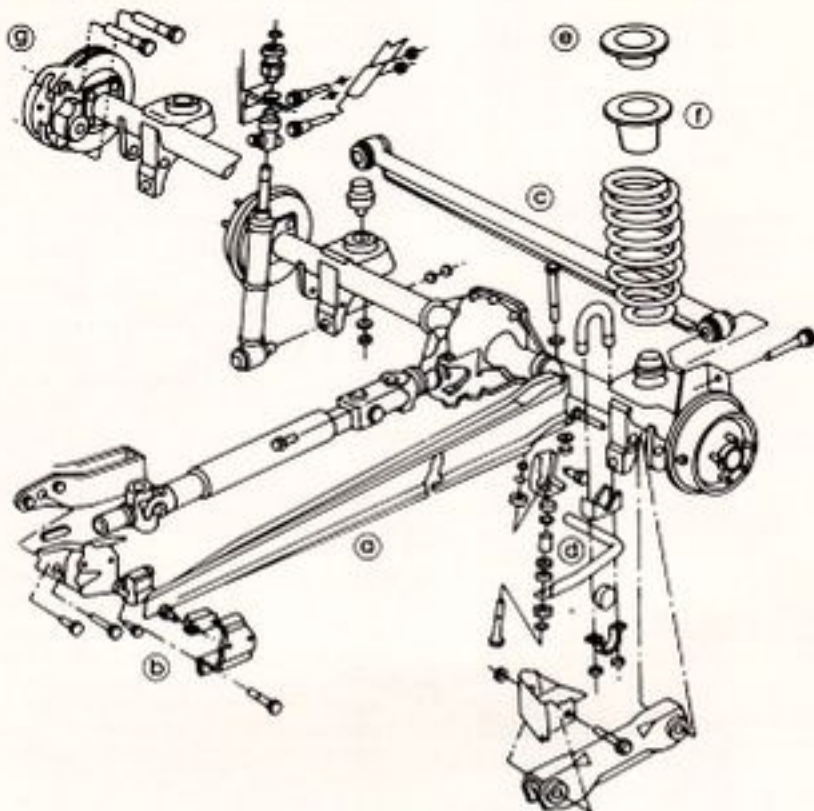
into the strut tower as usual...but the spring is mounted between the lower control arm and the engine compartment crossmember in a position to one side of the shock.

The Firebird's struts (shock absorbers) were specifically designed with twenty percent higher stiffness to provide firm, responsive handling. Low friction, ball bearing upper strut mounts and positive caster design result in improved on-center feel for down the road directional stability. The upper strut mount also has an adjustment provision for fine-tuning front end alignment.

Besides providing the exceptional ride and handling benefits of an independent front suspension, the system's elimination of the upper control arm provides more usable space in the engine compartment for improved serviceability...and allows lower mounting of the engine for a low, aerodynamic front end.



Firebird's Front Suspension — Exploded View



• An innovative torque arm/track bar coil spring rear suspension replaces the leaf spring configuration of last year (see diagram). The new torque arm (a) extends parallel and to one side of the drive shaft, secured at the rear to a special axle mounting and at the front with a cushioned slip joint (b) to the transmission housing. This high-strength steel member controls front-to-rear twisting forces that occur during acceleration and braking and on rough, bumpy roads, to give the Firebird good torsional rigidity for a firm, stable ride.

The full-width track bar (c) is mounted parallel to and behind the rear axle for maximum space utilization. Secured at one end to the body and the other to the axle, this unit absorbs side-to-side weight transfer during cornering for secure, responsive handling.

• There are three suspension levels available. The level I suspension is standard on the Firebird coupe. It features a 27mm front stabilizer bar (29mm with optional en-

gined), 15:1 steering gear ratio, 14"x6" steel wheels and P195/75R14 glass-belted blackwall radial tires.

The level II suspension is standard on both the Trans Am and SE and available on the coupe. It features a 30mm front stabilizer bar, 14:1 steering gear ratio, heavier front springs, a 12mm rear stabilizer bar (d), 14"x7" cast aluminum wheels and P205/70R14 low-profile steel-belted blackwall radial tires.

The level III suspension is a special performance handling package (option WS6) available on the Trans Am and SE. It includes: a 32mm front stabilizer bar, specific "quick" 12.7:1 steering ratio, heavier springs, shocks and bushings, 17mm rear stabilizer bar (with the V-8 engine, 21mm with the V-6), 4-wheel power disc brakes, a limited-slip differential, 15"x7" cast aluminum wheels, P215/65R15 low-profile, steel-belted blackwall radial tires and special "stowaway" inflatable spare tire. This suspension package is required when the Dual TBI V-8 is ordered.

- A smooth, isolated ride is achieved a number of ways, beginning with the new full coil suspension. The metric designed coil springs feature insulator pads (e) at the top and bottom that stop spring bounce. A special retainer (f) is bonded to the insulator and keeps the spring in its proper position as it flexes. The torque arm features vibration isolators where it attaches to other components, as do the front and rear stabilizer bars, the lower control arms and the transmission housing. Even the engine is mounted on rubber cushions to isolate engine vibration from the passengers and road shock from the engine ... all in an effort to assure a Firebird ride that is uniform, quiet and smooth.

- The tires are automatically match-mounted to the wheels at the assembly plant. This process matches the stiffest part of the tire, or "high spot," to the valve stem hole or "low spot" of the wheel. The result is more precise tire balancing and a smoother ride.

- The compact spare tire is mounted on a high-strength steel wheel for optimal cargo space and light weight, and features a 3,000 mile road life.

- Power steering is standard and features an Acme worm gear design with a 15:1 steering gear ratio (recirculating ball design with a 14:1 ratio is standard with the Trans Am and SE). The curb-to-curb turning diameter of 36.7 feet, together with the effortless response of power assist, will make parking and maneuvering the Firebird simple and easy.

NOTE: An Acme worm steering gear is much like a recirculating ball steering gear without the ball bearings. The simpler design of a worm-type gear results in a lower component cost.

- Power front disc/rear drum brakes have a low drag design that eliminates friction between the pad and disc when the brakes are not in use, to maximize fuel economy. A quick-take-up (QTU) master cylinder reduces brake pedal travel for quicker brake response and better pedal "feel." The system features semi-metallic brake pad linings front and rear for long life ... and vented rotors and finned drums that dissipate heat quickly, for reliable braking even under extreme conditions. Finally, the system is diagonally split front-to-rear, so that either side can stop the car independently.

- A 4-wheel power disc brake option is available on the Trans Am and SE (standard with the special performance handling package) for an absolute degree of braking effectiveness. With a low drag design at both the front and rear (g), fuel economy is accentuated.

- The parking brake is hand-operated and is located in the console for convenient, driver-oriented operation.

- The lightweight Delco-GM Freedom® II battery is permanently sealed, requires no maintenance and features a charge condition indicator on top.

- The Delco Remy High-Energy ignition system delivers a substantially higher secondary voltage (35,000 volts) which prolongs spark plug life and allows the burning of leaner air/fuel mixtures.

- A Delcotron 42 amp generator with built-in solid-state regulator provides optimal battery recharge for normally anticipated electrical loads ... and integrates these two typically separate components to offer the most effective utilization of space in the engine compartment.





FIREBIRD INNOVATIVE SERVICEABILITY, MAINTENANCE REQUIREMENTS AND WARRANTY COVERAGE

One of the largest contributors to the '82 Firebird's dramatic improvement in serviceability, was the incorporation of the revised MacPherson strut front suspension and the utilization of a unitized body design. Elimination of the upper control arms of last year's conventional front suspension, and outboard mounting of the shock absorbers in the integral strut towers, provide an additional four to five inches of usable space on either side of the '82 Firebird's engine compartment. The resulting easy accessibility of under-hood components provides a tremendous improvement in labor time studies for air conditioning and heater related components, and all engine compartment service procedures.

Specific engine compartment serviceability improvements include:

- **Pneumatic (gas) struts** on either side of the hood that are lighter and more space efficient, and provide easier, more precise operation than the counter-balancing springs they replace. The hood opens 73" for easy access to all engine compartment components.

IMPORTANT—Labor time studies are conducted to determine the amount of time it should take a service technician to complete a particular service procedure (i.e., remove and replace heater core; replace A/C condensor).

The results of Pontiac's own studies are published in the Pontiac Labor Time Guide Manual. Independent agencies such as Chilton's and Ward's also publish labor time guides, and service departments generally refer to whatever source is most predominantly used in their area; though all Pontiac dealership warranty work must conform to the designated time in the Pontiac Labor Time Guide Manual.

Since the amount of time allocated to a particular service procedure is directly reflected in the service charge to the customer (for other than warranty work), a reduction in time necessary to complete the job will result in an equivalent reduction in the cost to the customer.

With the national average hourly labor rate of over \$25/hr., that savings can be substantial.

- The horizontally split evaporator case has been located for optimum accessibility and easy removal of the evaporator core.
- The heater and air conditioner blower motor can now be removed by unfastening 5 bolts, instead of removing the fender.
- A heater hose that was completely hidden by engine components on earlier Firebirds has been relocated and is now totally accessible from above.
- The air conditioning condenser can now be exposed for service by loosening the radiator support bolts and pushing the radiator back ... instead of disconnecting and removing the radiator.
- The power antenna can now be serviced from inside the engine compartment without removing major components or body panels.
- The MacPherson struts themselves have been engineered for easy serviceability, with L-shaped slots in the strut and mounting bracket allowing full caster and camber adjustment from above.
- The location and access of such routinely serviced features as spark plugs, oil—filter, drain plug and dipstick, and automatic transmission fluid dipstick, were given particular attention to assure that these regularly serviced items would be in the best position for easy accessibility.
- The thermostat of the L4 engine is located inside an assembly that looks and is serviced much like a small radiator cap. Located on the side of the engine, the cap can be easily removed, the thermostat replaced and the cap put back in place in a matter of seconds. Flushing the cooling system is also easier because the cap can be installed with the thermostat removed, eliminating the need to run the engine for a period of time to get the thermostat to open ... and allowing "topping off" the system in just a few minutes.
- All engine and accessory belts can be adjusted for proper tension from above.
- Translucent reservoirs allow quick verification of proper windshield wiper ... engine coolant ... and with the L4 engine, power steering fluid levels. Even the brake master cylinder features translucent windows for easy checking of proper brake fluid level.





The Firebird's engine compartment wasn't the only area scrutinized in an effort to achieve total serviceability. A number of other Firebird design improvements will reduce service downtime and expense for '82 Firebird value that extends far beyond the date of sale.

- Controls for the heater, air conditioning, electric mirrors and power windows are all located in the console and can be easily serviced by removing only the trim plate.
- The temperature control doors for the heater and air conditioning controls are self-adjusting.
- All instrument panel bulbs, switches and gauges—including speedometer and tachometer—are front-loaded and can be serviced or replaced by simply removing the IP trim plate.
- The dual front radio speakers are top-loaded in the dash for easy access.
- The fuse panel is located to the lower left of the steering column and is hinged, to flip down for easy fuse replacement.
- A flip-down "convenience center," located to the right of the steering column, is part of the IP harness. This molded plastic unit holds the horn relay, rear window defogger, tone generator, hazard flasher and choke relay (for other than EFI-equipped engines), to provide ready serviceability of these oftentimes hard-to-reach components.
- Every connector in the Firebird's electrical system features a positive lock/easy release design that facilitates servicing and effectively locks out dirt and moisture. Additionally, every connector has a different male/female plug configuration that speeds electrical system assembly and eliminates improper connections.
- Unique to Pontiac's "T" car, the Firebird features a right-hand lower IP trim plate that can be removed in only a few seconds, providing quick accessibility to the ECM and a number of other emission control elements.
- The ECM includes a self-diagnostic feature that allows servicing in the field, replacing the dwell meter test of the 1981 system.

- The tail lamps are serviceable from inside the trunk. The carpet trim pulls back to reveal finger-operated wing-nut type screws that release the front-loaded tail lamp assemblies for quick, easy servicing.
- Unlike much of the competition, all '82 Firebird control arm bushings are designed to allow removal and replacement.

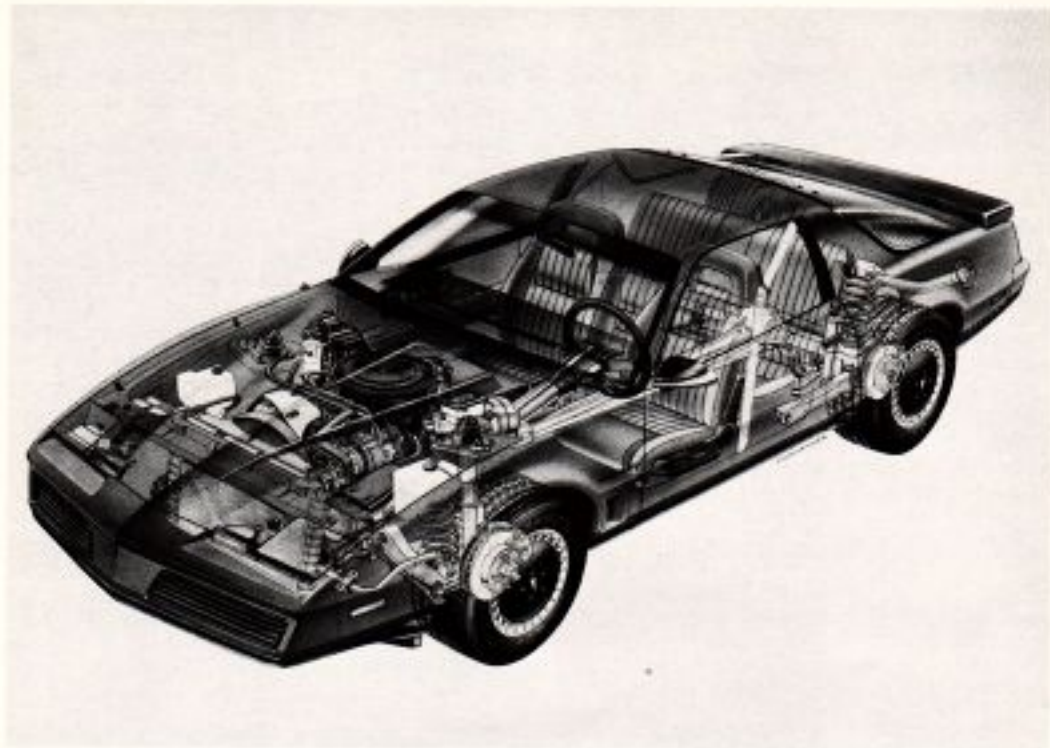
The recommended maintenance intervals for the '82 Firebirds are few and far between, to keep them out of the dealership and on the street.

- Oil change and chassis lubrication is recommended every 7,500 miles or 12 months.
- Oil filter replacement is recommended every other oil change if mileage determines interval, every oil change if time determines interval.
- Tune-ups, including spark plug and air filter replacement, are recommended every 30,000 miles.
- Automatic transmission fluid and filter servicing is recommended every 100,000 miles.

Comprehensive warranty coverage can be regarded as a good indication of a company's belief in its product's reliability, durability and expected longevity. Pontiac's warranty coverage for the 1982 Firebirds reflects a strong commitment to quality that lasts.

- The standard new car warranty covers the Firebirds for the first 12 months or 12,000 miles of operation.
- The standard extended powertrain warranty covers any defects in the Firebird's powertrain for 24 months or 24,000 miles, minus a \$100 deductible after the first 12 months or 12,000 miles.
- The standard rust perforation warranty covers the Firebirds against any kind of rust perforation for a period of 3 years.
- The emission components warranty covers any defects in the Firebird's—C3 system, catalytic converter, EFI or carburetor parts, and a number of other emission control related parts for a period of 5 years or 50,000 miles.





FIREBIRD INNOVATIVE PACKAGING

The packaging of the 1982 Firebird is a story all in itself. To combine the level of mechanical componentry necessary for the incredible handling and ride offered by the Firebird ... with a rear-wheel-drive configuration ... in a sleek exterior shell much smaller than last year's ... and still have nearly the same interior passenger roominess and comfort as last year's model, is an extraordinary achievement ... to say the least.

Of course, the '82 Firebird's efficient packing is the essential element around which its innovation is recognized. Packaging the Firebird's superb performance characteristics in the most aerodynamic skin ever manufactured, with an accompanying loss in weight due to the reduced exterior size and the use of high-strength, lightweight materials, is one of the most important elements contributing to Firebird's over 23% average improvement in fuel economy (base coupe) ... and the gist of its innovation.

Here are just a few examples of the way Firebird's innovative packaging was achieved:

- The new designs for the front and rear suspensions offer optimum space utilization and reduced weight, in

addition to improved ride and handling. High strength light alloy (HSLA) steel is used in the torque arm, axle tube and spring seats.

- The wheel of the compact spare is also constructed of HSLA steel.
- The starter motor is metric, smaller and lighter weight than last year.
- The Q1U master cylinder has an aluminum body and plastic reservoir, and features a new configuration to more efficiently accommodate engine compartment packaging.
- Of course, unitized body construction, and a multitude of other new systems and components detailed throughout this book, each offer substantial weight savings and improved space utilization over last year's designs.

A weight savings of 522 pounds over last year's base coupe is the result of all of these innovative design and material applications. For the payoff of meeting the '82 "F" car program's objective of optimal utilization of space, take a look at the following chart, which compares the '81 Firebird coupe to this year's model.

	1981 Firebird Cpe	1982 Firebird Cpe	1982 + or -
Exterior Dimensions			
Wheelbase	108.2"	101.0"	-7.2"
Tread, Front	61.3"	60.7"	-.6"
Tread, Rear	60.0"	60.8"	+.8"
Length	198.1"	189.8"	-8.3"
Width	73.0"	72.0"	-1.0"
Height	50.3"	49.8"	-.5"
Interior Dimensions			
F. Head Room	36.9"	37.0"	+1"
F. Leg Room	43.9"	43.0"	-.9"
F. Shoulder Room	57.4"	57.7"	+.3"
F. Hip Room	55.3"	56.3"	+1.0"
R. Head Room	35.7"	35.6"	-.1"
R. Leg Room	28.4"	28.6"	+.2"
R. Shoulder Room	54.4"	56.3"	+1.9"
R. Hip Room	46.3"	42.8"	-3.5"
Curb Weight	3,380 lbs.	2,868 lbs.	-512 lbs.
EPA Interior Volume Index	85.9 cu.ft.	84.12 cu.ft.	-1.78 cu.ft.
Maximum Cargo Area	9 cu.ft.	30.9 cu.ft.	+21.9 cu.ft.

The notable reductions in wheelbase and length will combine with the Firebird's close 36.7 foot turning diameter, to provide '82 Firebird owners a level of parking ease and close-quarter maneuverability not offered by earlier Firebirds. As you can see, the tread, width and height dimensions have remained relatively close.

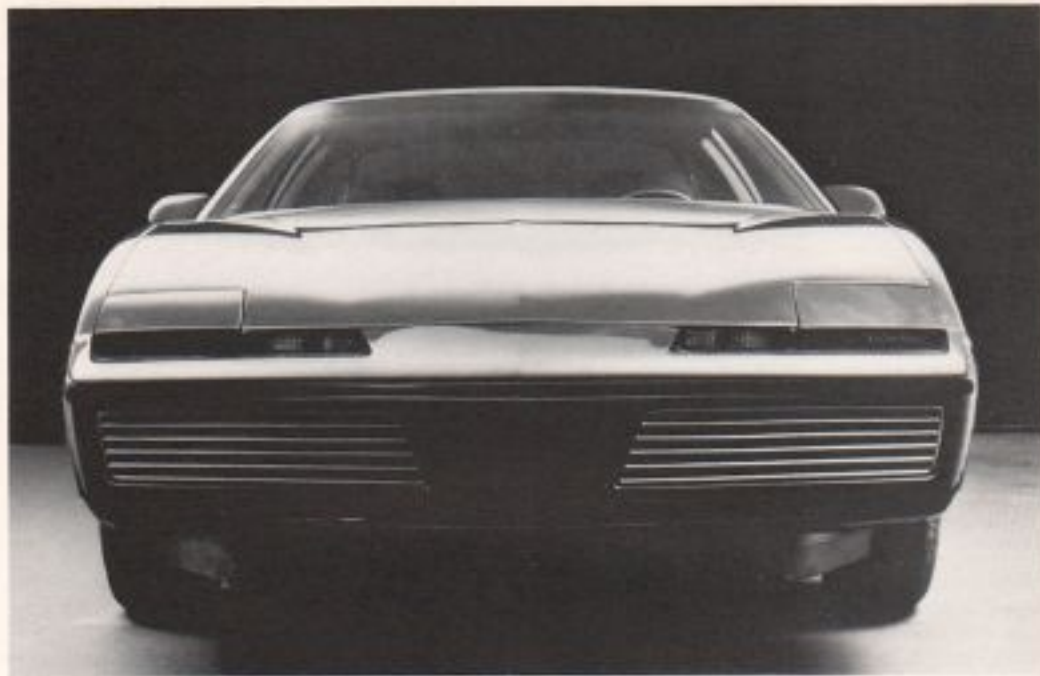
The really remarkable fact about the '82 Firebird's reduced exterior dimensions, is how Pontiac's design engineers were able to essentially maintain and even improve some interior dimensions over last year's model. In fact, the interior dimensions show an increase in all areas but three, and two of those are within an inch of last year's.

But the "feeling" of roominess in an automobile is almost as critical as the actual measurements. Contributing to the car's perceived roominess, the Firebird's large glass area lends an open, airy feeling to the cockpit, while the sloping liftback boasts a futuristic silhouette with an uncommon level of utility and function for an automobile of this class.

The standard front seat recliner feature allows adjustments to effectively increase head room, while the increase in front seat travel from 5 to 7 1/2 inches will serve to accommodate the driver and passenger with adequate adjustments for excellent seating and good pedal and control reach.

Finally, the new Firebird's luggage area offers much more utility than ever before. With the rear seat up four passengers can ride in comfort, with three more cubic feet of usable luggage space than last year. Of course, with the rear seat folded down the four-passenger Firebird becomes a smart two-seater, boasting an expansive 30.9 cubic foot cargo area.





FIREBIRD INNOVATIVE CONTENTING

Equipping an automobile to satisfy everyone in today's ever-changing market would be an impossible task. In deciding which exterior and interior features and equipment should be offered as standard, automotive manufacturers are faced with a dilemma.

Of course the inclusion of certain features essential to the "personality" of the car is decided upon early in the automobile's design stages, but what about the "add-on" features ... the little, or not-so-little, extras that offer convenience, comfort or functional benefits to the car's owner?

It's important to remember that the inclusion of a particular item as standard equipment is justified only if the vast majority of that vehicle's prospective customers are willing to pay the extra charge to include it on the base model. Too many standard features can make the base price of an automobile so high that a number of potential prospects would never be able to afford it.

Fortunately for Pontiac customers, the 1982 Firebirds are offered in three distinctive models. Contented and priced individually to accommodate specific segments of the sporty car market, together they offer all who consider themselves "driving enthusiasts" excellent value for the dollar.

Firebird Coupe

The Firebird coupe is the FUNdamental Firebird. Featuring the designed-in structural integrity, innovative engineering, efficiency and quality that is the intrinsic nature of every '82 Firebird, this model offers an affordable price with a surprisingly high level of standard equipment.

All Firebirds have these standard exterior features (unless noted):

- **Body-colored soft fascia front and rear bumpers** (see Construction section for details). Functional dual-venturi grille panels are mounted in the fascia at the front bumper.
- **The retractable hidden headlamp system** features rectangular headlamps driven by separate left- and right-hand motors, operated by a rocker-type switch on the IP. The left-hand headlamp cover sports a "Pontiac" nameplate.
- **Lexan tungsten-halogen headlamps** are standard. Lexan is a high-strength plastic that offers measurable weight savings over glass. The low-beam tungsten filament offers a 36 percent energy saving ... and the high-beam halogen gas provides whiter light with twice the illumination of conventional headlamps.

- A functional front air dam aids aerodynamics, engine cooling and ventilation of the passenger compartment.
- The fluidic windshield washer system is controlled by dual nozzles that distribute the fluid in oscillating sweeps, covering the entire windshield for efficient cleaning. The system produces large water droplets which are less affected by wind than the concentrated spray of conventional systems.
- Door handle tape inserts sport a "fuel injection" logo on vehicles with the standard ER L4 engine.
- Dual outside rearview mirrors feature a semi-patch, pedestal mounted design for minimal wind resistance and sporty good looks.
- Black-finished—grille panels, front air dam, windshield molding, windshield wipers, dual exterior mirrors and hatch glass molding offer a sporty, functional look.
- Bright-finished—door handles and lock cylinders, "Firebird" nameplate mounted behind the front wheel housings, "Pontiac" nameplates just under the left-hand headlamp housing and at the bottom center of the full-width red tail lamp fixture provide subtle highlighting to Firebird's structural appearance.
- 14"x6" steel wheels feature a center hubcap with a red Firebird emblem. (Trans Am and SE have specific wheels)

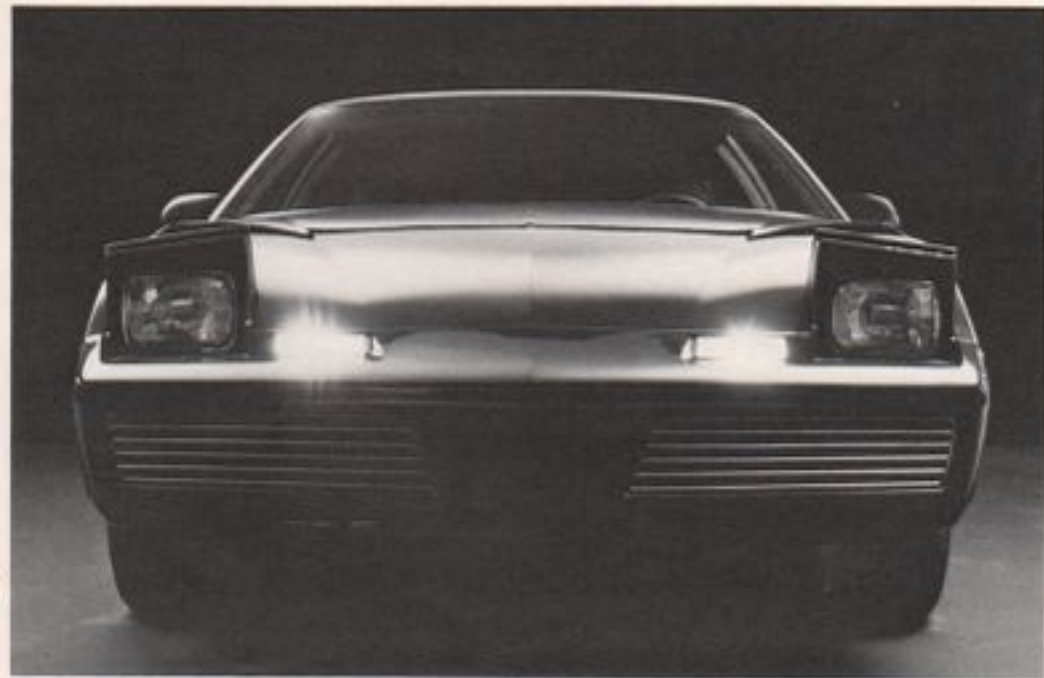
- P195/75R14 glass-belted, blackwall radial tires have a high pressure (35 psi) design, for low rolling resistance and good fuel economy. (Trans Am and SE have specific tires)

A choice of 12 standard exterior colors are available, including nine metallic finishes. Available colors include: White, Black and Bright Red in regular finish ...and Silver, Light Blue, Dark Blue, Light Jadestone, Dark Jadestone, Gold, Dark Gold, Maroon and Dark Charcoal in metallic finish. (Trans Am and SE have specific two-tone paint schemes.)

The Firebird's tremendous level of standard interior features is indicative of the challenge these cars will pose to competitive imports in the sporty car market.

All Firebirds have these standard interior features (unless noted):

- Fully reclining, front bucket seats with lateral (side-to-side) restraint, standard in Dermo vinyl or available in Pompey cloth in a total of six different interior colors. Vinyl seats are available in Charcoal, Blue, Camel Tan and Maroon, while cloth seats are available in Gray, Blue, Jadestone, Camel Tan and Maroon. (SE has specific seats.)
- The roof-mounted shoulder belts have a comfort feature that allows adjustment to reduce belt pressure. Shoulder and lap belts are color-coordinated.





- The **IP cluster** includes speedometer and fuel gauges ... warning lights for oil pressure, generator, check engine, parking brake on, fasten belts and coolant temperature ... and indicators for the choke, right- and left-hand turn signals and headlamp high beams. (Trans Am and SE have specific IP cluster.)
- **Side window defoggers** are integral and positioned on the outer edges of the broad IP pad.
- The **interior hood release** is cable-operated and located on the driver's side under the IP.
- A new, 14½ inch diameter **"Formula" steering wheel** is standard and features a color-keyed rim and horn button and an innovative energy-absorbing hub developed exclusively by and for Pontiac.
- The **multi-function control lever** offers fingertip control of the turn signals, headlamp dimmer, washer/wiper and available intermittent wipers and cruise control.
- The **floor console** has an integral design with the IP. This color-coordinated, vinyl-trimmed unit houses the HVAC (heater, ventilation and air conditioning) controls, radio, illuminated ash tray with cigarette lighter inside, transmission shift lever (simulated leather boot with manual transmission), hand-operated parking brake, molded-in glove compartment (with light), and integral rear seat ash tray (installed in rear of console). The console also features provisions for power windows and power mirror controls.
- **Trancon 12 ounce, foam-backed carpeting** is of a one-piece molded construction and is color-coordinated with the car's interior.
- The **inside door handles** feature sharkie-type armrests for ease of operation and center-located, **anti-theft door locks** (like the Phoenix) for safety and security.
- The **day/night rearview mirror** is windshield mounted.
- The **dome lamp** is operated by door jamb switches.
- **Dual horns** honk loud.
- The **"bucket" appearance full-width folding rear seat** material matches the front seats and features 14 ounce Tara carpeting on the seatback.
- The **deep well cargo area** includes injection-molded plastic—sidewalls, wheelhouses, spare tire cover and rear end panel ... and carpet trim on the load floor, stowage well and kick up.
- A **lockable hinged door** in the left-hand rear quarter panel trim allows the concealment of small valuables from prying eyes.





Firebird Trans Am

The Trans Am is the performance Firebird. Equipped to the max for handling, responsiveness and top 0 to 60 performance, this machine boasts a number of impressive and functional "extras," that will make its identity with the hard-core "quarter-mile" crowd unmistakable.

In addition to (or in place of) features which the Firebird coupe has standard, the Trans Am includes:

Mechanical

- A 5.0 liter 4-barrel V-8 145 horsepower engine with dual resonator exhaust, heavy-duty 4-speed manual transmission and 3.21:1 rear axle ratio. 0 to 60 performance time is 10 seconds.
- A heavier (level II) suspension package that includes a "quicker" steering ratio, turbo cast aluminum wheels and steel belted radial blackwall tires. (This suspension package is also standard on the SE; see Engineering section for more details.)

Exterior—Functional

- Front fender air extractors in the quarter panels behind the wheel housings provide optimal cooling for the front disc brakes and engine compartment.
- A flexible black extension on the front air dam helps improve the aerodynamics even further.
- Front and rear wheel opening air dams also contribute to improved aerodynamics.
- The rear wing deck spoiler is another superb aerodynamic aid. It is a one-piece unit securely fastened to the hatch lid on two struts.

- The flush aero covers on the lightweight turbo cast aluminum wheels (also standard on the SE) are the result of extensive wind tunnel development, and are responsible for several counts of the Trans Am's reduced drag coefficient.

Unlike the Trans Am of the past, with its imposing scoops, fins and graphics, the '82 Trans Am was designed to be the smoothest, most aerodynamically fluid piece of machinery ever produced... and it is. Much more subtle than in the past, it is also vastly more aerodynamic and fuel efficient, and with the aforementioned aerodynamic devices included in today's package, the '82 Trans Am boasts a .342 drag coefficient, nine points better than the Firebird coupe.

Exterior—Appearance

Because the 1982 Trans Am has its aerodynamics "built-in," Pontiac design engineers chose a high-tech "mechanical" approach to establishing its new exterior identity. Five bright, high intensity, upper body colors are available with black lower body paint accents. (When black is specified as the upper body color, the lower paint accent is gold.) A tape stripe color-coordinated to the upper body extends along the car's perimeter at the paint break line.

All of the elements that identify the car as a Trans Am are also in high-tech, structural-look black—the turbo wheel covers... the dual mirrors... the rear deck spoiler... the door handles and key lock cylinders... the window sill

molding ... the flexible air dam extension ... the front fender air extractors ... the "Trans Am" lettering just above the fender extractors ... the small "Bird" graphic—including one centered on the leading edge of the hood and another on the sail panel (an argent finished "Bird" is centered on the blacked-out, full-width rear tail lamp) ... all of these features are high-tech and functional in appearance.

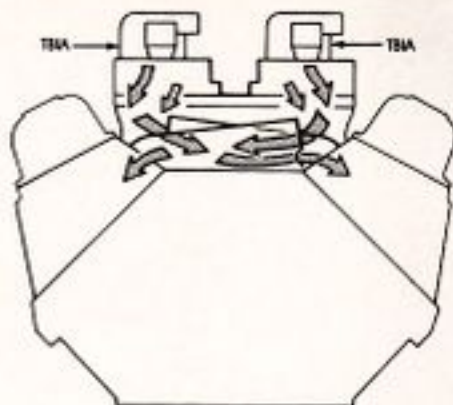
Interior

- Full instrumentation including—speedometer, trip odometer and tachometer ... gages for oil pressure, voltage, fuel level and coolant temperature ... warning lights for check engine, parking brake on and fasten belts ... and indicators for choke and right- and left-hand turn signals.
- Remote control for left-hand outside rearview mirror.

Exclusive Trans Am Options

The 5.0 liter, Dual TBI cross-ram fuel-injected engine is available only in Trans Ams equipped with an automatic transmission and special performance handling package (option WS6). Featuring two single-point throttle body injection assemblies on a cross-flow aluminum intake manifold, this powertrain develops 165 horsepower at 4200 rpm and rockets the Trans Am from 0 to 60 in nine seconds. That's better than Pontiac's 1981 Turbo Trans Am, and this year's Trans Am does it with a 10% improvement in fuel economy over last year's Turbo. A sport aluminum hood with functional "thru the hood" ram air induction is standard with this option with a "cross ram injection" logo on an asymmetric hood shroud.

This engine is an adaptation of the 5.0 liter 4-barrel V-8 that is standard in the Trans Am and available in the coupe and SE. It was designed and retuned for high performance with—



Cross-Ram Fuel Injection

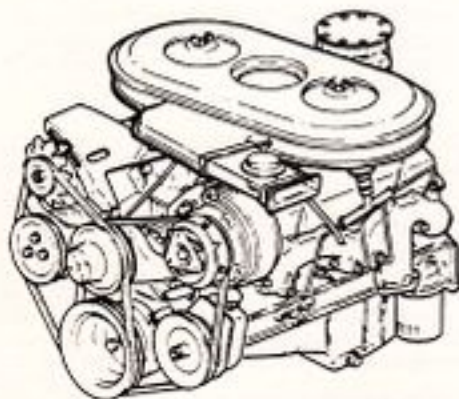
- A higher compression ratio (9.5:1 versus 8.6:1)
- A specific camshaft and manifold for improved high speed breathing
- A free-flow exhaust system
- Unrestricted high density air intake for optimum performance, includes a computer controlled functional hood louwer
- A 20 horsepower increase over the 5.0 liter 4-barrel V-8

Another new option only to be available in the Trans Am will be the Recaro Trans Am option package. Available on a limited edition (approximately 1,000 vehicles) basis for '82, this package can be ordered only with Trans Ams that feature the Black/Gold exterior paint scheme.

The Recaro Trans Am option package includes: the Dual TBI 5.0 liter V-8 engine (with automatic transmission) ... or 5.0 liter 4-barrel V-8 engine with 4-speed manual transmission ... WS6 special handling package ... luxury interior trim group—Charcoal cloth ... and removable glass hatch panels.

Recaro bucket seats are orthopedically designed with anatomically-contoured cushions that can be molded to fit the rider like a glove. Separate adjustments allow fine-tuning to achieve perfect lumbar (middle of the back) support and lateral (side-to-side) restraint for every individual.

Unqualified comfort, absolute command of the road, and virtual elimination of driver fatigue are the benefits of Recaro seating acclaimed for years by top racing circuit drivers. For those who won't sit still for anything else, the Recaro Trans Am option will be the ultimate final touch to the true performance car enthusiast's Trans Am.



Trans Am's Optional Dual TBI V-8 Engine



Firebird SE

The SE is the premier Firebird. With subtle, understated sophistication, it offers "international-class" ride, handling, performance and economy. Adding luxury and sophistication to the Trans Am's excellent handling and roadability, the SE, with its high level of standard equipment, is Pontiac's answer to the contemporary sporty car market segment currently dominated by the imports.

In addition to (or in place of) features which the Firebird coupe has standard, the SE includes:

Mechanical

- A 2.8 liter 2-barrel V-6, 102 horsepower engine with a 4-speed manual transmission (automatic transmission required with V-6 engine in California) and 3.21:1 rear axle ratio. 0 to 60 performance time is 13.5 seconds.
- A heavier (level II) suspension package that includes a "quicker" steering ratio, turbo cast aluminum wheels and steel-belted radial blackwall tires. (Same as standard Trans Am suspension package; see Engineering section for more details.)

Exterior

To maintain its subtle and sophisticated "international" image, and differentiate its identity from the Trans Am, the SE features a tasteful, tone-on-tone color scheme.

Available in six two-tone combinations, the lower body paint accent (with color-coordinated paint stripe at paint break line) subtly highlights the upper body color.

Exterior features that reflect this theme include:

- Body-colored—flush aero wheel covers (standard on Trans Am in black)—dual exterior mirrors—door handle tape inserts—fender mounted "Firebird" nameplate—sill panel "SE" logo—and tail lamp-mounted "Bird" emblem.



- Protective body side moldings are also color-coordinated
- Black-finished door handles and key lock cylinders, and a blacked-out full-width tail lamp add a contemporary look to the total package
- The lockable fuel filler door adds security from fuel theft



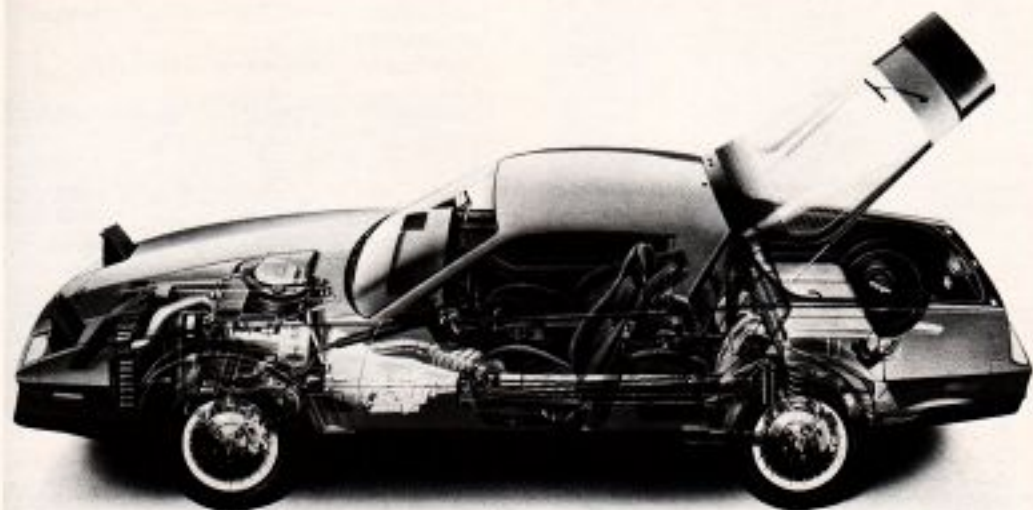
- The rear hatch wiper/washer includes a fluidic washer system that utilizes the washer bottle in the engine compartment. The control switch is mounted on the IP.



Interior

The SE's interior exudes the same feeling of tasteful elegance as its exterior. Beginning with the full instrumentation package that's also standard in the Trans Am, the SE adds a number of comfort, convenience and luxury features that will serve to position this automobile at the top of its class.

- The SE's luxury interior package features:
 - High-contoured Viscount front bucket seats with open headrests. Providing sporty good looks and extra lumbar, thigh and side support, these seats are available in Doekin vinyl, Parella cloth or leather
 - Deluxe rear seat trim—with 14 ounce Tara carpeting on the seatback
 - Custom color-keyed seat belts
 - Custom pedal trim
 - Carpeted kick pads
 - Deluxe door and quarter panel trim
 - IP mounted leather map pocket—located where the glove compartment would normally be
- The electric rear hatch release has a relay feature that allows release of the hatch only when the parking brake is on (with manual transmission-equipped vehicles) ... or when the vehicle is in park or neutral (with automatic-equipped vehicles). The push-button switch is mounted on the IP
- Remote control for left-hand outside rearview mirror
- Added acoustical insulation



1982 Firebird Options

For those discerning Pontiac customers who wish to customize their Firebird even further, a vast array of optional accessories, trim packages and mechanical "extras" are available. Some of the options are new and innovative ... while others have proved themselves winners with Pontiac Firebird owners of the past.

Options—Mechanical

- 2.5 liter I-4 EFI engine—credit delete, SE only (standard on Firebird coupe)
- 2.8 liter 2-barrel V-6 engine—coupe only (standard on SE)
- 5.0 liter 4-barrel V-8 engine—requires automatic transmission in coupe (standard in Trans Am)
- Dual TBI 5.0 liter V-8 engine—Trans Am only (requires special performance handling package)
- 3-speed automatic transmission (except in California with V-6 engine)
- Special performance handling package (level II suspension)—Trans Am and SE only (see Engineering section for details)
- Limited slip differential—includes stowaway spare tire (standard with special performance handling package)
- 4-wheel power disc brakes—Trans Am and SE only (included in special performance handling package)

- Engine block heater
- Heavy-duty—63, 70 and 85 amp Delcootron generators
- Heavy-duty battery
- Heavy-duty cooling system

Options—Exterior

- Protective body side moldings—black (standard in body color with SE)
- Lockable fuel filler door (standard with SE)
- Tinted glass—all windows (required with air conditioning and highly recommended for all Firebirds, to offset heat loads caused by larger glass area)
- Custom exterior group—coupe only—includes: bright—lower body side, roof drip and belt reveal moldings ... body-colored door handle tape inserts ... and remote control for the left-hand outside rearview mirror
- Door edge guards—bright w/coupe, black w/Trans Am and SE
- Removable glass hatch panels (see Construction section for details)
- Sport aluminum hood—Trans Am only (same as that standard with Dual TBI engine)
- Power antenna

- Wheels—coupe only
 - Cast aluminum "snowflake" in silver or gold
 - Simulated wire wheel covers
 - Rally V wheel assembly—new, includes: HSLA wheel, bright trim ring, plastic wheel cover and center hubcap with Pontiac "V" crest
 - Bright trim ring
- Natural aluminum color hubcaps for turbo cast aluminum wheels—Trans Am and SE only (standard on SE when equipped with special performance handling package)
- Tires—coupe only
 - P195/75R14 steel-belted radials—white letter
 - P195/75R14 glass-belted radials—whitewall
 - P195/75R14 steel-belted radials—whitewall
- Tires—Trans Am and SE only
 - P205/70R14 steel-belted radials—white letter
 - P215/65R15 steel-belted radials—blackwall—standard with special performance handling package
 - P215/65R15 steel-belted radials—white letter—available with special performance handling package only
- Rear hatch wiper washer—standard with SE
- Rear hatch-glass louver (dealer installed)—highly desirable in high sunload area
- Rear deck lid spoiler—body-colored, SE only (standard in black on Trans Am)



Options—Interior

- Luxury interior package—Trans Am only (standard in SE)
- Custom interior trim—coupe only. Same as the luxury interior package standard in the SE, except this option has specific front and rear seats—not Viscount. Also includes exterior door handle tape inserts
- 6-way power driver's seat—new for '82
- Recaro bucket seats—limited edition Trans Am only
- Front and rear floor mats—new carpeted, molded design conforms to contours in the floor
- Custom doors—same trim as that standard in SE

- Electric rear hatch release (standard in SE)
- Full instrumentation including tachometer (standard in Trans Am and SE)
- Custom air conditioning—requires tinted glass



- Power windows—rocker-type switches located on console
- Power door locks—new "soft touch control" switches
- Remote control for left-hand outside rearview mirror (standard with Trans Am and SE)
- Dual electric sport mirrors—right- and left-hand remote control. Single 4-way control located in center console with RH/LH switch
- Intermittent windshield wipers—control located on multi-function control lever
- Cruise control with resume-speed feature—control located on multi-function control lever
- Tilt steering
- Right-hand vanity mirror
- Dome reading lamp—rectangular with dual map lights
- Lamp group—includes: luggage compartment lamp, IP courtesy lamp, headlight "on" warning, tone generator
- Added acoustical insulation (standard in SE)



- Delco 2000 series sound systems—all include radio suppression equipment and (except AM monaural unit) integral digital clock—
 - AM monaural radio—includes dual 4"x6" front speakers
 - AM/FM monaural radio—includes dual 4"x6" front speakers

The following sound systems additionally include high performance, 4"x6" dual front and 6"x9" dual rear extended-range speakers. The front speakers are located in the IP, the rear in the sail panel behind a cloth grille cover and inside fiberglass acoustical chambers.

- AM/FM stereo ETR—includes seek and scan feature
- AM/FM stereo cassette
- AM/FM stereo ETR cassette—includes dynamic noise reduction and seek and scan feature

- Rear compartment security cover—black. Features roll-up type cover that attaches to the underside of the hatch lid.



- Deluxe cargo trim area—includes stowage well cover with lock, and carpet inserts on side and rear panels and spare tire cover



Clean, contemporary, road-hugging and wind-cheating, the 1982 Firebirds will turn heads on every street corner in the world. That cars such as these exist is proof of the continuing love and appreciation for beautiful, exciting automobiles. Pontiac is committed

to providing the excellence in styling, engineering, performance, and roadability that the devotees of just such automobiles demand. 1982 Pontiac Firebird... Firebird Trans Am... Firebird SE... Now The Excitement Really Begins!

THE CPS REVIEW

Following are Firebird review questions for the Pontiac CPS professional. To effectively sell Pontiac's new line of contemporary sporty cars to today's sophisticated customers, thorough knowledge of every aspect of the automobile's nature is necessary. If you can answer each of these questions correctly, you are well on your way to becoming a Firebird expert, and a CPS professional.

1. Which segment of the sporty car market will each Firebird model appeal to? (p. 1)
2. What is the customer benefit of greater interchangeability of powertrains, suspensions, interior trims and optional accessories of the new Firebirds? (p. 3)
3. What is the drag coefficient of the Firebird coupe? (p. 4) Trans Am? (p. 4) What is the benefit of a low drag coefficient?
4. What are 5 design elements of the Firebird that contribute to its low drag coefficient? (p. 4-5) Why is the rear of the Firebird "squared-off"? (p. 5)
5. What are 5 benefits of the attention to Firebird aerodynamics besides a low drag coefficient? (p. 5)
6. Does the Firebird have unitized body construction? (p. 5) What are its benefits? (p. 5)
7. What are 2 benefits of maintaining the Firebird's old front engine/rear-wheel-drive configuration? (p. 6)
8. Why is the upper IP pad black? (p. 7)
9. What is the function of the engine compartment crossmember? (p. 8)
10. What is the benefit of the roof panel being stamped as one piece with integral windshield opening? (p. 9)
11. How has the construction of the optional glass hatch panels been improved? (p. 9) Benefits? (p. 9)
12. What are 5 features that contribute to the Firebird's corrosion protection? (p. 8-23)
13. What are 5 features that contribute to the Firebird's structural integrity? (p. 8-23)
14. What are the benefits of the Firebird's front and rear bumper design? (p. 10)
15. What are 5 features that contribute to the Firebird's close "fits" and clean appearance? (p. 8-23)
16. What are 3 assembly applications that will improve consistency and accuracy during the Firebird's construction? (p. 11)
17. What is the "net hole concept" and what are its benefits? (p. 11)
18. What is the Firebird coupe's standard powertrain? (p. 12) Piston configuration and horsepower of the standard engine? (p. 12) Type of fuel delivery? (p. 12) What is unique about the standard engine's exhaust manifold? (p. 12) Benefit? (p. 12)
19. What is the Firebird SE's standard powertrain? (p. 13) Piston configuration and horsepower of the standard engine? (p. 13) Type of fuel delivery? (p. 13)
20. What is the Firebird Trans Am's standard powertrain? (p. 13) Piston configuration and horsepower of the standard engine? (p. 13) Type of fuel delivery? (p. 13)
21. What optional powertrain is available only with the Trans Am? (p. 13) Piston configuration and horsepower of the engine? (p. 13) Type of fuel delivery? (p. 13)
22. What type of exhaust system is standard with the Firebird coupe and SE? (p. 13) Features and benefits of the system? (p. 13)
23. What type of exhaust system is standard with the Firebird Trans Am? (p. 13) Features and benefits of the system? (p. 13) Availability and restrictions with other Firebird models? (p. 13)
24. What type of transmission is standard with the Firebird coupe and SE? (p. 14) First gear ratio for the transmission? (p. 14) 0 to 60 time and EPA fuel economy estimates with the standard engine? (p. 14) 0 to 60 time and EPA fuel economy estimates with the available engine? (p. 14)
25. What type of transmission is standard with the Trans Am? (p. 14) What is the 0 to 60 performance and EPA fuel economy estimates of this powertrain? (p. 14)
26. What are 2 special features of the Firebird's manual transmission? (p. 14)
27. What are 2 special features of the Firebird's automatic transmission? (p. 14) 0 to 60 time and EPA fuel economy estimates with the standard engine? (p. 14) With the SE's standard engine? (p. 14) With the Trans Am's standard engine? (p. 14) With the Trans Am's exclusive optional engine? (p. 14)
28. What is the fuel tank capacity of the Firebird coupe? (p. 14) SE? (p. 14) Trans Am? (p. 14) What are special features of its design? (p. 14) Benefits? (p. 14) What is the cruising range with the Firebird's standard powertrain? (p. 14)
29. What is unique about the Firebird's front suspension? (p. 15) What are 3 benefits of its design? (p. 15)
30. What type of rear suspension does the Firebird have? (p. 16) How is it different from the '81 model? (p. 16) What are 3 elements of its design? (p. 16) Function and benefits of each? (p. 16)
31. What are 4 elements of the Firebird's standard suspension (level I)? (p. 16) Function and benefit of each? (p. 16) What are 5 elements of the SE and Trans Am's standard suspension (level II)? (p. 16) Function and

benefit of each? (p. 16) What are 5 special elements of the special performance handling package (level II)? (p. 16) Function and benefit of each? (p. 16)

32. What are 5 elements contributing to the Firebird's smooth, isolated ride? (p. 17)

33. What is "match-mounting"? (p. 17)

34. What type of steering is standard with the Firebird coupe? (p. 17) Steering gear ratio? (p. 17) Curb-to-curb turning diameter? (p. 17) What type of steering is standard with the Firebird SE and Trans Am? (p. 17) Steering gear ratio? (p. 17)

35. What type of braking system is standard? (p. 17) What are 5 elements of its design? (p. 17) Benefits of each? (p. 17)

36. What optional braking system is available for the SE and Trans Am? (p. 17) Which level suspension is it standard with? (p. 17) What are its benefits? (p. 17)

37. How does the parking brake operate? (p. 17) Where is it located? (p. 17)

38. How many inches of usable space did the Firebird's new front suspension add to the engine compartment? (p. 18) Benefit? (p. 18)

39. What is the customer benefit of the reduced labor times for Firebird servicing? (p. 18)

40. What are 5 engine compartment elements contributing to the Firebird's improved labor times? (p. 18-19) What are 5 other elements contributing to improved Firebird serviceability? (p. 20)

41. What are the Firebird's long recommended maintenance intervals? (p. 21) What are their customer benefits? (p. 21) What are the benefits of the Firebird's comprehensive warranty coverage? (p. 21) What are the Firebird's 4 warranties, what do they cover and for how long? (p. 21)

42. What are 5 elements that contributed to the Firebird's lower weight? (p. 8-23) How much less does this year's coupe weigh than last year's? (p. 23) Benefit? (p. 23)

43. What is the Firebird's average improvement in fuel economy for the base coupe (%) over last year? (p. 22)

44. What is the Firebird's wheelbase? (p. 23) Tread? (p. 23) Benefit? (p. 23) How do the '82 Firebird's exterior and interior dimensions compare to the '81's? (p. 23) What are the benefits of these differences? (p. 23)

45. What are the Firebird's EPA Interior Volume Index figures? (p. 23) What is the maximum cargo area? (p. 23)

46. How is the Firebird's "perceived" roominess increased? (p. 23)

47. How do the Firebird's reclining bucket seats and increased seat travel improve rider comfort? (p. 23)

48. How can too many standard features be detrimental to a car's market appeal? (p. 24)

49. Identify each of the following as standard, optional or not available for each '82 Firebird model. If the feature is standard or optional only with the SE or Trans Am, indicate it with the initials "SE" and/or "T/A" respectively, in the appropriate column.

	Standard	Optional	NA
Halogen Headlamps			
Dual TBI 5.0 Liter V-8			
Electric Rear Hatch Release			
Reclining Viscount Bucket Seats			
"Formula" Steering Wheel			
Inside Hood Release			
Left-Hand Remote Mirror			
Cruise Control w/Resume			
4 Barrel V-6			
Deluxe Cargo Trim			
14"x6" Steel Wheels			
Side Window Defoggers			
Illuminated Ash Tray			
Body Side Molding			
Dual Horns			
Front Fender Air Extractors			
Full Instrumentation including Tachometer			
Recaro Seats			
Automatic Transmission			
5.7 Liter Diesel V-8			
27mm Front Stabilizer Bar			
Power Steering			
4-Wheel Power Disc Brakes			
Power Windows			
2-Barrel V-6			
Heavy-Duty 4-Speed Transmission			
Rear Hatch Wiper-Washer			
Rear Deck Wing			
Stainless Steel Exhaust Manifold			
Dual Resonator Exhaust			
Day/Night Rearview Mirror			
Curb Feelers			

