

# The 1978 Audis





# The Audi 5000—a new kind of luxury car.

## The Audi Fox—a spirited sports sedan.

**As an historic car maker, Audi has distilled three-quarters of a century of heritage and experience into the creation of these two thoroughly modern automobiles.**

For 1978, Audi is proud to present a new, improved Audi Fox and an astonishing new luxury sedan—the Audi 5000. Inside, you will find more information on both great cars. But first, you may want to read about the company that produces them—and the engineering innovations that make the Fox and the “5000” such unique and distinctive cars to own.

THE 1978 AUDI FOX (SHOWN WITH THE 1938 HORCH)

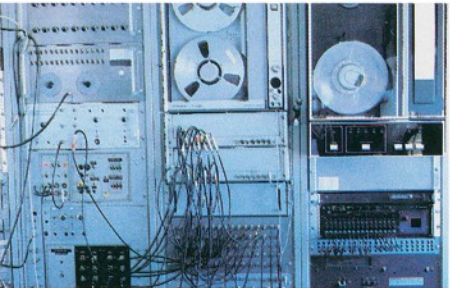


### Famous Auto Pioneers

Audi is a respected auto maker known throughout the world as an innovator in the design, engineering and construction of high-quality cars. The company's origins date back to the earliest days of car-building. The word *Audi* (the Latin equivalent of the German word, *Horch*) was selected as a brand name by the celebrated August Horch, one of Europe's most famous auto pioneers.

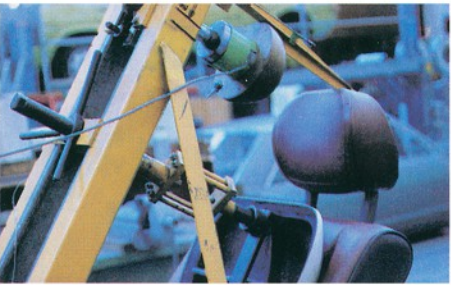
From 1909, when Horch began building and racing sports cars, he and his speeding Audis dominated road races and motor shows all over Europe. In 1932, the makers of four German automobiles (Audi, Horch, Wanderer, and DKW) were merged into one large organization called Auto Union. It was this company that introduced the first modern car carrying the Audi name in 1966, which soon became one of the most prestigious automobiles in Europe.

The Audi organization is known throughout the industry as an innovator in automotive engineering. In fact, a full 10% of Audi's work



force of 20,000 is employed in research and development activities.

All development work is directed by Ferdinand Piech, well known for



the design and engineering of numerous Porsche models. Under Piech's supervision, Audi engineers work in a creative atmosphere, where new ideas can be freely advanced, debated, and acted upon. It is this

favorable engineering climate that spawned the many technical advances readily apparent in the Audi Fox and the new Audi 5000.

### Superior Tracking Of Front Wheel Drive

Audi has been building front wheel drive cars for over forty years. Many of the basic handling traits of Audi automobiles derive from front wheel drive and placement of the engine forward of the front wheels. The greater proportion of weight on the front wheels gives the driver better tracking stability.

Front wheel drive through constant velocity joints results in a

low unsprung weight (amount of weight between the suspension and the ground), which improves both handling and ride quality. Since the rear axle does not carry the weight of a differential, it is far lighter than that



of cars with rear wheel drive. This light axle neatly follows the contours of the road without the “road hops” typical of cars with heavy rear axles.

In both the Audi Fox and the new Audi 5000, front wheel drive is combined with rack-and-pinion steering and superb front and rear suspension systems to give a ride and “feel” on the road that must be experienced to be fully appreciated. The front suspension uses the long-travel, good road shock absorbing coil/shock strut suspension. The rear axle consists of the proven design of the torsion beam principle. Light in construction, it has low unsprung weight for superb handling and ride quality.

### Negative Steering Roll Radius

Under certain circumstances, the front wheel suspension design also influences the braking behavior of the car. When slippery road surfaces (or a front wheel blowout) causes one front wheel to brake harder than the other, a factor known

as “steering roll radius” comes into play. The Audi Fox and 5000 are designed with what is

known as negative steering roll radius, which in cases of uneven braking, helps the driver maintain directional stability. Under the same circumstances, a conventional car (with positive steering roll radius) will steer in the direction of the greater braking friction—which aggravates the situation instead of correcting it.

To compensate for heavier rear loads, Audis are equipped with a unique load-sensing pressure regulator, which automatically increases the pressure on the rear brakes. The two separate brake circuits are linked diagonally, rather

than front and back. In the highly unlikely event that one brake circuit fails, the driver will still have front and rear braking power.

### Passive And Active Safety

Audi invests a full one-third of its research and development efforts in the improvement of safety. In the design of the Audi 5000 and the Audi Fox, the driver and passengers have been given an unparalleled measure of security—both in *active safety* (the ability to avoid accidents) and *passive safety* (the ability to minimize injuries in accidents when they cannot be avoided).

Active safety depends primarily on a car's performance. And the Audi's favorable weight distribution gives improved road traction and superior stability even in strong cross winds.

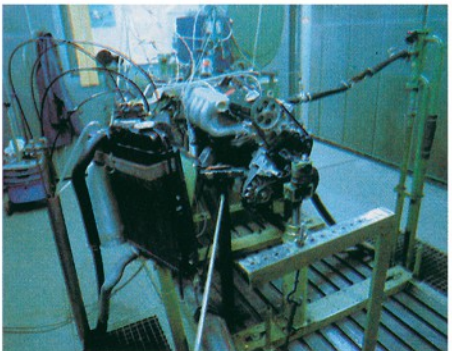
Audi automobiles are of modern light-weight construction for fuel economy. But no sacrifice has been made regarding the protective safety of their occupants.



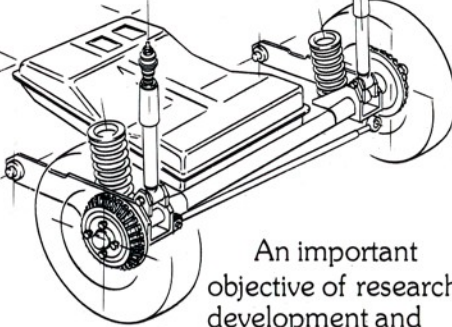
All Audis are designed with a type of body construction that places a rigid “passenger cell” between two impact areas, or “crumple zones,” front and back which absorb the energy of a crash while the passenger cell remains intact.

### Service Network In U.S. And Canada

The Audi plant in Ingolstadt, Germany, is a facility large enough to



take full advantage of modern, automated methods—yet small enough to encourage craftsmanship and pride in work that results from individual initiative. Extensive testing operations are conducted, with the whole car and individual components going through countless exhaustive tests. Factory tests are complemented by thousands of miles of road tests in many locations, including the Sahara Desert in summer and Finland in the winter.



An important objective of research, development and testing at Audi is reduced maintenance over the life of the car. Many working parts of the Audi 5000 are actually maintenance-free. After the initial 1,000 mile service, the entire drive train, including the standard transmission, does not require regular oil changes. Rear and front suspensions are permanently lubricated. When service is necessary, however, Audi 5000 owners can call on a nationwide network of conscientious Audi dealers throughout the U.S. and Canada. These dealers have available to them thorough and specialized training in every servicing requirement of the Audi 5000. They are stocked with a large supply of parts. And for parts that are rarely required, they can draw on Audi's computerized inventory for quick delivery.

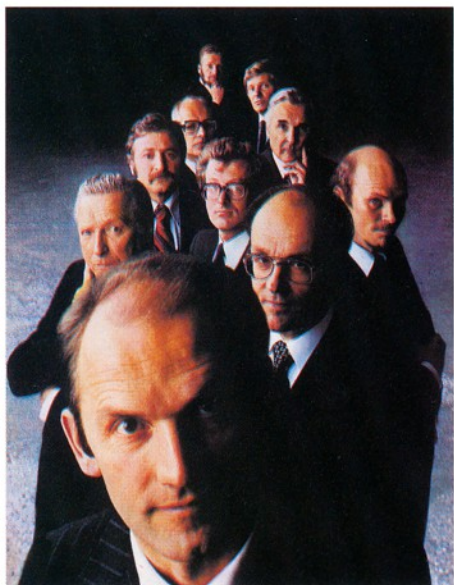
For the car owner who does not

limit his choice to the commonplace, Audi offers some very special, yet practical alternatives. See further details on The Fox and The 5000 inside.



# The Audi 5000. "Designing a new automobile from the ground up gave us the chance to create the best-engineered luxury car in the world."

This is the team of automotive engineers who developed the new Audi 5000, a new kind of luxury car for the radically different needs of today. They set out to design and



build the ideal modern luxury car—light in weight, economical to operate, yet performing like a heavier, more powerful car. It would be priced to be competitive while giving its owner a superior combination of space, handling, acceleration and comfort.

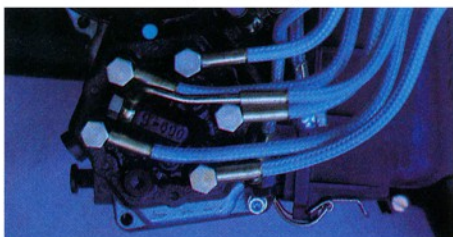
To reach their goal, Audi engineers broke new ground in many areas of automotive design, creating a car that is new in the sense of being totally newly engineered. In the process, they have employed many technical innovations. But more important, they have created a new automobile which is superb in total: "The Audi 5000"—a new kind of luxury car.

**"The new five-cylinder engine in the Audi 5000 is the best answer yet to the modern need for a luxury car with good fuel economy."**

The most difficult question Audi engineers had to face in developing the 5000 was the choice of an engine. They resolved the question with a revolutionary new approach: the first five-cylinder gasoline engine.

Compared with an in-line six-cylinder type, the engine of the Audi 5000 is lighter in weight, more economical to operate and more efficient because it has fewer moving parts. Compared with four-cylinders, the Audi 5000 engine has greater power, with far less noise and vibration.

The new engine is a 2.2 liter, 103 hp overhead cam type with CIS (Continuous Injection System) fuel



injection. This method of fuel injection is highly dependable, particularly suited to easy startups—and quick response in cold winter weather. The engine is also remarkable for its simplicity of design, which increases reliability.

While fuel injection, in general, is superior in many respects to carburetion, the CIS type is noted for highly accurate metering, which results in clean exhaust emissions and efficient use of fuel. EPA\* estimates rate the Audi 5000 at 24

mpg on the highway and 17 mpg in the city with automatic transmission. Yet it accelerates 0 to 50 mph in 8.4 seconds with a top speed of 100 mph.

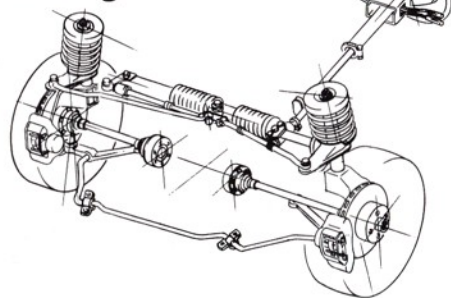
The owner of an Audi 5000 has the satisfaction of driving a car equipped with a technically advanced engine of a new five-cylinder design.



Yet far from experimental, the engine has been thoroughly proven in thousands of hours on the test stand, and 875,000 hours of test-driving under the most extreme conditions.

\*Based on 1978 EPA estimates 24 highway, 17 city mileage with automatic transmission. Your actual mileage may vary, depending on where and how you drive, your car's condition and optional equipment. Ask your dealer for a free copy of the EPA/FEA Gas Mileage Guide for New Car Buyers.

**"We have the most experience in producing front wheel drive automobiles, and the Audi 5000 is our ultimate achievement in steering, tracking and braking."**



The advantages of front-wheel drive, rack-and-pinion steering, negative steering roll radius and technically advanced suspension geometry are described on the previous page. In the Audi 5000, this combination is further enhanced by the car's wide track, long wheel base and low center of gravity.

While the details of suspension, steering and braking are important, the real test is how these details combine into a single, high performance entity. In the Audi 5000, the blend of complex technical specification delivers a degree of response to the driver's every wish that is truly astonishing.

**"By uniting the car with the driver, the controls of the Audi 5000 communicate a sense of quick response and high performance."**

Seated in the Audi 5000, a driver is immediately impressed with the simple, sensible organization of the dashboard. The car's designers have placed their emphasis on functionality rather than "show." Instruments and controls are as reassuring and relaxing in appearance as the car is to drive.

Steering of the 5000 is easy but firm in the hands. The rack-and-pinion mechanism itself is maintenance-free and self-adjusting.

Every driver's response and performance are strongly affected by the climate within the car—a combination of air temperature, humidity, air flow and temperature distribution. (The car's heater has a

## "The Fox" by Audi. If spirit is what you expect from a fine sports sedan,

First-time drivers of The Fox become quickly aware of its indomitable spirit. Because this automobile possesses a steering response, road-holding ability and power command like a full-fledged sports car.

The Fox excels in practical transportation as well. It can carry 5 adult passengers comfortably, with



18.7 cubic feet of trunk space. And EPA\* estimates it delivers 37 mpg on the highway and 23 in the city with standard transmission.

In short, The Fox answers all the needs of the modern car buyer. And it fulfills dreams too. Because above all, this is a car with spirit.

\*Based on 1978 EPA estimates 37 highway, 23 city mileage with manual transmission. Your actual mileage may vary depending on where and how you drive, your car's condition and optional equipment. Ask your dealer for a free copy of the EPA/FEA Gas Mileage Guide.

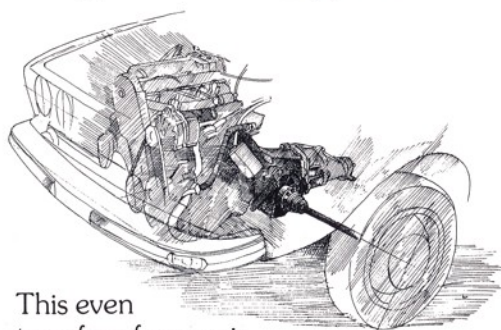
**You harness the spirit of a fine-tuned machine when you drive a Fox.**

The spirit of The Fox originates under the hood—with a 1.6 liter overhead cam engine—4 cylinders



in-line, and placed with its center of gravity in front of the axle. Fuel injection is CIS (Continuous Injection System), which contributes to smooth performance and efficient use of fuel, as well as clean exhaust emission. Because it has CIS instead of carburetion, The Fox excels at cold-weather starting.

In The Fox, the engine's power is transferred to the front wheels through constant-velocity joints.



This even transfer of power is matched by the superior "road feel" of rack-and-pinion steering to produce easy handling and tight control. So the driver functions as an integral part of the spirited machine at his command.

**Anytime you want to test its spirit, The Fox can take it.**

Typical of The Fox spirit is the way the car thrives on being driven long and hard. It is rugged of body and sturdy in construction. Though light in weight, it has great structural strength, because The Fox body is

spirit of The Fox to the very road it rides on.

**Spirited road handling is combined with advanced safety systems in The Fox.**

The exceptional road-handling and steering characteristics of The Fox make it a sleek and able



united through arc and spot welding. (Each Fox contains 4,500 spot welds and 18 feet of CO<sub>2</sub> arc-welded seams.) And four separate layers of protective finish are applied to the body shell, doors and hood.

A tough suspension system supports the rugged Fox body. The suspension is independent in front and torsion-crank construction in the rear—a partly flexible bar whose light weight results in less wheel bounce. The stability of tracking that results is further assisted by steel-belted radial tires, which convey the

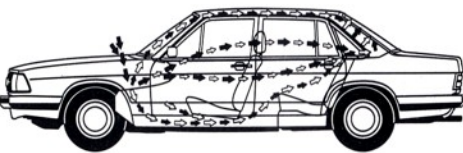
maneuverer in every driving situation. And its surprising pickup (0 to 50 in 8 seconds) helps a driver accelerate when the need arises.

Even under extreme conditions—such as uneven braking on wet or icy roads—The Fox is designed to give the driver maximum control. A combination of front wheel drive and negative steering roll radius (see explanation on previous page) will actually help to maintain directional stability when braking on uneven surfaces.

Every aspect of protective safety



heat output which can maintain the inside temperature at 86°F when the outside temperature is -40°F.) A wide array of air outlets at dashboard height “stratify” the air flow so that



the upper air layer is kept cooler and the lower layer warmer.  
Engineering improvements inside the passenger compartment of the Audi 5000 actually rival the technical advances made in the car’s power train. Only behind the wheel will a driver fully appreciate the interior atmosphere its designers have created—for a safe and relaxed, yet exciting driving experience.

**“The interior of the Audi 5000 will meet the needs of driver and passengers for two kinds of comfort... psychological as well as physiological.”**  
The interior of this new kind of luxury car was approached with as much innovative thinking as its moving parts. Inside the Audi 5000, its designers have created a living room atmosphere and enhanced it with luxurious, tasteful appointments. Through scientific orthopedic principles, the car’s modern, all-foam seats are cushioned and sprung precisely to eliminate tiring vibrations. Internal safety features also offer a sense of reassurance: Inertia-reel seat belts, safety locks on doors, collapsible instrument panel and the

absence of dangerous sharp corners and edges.  
In the 5000, suspensions for the engine, transmission and front axle are all doubly insulated against noise transmission from the engine and cylinders. A subframe prevents the transmission of engine and road noise into the body. The interior is insulated by a closed noise-absorbing shell. Thorough aerodynamics investigations led to a substantial reduction of wind noise. These innovations, combined with the low vibration level of the new 5-cylinder engine, contribute to the remarkably quiet operation of the Audi 5000.



**“Starting with the advantages of front wheel drive and negative roll radius, we went on to engineer high standards of safety into every aspect of this automobile design.”**  
The Audi tradition of leadership in both active and passive

automobile safety has been continued in the design of the Audi 5000. A high degree of stability, excellent maneuverability and precision steering response are combined with a brisk acceleration rate (0 to 50 in 8.4 seconds with automatic transmission) to make the 5000 an exceptionally safe car to drive.  
Large window areas—actually 15% larger than a Cadillac Seville—give the driver a high degree of visibility and radial ply steel-belted tires, size 185/70 HR 14 contribute to the exceptional road behavior of the 5000.  
In the design of the 5000, Audi engineers demonstrate that a luxury sedan need not be excessively heavy to achieve a high standard in passive safety. In fact, the car meets and exceeds American crash test requirements. A new type of structural member has been used,

which folds evenly instead of irregularly buckling. It absorbs five times more energy than a conventional member—through a principle never before applied to automotive design (known as The Timoshenko Theory). From its deformable steering column to its childproof rear door locks, the Audi 5000 has been considered from the viewpoint of passenger safety in every detail. And every possible step has been taken to make the Audi 5000 a new kind of luxury car in the degree of safety it affords.  
**“We believe we have created the ideal degree of luxury for driving requirements as they exist today. In the conception and its technical fulfillment, the Audi 5000 is a thing of beauty.”**

At Audi, the team of engineers who developed the new Audi 5000 look upon the company’s previous achievements as preparing the way for this remarkable new car. Their experience with front wheel drive, their engineering prowess in engine development, their leadership in both preventive and protective safety—these and other company strengths were brought to bear on the technical challenges of the Audi 5000. The result is far from just another new car. A completely new blend of automotive space, handling, acceleration and comfort has been realized.  
At the first opportunity, drive this this new kind of luxury car—the Audi 5000.

has also been considered in the design of The Fox. The passenger compartment is a rigid “safety cell.” The steering wheel and column are engineered to absorb energy, collapsing under sufficient impact to reduce injury. Sturdy, rustproof aluminum bumpers act as mechanical cushions. Inertia reel front seat belts are standard. And child-proof rear-door locks are provided on the 4-door model.  
If you would like a car whose spirit is tempered by security (and who wouldn’t?), look closely at The Fox.

**The Fox has interior comforts that will soothe your inner spirit.**  
The Fox measures just under 14 feet in length. Yet the useful room to be found within is truly astonishing. It is a five-passenger car in the full sense. (A tall man can sit far enough back for comfort, and ample passenger room remains in the back seat.)  
Positioning and contour of The Fox’s seats were designed according



to orthopedic principles and scientific fatigue studies. And the “climate” within the car, so important to passenger comfort, is adjusted through a “Flow-Through” ventilation system capable of changing the air every 30 seconds at 55 miles per hour. Used with the heater, this system can actually cool the face while it warms the feet.  
Irritating noise has been minimized in The Fox. The body

shell is doubly sound-insulated to reduce road and engine noises.  
Designers of The Fox concentrated on function in the layout of the simple and unobtrusive dashboard. Instruments and controls are placed where usage demands, based on thoroughgoing time-and-motion studies. Safety locks on doors, a collapsible instrument panel and the absence of dangerous corners and edges add a vital security factor to The Fox’s interior. The total effect inside the car promotes a relaxing atmosphere for driving that is both spirited and highly enjoyable.

**Your choice of Fox spirit in a 2-door sedan, 4-door sedan or Foxwagon.**  
The spirit of The Fox resides in three distinctive body styles, each ideal for different owner requirements. And you also have many options to choose from, which will further tailor The Fox to your

needs and desires.  
If you must have plenty of carrying space, you needn’t give up spirited performance or fuel economy to get it. The Foxwagon gives you 51.6 cubic feet of usable space, with the back seat folded down. And it moves you up from 0 to 50 in just 8½ seconds—while the EPA estimates it delivers 37 mpg on the highway, 23 mpg in the city, standard transmission.  
Different drivers look for different things in a car—fuel economy, interior room, sports-car road handling, riding comfort. For drivers who require all of these characteristics—and also want a car with spirit—The Fox was made for you.





# AUDI 5000-1978 SPECIFICATIONS

<b>ENGINE:</b>	No. of cylinders	5 cylinders, in-line water cooled
	Displacement	130.8 (2144 cc)
	Compression ratio	8.0:1
<b>ENGINE DESIGN:</b>	Cylinder block	Cast iron
	Cylinder head	Light alloy
	Cooling system	Water cooled with pump
	Lubrication	Full pressure system
	Fuel/Air supply	CIS—Fuel injection
<b>ELECTRICAL SYSTEM:</b>	Rated voltage	12 volt with alternator (75 Amp.)
	Battery	12V 63 Amp. hr.
	Ignition	Breakerless transistor ignition
<b>DRIVE TRAIN:</b>	Location of engine	Front, ahead of front axle
	Clutch	Single dry plate, hydraulically operated.
	Transmission	Automatic Trilok torque converter
	Location of shift lever	4-speed, fully synchronized; 3-speed automatic (optional) Floor console
<b>CHASSIS AND SUSPENSION:</b>	Frame	Unitized body construction with energy absorbing front and rear sections
	Front suspension	Independent coil/shock absorber struts, stabilizer and negative roll radius
	Rear suspension	Torsion crank axle with built-in stabilizer and Panhard rod
	Front springing	Coil springs and shock absorber
	Rear springing	Coil springs and double-acting hydraulic shock absorbers, mounted separately
	Foot brakes	Power-assisted dual diagonal brake system
	Hand brake	Vented disc brakes front; finned drum brakes rear
	Rims	Mechanical, on rear wheels
	Tires	5½J x 14
	Steering	185/70 HR 14 Radial ply-steel belted Rack and pinion, power assisted
<b>CAPACITIES:</b>	Engine	5.3 U.S. qts.
	Fuel tank	15.9 U.S. gals.
	Radiator	8.5 U.S. qts.
<b>DIMENSIONS:</b>	Wheelbase	105.5 in.
	Front track	57.9 in.
	Rear track	56.9 in.
	Overall length	189.5 in.
	Overall width	69.6 in.
	Overall height (unloaded)	53.9 in.
	Turning circle	33.8 ft. (curb to curb)
	Trunk space	22.7 cu. ft.
<b>PERFORMANCE:</b>	Top speed	103 mph (Automatic 100 mph)

# AUDI FOX 1978 SPECIFICATIONS

<b>ENGINE:</b>	Type	4 cylinders, in-line water cooled
	Location	Front mounted—20° slanted
	Bore	3.13" (79.5mm)
	Stroke	3.15" (80.0mm)
	Displacement	97 cu. in. (1588 cc)
	Compression Ratio	8.0:1
	Horsepower	78HP/5500 RPM—76HP/5500 RPM, California
	Fuel/Air Supply	CIS fuel injection
	Cooling	Water cooled with thermostatically controlled electric fan
<b>ELECTRICAL SYSTEM:</b>	Ignition	Battery, coil and distributor
	Battery	12 volt, 45 amp/hour
	Alternator	770 watt
<b>DRIVE TRAIN:</b>	Type	Front wheel drive
	Standard Transmission	4-speed, fully synchronized
	Optional Transmission	3-speed, fully automatic
<b>STEERING:</b>	Type	rack and pinion
	Turns—lock to lock	3.9
	Turning Circle	31.2' (curb to curb)
<b>BRAKE SYSTEM:</b>	Type	Hydraulic, power-assisted with diagonally linked dual circuits and rear brake pressure regulator Disc brakes, front Drums, rear
<b>CHASSIS AND SUSPENSION:</b>	Frame	Unitized body with subframe
	Front Suspension	Independent McPherson struts with negative steering roll radius
	Front Springing	Coil springs and shock absorbers, plus stabilizer bar
	Rear Suspension	Torsion crank axle, with Panhard Rod
	Rear Springing	Coil springs and shock absorbers
<b>RIMS AND TIRES:</b>	Wheel Size	5J x 13
	Tire Size	155 SR 13 radial ply steel belted tires
<b>DIMENSIONS:</b>	Wheelbase	96.5"
	Front Track	52.8"
	Rear Track	52.8"
	Overall Length	173.8"
	Overall Width	64.8"
	Height (unloaded)	53.6"
	Trunk Capacity—sedan	18.7 cu. ft.
	Trunk Capacity—wagon	24.7 cu. ft. seat up—51.6 cu. ft. seat down
	Engine oil	3.7 U.S. quarts
	Cooling system	6.5 U.S. quarts
	Fuel Tank	11.9 gallons U.S.
73-81-86010 Litho In U.S.A.		Specifications subject to change without notice