

8

## SINTHESIS 2000 BERLINETTA

The Sinthesis. Why Sinthesis? Sinthesis is a name that accurately describes the results of the considerable research and work of a stylist, Tom Tjaarda, and an engineer, Peter Giacobbi. Even the name is a combination of English and Italian since the designers are American with Italian ideas. The car synthesizes what these two people consider the optimum compromise in car design. The main considerations were that the car should be safe, fun to drive, and good to look at. To Tjaarda and Giacobbi, this meant that the car should handle impeccably, still be comfortable and should have a pleasing line that would wear well with time.

#### STYLING:

The Sinthesis is unique in that it was styled completely by one person, Tom Tjaarda. The clean, consistant lines reflect the thoughts

of one mind, rather than the result of committee decisions.

There are no gimmicks, fake air intakes, or tacked on spoilers. The mechanical components of the car were such that in creating the final body design, only esthetics and aerodynamics had to be considered. The form and line of the body is balanced so well that the casual observer cannot determine whether the engine is in the front, middle, or rear of the car. Air-conditioning and engine maintenance problems were carefully studied to reduce the number of movable windows to two, thereby minimizing the principle sources of wind noise, and sealing problems. To facilitate entry and exit the door openings were extended to the bottom of the body, thus eliminating the cumbersome door sills.

### SAFETY:

The element of Safety was considered from all possible aspects. The road holding and braking ability of the Sinthesis help to avoid accidents, but should a collision occur, the vehicle occupants are assured maximum protection. The passenger compartment is extremely rigid and the extremities are energy absorbing. As an added feature, the Sinthesis is fitted with the Auto-Ceptor inflatable passenger restraint system. When the vehicle collides with a rigid barrier above 10 m.p.h. air cushions are rapidly inflated in front of the driver and passenger to absorb the kinetic energy of the occupants. High strength doors and safety locks assure that the doors will remain closed in an impact. Head rests have been included to reduce the possibility of injury in the case of a rear end collision.

## CHASSIS:

Sinthesis' chassis is of the central backbone type augmented by stressed sheet metal side rails. This guarantees the maximum stiffness so that suspension geometry is maintained even in severe braking and cornering conditions. The mid-position of the engine was chosen to minimize the polar moment of inertia, and to achieve the optimum weight distribution for handling, braking, and minimum wheelspin. The four wheel independent suspension reduces the unsprung weight which is essential for good performance and ride on uneven road surfaces.

# ENGINE AND TRANSMISSION:

The engine and transmission of the Sinthesis are basically modified Lancia Flavia units. The engine was bored, stroked, polished, ported, and balanced by Nardi to achieve 130 DIN horsepower at 5000 r.p.m.. The shift linkage and lever was also specially designed by Nardi. Contrary to those of most mid-engine cars, this mechanism is very smooth and efficient. The engine, transmission, and rear suspension of the car are mounted on a sub-frame, and can be removed by taking out six high strength bolts, and by unhooking the usual connections which are especially designed for quick assembly and disassembly.

The Sinthesis' road tests have been entirely successful, and even at speeds in excess of 200 k.p.h., comfort and control are excellent. The car is indeed fun to drive and good to look at.