

## Citroen'67



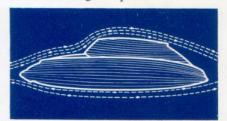
True aerodynamic design, unlike "streamlining," helps both looks and performance. Clean wind-tunnel tested lines mean far greater economy, higher

performance and greater stability over all highway and speed conditions. CITROEN's styling has won several international design awards.

## Citroën's Aerodynamic Styling Pays Off

How CITROEN breaks the long-standing performance/economy barrier for sedans—with speeds in excess of 100 miles-per-hour—up to 30 miles-per-gallon economy.

CITROEN is the world's first—and only—full-size (123" wheelbase) family car that can break the century mark in speed and deliver up to 30 miles per gallon in normal driving. Part of the answer for this breakthrough lies in the thrifty power output of the engine and in the superior mechanical efficiency of front-wheel drive. But the greatest part of the remarkable performance is due to functional body design as, on all cars, a large percentage of the horsepower output is used to overcome air resistance at higher speeds.



CITROEN'S coefficient of air resistance is the lowest for any car in its class. Contours are designed to make the air layers hug the body, reduce turbulence—the main cause of friction and wind noise.

CITROEN is aerodynamically designed—outside, underneath and under the hood! Note the absence of "fins," and other superfluous styling or "streamlining" gimmicks.

**Front** — The jet-shaped nose reduces frontal air resistance. The conventional radiator grill which causes friction has been eliminated.



Internal aerodynamics! CITROEN reduces friction in radiator cooling. Intake (1) delivers air through sealed duct system to radiator. Power disc-brakes are cooled by separate air intake and duct systems (2). Small air scoops (3) provide air for interior heating and ventilation.

Top—The top contour including the hood that sweeps from the front bumper to the windshield is designed to minimize drag and turbulences.

Below—The full-length body underpan eliminates air drag around mechanical parts. The pan is curved in profile to reduce lift and increase stability at turnpike speeds.

Rear—Fenders are fully skirted. Side, bottom and top planes converge slightly towards the rear to reduce the drag of the air wake.

Sides—The convex sides, plus the long wheelbase give less hold to cross winds and increase stability.

Under the hood—With internal aerodynamics, CITROEN raised its top speed 4 miles-per-hour, and boosted economy at high speeds an additional 4 miles-per-gallon. The high-performance DS-21 is capable of doing 115 mph, and can cruise effortlessly at 80 mph.

Other features which add to CITROEN's unique stability include: the traction and "pull" of front wheel drive, precision rack-and-pinion steering, and new Michelin X AS radial tires with assymetrical cord construction.



Top view shows clean CITROEN lines. Road & Track magazine says, "One of the most effective aerodynamic shapes ever attached to a production automobile".





Constant Level Ride—standard equipment on all sedans and station wagons—means far greater stability and safety under all load and road conditions.

Above, the CITROEN wagon with 1540-lb. payload rides as level, and at the same height, as it does empty. Dual "proportional" brakes match the load.

## How Citroën rides level with any load

Constant Level Ride—an exclusive feature of "Air-Oil" suspension—enables CITROEN to ride level, and at the same height with any load, or weight distribution.

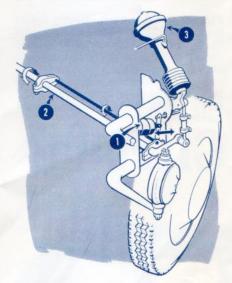
CITROEN is generally recognized as the most comfortable, smoothest riding car on the road—and the only one that rides with the same clearance regardless of load. Here's how CITROEN's unique self-leveling system operates.

For comparison, let's first look at a standard-type steel suspension. When the load on a spring increases, the spring compresses in proportion to the load. This characteristic is inherent in all leaf springs, coil springs and torsion bars as their predetermined resistance to compression cannot be varied.

Air-Oil suspension, by contrast, maintains the chassis level, and at same height, by varying the volume of fluid in each Air-Oil suspension sphere. The "air cushion" in the upper part of the sphere compresses when a load is applied. Constant Level Ride is achieved by simply adding (or releasing) a compensating volume of fluid in the lower part of the sphere.

Upper part of "Air-Oil" suspension sphere is filled with neutral gas and the lower with hydraulic brake fluid. Position of piston determines road clearance.

It works this way: When a load is applied, the chassis dips and causes the "anti-roll" bar to rotate. This actuates the "control rod" which in turn moves



Slide valve inside "height corrector" (1) is actuated by rotation of anti-roll bar (2). Compensating fluid enters Air-Oil suspension sphere (3) and re-establishes "no load" position.

the "sliding valve" in the "height corrector" towards intake position—allowing fluid maintained under pressure in the central hydraulic system to enter the Air-Oil suspension spheres. The additional fluid re-establishes the nor-

\*Neutral gas and hydraulic brake fluid

mal road clearance — and the return movement closes the sliding valve.

Adjustable Road Clearance is another CITROEN feature that takes ad-. vantage of the capabilities of Air-Oil suspension. CITROEN's normal 61/2" road clearance gives a low center of gravity. less lean on turns and greater stability at turnpike speeds. But, by simply moving a control lever, the driver can increase the road clearance to 8", or up to 11"-while the car is in motion-to drive over deep snow, rutted roads, service ramps, or other unusual conditions. The movement of the lever shifts the sliding valve to intake position and sends additional fluid to the four Air-Oil suspension spheres. Adjustable Road Clearance also makes it possible to change tires without using a jack.

The power jacking is accomplished by merely raising the vehicle to its "high" position, placing a stand under it, and flipping a lever to "low". In a few moments, both wheels on the stand side will retract themselves off the ground.



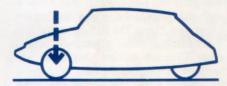
## What can you learn in ski school about buying a new car?

Plenty, if you think about it a moment.
What's the first thing your instructor said that first frantic day in class?

said that first frantic day in class? "Keep your weight forward," correct? Seems the weight up there helps keep you going where you want to go.



Remember this lesson next time a CITROEN passes you on the way to the area. CITROEN keeps the weight up front, too. Over 60% of the weight (engine, transmission, spare tire) is up front over the *driving* wheels.



Now, with your weight forward, the skimeister advises you to *ski in control*. In other words, be able to change direction and stop at will. Good advice.

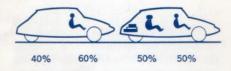
Weight up front and front wheel drive. That's the CITROEN technique. The wheels pull you through corners. You resist the natural tendency to skid that's built into every curve. You are actually in much tighter command of a CITROEN on a snow-slick highway, without chains or snow tires, than in other cars with these artificial traction aids.



Rear Wheel Drive

Front Wheel Drive

Steering is the ultra-positive power rack and pinion type found on the most expensive sports cars. This design can't be beat for quick, certain control. Brakes too, are power operated (standard equipment); discs up front to bear the brunt of the job . . . drum brakes out back. There's a separate hydraulic circuit for each. Good. But get this! A "hydraulic brain" doles out braking effort to the four wheels as it is needed.



This means that wheels carrying lighter loads resist the temptation to lock under heavy braking. And you resist the tendency to skid. With CITROEN you DRIVE in control.

In all humility we must admit that these features make CITROEN undoubtedly the world's safest, sanest ski transportation. You literally ride on four cushions of "air" and oil that soak up shock many times more effectively than steel suspension springs.



Of course, there are many things about CITROEN you'll have to learn yourself. You have to feel the quick response that four-speeds-forward and 100 mph-power give you. You have to experience that nice fat feeling around your money-belt that only a car in the 21-30 miles-per-gallon-of-gas league can give. You have to experience the incredible (yes, incredible) comfort of Air-Oil suspension. You have to see-it-to-believe-it when the car lifts itself up



at the flip of a lever to increase road clearance over deep snow. And you have to-see-to-believe the downright amazing volume of skiing gear you can pile into the trunk of the sedan or the load deck of the wagon.

A whole page gone and we haven't told you half the amazements that are waiting for you behind the wheel of a CITROEN. But we'll tell you one thing more: it's the most popular car at Chamonix and Megève. So maybe you'd better get the whole story from your CITROEN dealer. Or write us. We will send you lots of interesting information to read.

