

ESCAPE ROAD

1970 Citroen SM

Proof that the whole can be greater than the sum of its parts

By Roger Barlow

Road Test magazine said of it, "A totally new driving experience." It was *Motor Trend's* Car of the Year and *MT's* John Lamm wrote, "I have this compulsion to tell you categorically that the SM is the best car in the world." *Autocar* said, "... it has true arrow-like stability." It was the first Citroen built to an ideal, not a price.

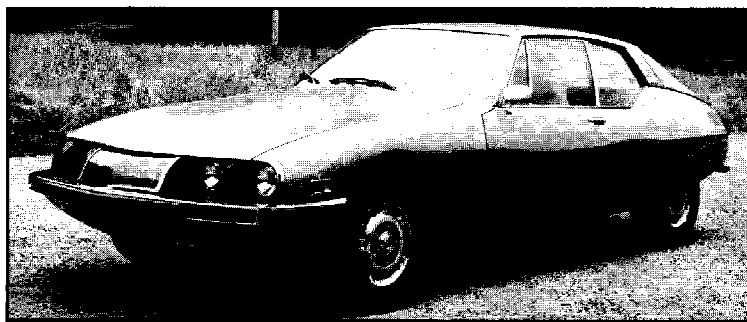
The SM, though hailed as the most advanced car of the '70s and spectacularly styled, was, nevertheless, traditional Citroen in almost every aspect of its design. It was front-wheel-drive, as Citroens had been for 35 years. It utilized the hydropneumatic, self-leveling suspension that had appeared on the DS some years earlier. It had the DS's high-pressure braking system, actuated by a rubber button rather than a normal brake pedal. The SM even retained the wide front and narrow rear track of the DS. And its stunning four-passenger coachwork was mainly a brilliant refinement of the decidedly ungainly sedan body of that earlier model.

So what made the SM "a new driving experience?" It was the first Citroen to have an engine as advanced as its chassis, a four-cam, 2670 cc light alloy V6 from Maserati instead of a cast iron, pushrod four. Secondly, the SM boasted one true innovation: Its power steering. It differed from all other steering, power or otherwise, in that it provided unusually quick response, needing only two turns of the wheel, lock to lock. But the SM managed to avoid the "twitchiness" inherent with such a fast ratio that is rather tiring on a longish journey, no matter how light the effort required.

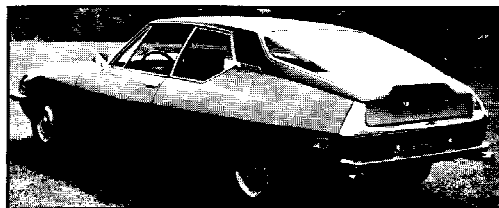
Reducing the power assist as speed increases is a relatively easy way to ameliorate this problem and today most power steering systems use some speed-related means of varying the amount of assist.

However, the engineers at Citroen, not noted for opting for the easy solution to any problem, took a different road. They left the amount of assistance more or less uniform over the entire speed range but then added a

separate secondary system that was speed related. A sub-system that, as road speed rose, applied increasing pressure and load to a heart-shaped cam attached to the steering column that *counteracted more and more of the normal power assist*. So powerful was



When it bowed in 1970 Citroen's SM won acclaim for the advanced design of its steering, suspension, engine and brakes, but its most radical element was its styling



this system's self-centering force that at high speed one had to apply appreciable effort to make the SM deviate from a straight line—thus eliminating unintended steering wheel movements and twitchiness. In fact, this self-centering action would return the front wheels to the dead-ahead position after parking once the driver released the wheel!

While this unique system contributed much to the SM's highly vaunted roadability and handling, it did take some getting used to. One needed half an hour at the wheel of an SM (or the later CX with the same steering) to really settle into a good relationship with it. After that, all ordinary cars seemed inexcusably clumsy. Odd that, with 60 percent of its weight on the front wheels, understeer was not readily evident and none of the testers complained about it! No doubt this effect was partially negated by the steering.

With 170-180 hp on tap (redlined at 6500 rpm) to move 3200 pounds, the V6 provided thoroughly satisfying performance. Zero to 60 in 8.6 to 9.4 seconds (depending on the tester) and a top speed of 135 mph (*Autocar*). Good even today but remarkable in 1970 for an exceptionally comfortable and luxurious

four-seat sedan.

However, because Maserati V6s had 90 rather than 60 degree cylinder blocks, there was a slight mechanical unbalance and unequal spacing of the firing impulses. Mainly noticeable at low speed. It was an amazingly compact engine—the cylinder heads being only 12¼ inches long! Three dual Webers looked after the breathing. The four cams were chain driven.

The robust five-speed gearbox was universally praised for the ease and precision of the remote shifting mechanism.

Although the hydropneumatic suspension was derived from the DS, it was modified to better deal with the SM's higher speed and performance capabilities, yet with no loss of its phenomenal ability to cope with rough roads. There were antiroll bars fore and aft. Brakes were discs all around, inboard at the front.

Seeing an SM today, almost 20 years after its introduction, one is struck by the essential rightness of its shape—overall and in detail. It still seems exciting and far more elegant than many cars just coming on market. It may well turn out to be the best looking sedan of the century. I would have bought an SM in 1972 if the \$12,000 had not

been needed to complete my house.

When I started to write about this car, I remembered that Tony Anthony, foreign car specialist and retired sales manager of Beverly Hills Ferrari, had run one for a year or two and thus could provide first-hand knowledge of life with an SM. When I asked for his view it apparently made his day. "Barlow, I loved that Citroen. It was one of the most satisfying cars I've ever had. I've even been thinking of trying to find one now and restore it."

"But was it reasonably practical?" I asked. "I know the build quality was high but I've seen the engine compartment ... there was a maze of piping there. Did you have problems with yours?"

"There may have been a lot of pipes," he replied, "but few of the electronic gadgets that give us so much trouble today. My main problem was that the SM had to meet our anti-smog standards by injecting air into the exhaust gas—which burned out the headers all too soon. It needed catalytic converters. The automatic transmission that came along later was a disaster. But my five-speed was a joy. Barlow, sell what you're driving and find an SM before it's too late!" ■