

THIS ISSUE: 1984 IMPORT CAR OF THE YEAR
Tests: Fiero Turbo, LTDs Ltd., Cavalier Type 10

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MARCH 1984



1984 PEUGEOT 505 S WAGON ROAD TEST



**EUROWAGONS: AUDI 5000S,
PEUGEOT 505 S, VOLVO GL**

PETERSEN'S
**1984
AUTOMOTIVE
SWEEPSTAKES**

The Attack of the Luxury Touring Wagons

Euro Cargo concepts for today . . . and for tomorrow

by Bob Nagy

PHOTOGRAPHY BY RICH COX
AND BRIAN WAINGROW





Station wagons have traditionally been revered more for payload capabilities than for sybaritic qualities. This trio of toters, the Audi 5000S, the Peugeot 505 S, and the Volvo GL, certainly merit praise for their formidable hauling abilities. But today's crop of wagons, especially those of European origin, also place strong emphasis on projecting a luxury touring character. Mercedes-Benz epitomizes the genre, but the \$34K-plus pricetag on its 300TD keeps the turbodiesel cruiser strictly in the fantasy realm for most would-be customers.

The estately brotherhood assembled for this confrontation is far more likely to be found in the driveways of those upwardly

mobile family types who need the carrying power of a wagon but demand a certain amount of prestige and ego gratification in order to live with the tradeoffs it creates. While most Eurowagons end up as second cars, the creature comforts on our mini-fleet were such that any one could easily find itself acting as a primary transport vehicle with no real problem.

THE PLAYERS:

Audi 5000S Wagon

Newest entry in the wagon market is the Audi 5000S. Known as the Avant in Europe, the ultra-aero hauler takes its styling, drivetrain, undercarriage, and numerous other components from the almost-as-new 5000S sedan and Turbo models.

Audi's cargo carter does sacrifice a modest amount of interior space to gain its slippery 0.35 Cd. But the 5000S wagon clearly points the way of the future while its two distinguished colleagues are undeniably the end products of highly refined present-tech thinking.

All three wagons feature unibody construction, but only the Audi incorporates front-wheel drive and makes use of such wind-cheating devices as full flush-mounted glass and a functional rear decklid spoiler. Besides its sinister good looks, Audi's new wunderwagen has been given a refined temperament and numerous creature comforts that place it in good stead when measured against its contemporaries.

Like the sedan, the wagon is only offered in full S-level trim. Included in



The Audi trades a bit of cargo capacity for its 0.35 Cd



its \$17,480 price of admission is a long list of niceties, including power windows/locks/mirrors, plush fabric upholstery, and an automatic climate control. Our tester had only two extra-cost items, an AM/FM/cassette stereo and metallic black paint. It bottomlined at \$18,190.

The 5000S wagon is powered by a naturally aspirated version of Audi's familiar 2.1-liter inline five. The Bosch K-Jet in-

jected 2144cc OHC engine makes a modest 100 hp at 5500 rpm and turns up 107 lb-ft of torque at 3000 revs. Currently the only powerplant available, it may be ordered as ours was, mated to the standard 5-speed manual or to the optional 3-speed auto.

The 2954-lb wagon uses the same undercarriage design as the lighter 5000S sedan. It shares the same 105.8-in. wheelbase and 57.8-in. front/rear track, but the springs

and shocks have been stiffened a bit to offset its 110-lb weight disadvantage. The front MacPherson struts are located on a single lower control arm and have an anti-roll bar for extra stiffness. The rear-spring struts, which are canted inward to conserve space, help support a torsion crank axle that works in conjunction with single trailing arms, a Panhard rod, and an anti-roll bar. The steering gear is a 17.3:1 power-assisted rack-and-pinion unit. The 5000S wagon maintains ties with Mother Earth via 185/70SR14 Goodyear Grand Prix S steel radial tires mounted on 14 x 6-in. cast alloy wheels.

The Audi's interior was finished in a tasteful combination of black, gray, and white. It incorporated many components from the sedan including the highly legible white-on-black analog instrumentation. A speedometer and tachometer dominate the picture and flank the centrally mounted check panel, upshift indicator, and digital clock. The two main instruments are, in turn, bounded by the water temperature and fuel gauges. We did find the electronic tach in our car rather sensitive to cold weather. On cooler mornings, it would periodically indicate no sign of engine activity until the underhood temperature rose sufficiently to snap it back to life.

The Audi's heavily contoured front buckets afford a great combination of firm support and comfort. The fixed-rake steering column carries two sets of nested control stalks. The inner pair handle the lights and hazard flashers, while the outer wands operate the directionals/high beams/cruise control and washer/wipers.

Rear seating accommodations are spacious. Head room and leg room are both plentiful, the latter augmented by the heavily contoured front seatbacks. But the split bench was definitely meant for only two people; the semi-bucket design of its 60/40 rear cushions make three-across seating pretty grim for anyone caught in the middle.



SPECIFICATIONS

Audi 5000S Station Wagon

GENERAL

Vehicle type	5-pass., 4-door station wagon
Base price	\$17,480

ENGINE

Type & displacement	L-5, liquid cooled, cast iron block, cast aluminum head, 2144 cc, OHC
Bore & stroke	79.5 x 86.4 mm (3.13 x 3.40 in.)
Induction system	Bosch K-Jetronic fuel injection
Max. power (SAE net)	100 hp @ 5500 rpm
Max. torque (SAE net)	107 lb-ft @ 3000 rpm

DRIVETRAIN

Transmission	5-sp. man.
Final drive ratio	3.82:1

CHASSIS

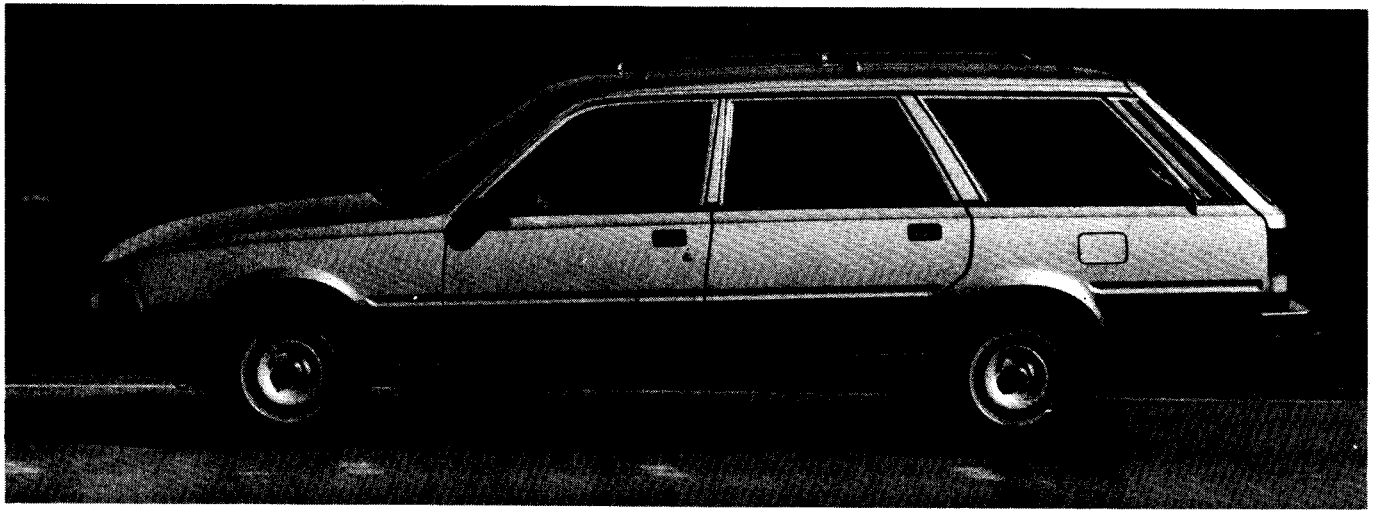
Front suspension	Independent, MacPherson struts, coil springs, anti-roll bar
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Rear suspension	Crank axle, single trailing arms, coil springs, hydraulic shocks, anti-roll bar, Panhard rod
Brakes, f/r	10.1-in. internally ventilated discs, power assist/9.1-in. finned drums
Steering type	Rack and pinion, power assist
Turns, lock to lock	3.8
Wheels	14 x 6.0 in., cast aluminum
Tires	185/70SR14 Goodyear Grand Prix S

DIMENSIONS

Curb weight	1343 kg (2954 lb)
Wheelbase	2687 mm (105.8 in.)
Overall length	4895 mm (192.7 in.)
Overall width	1814 mm (71.4 in.)
Overall height	1415 mm (55.7 in.)
Track, f/r	1468/1468 mm (57.8/57.8 in.)
Power to weight ratio	29.5 lb/hp
Fuel capacity	79.9 L (21.1 gal)

Peugeot won the comfort category hands down



Peugeot 505 S Wagon

Our French connection is Peugeot's 505 S wagon, also a relative newcomer. Introduced in late '83 as a replacement/update of the veteran 504, the 505-series hauler retains a quintessentially Gallic character. The 505 wagon weighs 3230 lb, making it 155 lb heftier than the 4-door. It measures 198.9 in. nose to tail, 12.2 in. more than its sedan counterpart; and it has a 114.2-in. wheelbase, which gives it a 6.3-in. edge in that department. The clean Pininfarina bodywork retains all of the sedan's forward sheet metal but adds a designer cargo bay that offers more useable room than any other European wagon sold here. Many of the mechanicals are carried over from the existing Peugeot parts catalog. But the changes and refinements have left the 505 a far more desirable package than its 504 predecessor.

Peugeot wagon prices start at \$11,990 for an entry-level GL model. The top-line S variant we tested bases at \$16,095, with the additional premium going to pay for lots of goodies, including A/C, cruise control, AM/FM/stereo cassette player, power windows/locks/mirrors, heated front seats, metallic paint, and alloy wheels. The only option on our wagon is the \$635 leather-covered seats that replaced the usual velour wrappings.

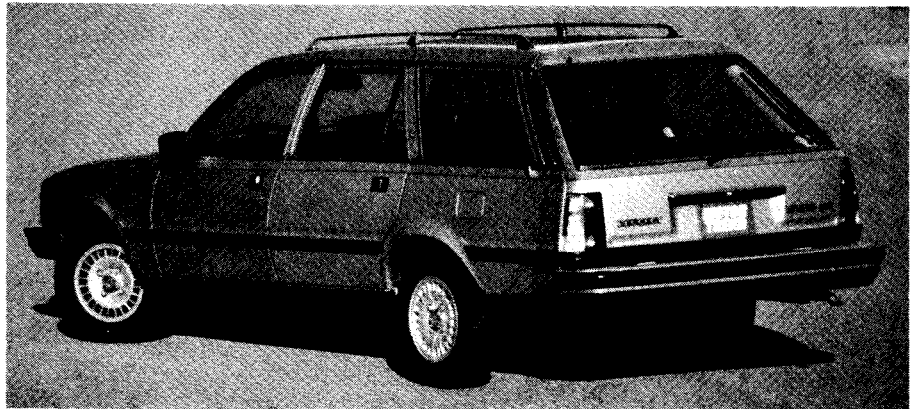
The powertrain was composed of Peugeot's veteran 2-liter four linked to a 5-speed manual overdrive gearbox, which happens to be the base sedan drivetrain. The XN6 pushrod four relies on Bosch K-Jet injection to help it make 97 hp at 5000 rpm and 116 lb-ft of torque at 3500 rpm, and may be linked to an optional 3-speed automatic. An 80-hp turbodiesel four is also available in 49-state trim.

In keeping with the Peugeot tradition, major emphasis in the 505 wagon has been placed on delivering a soft smooth ride. Its full coil suspension makes good use of Peugeot's own double-acting shock absorbers.

These are integrated into the familiar MacPherson struts up front. At the rear, they work together with newly designed tapered-cylindrical progressive-rate springs to support the lightweight cast aluminum rear axle with its limited slip differential. Rear axle location is also helped by Panhard rod and a pair of tubular angled links that tie the torque tube to the axle housings. Anti-roll bars are used fore and aft to

fine-tune the package. A 17.1:1 power rack-and-pinion steering unit is standard. Our tester arrived wearing 185/70SR14 Michelin XZX steel-belted radials mounted on 14 x 6-in. cast alloy wheels.

The interior styling reconfirms one's original assessment about the basic nature of the car. The dash incorporates a rounded instrument panel bezel, there's a cane-like grip on the shift lever, and the seats



SPECIFICATIONS

Peugeot 505 S Station Wagon

GENERAL

Vehicle type.....5-pass., 4-door station wagon
Base price.....\$16,095

ENGINE

Type & displacement.....L-4, liquid cooled, cast iron block, cast aluminum head, 1971 cc, OHC
Bore & stroke.....87.9 x 81.0 mm (3.46 x 3.19 in.)
Induction system.....Bosch K-Jetronic fuel injection
Max. power (SAE net).....97 hp @ 5000 rpm
Max. torque (SAE net).....116 lb-ft @ 3500 rpm

DRIVETRAIN

Transmission.....5-sp. man.
Final drive ratio.....3.18:1

CHASSIS

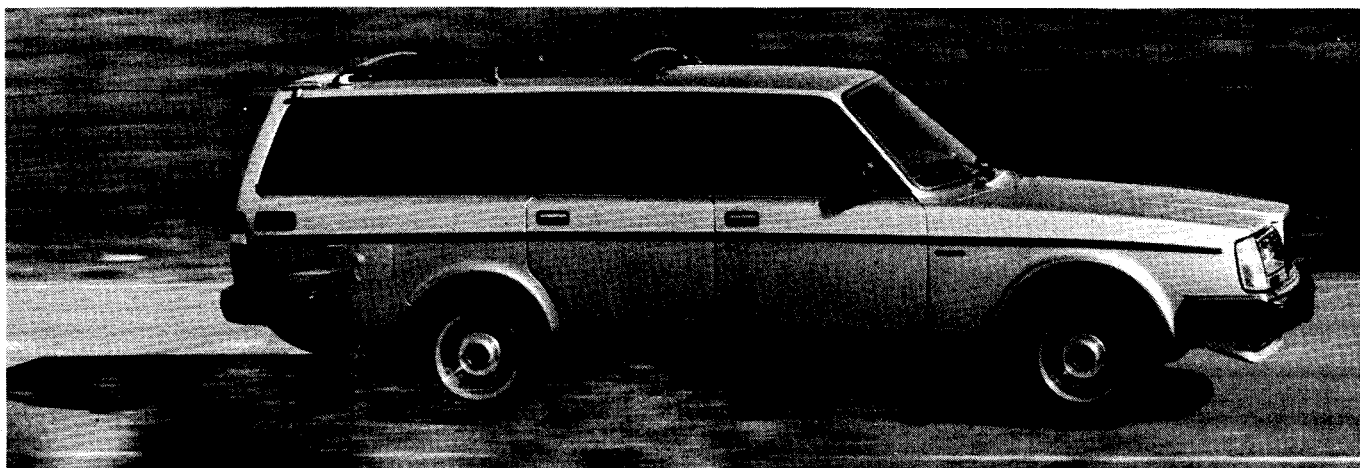
Front suspension.....Independent, MacPherson struts, coil springs, anti-roll bar

Rear suspension.....Live axle, coil springs, telescopic shocks, Panhard rod, anti-roll bar
Brakes, f/r.....10.8-in discs, power assist/10.0-in. drums
Steering type.....Rack and pinion, power assist
Turns, lock to lock.....3.5
Wheels.....14 x 5.5 in., cast aluminum
Tires.....185/70SR14 Michelin XZX

DIMENSIONS

Curb weight.....1468.2 kg (3230 lb)
Wheelbase.....2901 mm (114.2 in.)
Overall length.....5052 mm (198.9 in.)
Overall width.....1737 mm (68.4 in.)
Overall height.....1552 mm (61.1 in.)
Track, f/r.....1481/1450 mm (58.3/57.1 in.)
Power to weight ratio.....33.3 lb/hp
Fuel capacity.....68.1 L (18.0 gal)

Audi gets the Fun-to-Drive nod, Peugeot is tops



boast the closest thing to lounge chair comfort you're likely to find on four wheels. The well-contoured buckets possess pillow-like softness and great lateral support. But the stitchwork on parts of its blue leather upholstery could have stood a bit more attention to detail.

While seat-cushion angle can be varied to suit individual tastes, basic driving position is classically French, with an upright feel and rather pronounced rake on the fixed-angle steering column that encour-

ages a bottom of the rim wheel grip. The white-on-black analog instrumentation is dominated by a speedometer, which is bounded on the left by a gas/temperature gauge and on the right by the tachometer. Three control stalks are mounted on the steering column. The main left-side lever activates the lights/beams/directionals, and the right-side wand operates the washers/wipers. The cruise control is activated by a second lever mounted on the left side of the column. For some not very good rea-

son, it's positioned in a way that virtually ensures it will make periodic contact with the inside of one's left knee joint.

The Peugeot's rear quarters are spacious and comfortable. Its fully padded lowback-bench seat does appear more oriented to easy reconfiguring than any hedonistic purposes, but one can seat three adults in a modicum of comfort for shorter treks. Head room and leg room are plentiful here, too, the latter being almost equal to that of the Audi.

Volvo GL Wagon

The most familiar face in the group belongs to a Volvo. Not surprisingly, the GL wagon stands as the most tradition-bound of the three. Oft cited for its longevity, practicality, and angular bodywork, this noble exercise in Swedish steelwork can also lay claim to being one of the safest vehicles on the road today.

Volvo offers its 4-door wagon in DL and GL trims. The very well-equipped DL bases at \$12,385, but our top-line GL tester, which included A/C, leather upholstery, heated front seats, high-line trim, alloy wheels, power mirrors, and metallic paint ran up a \$16,474 tab when one factored in about \$1000 worth of options headed by an AM/FM/cassette stereo and a 4-speed overdrive automatic transmission.

The 3055-lb Volvo wagon is based on the same platform used by the DL, GL, and Turbo sedans. It retains the same 104.3-in. wheelbase and 188.8-in. length. Front suspension is MacPherson strut with a single lower control arm. Coils and telescopic shocks are used to suspend the live rear axle, which is located by a 4-bar link setup augmented by a Panhard Rod. Anti-roll bars, front and rear, help limit body roll. The Volvo wagon's power rack-and-pinion steering has a 17.3:1 ratio. Its 14 x 5.5-in. cast alloy wheels are shod with 185/70SR 14 Dunlop SP4 steel-belted radial tires.

Our test car was fitted with the standard 2.3-liter normally aspirated four. The Bosch L-Jet injected OHC engine makes



SPECIFICATIONS

Volvo GL Station Wagon

GENERAL

Vehicle type.....5-pass., 4-door station wagon
Base price.....\$15,940

ENGINE

Type & displacement.....L-4, liquid cooled, cast iron block, cast aluminum head, 2316 cc, OHC
Bore & stroke.....96.0 x 80.0 mm (3.78 x 3.15 in.)
Induction system.....Bosch L-Jetronic fuel injection

Max. power (SAE net).....114 hp @ 5400 rpm
Max. torque (SAE net).....133 lb-ft @ 3500 rpm

DRIVETRAIN

Transmission.....4-sp. auto.
Final drive ratio.....2.57:1

CHASSIS

Front suspension.....Independent, MacPherson struts, coil springs, anti-roll bar

Rear suspension.....Live axle, 4 links, Panhard rod, coil springs, anti-roll bar
Brakes, f/r.....10.4-in. discs, power assist/11.1-in. discs
Steering type.....Rack and pinion, power assist
Turns, lock to lock.....3.5
Wheels.....14 x 5.5 in., aluminum alloy
Tires.....185/70SR14 Dunlop SP4

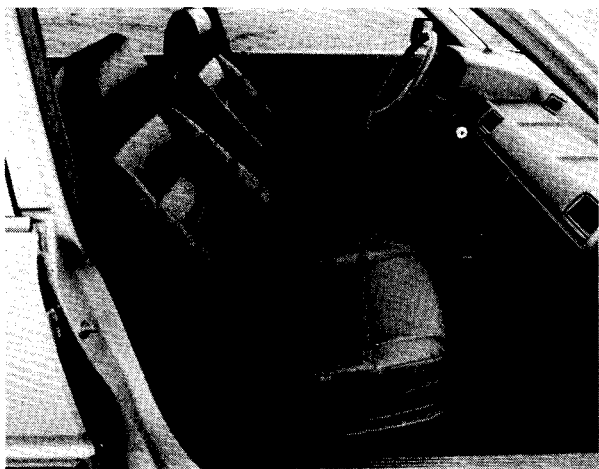
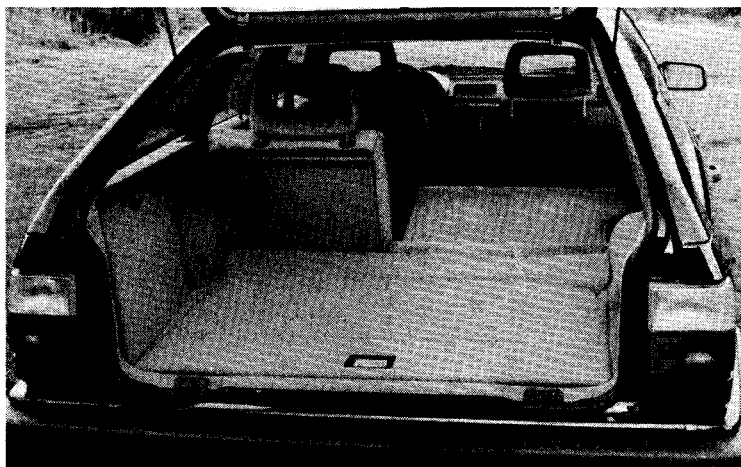
DIMENSIONS

Curb weight.....1389 kg (3055 lb)
Wheelbase.....2649 mm (104.3 in.)
Overall length.....4795 mm (188.8 in.)
Overall width.....1707 mm (67.2 in.)
Overall height.....1427 mm (56.2 in.)
Track, f/r.....1430/1359 mm (56.3/53.5 in.)
Power to weight ratio.....26.8 lb/hp
Fuel capacity.....59.8 L (15.8 gal)

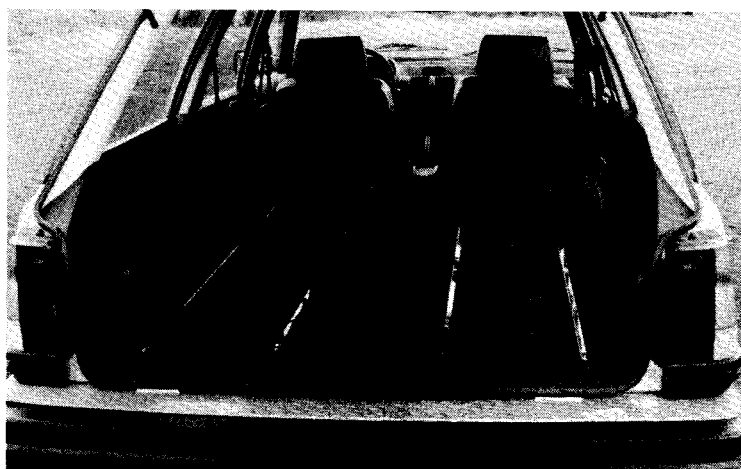
for volume, and Volvo still dominates sales



Audi 5000S Wagon



Peugeot 505 S Wagon



Volvo GL Wagon



114 hp at 5400 rpm and develops 133 lb-ft of torque at 3500 rpm. But a 162-hp inter-cooled turbocharged 2.1-liter four and an 80-hp 2.4-liter diesel six are also options. While we would have preferred a vehicle with a 5-speed, the 4-speed automatic GL was the only wagon available at test time. However, the combination continues to be the most popular one sold here, accounting for over 60% of all of Volvo's U.S. wagon sales.

The Volvo interior is designed as a study in Swedish functionalism, comfortable without much ostentation. Its highly legible white-on-black analog gauges include a speedometer and tachometer flanked by fuel and temperature gauges with the usual assortment of warning lights. A leather-covered steering wheel sits atop the fixed-rake column. A control stalk mounted on the left side handles the high beams and directionals, while the right lever takes

care of the washer/wipers.

The orthopedically designed, leather-covered, heated individual front seats were delightful to sit on, but the overstuffed unbuckets provided almost no lateral support. The rear bench was quite comfortable, and used a single piece seat back with a fold-down central armrest. Head room is generous in all seat locations, but leggie rear-seat riders are likely to find themselves a bit short on knee room.

The 5000S scored .77 g on the skidpad, a figure that's close to sports car territory

THE PERFORMANCE:

Performance numbers are not necessarily paramount in this kind of showdown, but the heads-up faceoff at the test track did help quantify some of the most notable differences among the competitors. Acceleration honors fell to the Audi on the strength of its 11.00-sec 0-60 mph run and an 18.03-sec/77.0-mph performance in the quarter mile. The Volvo was a definite second, automatic notwithstanding, needing 11.96 sec to reach 60 mph and turning an 18.66-sec/75.2-mph quarter. The Peugeot placed a distant third in our sprints, with a leisurely 14.88-sec stroll to 60 mph and a 19.73-sec/68.9-mph pass down the strip. The 5000S wagon also dominated the skidpad competition, recording a .77 g best on the 200-ft circle compared to the 0.70 g generated by the Peugeot and a 0.69 g figure for the Volvo. It wasn't too long ago that .77 was territory reserved for serious sports cars.

All three wagons displayed superb stopping power. Peugeot's combination of 10.8-in. power front discs and 10.0-in. rear drums halted the 505 S wagon in 30 ft from 30 mph and in 144 ft from 60 mph. Fitted with 10.1-in. vented power discs and 9.1-in. drums, the Audi was able to rack up 36/142-ft figures in the same regimen. The Volvo, which relies on a 10.4/11.0-in. power disc binders, made its best stops in 37 and 140 ft. The GL's pedal felt the firmest, the Peugeot's the softest, and the Audi's somewhere in between. But all three systems functioned most impressively and could be easily modulated to prevent unwanted lockup and tail tossing.

The decklid cutouts on all of our wagons extended down to bumper level for easy loading. The Peugeot possessed the greatest capacity, with 79.1 cu ft of cargo volume and a 1125-lb payload. The Volvo will hold 76 cu ft and 980 lb of cargo and the fastback Audi can devour 67.8 cu ft of assorted baggage that weighs up to 1100 lb. While its storage bay was smallest, the Audi's collapsible/removable cargo cover, lockable storage bin, and easy flipdown split rear seat back favorably impressed all who spent time in the wagon.

THE CRITICS' CHOICE:

Our testing was conducted during the pre-Christmas shopping season, and for that reason, these spacious workhorses saw daily action. While each received favorable comments from at least two staff or guest drivers, the consensus was that if we really had to live with one of these, it would be the Audi. Yes, we admit to being smitten by its modern looks. And we think



the yet-to-come turbo 4wd version will be even more impressive. But the 5000S wagon has debuted most auspiciously. It emerged as the undisputed ergonomic leader and also held a clear advantage in exterior/interior fits and finishes.

Like its Peugeot and Volvo peers, the Audi wagon is endowed with a generous helping of protective understeer. There is enough compliance in the front suspension to permit the nose to oscillate and the inside front wheel to lift under hard cornering, with some measure of harshness and tire thump transmitted back inside. But it was the most overtly enjoyable to drive, and responds well to moderate challenges in both urban and freeway modes.

Relative positions of the Volvo and Peugeot are harder to quantify, as each possesses many desirable qualities. The Peugeot won the pure comfort category hands down. Its soft-riding suspension uses long travel and lots of compliance to shield passengers from all manner of things that go bump in the road. Its clutch and shift linkage displayed a similar ability to isolate the vehicle from any vestiges of driveline snatch, something the Audi was less successful in doing. The downside involves living with copious amounts of body roll and tire squeal. Although the Peugeot's dry pavement performance was definitely average, its limited slip differential and Michelin XZX tires gave it the surest footing in wet weather. The Peugeot also came out on top in the econo derby averaging 20.9 mpg against its 22/31 EPA ratings. The Audi returned 19.7 mpg during the test, versus its 22/32 mpg numbers, while the Volvo got 18.4 mpg compared to its 23/30 mpg federal figures.

The Volvo ended up being the most controversial, if such a term can be applied

here. Several drivers reaffirmed its rock solid feel, predictable road manners, and respectable performance, all factors that have materially contributed to its present No. 1 status within the Eurowagon market. Those who did voice complaints cited the driver's seat being offset toward the center of the car, which can force one to adopt a potentially uncomfortable slouch. Like the Peugeot, the Swedish wagon was also cited for having an engine that gets noticeably louder above 4500 rpm, and its periodic emission of assorted squeaks and rattles that tend to detract from the basic vehicle. We do, however, admit that had this one been fitted with the turbo engine, we might have been inclined to overlook a few of its lesser shortcomings.

Volvo, which now accounts for some 80% of all European wagons sold in America, will continue to dominate the category again in 1984. Wagons comprise about 30% of its total sales mix here, and projections are for some 25,000-30,000 to be sold this year. Audi and Peugeot, who expect to take considerably smaller chunks of this lucrative market, are each forecasting sales in the 4000-5000-unit range for their wagon entries. Each of these vehicles is definitely skewed toward a different kind of driver. The Audi has the most going for it in the area of Fun to Drive, and will turn the heads of passersby in the process. (We think it was aptly named right out of the box and wish the Avant name had been retained for the U.S. market.) The Peugeot's lure is comfort and cavernous cargo space, and the Volvo trades on its well-deserved reputation for durability and passenger safety. But in the final accounting, we think all three represent legitimate alternative buys for those cargo-carrying executives who insist on going in style. 