



# MERCEDES-BENZ 280 SEL 4.5

*American-style performance—and fuel consumption—  
for the familiar 280 sedans*



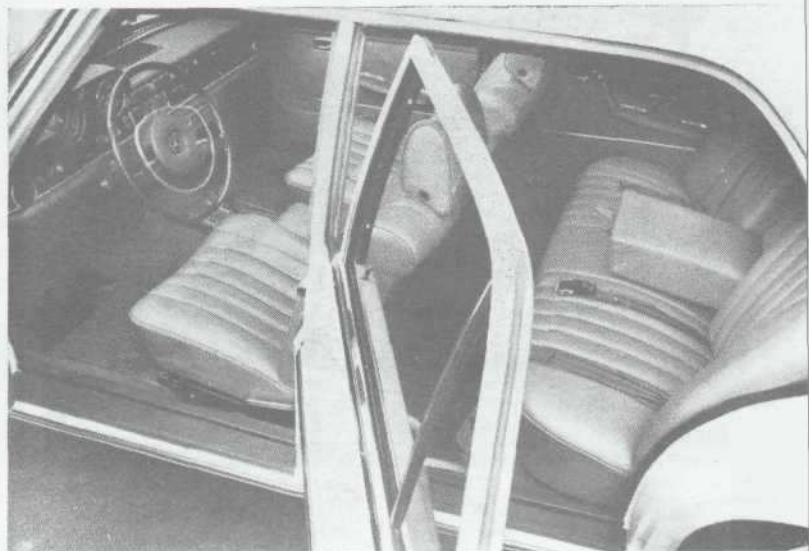
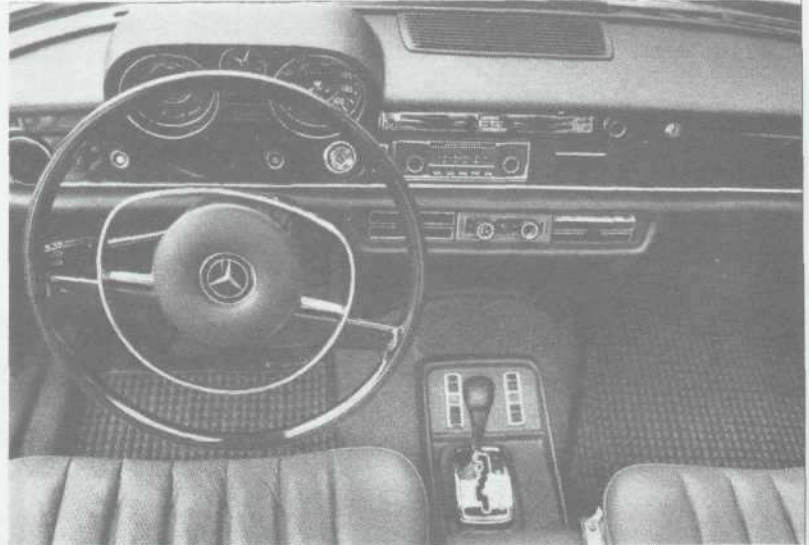
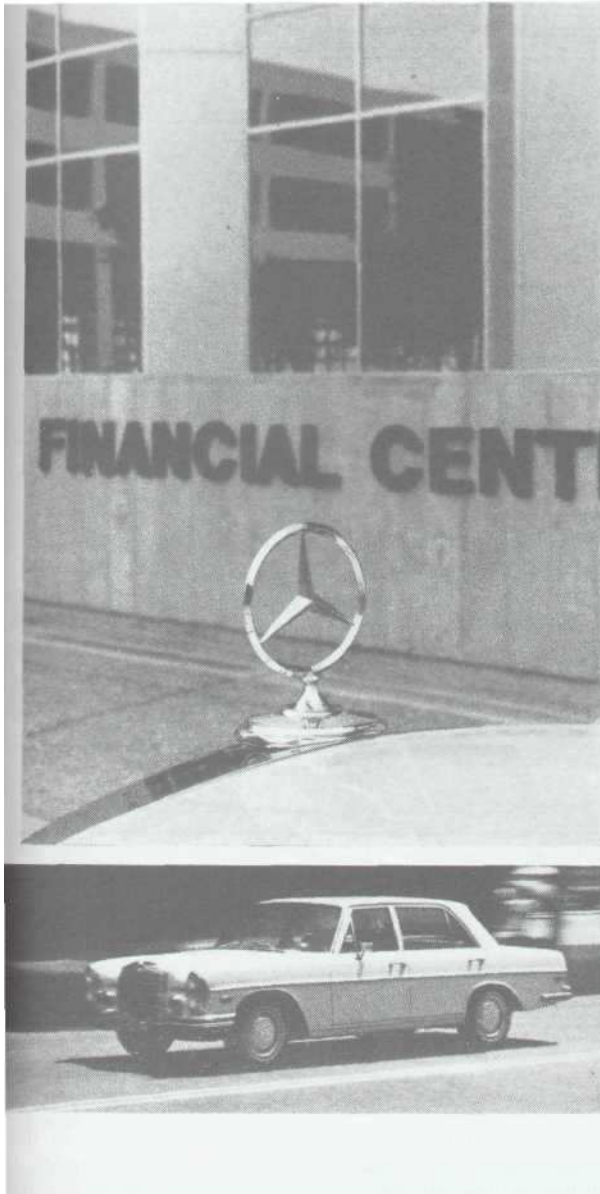
SLIDING ONTO FIRM leather seats, hands resting on the large, high steering wheel and being surrounded by the smell of fine leather really sets the mood for driving one of Mercedes-Benz' luxury cars. It's not a phoney buildup; the promise of fine motoring is kept by these large but nimble sedans that handle well and stop even better.

The 280's performance with the 2.8-liter six was certainly adequate, but not up to U.S. standards for luxury sedans and rather busy-sounding, besides. Mercedes changed that with the 6.3-liter V-8 several years ago but they had nothing in between until last year when they offered a new 3.5-liter sohc V-8 in the 300SEL and the 280SE coupe/convertible. Now a 4.5-liter version of that engine and a new 3-speed automatic transmission, the same combination used in the U.S. version of the 350SL we tested last month, is standard in the 300SEL and 280SEL and optional in the 280SE sedan. The coupe and convertible are discontinued.

A fuel-injected sohc V-8, the new engine is a relatively

low-output (230 bhp (a, 5000 rpm), low-speed unit and it gives the 280SEL the kind of relaxed performance it has needed. The 4.5 is an enlarged version of the 3.5-liter by means of increased stroke (from 65.5 to 85.0 mm) which is detuned by dropping compression from 9.5:1 to 8.0:1 and using milder camshafts. While this emissionizing is reflected in the slower performance of the 3775-lb 280SEL 4.5 when compared to the equally heavy 280SE coupe with the 3.5 engine, the 4.5 is so smooth and quiet it really transforms the car. The engine starts and runs smoothly even when cold—a refreshing change in these days when so many engines choked by emission controls sputter and surge and, in general, need a lot of coaxing to get rolling. But, like other "emission" engines, it really gobbles fuel.

The wide torque band of this engine makes a 4-speed automatic transmission unnecessary so Mercedes has designed a new 3-speed unit. Similar in design and operation to the GM Turbo Hydra-matic, it is a smooth, refined gear-box with a very responsive manual downshift control. The gear selector has a positive feel with clearly marked



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shift detents and once you are familiar with the pattern it isn't necessary to look down as you shift. Attention to details such as the leather covered, L-shaped selector knob that fits the hand perfectly are not at first noticeable but are the kind of things Mercedes-Benz does to make a car right.

Low-pivot swing axles and a front suspension with no provision for anti-dive date the chassis; but nonetheless, the 280SEL 4.5 is a good handling sedan. In fact, the Engineering Editor says it handles better than his 250SL did. For its size the car is nimble, and the power steering is fast and has a good feel. It is certainly not a sports car, the body rolls a good amount and the rear wheels jack up at the limit of cornering, but the 280SEL was not embarrassed on the handling course nor on the skid pad where it reached a speed of 31.2 mph and a lateral acceleration of 0.614g.

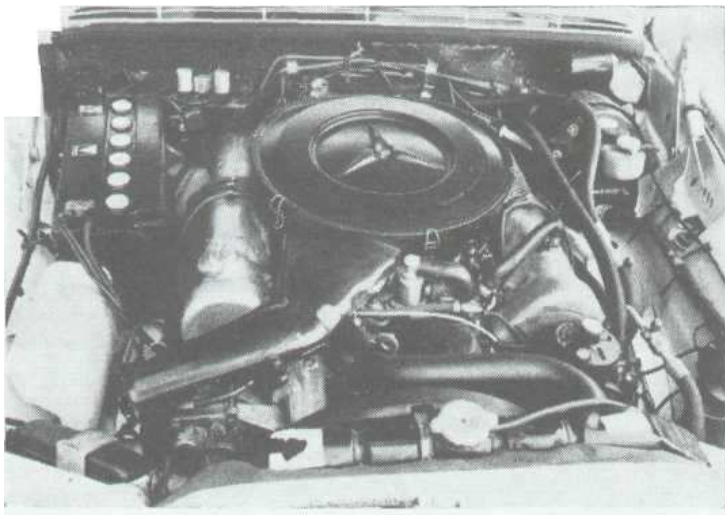
Relaxed and quiet as the new engine is at freeway speeds, it allows some hitherto unnoticed 280SE noises to intrude. There is considerable road noise perhaps this is why radial tires aren't yet standard on this model and a slight differential whine at 40-60 mph. The 280 sedan series is a firmly sprung car—one reason for the responsive handling—and gets downright harsh at low speeds over tar strips and the like. Speaking of tar strips and ridges, if they are longitu-

dinal the bias-ply tires jerk the car noticeably when it is steered across the ridge at a slight angle.

Stopping a 4110-lb (test weight) sedan from 80 mph in 320 feet isn't easy but the Mercedes brakes do it with lots to spare. Those small tires were the limiting factor and we are certain the car could be stopped in less distance with larger tires. Four-wheel disc brakes, ventilated 10.8-in. discs in front and 11.0-in. discs at the rear with power assist, are responsible for much of the confidence one places in Mercedes-Benz cars; they can stop the car quickly from its top speed with good directional control and don't fade when asked to stop it repeatedly.

That L on the end of the SEL means long; four more inches of wheelbase than the 280SE. There is a lot of leg-stretching room in the SEL. The uninitiated are, at first anyway, put off by the firm Mercedes seats, but after several hours of traveling these same people are still comfortable—they're beginning to know what Mercedes cars are all about. Nearly any size or shape driver can be accommodated by the multi-adjustable seat. It goes up and down, backward and forward; the back rest is adjustable and so is the head restraint. There is even a separate armrest. A high seating position, high steering wheel and instrument cluster give the driver a commanding driving position. There is seating for three





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Hefty steering-column stalks control the windshield washers and wipers, headlight dimming and directional signals; the driver's hands seldom have to leave the steering wheel. The air conditioner, which is standard on the U.S. 280SEL, is well integrated in the handsome wood dashboard; it cooled the car quickly on 90°F days and kept it cool with a minimum of fan noise. It exudes practical luxury. For instance the door locks are vacuum controlled and follow obediently when the driver's door is locked or unlocked. This eliminates the crawling over seats and the general fuss of locking so many doors.

For seatbelts Mercedes uses the simple, easy-to-adjust Kangol magnetic-latch belts from England. But these are by no means the best belts made, and a \$10,000 Mercedes sedan should have the best. We commend the inertia-reel belts used on Audi's, but closer to home there's the excellent inertia arrangement used on Mercedes' own 350SL.

The styling is old as styling standards go, and it's possible this body and chassis will be replaced next year. But the 280 is still a handsome car and makes very good use of space. The trunk is large (17 cu ft) but its finish is disappointing. Expecting a carpeted and well-finished trunk, one opens the deck lid to find something you would find in a mid-size American car. It's a small point, but when a car is this good it's a shame to find it inconsis-

ent on even something of as little consequence as this.

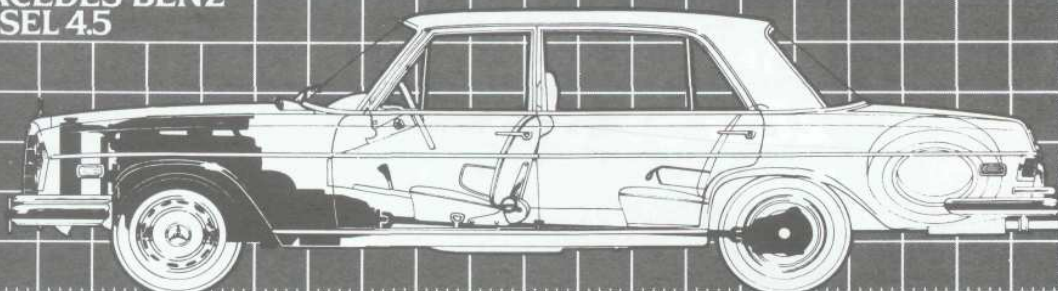
Under the hood things are crowded, really crowded. If anything should go wrong the repair will be a real mechanic's nightmare and that translates to be expensive to the owner. On the other hand, the manufacturer has finally backed off on the overdone maintenance routines that must have been a shock to former Cadillac customers, and neither the transistorized ignition nor the electronic fuel injection is going to require much service.

The 280 sedans with the V-8 engine sold in the U.S. are loaded with equipment. The west-coast price of our test car was \$10,627 and that was before the announced increase in import taxes, final revaluation of the Deutschmark or dropping of the excise tax. That includes, as standard equipment, automatic transmission, power steering, power brakes, air conditioning, electric windows, tinted glass, AM/FM radio and rear window defroster. The only option was a \$312 electric sun roof. It's a lot to ask for a sedan, but the 280SEL 4.5 is a lot of car and the final defense for such a price is that you can't get the same thing in a domestic car at any price.

It is typical of Mercedes that the car feels right. The driving position is right, the controls are right, the brakes are right, the handling is right, and now the performance is right. One has to pay through the nose for the best, but for those who can afford it and demand real roadability with their luxury, comfort and prestige, the 280SE with the V-8, in either regular or L version, is the best available today



# ROAD TEST MERCEDES-BENZ 280 SEL 4.5



SCALE: 10' DIVISIONS

### PRICE

List price, east coast ..... \$10,447  
List price, west coast ..... \$10,627  
Price as tested, west coast. \$10,939  
Price as tested includes standard equipment (automatic transmission, air conditioning, power steering & brakes, tinted glass, rear window heat), electric sunroof (\$312)

### IMPORTER

Mercedes-Benz of North America  
158 Linwood Plaza, Fort Lee, N.J. 07024

### ENGINE

Type ..... sohc V-8  
Bore x stroke, mm ..... 92.0 x 85.0  
Equivalent in. .... 3.62 x 3.35  
Displacement, cc/cu in. 4520/276  
Compression ratio ..... 8.0:1  
Bhp @ rpm ..... 230 @ 5000  
Equivalent mph ..... 113  
Torque @ rpm, lb.-ft. 279 @ 3200  
Equivalent mph ..... 72  
Fuel injection ..... Bosch electronic  
Type fuel required. regular, 91-oct  
Emission control ..... fuel injection, engine mods

### DRIVE TRAIN

Transmission automatic; torque converter with 3-sp planetary gearbox  
Gear ratios: 3rd (1.00) ..... 3.23:1  
2nd (1.46) ..... 4.71:1  
1st (2.31) ..... 7.47:1  
1st (2.31 x 1.96) ..... 14.62:1  
Final drive ratio ..... 3.23:1

### CHASSIS & BODY

Layout ..... front engine/rear drive  
Body/frame ..... unit steel  
Brake type 10.8-in. vented disc front, 11.0-in. vented disc rear; vacuum assisted  
Swept area, sq in ..... 456  
Wheels ..... steel disc, 14 x 6J  
Tires ..... Phoenix 185V-14  
Steering type ..... recirculating ball, power assisted  
Overall ratio ..... 15.7:1  
Turns, lock-to-lock ..... 3.0  
Turning circle, ft ..... 40.4  
Front suspension: unequal-length A-arms, coil springs, tube shocks, anti-roll bar  
Rear suspension: single-low-pivot swing axles, trailing arms, coil springs, tube shocks

### CALCULATED DATA

Lb/bhp (test weight) ..... 17.8  
Mph/1000 rpm (3rd gear) ..... 22.6  
Engine revs/mi (60 mph) ..... 2650  
Piston travel, ft/mi ..... 1480  
R & T steering index ..... 1.21  
Brake swept area sq in/ton. 222

### INSTRUMENTATION

Instruments: 160-mph speedometer, 99,999 odo, 999.9 trip odo, oil pressure, coolant temp, fuel level, clock  
Warning lights: generator, fuel level, brake-on, directionals, hazard flasher, high beam

### RELIABILITY

From R&T Owner Surveys the average number of trouble areas for all models surveyed is 11. As owners of earlier models Mercedes-Benz reported 3 trouble areas, we expect the reliability of the Mercedes-Benz 280 SEL 4.5 to be much better than average

### GENERAL

Curb weight, lb ..... 3775  
Test weight ..... 4110  
Weight distribution (with driver), front/rear, % ..... 56/44  
Wheelbase, in ..... 112.2  
Track, front/rear ..... 58.4/58.5  
Overall length ..... 196.9  
Width ..... 71.3  
Height ..... 56.7  
Ground clearance ..... 5.9  
Overhang, front/rear ..... 32.8/51.9  
Usable trunk space, cu ft ..... 17.0  
Fuel tank capacity, U.S. gal ..... 21.5

### ACCOMMODATION

Seating capacity, persons. 5  
Seat width, front/rear ..... 2 x 23.0/58.5  
Head room, front/rear ..... 39.0/35.5  
Seat back adjustment, degrees. 80

### MAINTENANCE

Service intervals, mi.:  
Oil change ..... 6000  
Filter change ..... 6000  
Chassis lube ..... 3000  
Tuneup ..... 9000  
Warranty, mo./mi. .... 12/12,000

## ROAD TEST RESULTS

### ACCELERATION

Time to distance, sec:  
0-100 ft ..... 4.3  
0-250 ft ..... 6.7  
0-500 ft ..... 10.0  
0-750 ft ..... 13.0  
0-1000 ft ..... 15.4  
0-1320 ft (1/4 mi) ..... 18.1  
Speed at end of 1/4 mi, mph. 78.5  
Time to speed, sec:  
0-30 mph ..... 4.7  
0-40 mph ..... 6.5  
0-50 mph ..... 8.6  
0-60 mph ..... 11.2  
0-70 mph ..... 14.8  
0-80 mph ..... 19.0  
0-100 mph ..... 32.7  
Passing exposure time, sec:  
To pass car going 50 mph ..... 6.1

### FUEL CONSUMPTION

Normal driving, mpg ..... 11.5  
Cruising range, mi. .... 245

### HANDLING

Speed on 100-ft radius, mph ..... 31.2  
Lateral acceleration, g ..... 0.649

### BRAKES

Panic stop from 80 mph:  
Max. deceleration rate, % g ..... 87  
Stopping distance, ft. .... 320  
Control ..... very good  
Pedal effort for 50%-g stop, lb. 20  
Fade test: percent increase in pedal effort to maintain 50%-g deceleration rate in 6 stops from 60 mph ..... nil  
Parking: Hold 30% grade? ..... yes  
Overall brake rating ..... very good

### SPEEDS IN GEARS

3rd gear (5200 rpm) ..... 118  
2nd (5800) ..... 90  
1st (5800) ..... 56

### SPEEDOMETER ERROR

30 mph indicated is actually. 27.5  
40 mph ..... 38.0  
50 mph ..... 48.0  
60 mph ..... 58.0  
70 mph ..... 67.5  
80 mph ..... 76.0  
100 mph ..... 95.0  
Odometer, 10.0 mi ..... 9.8

### ACCELERATION

