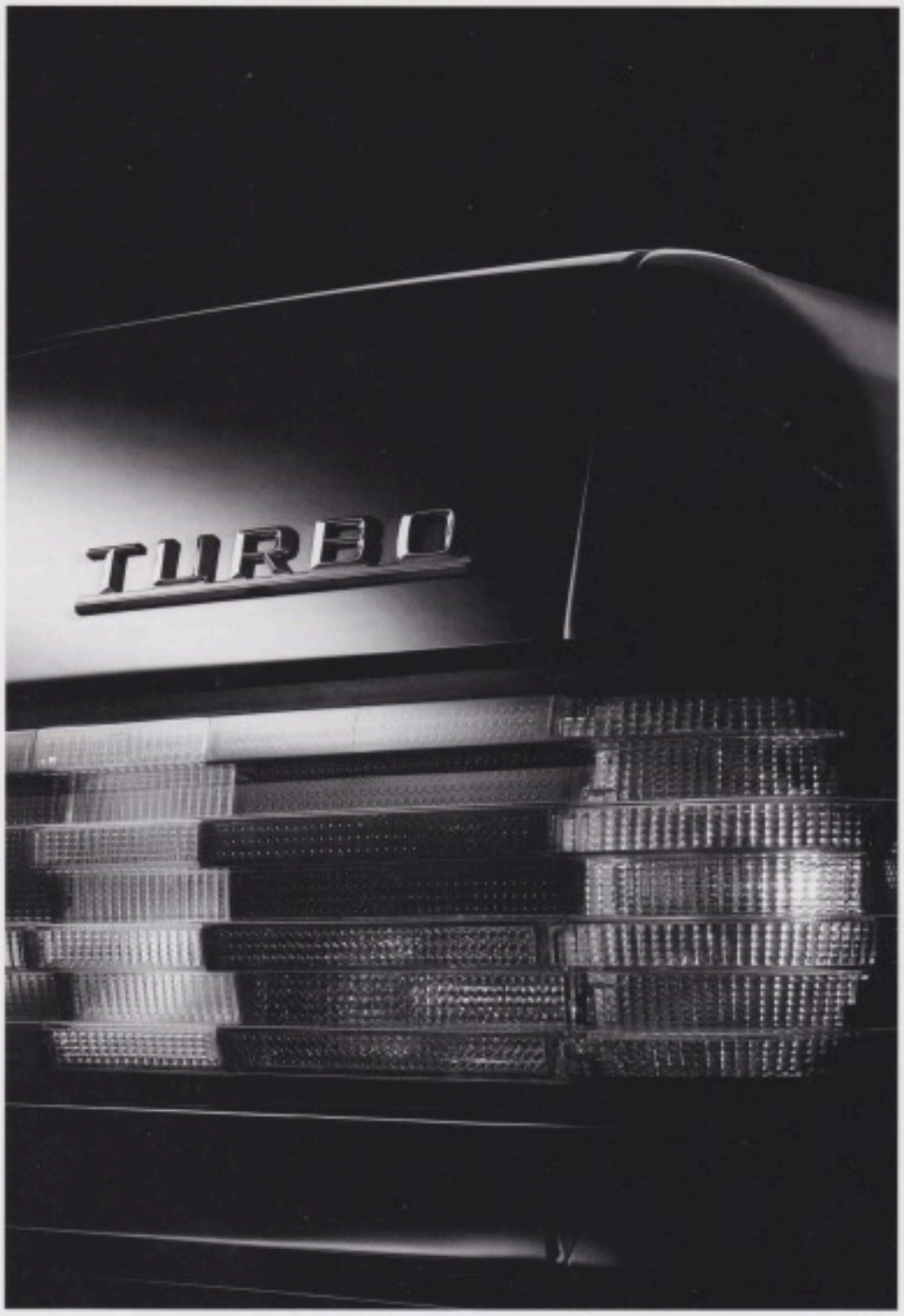
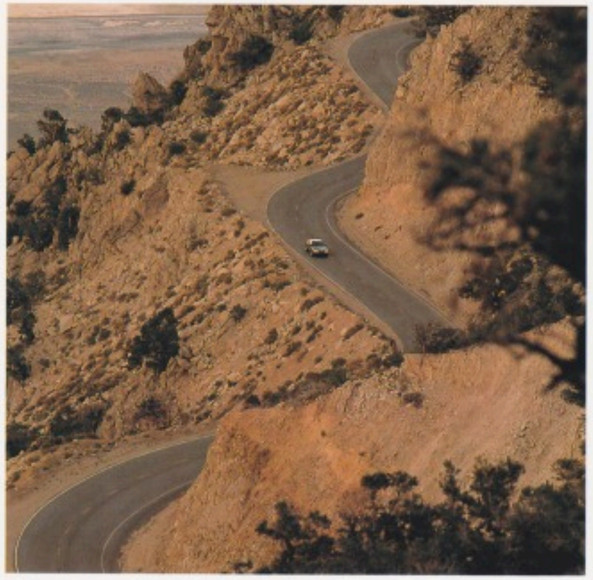


Mercedes-Benz 1990 Turbodiesel

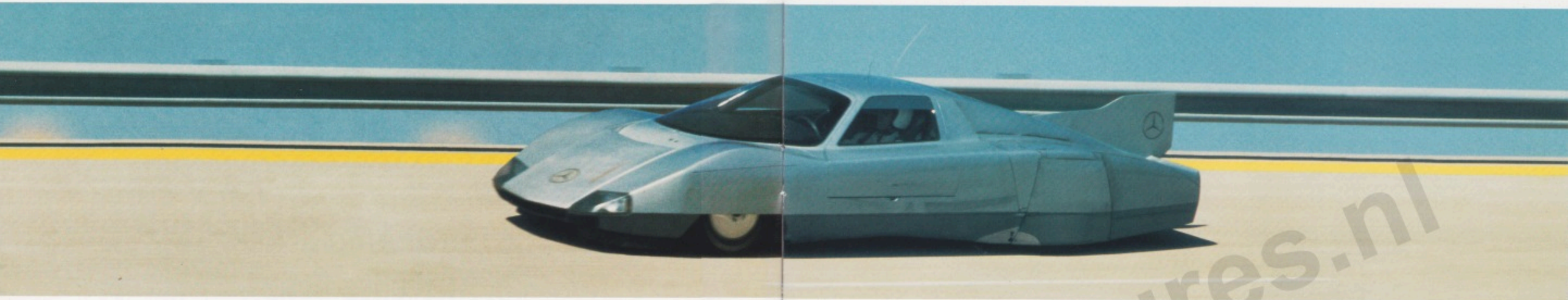
C O N T E N T S

Note: The 350 SDL Turbo will be introduced later
in the 1990 model year. Your authorized Mercedes-Benz dealer
can provide current information about these models.
Diesels not available in California.

The Diesel Automobiles of Mercedes-Benz



FROM LONGEVITY RECORDS, TO PERFORMANCE
RECORDS, TO SALES RECORDS AND RELIABILITY RECORDS,
MERCEDES-BENZ DIESELS HAVE LONG BEEN
THE ENVY OF THE AUTOMOTIVE WORLD. FOR 1990,
MERCEDES-BENZ UNVEILS THE MOST ADVANCED
DIESEL PASSENGER CARS EVER BUILT.



In April of 1978, the C111/III prototype sports car established nine diesel speed and endurance records, most of which stand to this day. The powerplant: a turbocharged diesel not unlike today's production diesel engines.

Shattering Myths, Setting Records

Mercedes-Benz diesel automobiles offer significant ownership advantages. Advantages that appeal to many drivers as uniquely sensible and desirable—and have for many decades, through any number of automotive trends.

The Mercedes-Benz diesel powerplant is engineered and built for efficiency above all. Efficiency in fuel consumption; in reducing emissions and visible smoke, in freedom from adjustment and parts replacement; in the engine's ability to roll along for thousands of miles without significant wear. Efficiency that can be measured in dollars saved and miles driven. And helps ensure that the diesel will never go out of style.

Mercedes-Benz produced the world's first production diesel passenger car in 1936. And from that day to the recent introduction of the new slant injection diesel engines, the history of diesel progress has been largely contained within the engineering department of Mercedes-Benz.

The world's most durable automobile, as cited by the *Guinness Book of World Records*, is a Mercedes-Benz 180D diesel sedan. At last report, it had covered 1,184,880 miles. A number of other Mercedes-Benz diesels have reached similar high-mileage pinnacles. More than half a million are still rolling up the miles.

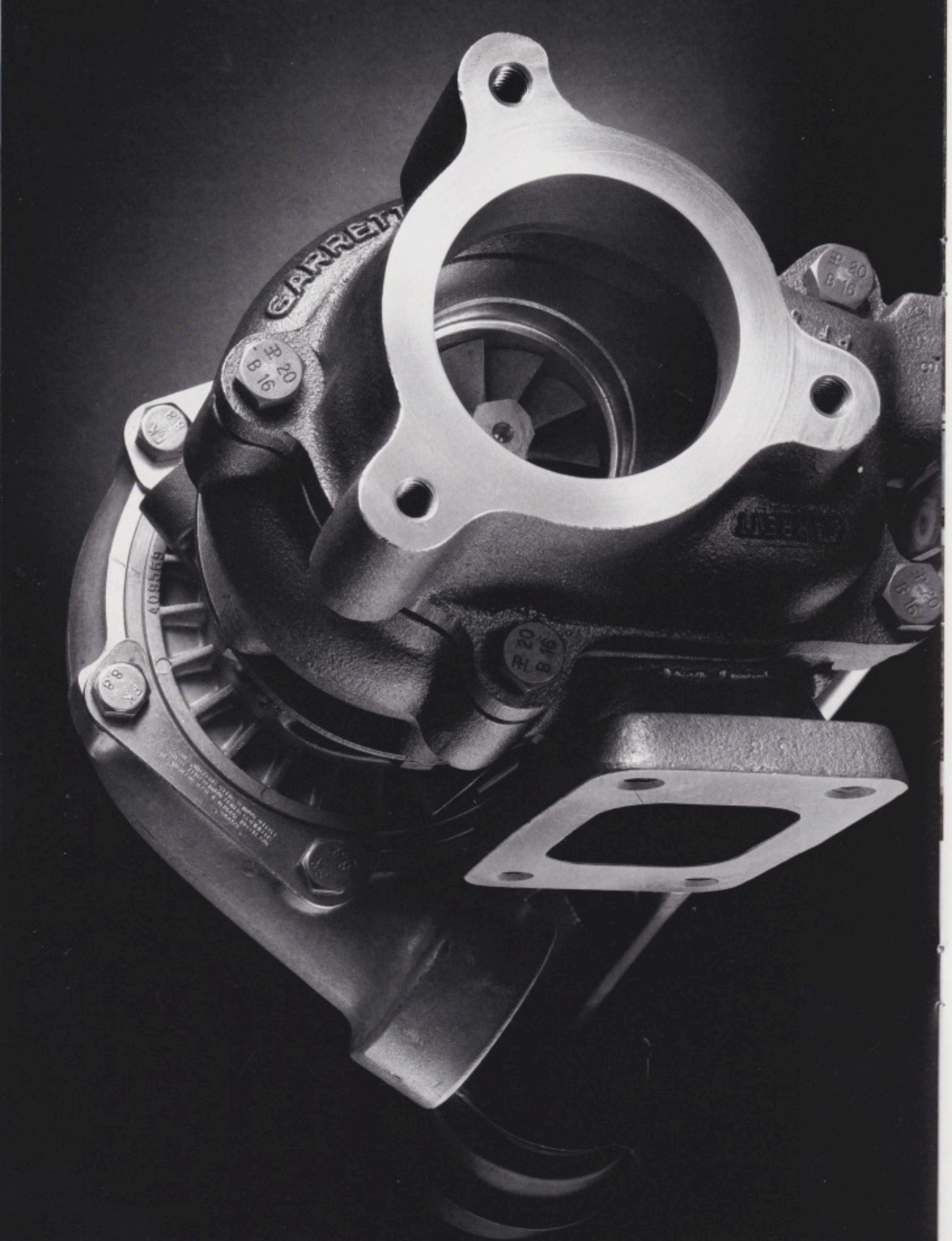
The world's fastest diesel automobile is a Mercedes-Benz: the C111/III. This research vehicle averaged 195.3 mph and set nine world speed records in a 12-hour assault on the test track at Nardo, Italy. While achieving 14.7 mpg fuel economy. No car has ever been driven so fast on so little fuel.

Other Mercedes diesel accomplishments can't be gauged in mph or miles traveled. They have been achieved in laboratories and documented in scientific papers.

Some have made diesels more efficient and more powerful: advances in fuel injection, turbocharging, prechamber design and more. Others have made tough diesels tougher still.

For 1990, Mercedes-Benz takes yet another step forward—perhaps the most important advance in the history of the diesel automobile. An advance that makes the diesel engine more powerful, cleaner and eminently civilized. An advance that makes the diesel a powerplant for the 1990s.

Many Mercedes-Benz diesels have distinguished themselves over the last 54 years. Pictured here are some of the best-selling diesels of all time: the first diesel passenger car ever built (a 1936 260D); a 1950's vintage 180D, similar to the Guinness record-holding car; a 1972 220D that eclipsed the million-mile mark; and a 1985 300TD Station Wagon, a member of the 123 diesel family.



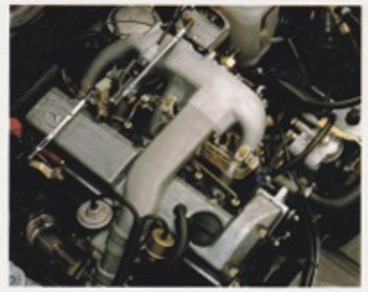
A New Generation of Diesel Efficiency

The diesel concept is elegantly simple: Rather than igniting the fuel mix with a complicated spark system as in gasoline engines, diesel engines utilize the heat generated by compression to ignite the fuel. And in doing so, overcome the problems of preignition and detonation that limit the efficiency and life of some gasoline engines. Optimize torque over a broad range. And conserve fuel.

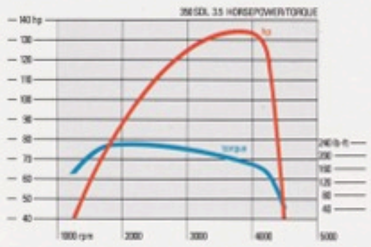
Now, the new Mercedes-Benz 2.5-liter five-cylinder and 3.5-liter six-cylinder turbodiesel engines pack still more heavy-load muscle than did their diesel forebears. And while those earlier engines were fuel stingy, these are stingier still.

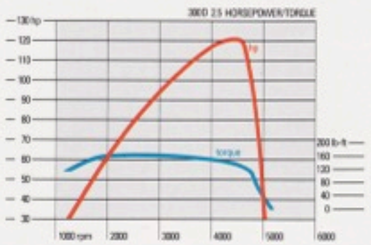
Yet perhaps most importantly, these new diesels generate less gaseous emissions than even smog-controlled gasoline engines. And far fewer particulate emissions than previous diesels. Diesel

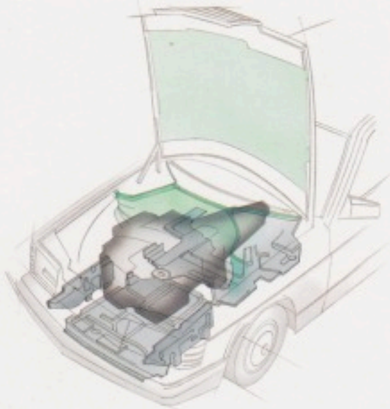
Left: Both Mercedes-Benz diesels utilize advanced turbochargers to pressurize the intake manifold. This forced induction improves cylinder filling to optimize torque.



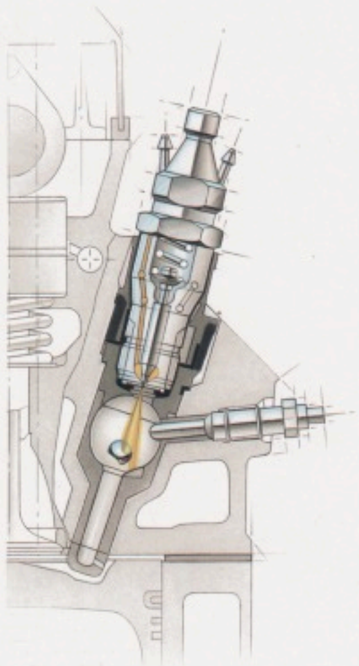
Above: The 3.5-liter six-cylinder turbodiesel (top), and the 2.5-liter five-cylinder turbodiesel. Note the broad, flat torque curves illustrated below. To the driver that means responsive power at virtually any speed.







Above: Full encapsulation of the engine compartment renders both diesel engines remarkably quiet.



Below: Advanced prechamber design significantly reduces emission and visible smoke levels.

smoke and clatter have been virtually eliminated. The application of advanced combustion science to the classic diesel powerplant has created compression-ignition engines so civilized that pedestrians may not even realize that they are, in fact, diesels.

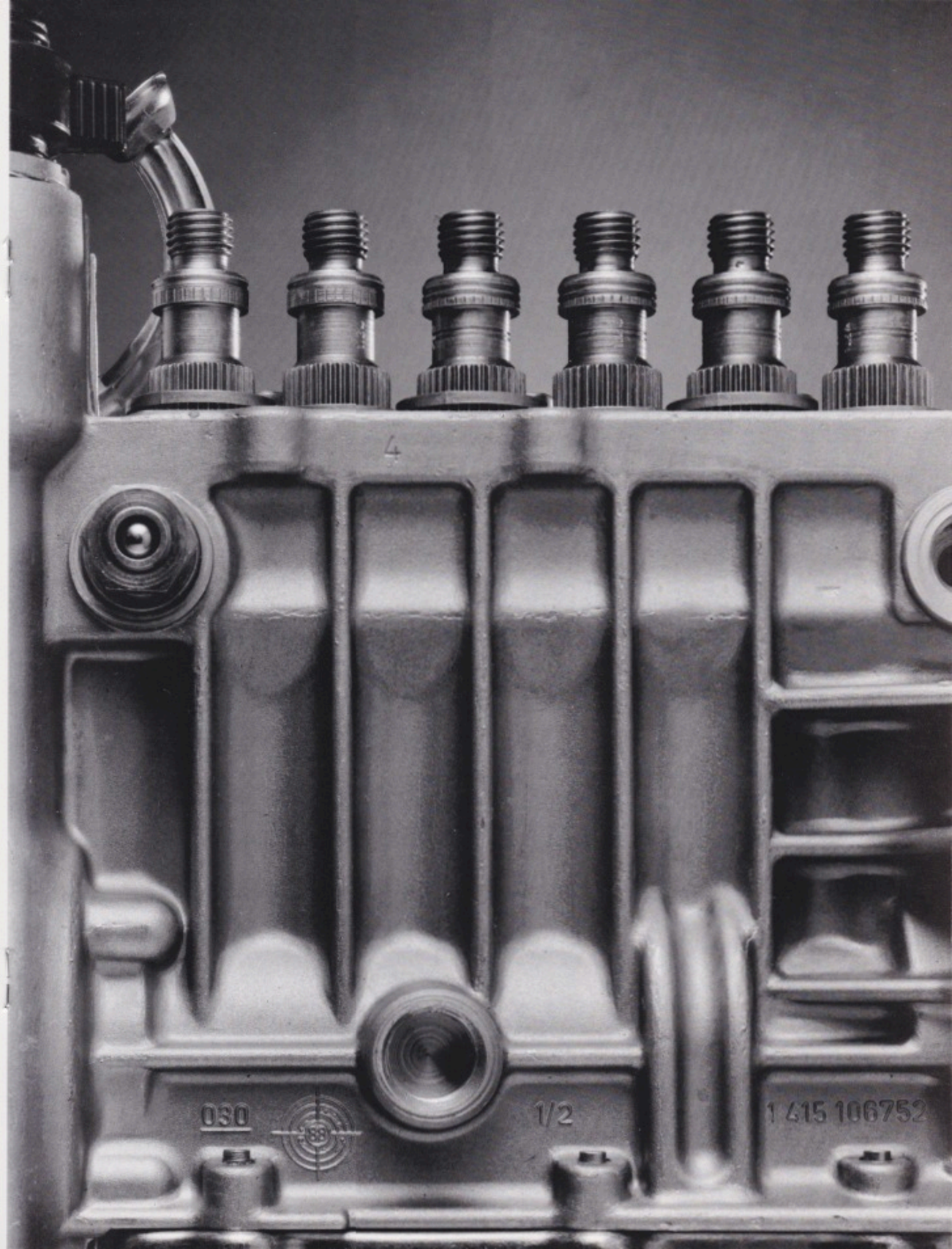
Through years of testing, diesel technology has been optimized. An advanced prechamber and angular injector that radically improve air/fuel mixing efficiency have been engineered. A configuration that can swirl the incoming air and stimulate combustion has been developed. A unique glow plug that improves ignition in the critical moments after initial startup has been perfected. The diesel, in brief, has been refined.

But civilization isn't the only benefit of this technology: these two new turbodiesels provide energetic performance. The 2.5-liter five-cylinder engine generates significantly more horsepower than the normally aspirated 3.0-liter diesel engines of several years ago. Its powerful sibling, the 3.5-liter six-cylinder diesel develops 134 horsepower, while producing a mighty 229 lb-ft of torque at only 2000 rpm. Far more torque at a far lower speed than any other Mercedes-Benz diesel passenger car ever built. Or, for that matter, *any* diesel passenger car ever built.

Both new diesels may well exceed all other diesels in durability as well. At the heart of both new Mercedes-Benz turbocharged diesels is an immensely sturdy spin-forged crankshaft. On each of its radiused and heat-treated rod journals, a forged-steel connecting rod mounts an oil-cooled aluminum alloy piston.

The diesel engine of legend was a broad-shouldered workhorse that fumed and clattered as it masterfully pulled more than its share of the load. The new Mercedes-Benz turbodiesel engines for 1990 are broad-shouldered workhorses that cleanly, efficiently and quietly pull far more than their share of the load.

Right: The Mercedes-Benz six-cylinder fuel-injection pump delivers precisely timed doses of diesel fuel.



Half a million American owners testify to the economy, durability, intelligence and driving satisfaction of the diesel-powered Mercedes-Benz. Now, Mercedes-Benz advances the diesel cause with the new 300D 2.5 Turbo Sedan–121 turbocharged horsepower of un-diesel-like performance and smoothness. An advanced, clean-running diesel engine encapsulated within the engine compartment for amazing quiet.

Most importantly, the new 300D 2.5 Turbo Sedan is pure 300 Class. Because it is a Mercedes-Benz 300 Class sedan, it clings to a twisting road with all the tenacity that advanced, four-wheel fully independent suspension can muster. Like every 300

300D 2.5 Turbo Sedan

Class Mercedes-Benz ever built, it is equipped with ABS braking and SRS with driver-side air bag, knee bolster and emergency tensioning retractors (ETR) for both front seat belts. Like every Mercedes-Benz, it is fitted with myriad intelligent amenities.

With the new Mercedes-Benz 300D 2.5 Turbo Sedan, the diesel passenger car may well have reached the most refined, satisfying state in its history.

The 300D 2.5 passenger cabin is trimmed in fine zebrano hardwood. Soft-to-the-touch glove leather is optionally available. Electrically adjustable seats and electric window lifts are standard equipment.

Seat adjustment is accomplished by means of this uniquely intelligent seat-shaped switch. Two-position memory optional at extra cost.

The history of Mercedes-Benz is rich with uniquely satisfying diesel sedans. But nowhere in Mercedes-Benz history is there a diesel so uniquely satisfying as the 350 SDL Turbo Sedan.

Nowhere is there a passenger-car diesel engine as quiet, clean-running and powerful as the Mercedes-Benz 3.5-liter turbo-charged diesel engine.

Nowhere – save in another long-wheelbase S-Class sedan – is there a passenger cabin as refined as that of the 350 SDL. Example: consider 100 cu. ft. of living space, enough room for five adults.

Because the diesel engine is encapsulated within sound barriers, cruising-speed noise levels are comparable to those of the fore-

350 SDL Turbo Sedan

most gasoline-powered sedans.

Because the 350 SDL is fitted with an advanced network of safety systems, it offers one of the greatest luxuries an automobile can provide: peace of mind.

Because it is a Mercedes-Benz S-Class sedan, the 350 SDL Turbo Sedan incorporates nothing less than the best thinking that more than a century of car-building experience has yielded.

The back seat of the 350 SDL is one of the most comfortable in the automotive world. Of nearly five-foot width, it provides more than three feet of legroom. Pencil beam reading lamps provide illumination for rear-seat passengers.

Soft glove-leather upholstery, fine-cut velour carpeting and rich inlays of fine hardwood contribute to the refreshingly tasteful ambiance of the 350 SDL passenger cabin. Electrically adjustable seats and steering column with two- position memory are standard equipment, as is a powerful high-performance AM and FM stereo radio with cassette player.

A Car You Might Never Surrender

How long will a Mercedes-Benz last? No one can say with certainty–not even Mercedes-Benz engineers. But some Mercedes-Benz cars are known to have clocked more than a million miles. A record that testifies not only to the durability of the automobiles, but to the excellence of Mercedes-Benz service and owner support.

Should you decide that you just can't bear to part with your Mercedes-Benz, your authorized dealer will be pleased to help you celebrate milestones by awarding grille badges at significant intervals to 1,000,000 kilometers. After that you're on your own.

Should you eventually decide to replace your automobile, you'll be pleased to know that Mercedes-Benz resale value is legendary. As a line, Mercedes-Benz cars–regardless of age–have maintained a higher percentage of original value over the last ten years than has any other make sold in America. Why? Simply because Mercedes-Benz has always been engineered like no other car in the world.

Grille badges are awarded to celebrate longevity milestones. Like Mercedes-Benz durability, Mercedes-Benz owner loyalty is legendary. The chart below compares repurchase intentions of Mercedes-Benz owners and owners of other luxury makes. The Mercedes-Benz network of customer care includes trained service technicians and a Roadside Assistance program that can provide 24-hour emergency help.

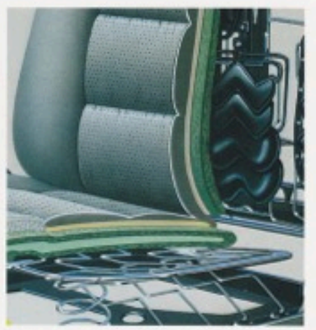
SOURCE: 1988 CSI-Customer Satisfaction with Product Quality and Dealer Service–J.D. Power and Associates.

Optional Equipment*

	300 D 2.5 Turbo	350 SDL Turbo
Antitheft alarm system, including radio	O	S
Electric sliding sunroof, with rear pop-up feature	O[1]	O[1]
Electrically heated front seats	O	O
Electrically heated rear seats	—	O
Four-place seating package with rear storage console	—	O[2]
Front seats with reinforced frames	O[3]	O[3]
Front seats with electro-pneumatically adjusted orthopedic backrests	O[3]	O[3]
Metallic paint	O	O[1]
Passenger's-side air bag and knee bolster with lockable center console	O	O
Rear window sunshade, electrically operated	O	O
Upholstery, velour	O	O[1]

S Standard
O Optional
— Not available

1 No charge
2 Includes electrically adjustable rear seats
3 Left and right seats, each optionally available
* Partial Listing



A passenger-side air bag and knee bolster are optionally available.

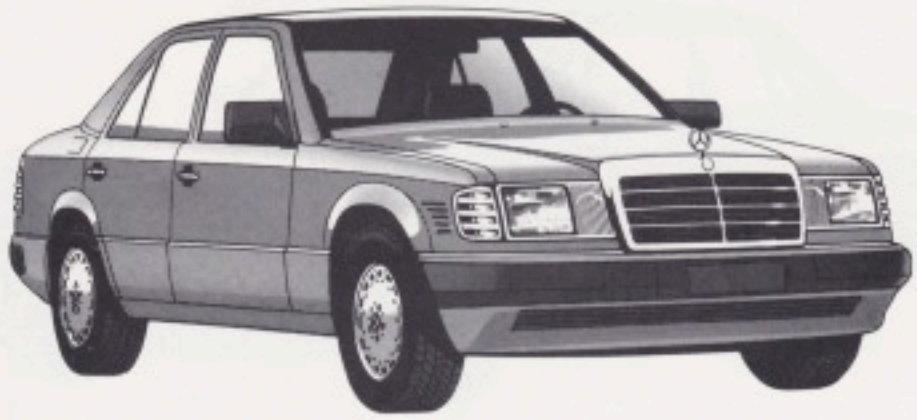
An electrically adjustable steering column is optional on the 300 D 2.5, standard on the 350 SDL.

Front seats with adjustable orthopedic backrests are optional.

Heated front seats are optionally available on both Mercedes-Benz turbodiesel sedans.

Soft, glove-leather upholstery is standard equipment on the 350 SDL, optional on the 300 D 2.5.

A rear-window shade is optionally available on both diesel models.



300 D 2.5 Turbo Sedan

ENGINE TYPE:

Turbodiesel, In-line,
5-Cylinder, 2.5 Liter, Mechanical Fuel Injection, Single Overhead Camshaft, Six Main Bearings

Maximum Engine Speed (rpm)	4600
Bore x Stroke in/mm	3.43x3.31/87.0x84.0
Displacement cu in/cm^3	152.4/2497
Net Power hp/kW @ rpm	121/90 @ 4600
Net Torque lb-ft/N•m @ rpm	165/223 @ 2400
Compression Ratio	22.0:1
0-60 mph (seconds)	12.4
Fuel Type	Diesel #1 or #2 Mechanical Fuel Injection

TRANSMISSION

4-speed automatic
Rear Axle Ratio 2.65:1

CHASSIS

Construction Monocoque body

Front Suspension – Independent suspension: Damper struts with separate coil springs, triangular lower control arms with antidive geometry, antiroll bar and negative-offset steering.

Rear Suspension – Independent suspension: Multilink geometry for antilift, antisquat and alignment control, four constant velocity joints, coil springs, antiroll bar, single-tube gas-pressurized dampers.

Tires and Rims
195/65 R15 91V, Steel-belted radial, 6.5J x 15H2

Steering System – M-B recirculating-ball-type steering with power assist and steering damper

Steering Wheel Turns Lock to Lock 3.0

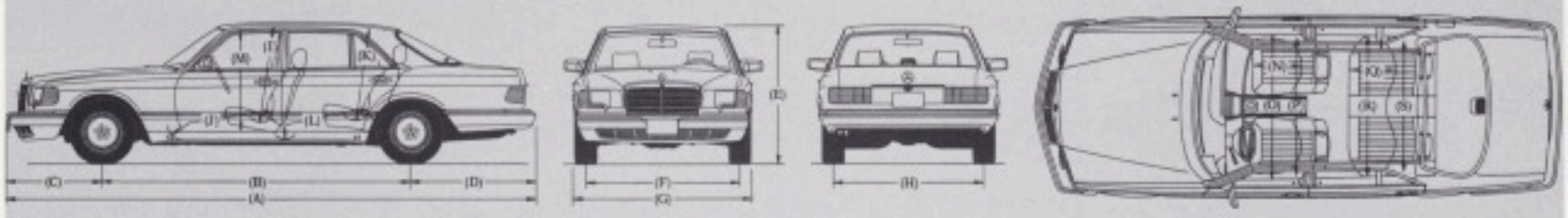
Braking System – 2-circuit hydraulic 4-wheel power-assisted disc brakes, front discs ventilated, Antilock Braking System (ABS)

Fuel Capacity:	U.S. gal-res	18.5-2.4
	ltr-res	70-9.0
Curb Weight lb/kg		3390/1535
Trunk Capacity cu ft/m^3		14.6/0.414

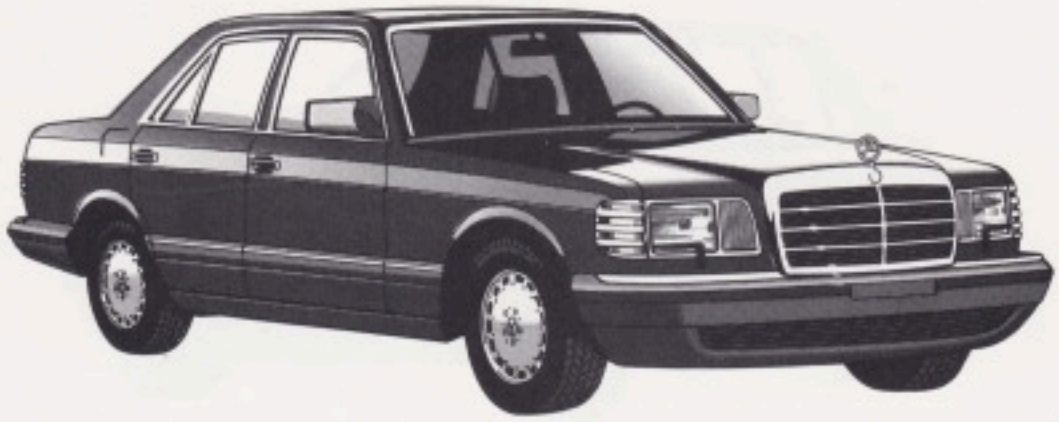
DIMENSIONS

Wheelbase in/mm	(B)	110.2/2800
Track–Front in/mm	(F)	59.1/1501
Track–Rear in/mm	(H)	58.7/1491
Overall Length in/mm	(A)	187.2/4755
Overall Height in/mm	(E)	56.3/1431
Overall Width in/mm	(G)	68.5/1740
Turning Circle ft/m		36.7/11.2

Note: The power values are measured in accordance with SAE J1349 for kilowatts. Horsepower values are by standard conversion. Dimensions made in accordance with SAE specifications. Front and rear legroom derived with front seat adjusted to design driving position for 95th percentile male occupant. Front and rear headroom dimensions are for automobiles equipped with sliding roofs.



Note: Diesels not available in California.



350 SDL Turbo Sedan

ENGINE TYPE:

Turbodiesel, In-line,
6-Cylinder, 3.5 Liter, Mechanical Fuel Injection, Single Overhead Camshaft, Seven Main Bearings

Maximum Engine Speed (rpm)	4250
Bore x Stroke in/mm	3.5x3.6/89.0x92.4
Displacement cu in/cm^3	210.5/3449
Net Power hp/kW @ rpm	134/100 @ 40600
Net Torque lb-ft/N•m @ rpm	229/310 @ 2000
Compression Ratio	22.0:1
0-60 mph (seconds)	11.4
Fuel Type	Diesel #1 or #2 Mechanical Fuel Injection

TRANSMISSION

4-speed automatic
Rear Axle Ratio 2.82:1

CHASSIS

Construction Monocoque body

Front Suspension – Independent suspension: Double control arms, lower control arm is provided with a brake force compensation strut, antidive geometry, coil springs, antiroll bar, single-tube gas-pressurized shock absorbers and zero-offset steering.

Rear Suspension – Independent suspension: M-B diagonal pivot axle, semi-trailing arms, antilift, antisquat geometry, four constant velocity joints, coil springs, antiroll bar, single-tube gas-pressurized dampers that act as shock absorbers.

Tires and Rims
205/65 R15 94H, Steel-belted radial, 6.5J x 15H2

Steering System – M-B recirculating-ball-type steering with power assist and steering damper

Steering Wheel Turns Lock to Lock 3.0

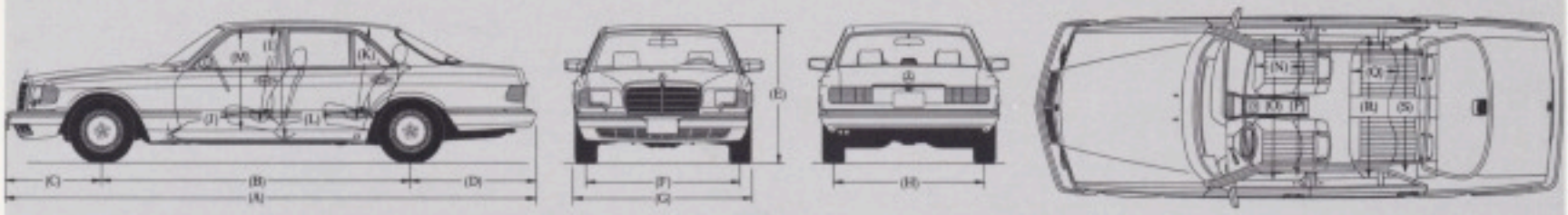
Braking System – 2-circuit hydraulic 4-wheel power-assisted disc brakes, front discs ventilated, Antilock Braking System (ABS)

Fuel Capacity:	U.S. gal-res	23.8-3.3
	ltr-res	90-12.5
Curb Weight lb/kg		3820/1730
Trunk Capacity cu ft/m^3		15.2/0.430

DIMENSIONS

Wheelbase in/mm	(B)	121.1/3075
Track–Front in/mm	(F)	61.5/1562
Track–Rear in/mm	(H)	60.4/1534
Overall Length in/mm	(A)	208.1/5285
Overall Height in/mm	(E)	56.7/1441
Overall Width in/mm	(G)	71.7/1820
Turning Circle ft/m		40.6/12.4

Note: The power values are measured in accordance with SAE J1349 for kilowatts. Horsepower values are by standard conversion. Dimensions made in accordance with SAE specifications. Front and rear legroom derived with front seat adjusted to design driving position for 95th percentile male occupant. Front and rear headroom dimensions are for automobiles equipped with sliding roofs.



Note: The 350 SDL Turbo will be introduced later in the 1990 model year. Your authorized Mercedes-Benz dealer can provide current information about these models. Diesels not available in California.

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