

Mercedes-Benz C 111 - II D record car, 1976



Diesel-engined record car, based on the Wankel-engined experimental car

Model text

In the mid-seventies, the Daimler-Benz AG decided to launch the new turbocharged Diesel engine OM 617 A on the American market as the S-Class power unit. However, due to the lame-duck image of the Diesel, it was doubted that a car with such a drive would be accepted in the USA. This is how the idea of record trial with this engine was born. The 1970 C 111 - II was reactivated for the record trial which was to take place at Nardo, Italy. It was piloted by the members of the testing department, Dr. Hans Liebold, Joachim Kaaden, Erich Waxenberger and Guido Moch. The trial was a great success.

Technical Data

Engine

Engine type	OM 617 LA
Inlet valves	1 overhead valve per cylinder, actuated via finger follower
Ignition sequence	1-2-4-5-3
No. of cylinders / arrangement	5 / in line
Outlet valves	1 overhead valve per cylinder, actuated via finger follower
Configuration	In front of rear axle, longitudinal; vertical
Valve operation	1 overhead camshaft, double roller chain drive
Combustion principle	Four-stroke Diesel (with indirect injection, Garrett turbocharger, charge-air cooling)
Crankshaft	6-bearing
Bore x Stroke	90.9 x 92.4 mm
Fuel system	Indirect injection, Bosch 5-plunger injection pump
Total displacement	2999 cc
Spark plugs	1 glow plug per cylinder
Fuel supply	2 electrical pumps
Compression ratio	approx. 21
Fuel tank capacity	140 l
Maximum / output / rated output	190 hp at 4200-4700 /min
Rated torque	363 Nm at 3500 /min
Cooling	Water circulation cooling
Lubrication	Pressure circulation lubrication
Cylinders	Gray cast iron block
Cylinder head	Light alloy, removable
Starter	Electrical, Bosch
Ignition	Compression ignition

Chassis and Drivetrain

Foot brake	Acting on front- and rear wheels
Steering	Recirculating-ball steering
Wheels	Light-alloy wheels
Front tires	215/70 VR 15 Michelin XVR
Frame design	Structural floor assembly, welded sheet steel
Rear tires	215/70 VR 15 Michelin XVR
Front wheel suspension	Double wishbone, suspension struts, torsion bar stabilizer
Drivetrain	Direct transmission from engine-transaxle unit to rear wheels
Rear wheel suspension	3 wishbones and 2 trailing arms per wheel, suspension struts, torsion bar stabilizer
Brake system	Hydraulically actuated dual-circuit brake system
Front brakes	Internally ventilated disc brakes
Rear brakes	Internally ventilated disc brakes

Transmission and Performance

Transmission	ZF 5-speed manual transmission in unit with differential gear, mounted behind rear axle
Shifting	Center shift
Clutch	Dry double-disc clutch
Transmission type	Change-speed gear

Maximum speed 260 km/h

Dimensions and Weights

Wheelbase 2620 mm

Front track 1410 mm

Rear track 1405 mm

Length 4445 mm

Width 1715 mm

Height 1120 mm

Vehicle weight 1300 kg

Engine weight 244 kg

Seats 2