Mercedes-Benz C 111 - III record car, 1977 / 1978

Record car based on the C 111-II

Model text

As a result of the successful C 111 - II D trial at Nardo in 1976, a new record car was designed in Sindelfingen under the direction of Prof. Hans Scherenberg. This car was to be powered by the tuned-up OM 617 A supercharged Diesel engine. The test trial at Nardo began on 30 April 1978 under the direction of Professor Scherenberg's successor Dr. Werner Breitschwerdt. Like the 1976 trial, it was crowned with 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	Bosch piston pump as part of the injection pump
Compression ratio	17.5
Fuel tank capacity	140 l
Maximum / output / rated output	230 hp at 4200-4600 /min
Rated torque	403 Nm at 3700 /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	230/600 x 15 Dunlop
Frame design	Structural floor assembly, welded sheet steel
Rear tires	230/600 x 15 Dunlop
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
Gear ratios	Overall ratio in 5th gear: 1.65

Maximum speed	325 km/h
Dimensions and Weights	
Wheelbase	2720 mm
Front track	1260 mm
Rear track	1320 mm
Length	5380 mm
Width	1715 mm
Height	1045 mm
Vehicle weight	1400 kg
Comments	Drag coefficient = 0.183
Engine weight	244 kg
Seats	1