

Type Designation

Vehicle model	107.043	107.044 (USA)
Engine type	M 116	M 117
Engine type designation	116.982	117.982

Design Characteristics

Manual 4-speed transmission	standard	—
Automatic transmission	optional	standard
Floor shift	standard	
Differential lock with limited slip	optional	
Dual circuit brake system with vacuum booster Disc brakes front and rear	standard	
Power steering	standard	

Engine

Operation	four-cycle gasoline injection, electronically controlled	
Number of cylinders	8	
Arrangement of cylinders	90° V	
Bore/stroke	mm	92/65.8 92/85
Total effective piston displacement	cc	3,499 4,520
Compression ratio		9.5:1 8:1
Firing or injection order	1—5—4—8—6—3—7—2	
Max. speed	rpm	6,300 5,800
Engine performance	in metric HP acc. to DIN ¹⁾ at rpm in gr. HP acc. to SAE at rpm	200/5,800 230/6,050 195/4,500 230/5,000
Max. torque	in kpm acc. to DIN at rpm in kpm acc. to SAE at rpm	29.2/4,000 32.0/4,200 35.8/3,000 38.5/3,200

1) The horsepower specified in metric HP is fully available at the clutch, since all other power requirements have already been deducted.



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Engine (ctd.)

Crankshaft bearings	5 multi-component friction bearings with steel-backed shells
Connecting rod bearings	multi-component friction bearings with steel-backed shells
Valve arrangement	overhead
Camshaft arrangement	1 overhead camshaft for each bank of cylinders
Oil cooling	air oil cooler
Cooling	water circulation pump, thermostat with bypass line, fan with viscofan coupling, finned tube radiator
Lubrication	forced oil circulation by gear pump
Oil filter	main flow filter
Air cleaner	damping filter with paper element

Dimensions

Vehicle length	mm	4,370	
Vehicle width	mm	1,790	
Vehicle height, ready for driving	mm	1,300 with roadster top 1,290 with coupe top	
Wheel base	mm	2,460	
Track width	front	mm	1,452
	rear	mm	1,440
Wheel lock	inside		40°
	outside		34°
Turning circle min. dia.	m	10.34	
Ground clearance, vehicle in basic design position ¹⁾			136

1) The basic design position is attained when the vehicle ready for driving is loaded with 65 kg each on front seats and 1 x 65 kg on rear seat (in center).

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Weights					
Vehicle dead weight acc. to DIN 70 020 ready for driving, with fuel tank full, spare wheel and tools			kg	1,545	1,682
Perm. total weight			kg	1,975	2,105
Perm. axle load front/rear			kg	980/995	1,015/1,090
Electrical System					
Battery	Voltage	V	12		
	Capacity	Ah	66		
Filling Capacities					
Fuel tank/reserve Fuel			approx. lits.	90/13	
Cooling system with heating Water			approx. lits.	14.3	15.0
Crankcase (without oil filter and air oil cooler) max./min. Engine oil			lits.	7.5/5.5	
Oil filter	Engine oil	approx. lits.	0.75		
Air oil cooler	Engine oil	approx. lits.	0.4		
Water pump			service-free		
Hydr. clutch actuation Brake fluid			approx. lits.	0.1 ¹⁾	—
4-Speed manual transmission G 76/27 A	Transmission fluid (ATF) lits.		1.8	—	
Automatic transmission K 4 A 040			6.8 ²⁾	—	
Automatic transmission W 3 A 040			—	8.9 ⁴⁾	
Rear axle Hypoid transmission fluid SAE 90			lits.	1.4 ³⁾	
Power steering Transmission fluid (ATF)			lits.	1.4	
Front wheel hub Anti-friction bearing grease (each hub)			65—80		
Brake system Brake fluid			approx. lits.	0.5	

1) The brake fluid for the brake system and for actuating the clutch is in a common compensating tank.

2) Applies to initial filling only; refills during oil change approx. 5.8 liters.

3) Fill rear axles with locking differential with special oil only — refer to Operating Instructions.

4) Applies to initial filling only; refills during oil change approx. 7.9 liters.



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Speeds, Consumption Figures and Operating Conditions

At rear axle ratio $i =$	3.46	3.07
Maximum speeds in individual gears timed	4-Speed manual transmission	Automatic transmission
1st gear km/h	54	43
2nd gear km/h	90	90
3rd gear km/h	150	150
4th gear approx. km/h	210	205
Climbing ability 1st gear slip limit %	43	43
2nd gear %	41	43
3rd gear %	22	32
4th gear %	13.5	—
Acceleration, engaging the individual gears 0–100 km/h carrying 2 persons sec. $\pm 7\%$ ¹⁾	8.8	9.0
Engine speed at 100 km/h in direct gear rpm	2,945	2,945 to 3,085
Fuel consumption for average highway travel lits./100 km ²⁾	11.5–18.5	14–22
Fuel consumption acc. to DIN 70 030 ³⁾ lits./ 100 km	13.0 at 110 km/h	15 at 110 km/h
Engine oil consumption lits./ 100 km	0.15–0.25	
Cooling water Working temperature	70°C–95°C	
Max. temperature	115°C	
Fuel	Premium or gasoline-benzol mixture	
Antiknock rating (min. RON) for maximum output ⁴⁾	96	
with maximum retardation of ignition involving a loss of performance	90	

- 1) The range " $\pm 7\%$ " comprises not only variations in permissible engine output, but also possible permissible variations due to tire condition. Cars with automatic MB transmission should be accelerated with kickdown in position 4.
- 2) The fuel consumption of vehicles with automatic MB transmission is approx. 5–10 % higher.
- 3) Determined at 3/4 of the max. speed, at a maximum of 110 km/h with a 10 % increase.
- 4) Gasoline engines are tuned at the factory to maximum performance using conventional fuels. If, as an exception and for a limited period, fuels with an anti-knock rating below the max. of the specified octane number must be used, the ignition should be retarded accordingly.