

Engine & Cooling

Fuel

Ignition

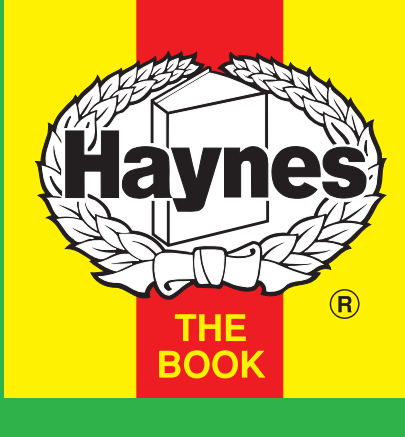
Electrical

Running gear

Torque settings

Capacities

Notes & Illustrations



Automotive Technical
DATA BOOK

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HELP

Engine and cooling system			300SE, SEL & CAT ¹	1986 to 1992
Type			103.981 KE 138kW CAT: 132kW	
Capacity (cm³) / number of cylinders			2960 / 6	
Compression ratio / pressure		bar	9.2 / ≥8.5	
Oil pressure		bar	0.3 [3.0]	
Oil temperature		°C	—	
Valve clearance - inlet		mm	0: Hyd.	
Valve clearance - exhaust		mm	0: Hyd.	
Firing order			1-5-3-6-2-4	
No 1 cylinder position			F	
Thermostat opening temperature		°C	87±2	
Radiator cap pressure		bar	1.2±0.1	
Fuel system			300SE, SEL & CAT ¹	1986 to 1992
Idle speed - manual [auto]		rpm	600 to 700	
Fast idle speed - manual [auto]		rpm	—	
CO @ idle speed [3000 rpm] - see page VI		%	1.0±0.5. CAT: ≤0.5	
HC @ idle speed [3000 rpm] - see page VI		ppm	≤1200	
CO2 @ idle speed [3000 rpm] - see page VI		%	—	
O2 @ idle speed [3000 rpm] - see page VI		%	—	
Carburettor / fuel injection			Bosch	
Type / ref			CIS-E (KE-Jetronic)	
Main jet / needle			—	
Injection pressure		bar	≥3.0. 9.88 ►: 3.2	
Pump pressure		bar	5.3 to 5.5	
Octane rating		RON	95[E 95 RON] ²	
Ignition system			300SE, SEL & CAT ¹	1986 to 1992
Type			EZL	
Ignition coil			Bosch	
Primary resistance		ohms	0.3 to 0.6	
Ballast resistor		ohms	—	
Voltage - Tmnl 15(+) to earth		V	Battery	
Distributor			Bosch	
Points gap (air gap)		mm	—	
Dwell angle		° (%)	1 to 30 @ starter speed	
Condenser capacity		µF	—	
Rotation			—	
Ignition timing - basic [static		° Crankshaft @ rpm	27 to 31 BTDC @ 3200	
V = Vacuum NV = No Vacuum			NV	
Total ignition advance		° Crankshaft @ rpm	6 to 11 BTDC @ idle	
		° Crankshaft @ rpm	40 to 44 BTDC @ 3200	
		° Crankshaft @ rpm	—	
Centrifugal check.		° Crankshaft @ rpm	Computer control	
		° Crankshaft @ rpm	—	
		° Crankshaft @ rpm	—	
Vacuum range check		mbar	Computer control	
Maximum vacuum advance		° Crankshaft	—	
Spark plugs			Bosch/Champion	
Type			H7DC / S9YC	
Electrode gap		mm	0.80	
Electrical system			300SE, SEL & CAT ¹	1986 to 1992
Battery		V / CC / RC	12 / 190 / 62Ah	
Alternator voltage / full load current / engine rpm			13.0 to 14.5 / 80 / 3000	
Starter motor current / voltage - cranking		A / V	—	
- locked		A / V	650 to 840 / 3.8	
Running gear			300SE, SEL & CAT ¹	1986 to 1992
Brakes -				
Front (min. friction material thickness)		mm	2.0	
Rear (min. friction material thickness)		mm	2.0	
Tyres				
Saloon		Size	205/65x15	
Estate / Van		Size	—	
Pressure - front / rear - Saloon		bar	2.1 / 2.3	
- Estate / Van		bar	—	
Front suspension / wheel alignment				
Toe-in (+) / Toe-out (–)		mm [°]	[+25'±10']	
Camber			0+10' -20'	
Castor			+10°15'±30'	
King pin inclination			—	
Rear suspension / wheel alignment				
Toe-in (+) / Toe-out (–)		mm [°]	[+25+10' -15']	
Camber			-1°45'±30'	
Torque wrench settings			300SE, SEL & CAT ¹	1986 to 1992
Cylinder head - stage 1		Nm	70	
- stage 2		Nm	+ 90°	
Cylinder head - stage 3		Nm	+ 90°	
- stage 4		Nm	—	
Big-end bearings		Nm	30 + 90 to 100°	
Main bearings		Nm	55 + 90 to 100°	
Clutch cover		Nm	25	
Flywheel [driveplate]		Nm	30 + 90 to 100° ³	
Front hubs		Nm	WSM	
Rear hubs		Nm	—	
Wheel nuts / bolts		Nm	110	
Spark plugs		Nm	20	
Capacities			300SE, SEL & CAT ¹	1986 to 1992
Engine oil & filter		litres	6.0	
Gearbox - 4-speed [5-speed]		litres	1.5	
Automatic transmission - refill		litres	6.2	
Final drive		litres	1.0. ASD: 1.1	
Cooling system		litres	8.0	
Fuel tank		litres	90	

Notes and Illustrations

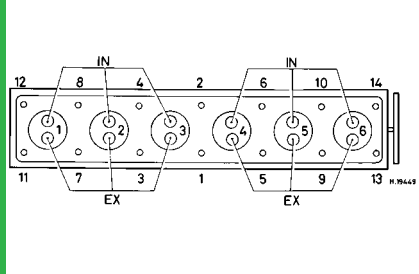
¹(126.024/025)

²CAT: [U]

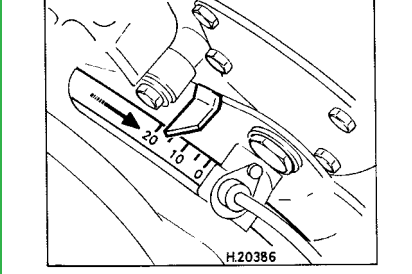
³9.89 ►, dual mass flywheel: 40 + 90 to 100°

1: Idle speed

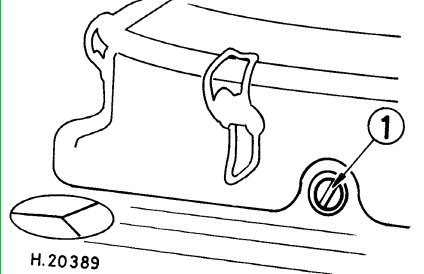
2: CO / Mixture



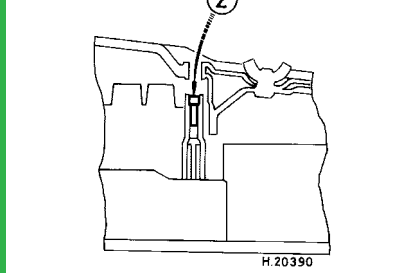
2960 cm³



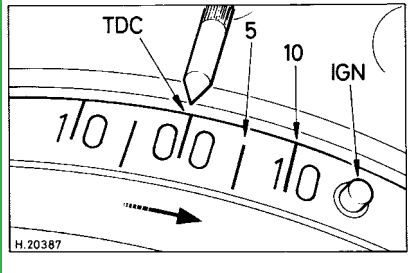
2960 cm³



KE-Jetronic



KE-Jetronic



2960 cm³, alternative