

Engine & Cooling

Fuel

Ignition

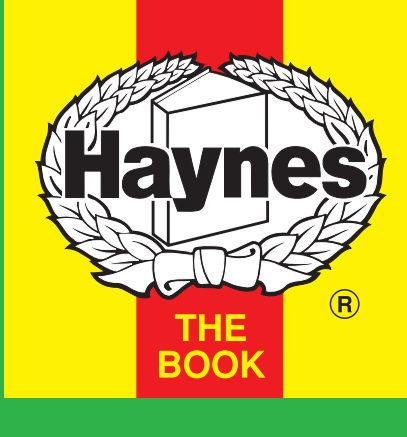
Electrical

Running gear

Torque settings

Capacities

Notes & Illustrations



Automotive Technical
DATA BOOK

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HELP

Engine and cooling system

230E/TE/CE (124.023/83/43)

1985 to 1988

Type		102.982 SOHC
Capacity (cm ³) / number of cylinders		2299 / 4
Compression ratio / pressure	bar	9.0 / ≥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		1-3-4-2
No 1 cylinder position		F
Thermostat opening temperature	°C	87±2
Radiator cap pressure	bar	1.2±0.1

Fuel system

230E/TE/CE (124.023/83/43)

1985 to 1988

Idle speed - manual [auto]	rpm	800±50
Fast idle speed - manual [auto]	rpm	—
CO @ idle speed [3000 rpm] - see page VI	%	≤0.3
HC @ idle speed [3000 rpm] - see page VI	ppm	≤200
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
Pump pressure	bar	5.3 to 5.5
Octane rating	RON	98[RA] ¹

Ignition system

230E/TE/CE (124.023/83/43)

1985 to 1988

Type		TSZ
Ignition coil		Bosch
Primary resistance	ohms	0.5 to 0.9
Ballast resistor	ohms	—
Voltage - Tmnl 15(+) to earth	V	Battery
Distributor		Bosch
Points gap (air gap)	mm	—
Dwell angle	° (%)	7 to 34 @ starter speed
Condenser capacity	µF	—
Rotation		—
Ignition timing - basic [static	° Crankshaft @ rpm	Leaded: 32±1 BTDC @ 4500 ¹
V = Vacuum NV = No Vacuum		NV
Total ignition advance	° Crankshaft @ rpm	Leaded: 15±3 BTDC @ idle
	° Crankshaft @ rpm	UL: 10±3 BTDC @ idle
	° Crankshaft @ rpm	—
Centrifugal check.	° Crankshaft @ rpm	18 to 22 @ 1500 ²
	° Crankshaft @ rpm	—
	° Crankshaft @ rpm	26 to 30 @ 3000 ²
Vacuum range check	mbar	—
Maximum vacuum advance	° Crankshaft	8 to 12
Spark plugs		Bosch/Champion
Type		H7DC / S9YC
Electrode gap	mm	0.80

Electrical system

230E/TE/CE (124.023/83/43)

1985 to 1988

Battery	V / CC / RC	12 / 190 / 62Ah
Alternator voltage / full load current / engine rpm		13.0 to 14.5 / _ / 3000
Starter motor current / voltage - cranking	A / V	—
- locked	A / V	430 to 550 / 3.2

Running gear

230E/TE/CE (124.023/83/43)

1985 to 1988

Brakes -		
Front (min. friction material thickness)	mm	3.5
Rear (min. friction material thickness)	mm	2.0

Tyres		
Saloon	Size	195/65x15
Estate / Van	Size	195/65x15
Pressure - front / rear - Saloon	bar	2.0 / 2.2 ³
- Estate / Van	bar	2.0 / 2.5

Front suspension / wheel alignment		
Toe-in (+) / Toe-out (—)	mm [°]	[+20'±10']
Camber		-5'+10'-20'
Castor		+10°10'±30'
King pin inclination		—

Rear suspension / wheel alignment		
Toe-in (+) / Toe-out (—)	mm [°]	[+20' to 35']
Camber		-1°30'±30'

Torque wrench settings

230E/TE/CE (124.023/83/43)

1985 to 1988

Cylinder head - stage 1	Nm	55 ⁴
- stage 2	Nm	+ 90°
Cylinder head - stage 3	Nm	+ 90°
- stage 4	Nm	—
Big-end bearings	Nm	30 + 90 to 100°
Main bearings	Nm	M12: 90 ⁵
Clutch cover	Nm	25
Flywheel [driveplate]	Nm	30 + 90 to 100°
Front hubs	Nm	WSM
Rear hubs	Nm	—
Wheel nuts / bolts	Nm	110
Spark plugs	Nm	20

Capacities

230E/TE/CE (124.023/83/43)

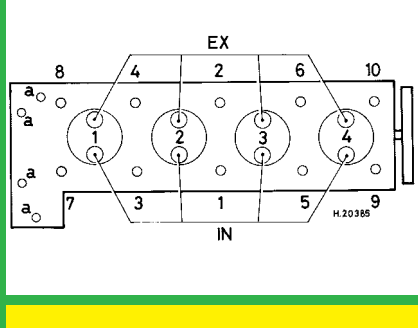
1985 to 1988

Engine oil & filter	litres	5.0
Gearbox - 4-speed [5-speed]	litres	1.3 [1.5]
Automatic transmission - refill	litres	6.0
Final drive	litres	1.1
Cooling system	litres	8.5. A/c: 9.5
Fuel tank	litres	70. 230TE: 72

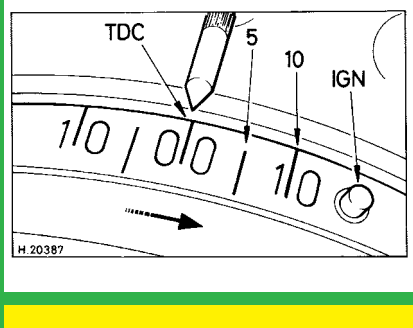
Notes and Illustrations

- ¹[E 95 RON]: 27±1 BTDC @ 4500
- ²[E 95 RON]: 13 to 19 @ 1500, 21 to 25 @ 3000
- ³CE: 2.0 / 2.0
- ⁴Bolts marked “a” on diagram: 25
- ⁵M11: 55 + 90 to 100°

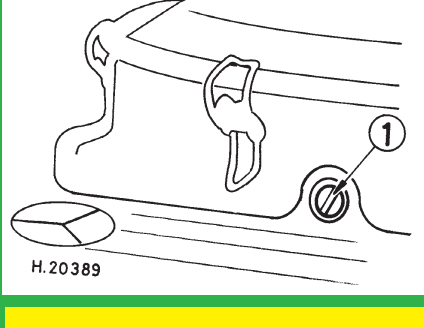
1: Idle speed 2: CO / Mixture



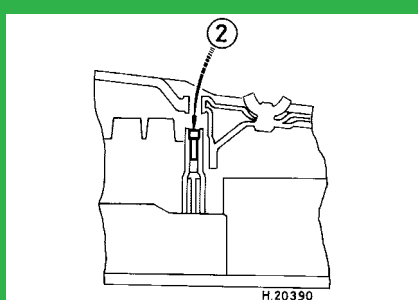
2299 cm³



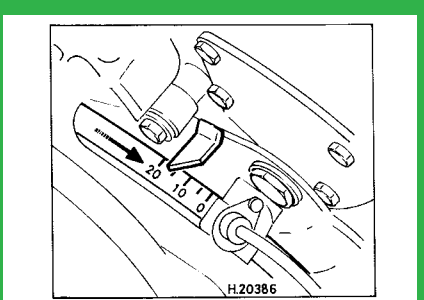
2299 cm³, alternative



KE-Jetronic



KE-Jetronic



2299 cm³