Automotive Technical DATA BOOK

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MENU HELP

## Engine and cooling system

230E, TE, CE & CAT[1] 1988 to 1989

| | | |
|---|---|---|
| Type | | 102.982 100kW Cat: 97kW |
| Capacity (cm³) / number of cylinders | | 2299 / 4 |
| Compression ratio / pressure | bar | 9.0 / ≥8.5 |
| Oil pressure | bar | 0.3 [3.0] |
| Oil temperature | ºC | _ |
| 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 | ºC | 87±2 |
| Radiator cap pressure | bar | 1.2±0.1 |

## Fuel system

230E, TE, CE & CAT[1] 1988 to 1989

| | | |
|---|---|---|
| Idle speed - manual [auto] | rpm | 750±50 |
| 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 | ≥3.2 |
| Pump pressure | bar | 5.3 to 5.5 |
| Octane rating | RON | 98[E 95 RON][2] |

## Ignition system

230E, TE, CE & CAT[1] 1988 to 1989

| | | |
|---|---|---|
| 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 | º (%) | 7 to 34 @ starter speed |
| Condenser capacity | µF | _ |
| Rotation | | _ |
| Ignition timing - basic [static | º Crankshaft @ rpm | 8 to 12 BTDC @ idle |
| V = Vacuum NV = No Vacuum | | NV |
| Total ignition advance | º Crankshaft @ rpm | 39 to 43 BTDC @ 3200 |
| | º Crankshaft @ rpm | _ |
| | º Crankshaft @ rpm | _ |
| Centrifugal check. | º Crankshaft @ rpm | Computer control |
| | º Crankshaft @ rpm | _ |
| | º Crankshaft @ rpm | _ |
| Vacuum range check | mbar | Computer control |
| Maximum vacuum advance | º Crankshaft | _ |
| Spark plugs | | Bosch/Champion |
| Type | | H7DC / S9YC |
| Electrode gap | mm | 0.80 |

## Electrical system

230E, TE, CE & CAT[1] 1988 to 1989

| | | |
|---|---|---|
| Battery | V / CC / RC | 12 / 190 / 62Ah |
| Alternator voltage / full load current / engine rpm | | 13.0 to 14.5 / 55 / 3000 |
| Starter motor current / voltage - cranking | A / V | _ |
| - locked | A / V | 430 to 550 / 3.2 |

## Running gear

230E, TE, CE & CAT[1] 1988 to 1989

| | | |
|---|---|---|
| **Brakes** - | | |
| Front (min. friction material thickness) | mm | 3.5 |
| Rear (min. friction material thickness) | mm | 2.0 |
| **Tyres** | | |
| Saloon | Size | 195/65x15: 205/60x15 |
| Estate / Van | Size | 195/65x15: 205/60x15 |
| 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 [º] | [+20'±10'] |
| Camber | | -25'+10'-20'[4] |
| Castor | | +10°25'±30'[5] |
| King pin inclination | | _ |
| **Rear suspension / wheel alignment** | | |
| Toe-in (+) / Toe-out (–) | mm [º] | [+20' to 35'] |
| Camber | | -1°30'±30' |

## Torque wrench settings

230E, TE, CE & CAT[1] 1988 to 1989

| | | |
|---|---|---|
| Cylinder head - stage 1 | Nm | 55[6] |
| - 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[7] |
| 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

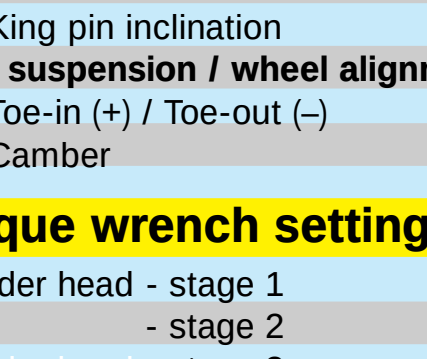
230E, TE, CE & CAT[1] 1988 to 1989

| | | |
|---|---|---|
| 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 |

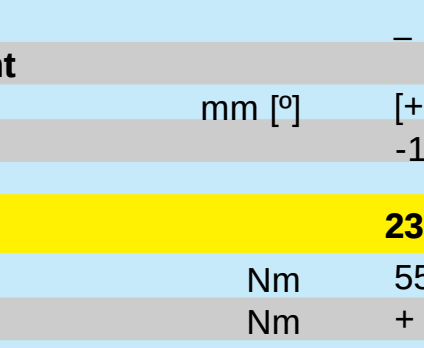
## Notes and Illustrations

[1]**9.88 to 9.89: (124.023/083/043/003/004)**
[2]**CAT: [U]**
[3]**CE: 2.0 / 2.0**
[4]**230TE: -5'+10'-20'. Sport: -50'+10'-20'**
[5]**230TE: +10°10'±30'. Sport: +10°40'±30'**
[6]**Bolts marked "a" on diagram: 21**
[7]**M11: 55 + 90 to 100°**

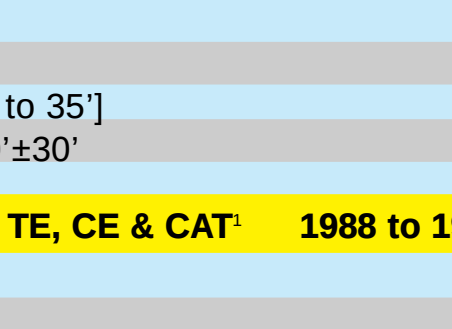
1: Idle speed 2: CO / Mixture



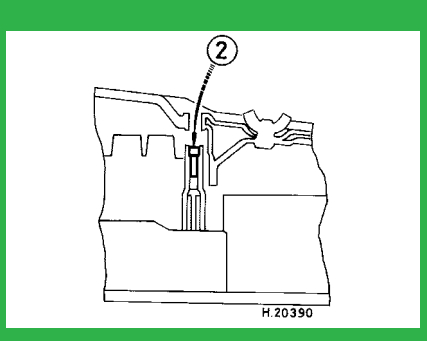

**2299 cm³**



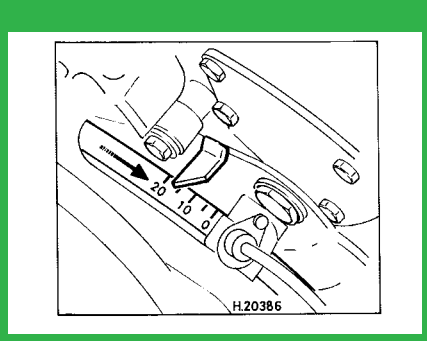

**2299 cm³, alternative**




**KE-Jetronic**




**KE-Jetronic**




**2299 cm³**