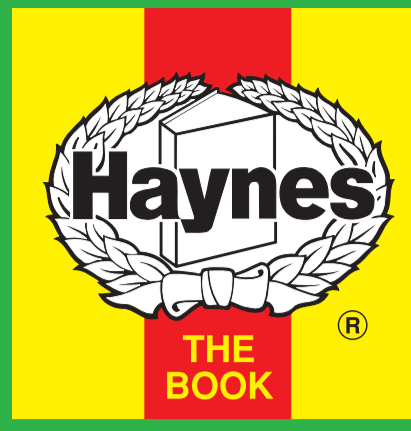


| | | | | | | | |
|------------------|------|----------|------------|--------------|-----------------|------------|-----------------------|
| Engine & Cooling | Fuel | Ignition | Electrical | Running gear | Torque settings | Capacities | Notes & Illustrations |
|------------------|------|----------|------------|--------------|-----------------|------------|-----------------------|



Automotive Technical DATA BOOK

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HELP

Engine and cooling system Cherokee / Grand Cherokee 4.0 1993 to 1997

| | | |
|---|-----|---------------------------------|
| Type | | OHV 135kW |
| Capacity (cm ³) / number of cylinders | | 3960 / 6 |
| Compression ratio / pressure | bar | 8.75 / _ |
| Oil pressure | bar | 0.9 [2.6 to 5.2] |
| 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 | 90 |
| Radiator cap pressure | bar | 0.83 to 1.10. Grand: 1.0 to 1.2 |

Fuel system Cherokee / Grand Cherokee 4.0 1993 to 1997

| | | |
|---|-----|--------------|
| Idle speed - manual [auto] | rpm | 720±100 N/A |
| Fast idle speed - manual [auto] | rpm | _ |
| CO @ idle speed [3000 rpm] - see page VI | % | ≤0.5 |
| HC @ idle speed [3000 rpm] - see page VI | ppm | ≤200 |
| CO ₂ @ idle speed [3000 rpm] - see page VI | % | _ |
| O ₂ @ idle speed [3000 rpm] - see page VI | % | _ |
| Carburettor / fuel injection | | _ |
| Type / ref | | MPSFI |
| Main jet / needle | | _ |
| Injection pressure | bar | 2.14 |
| Pump pressure | bar | 2.69 to 2.83 |
| Octane rating | RON | 87[U] |

Ignition system Cherokee / Grand Cherokee 4.0 1993 to 1997

| | | |
|---------------------------------|--------------------|----------------------------------|
| Type | | Electronic |
| Ignition coil | | Diamond. Toyodenso |
| Primary resistance | ohms | 0.97 to 1.18. Toyo: 0.95 to 1.20 |
| Ballast resistor | ohms | _ |
| Voltage - Tmnl 15(+) to earth | V | _ |
| Distributor | | _ |
| Points gap (air gap) | mm | _ |
| Dwell angle | ° (%) | _ |
| Condenser capacity | µF | _ |
| Rotation | | _ |
| Ignition timing - basic [static | ° Crankshaft @ rpm | Computer control N/A |
| V = Vacuum NV = No Vacuum | | _ |
| Total ignition advance | ° Crankshaft @ rpm | Computer control |
| | ° Crankshaft @ rpm | _ |
| | ° Crankshaft @ rpm | _ |
| Centrifugal check. | ° Crankshaft @ rpm | Computer control |
| | ° Crankshaft @ rpm | _ |
| | ° Crankshaft @ rpm | _ |
| Vacuum range check | mbar | Computer control |
| Maximum vacuum advance | ° Crankshaft | _ |
| Spark plugs | | Champion |
| Type | | RC12LYC |
| Electrode gap | mm | 0.88 |

Electrical system Cherokee / Grand Cherokee 4.0 1993 to 1997

| | | |
|---|-------------|--------------------------------|
| Battery | V / CC / RC | 12/430/80, 500/85, RHD: 650/93 |
| Alternator voltage / full load current / engine rpm | | 13.9 to 15.0 / 75, 90, 120 / _ |
| Starter motor current / voltage - cranking | A / V | 75 / 11.5 (no load) |
| - locked | A / V | _ |

Running gear Cherokee / Grand Cherokee 4.0 1993 to 1997

| | | |
|--|----|---|
| Brakes - | | |
| Front (min. friction material thickness) | mm | _ |
| Rear (min. friction material thickness) | mm | _ |

| | | |
|----------------------------------|------|--|
| Tyres | | |
| Saloon | Size | _ |
| Estate / Van | Size | 215/75x15: 225/70x15 ² |
| Pressure - front / rear - Saloon | bar | _ |
| - Estate / Van | bar | 2.1 / 2.1. 225: 2.1 / 2.4 ³ |

Front suspension / wheel alignment

| | | |
|--------------------------|--------|-----------------------|
| Toe-in (+) / Toe-out (-) | mm [°] | 0±0.8. Grand: +1.8 PW |
| Camber | | 0+30'-45' |
| Castor | | +6°+3°-1° |
| King pin inclination | | _ |

Rear suspension / wheel alignment

| | | |
|--------------------------|--------|--------------|
| Toe-in (+) / Toe-out (-) | mm [°] | +1.6 to -4.8 |
| Camber | | +1.6 to 2.4 |

Torque wrench settings Cherokee / Grand Cherokee 4.0 1993 to 1997

| | | |
|-------------------------|----|-----------------------|
| Cylinder head - stage 1 | Nm | All except no.11: 149 |
| - stage 2 | Nm | No.11: 135 |
| Cylinder head - stage 3 | Nm | _ |
| - stage 4 | Nm | _ |
| Big-end bearings | Nm | 45 |
| Main bearings | Nm | 54, then 95, then 108 |
| Clutch cover | Nm | 54 |
| Flywheel [driveplate] | Nm | 143 |
| Front hubs | Nm | Model 30: 237 |
| Rear hubs | Nm | _ |
| Wheel nuts / bolts | Nm | 109 to 150 |
| Spark plugs | Nm | 37 |

Capacities Cherokee / Grand Cherokee 4.0 1993 to 1997

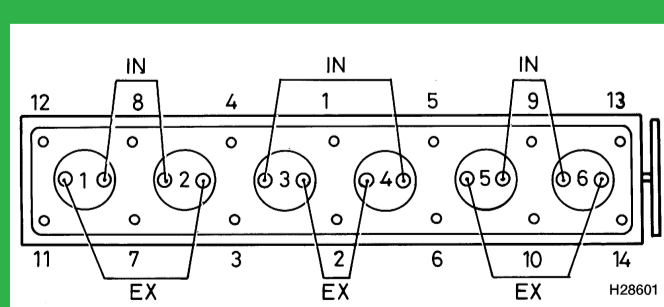
| | | |
|---------------------------------|--------|--|
| Engine oil & filter | litres | 5.7 |
| Gearbox - 4-speed [5-speed] | litres | AX-5: 3.5. AX-15: 2WD: 3.15 ¹ |
| Automatic transmission - refill | litres | 4.0 |
| Final drive | litres | 1.2. HD: 1.4 |
| Cooling system | litres | 11.4 |
| Fuel tank | litres | 76.4. Grand: 87.4 |

Notes and Illustrations

¹AX-15: 4x4: 3.2. Command-Trac transfer box: 1.0. Selec-Trac transfer box: 1.4. Grand: 3.8, Transfer: 1.18

²Grand: 225/70x16

³Grand with 225/70x16: 2.3 / 2.3



3960 cm³