Haynes THE BOOK

Automotive Technical DATA BOOK

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## Engine and cooling system

Impreza 1.6i 1993 to 1997

| | | |
|---|---|---|
| Type | | SOHC 16V 66kW |
| Capacity (cm³) / number of cylinders | | 1597 / 4 |
| Compression ratio / pressure | bar | 9.4 / ≥9.0 |
| Oil pressure | bar | [2.9] |
| Oil temperature | ºC | 80 |
| Valve clearance - inlet | mm | 0: Hyd. |
| - exhaust | mm | 0: Hyd. |
| Firing order | | 1-3-2-4 |
| No 1 cylinder position | | FR |
| Thermostat opening temperature | ºC | 76 to 80 |
| Radiator cap pressure | bar | 0.75 to 0.98 |

## Fuel system

Impreza 1.6i 1993 to 1997

| | | |
|---|---|---|
| Idle speed - manual [auto] | rpm | 700±100 |
| 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 | ≤33 |
| CO2 @ idle speed [3000 rpm] - see page VI | % | _ |
| O2 @ idle speed [3000 rpm] - see page VI | % | _ |
| Carburettor / fuel injection | | Subaru |
| Type / ref | | MPFI |
| Main jet / needle | | _ |
| Injection pressure | bar | 2.50 |
| Pump pressure | bar | 2.5 |
| Octane rating | RON | 95[U] |

## Ignition system

Impreza 1.6i 1993 to 1997

| | | |
|---|---|---|
| Type | | DIS |
| Ignition coil | | Hitachi |
| Primary resistance | ohms | 0.63 to 0.77 |
| Ballast resistor | ohms | _ |
| Voltage - Tmnl 15(+) to earth | V | _ |
| Distributor | | _ |
| Points gap (air gap) | mm | [0.30 to 0.50] |
| Dwell angle | º (%) | _ |
| Condenser capacity | µF | _ |
| Rotation | | _ |
| Ignition timing - basic [static | º Crankshaft @ rpm | 15±10 BTDC @ 700 |
| V = Vacuum NV = No Vacuum | | _ |
| Total ignition advance | º Crankshaft @ rpm | Computer control |
| | 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 | | NGK |
| Type | | BKR6E-11 |
| Electrode gap | mm | 1.00 to 1.10 |

## Electrical system

Impreza 1.6i 1993 to 1997

| | | |
|---|---|---|
| Battery | V / CC / RC | 12 / 48, 52Ah |
| Alternator voltage / full load current / engine rpm | | 14.1 to 14.8 / 75 / 2500 |
| Starter motor current / voltage - cranking | A / V | _ |
| - locked | A / V | _ |

## Running gear

Impreza 1.6i 1993 to 1997

| | | |
|---|---|---|
| **Brakes** - | | |
| Front (min. friction material thickness) | mm | 7.5 with backing |
| Rear (min. friction material thickness) | mm | 1.5 |
| **Tyres** | | |
| Saloon | Size | 175/70x14: 165x13 |
| Estate / Van | Size | _ |
| Pressure - front / rear - Saloon | bar | 2.2 / 2.0 |
| - Estate / Van | bar | _ |
| **Front suspension / wheel alignment** | | |
| Toe-in (+) / Toe-out (–) | mm [º] | 0±3.0 |
| Camber | | -15'±30' 4x4: 0±30' |
| Castor | | 3°5'±1° 4x4: 3°±1° |
| King pin inclination | | 14°20' 4x4: 14°5' |
| **Rear suspension / wheel alignment** | | |
| Toe-in (+) / Toe-out (–) | mm [º] | 0±3.0 |
| Camber | | -1°45' Hatch: -50'±45' |

## Torque wrench settings

Impreza 1.6i 1993 to 1997

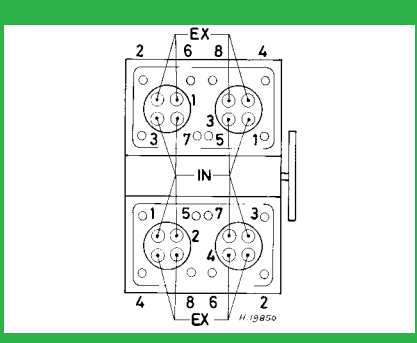
| | | |
|---|---|---|
| Cylinder head - stage 1 | Nm | 29 |
| - stage 2 | Nm | 69 |
| - stage 3 | Nm | -180° |
| - stage 4 | Nm | -180°¹ |
| Big-end bearings | Nm | 43 to 46 |
| Main bearings | Nm | 44 to 50. Side bolts: 23 to 26 |
| Clutch cover | Nm | 14 to 17 |
| Flywheel [driveplate] | Nm | 69 to 75 |
| Front hubs | Nm | 186 to 206 |
| Rear hubs | Nm | 186 to 206 |
| Wheel nuts / bolts | Nm | 78 to 98 |
| Spark plugs | Nm | 20 to 29 |

## Capacities

Impreza 1.6i 1993 to 1997

| | | |
|---|---|---|
| Engine oil & filter | litres | 4.0 |
| Gearbox - 4-speed [5-speed] | litres | 2.6. 4x4: 3.5 |
| Automatic transmission - refill | litres | _ |
| Final drive | litres | 4x4 rear: 0.8 |
| Cooling system | litres | 6.4 |
| Fuel tank | litres | 50 |

## Notes and Illustrations




1597 cm³, 16V