

4WD BUYERS GUIDE

JEEP GRANDE CHEROKEE

MEDIUM WAGON



The 2011 Grand Cherokee was released here with petrol-only engines, until mid-2011, when a three-litre V6 turbo-diesel was added to the lineup. The vehicle was built on the Mercedes-Benz M-Class platform, having been designed during the eight-year existence of the merged DaimlerChrysler Group.

Three levels of equipment were available – Laredo, Limited and Overland. The standard engine in Laredo and Limited was an upgraded Jeep petrol V6, with a claimed output of 210kW at 6350rpm and peak torque of 347Nm at 4300rpm. A 5.7-litre HEMI V8 was optional in Limited and standard in Overland, and had claimed output of 259kW at 5200rpm, with peak torque of 520Nm at 4200rpm.

Grand Cherokee Laredo and Limited had Quadra-Trac II active full-time 4WD as standard. Quadra-Trac II's two-speed transfer case used input from a variety of sensors in order to determine tyre slip and take corrective action.

The system used Throttle Anticipate to sense quick movement in the throttle from a stop and maximized traction before slippage occurs. When tyre slippage was detected, as much as 100 percent of available torque was instantly sent to the axle with the most traction.

Quadra-Drive, with an electronic rear limited slip differential, was standard in Overland and optional in Limited.



Laredo and Limited had independent coil-spring suspension, while Limited came with 'Benz-designed multi-height air suspension that offered five height settings over a 100mm range. Quadra-Lift air suspension was an option on Laredo and Limited.

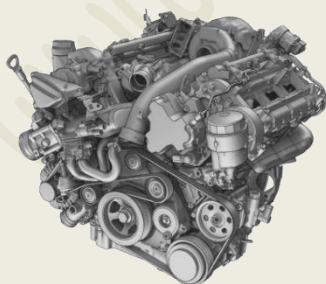
All 2011 Grand Cherokees also came with Selec-Terrain traction control that let the driver choose from five driving off-road parameters, for the optimum setting for different terrain. This feature electronically coordinated up to 12 different powertrain, braking and suspension functions, including throttle control, transmission shift, transfer case, traction control and electronic stability control (ESC). Laredo ran on 265/80R18 rubber, while Limited and Overland had 265/50R20 tyres.

Equipment levels were high, with tyre pressure monitoring, fog lamps, keyless entry, auto HID headlights with self-levelling, auto-dip and wiper functions, auto windscreen wipers, power-fold mirrors, rear view camera, three power outlets, roof rails, multiple airbags, eight-way power front seats with four-way lumbar-adjustment and Bluetooth standard.

Limited models picked up Jeep Memory for seats, steering column, mirrors and audio; leather seats; TPMS display and a premium sound system.

Overlands came with additional kit: frontal collision warning, powered tailgate, reversing warning of approaching vehicles, ventilated front seats, wood trim, optional powered sunroof, Quadra-Lift air suspension and navigation system.

In June 2011 the V6 diesel model was released, not with the previous 3.0-litre 'Benz M-Class V6, but a new joint-effort engine by long-term Jeep diesel supplier, VM Motori and Fiat Powertrain. Fiat was Chrysler's new partner, having replaced Daimler AG.



The new 3.0-litre turbo diesel engine produced 177kW at 4000rpm with 550Nm of torque at 1800-2800rpm - 10 percent more power and eight percent more torque than the engine it replaced. The engine incorporated a compressed graphite iron, 60-degree block with aluminium cylinder heads and a two-piece structural aluminium sump. Bore was 83 mm and stroke was 92 mm. The V6 turbo diesel engine was fitted with new-generation, 1800-bar injectors with new MultiJet II technology.

Even with its improved performance, fuel economy for the new 3.0-litre turbo diesel engine was a claimed 8.3 L/100km on the combined cycle, an improvement of 19 percent over the previous diesel engine. CO₂ emissions (combined cycle) were also said to be reduced by 20 percent, to 218 g/km.

Our on and off-road testing showed that the new Grand Cherokee was very similar to the Mercedes-Benz M-Class on which it was based. Even with air suspension and the off-road kit it's not a severe-service off-road like LandCruiser or Discovery 3 and 4.

Jeep's poor attention to RHD ergonomics continued in the 2011 model, with a foot-operated parking brake pedal intruding uncomfortably on driver's left-leg space. M-B used an electric parking brake in the ML and we think Jeep should adopt that design as well.

Previous Models

Although not introduced to Australia until 1996 the Jeep Grand Cherokee was launched in the USA in 1992, sharing its four-litre, six-cylinder petrol engine with the monocoque Cherokee, but with body on frame construction. In 1994 side intrusion beams were installed and the base model was renamed SE.

In 1995 all Grand Cherokees scored all-disc brakes and a passenger-side airbag was added for 1996, in a redesigned dashboard. A restyled grille and optional fog lamps distinguished the front end. A new steering wheel contained cruise-control switches and a centre horn pad. Front and rear shoulder belts gained height adjustment.

This was the first Australian-market Grand Cherokee.

In late 1998 the newly merged DaimlerChrysler Group was in high spirits when the 1999-year model was released, with only 127 carry-over parts from the previous Grand Cherokee.

The new Grand Cherokee had the same wheelbase, but with 25-mm wider track and was 100mm longer, 50mm higher and 75mm wider than the 1998 model.

Engines were an all-new petrol 4.7-litre V-8 PowerTech, with 172kW and the proved 4.0-litre in-line six-cylinder engine, reworked to produce 145kW.

A new electronically-controlled transmission greatly improved shift refinement. It featured a novel alternate second gear ratio of 1.67 or 1.50, depending on speed and throttle position.

An All-New Quadra-Drive 4WD system was built around a Quadra-Trac transfer case that incorporated a progressive, speed-sensing torque-transfer differential and front and rear Vari-Lok axles that had also had progressive, speed-sensing torque transfer differentials.

The anti-lock braking system incorporated electronic brake distribution (EBD).

By the end of 1999 some two million Grand Cherokees had been sold, mainly in North America, but in mid-2000 there was a recall of 474,000 of them, built between 1997 and 1999, to replace and relocate the air bag control module.



In June 2000 the V8 PowerTech engine was introduced to the Grand Cherokee entry -level Laredo – previously available only in the top-of-the-range Grand Cherokee Limited.

The V8 engine in the Laredo was the same as that in the Limited, with 162kW of power at 4700rpm and 390Nm of torque at 3200rpm.

The introduction of the V8 Laredo brought the model lineup for the Grand Cherokee to three: Laredo 4.0 litre six-cylinder, V8 Laredo and V8 Limited. The Laredo was also available with Quadra-Drive four-wheel-drive system as an option.

Pre-GST pricing was Grand Cherokee Laredo 4.0 Six Cylinder \$53,500, V8 Laredo \$57,400, V8 Laredo with Quadra-Drive \$59,950. Grand Cherokee Limited V8 \$67,950 and Grand Cherokee Limited with Quadra-Drive \$70,500.



In early 2002 the Jeep Grand Cherokee Overland model was introduced, with a high output version of the standard 4.7-litre V8. Producing 190kW – 16 percent more power than the standard V8 – with 425Nm of torque – an eight per cent increase– this engine gave the Grand Cherokee Overland a top speed of 207 km/h.



The HO engine was mated to a new Jeep five-speed 545RFE automatic transmission, with two overdrive ratios.

Grand Cherokee Overland was distinguished by machined-rim, five-spoke 17x7.5 aluminium wheels, body-colour exterior fascia panels, a body colour grille, rock rails to protect the sills and a bright-finished exhaust pipe.

Overland was also fitted with skid plates to protect the fuel tank, transfer case and front suspension.

Inside, equipment included a power sunroof, suede and leather seat trim, embroidered “Overland” floor mats, 10-way powered and heated front seats and real red wood trim, side curtain airbags for front and rear outboard occupants, increased height headrests and a centre lap-sash seat belt and headrest on the rear seat.

Quadra Drive and Vari-lok axles were standard. RRP was \$75,490 plus on-road and dealer costs.

In 2003, the Grand Cherokee Overland, Grand Cherokee Limited and Grand Cherokee Laredo received a 2.7L common-rail direct injection (CRD) turbo diesel engine option. The Mercedes-Benz 2.7L CRD engine provided 120kW at 4000rpm and 400Nm of torque at 1800 to 2600 rpm, and was paired with an electronically controlled, five-speed automatic transmission.

The 2.7L CRD turbo diesel engine had estimated fuel economy of 8.1L/100 km on the extra urban cycle, 12.5L/100 km during city driving and 9.7L/100 km on the combined cycle.

With this powertrain enhancement Jeep Grand Cherokee offered customers the choice of the 2.7L CRD I-5 diesel engine, Power Tech 4.0L I-6, Power Tech 4.7L V8 or the Power Tech 4.7L High-Output V-8.

Pricing for the diesel option was odd: a \$900 extra cost on the Laredo model (diesel retail was \$59,890), but only a \$100 extra cost on the Limited model (\$69,890) and a \$2600 reduction on the Overland model, compared with the high-output petrol V8 model (diesel retail was \$74,890). Our on and off road testing showed that the 'Benz diesel and auto box combination worked as well in the Grand Cherokee as it did in the Mercedes-Benz ML270, so performance was brisk on-road and very strong off-road.

However, the transmission in the Grand Cherokee was marred by a traditional long-throw automatic box shift lever, with a button that needed to be depressed for every manual downshift. The 4WD control lever was heavy in action and sited between the driver and the main lever – a legacy of the Jeep's left-hand-drive origins.

A plus for the Jeep was the opening tailgate glass – handy for dropping shopping into the cargo area, without having to lift the tailgate.

The Jeep VariLok self-locking diffs worked more effectively with a steady stream of diesel torque feeding them than they did with petrol power.

The Jeep's heavy steering action was fine for freeway trips, but loaded up annoyingly in the twisty stuff. The Jeep also suffered from too-reactive suspension action that saw the body – and the bodies inside – moving around excessively on rough surfaces.

Braking in on all surfaces was powerful, with well-modulated ABS action. Our on and off-road testing resulted in an economy figure of 11.54L/100km.

For 2004 the Grand Cherokee was given a facelift, with a new front fascia and grille and Overland and Limited models also featured round fog lamps.

In mid-2005 the Mercedes-Benz V6 3.0-litre common-rail diesel (CRD) from the M-Class was slotted into the Grand Cherokee, replacing the previous Benz-sourced five-cylinder and offered a 33 per cent increase in power and 28 per cent increase in torque

With Bosch high-pressure fuel injection (1600+ bar), a variable geometry turbocharger and four-valves-per-cylinder, the V6 put out 160kW, with peak torque of 510 Nm, available from 1600 rpm.



The 2005 Grand Cherokee featured Jeep's Quadra-Drive II 4x4 system, which combined a full-time-4x4 transfer case with three electronic limited slip differentials (ELSDs). The system detected wheel spin and distributed engine torque to the tyres with traction.

The previous model Jeep Grand Cherokee used VariLok hydraulically-activated clutch packs that worked fine in constant-friction, on and off road conditions, but were found wanting on variable-friction surfaces.



The new NV245 active transfer case included a centre differential coupled to an electronically controlled clutch pack that operated between an open state and fully locked, with variable torque distribution in between. The low-range gear ratio was 2.72:1.

Automatic torque transfer front-to-rear was achieved through the centre ELSD and automatic lateral torque distribution via the front and rear axle ELSDs that also had electronically controlled clutch packs.

Our testing showed that the V6 Jeep Grand Cherokee handled most on-road and off-road situations very well, but for tough off road work it needed more ground clearance.

The front-axle ELSD released during turns to allow normal operation of the differential and prevent system wind-up and binding. The rear axle ELSD didn't release totally when low-range was selected and this action showed in a definite 'slip and grip' action by the rear tyres during tight turns.

Controls were uncluttered and straightforward to operate, except that the park brake lever was left of centre, closer to the passenger seat and its operation felt awkward – typical of Jeep's continued poor RHD conversion process.

The height adjustable driver's seat provided a good driving position. Visibility to the sides and rear was good, but the rear-view mirror obstructed the view to the front of the vehicle on some downhill off-road sections.

In 2006 Jeep released a high performance Street and Racing Technology (SRT) version of its flagship Grand Cherokee, with a claimed 0-100 km/h time in the low-five-second range.

Running 20-inch wheels, performance-tuned suspension and Brembo brakes, and priced at \$85,990, the Grand Cherokee SRT8 was powered by a 6.1-litre HEMI V8, with 313kW and 569Nm - 30 per cent more power than the 5.7-litre HEMI.



On the eve of the collapse of the merged DaimlerChrysler, in early 2007, Jeep added a 3.7-litre V6 petrol power plant to the Grand Cherokee range. The 3.7-litre V6 produced 148kW of power and 315Nm of torque, and contributed to the Laredo's new RRP of \$51,990.

Chrysler got on with the business of pretending it had never heard the word 'Daimler' at the 2007 Tokyo Motor Show, where the 2008 models were previewed.



The 2008 Grand Cherokee picked up a MyGIG Multimedia Entertainment System that could support built-in navigation, reversing camera display, along with hill start assist (HSA) and hill descent control (HDC), Trailer Sway Control and an improved 4.7-litre V8 that was said to have 30 percent more power and six percent better fuel economy.

The 2008 Jeep Grand Cherokee SRT8 scored high-intensity discharge (HID) auto-levelling headlamps.

Rear view camera, rear park assist, rain-sensing wipers, memory seats and mirrors and iPod connectivity were standard on Jeep Grand Cherokee Limited models.

The 2008 Global Financial Crisis couldn't have come at a worse time for Chrysler, still struggling in the early post-DaimlerChrysler era. To gain financial support from US Congress the company had to disclose its future product plans, including the specifications of the 2011 Jeep Grand Cherokee, which was based on the Mercedes-Benz M-Class platform.

Against this background there was little excitement over the 2010 announcement of the return of the Overland badge to the outgoing model, in a release limited to just 50 vehicles.

Bush Modifications

Live-axled Jeep Grand Cherokees – all pre-2011 models – could do with ground clearance increases, but this a difficult task, thanks to the short leading and trailing arms used by Jeep. Height increases can lead to quirky on-road handling, so modify with care.

Jeep makes an off-road pack for post-2011 models that incorporates underbody protection plates.