New 3.0-litre diesel engine debuts for new Jeep® Grand Cherokee in Geneva

Press Information

Date
March 1, 2005

- **New 3.0-litre diesel delivers class-leading power and torque**
- **First-time availability of 5.7-litre HEMI with Multi-Displacement System in a Jeep® vehicle**
- **New exterior and interior design captures authentic Jeep look and feel**
- **Two new 4x4 systems to meet every customer's driving needs**

Geneva – Since its introduction in 1992, the Jeep® Grand Cherokee has revolutionised the sport-utility market. Now leading the path carved by its predecessors, the all-new Jeep Grand Cherokee for 2005 is designed, engineered and built to master every imaginable day-to-day driving condition, whether on-road or off-road, in all kinds of weather.

Making its European debut today at the 75th Salon de l'Automobile in Geneva, the new, third-generation Jeep Grand Cherokee offers a sportier appearance, improved on-road ride and handling and superior off-road capability – all in a well-appointed package with a number of new premium amenities. The result is a Jeep that is all-new from the ground up, and all Jeep from the inside out.

"Jeep Grand Cherokee sets the benchmark with its on-road refinement, off-road mastery and best-in-class performance in three key areas of customer satisfaction: engine power, off-road traction and towing capabilities," said Thomas Hausch, Executive Director of International Sales and Marketing–Chrysler Group. "Now with the new 3.0 CRD engine and 5.7-litre HEMI® with MDS, it becomes an even more compelling package for customers in Europe and other international markets."

New engines deliver performance and power

Jeep Grand Cherokee brings customers an all-new state-of-the-art 3.0-litre V-6 common-rail turbo diesel (CRD) engine, and for the first time ever, the 5.7-litre HEMI V-8 engine is available on a Jeep vehicle. These two engines drive Grand

Cherokee to provide best-in-class power. The popular 4.7-litre SOHC V-8 engine will continue to be available.

The all-new 3.0-litre V-6 CRD engine is a “next-generation” power unit from the DaimlerChrysler Group producing class-leading levels of power and torque, with good fuel economy. With Bosch high-pressure fuel injection (2000+ bar), a variable geometry turbocharger and four valves per cylinder, the new engine meets Euro 4 emissions standards without a diesel particulate filter. Maximum power is 160 kW (218 hp DIN) and peak torque is 510 N • m (376 lb.-ft.) from just 1800 rpm.

For the diesel engine, a kick-down switch is now added to the accelerator pedal. This detent, reached before the full travel of the pedal, is intended to reduce transmission kick-downs during normal driving but still allow for full pedal travel when a quicker acceleration is wanted by the driver.

Jeep Grand Cherokee is the first SUV to offer the Multi-Displacement System (MDS). On the 5.7-litre HEMI engine, MDS deactivates half the cylinders during cruising and light acceleration to increase fuel economy by up to 20 percent, depending on driving conditions. Ninety percent of peak torque is available from 2400 to 5100 rpm for excellent performance while trailer towing or travelling off-road, as well as regular city and highway driving. A sophisticated Electronic Throttle Control system tailors throttle response to pedal movement based on operating conditions, and when cruise control is activated, maintains a more consistent vehicle speed on rolling grades than was possible with the previous mechanical throttle.

This control does not come at the expense of performance. The 5.7-litre HEMI engine provides class-leading power and torque, at 240 kW (326 hp DIN) and 500 N • m (369 lb.-ft.). It also stands among the best in class for acceleration and fuel consumption.

With the 5.7-litre HEMI and 3.0 CRD engines, the Jeep Grand Cherokee delivers best-in-class towing capacity of 3500 kg (7716 lbs.). Combined with the 1908 litres (67.4 cu. ft.) of rear cargo volume, this allows customers greater flexibility in usage for both business and pleasure.

An all-new five-speed W5A580 automatic transmission offers smooth shifts and optimum fuel economy with the 3.0 CRD. The existing 545RFE five-speed automatic transmission used with the 4.7-litre V-8 and 5.7-litre HEMI has been refined for higher-quality shifts while increasing the Grand Cherokee's maximum towing capacity.

Both transmissions feature Electronic Range Select driver interactive shift control for the first time on Jeep Grand Cherokee. The shifter provides fully automatic shifting in the "Drive" position, or the driver can manually select each gear sequentially by moving the shift lever left or right from the "Drive" position. This gives the driver control to precisely match any on-road or off-road driving requirement.

Legendary Grand Cherokee size, styling and comfort

Jeep Grand Cherokee's new design provides a contemporary return of an athletic appearance. Up front, the signature seven-slot grille, flanked by the functional round appearance high-performance halogen headlamps, boldly dominates the design statement. These round headlamps unify the unmistakable front-end appearance of the entire Jeep lineup.

A proportionally longer bonnet and greater distance from the centre of the front axle to the base of the windscreen visually communicates a more powerful image. Helping to achieve a more athletic appearance is a flatter windscreen and sleeker A-pillar design.

The new model is 129 mm longer, 4 mm wider and rides on a 91 mm longer wheelbase. Although body width is only slightly increased, the track is up by 64 mm for a wider stance and improved handling. The overall design of the body shell, which is 60 percent stiffer in torsion compared to the previous model, delivers improved vehicle aerodynamics (Cd is 0.41) and enhanced vehicle fuel economy. The body is "shrink-wrapped" to the package, enabling designers to emphasise the powerful wheel arch flares. Larger taillamps feature red and clear lenses for an

upscale appearance. Overall, the new Jeep Grand Cherokee preserves the right-size package that is critical for off-road use and provides nimble on-road handling.

All-new interior provides next-generation sophistication

Grand Cherokee's new interior is updated and inviting with a two-tone instrument panel, door trim and new finishes. Seat contours are precise and ergonomic with increased seat track travel. Increased head room, leg room, shoulder room and hip room – especially in the back seats, where hip room is up 209 mm – adds a feeling of even more spaciousness to the interior.

The dramatic and ruggedly elegant instrument panel design offers a high degree of precision and control. In the cargo area, features such as a reversible load floor panel and numerous luggage tie-down points enhance versatility and storage. New premium amenities – including GPS navigation radio, Boston Acoustics audio, UConnect™ hands-free communication system (as an aftermarket accessory) and ParkSense™ rear park assist – will be available on the new Jeep Grand Cherokee.

Complementing these amenities is a much quieter interior, thanks to driveline NVH (noise, vibration and harshness) improvements, wind noise reductions and much greater use of noise damping materials within the body structure and engine compartment.

Class-leading four-wheel-drive capabilities

Two new full-time four-wheel-drive systems are available on Jeep Grand Cherokee in markets outside of North America. Quadra-Trac II® incorporates the new NV245 transfer case that provides full-time active four-wheel drive, which anticipates and prevents wheel slip for optimum traction during a wide range of conditions. The NV245 also includes electronic shift with a true low-range gear.

Even more sophisticated, Quadra-Drive II® takes unparalleled Jeep capability to an even higher level using Electronic Limited Slip Differentials (ELSD) – front, centre and rear – offering customers the ultimate in off-road capability. ELSD replaces

the Vari-Lok® progressive axles used in previous generation Jeep vehicles for even quicker response to changing conditions and greater torque capacity.

All-new suspension and steering system provides confident ride and handling

An all-new independent front suspension provides the driver with a greater sense of precision and control, more precise steering, and reduces head toss. Front suspension wheel travel is increased by more than 10 percent over the previous generation vehicle, and a tight turning diameter of 11.2 m (36.7 ft.) is tighter than the current model for even more nimble handling. The new five-link rear suspension geometry, including a track bar, also improves lateral stiffness to match that of the front suspension for optimum handling.

Also offered for the first time on the Jeep Grand Cherokee is an Electronic Stability Programme (ESP), which aids the driver in maintaining vehicle directional stability in severe driving manoeuvres on any type of surface. Using signals from sensors throughout the vehicle, the system determines the appropriate brake and throttle adjustments to enhance directional stability of the vehicle.

Grand Cherokee also features new anti-roll protection (ARP). ARP is an enhancement to the electronic stability program software that provides an extra measure of vehicle roll stability by monitoring the output from the various dynamic sensors in the vehicle and bringing appropriate countermeasures if the monitoring system dictates. Should the vehicle approach the limits of roll stability, ARP acts to modulate throttle response and invokes appropriate braking action to avert an event it perceives to be control limiting.

Grand Cherokee's new rack and pinion steering system imparts a more precise steering feel to the driver than the previous recirculating ball system. Even with the increase in wheelbase and track, Grand Cherokee's nimbleness and tight turning diameter are maintained with the new steering system.

To meet the anticipated demand for the new Jeep Grand Cherokee, two world-class facilities will be employed to build the vehicle. The Jefferson North Assembly Plant in Detroit, Michigan (USA), began production of the new model in the third quarter of 2004. Assembly for Europe will begin in spring 2005 at the Magna Steyr Manufacturing Facility in Graz, Austria.

The new Grand Cherokee will start to reach dealer showrooms across Europe from April (petrol models) and from June (diesel models) of 2005.

Features at a glance

Jeep Grand Cherokee Laredo standard features

- Choice of two engine/transmission/4x4 system combinations:
  - 4.7-litre V-8 engine mated to a five-speed automatic transmission, with Quadra-Trac II full-time four-wheel-drive system
  - 3.0-litre V-6 CRD engine mated to a five-speed automatic transmission, with Quadra-Drive II full-time four-wheel-drive system
- Short- and long-arm independent front suspension
- Five-link rear suspension
- Rack and pinion steering
- Four-wheel disc brakes with ABS
- Brake Traction Control System
- Electronic Stability Programme
- Anti-roll protection
- 17-inch Satin Silver finish wheels and tyres
- Eight-way power driver seat and four-way front passenger with adjustable lumbar support
- 60/40 split-folding rear seat with folding outboard head restraint and retractable cup holders in seat cushions
- Electronic Vehicle Information Centre
- Dual-zone heating, ventilation and cooling system
- Tyre pressure monitoring system
- Sentry Key® engine immobiliser and remote keyless entry

- Advanced multi-stage driver and front passenger air bags
- 1908 litres (67.4 cu. ft.) of cargo volume
- Cargo storage with reversible load-floor and water-resistant storage compartment
- AM/FM stereo with CD and changer controls

Jeep Grand Cherokee Limited features

In addition to Jeep Grand Cherokee Laredo standard features (listed above), the Limited model adds:

- Quadra-Drive II system for all engine variants
- Unique 17-inch polished aluminium wheels
- Eight-way power driver and four-way power front passenger seats
- Power adjustable pedals with memory
- Jeep Memory System
- Leather-wrapped steering wheel
- Leather interior trim
- Electrochromic interior rearview mirror
- Rain-sensing automatic wipers
- Adjustable roof rails
- Boston Acoustics six-speaker premium sound system with 276-watt digital amplifier

Optional features

- 5.7-litre HEMI V-8 engine with Multi-Displacement System and five-speed automatic transmission including Quadra-Drive II (available for Limited model only)
- Heated driver and front passenger seats
- Front and rear full-length side curtain air bags
- UConnect hands-free communication system (available aftersales only)
- GPS navigation radio with integrated six-disc CD player and MP3 format capability
- Rear-seat DVD entertainment system
- ParkSense rear park assist

Additional information and news from DaimlerChrysler is available on the Internet at: **www.media.daimlerchrysler.com.**

Press Information

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Jeep® Grand Cherokee

Press Information

Technical specifications

The information shown is based on data available at the time of publication (February 14, 2005). Specifications are valid for Europe and may vary in other international markets.

Body and chassis

Five-seater, four-door sport-utility vehicle with all-steel unitised body/chassis unit. Choice of three (two petrol and one diesel) longitudinally mounted front engines driving the rear or all four wheels on demand, via a five-speed automatic transmission through an electronically controlled transfer case and available electronically controlled limited-slip differential front and rear axles.

Engines

3.0L CRD

The OM 642 3.0 CRD is a six-cylinder engine with aluminium crankcase and cast-in gray iron cylinder liners. Fuel delivery system features common-rail injection with piezo injectors. Valvetrain features four valves per cylinder with two camshafts per cylinder bank. Turbocharger has variable geometry with electronically adjustable turbine blades assisting in delivering up to 180 bar of peak combustion pressure. Turbocharger also features electronically controlled EGR valve, air intake throttling and swirl control by means of an electronically controlled intake port shut-off. Starting is enhanced by a Quick-Start glow plug system.

Availability	Laredo and Limited models
Type	Diesel, common-rail direct injection, six-cylinder, 72-degree V-type
Capacity	3.0L (2987cc/182 cu. in.)
Maximum power	160 kW (218 hp DIN) @ 3800 rpm (53.3 kW/L)
Maximum torque	510 N•m (376 lb.-ft.) @ 1600-2800 rpm
Compression ratio	18.0:1
Bore and stroke	83.0 x 92.0 mm (3.27 x 3.62 in.)

Camshafts	Twin camshafts
Valve system	24 valves, 2 intake and 2 exhaust per cylinder
Fuel system	Direct injection, high-pressure common rail
Construction	Aluminium block with aluminium cylinder heads
Maximum engine speed	4200 rpm, electronically limited
Fuel recommendation	Diesel, 50 ppm maximum sulphur
Emission controls	Two diesel oxidation catalysts at the close-coupled and toeboard positions
Emission class	Euro 4

5.7L HEMI® V-8

Availability	Limited model
Type	Petrol, eight-cylinder, 90-degree V-type with MDS (deactivates 4 cylinders – 1, 4, 6 & 7 – during steady speed, low acceleration and shallow grade climbing conditions)
Capacity	5.7L (5654 cc/345 cu. in.)
Maximum power	240 kW (326 hp DIN) @ 5200 rpm (43.1 kW/L)
Maximum torque	500 N•m (369 lb.-ft.) @ 4000 rpm
Compression ratio	9.5:1
Bore and stroke	99.5 x 90.9 mm (3.92 x 3.58 in.)
Camshaft	Single cam with silent chain drive, 5 bearings with deep fillet rolled journals and press fit torsional vibration damper
Valve system	Overhead valve, pushrod system 16 valves, 1 intake and 1 exhaust per cylinder, hydraulic lifters with roller followers
Fuel system	Sequential, multi-port electronic injection, returnless
Construction	Deep-skirt cast-iron block with aluminium cylinder heads featuring hemispherical combustion chambers
Maximum engine speed	5800 rpm, electronically limited
Fuel recommendation	95 RON unleaded petrol
Emission controls	Dual three-way catalytic converters with heated oxygen sensors
Emission class	Euro 4

4.7L PowerTech™

Availability	Laredo and Limited models
Type	Petrol, eight-cylinder, 90-degree V-type
Capacity	4.7L (4700 cc/287 cu. in.)
Maximum power	167 kW (227 hp DIN) @ 4350 rpm (35.5 kW/L)
Maximum torque	390 N•m (288 lb.-ft.) @ 3750 rpm
Compression ratio	9.0:1
Bore and stroke	93.0 x 86.7 mm (3.66 x 3.41 in.)
Camshaft	Chain-driven SOHC
Valve system	16 valves, 1 intake and 1 exhaust per cylinder with hydraulic valve lifters
Fuel system	Sequential, multi-port electronic injection
Construction	Cast-iron block with twin aluminium cylinder heads
Maximum engine speed	6000 rpm, electronically limited to 5300 rpm
Fuel recommendation	91 RON unleaded petrol
Emission controls	Dual three-way catalytic converters with heated oxygen sensors
Emission class	Euro 4

Transmissions

W5A580 5-speed automatic

Availability	Standard with 3.0 CRD engine
Description	Five-speed automatic with overdrive, electronic range select, tow/haul feature, adaptive electronic control, brake-park interlock and electronically modulated converter clutch
Gear ratios	
1st	3.59
2nd	2.19
3rd	1.41
4th	1.00
5th	0.83
Reverse	3.16
Final drive ratio	2.95

5-45RFE 5-speed automatic

Availability	Standard with 4.7L and 5.7L engines
Description	Multi-speed automatic with overdrive, 5 forward speeds, alternate second gear, electronic range select, tow/haul feature, brake-park interlock and electronically modulated converter clutch
Gear ratios	
1st	3.00
2nd	1.67
3rd	1.00
4th	0.75
5th	0.67
Reverse	3.00
Final drive ratio	2.50

Drivelines

Transfer case

Availability	Standard on all models
Type	NV245, on-demand four-wheel drive with electronically controlled clutch pack
Operating modes	4WD on demand, 4WD Low
Low range ratio	2.72:1
Torque split, front/rear	Variable with 48/52 percent default split

Axles, front and rear

Differential type	Open – Laredo 4.7L, electronic limited-slip differential – 3.0 CRD, 5.7L and Limited 4.7L
Axle ratios	3.55:1 – 3.0 CRD, 3.73:1 – 5.7L and 4.7L
Gross axle weight rating	1338 kg (2950 lbs.) – front, 1452 kg (3200 lbs.) – rear

4WD systems

Quadra-Trac II®

Standard on Laredo 4.7L. Active full-time system with two speeds (low range 2.72:1) and neutral, electronically controlled clutch pack coupling in centre differential and open front and rear differentials.

Quadra-Drive II®

Standard on 3.0 CRD, 5.7L and Limited 4.7L. Active full-time system with two speeds (low range 2.72:1) and neutral, electronically controlled clutch pack coupling in centre differential with front and rear electronic limited-slip differentials.

Suspension and damping

Front	Short/long arm (SLA) independent with gas-charged, twin-tube coil-over shock absorbers and stabiliser bar. 22.5 cm (8.86 in.) wheel travel
Rear	Live solid axle and 5-link suspension with twin upper and lower trailing tubular linking arms plus lateral track bar, coil springs, mono-tube shock absorbers and stabiliser bars. 22.4 cm (8.82 in.) wheel travel

Steering

Type	Hydraulic power-assisted rack and pinion
Overall ratio	Variable: 15.8:1 – 13.9:1
Turning diameter	11.2 m (36.7 ft.) curb-to-curb
Steering turns	2.85 turns lock-to-lock

Brakes

Front

Discs	328 x 30 mm (12.9 x 1.18 in.) ventilated
Calipers	48 mm (1.89 in.) dual-piston sliding calipers
Swept area	1757 sq. cm (272 sq. in.)

Rear

Discs	320 x 14 mm (12.6 x 0.55 in.) solid
Calipers	48 mm (1.89 in.) single-piston sliding calipers
Swept area	1650 sq. cm (256 sq. in.)

System

Four-wheel, four-channel ABS with active wheel speed, vehicle speed, steering wheel angle, yaw rate and lateral acceleration sensors. Standard features: All-speed traction control system, electronic stability programme, electronic roll protection, deactivation switch and electronic brake distribution.

Wheels and tyres

Standard equipment listed.

Laredo

Wheel type and material	"Orbitek" cast-aluminium alloy, painted satin silver
Tyres, front and rear	17 x 7.5 in., P245/65R17 Goodyear Wrangler HP BSW all-season
Spare tyre	Full-size

Limited

Wheel type and material	"Ronin II" cast-aluminium alloy, machined face
Tyres, front and rear	17 x 7.5 in., P245/65R17 Goodyear Wrangler HP BSW all-season
Spare tyre	Full-size

Dimensions

Dimensions are in millimetres (inches) unless otherwise noted.

Exterior

Overall length	4742 (186.7)
Overall width	1862 (73.3) – excluding mirrors, 2141 (84.3) – including mirrors
Overall height, to roof rack	1759 (69.2)
Wheelbase	2781 (109.5)
Overhang, front	854 (33.6)
Overhang, rear	1106 (43.5)
Track, front and rear	1575 (62.0)

Ground clearance (for 3.0 CRD and 5.7L)	
At front axle	214 (8.4)
At rear axle	209 (8.2)
Approach angle	34.1°
Breakover angle	20.6°
Departure angle	27.0°

Interior

Front

Head room	1008 (39.7)
Leg room	1058 (41.7)
Shoulder room	1502 (59.1)
Hip room	1451.5 (57.1)

Rear

Head room	999 (39.3)
Leg room	901 (35.5)
Shoulder room	1484.5 (58.4)
Hip room	1248 (49.1)

Cargo

Behind rear seats	978L (34.5 cu. ft.)
Behind front seats with rear seats folded	1908.5L (67.4 cu. ft.)

Weights (kg/lbs.) — Laredo

	3.0 CRD	**4.7L**
Curb weight	2142 (4722)	2130 (4695)
Gross vehicle weight	2569 (5664)	2569 (5664)
Gross vehicle weight rating	2749 (6060)	2749 (6060)

Weights (kg/lbs.) — Limited

	3.0 CRD	5.7L	4.7L
Curb weight	2169 (4783)	2209 (4850)	2157 (4756)
Gross vehicle weight	2585 (5700)	2620 (5796)	2586 (5701)
Gross vehicle weight rating	2749 (6060)	2749 (6060)	2749 (6060)

Capacities

	3.0 CRD	5.7L	4.7L
Maximum towing (kg/lbs.)	3500 (7716)	3500 (7716)	3500 (7716)
Maximum tongue load (kg/lbs.)	327 (720)	327 (720)	327 (720)
Maximum roof load (kg/lbs.)	68 (150)	68 (150)	68 (150)
Fuel tank capacity (L/U.S. gal.)	78.8 (20.8)	78.8 (20.8)	78.8 (20.8)
Oil capacity (with dry filter)	9.5L (10 qts.)	6.6L (7 qts.)	5.7L (6 qts.)
Engine coolant volume	13.2L (14 qts.)	13.7L (14.5 qts.)	13.2L (14 qts.)
Washer fluid reservoir volume	4.9L (5 qts.)	4.9L (5 qts.)	4.9L (5 qts.)

Fuel consumption (L/100 km, preliminary figures)

	3.0 CRD	5.7L	4.7L
Combined	9.9	13.2	12.7
Urban	12.7	16.8	16.7
Ex-urban	8.2	11.0	10.3

Performance (preliminary figures)

	3.0 CRD	5.7L	4.7L
Acceleration (0 to 100 kph)	9.7 sec.	7.1 sec.	8.8 sec.
Top speed (kph/mph)	210 (130.5)	210 (130.5)	201 (125)

	3.0 CRD	**5.7L**	**4.7L**
Oil change intervals			
Schedule A	20,000 km	12,000 km	12,000 km
Schedule B	10,000 km	5,000 km	5,000 km
Service intervals			
Schedule A	20,000 km	12,000 km	12,000 km
Schedule B	10,000 km	5,000 km	5,000 km
Warranty duration	Two years, unlimited kilometres in Europe (except in Switzerland and the UK)		