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Land Rover Discovery history and ownership issues

Discovery 1 and 2

Introduced in 1989, the Discovery used the standard wheelbase Range Rover Classic chassis and used many of the same components including the petrol engines, 4WD system and suspension, with body panels being the only major exception. The door handles were from the Morris Marina, tail lights from the Austin Maestro van, and interior switchgear and instrumentation from Rover's surplus parts.

Initially only available as a three-door version; the five-door body style became available in 1990.

The original transmission was a dual-ratio five-speed manual with drive via a transfer case with a lockable centre differential Hill Descent Control would render it redundant. The actual locking mechanism was removed in early-2001, before being fully reinstated (with linkage) in 2004.

An automatic gearbox was made available on 200Tdi models. The transmission was a permanent four-wheel drive system, with a high and low range transfer box, locking centre differential at the transfer box. The handbrake locked the rear prop shaft or both front and rear prop shafts if the central differential lock was engaged.

In Australia, the Series I launched in April 1991 available only as a three-door version. Early V8 engines used a twin SU carburettor system, switching to Lucas 14CUX fuel injection in 1990.

In October 1991, Land Rover launched the five-door body with central locking, electric windows, headlight washers and heated door mirrors, with the HL adding alloy wheels, air conditioning, driving lights and an improved audio system. The TDi engine became available, rated at 83 kW and 265 Nm. In early-1993 a four-speed automatic option was added to the Australian range and the HL was discontinued.

In 1994 the Discovery received a face-lift. A stronger R380 gearbox was fitted to all manual models. Engines were replaced with the 2.5 L 300Tdi 4-cylinder and 3.9-litre Rover V8 engines.

Also, the 2,495 cc Td5 (in-line direct-injected straight-five engine) was introduced, in line with Defender models. This electronically managed engine was smoother, producing more usable torque at lower revs than its 300Tdi predecessor.

Discovery 3

The Discovery 3 launched in 2004 and included many practical as well as styling enhancements. These included an Integrated Body Frame, with the engine bay and passenger compartment built as a monocoque, mated to a basic ladder-frame chassis for the gearbox and suspension.

Cross-linked electronic air suspension was also introduced to this model, along with terrain response where the driver could select a terrain type ("Sand", "Grass, Gravel & Snow", "Mud & Ruts" and "Rock Crawl") on a dial in the cab of the vehicle from which the computer systems select the correct gearbox settings, adjust the suspension height, adjust the differential lock settings and even alter the throttle response of the engine suitable for the terrain.

The engines included the Jaguar/ Ford/PSA 2.7-litre (145 kW), 440 Nm V6. A 4.4-litre petrol V8 of 220 kW or 161 kW 4.0-litre SOHC Ford V6 petrol engine were available in Australia.

The gearboxes on the Discovery 3 were also all-new. For the diesel engine, a six-speed manual transmission was standard. As an option, and as standard on the V8 engine, a six-speed automatic transmission was available. Both came with a two-speed transfer box and permanent four-wheel-drive. A computer controlled progressively locking central differential ensured traction was retained in tough conditions. A similar differential was available on the rear axle to aid traction.

Discovery 4

The 2009 version was essentially an update of the 3 that addressed many mechanical and reliability issues, improvements to engines and gearboxes, brake and suspension refinements. It offered engine options including the TDV6 3.0-litre with twin turbochargers. Fuel economy was improved while power, torque and diesel NVH were improved significantly to 180 kW and 600 Nm then in 2014 increased to 188

The Gen III version of the V8 petrol engine was a 5-litre unit with Direct Petrol injection developing 287 kW and 520 Nm).

An improved version of the ZF six-speed automatic/sequential gearbox was incorporated and in 2012 was further improved including a change to 8 speeds with taller gearing to take advantage of the new engines' greater torque output and an updated lock-up system to further reduce fuel consumption. Other technical changes include the fitting of the more powerful brakes from the Range Rover Sport and thicker anti-roll bars to improve on-road handling.

Discovery Sport

Essentially a replacement for the Freelander, the Discovery Sport platform is shared with the Range Rover Evoque and is of unibody construction modified for off-road use, it features steel monocoque construction, but with the bonnet, wings, roof and tailgate made from aluminium.

A compact rear multi-link suspension design permits use of folding rear seats and spare wheel well in the load space. The front suspension is a MacPherson strut design and features steel lower and aluminium upper control arms

Off-road performance remains broadly similar to the Freelander 2 model. The Discovery Sport features removable components on the lower sections of the front bumper which improves the approach angle. The braking system comprises disc brakes all round servo assisted and with an anti-lock (ABS) braking system.

The electric power steering system allows the Discovery Sport to feature an automatic parking system.

The Discovery Sport was initially powered by the Ford EcoBoost four cylinder 2.0-litre turbocharged petrol engine producing 180 kW and the Ford Duratorq four cylinder 2.2-litre turbocharged diesel engine.

The engines sourced from Ford were replaced by engines from Jaguar Land Rover's new Ingenium engine line from late 2015. The Ingenium engine range can be configured to deliver different power outputs, and the most fuel efficient Discovery Sport eD4 model is powered by a 110 kW 2.0-litre four cylinder turbocharged diesel engine in a front wheel drive only configuration. The engines in the Discovery Sport are mounted transversely, which creates additional interior space.

The Discovery Sport is available with either a 9-speed ZF 9-HP automatic gearbox or a 6-speed Getrag M66EH50 manual gearbox, both of which are also available on the Range Rover Evoque.

Two different all-wheel drive systems are available. The standard system is the Haldex Traction fifth generation system from BorgWarner. Optional is the new Land Rover Active Driveline system that works by disconnecting all major all wheel drive components from the gearbox, rather than at the central coupling. The system also features torque vectoring to direct power to individual wheels. Neither system has a low range transfer box, although the ZF 9-HP features a very low ratio first gear which is used only when the vehicle is off-road or otherwise needed.

Reliability issues affecting various models

Never has it been more necessary to engage an experienced and reliable specialist Land Rover workshop, especially for service of the later models. The “average” mechanic is extremely unlikely to possess the knowledge to deal with issues routinely affecting these vehicles. The key word is **service** because it is poor servicing that causes many of the problems mentioned below:

Around 100,000 Km there have been many cases of cracked manifolds that are very costly to replace.

The centre dial gear selector has a history of locking in reverse or in drive and this is an expensive replacement unless rectified under warranty.

Major oil leaks from the transfer case are not uncommon – frequently requiring the need to split the case to replace seals..

The EPB or electronic Park Brake is not a serviceable part and the actuator that controls it can seize making the vehicle immobile. A significant charge for parts and labour can be expected

Fuel gauge may not work when the vehicle is parked on a slope. Some repair shops will claim this is normal.

Transmission failure has been known to occur at around 40,000 Km

The right-side exhaust is known to rattle.

The centre display asks for the vehicle to be serviced, even within 1 week after a service has actually been performed. The diesel engines in particular can suffer badly from oil dilution and need many more services than advertised.

If you are considering buying a Discovery, there is no substitute for a thorough pre-purchase check. Graeme Cooper Automotive are experts in vehicle diagnosis of all Land Rover models.

For further information, Call Ward or Stuart on 02 9550 2689

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