

Powering the Future

Emrys Kirby drives Dunsfold's 2,286cc petrol powered Series One 86in Station Wagon and considers the part it played in Land Rover history

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Climbing into the driver's seat of VAC 265, I couldn't help but feel that it was beautifully bolted together and certainly the best Series One Station Wagon I'd had the pleasure of driving. Sitting on supportive new blue seats and surrounded by crisp new door cards with soft elbow rests, the vehicle felt an age away from the utility-spec models that offer all the comfort of an empty biscuit tin. For the mid 1950s, this vehicle was certainly a realistic halfway house between the comfort and passenger carrying ability of a

road car and the practicality and all-terrain ability of a Land Rover.

Land Rover had previously produced the Tickford Station Wagon based on the original 80in chassis and a wooden-framed coach-built body. However, it was painfully expensive to build and attracted UK car purchase tax meaning very few were sold in the home market; of the 650 built, most were exported. When the new 86in and 107in models were launched in September 1953, an 86in Station Wagon variant was available from the beginning (the 107in Station

Wagon arrived in June 1956). In contrast to the Tickford, the 86in Station Wagon was based on the basic utility variant chassis and bodywork. To create a passenger-carrying Station Wagon, it was fitted with side windows, alpine lights in the hard top, a full height rear door, a rear step, four individual rear seats and interior door trim.

I guess the fact that VAC 265 felt well put together was no surprise given that it had just been totally restored by Dunsfold Land Rovers and won the John Taylor Cup for the best 86in at the 2017 Series One



Unlike the 80in Tickford, the 86in Station Wagon was built using standard utility body panels

Club rally in Ireland. What was unusual was the engine sound as soon as I started it. On pressing the button below the dashboard, instead of the distinctive Series One 1,997cc inlet over exhaust note, often accompanied by worn camshaft chatter, I was immediately greeted with the silky smooth purr of a perfectly set up 2,286cc overhead valve petrol, very in keeping with my relatively refined surroundings.

While I already knew that this vehicle was factory-registered and used as a 2,286cc engine test-bed, for some reason it felt both

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wrong and yet so right. As long as I can remember, I have been a fan of the 'two and a quarter', an engine that became a classic in its own time and had a legacy that continued from the late 1950s until 1998. It is simple to work on, cheap for parts, unstressed in normal use, responds well to mild tuning and will often continue to run even if significantly worn. It was also the engine conversion of choice for Series Ones in the '70s and '80s as the original engines started to fail and trials drivers wanted more power on the sections.



Blue trim contrasts with grey body and matches the chassis and wheels

The original Land Rover 80in was launched with a 1,595cc Rover 'F-head' petrol engine with inlet valves in the head and exhaust valves in the block (known as Inlet Over Exhaust - IOE). By late 1951, the engine was bored out to 1,997cc creating the 'Siamese' bore engine. In 1955 the block design was changed to 'spread-bore', spacing the bores more evenly in the block, creating a more robust engine.

By the mid 1950s, the market was calling for a diesel engine and Rover began development of the overhead valve (OHV) 2,052cc diesel. The new engine design placed both inlet and exhaust valves in the cylinder head and the engine benefitted from camshaft rollers and followers, reducing the cam lobe wear associated with the previous design. The new engine was launched as an option in 1957 and as much as the two-litre diesel with its wet cylinder liners was not considered Rover's finest engine, the design brief was forward looking enough to produce a petrol version with a displacement of 2,286cc.

The well-loved 2,286cc petrol-powered version was made available to the public at the launch of the new Series II in 1958. It is worth noting that the very earliest SWB Series IIs were still fitted with the 1,997cc IOE engine and the diesel option still retained the 2,052cc displacement until the launch of the IIA in 1962.

As the new OHV engines were developing and ready to be fitted to test vehicles, it became apparent that design changes were required to the chassis. Because the new engine was longer than the old IOE, it was found that the crankshaft pulley was very close to the front axle case. In the petrol variant, the pulley was small and clearance just sufficient in an 86in or 107in, however,

the diesel variant had much larger pulley designed to dampen vibrations and under full suspension compression, it could strike the axle casing. This therefore required the front springs to move forward 2in and required a longer front propshaft, different wings and a different bonnet. This change of course created the classic 88in and 109in length models; the extended wheelbase was introduced in autumn 1956 and continued through until the end of Series III production in 1984.

Fitting the 2,286cc petrol to this 86in test-bed model was relatively straightforward. The vehicle was built in January 1956 on a standard blue 86in chassis with a contrasting Dove Grey body though it wasn't registered until it was sold off in November 1956 (it likely ran on trade plates during testing). The shorter wheelbase wasn't a problem due to the fact the petrol engine had small crankshaft pulley and the 'conversion' looks correct with very little out of place.

A different gearbox bellhousing was required to accommodate the different starter position but the engine mounts lined up in the same place as the 1,997cc engine. The exhaust manifold was designed with an upward swept 'swan neck' so the exhaust could follow the original route. A stock 1,997cc radiator provided the cooling capacity but the bottom hose connection had to be moved to the opposite side due to the water pump design.

The cooling fan sits very close to the radiator but with no issues. What did cause problems was the height of the carburettor which with a standard inlet elbow would prevent the bonnet from closing. On VAC 265, the air cleaner elbow has been scalped and squashed and does look slightly out of place in an otherwise immaculate and



Standard Series One gearbox but different bellhousing for 2,286cc

stock-looking engine bay. The engine was designed with a mechanical fuel pump run off a camshaft lobe on production examples but this particular vehicle still has the usual electric SU pump mounted on the bulkhead.

The power output of the 2,286cc petrol was a significant improvement over the 1,997cc, taking the power from 52bhp at 4000rpm to 77bhp at 4250rpm. The torque output went from 101lb.ft at 1500rpm to 124lb.ft at 2500rpm. By modern standards, this isn't particularly powerful but the 2,286cc engine can boast an incredible historical line that saw it evolve right up until the arrival of the TD5 powered Defender in 1999.

The 2,052cc diesel engine which had wet-lined cylinders was replaced with a 2,286cc variant in 1962, using the same block casting as the petrol with the cylinders machined directly in the block. The basic design with three main bearings remained pretty much unchanged until the arrival of a five main bearing version in 1980. This was such a

strong design that the same crank design could be used for both petrol and diesel versions. Visually the new block looked very similar to the old one, just with the addition of strengthening webs and a change of colour from green/blue to terracotta.

In 1984, the diesel engine capacity was increased to 2,495cc and a new injection pump fitted with a new timing system. In

'The block evolved slightly with the addition of an aluminium ladder strengthener'

1985 the petrol engine also received the capacity upgrade, achieved by lengthening the engine stroke and visually, there is little to distinguish late 2,286cc and the 2,495cc petrol versions. The same basic engine block design was used when the 19J Turbo Diesel arrived in 1986, just with changes to the oil-ways. When the 200Tdi Gemini engine was launched in 1989 with the Discovery, the block evolved slightly with the addition of an aluminium ladder strengthener but the engine mounts still bolted on in exactly the same place. When the more refined 300Tdi arrived in 1993, the block still remained pretty much the same though with changes to the oil filter system. It is incredible to know that the part number for the diesel pushrod remained the same from 1957 until 1998.

As well as being a superb example of an 86in Station Wagon and a credit to Dunsfold Land Rovers, VAC 265 played an important early role in developing what would prove to be a legendary family of engines. The gloriously smooth engine is the perfect subtle soundtrack to the practical but comfortable interior. This vehicle can be justifiably considered a direct ancestor of the 300Tdi powered Defender 90 County Station Wagon, arguably the last 'classic' Land Rover before electronic control modules arrived. **CIA**



Slight pink tint in the Dove Grey is noticeable in this shot



Station Wagon had unique additional badges



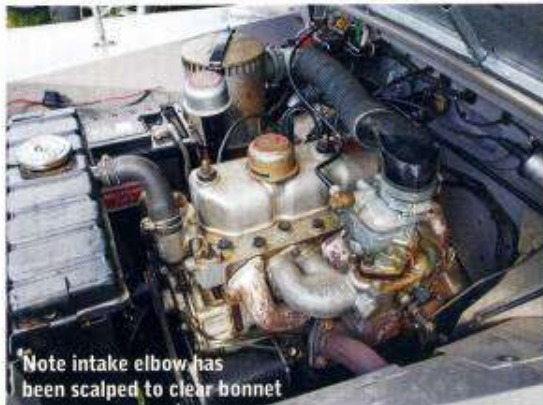
86in has chassis number on the rear spring hanger



VAC won the John Taylor Cup for the best 86in at the 2017 Series One Club Rally



VAC 265 is a direct ancestor to the last 300Tdi 90 County Station Wagon



Note intake elbow has been scalped to clear bonnet