Volvo emissions reductions, plus XC40 B5 AWD R-Design Pro – Road Test

Published: November 20, 2020

Author: David Miles

Online version: https://www.wheels-alive.co.uk/volvo-emissions-reductions-plus-xc40-b5-awd-r-design-pro-road-test/



VOLVO AHEAD OF CO2 REDUCTION TARGET + XC40 SUV TEST DRIVE.

By David Miles (Miles Better News Agency).

Volvo Cars and its sports offshoot brand of Polestar claims they will reduce fleet emissions beyond their joint CO2 target for 2020 as defined by the regulations set by the European Commission. What that target was Volvo doesn't say.

However to their credit Volvo Cars was the first established car maker to commit to all-out electrification and is the only brand to offer a plug-in hybrid variant of every model in its line-up. It will also introduce a range of fully electric models in the coming years, starting with the XC40 P8 Recharge Pure Electric with UK customer deliveries starting soon.



Volvo XC40 Recharge P8 AWD electric SUV.

Sales of its plug-in hybrid cars amounted to more than a quarter of sales in Europe during the first three quarters of 2020; they are now up 27% until the end of October. Volvo Cars are still the number-one plug-in hybrid premium brand in Europe and by 2025 they aim for their global sales volume to consist of 50% fully electric cars, with the rest hybrids.

Volvo Cars was founded in 1927. Today it is one of the most respected car brands in the world with sales of 705,452 cars in 2019. But for Covid reasons overall sales are down 17.6% so far this year with 516,418 units sold in about 100 countries. Volvo Cars has been under the ownership of the Chinese Zhejiang Geely Holding since 2010.

Should we think Volvo might be on the wrong path with electrification of their models, data from the industry's respected analysts JATO Dynamic's shows in 27 markets in Europe that

the total number of electrified cars registered in September (encompassing pure electric, plug-in hybrids, full hybrids and mild hybrids) was higher than the number of registrations for diesel cars. For the first time in the modern era, alternative-fuelled vehicles outsold one of the two internal combustion engine (ICE) types. JATO says this marks significant change – for just five years ago, diesel cars were a dominant player in Europe.

I was scheduled to test drive Volvo's latest award winning SUV, the compact XC40 but in its PHEV plug-in hybrid form. Unfortunately Covid arrangements at the Volvo vehicle movements company meant my delayed delivery was in fact the XC40 B5 AWD R-Design Pro priced at £40,315 but with options being showcased actually weighed in at a hefty £46,765. Other XC40 models start from a more competitive £25,420 and stretch up to £59,985 for the latest addition – the P8 Pure Electric AWD automatic model which has an all-electric driving range of 260 miles with zero CO2 emissions, so no tax costs.



The XC40 range of five door, five seater models I describe as Volvo's compact SUV but in fact it's not so small at 4,425 mm (14.52 ft) in length with a 452 litre (15.96 cu.ft) boot which expands to 1,328 litres (46.90 cu.ft) with the rear seat backs folded down and it will tow up to 2,100 kg (4,629 lb). It's only 'compact' in my eyes because Volvo's XC60 is their mid-sized five seat SUV and the XC90 their large seven seat SUV.



The XC40 was a milestone car for Volvo when it was launched and became the 2018 European Car of the Year. It uses the company's all-new CMA (Compact Modular Architecture) and being a Volvo incorporates the latest in connectivity, driver-assistance technology, collision avoidance and class-leading safety functions.

The XC40 is available in pure electric, petrol-electric plug-in hybrid or petrol form. The XC40 Recharge Pure Electric P8 is Volvo's first ever fully electric car, while the plug-in hybrid and petrol versions are powered by Volvo's own range of powerful yet efficient Drive-E powertrains. Volvo says the XC40 is primarily designed for urban environments, not so in

my area, and it is available in two and all-wheel-drive forms and with manual or automatic gearboxes. No diesel engines are now used by Volvo for any model.

The all-aluminium petrol engines use direct injection and turbocharger technologies, combining efforts for fuel efficiency but still providing ample power. These Drive-E powertrains are available with up to four cylinders and with a maximum size of 2.0 litres.

The new range consists of four petrol, two petrol-electric plug-in hybrid and one all-electric powertrain. These are the T2 129 hp and T3 163 hp petrols and the petrol-electric Recharge Plug-in Hybrid T4 129+82 hp and T5 180+82 hp models – all use a 1.5 litre, three cylinder engine. The B4 197 hp and B5 250 hp petrol engines are 2.0 litre four cylinder units with 48V mild hybrid support. The P8 Recharge pure-electric has two 204 hp electric motors giving a total of 408 hp.

The three cylinder T2 has a six speed manual gearbox, the T3 petrol unit comes with a six speed manual or eight speed automatic gearbox. The four cylinder B4 and B5 petrol units with 48V mild-hybrid come exclusively with the automatic transmission. The Recharge Plug-in Hybrid T4 and T5 have a seven speed twin clutch automatic transmission. The Recharge Pure Electric P8 has a single-speed automatic transmission. The XC40’s manual gearbox is made by Getrag, with the eight speed automatic supplied by Aisin-Warner.



2.0 litre four cylinder petrol engine.

To go with the wide range of powertrains there is a wide choice of specification levels depending on the powertrain chosen. These spec levels are Momentum Core, Momentum, R-Design, R-Design Pro, Inscription, Inscription Pro and First Edition for the new P8 Recharge all electric model.

In whatever form the XC40 is Volvo's best selling model in the UK. Its main competitors are the Audi Q3, BMW X1, Mercedes GLA and Range Rover Evoque. The XC40 has a 50/50- UK sales split between retail and fleet/business customers but total sales numbers remain confidential. Volvo say however the UK's best selling engine is the T3 and the best selling trim is R-Design so that version is priced at £31,995 for the manual and £33,545 for the automatic and both versions are only available with front wheel drive. Judging by how many I'm seeing on the road there are lots of takers; probably some downsizing from large

XC60/XC90 versions, after all the XC40 might be scaled down in size but it's not in terms of model choice, technology or performance.

I'm not going to list all the spec items and what you get for each level, suffice to say standard equipment is pretty comprehensive for most people. This standard level includes the Sensus nine-inch tablet style touchscreen, 12.3-inch TFT driver's information screen, voice-activated control systems, LED headlights, satellite navigation, climate control, rear parking sensors, City Safety front end collision warning, fully automatic braking for pedestrian and large animal detection, Oncoming Lane Mitigation and Auto Guidance, Run Off-Road protection in an accident, data SIM card with 100GB of data for 12 months and the Volvo On Call connected services platform.

Now my road test version was a stand-in XC40, not a plug-in hybrid model I expected, so it's unlikely to be the most popular of choices but it is the boldest one in terms of outright performance. The XC40 B5 AWD R-Design Pro has a four cylinder turbo petrol 2.0 litre petrol engine with 250 hp and 350 Nm (258 lb.ft) of torque from 1,800 rpm but available through a wide powerband up to 4,800 rpm.

Matched with the ratios of the eight speed automatic gearbox the engine response is impressive more or less right through the entire rev-range, certainly ample 'grunt' up to the legal maximum speed limit. It also cruises effortlessly and quietly. Top speed is 112 mph, modest but you don't need more and that speed is more to do with gearing than power output. The zero to 62 mph acceleration time is only 6.4 seconds so you can easily see just how quick this family SUV is when needed. There are of course the usual selectable driving modes and it has AWD traction on demand automatically when needed. It's no mud-plugger of course but it's capable and secure enough on muddy or gravel farm tracks and to a degree driving over wet grass and it would help with better traction in snow.

This slideshow requires JavaScript.

Ride comfort was first class in part due to its use of a multi-link rear suspension despite it

having the stiffer sports set-up of the R-Design spec level. I found it more compliant than Audi/BMW similar models and the handling well balanced. It's not that agile at quick direction changes but the steering was precise which given its sporty performance was a good feature. Body roll during cornering was also well controlled and with the AWD system made the XC40 feel surefooted and predictable on soaking wet road surfaces.

The WLTP rated official Combined Cycle fuel economy is 34.4 to 36.7 mpg and for my week of driving with one long motorway journey and lots of short pre-lockdown urban trips and a few winding country roads thrown in, the overall test driving figure was 32.2 mpg which given it's a powerful petrol engine with an automatic gearbox and with 4WD in a relatively heavy tall vehicle is acceptable. Less so are the CO2 figures which despite the 48-volt mild-hybrid support are 174 to 186 g/km so tax costs are high at a First Year VED rate of £870 and then a Standard rate for year two onwards of £150 but, and it's a big BUT, this model even without options costs over £40k so add to the £150 cost another £325 a year for five years, as the vehicle costs over £40k. Given this is a very good, well sized, well specced, safe and roomy family SUV I'd clearly go for a model under that £40k on the road price. The Benefit-in-Kind company car tax rate is the maximum 37% and insurance is Group 29E.

Outside the XC40 looks chunky with a strong upright stance, it has classy kerb appeal and the interior is a classy cabin. There is no doubt that it is worthy of Volvo billing it a premium product. It is all well laid out, sensible controls and the only downside is the fiddly and not easy to use tablet styled touchscreen – in terms of size, looks and functions. It needs updating, needs to be faster and to become more user-friendly. Can we also have proper heating and ventilation controls, not the current ones operated by the touchscreen; it's not safe or easy to operate on the move. The front seats are large and comfortable and the rear space is large enough for two adult passengers, also you could still fit a child in the middle rear seat. Rear leg room is adequate for adults.

This slideshow requires JavaScript.

The long list of options which pushed my XC40 to what could be a prohibitive price included

the Lounge Pack at £2,250 which essentially provides all automatic forms of parking, parking camera, a panoramic powered sunroof, smartphone integration which should be standard and Sensus Connect with a premium Harmon Kardon sound system. The £1,550 Driver Assist pack gave more driving support functions, £300 for heated rear seats and steering wheel, £475 for the handsfree opening system and powered folding rear headrests, £1,125 for the retractable tow bar plus £150 for a spare wheel and jack.

VERDICT

Overall the XC40 is a very good award winning compact SUV, full of quality but the version you select needs choosing with care otherwise the costs to purchase and in terms of taxation, become prohibitive. I look forward to my forthcoming XC40 T5 Recharge plug-in-hybrid test drive version due in December – Covid regulations permitting this time.

For: XC40 well sized for family/business transport, classy styling and quality inside and out, lots of driving support and safety systems, high spec – but at a price, strong responsive engine, compliant ride, well balanced handling for an SUV.

Against: High emissions, costly taxation for this version, too many functions operated via the sluggish touchscreen, ungenerous warranty.



Milestones and Wheels-Alive Tech. Spec. in Brief:

Volvo XC40 B5 AWD R-Design Pro, compact SUV.

Price: £40,315 having recently increased from £39,865.

Engine/transmission: 2.0 litre, four cylinder turbo direct injection petrol with 48-volt mild-hybrid assist, 250 hp and 350 Nm (258 lb.ft) of torque from 1,800 rpm, eight speed auto with AWD.

Performance: 112 mph, 0 – 62 mph 6.4 seconds.

Fuel consumption: WLTP Combined Cycle 34.4 to 36.7 mpg (32.2 mpg on test).

Emissions and taxation: CO2 174 to 186 g/km, First Year VED road Tax £870, Standard rate £150 and an additional annual £325 payment for five years as it costs over £40k, BiK company car tax 37%.

Insurance Group: 29E.

Warranty: Three years/60,000 miles.

Dimensions/capacities: L 4,425 mm (14.52 ft), W 1,910 mm (6.27 ft), H 1,658 mm (5.44 ft), wheelbase 2,702 mm (8.86 ft), boot/load space, 452 – 1,328 litres (15.96 – 46.90 cu.ft), braked towing weight 2,100 kg (4,629 lb), five doors/five seats.