

Ford Focus mild hybrid – Road Test

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Only a relatively few years ago the decision we had to make about the engine we wanted for a new car was petrol or diesel. Nowadays it's far more complicated because other options are now making their sales presence felt as we head in the UK towards full electrification for most new cars from 2030. Some new model Hybrids will be allowed to remain on sale



until 2035 under the current Government's thinking.

Ford have just announced their new passenger cars are going all electric in Europe and will not have internal combustion engines from 2030. Their commercial vehicle ranges will follow that move a couple of years later. Ford have also said that by 2026 all their new cars in Europe would be fully electric or plug-in hybrids. Jaguar Land Rover have also said all new Jaguar models will become fully electric by 2025.

But for the here and now in addition to conventional petrol and diesel labelling the Society of Motor Manufacturers and Traders, who clarify car and commercial vehicle type segments and engine titles, now lists other powertrain types. These are BEV meaning Battery Electric Vehicle, PHEV – Plug-in-Hybrid Electric Vehicle, HEV – Hybrid Electric Vehicle and MHEV Mild Hybrid Electric Vehicle, which can be applied to petrol or diesel engines.

And it's the MHEV title linked to a new petrol engine that I'm trying in the week's road test, namely the Ford Focus Active X Vignale Edition 1.0T 155 hp EcoBoost Hybrid 6-speed manual – quite some long title.

Now the all-new Ford Focus we remember was launched mid 2018, 20 years after the first generation. This generation brought to market new technology, more comfort, better interior space and a more polished driving experience even though the model it replaced was the class leader in a very competitive market sector.

Nowadays the lower-medium sector sized family cars have hatchback and estate car forms like the Focus family and have to compete with the likes of the Vauxhall Astra, VW Golf, Kia Ceed, Renault Meganne, Skoda Scala, SEAT Leon and Toyota Corolla plus there are the premium brand Audi A3, BMW 1-Series and Mercedes A-Class models. In addition there are similar sized SUVs such as the Ford Puma/Kuga, VW Tiguan and Kia Sportage. Then we have pure electric models such as the Tesla 3, Kia e-Niro and Hyundai Kona Electric. It is a minefield of choice and we haven't yet got to choose an engine or spec level.

Talking of choice I counted 122 different versions of the latest Focus family made up of 5-



door Hatchbacks, Estates and soft SUV styling inspired Active X versions for both Hatchbacks and Estate body options. The range spec levels are Zetec Edition, ST-Line Edition, ST-Line X Edition, Active Edition, Active X Edition, Active X Vignale Edition, Titanium Edition, Titanium X Edition, Vignale Edition and ST.

As for engine options, depending on spec level, there are turbo petrol units such as the 1.0 EcoBoost 125 hp, the new 1.0 EcoBoost Hybrid 125 hp and 155 hp units and turbodiesel 1.5 EcoBlue 120 hp and 2.0 EcoBlue 150 hp power choices. There are also the higher performance ST 2.3 litre EcoBoost 280 hp turbo petrol and 2.0 litre EcoBlue 190 hp turbodiesel units. All Focus models are front wheel drive with the availability depending on engine choice of 6-speed manual or 7 and 8-speed auto transmissions

Prices are wide ranging starting at £22,210 for a Hatchback and £23,370 for an Estate and they climb to £36,100 for an ST automatic Estate. Around £24k will get you a non-Hybrid 125 hp turbo petrol manual Hatchback with the popular Titanium Edition spec and just over £1k more for the equivalent powered and spec level Estate.

Now my long named Active X Vignale Edition soft Crossover styled Hatchback with the new 1.0 litre, 3-cylinder turbo petrol engine with Hybrid support and 155 hp with 6-speed manual gearbox costs £29,055 but with the £450 extra cost Desert Island Blue paint and Driver Assistance Pack at £525 the total on-the-road price was £30,030.

How engine technology has improved in 10 years with the new 1.0 litre, 3-cylinder EcoBoost turbo petrol unit with Hybrid support turning out 155 hp whilst a decade ago it took a 2.0 litre, 4-cylinder Focus petrol engine to provide 145 hp.

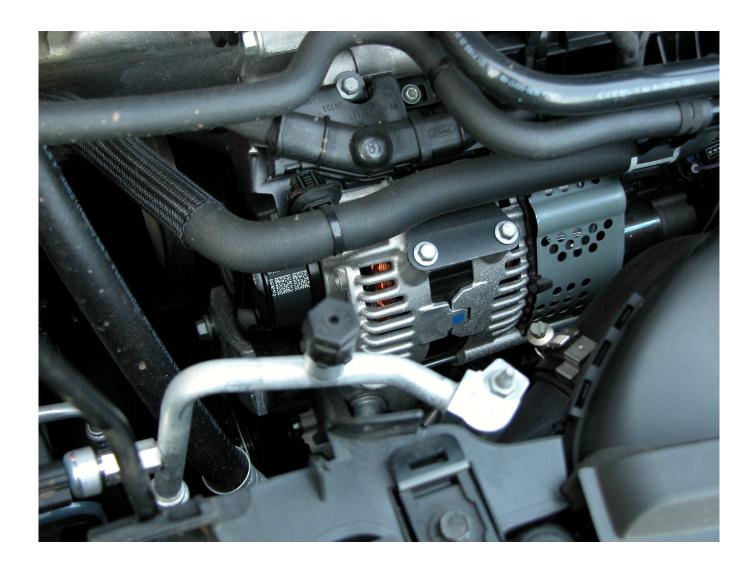




Ford's latest 1.0 litre 3-cylinder EcoBoost engine options also include a mild Hybrid model with 125 hp and also the original non-Hybrid version 125 hp unit but that offers less fuel economy and torque performance.

The new Focus EcoBoost Hybrid models replace the 1.0 litre EcoBoost petrol engine's standard alternator with a belt-driven integrated starter/generator (BISG), enabling recovery of energy usually lost during braking and coasting to charge a 48-volt lithium-ion air-cooled battery pack which is located under the front passenger seat.





The BISG also acts as a motor integrating with the engine and using the stored energy to provide torque assistance during normal driving and acceleration as well as running the vehicle's electrical ancillaries. Torque output is 240 Nm (177 lb.ft) for the 155 hp Hybrid unit.

The intelligent, self-regulating mild-hybrid system continuously monitors how the vehicle is being used to determine when and how intensively to charge the battery for optimal benefit, and when to utilise the stored battery charge using one of two strategies:

Strategy One: Torque substitution deploys the electric motor functionality of the BISG to



provide up to 24 Nm (18 lb.ft) of torque – reducing the amount of work required from the petrol engine and contributing to CO2 emissions from 116 g/km (WLTP) and fuel efficiency from 51.4 mpg (WLTP) depending on the model and equipment level.

Strategy Two: Torque supplementation deploys the electric motor functionality of the BISG to increase the total torque available from the powertrain by up to 20 Nm (15 lb.ft) above the level available from the petrol engine alone at full load – and deliver up to 50% more torque at lower rpm for optimal performance.

The BISG system has allowed Ford engineers to lower the 1.0-litre EcoBoost engine's compression ratio and add a larger turbocharger for more power. Turbo lag is reduced by using torque supplementation to rotate the engine faster to maintain turbocharger boost response.

The more powerful BISG enables the Focus EcoBoost Hybrid's Auto Start-Stop technology to operate in a wider range of scenarios for improved fuel savings. It is able to restart the engine in just 350-milliseconds, the Stop-in-Gear function can switch off the engine when coasting to a stop even when the vehicle is in gear with the clutch pedal depressed and can be adjusted to activate from 9 mph, 12 mph or 16 mph.

In addition, Focus EcoBoost Hybrid powertrains feature fuel-saving cylinder deactivation technology for the 1.0-litre EcoBoost engines. Cylinder deactivation improves fuel efficiency by automatically switching off one of the three cylinders when full capacity is not needed, such as when coasting or cruising with light demand on the engine. The system can disengage or re-engage one cylinder in 14-milliseconds with no compromise in performance or refinement.





Now I've recently driven the 1.0 litre 125 hp Hybrid engine in the latest Fiesta 5-door Hatchback and now the 155 hp Hybrid version in the Focus Active X Hatchback, and the Hybrid technology worked seamlessly and fuel efficiently. But the 155 hp unit with its 6-speed manual gearbox plus more torque from the engine and BISG coped better with driving on winding country roads. Even though the 5th and 6th gear ratios, like the Fiesta Hybrid's, are long-legged to improve cruising speed fuel economy, the larger and heavier Focus Hatchback just didn't need the constant changes of gear at speeds from 40 to 60 mph which the lesser powered but lighter in weight Fiesta did. And the test driving real-life fuel economy didn't differ greatly either with both cars used for the same motoring journeys and mileage due to the limits of lockdown driving opportunities – even though we journalists are



allowed to work. The Fiesta 125 hp Hybrid 5-door Hatchback returned 52.1 mpg, the 155 hp Hybrid Focus 5-door Hatchback returned 49.8 mpg. Top speed for my 155 hp Active X test car is a healthy 129 mph and the far more important zero to 62 mph acceleration time is 9.5 seconds, but it's the close to 50 mpg easily achieved average that impressed me most from the relatively short distance journeys and very cold weather during the test driving time.

What are the differences the Active X SUV/Crossover styling inspired versions have over regular other Focus models? Active spec is available in five-door Hatchback and Estate body styles with rugged exterior styling which includes stronger looking bumpers, wheelarch and side sill protection mouldings and underbody protection skid plates. The Active X has a raised ride-height of 30 mm (1.18 in) at the front and 34 mm (1.34 in) at the rear, a bespoke chassis configuration to retain its legendary Focus driving dynamics. The raised ride height also provides enhanced rough-road ability and a higher driving position for urban and countryside driving conditions. Ride comfort is compliant despite the suspension changes and the handling well balanced as with any other Focus model

The active lifestyles of Europe's growing numbers of SUV and Crossover customers are further provided for by the addition of bespoke Slippery and Trail modes to the Focus traditional Selectable Drive Modes function plus standard-fit roof rails for the estate Active version to help carry bicycles or sports equipment.

On the inside there is a leather steering wheel and gearknob with a leather grip, bright elements on the dashboard and door panels and Active branded door sill scuff plates. The bolstered seats are trimmed with distinctive Active cloth featuring blue stitching, and mats with blue stitching are also available. However my top Vignale spec test drive Hatchback had leather upholstery with heated front seats and heated steering wheel plus of course the usual heated Ford windscreen.









The latest generation Focus provides more interior space a 50 mm (1.97 in) longer wheelbase and a flat floor improves rear passenger foot space. Front seat occupants enjoy good shoulder room of 1,421 mm (55.94 in) partially obtained by using a slimmer centre console but that still has space for cup holders, sliding lid storage box, electronic parking brake and various other controls. Talking of controls it's good to see the Focus still maintains proper heating, ventilation, air-con controls, not hidden away in pages of functions controlled via the touchscreen.

Rear passengers don't miss out either as knee clearance is improved by more than 50 mm (1.97 in), and rear shoulder-room is increased by almost 60 mm (2.36 in) compared with the



previous Focus models. The impression of spaciousness is enhanced with a rear door design featuring windows that stretch into the rear pillar.











The latest Focus, Active and other versions, give me the impression they will appeal to a modern generation of buyers, plus longer serving ones, who want to downsize from larger D-segment cars. The same applies with specification levels as well which throughout the Focus range are higher than before bringing many larger car features into the Focus family. Without going into too much detail the Vignale Edition spec of my test Active X model was comprehensive with items such as a B&O premium sound system, sat-nav, lots of driving safety support systems, FordPass Connectivity, Heads-Up display, Cruise Control and so on. All good examples of larger car features being made available in a slightly smaller car.

My only gripe is that the new 1.0 litre, EcoBoost Hybrid 155 hp petrol engine is not



available with an automatic transmission, it's a 6-speed manual and that surely doesn't help attract down-sizers who generally use higher spec cars mostly with auto transmissions. If you want auto you have to use the 125 hp petrol version of this engine or the 1.5-litre 120 hp turbodiesel engine.

VERDICT







Overall I liked the new 155 hp petrol electric Hybrid version of the 1.0-litre turbo petrol engine more than the 125 hp option which felt lacking in low down torque. I also like the Active styling spec and tweaks plus the raised ride height – slightly more than a conventional Focus model. It just has that more noticeable up-market styling edge for me as a country dweller.

This particular Focus Active X Vignale Edition 155 hp Hatchback I found very practical to live with, comfortable, roomy, easy to park, quiet and very well equipped but it would have been even better with an automatic gearbox.



For: The new generation Focus offers more space, more specification, more refinement and Active X models add popular Crossover styling to the huge line-up, strong turbo petrol engine with mild hybrid performance and good real-life fuel saving boost, Vignale Edition spec brings larger car equipment to the family car sector for downsizing users.





MILESTONES AND WHEELS-ALIVE TECH. SPEC. In BRIEF:



Ford Focus Active X Vignale Edition 1.0T EcoBoost 155 hp Hybrid 6-speed.					







Price: £29,055 (£30,030 as tested).

Engine/transmission: 1.0 litre, 3-cylinder turbo petrol with starter/generator Hybrid electric motor, 155 hp, 240 Nm (177 lb.ft) of torque, 6-speed manual with selectable driving modes.

Performance: 129 mph, zero to 62 mph 9.5 seconds.

Fuel consumption: WLTP Combined Cycle 51.4 mpg (49.8 mpg overall on test).



Emissions and taxation: CO2, 124 g/km, VED First Year road tax £175 then £150 Standard rate, BiK company car tax 27%.

Insurance Group: 16E.

Warranty: Three years/60,000 miles.

Dimensions/capacities: L 4,397 mm (14.43 ft), W 1,844 mm (6.05 ft), H 1,502 mm (4.93 ft), wheelbase 2,700 mm (8.86 ft), boot/load space 341 to 1,320 litres (12.04 to 46.62 cu.ft), braked towing weight 1,100 kgs (2,425 lb), 5-seats/5-doors.