



FUEL SAVER

SUVs are gas-guzzling monsters, right? Wrong says **Hormazd Sorabjee** who drives a Volvo XC90 T8 plug-in hybrid for a week without using a drop of fuel.

PHOTOGRAPHY KULDEEP CHAUDHARI

You can't divide a number by zero. That's what you learnt in school and that's why I can't calculate the mileage of the Volvo XC90 T8 because after 147km, the petrol it consumed was 0.0 litres. It came to the office with around half a tank of petrol, and a week later, it went back with the same half tank. Sounds crazy, doesn't it? But that's possible if it's a plug-in hybrid, and to prove the point we ran the massive XC90 PHEV without letting it drink a drop of fuel.

No doubt, what made this possible was the fact that I don't live far from the office. A round trip is only 16.2km, and this means I don't have to charge the XC90 9kWh battery pack, which has a handy range of 40km, at both the destinations. So, a full charge at the office was enough for the back and forth drives.

Speaking of charging, Autocar India is proud to have our first fast-charging unit installed in our parking lot, courtesy Volvo India, and it'll be put to good use to power other EVs that'll come our way. A sign of the times, for sure. The company incidentally offers two fast-chargers with every T8 sold, and this 16A unit tops up the battery in approximately 2.5hr.

Also impressive is the ease with which you can charge this luxury SUV. I do, however, suspect the majority of owners who can

afford its Rs 1.31 crore asking price may want to avoid the ignominy of having to pop open the tailgate, pull out the heavy-duty cable and slot one end into the mains and the other into the Volvo's charging port. It's a job they would happily leave to their chauffeurs!

It takes me around 30sec to unplug the T8 and chuck the thick charging cable into the boot, before I haul myself up into the high but comfy driver's seat. The battery icon indicates a range of 40km – which means a fully charged battery – and I'm good for the drive home. But

first things first. I toggle the Drive Mode controller to 'Pure', which drives the car only on electric power. There's a Hybrid mode too, which is the more practical way to use this car, as it seamlessly switches between the 320hp, 2.0-litre petrol (driving the front wheels) and the 87hp electric motor that drives the rear wheels. Power mode combines both powertrains to make the XC90 a rather quick 407hp 4x4. Tempted as I am to switch to this most potent of modes, I remind myself of the task at hand – to drive for a week without waking up the petrol engine.

I ease the big Volvo out of our parking bay with a gentle prod of my right foot, using very little travel of the nicely sprung accelerator pedal. The thing is that even in Pure mode, if you flex your foot hard, the engine kicks in because the hybrid system reads that input as demand for quick acceleration and deploys all the power available. So the trick is to keep throttle inputs gentle and small to stay completely in electric mode.

It's 7pm and traffic is still heavy, but it's in this sort of gridlock that a plug-in hybrid thrives. Sitting stoically at a series of traffic lights, the only noise you can hear is the gentle whir of the air-con blower. The silence in the cabin is an amazing by-product of running in pure EV mode and the XC90, in particular, has a tomb-like quietness. Also at play here is Volvo's noise-reduction tech which directs sound waves through the speakers to cancel out excessive cabin noise. After a long day at work, the hushed, high-quality cabin of the XC90 is a soothing place, but what gives you a deeper sense of well being is the simple fact that you aren't the bad guy in a gas-guzzling SUV, spewing toxic exhaust fumes.

Performance? You would think that the 87hp electric motor isn't strong enough to haul around a 2.4-tonne SUV. However, the reality in stop-start traffic is quite different. Okay, you won't be first off the traffic lights but the max 240Nm of torque the motor delivers from the get-go makes the XC90 responsive enough to lumber through stop and



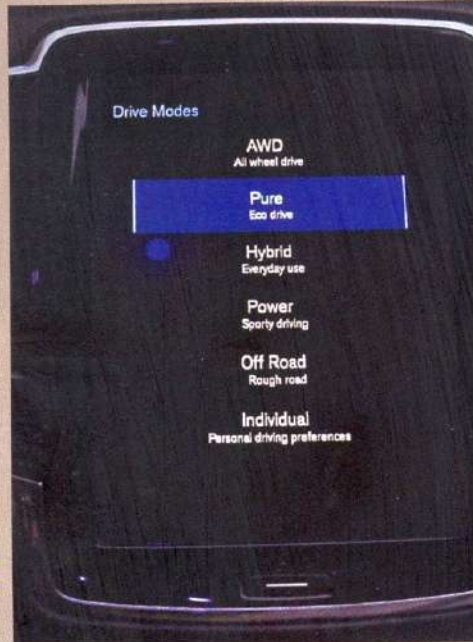
Plug-in hybrids make sense in stop-go traffic and for short distances which let you run in pure electric mode.

conferences and the like, charging the car every time I got back to the office. It never ran out of juice and I never had to resort to the engine to get me home. In fact, I never even heard what the engine sounded like.

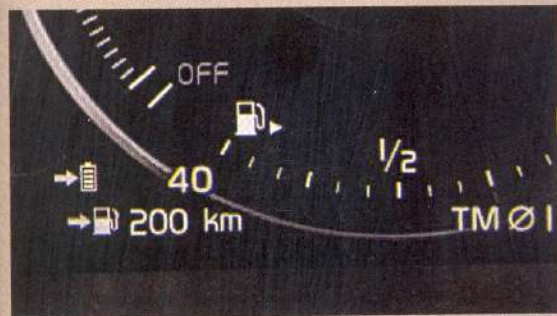
Yes, it's a different story on the highway where you quickly run out of charge, and the hybrid advantage is negated by the T8's small fuel tank and the engine's rather voracious appetite for fuel.

It's only on short runs that plug-in hybrids really shine and make a lot of sense. The 147km I covered that week didn't extend beyond a radius of 10km from my charging socket. If I installed an extra charger at home, I could have effectively doubled the EV-only distance.

More than anything, the week with the Volvo was one of zero emissions, which left me with a nice, guilt-free feeling that still lingers on. **AI**



In 'Pure' mode, you can drive the XC90 like an EV.



A full charge gives a range of 40km in pure electric mode.



6km range is cutting it fine but tank has 200km of fuel.

“
A by-product of running the XC90 in EV mode is the eerie silence.
”

go traffic. Let's just say you won't have cars behind you honking to get a move on.

On the first day, it took me around 40min to do the 8.1km run home; this works out to an average speed of 17kph, which is pretty much the norm on the choked streets of Mumbai. However, the range dropped to around 17km at home, with the PHEV's peripheral battery cooling and air-conditioning systems chewing up a fair amount of juice. Would I make it back to work the next morning without running out of charge? I left early, traffic was smooth and flowing, and it took me just 25min to reach the charging dock at the office, with enough charge left for around 5km. Cutting it fine? If it were a pure electric car, it would be, but with a plug-in hybrid, you always have a tank of fuel to fall back on and range anxiety is something you don't have to worry about.

For the next five days, I used the T8 not just for the office to home run but also for short runs to the club, dinner engagements, press

