

**AA****Car test**

R9350A

Supplements R9251 &amp; R9321A

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## VW Golf Diesel Ecomatic



**WE** MUST CONFESS AT THE OUTSET that we found this new version of the Golf both intriguing in design and fascinating to drive. That doesn't mean, however, that everybody should rush out and buy one.

The package of special features can be subdivided into "Eco" for economy, and "matic" for automatic. Semi-automatic, actually, because this Golf has a

conventional five-speed gearshift but no clutch pedal. Instead, a microswitch in the gear knob links with a bellows-operated conventional clutch via an electronic control unit.

When people say to us, "Do you prefer an automatic or a manual?" we usually reply, "Well, it depends where we're driving." Here, you can enjoy almost the best of both – or at least, an interesting

compromise. Of course, this isn't a new idea – we remember a Beetle automatic of the early seventies that worked along similar lines, and currently the new Saab 900 has this option. In fact, it works better nowadays, thanks to electronics, so you can pull away with the seamless ease of a chauffeur or with a squeal of the wheels of a boy-racer, all without recourse to exercising the left leg.

In the Golf Ecomatic, there's another reason for this semi-automaticity. The idea is to save fuel and pollution by using the 64bhp diesel engine only when there's work to do, and to switch it off every time the throttle is closed, whether idling in a traffic halt or coasting on the move.

This means that a surprising amount of "belt and braces" equipment is added under the bonnet to do the job well. For example, there are two batteries (one enormous, one moped sized), a lot of vacuum reservoirs, pumps and electric motors and so on, plus a master computer to sort out all the inputs and issue instructions.

On the road, you drive off conventionally (though without a clutch), aided in economic gearshifting by a sensible light that comes on and stares when you ought to change up, and blinks when you would do well to change down. At the first sign of your easing off the accelerator (once the engine has warmed up), the engine cuts out, but as you reapply the accelerator, the starter sets it going, completely smoothly and unobtrusively, we must stress.

This sequence goes on, whether coasting down slopes or waiting mute at traffic lights, yet with the engine restored for service within a second or so of your command via the accelerator.

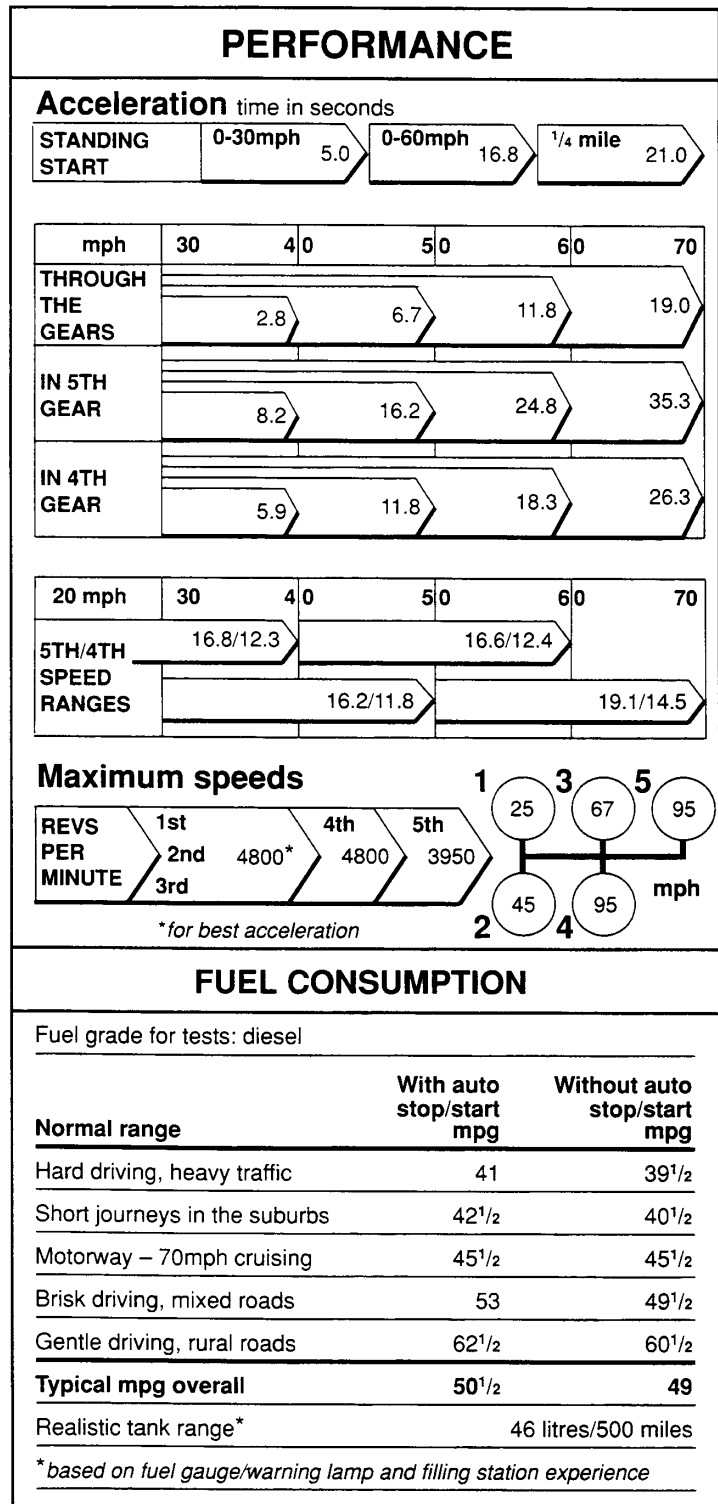
The first thing you discover, even in suburban driving, is how often you can do without the engine! Another realisation is how few roads are really flat; most of the time they rise or fall gently and the Ecomatic will take full advantage of the fact, in steady-speed driving.

The reason why there's so much under-bonnet complexity is to ensure that neither comfort nor safety is compromised by these mechanical antics. It's vital that the powered steering and servoed brakes behave consistently, even on longer hill descents, while passengers would get irate if the heater stopped working. So everything remains normal to the disinterested.

Careful thought extends to instant reversion to a standard car at the press of

a stalk control – you're then left with a semi-automatic 64bhp diesel that runs all the time.

In practice, the clutchless gearchanging is at its best with the auto stop/start in use – the freewheel effect of the system eases the shift sequence; without it, it feels stickier and there's clutch drag in evidence at times. Neither can this simple mechanism match the gentle progressive engagement of a "proper" automatic when you're manoeuvring the car; negotiating an uphill driveway can be a bit fraught, for instance. Incidentally, the control unit prevents the engine from shutting off in reverse or when your hand is grasping the gear lever. However, there were occasions when



parking and at blind T-junctions when we wished that the clutch pedal had been there to override the system.

In statistical terms, this Ecomatic goes most of the way to matching its maker's claims. This 64bhp version isn't as lively as the 75bhp Umwelt turbo-diesel, of course, and without the benefit of the auto stop/start, fuel thirst isn't much different, either. It felt smoother and quieter running, however. This feeling of relaxed progress is enhanced by the stop/start system.

The mpg benefits of this system, however, are perhaps at their most modest in an already frugal diesel – the cumulative benefits are likely to be greater in a thirstier petrol car. Our standard mpg test cycles produced the biggest gains in brisk cross-country driving with a lot of accelerating and braking for bends. There's no gain in steady-speed cruising, of course, but our standard suburban test showed a 5 per cent improvement using the stop/start mode. In fact, the engine spent 30 per cent of the six-mile route switched off. VW claims that in some inner city driving, this can grow to 60 per cent of the journey time. We replicated this situation and found that it resulted in a further deterioration in non-Ecomatic guise, from 40<sup>1</sup>/<sub>2</sub>mpg to 37<sup>1</sup>/<sub>2</sub>mpg – that's just under 14 per cent improvement in the Ecomatic, which would, of course, retain its 42<sup>1</sup>/<sub>2</sub>mpg result. If you're stuck in a jam, this car uses no fuel and emits no pollution, which may help to cool your nerves via your wallet.

## VERDICT

Quite frankly, we're sceptical about whether it's worth paying a £1000 or so more for a car that gives 1<sup>1</sup>/<sub>2</sub>mpg improvement overall, or even 14 per cent (5mpg) in an occasional encounter with an urban snarl-up. However, if heavy traffic is a daily event, things could look different and you do enjoy a clutchless gearshift at the price, plus a source of constant interest to driver and onlookers alike. It takes a little while to tune in to the Ecomatic's charms, but they are there, ready to engender a new willingness to enjoy driving more gently, for the sheer fun of it.

The serious longer-term prospects for this type of car will be determined by future legislation, however, rather than being consumer driven. Cars and towns are increasingly incompatible and it's the habits of the cars that are going to have to change. This Golf represents a valuable contribution by VW to the debate about the best way forward.

Unlike the electric microcars or hybrid (two-engined) offerings that have done the rounds, the Golf Ecomatic is available now, as an entirely practical, roomy, family-sized hatchback. It offers one way forward for car lovers who are also lovers of the environment.

Watch this space – maybe this is tomorrow's car today.

## TECHNICAL SPECIFICATION

Same as for 1.9 Umwelt Turbo-diesel (see R9321A) except for:

### ENGINE

**Fuel system** no turbocharger fitted

**Electrical system** auto stop/start system includes: 92Ah main battery with auxiliary (moped-sized) back-up battery; special alternator and starter motor; auxiliary electric circulation pump for coolant

**Maximum power** 64bhp at 4400rpm

**Maximum torque** 91 lb ft at 2000rpm

### TRANSMISSION

**Clutch** no clutch pedal. Vacuum-operated bellows unit gives automatic clutch operation via gear lever-triggered switching

**Mph per 1000rpm** 24.0 in top, 19.8 in 4th with Continental Contact CT22 tyres fitted. No other gearbox or final drive changes

### CHASSIS

**Steering** power assistance for steering provided exclusively by electric pump; operates when required (including engine off, but not when wheel in straight-ahead position)

**Brakes** auxiliary electric vacuum pump provided for brake servo assistance (and clutch operation, when required)