

# Trucker

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SPECIAL



**EXCLUSIVE: E-TRUCK COMPARISON**

# SIX TRUCKS – 4621 HP!



### COMFORT

Whisper-quiet driving



### RANGE

624 kWh battery capacity



### ON THE BALL

Smooth and fast gear change



# 4621 hp without a drop of diesel

All of a sudden, here they are! There's now a wide range of options for battery-powered electric transport. TRUCKER, assisted by journalists from several European countries, takes a close look at six electric powered semi-trailer road tractor units. ▶



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**Designwerk HC 900 E**

**Electric colossus for specialised jobs**

If the focus is on maximising battery capacity, the Designwerk HC 900 E is the right choice. However, with its three axles and battery tower behind the cab, the Swiss e-truck is too long to be allowed to tow standard semi-trailers without a special licence. The concept is therefore particularly recommended for specialised applications and vehicles. And it's precisely in that area that Designwerk has already scored highly with many customers. You just have to live with its rather unrefined looks, reflecting the truck's origins as a conversion.

- + High battery capacity and range, great recuperation pedal
- On-board computer positioned overhead, heavy weight, few assistance



All Volvo, or what? The DW does indeed leave the cockpit virtually unchanged



Designwerk places two of the four battery packs in the tower behind the cab



Jan Burgdorf, TRUCKER tester

*"The Designwerk recuperation pedal is downright addictive!"*

It's the most innovation we've seen in 45 years of TRUCKER's comparative test! In two different ways: Firstly, with a record field of no fewer than six tractor units competing against each other; but above all, featuring test vehicles that are unusually quiet, and don't burn a single drop of diesel. This world's-first comparative test of electric powered heavy trucks is instead all about the kilowatt-hours (kWh).

We know some readers might well balk at us reviewing vehicles fitted with this drive system at this stage of its development. We're aware that there's still a lot to do in terms of electromobility before battery electric power can be deployed without compromise! Nevertheless, we

see the existence of these test vehicles as proof that electric vehicles will take over sooner or later.

**DIFFERING TECHNOLOGY**

Anyone worried that in the electric age trucks will become more and more uniform, and boring, in their technology is very much mistaken. Quite the opposite in fact: the technical differences have never been greater! Designwerk, Iveco, MAN, Mercedes-Benz, Scania and Volvo Trucks have all adopted different approaches to the design of their electric semi-trailer tractor units.

Take the Designwerk HC 900 E, for example, which is without doubt the most inelegant-looking model in the

comparative test. In case you're unfamiliar with the name: Designwerk is a vehicle conversion company based in Winterthur, Switzerland, specialising in electrifying brand-new diesel trucks. The base model is easily recognisable as the Volvo FH – hardly surprising, since the Swedish manufacturer acquired 60 per cent of the shares in Designwerk just under three years ago. "We do what the big truck manufacturers can't – or don't want – to do," explains the company representative travelling with us on the test drives.

The HC 900 E immediately reveals what he means by that. The test vehicle is fitted with a set of 225 kWh lithium-ion battery packs producing 900 kilowatt



Hard-to-read overhead display



Top: Infinitely adjustable recuperation by pedal

hours in total. None of the other contestants has more power available, which is why the Swiss company is able to guarantee a range of 500 kilometres in all weathers, carrying any freight, and on whatever kind of route. Thanks to recently improved battery technology, even 1000 kWh would now be possible with the same set-up. But accommodating that amount of power does come with some compromises. The HC 900 E has to rely on a three-axle chassis with a steered trailing axle, as there's only room for two of the four battery packs on the frame. The other two have to be stacked behind the cab in the "tower", which is normally only found on heavy-duty tractor units. This pushes the length of the tractor unit





Iveco places the huge 17-inch screen in the centre console too low



Thanks to the electric axle, the Iveco can store 738 kWh of gross power in nine battery packs

to over 7.6 metres, which is why, until further notice, our Krone test trailer needs a special exemption permit to be installed on the fifth-wheel plate.

The Designwerk's bulky look very much reflects its weight: at exactly 14,440 kilograms, it is clearly the heaviest model in the comparative test. In fact, all the tested electric vehicles generally embody the beginning of a new era in terms of weight. They are real monsters compared to diesel tractor units – but more on that later.

The Designwerk's weight is counteracted by up to 500 kW (680 hp) of power, generated by four synchronous electric motors installed behind the cab in the vehicle frame. Their power is transmitted



Recuperation at maximum 600 kW



Ancillary units under the cab

Iveco S-eWay

### E-truck with Formula 1 genes

The S-eWay has not (yet) undergone the extensive update of its diesel sister model, so is still based on the previous generation. That's noticeable, among other ways, in the limited steering wheel adjustment range. Unlike most of its competitors, Iveco does not as standard use air suspension for the front axle of its electric model. In our opinion, this is not a disadvantage; the three-leaf parabolic springs provide a crisply sporty set-up that goes well with the Italian's brute-force acceleration response.

- + Astounding responsiveness without gear-shifting, high battery capacity and range
- Deficits in assistance systems; no on-board computer

to the first rear axle via a reduction gear, meaning the Designwerk has no gearbox.

#### STATE-OF-THE-ART ELECTRIC AXLE ON THE IVECO

The Iveco S-eWay likewise suffers no interruptions in tractive power due to gear changing. The Italian manufacturer developed its electric tractor unit together with the start-up Nikola, whose logo was originally also to be emblazoned on the front. However, Iveco abruptly ended its collaboration with the US company last year, and finished the development project on its own. It also has no gearbox, though the travel is short anyway, as the two 240 kW motors are located directly on the rear axle. This eliminates the need



for a cardan shaft, which saves on components and weight. Even more valuable is the space this frees up between the front and rear axles, which Iveco utilises almost entirely to house batteries. Thanks in part to its 4021 millimetre long wheelbase, the Iveco has 738 kWh of battery power on-board, with 629 kWh of that total actually usable, split across nine modular battery packs. According to the manufacturer, the truck has a range of 500 kilometres on a single charge.

Mercedes-Benz also utilises a "cardanless" electric axle, with the two 200 kW synchronous electric motors located in front of it. In front of them, transverse mounted, are three battery packs with a gross capacity of 207 kW

each. That provides a total of 621 kWh of gross power reserve, of which an above-average 600 kWh can be utilised. Like the Iveco, this is claimed to easily provide the eActros 600 with a 500 kilometre range, as already confirmed by our TRUCKER test drive (see issue 4/2024).

Unlike the Italians, however, Daimler Truck has fitted a transmission unit: an in-house developed four-speed planetary box. It cites the same reason for doing so as the rest of the pro-gearbox faction, namely MAN, Scania and Volvo Trucks: Without one, though there is no interruption of tractive force, the electric motors have to easily cope with high loads on the steepest hills. So they have to be dimensioned accordingly, which has a negative ▶



Andreas W. Dick, Truck tester, Austria

*"The Iveco has almost too much power!"*





**MAN eTGX**

**A good overall package**

The MAN scores highly in the driver ratings, thanks to its harmonious drive, comfortable overall set-up and smart operating concept. The eTGX cannot compete with the best in terms of range, so the manufacturer is committing heavily to megawatt charging, which is not yet possible at any public charging station. Unlike its competitors, MAN does not rely on suppliers for its batteries, but manufactures them itself at a purpose-built plant in Nuremberg.

- + Comparatively low unladen weight, harmonious drive, easy operation
- Comparatively limited range



MAN has no touch-screen in its electric model either



The cardan shaft limits space, so the eTGX has a maximum of 534 kWh on-board



José A. Maroto, Truck tester, Spain

*"Megawatt charging is a long way off in everyday driving!"*

effect on efficiency when travelling on normal stretches. That is to say, power consumption is increased.

Talking of efficiency, the developers are keen to highlight their state-of-the-art lithium iron phosphate (LFP for short) batteries. Though a more expensive option, this battery technology scores highly thanks to its improved eco-friendliness, greater safety in preventing deformation in the event of an accident, and insensitivity to high charging currents. That final attribute is claimed to give them an almost eternal life: Mercedes-Benz promises that 80 percent of the original battery capacity will still be available after 1.2 million kilometres.

**CLASSIC CONCEPT**

Let's move on from Wörth on the Rhine to Munich; to the MAN eTGX. It also uses an automated four-speed gearbox, which distributes the 330 kW and 1150 Newton-metres of torque from the single electric motor to the rear axle. It's still fitted with the classic cardan shaft, however, which means the MAN has less electric power available on-board. The six nickel-manganese-cobalt battery packs in the eTGX, with its relatively compact 3750 mm wheelbase, deliver 534 kWh of gross power, of which 480 is actually usable.

There are, nevertheless, also positive aspects to the so-called direct drive by cardan shaft, which MAN is happy to

point out: Firstly, this drive concept featuring the classic axle differential has been tried and tested millions of times over, and is the only way to achieve the manual transmission power take-off on which many truck body manufacturers still rely.

For once, MAN and Scania are in agreement on this argument, because the competing Scania 45 R also features a cardan shaft. Any idea that the two VW subsidiaries would likely have other technical similarities is soon rebuffed by the Greif. That's already evident from the extremely elongated 4150 millimetre wheelbase – the longest of all the test contestants, aside from the three-axle



Folding steps for rear access



Recuperation at maximum 330 kW

Designwerk. Despite the cardan shaft, the long wheelbase allows room for 624 kilowatt-hours of gross power, provided by two 208 kWh battery packs and two smaller ones of 104 kWh each.

The manufacturer based in Södertälje, Sweden, also takes a different approach to the drive motors. The main motor developing 230 kilowatts of power is assisted by two smaller ones of 110 kW each which are installed directly inside the automated gearbox. It is a six-speed unit, though only gears one to five are used, as the manual box is, so to speak, a waste product from the hybrid model.

The last of the six trucks under test can assuredly be considered a pioneer in ▶





In terms of operator control, the eActros barely differs from its diesel sister models



E-axle with two electric motors plus automated four-speed gearbox

MB eActros 600

Advanced star-badged technology

The exterior look of the eActros 600 might not appeal to everyone, but according to the manufacturer it is as much as nine percent more aerodynamic. That helps keep power consumption low, which means the star-badged e-truck can run for up to 500 kilometres without stopping to charge. The Mercedes-Benz is also exemplary in terms of battery technology and assistance systems. What we still don't particularly like, however, is the overly complicated operating concept featuring the fiddly, touch-sensitive steering wheel buttons and the touch-screen in the centre console.

- + Advanced battery technology, good range, exemplary assistance systems
- Not very intuitive operating concept



terms of e-mobility in heavy trucks. Volvo Trucks was, after all, already delivering its electric models to customers while its competitors were still in the development phase. A correspondingly large number of FH (and FM) Electric trucks are already on the road, giving the Gothenburg-based giant a clear advantage in terms of experience.

Maybe the Swedes were so quick to enter the market because they opted for a relatively conservative solution. The twelve-speed I-Shift gearbox has proven itself hundreds of thousands of times over, and it also handles the power of the three 163 kW electric motors (giving a total of 490 kilowatts) in the battery-pow-



On-board computer with charging menu



Prepared for megawatt charging

ered FH. The box could, theoretically, use all the gears, but normally uses only the gears in the upper group (7 to 12). This of course means that the I-Shift box adopted from Volvo's combustion engine trucks is well oversized, which has disadvantages with regard to the batteries. The bigger gearbox installed below the floor behind the cab takes space away from them. And the I-Shift is also likely to be comparatively heavy.

This, coupled with the Volvo's cardan shaft linking to the rear axle, means that the FH has a maximum 540 kWh of gross power on-board. Of that, the cautious Volvo team lists just 421 kWh as usable capacity. Consequently, the

Gothenburg-made truck lags behind its competitors in terms of range. The Swedish manufacturer has, at least, recently increased its range up to 320 kilometres. A major contributor to that improvement was the FH's new streamlined "Aero" nose.

The range figure might well soon be revised significantly upwards, however, as Volvo is already trailing extensive new features for its electric models launching at the IAA show in September, though without going into specifics. Our prediction is an electric axle with more powerful batteries – which would then also benefit the Renault T E-Tech, as it also houses the Volvo power-

train under its bonnet. The Renault would in fact have been the seventh contestant here if the French manufacturer hadn't withdrawn two days before the start of the test.

HOW THE E-TRUCKS DRIVE

Enough of the theory. Let's let all those kilowatts off the leash! And enjoy the undeniable benefits of battery-electric driving. All six e-trucks give the impression of floating above the road rather than driving along it. And the background noise is unbeatably low, not even changing when the motors are pushing the test semi-trailers – loaded with almost 36 tonnes – uphill.



Wolfgang Obermaier, TRUCKER tester

*"For me, the eActros offers the most advanced technology package."*





**Scania 45 R**

**Comfort cruiser from Södertälje**

Apart from the lettering and model designation, the Scania heavy e-truck is recognisable by its slightly protruding bumper. This design modification was necessary so that the Swede could be coupled with standard trailers despite its long wheelbase. The large wheelbase is definitely conducive to comfort, as is the perfectly attuned electric steering, smooth gear shifting, and very low noise. So it's no punishment doing without the V8 sound!

- + Very comfortable, quiet, good range, silky-smooth gear shifting
- Still no camera-based mirror replacement system available



Still analog; Scania is now also digitalising its cockpits



Six-speed (or rather, five-speed) gearbox with flange-mounted cardan shaft



Rahel Cathomas, Truck tester, Switzerland

*"I like the Scania gearbox's smooth shifting."*

All six deliver more power than any standard diesel truck, but none is livelier in doing so than the Iveco. High pulling power was evidently top of its specification list because, despite the 36 tonne load, the S-eWay surges ahead forcefully under even the slightest throttle touch. Flooring the pedal, a staggering 1142 horsepower (!) is transmitted to the rear tyres, subjecting their tread to corresponding load.

It's not the only issue, as illustrated by the fact that the transmission control switches to neutral as a precaution whenever the electronically controlled parking brake is activated. Unsurprising, because if all that concentrated Iveco power were

to accelerate against the brake, it could literally pulverise its components! That's not the only reason why we recommend the Turin engineers trim their truck towards a more harmonious driving style, because we daren't imagine how the S-eWay might react on wet or even snow-covered roads.

Yet there are other areas where the Italians urgently need to add more rather than trim down. We would never have thought it possible that, in 2024, we would still be sitting in a brand-new truck from a high-volume manufacturer that lacks essential assistance systems such as adaptive cruise control. The Iveco also has no proactive lane departure warning

system, let alone GPS cruise control which – with the exception of the Designwerk model – comes as standard in all the other makes.

The rather dull look of the dashboard, still based on the old S-Way generation, is something we merely note in passing. The central control element is a huge, but unfortunately low-sitting, touch-screen which, despite its size, provides comparatively little information. It doesn't even show the average kilowatt-hours consumed.

That's a lot of critical points, though the manufacturer itself seems to be aware of the issues: Like Volvo Trucks, Iveco is trailing wide-ranging improvements to



New mini-nose on the bumper

the S-eWay to be revealed at the upcoming IAA show.

The Designwerk also lacks a number of assistance systems. Given that it's a conversion model, however, we don't judge it quite as harshly as the Iveco. The diesel legacy, and the original source supplier of the test vehicle, are discernible in many aspects. The Volvo logo is still emblazoned on the airbag-filled steering wheel and, curiously, the yellow pre-glow symbol lights up when the ignition is switched on. The diesel and AdBlue indicators are also still present, though both show the current state of charge of the batteries. Along with the smirk-inducing message that you should top-up diesel and AdBlue ▶





Ergonomic cockpit; Volvo is steadfastly keeping to the seat-fixed "gear lever"



With a net battery capacity of 421 kWh, the Volvo lags well behind

Volvo FH Aero Electric

Pioneer with a new nose

Volvo Trucks claims to currently hold a whopping 56 percent share of the battery-electric truck market in Europe. The Swedes were ready to deliver while the other manufacturers were still dreaming of going into production. This means that the FH Electric, which was recently given a new Aero front end, will already be due for its first facelift soon. It's likely to be focussed mainly on the powertrain and the batteries. Volvo doesn't need to improve anything when it comes to driveability; the Swede runs very comfortably and assuredly.

- + Top comfort, very low noise, good operability
- Comparatively low battery capacity and charging power



as soon as the power supply starts to run low. The on-board computer on the Volvo touch-screen on the right doesn't work. Instead, Designwerk combines the trip and battery data in a display at the top next to the digital tachograph, which is almost impossible to read safely while driving.

The Swiss have a good handle on the overall tuning. The four electric motors respond sensitively, but thanks to the 500 kW of power the truck delivers plenty of thrust. The HC 900 E is even more fun when decelerating, however. Or more specifically recuperating, when the electric motors switch to generator mode, converting the braking energy into



Volvo app for electric charging



Display with different layouts

electric power. All six test vehicles do that, of course, but only the Designwerk offers the option of infinite adjustment using an additional pedal on the left-hand side of the footwell. It works just brilliantly, so we really hope all truck manufacturers will copy it!

The Mercedes-Benz eActros 600 is also a role model in many respects, and not just in terms of its advanced battery technology as already mentioned. The Daimler delivers in full when it comes to assistance systems, too. The GPS cruise control system masters all scenarios including sharp turns as well as urban driving, which is also made safer by the pedestrian detection feature. The "Econ-

omy" driving programme – selected on the right-hand steering column control stalk, and delivering up to 85 percent of the total 400 kilowatts of power – is advisable for everyday use. It's more than enough at all times, at least on our test drives, especially since the full peak power of no less than 628 kW (854 hp) can be called up at any time by kickdown when urgently needed.

Where the focus is on the highest possible mileage, the "Range" driving programme is recommended. It limits the Mercedes-Benz e-truck to 82 km/h and only 70 percent power release, making it much less agile, but helping to increase the range: The batteries are only heated

once an outside temperature of minus ten degrees Celsius is reached. Prior to that, they are cooled by the cooling circuit of the electric axle, which generates a lot of waste heat right from the very first kilometres driven.

The one improvement remaining for the engineers in Wörth to make is to speed up the somewhat sluggish gear changes of the four-speed planetary gearbox – something which the manufacturer states will be done by the time deliveries start at the end of this year.

They might learn how to do it from Scania. The fact that the two smaller motors are located inside the gearbox results in fast and almost imperceptible



Boštjan Paušer, Truck tester, Slovenia

*"The Volvo offers top comfort, but lags behind in terms of range and charging power."*





What's hidden under the cab? The six tractor units in the car park aroused great interest among the test drivers

gear changes that almost match those of a dual-clutch transmission. This is because one motor can keep accelerating in a lower gear while the other is already ready in the next. Nor did we notice any load shocks when shifting gear. This, coupled with the direct steering, the best ride

### The trucks are here, but the full-coverage charging infrastructure is still lacking

comfort – without doubt due at least in part to the extra-long wheelbase – and the exemplary insulation of the R-cab, means that the Scania makes a supreme impression in its electric version as it does in its combustion engined models, and scores highly in the driver rating (see page 31).

The Volvo FH Electric is hot on its heels. Okay, its set-up might not be the most advanced, but the driver behind the wheel couldn't care less about that – aside, possibly, from the low range. The I-Shift changes gear smoothly and quickly, the standard air-sprung front axle contributes to an almost coach-like ride comfort, and the Volvo also scores top marks for noise insulation. That is by no means to say that the four other contestants don't also offer levels of quietness that no combustion engine in the world could even

come close to. But the two Swedes are just that little bit better insulated.

The Volvo's facility to initiate recuperation alternatively without having to take a hand off the steering wheel is also a favourite feature. Tap the brake pedal once while rolling, and the software provides 50 per cent of the possible recuperation power. If you tap the brake twice in quick succession, the full 400 kilowatts is applied,

eliminating the need to use the service brake at all in many cases – and not just in the Volvo.

The MAN eTGX now also has a similar function, operated via a switch on the right-hand steering column control stalk. Once pressed, the electronic control activates a mode modelled on the overrun cut-off of a combustion engine – coasting while in gear. This can be the right choice in prolonged rolling phases, such as when approaching a distant red light. When the button is pressed again, the full recuperation braking power (330 kW) is available.

If the maximum range limitation is threatening to curtail the current run, the "Range" programme can be selected using the rotary control on the right-hand steering column control stalk. Among other functions, the software

then limits the top speed to 80 km/h, or makes the accelerator pedal less responsive, which noticeably impedes the agility of the lion-badged e-truck. The pay-off is that the range is then claimed to increase by as much as ten percent, which might well prove quite valuable when the need arises.

### NO LIGHTWEIGHTS

The most valuable asset of any truck has always been its payload. It's a discipline to which none of the six electric trucks really adheres, since none of them comes in below the ten tonne mark. Battery capacity is heavy, which also explains why MAN and Volvo Trucks, at 10.8 and 10.7 tonnes respectively, are comparatively light, but can also store correspondingly less power. Any carrier planning to use their e-truck on shorter journeys should therefore consider reducing the battery packs that all manufacturers will be offering. Then the payload could be about right, because the law allows heavy electric trucks to have a total weight of up to 42 tonnes, and soon perhaps even up to 44 tonnes.

It's just one of many points that still need to be clarified before e-trucks can fully compete with diesels. The question of where, how fast and with what (preferably green electricity) charging will be possible while on the road is particularly pressing. But that's less an issue for manufacturers than for politicians. **JB**

### TECHNICAL DATA

	Designwerk	Iveco	MAN	MB	Scania	Volvo
<b>Drive</b>						
Number of motors	4	2	1	2	3	3
Motor type	Synchronous e-motors	Synchronous e-motors, permanent magnet	Synchronous e-motors	Synchronous e-motors, permanently excited	Synchronous e-motors	Synchronous e-motors
Total power, constant	500 kW (680 hp)	480 kW (653 hp)	330 kW (449 hp)	400 kW (544 hp)	450 kW (612 hp)	490 kW (666 hp)
Peak power	/	840 kW (1142 hp)	/	628 kW (854 hp)	500 kW (680 hp)	600 kW (816 hp)
Max. torque	No data	1800 Nm	1150 Nm	No data	3500 Nm	2400 Nm
Max. recuperation	500 kW	600 kW	330 kW	628 kW	600 kW	400 kW
<b>Power transmission</b>						
Gearbox installed	No	No	Yes	Yes	Yes	Yes
Number of gears	-	-	4	4	5	12
Power transmission method	Cardan shaft	E-axle	Cardan shaft	E-axle	Cardan shaft	Cardan shaft
<b>Batteries</b>						
Battery type	Lithium-ion	Nickel-manganese-cobalt	Nickel-manganese-cobalt	Lithium-iron-phosphate	Nickel-manganese-cobalt	Lithium-nickel-cobalt-aluminium
Gross capacity per battery pack	225 kWh	82 kWh	90 kWh	207 kWh	208 kWh/104 kWh	90 kWh
Installed packs*	4	9	6	3	2 x 2	6
Total battery weight	5440 kg	4365 kg	3744 kg	4450 kg	3540 kg	3000 kg
Total gross capacity*	900 kWh	738 kWh	534 kWh	621 kWh	624 kWh	540 kWh
Total net capacity (usable)*	768 kWh	629 kWh	480 kWh	600 kWh	600 kWh	421 kWh
Max. charging capacity CCS	350 kW	350 kW	375 kW	400 kW	375 kW	250 kW
<b>Chassis</b>						
Front axle	10.0 t	9.0 t	8.5 t	9.0 t	9.0 t	9.0 t
Suspension type	Air	3-leaf	Air	Air	2-leaf	Air
Rear axle	13.0 t + 7.5 t	13.0 t	13.0 t	13.0 t	11.5 t	12.0 t
Suspension type	Air	Air	Air	Air	Air	Air
<b>Dimensions</b>						
Wheelbase	3900 mm	4021 mm	3750 mm	4000 mm	4150 mm	3800 mm
Exterior length*	7630 mm	6482 mm	6350 mm	6200 mm	6450 mm	6080 mm
Unladen weight*	14,440 kg	12,000 kg	10,800 kg	11,740 kg	11,020 kg	10,700 kg
<b>Noise measurement *</b>						
Standing at idle	30 dB(A)	32 dB(A)	30 dB(A)	30 dB(A)	35 dB(A)	bbbbbb24 dB(A)
Driving on the flat	62 dB(A)	65 dB(A)	64 dB(A)	63 dB(A)	62 dB(A)	63 dB(A)
Max. recuperation	68 dB(A)	No measurement	66 dB(A)	62 dB(A)	63 dB(A)	63 dB(A)
Uphill	64 dB(A)	65 dB(A)	65 dB(A)	64 dB(A)	62 dB(A)	63 dB(A)

\* = Test vehicle

### TEST DRIVER RATING (MAX. 590 POINTS)

	Designwerk	Iveco	MAN	MB	Scania	Volvo
<b>Motor(s)</b>	113	114	115	114	115	115
<b>Power transmission</b>	96	97	97	96	98	97
<b>Braking/ recuperation</b>	82	82	82	82	81	80
<b>Steering</b>	32	31	34	33	34	33
<b>Driving comfort</b>	49	49	50	48	52	52
<b>Visibility</b>	48	48	50	50	49	52
<b>Operating concept</b>	50	51	59	59	58	58
<b>Charging</b>	24	24	25	25	24	23
<b>Cab</b>	53	53	56	57	57	55
<b>Total</b>	<b>547</b>	<b>549</b>	<b>568</b>	<b>564</b>	<b>568</b>	<b>565</b>

### CONCLUSION



TRUCKER tester Jan Burgdorf

Sooner or later, electric drive will take over. It won't be detrimental to the job, however. On the contrary, electric driving is clearly better. And the charging infrastructure will also become more and more established over the coming years, just as it has for car charging points.