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truck test

Eight leading manufacturers saddled-up in Hohenroda, Germany, last month for the annual Vertikal Check event held on the last day of the access industry get-together, Platformers' Days. This year, 20-metre truck mounts on 3.5 tonne chassis were put to the test.

The usual off-road test pad used in previous Vertikal Checks to test the rough terrain capabilities of various booms and scissors was exchanged for firmer ground this year. But no less vigorous was the test. Braving the close scrutiny of the judges and the on-looking crowds were Palfinger of Austria, Wumag, Ruthmann and Bison Stematic of Germany, and GSR,

Multitel Pagliero and Airtek of Italy, representing the core producing countries of the specialist 20-metre truck mount sector.

Pulses quickened straight away when it was confirmed that it would not only be each unit's measurements and performance that would be tested, but also the gross vehicle weights. The subsequent waves muffled groans and brow wiping were not altogether caused by a wet afternoon in Germany as the machines were tentatively placed onto the scales as if driving them slower would somehow make them lighter.

Since 1997, standard UK and Ireland new car driving licences have limited drivers trucks with a maximum total weight of 3.5 tonnes, rather than the previously

allowed 7.5 tonnes, while licences obtained before 1997 have "grandfather rights" for the 7.5 tonners. The first crop of 1997 drivers are now reaching 25 years of age, so the demand for high-reach, 3.5 tonne truck mounts is bound to grow. The new temporary work at height directive, which comes into force next year, should also spur on demand for these 20- to 22-metre "van chassis" units as pressure will be placed on painters, cleaners, window and gutter fitters to use aerial work platforms in place of ladders. Both trailer lifts and these small truck mounts are likely to be the most suitable platforms for this type of work.

Under starters' orders

Of the eight machines tested in the Vertikal Check, only four of the brands are currently widely known and supported in the UK and Ireland. These include Wumag and GSR, which are offered by Skyking, Pagliero by PJ Access Sales, Ruthmann, which is on the books of Access

Sales International, and Teupen which is still on the look-out for a dealership.

As is now standard practise under Vertikal Check rules, a panel of independent judges are appointed - this year the job was handed to Hubert Gardemann, Marketing Manager Gardemann Arbeitsbühnen, Hugo Fasselt, former technical director at Gardemann Arbeitsbühnen and Adrian van der Geer, technical manager at Mateco AG. The judges record various measurements and specifications and compare them with each manufacturers specification sheets. Both sets of results are checked against each other to see if the manufacturers values ring true in the iron.

The judges then scrutinize each machine to get a feel of its mechanics and assess factors such as control sensitivity, platform rigidity and serviceability. The judges' comments for each machine can be found along with each unit's specification table below.



GSR E200T (DaimlerBenz 311 CDI)

	Manufacturers specs	Vertikal Check
Working height (m)	19.85	19.97
Outreach (m)	7.25	7.25
Platform length (m)	1.4	1.4
Platform width (m)	0.7	0.7
Overall length (m)	7.85	7.85
Overall width (m)	2.23	2.25
Overall height (m)	2.99	3.02
Rear overhang (m)	2.88	2.90
Outrigger width (m)	-	3.25
Outrigger pad overlap (m)	-	0.11
Superstructure rotation (0)	450	450
Jib rotation (0)	2 x 70	2 x 70
Lift speed (secs)	120	130
Controls	Prop	Full hyd-prop
GVW (kg) (full tank, no spare)	3,400	3,450

Judges' comments

- Good looking modern design.
- Smooth controls and simultaneous multi-function operation.
- The control panel is clearly laid out.
- Good accessibility for maintenance
- No function dampening, which can lead to jerky starts and stops.
- Basket entry ladder good but vulnerable to damage from falling objects.
- Platform rigidity good.



• With a 7.85-metre overall length, this machine is one of the longer models in the class.



Wumag WT 200 (DaimlerBenz 311CDI)

	Manufacturers specs	Vertikal Check
Working height (m)	20.00	20.28
Outreach (m)	8.35	8.45
Platform length (m)	1.38	1.37
Platform width (m)	0.68	0.68
Overall length (m)	6.90	6.90
Overall width (m)	2.26	2.26
Overall height (m)	3.00	3.00
Rear overhang (m)	2.35	2.50
Outrigger width (m)	-	3.20
Outrigger pad overlap (m)	-	0.11
Superstructure rotation (0)	420	420
Platform rotation (0)	2 x 45	2 x 45
Lift speed (secs)	55	93
Controls	Electro-prop	Electro-prop
GVW (kg) (full tank, no spare)	3,460	3,350

Judges' comments

- Good looking modern design.
- Good rigid platform.
- Well protected components.
- Smooth controls and multi-function operation.
- Good function dampening for smooth stops.
- Easy accessibility for maintenance.
- Outrigger operation from the basket.
- Well inside legal weight requirement.
- Only 2.5 metres overhang for work in restricted areas.
- A very compact machine at 6.9 metres.
- Offers the longest outreach at 8.45 metres.



Palfinger PA 20T (DaimlerBenz 311CDI)

	Manufacturers specs	Vertikal Check
Working height (m)	20.00	20.05
Outreach (m)	8.00	7.65
Platform length (m)	1.4	1.4
Platform width (m)	0.7	0.7
Overall length (m)	7.25	7.30
Overall width (m)	2.15	2.10
Overall height (m)	2.98	2.97
Rear overhang (m)	2.55	2.80
Outrigger width (m)	-	3.55
Outrigger pad overlap (m)	-	0.25
Superstructure rotation (0)	360	360
Platform rotation (0)	2 x 90	2 x 90
Lift speed (secs)	80	62
Controls	Prop/sw	Electro-hyd
GVW (kg)_tank, spare and bumper	3,300	3,250

Judges' comments

- Smooth controls, simultaneous multi function.
- Very easy to operate.
- Service access very good.
- Speed to full height very good.
- Good platform rigidity.
- A lightweight unit well inside 3.5 tonne chassis requirements.
- The electronic function dampening was set for rapid stops on test unit.
- Stabilizers can only be set from chassis.
- Stabilizers lacked protection from falling objects
- Maximum boom angle is very steep, which improves the work height but gives a very queasy feeling even for experienced operators.
- To improve rear visibility the basket is turned on its side for transport but must then be repositioned before operating the machine.



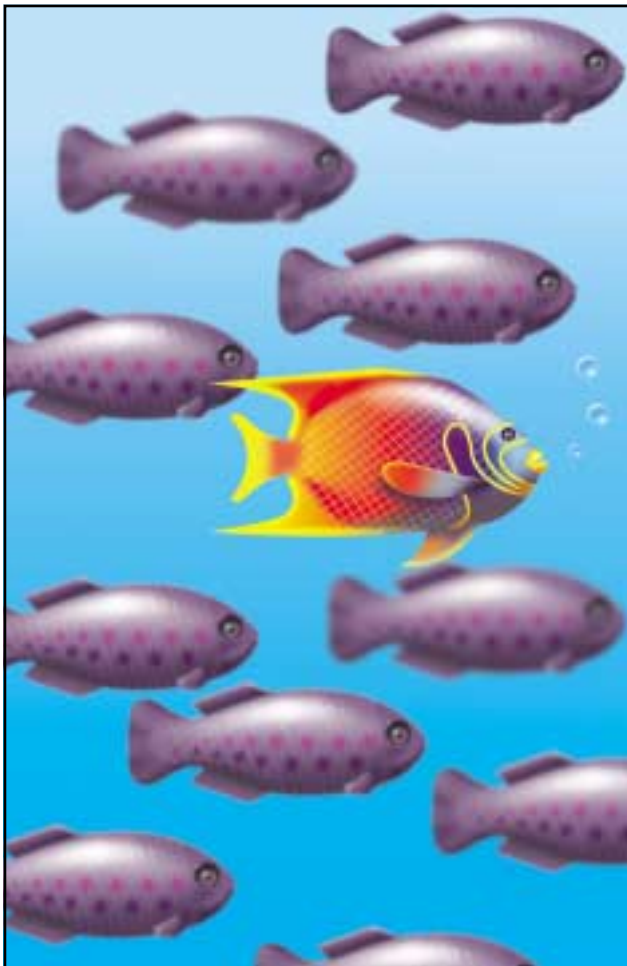
Teupen Euro B25 (DaimlerBenz 311CDI)

	Manufacturers specs	Vertikal Check
Working height (m)	24.40	22.42
Outreach (m)	8.1	7.75
Platform length (m)	1.2	1.21
Platform width (m)	0.8	0.8
Overall length (m)	8.05	8.00
Overall width (m)	2.18	2.15
Overall height (m)	3.10	3.01
Rear overhang (m)	3.09	3.00
Outrigger width (m)	-	3.29
Outrigger pad overlap (m)	-	0.17
Superstructure rotation (0)	270	270
Platform rotation (0)	180	180
Lift speed (secs)	108	115
Controls	Electro-hyd prop	Electro-hyd prop
GVW (kg) (tank empty, no spare)	3,340	3,400

Judges' comments

- The machine is well finished and leaves a good impression.
- Smooth controls and multi-function operation.
- Good electronic function dampening and accurate overload device.
- Good accessibility for maintenance.
- Weight well inside 3.5 tonne chassis requirements.
- Patented basket mounting provides extra outreach and advantages of a narrow and a wide basket in one.
- Average platform stability.
- The long overall length and wheelbase could be a disadvantage in congested areas.
- The off-centre basket mounting takes a while to become accustomed to.
- Plastic covers on the superstructure may be prone to damage.
- Exposed telescopic cylinder at the top of the boom not protected.
- At eight metres the machine is the longest of the units but offers an extra working height of four metres.





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Bison Stematic TA 22 (VW LT 35 TDI)

	Manufacturers specs	Vertikal Check
Working height (m)	22.00	22.10
Outreach (m)	8.50	7.25
Platform length (m)	n/a	1.20
Platform width (m)	n/a	0.77
Overall length (m)	7.67	7.70
Overall width (m)	2.33	2.33
Overall height (m)	3.07	3.08
Rear overhang (m)	2.30	3.35
Outrigger width (m)	-	2.9
Outrigger pad overlap (m)	-	0.08
Superstructure rotation (0)	450	450
Platform rotation (0)	2 x 45	2 x 45
Lift speed (secs)	57	57
Controls	Elect-hyd prop	Elect-hyd prop
GVW (kg) (tank 3/4 full, no spare)	3,330	3,400

Judges' comments

- Very modern design.
- Components are well protected.
- Controls are very easy to use. Multi-function operation.
- Control panel layout is good.
- Platform stability is poor, but is helped by the electronic function dampening.
- Easy accessibility for maintenance.
- Outrigger operation available from the basket.
- Clearance under the front axle at maximum jack stroke is poor
- *The judges questioned an optional automatic outrigger set up, which activates when the machine is started.*



Multitel Pagliero 220 Alu/AZ (DaimlerBenz 311 CDI)

	Manufacturers specs	Vertikal Check
Working height (m)	22.00	22.10
Outreach (m)	8.00	7.95
Platform length (m)	1.65	1.55
Platform width (m)	0.75	0.66
Overall length (m)	7.35	7.30
Overall width (m)	2.25	2.06
Overall height (m)	2.75	2.86
Rear overhang (m)	2.86	2.85
Outrigger width (m)	-	3.38
Outrigger pad overlap (m)	-	0.10
Superstructure rotation (0)	360	360
Platform rotation (0)	2 x 60	2 x 60
Lift speed (secs)	59	97
Controls	Prop	2-stage
GVW (kg) (tank full, noSpare, Dutch Bumper)	n/a	3,550

Judges' comments

- Well equipped unit.
- Controls are very simple and easy to use.
- Multi-function operation possible.
- Poor platform stability.
- Easy accessibility for maintenance.
- Well protected telescopic cylinder.
- Automatic stabiliser levelling optional.
- Non-proportional on/off telescope control disliked.
- No function dampening.
- Stabilisers can only be set from the chassis.
- Weight exceeds 3.5 tonne chassis requirements.
- Difficult basket accessibility.
- *This unit was destined for Holland and was fitted with a very heavy Dutch bumper/pedestrian protector. This device is not fitted in other markets. With this excluded, the unit would have been well within the GVW limit.*



Ruthmann (DaimlerBenz 313 CDI)

	Manufacturers specs	Vertikal Check
Working height (m)	22.00	22.00
Outreach (m)	8.00	7.10
Platform length (m)	1.4	1.4
Platform width (m)	0.7	0.69
Overall length (m)	7.08	7.20
Overall width (m)	2.00	1.96
Overall height (m)	2.98	3.03
Rear overhang (m)	n/a	2.65
Outrigger width (m)	-	3.11
Outrigger pad overlap (m)	-	0.16
Superstructure rotation (0)	450	450
Platform rotation (0)	2 x 55	2 x 55
Lift speed (secs)	85	86
Controls	Prop.	Full hyd prop
GVW (kg) (full tank, no spare)	3,360	3,400

Judges' comments

- Modern design
- Well protected components.
- Smooth controls and multi-function operation.
- Platform rigidity first class and aided by good electronic function dampening.
- Easy accessibility for maintenance.
- Stabiliser operation possible from basket
- Only 2.65 metres to rear bumper
- At 86 seconds, the unit has the fastest lift speed of the test.
- A memory function allows the return of the basket to a saved position.
- Weight is well within 3.5 tonne chassis requirements.
- Less outreach compared to the other units, but at the rear the short distance to the rear bumper compensates giving good clear outreach.



Airtek ATK 21 (Nissan Cabstar 120 SE)

	Manufacturers specs	Vertikal Check
Working height (m)	21.00	21.16
Outreach (m)	8.5	8.12
Platform length (m)	1.13	1.39
Platform width (m)	0.73	0.73
Overall length (m)	6.61	6.50
Overall width (m)	2.08	2.15
Overall height (m)	2.86	3.00
Rear overhang (m)	2.88	2.90
Outrigger width (m)	-	3.42
Outrigger pad overlap (m)	-	0.10
Superstructure rotation (0)	endless	endless
Platform rotation (0)	2 x 70	2 x 70
Lift speed (secs)	165	169
Controls	Prop	Electro-prop
GVW (kg) (full tank and spare)	3,460	3,650

Judges' comments

- Simple, clean structural design.
- Controls are simple and easy.
- Easy accessibility for maintenance.
- Very compact with an overall length of only 6.5 metres.
- No simultaneous movements permitted.
- Average basket stability.
- No electronic end positioning dampening.
- Valves and wiring are exposed and prone to damage.
- Only unit with out-and-down outriggers and levelling ability in retracted position was poor.
- Outriggers can only be set from the chassis. No automatic levelling.
- A heavy overall weight of 3,650 kilograms.
- *According to the manufacturer, the model supplied for the test was a prototype and on release, the weight deficit should be resolved.*

