

**AEBI**

# VT450 Vario

**Euro 6 and powerful  
Turbodiesel with 109 HP  
and 420 Nm torque**

**Free DC break**

**Variable drive  
powerful / agile**





## Viatrac Aebi VT450 Vario with new intelligent drive

The Aebi VT450 Vario is the absolute top model of the Transporter/Viatrac series. This unit is equipped with the revolutionary newly developed stepless, mechanical-hydrostatic, power-split drive. Those who are already driving a Terratrac with a stepless, hydrostatic drive will feel right at home in the new Viatrac Vario as the handling by means of the multifunction drive lever is virtually identical. With the new model, Aebi is the first manufacturer worldwide to build transport vehicles with a stepless drive and fulfils a long held demand of many customers. The new VM Turbodiesel fulfils Euro 6 and works not only very cleanly and in a very fuel-saving fashion, but is more powerful and has a significantly higher torque. This increase in performance and the modernised control concept, with a new multi-functional accelerator lever and a new colour display, make the Aebi VT450 Vario with the brilliant continuous traction drive even more perfect.

### The most modern engine technology and even more power

The new VM Turbodiesel fulfils Euro 6 and performs a strong 80 kW (109 hp) at 2,600 1/min. The maximum torque amounts to 420 Nm and is in the range of 1,100 – 1,400 1/min. The torque increase reaches 43%. These excellent key data raise the driving performance of the Aebi VT450 Vario significantly again, with a fuel consumption tending to be lower. The turbodiesel engine is equipped with a diesel particle filter and SCR (selective catalytic reduction). The exhaust gas recirculation and SCR processes are electronically coordinated and monitored on a continuous basis. This ensures optimal emission control. AdBlue is used for the exhaust aftertreatment. However, the additional costs for this liquid (approximately 5% of fuel consumption) are compensated for by the lower diesel consumption.

### Speed ranges

Depending on the vehicle's registration, four different speed versions are available: 0–30 km/h, 0–40 km/h, 0–45 km/h and 0–50 km/h.

### Intelligent and comfortable suspension

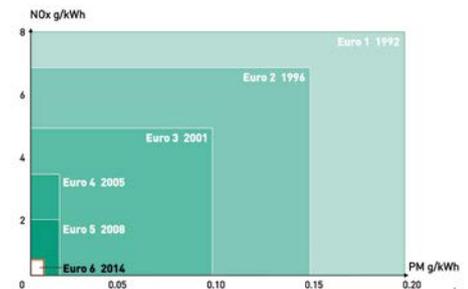
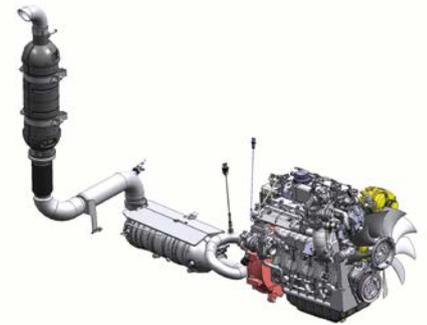
With a suspension way of 100 mm, the hydropneumatic single-wheel suspension according to the double transverse link principle ensures excellent driving comfort. During hard cornering, the rear axle is automatically stabilised. In addition, the hydraulic torsion blocking between the front and rear vehicle ensures outstanding off-road capability. The suspension can be blocked or switched off and the vehicle can be manually lifted or lowered.

### The new control concept

The ergonomically formed, multi-functional, colour-coded accelerator lever allows simple and logical control of the most important functions. This also offers command and the simultaneous control of a device function come from one source. The colour display now has a control knob and several control keys via which further functions can be controlled. The menu structure is plainly designed for quick, logical and simple control. The high-resolution colour display shows the chosen function displays and data clearly and in high quality. Also available as an option is an additional control knob (Smart Navigator) right beside the driver's seat for controlling the display.

### Comfortable cabin with attractive design

Elastically supported driver's cab, wide doors for easy entrance, comfortable seats, heating, defrosting system and the air conditioning (option) ensure pleasant comfort. The synthetic roof has integrated flood lamps and winter services lighting.



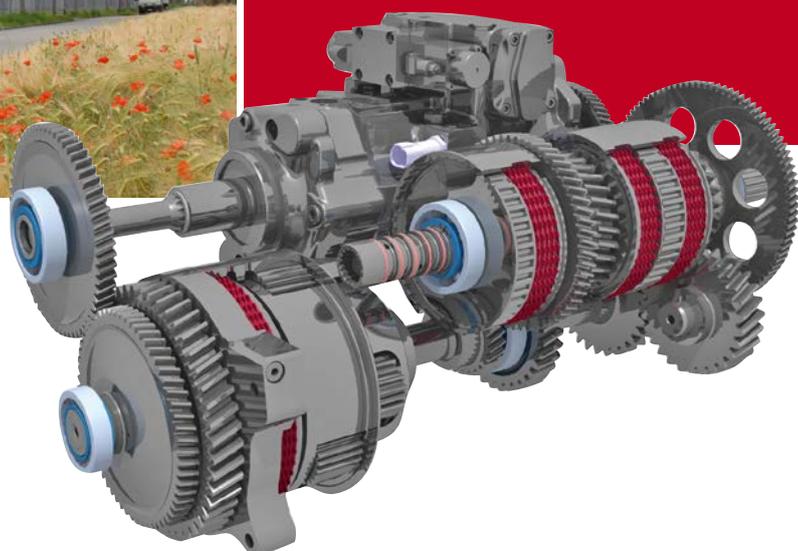
*The Euro 6 development stage brings again a marked and impressive exhaust gas and particle reduction.*



*Multifunctional driving lever with color code*



*The perfect cockpit*



## concept



### Stepless without shifting

The new stepless drive with mechanical-hydrostatic power split is based of a compact hydrostat unit with variable pump and constant-displacement engine as well as of a mechanical transmission with three gear ratios. In practice, the combination of hydrostat and mechanical components guarantees high traction and good efficiency thanks to dry-sump lubrication and power split. The power flow with these new stepless transmissions is never interrupted (no drive clutch). With the purely hydrostatic drive at low speeds, it is even possible to smoothly start and reverse the vehicle on sloped and difficult terrain, ensuring a constantly high level of safety. Moreover, the maximum driving range can be limited via a rotary switch.

#### Features of the new Viatrac Aebi VT450 Vario:

- Steplessly variable driving speed
  - > No shifting necessary and selectable driving modes adapted to the work
  - > Smooth hydrostatic start-up without clutch drag
  - > Quick change of direction thanks to purely hydrostatic reversing
  - > Permanent power flow from turbo diesel engine to the wheels
  - > Optimum operating speed from standstill to Vmax
  - > Work also possible at creeping speeds with high engine speed
- Eco-Drive even at Vmax
  - > Saves fuel by automatically reducing engine speed
- 8.5 t or 9.5 t total weight
  - > High payload
- Automatic parking brake
  - > Stands securely
- Multifunctional driving lever with colour code
  - > traction command and one-hand control of many functions
- Practical details
  - > universal box, mobile phone holder, document compartment, drinks holder
- Hydropneumatic full suspension
  - > High-level driving comfort
- Four steering modes
  - > Optimum steering & manoeuvrability
- VM Turbodiesel fulfils Euro 6
  - > sustainably clean and fuel-saving
- ADC (Automatic Drive Control)
  - > The possible working speed is automatically varied with the engine speed in the optimum range
- Hydrostatic, power-split dry-sump lubrication
  - > High efficiency and traction of 6200 kg
- Free DC break
  - > Enhanced braking force with low heat generation and use „all with one lever“

**Technical data - Aebi VT450 Vario****Engine**

VM R754EU6, 2,970 cm<sup>3</sup>, turbodiesel, Euro 6/stage IV, 4-cylinder, water-cooled, intercooler, common rail, 80 kW (109 hp) at 2,600 1/min according to ECE R24, max. torque 420 Nm at 1,100 - 1,400 1/min, torque increase 43%, diesel particle filter, SCR and AdBlue.

**Electrical system**

12 V, 140 A alternator, 100 Ah battery.

**Transmission**

Stepless, mechanic-hydrostatic, power-split wheel drive. Permanent power flow. The four overlapping speed ranges:

- purely hydrostatic 0- 7.30 km/h, forwards / reverse
- 1. gear hydrostatic-mechanic 7.3- 32 km/h
- 2. gear hydrostatic-mechanic 31.3- 50 km/h
- reverse gear hydrostatic-mechanic 6.6- 31 km/h

The driving speed can be steplessly selected via the multi-function drive lever for forwards and reverse; or by shifting the multi-function drive lever to the maximum forwards position during standstill and controlling the driving speed via the pressure applied to the accelerator pedal.

**Speeds**

0-30 /-40 /-45 /-50 km/h, depending on registration.

**Axle drive**

permanent 4-wheel drive via lockable centre differential. Torque distribution 50/50. Differential locks (100%) at front and rear axle. Locks can be switched electro-hydraulically. Planetary reduction in wheel hubs.

**Chassis/spring suspension**

Hydro-pneumatic single-wheel spring suspension on the front and rear axles according to the double transverse link principle; spring travel 100 mm, hydraulic transverse stabiliser on rear axle can be switched off and blocked; manual lifting and lowering. Hydraulic torsion blocking between front and rear axle; can be locked in standstill.

**Power take-off shaft**

Load-switchable rear power take-off according to DIN, independent of transmission, synchronised switching. Speeds: 600 and 1000 1/min. Electro-hydraulically operated power take-off shaft coupling.

**Steering**

Hydrostatic steering with steering angle 42° at front. Steering wheel inclination and height adjustment, and automatic reset of the blinker. Option: All-wheel steering with switch-over options for front, rear and quasi-crab steering.

**Hydraulic system**

40 l/min at 200 bar. Hydraulic system 1: 1x single-acting

**Tyres**

425/55R17 (AS) or 440/50R17 (All-Ground) front and rear. 15.5/55R18 (SP PG7) front and rear, 285/70R19.5 front and rear (municipal). Optional: Double wheels for basic tyres 425/55R17: front and rear 7.50-18, or rear 285/80R16.

**Brakes**

Service brake: hydraulic dual-circuit brake, disk brakes at front and rear, hydraulic brake power assist unit. Parking brake: Wet multi disc brake with spring-type actuator, acting on rear axle; via automatically blocked centre differential acting on both axles.

Option: adjustable free DC break with 40l pump.

**Cabin**

Flexibly mounted safety cabin with curved windscreen, plastic roof with integrated service headlights and winter maintenance lighting. Preparation for radio installation. Modern instrument panel with integrated display. Standard doors, rear window, heating (in foot compartment) and defrosting system. Electrically adjustable and heatable rear mirrors. Practical details: Universal box, document compartment, mobile phone holder, drinks holder, keyholder and coat hook.

Options: Air condition system mounted at the bottom, glass roof with manual operation, heatable windscreen, flashing identification beacon, service rear lights.

**Operation**

Control takes place via the new multi-functional, ergonomically designed and colour-coded control lever, as well as via the colour display. The various functions are controlled with the control knob and/or additional control keys on the colour display.

Optional: Control knob installed to the right of the driver's seat for even more comfortable control of the colour display.

**Attachment units**

Attachment fixation via four fastening points. Option: Quick fit couplings. The locks on the rear axle can be hydraulically operated from the cabin, the front locks can be manually operated from the sides. Existing attachment units are compatible with only a few adjustments. Option for municipal sector: Underride protection on both sides (if operated as HGV, this is statutory requirement).

**Weight**

	<b>8,5 t</b>	<b>9,5 t</b>
Empty weight	3450 kg	3450 kg
Maximum authorised weight	8500 kg	9500 kg
Maximum authorised front-axle load	4200 kg	4500 kg
Maximum authorised rear-axle load, depending on tyres, up to	5200 kg	5500 kg

**Capacity**

of fuel tank 100 l

**Dimensions**

Cabin width	1900 mm
Width above tyres	1950-2540 mm
Height above cabin (spring suspension in centre position)	2300 mm
Wheel base	2850 or 3250 mm

Subject to change without prior notice. Figures only for illustration purposes.

