

AEBI
Swiss Quality

Viatrac Aebi **VT450 Vario**





Viatrac Aebi VT450 Vario with new intelligent

The Viatrac Aebi VT450 Vario is the new high-end model of the top class. This unit is equipped with the revolutionary newly developed stepless, mechanical-hydrostatic, power-split drive. Those who are already driving a Terratrak 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. Once again, Aebi has accomplished a groundbreaking new technical achievement.

Clean and powerful

The VM turbo diesel delivers impressive 72 kW (98 HP), has a torque of 340 Nm at 1400 rpm and a torque rise of 29%. In practice, these key data guarantee a lot of power. In addition, the engine meets Euro 5 and operates in a very environmentally sound manner thanks to a diesel particulate filter and catalytic converter.

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.

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

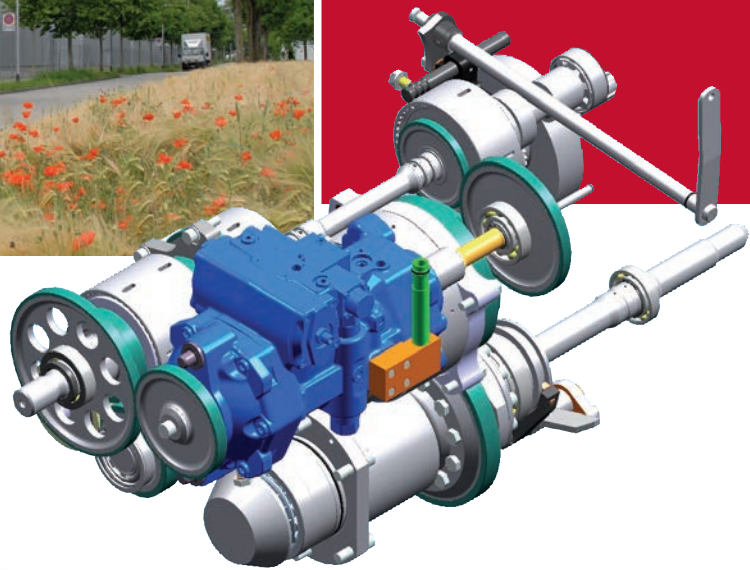
With a suspension way of 100 mm, the hydropneumatic single-wheel suspension according to the double transverse link principle ensures excellent driving comfort. During hard cornering, the rear axle is automatically stabilised. In addition, the hydraulic torsion blocking between the front and rear vehicle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

Comfortable cabin with attractive design

Flexibly mounted driver's cab, modern and ergonomically designed cockpit allowing easy and logical operation. Multifunction drive lever with two round switches. Membrane keyboard for activating further functions at the touch of a button. Plastic roof with integrated working headlights and winter maintenance lighting. Heating and defroster system. Available with air-conditioning system as an option.



The perfect cockpit



drive concept



Automatically stepless: the unique driving experience
 Aebi offers the Viatrac Aebi VT450 Vario for agricultural operation and municipal services. In practice, the fantastic new driving experience with the stepless mechanical-hydrostatic, power-split drive only brings benefits. Work requirements at low speed is possible without any additional investment. Thanks to the multi-function drive lever, the change from forward to reverse driving is ultra-smooth. With the ECO-Drive and high gear efficiency, the transporter can be operated very economically.

Steplessly smooth driving: Viatrac Aebi VT450 Vario

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
- Multifunction drive lever
 - > Driving and operating with one hand
- Hydropneumatic full suspension
 - > High-level driving comfort
- Four steering modes
 - > Optimum steering
- Euro 5 turbo diesel
 - > Sustainably clean
- 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

Technical data - Viatrac Aebi VT450 Vario

Engine

VM R754EU5, 2,970 cm³, 4-cylinder turbo Diesel, 4-stroke, water-cooled, charge-air cooler, common rail, 72 kW (109 HP) at 2600 1/min acc. to ECE R24, max. torque 340 Nm at 1400 1/min, engine-torque increase 29%.

Electrical system

12 V, alternator 105 A, battery 100 Ah.

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.

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.

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

Operation

Multi-function drive lever with two round switches and additional buttons for operation and control of the hydraulic functions. Ergonomic design of the operating panel.

Attachment units

Attachment fixation via four fastening points. 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

	8,5 t	9,5 t
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	1978 - 2800 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.

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