AEBI

TP420

109 HP / 420 Nm
8500 kg maximum weight

Free DC break

The TP420
Brings Power to the Middle Class

Aebi's aim was to realise a high-performance model with a simplified operating concept using proven technology. The result was a Transporter that shot straight to the top of the middle class with a high payload, first-class driving comfort, a powerful and clean engine and an excellent price/performance ratio. Operation in the cockpit is carried out conventionally via mechanical control elements. In the basic version, the front axle is equipped with a hydropneumatic suspension, whereas the rear axle has no suspension. In one version, the Aebi TP420 Transporter can be equipped with full suspension and optionally even with four steering modes

Finely graduated
The H shift works smoothly and precisely. With step, half gears and reversing, the 4-gear transmission has a total of 16 forward and 16 reverse gears. The step and half gears are preselectable and shifted electrohydraulically. The shifting time for the half gears is a record-breaking 1/10 of a second.

Speed ranges
Depending on the vehicle's registration, four different speed versions are available: 2–30 km/h, 2–40 km/h, 2–45 km/h and 2–50 km/h.

Safe grip of all wheels
Permanent four-wheel drive via centre differential with 50/50% torque distribution. Centre and axle differential can be locked 100% at the front and rear as a standard and are actuated electrohydraulically. When the vehicle is parked, the centre differential locks automatically and the parking brake acts on the front and rear axle over the cardan shaft. This guarantees an important benefits in safety and increases stability on difficult terrain.

Hydropneumatic front axle suspension
The suspension of the front axle ensures real driving comfort. Suspension travel is 100 mm. The hydropneumatically suspended front axles of both variants (front axle and full suspension) are completely identical in design. In the full suspension version, the Aebi TP420 Transporter also comes with hydropneumatic front and rear axle suspension and hydraulic quick-release locks on the rear axle. As an option, the full suspension version is also available with front-wheel, four-wheel, rear-wheel and quasi-crab steering.

Clean and extremely powerful
The VM turbo diesel delivers impressive 80 kW (109 HP), has a torque of 420 Nm at only 1100 rpm and a torque rise of 43%. In practice, these key data guarantee a large power reserve. In addition, the engine meets stage IIIB and operates in a very environmentally sound manner thanks to a diesel particulate filter and catalytic converter. With its powerful drive train design, the TP420 is able to use the VM engine's enormous torque without throttling. When in use, this noticeably adds traction power even with a heavily loaded Transporter. There is a lot of power reserve for driving attachment units via the power take-off shaft (up to 72 kW).

Comfortable cabin with fiery design
State-of-the art dashboard with round instruments and colour display. The cockpit area is designed in semicircular shape and the control levers are optimally arranged. The plastic roof is equipped with integrated working headlights and is available with a glass pop-top roof on request. The heating and defroster system ensures a pleasant temperature and prevents the windows from fogging up.

Moreover, the state-of-the-art treatment of exhausts and harmful emissions perfectly matches Aebi's innovative vehicle technology. Attachment units can still be changed quickly and without great effort. Most equipment functions are able to be conveniently operated by means of the hydraulic system. With double tyres which can be fitted all around, the Transporter is even better suited for sloped terrain, provides additional safety in extreme situations and ensures less ground compaction. Focusing on what is essential has been consistently implemented with the Aebi TP420 Transporter. We neither cut back on quality nor on the excellent chassis, the comfortable cabin or the transmission as identical assemblies are sold with the top class.

Clean and simply powerful:
the Aebi TP420 Transporter.

Technology that inspires	
• Stage IIIB turbo diesel	> Environmentally sound, clean and economical
• 80 kW/109 HP	> Most powerful engine of all middle-class transporters, power reserve
• 420 Nm torque at 1100 rpm	> Full power at low speed
• Torque rise 43%	> Engine speeds up faster from a low speed
• 8 t total weight	> High payload
• Front-wheel steering with 42° steering lock	> High manoeuvrability
• Hydropneumatic front axle suspension	> High driving comfort
• Free DC break	> Enhanced braking force with low heat generation and use „all with one lever"
• Compatible with existing attachment units	> Savings potential
• Good investment	> Excellent price/performance ratio
Full suspension version:	
• Hydropneumatic full suspension	> High driving comfort +
• 8.5 t total weight	> High payload +
• Hydraulic quick-release locks on rear axle	> Comfortable change of equipment +
Full suspension version option:	
• Four steering modes	> Manoeuvrability++

Technical Data - Transporter Aebi TP420

Engine
VM R754IE4, 2,970 cm³, 4-cylinder turbo Diesel, 4-stroke, water-cooled, charge-air cooler, stage IIIB, common rail, direct injection, 80 kW (109 HP) at 2600 1/min acc. to ECE R24, max. torque 420 Nm at 1100-1400 1/min. Engine-torque increase 43%.

Electrical system
12 V, alternator 105 A, battery 100 Ah.

Gearbox
4-speed gearbox with step, half gears and reverse gears (16/16 gears), step and half gears can be preselected and electro-hydraulically switched. Step without overlap.

Speeds
Forwards/reverse 2 – 40 km/h, limited for lower Diesel consumption. Available variants, depending on approval, are: 2 – 30 km/h, 2 - 45 km/h and 2 – 50 km/h.

Axle drive
Permanent 4-wheel drive via lockable centre differential. Torque distribution 50/50. Electro-hydraulically switched differential locks (100%) at front and rear axle. Planetary reduction in wheel hubs. Optional: Hydraulic torsion blocking between front and rear axle.

Spring suspension
Hydro-pneumatic single-wheel spring suspension on the front axle according to the double transverse link principle. Spring travel 100 mm, level regulation. Rear axle without spring suspension.
Version with full spring suspension: Hydro-pneumatic spring suspension of front and rear axle, rear axle with hydraulic transverse stabiliser.

Power take-off shaft
Load-switchable rear power take-off according to DIN, independent of transmission, synchronised switching. Speeds: 600 and 750 1/min. Electro-hydraulically operated power take-off shaft coupling.

Steering
Hydrostatic steering of front wheels, steering angle 42°. Steering wheel with telescopic mount, inclination adjustment, and automatic reset of the blinker.
For the **version with full spring suspension** the following is optionally available: All-wheel steering with switch-over options for front, rear and quasi-crab steering.

Turning radii between kerbs:
Wheel base 2750 mm:
Front axle steering 5700 mm, 4-wheel steering 4000 mm
Wheel base 3150 mm:
Front axle steering 6400 mm, 4-wheel steering 4300 mm

Hydraulic system
40 l/min at 200 bar. Mono block with 3 gate valves and 5 connections at the rear.
1x single-acting with floating position,1x double-acting with overload relief function, 1x double-acting with floating position.

Tyres
425/55R17 (AS) or 440/50R17 (Terra) front and rear. 15.5/55R18 (SP PG7) front and rear, 285/70R19.5 front and rear (municipal). Optional: Double wheels for basic tyres: 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 acting on Cardan shaft, hill-holder function.
Option: adjustable free DC break with 40l pump.

Cabin
Flexibly mounted driver seat, curved windscreen, fold-out rear window, plastic roof with integrated service headlights and winter maintenance lighting. Preparation for radio installation. Modern instrument panel with round instruments, with analogue displays and colour display. Standard heating (in foot compartment) and defrosting system. Options: Doors, glass roof with manual operation, flashing identification beacon, service rear lights.

Operation
Hydraulic hand-lever for easy operation of the device functions and switches for control of various functions. Ergonomic design of the operating panel.

Attachment units
Attachment via mechanical quick-release locks. With the **version with full spring suspension** the quick-release locks at the rear can be hydraulically operated from the cabin. Option: Auxiliary quick-release locks at the front for existing older attachment units.

Weights	**Front axle spring suspension**	**Full spring suspension**
Net weight	2950 kg	3200 kg
Maximum authorised weight	8000 kg	8500 kg
Maximum authorised front-axle load	3700 kg	4200 kg
Maximum authorised rear-axle load, depending on tyres, up to	4800 kg	5200 kg

Capacity	
of fuel tank	100 l

Dimensions	
Cabin width	1900 mm
Width above tyres (up to 2800 mm with full spring suspension)	1960–2500 mm
Height above cabin (spring suspension in centre position) approx.	2300 mm
Wheel base	2750 or 3150 mm

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