



TATRA TAKES YOU FURTHER



**TATRA  
FORCE**  
e-DRIVE

**THE FIRST  
EMISSION-FREE TATRA**



### HEAVY-DUTY OFF-ROAD TRUCK 8x6 WITH HYDROGEN FUEL CELL POWER

• Three-sided dump truck in 1+3 axle configuration with last non-driven, steered and lifting axle is designed to verify a new type of hydrogen drive system. Compressed hydrogen in cylinders is fed into a hydrogen fuel cell that generates electricity by reacting hydrogen with oxygen. A traction electric motor is used to power the vehicle via a clutch, the main gearbox, the transfer case and the differentials, drives the wheels of the vehicle.

• The TATRA clutch is mounted on the vehicle's electric drive motor by means of an intermediate coupling, which is connected by a cardan shaft to a TATRA five-speed automated gearbox. It is followed in one unit by a two-speed TATRA auxiliary/ downshift gearbox with standard assembly to central tube of vehicle. A hydraulic pump of tipping of tipper box is mounted on the PTO of the gearbox.

- **ELECTRIC DRIVE BY HYDROGEN FUEL CELLS**
- **THIRD GENERATION TATRA FORCE**
- **UNRIVALLED LOW OVERALL HEIGHT**
- **ALL-NEW CAB WITH ROPS SYSTEM**
- **NEW ELECTRONIC AND ELECTRICAL ARCHITECTURE**

### TATRA FORCE e-DRIVE

• The basic philosophy of the development and construction of the „hydrogen“ Tatra is to maintain 100% TATRAMOBILITY, i.e. the chassis of the „Tatra concept“. In addition to the above mentioned advantage of preserving of the Tatra chassis is the location of the traction electric motor in a „protected“ zone above the backbone tube, without affecting the rigidity of the entire chassis structure, including the possibility of combining with a multi-speed gearbox.

• In addition to the traction electric motor, traction batteries and fuel cells, in this case two, there are also gaseous hydrogen pressure tanks on the vehicle. The advantage of this system is especially the very short filling time of the hydrogen tanks. The whole procedure, according to the technical configuration of the filling station, takes about 15 minutes.

• TATRA TRUCKS has its solution for a locally emission-free FCEV vehicle ready. Its advantages will stand out once the appropriate infrastructure is built.

### • FUEL CELLS

Type: Ballard  
Number: 2  
Power: 2 x 100 kW

### • HYDROGEN TANKS

Type: 350 bar  
Brand: Worthington  
Number: 6  
Capacity: 5 kg each, 30 kg H<sub>2</sub> in total  
Stored in two triples of tanks in the wheelbase placed on each side

### • TRACTION BATTERIES

Type: Li NMC large capacity  
Capacity: 171 kWh  
Charging with fuel cells; rechargeable from an external source (plug-in)

### • ENGINE

Type: synchronous electric motor Danfoss PMI 540-T2000  
Continuous power: 480 kW (700 A)  
Max. power: 580 kW (700 A)  
Torque 2300 N.m.

### • COOLING

Two radiators, made of special alloys, located on the sides behind the cab. Each radiator is fitted with a 16 electric fans on 24V. The cooling capacity of one cooling capacity is 190 kW.

### • TRANSMISSION

Robotic TATRA 5TS210 N; electronic shifting system

### • TRANSFER CASE

Type TATRA, 2,30 TRK, 1,565/2,610.

### • FRONT AXLE

Steerable with connectable Drive with swinging semi-axes, axial differential, pneumatic suspension, load capacity 9 t

### • REAR AXLES

First and second rear axle permanently driven, heavy duty suspension Combined KING FRAME 2 x13 t; Third rear axle non-driven, steered and lifting, with air suspension and lifting, load capacity 10 t

### • STEERING

Left-hand drive, steering last rear axles electro hydraulic

### • BRAKES

Brake system with EBS

### • TYRES

385/65 R22,5 + 315/80 R22,5.

### • CABIN

TATRA FORCE third generation; two-door design; driver and passenger seat; air

conditioning; dependent heating; central locking; electric window release

### • SUPERSTRUCTURE

Three-sided tipper box

### • WEIGHTS

Curb weight with superstructure: 22 t  
Payload: 22 t  
GVW: 44 t

*The listed technical specifications are only informative and the manufacturer reserves the right to change them without prior notice.*

