

VECTOR NEXT





VECTOR NEXT

NEXT is a new generation of Vector multifunctional buses based on GAZon NEXT chassis characterized by a modular body, unique design and a front powertrain.



- High active and passive safety
- Comfortable passenger compartment and ergonomic driver's seat
- Best cost of ownership in its class



VECTOR NEXT

A BUS FOR CITY, SUBURBAN AND INTERCITY SERVICES

Vector NEXT is the bus with 39- to 53- passenger capacity, improved technical and consumer oriented specifications, driver's seat ergonomics, reduced noise level in the passenger compartment, high level of climate comfort.

The Vector NEXT bus has modern exterior and interior design, following the latest trends in the automobile industry. New modern materials and components are used in the new model.

The design is based on a modular structure, which allow its use in buses with different dimensions in the future, and reduces the time and resources required for implementation and organization of the production of the whole range.



7645 mm



max.
53 (17+1)
people.



600
people/day

BENEFITS

VECTOR NEXT

SPACIOUS, POWERFUL,
MODERN

The use of Vector NEXT buses by passenger carriers allows to solve the main task of public transport: ensure timely and comfortable transportation of passengers and increase business returns.



Favorable Cost of Ownership

Low fuel consumption and availability of spare parts allow reduction of operating costs.

Environmental Friendliness

Compliance with EURO-5 high environmental standards.

Reliability

- Body service life exceeds 8 years
- High reliability and long service life of components (up to 700,000 km)
High reliability and long service life of components ensure durable and steady operation of the bus

Unification

Unification of chassis with GAZon NEXT truck.

Safety

Modern equipment provides firm control of the bus.

Comfort

- Glazing provides great visibility for the driver and passengers
- Various seats and passenger compartment design
- Ergonomic driver's seat
- Wide range of options



Engine YMZ-534

- Advanced modern diesel engines on par with world-leading analogues
- Environmental standard EURO-5
- Increased engine lifetime up to 700,000 km
- New generation Common Rail (BOSCH) fuel supply system
- Reliable engine start at negative temperatures
- Effective output increased up to 110 kW, and maximum torque increased up to 500 Nm, which ensures high traction and speed characteristics
- Unification of 24V electrical equipment components
- Low noise and vibration level with Vibracoustic engine supports
- Low cost and labor intensity during technical inspection compared to foreign analogues

Improved Suspension

- Reinforced multi-leaf front leaf spring suspension
- New rear air suspension
- Smooth handling ensured by front and rear axle transverse stabilizers
- Tenneco modern shock absorbers ensure more efficient damping of vibrations
- Suspension designed for various road conditions, including off-road

Corrosion-Resistant Body

High corrosion resistance: galvanized body panels, plastic covers, roof side panels, lower side panels and hatches. Body service life exceeds 8 years.



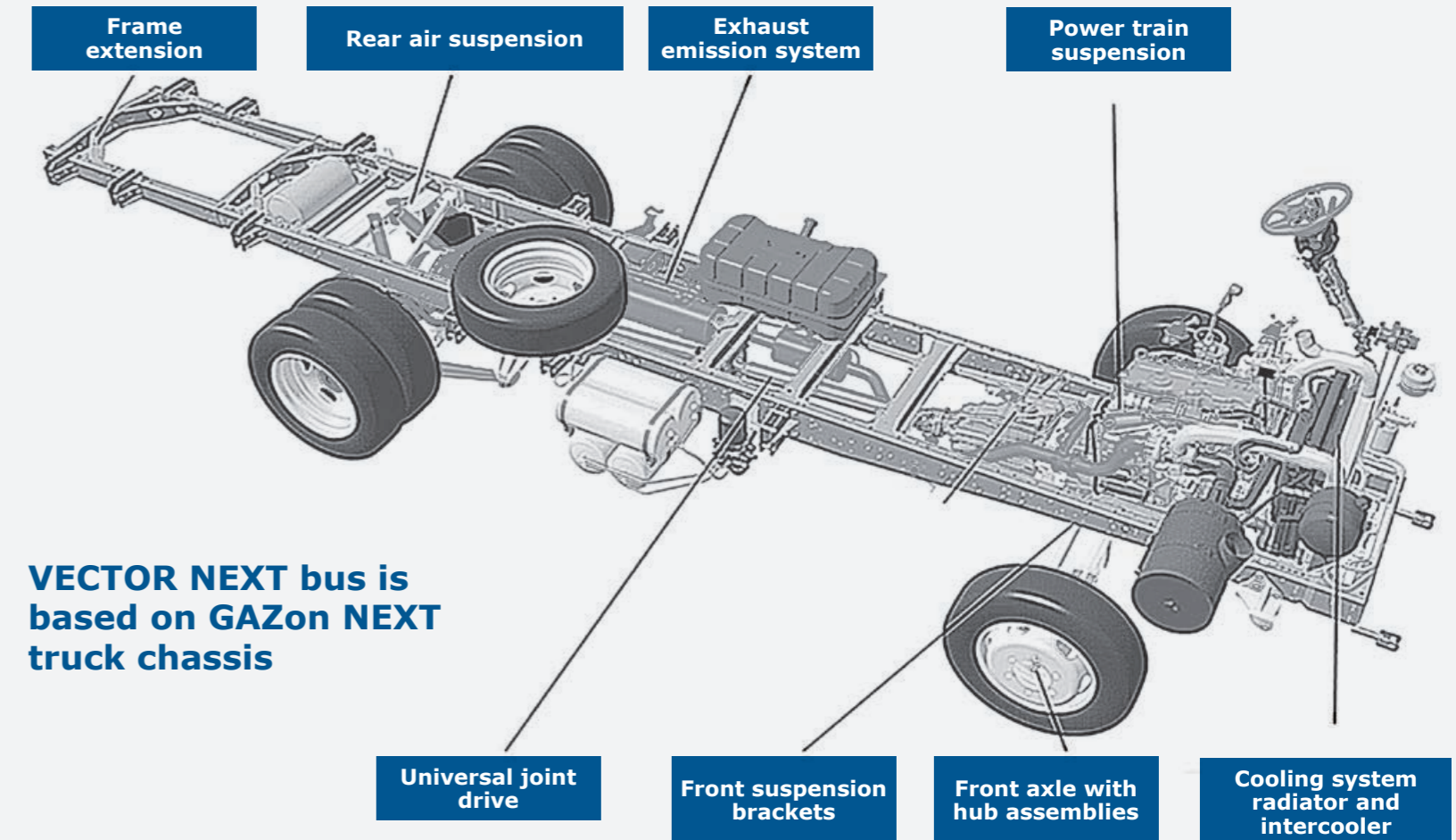
CONTROL

Improved GAZ Transmission

- Torque transfer to gearbox increased up to 490 Nm
- Sachs (ZF) clutch with air-oil intensifier
- Smooth clutch pedal travel
- Distinct gear engagement
- Low noise and vibration level
- Maintenance-free universal joint drive
- Flange connection of universal joint bar with face splines according to ISO

Integral Steering

- Robert Bosch Automotive Steering (ZF)
- Adjustable steering column CSA
- Ergonomic steering with reduced diameter
- Steering wheel lock-to-lock turns – 4.2



VECTOR NEXT bus is based on GAZon NEXT truck chassis

SAFETY AND RELIABILITY

The combination of technical solutions ensures complete safety of passengers in transit. ABS, ASR systems and small dimensions provide excellent maneuverability, comfortable and easy control even in emergency situations. The combination of all innovations in one vehicle ensures reliability of the NEXT generation car.



Reliability

- High and well-balanced body and power train units service life
- Reliable suspension on road with any type of surface
- EURO-5 Environmental standard
- High maneuverability
- Availability of spare parts
- Disk brakes
- Rear air suspension
- Integrated steering ZF



Safety

- Video control system with driving recorder
- Digital tachograph
- GLONASS/GPS
- Fire suppression system



Braking System

- Modern high performance braking system with Wabco pneumatic actuator
- ABS and ASR electronic systems allow control of the bus during emergency braking
- Disk ventilated brakes with highly efficient cooling
- Brake lining service life is increased up to 75 000 km
- Braking system is reliable, ensures short braking path and low brake pedal force owing to pneumatic actuator

COMFORT



Ergonomics of Passenger Compartment

- A ticker line informs passengers on the route, time, date, temperature, etc.
- Air conditioner with air distribution elements will create comfortable microclimate inside the vehicle
- Exterior and interior view driving recorder allows to control situation inside the bus and on the road even at "blind" areas



- Various seats and interior design options allow optimization, to ensure passengers' comfort
- Spacious baggage racks and LED interior lighting increase comfort level
- Individual service units with light, ventilation control and notification system are located above each double seat



Driver's Seat

New ergonomic driver's seat helps to reduce fatigue during long rides:

- Sprung TIS driver's seat with regulators and lumbar support
- Highly efficient split heating system
- Large viewing area, improved visibility and lighting of working space
- Convenient and ergonomic remote control of climate control unit
- Side mirrors with electric heating provide good visibility even in bad weather conditions



Instrument Panel

- GLONASS system allows online monitoring of the vehicle's location
- Navigator allows to set the shortest path and find better routes to bypass road obstructions
- Modern audio system will make travel time more enjoyable for passengers
- Ease of handling and high maneuverability are ensured with the help of a modern dashboard with a new steering wheel and a combination of electronic instruments
- Digital tachograph provides total control over drivers' work and rest schedules



BUS FOR CITY AND COMMERCIAL TRANSPORTATION



VECTOR NEXT INTERCITY

- Passenger compartment air conditioning system with individual wiring
- Comfortable passenger seats
- Video surveillance and video recording system (optional)
- Audio/video system
- Luggage compartment with a volume of 1.5 m³
- Luggage racks
- Tinted double-glazed windows (optional)
- Euro-5 emission standard
- Disc brakes
- Rear pneumatic suspension
- Advantageous cost of ownership
- Availability of spare parts



41 (25+1)

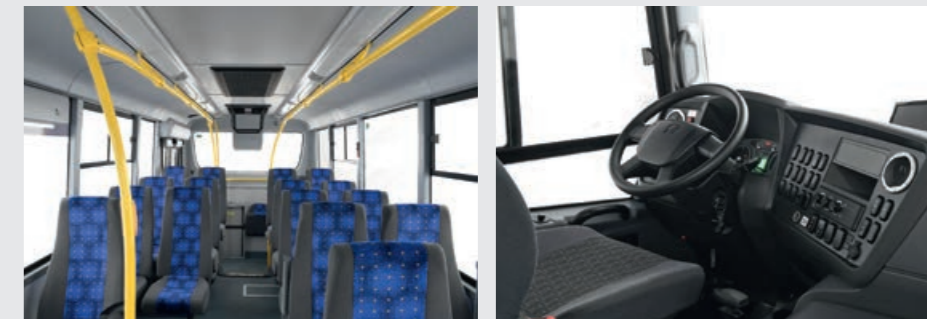


BUS FOR CITY AND COMMERCIAL TRANSPORTATION



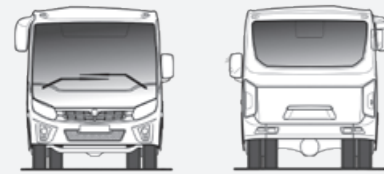
VECTOR NEXT ACCESSIBLE ENVIRONMENT

- Accessibility for all categories of passengers
- Double passenger door in the rear overhang 0.9 m
- Wheelchair accessible place
- Mechanical ramp
- Passenger compartment air conditioning system (optional)
- Stop announcer with electronic route indicators (optional)
- Video surveillance and video recording system (optional)
- Euro-5 emission standard
- Disc brakes
- Rear pneumatic suspension with clearance adjustment
- Availability of spare parts

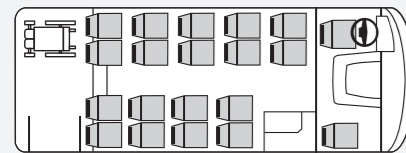


PASSENGER COMPARTMENT DESIGN

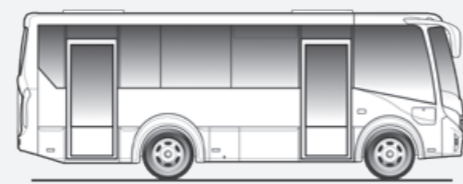
VECTOR NEXT 7.1



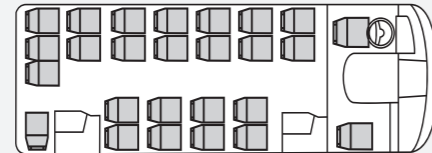
52 (19+1+1 invd.)



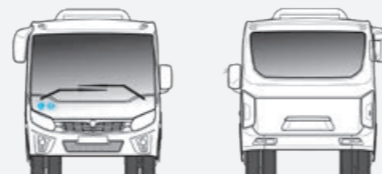
VECTOR NEXT 7.6



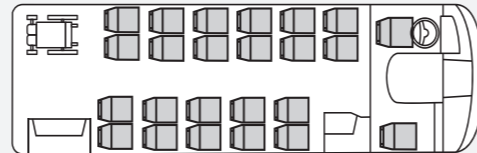
43 (25+1)



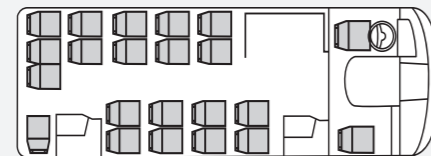
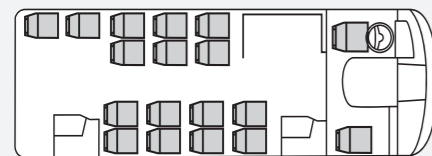
VECTOR NEXT 8.8



65 (23+1+1 invd.)



53 (17+1)



TECHNICAL SPECIFICATIONS

BASE CHARACTERISTICS	VECTOR NEXT 7.1	VECTOR NEXT 7.6	VECTOR NEXT 8.8
Body type	Unibody, wagon-type	Uniframe, wagon-type	Uniframe, wagon-type
Body service life, years	10	10	10
Wheel configuration	4X2	4X2	4 X 2
Length/Width/Height, mm	7,500/2,445/2,915 (3,155 with A/C)	7,645/2,445/2,915 (3,155 with A/C)	8,800/2,445/2,915 (3,155 with A/C)
Base, mm	3,800	3,800	4,760
Interior roof height, mm	1,950	1,950	1,950
Doors quantity/width, mm	2/650	2/650	1/650 + 1/1,200, 1/650+1/650, 1/650+1/650 emergency
Min. turning radius, m	8.1	6.75	8
Curb weight/Technically permissible, kg	5,600...6,200/10,000	6,150...6,270/10,000	7,200...7,500 (forecast)/12,500
Front/rear axle load by technically permissible weight, kg	3,500/6.500	3,500/6,500	4,500/8,000
Total carrying capacity (incl. seats)	39 (21+1), 43 (18+1)	43 (25+1), 50 (21+1), 53 (17+1)	65 (23+1 invd.+1), 71 (19+1+1), 48 (30+1)
Fuel tank/gas cylinders capacity, l	95	360 (5 x 62 l and 1 x 50 l) or 190 (2 x 95 l)	95
One filling fuel distance, km (for CNG/LPG)	minimum 300-390 (gas) and 300-350 (petros)	—	—
Chassis/axle	GAZ	C40R13, GAZ	
Steering	Integrated with hydraulic booster		ZF, integrated with hydraulic booster
Braking System	Braking system – discs with automatic gap adjustment. Breaking gears drive – pneumatic, with ABS, ASR		Braking system – discs with automatic gap adjustment. Breaking gears drive – pneumatic, with EBS, ESP
Steering column	With telescopic steering shaft, equipped with ignition lock with anti-theft system, understeering turn switches, dipped/main beam switches, windshield wipers and washers, and horn		
Suspension	Front – dependent, leaf spring with transverse stabilizer; rear – dependent, leaf spring	Front – dependent, leaf spring with transverse stabilizer; rear – dependent, pneumatic with transverse stabilizer	Front – dependent, leaf spring with transverse stabilizer; rear – dependent, pneumatic springs, with the floor level control function depending on the bus load
Ventilation	Natural, through side windows or hatches		
Heating system	Front-end heater and 3 compartment heaters	Independent autonomous liquid-type preheater and 3 compartment heaters	
Tires	245/70 R19.5		
POWERTRAIN CHARACTERISTICS	YMZ		
Engine (petrol-gas/diesel)	YMZ-53423 (with EGR recirculation system)		
Number and arrangement of cylinders	4R, vertical		
Environmental safety standards	EURO-5		
Capacity, l	4.433		
Engine power, kW (hp)/min	124,2 (168,9) at 2300 min ⁻¹		
Maximum torque, Nm/min	597 at 1,200...1,600 min ⁻¹		
Engine location	Front longitudinal		
Transmission	Mechanical gearbox: 5-speed. Automatic gearbox: 6-speed.		
Maximum speed, km/h	100		

