CROBUS

Production and bodybuilding

Activities

AZ CROBUS is a leading manufacturer of buses and superstructures for trucks, light commercial vehicles and special vehicles on the Croatian market. Our products are distinctive for their quality, modern design solutions and a long useful life.

The range of our standard products includes: buses, special-purpose buses (VIP buses, mobile offices…), minibuses, towing vehicles, load beds, dump trucks and various custom-built special vehicles.

Development path

AZ Crobus was established in 2007 by Zubak Group. Their team of experts proceeded to create a conceptual design, which resulted in a high-class intercity bus conceived by Croatia's engineering intelligence and signed by Croatian designers.

The bus has been awarded a VEHICLE TYPE APPROVAL for the ZORA 121 and ZORA 122 models.

In April of 2011, AZ CROBUS introduced the CROBUS ZORA for the first time at the Transport Show in Zagreb, and then in October of the same year at the Busworld bus show in Kortrijk, Belgium.

Ever since it was established, the company has constantly invested in the development of new products and human resources, relying on modern technology and its employee's knowledge to keep improving product and service quality and raising it to a global level.

Development strategy

On the local market, the company plans to maintain its leading position and increase its sales on the European Union market. We aim to constantly develop new products, quickly respond to our customers' demands, have our services available at all times, and offer competitive prices.

Local customers have demonstrated their trust and recognized the quality of the CROBUS ZORA brand, as confirmed by the number of buses sold within the past two years.

In addition to the Croatian and the European Union markets, AZ CROBUS has also signed a ten-year contract to deliver buses to the Middle East market (Republic of Iraq). Under the contract, 2000 buses should be delivered within the first five years.

The factory is making and supplying intercity and tourist buses, which is just the beginning of collaboration. Extra efforts to develop a MINIBUS and an urban bus, and the Iraqi market will later be offered a bus for persons with disabilities, which AZ CROBUS has already developed for the European market.

As the deal involves a large number of buses and the production capacities are limited, the company entered into a ten-year contract with a renowned Chinese bus manufacturer that will be licensed by AZ CROBUS to make buses for the Middle East market.

Manufacturing

We use state-of-the-art technology to manufacture our buses in compliance with the high criteria set by European regulations applicable to vehicle production that are already in effect in the European Union and in other parts of Europe. Environmental protection was one of the most important concerns in the defining of technology and production processes. A comprehensive environmental impact study has been provided, which defines how the factory will operate down to the very last detail. Our painting technology requires that we use water-based paints and all other components ensuring maximum environmental protection.

- Production hall surface area: 6,800 m^2
- Design offices: 400 m^2 – 1st floor
- Ancillary rooms: 400 m^2
- Production capacity: 300 buses per year
- Most sophisticated machines and devices
- Thermal spray booth and preparation zone (equipment for preparing buses for painting)
- A large number of devices and molds
- Internal resources (know-how and qualified employees)

Design, development and technology

The superstructures made by our company are technically and technologically designed according to customer's specific requirements. We provide the customer with a conceptual design, preferably according to their requirements so that they can receive a finished product with maximum efficiency, fuel economy, operating reliability and load carrying capacity.

Quality control

Before we deliver it, we examine and test each product very carefully to ensure that we are able to guarantee the highest level of quality and safety both for the persons operating our products and for the goods being carried.

STANDARD BUSES

CROBUS „ZORA"

The CROBUS ZORA is a high-class intercity bus built on a proven SCANIA undercarriage, thus providing a premium service to all customers. Thanks to an increase in the length of vehicles among standard 12-meter 2-axle buses by more than 300 mm, the greatest advantage is achieved in the passenger compartment. In the standard configuration with 51 passenger seats, their longitudinal distance is 750 – 770 mm, which leaves plenty of legroom for passengers. In this segment, the CROBUS ZORA is half a star above its rivals and thus becomes a CLASS IN ITSELF!

The body construction is made of high-quality high-strength steel, whereas the exterior is lined with low-weight, fully corrosion-resistant artificial materials. Most advanced professional software was used to design the body and the vehicle's safety has been confirmed by a roll-over test. (Roll-Over Test – E7 66R-011137).

The CROBUS ZORA has been awarded a European WHOLE VEHICLE TYPE APPROVAL (WVTA).

The driver compartment is ergonomically designed with an excellent view of the instrument panel and featuring a top-class driver seat. Driver's comfortable position is guaranteed by numerous options of adjusting the steering wheel.

A collapsible courier seat guarantees uninterrupted passage next to the front entrance door, features a 3-point seat belt and foldable armrests.

Its ergonomically designed seats guarantee maximum comfort with adjustable backrests and foldable armrests, while the option of moving the centrally positioned seats sideways provides extra space during travel and the width of the central aisle is sufficient to allow passengers to exit comfortably.

Excellent visibility is provided by large exterior mirrors with additional blind spot elements, electrical adjustment and heating, as well as a display showing the back door area or the area behind the vehicle in case the driver reverses with the aid of the camera.

The doors of all side luggage compartments open in the standard manner, while the doors of the main luggage compartments between the axles may be designed to open by using a parallelogram mechanism and feature central locking.

SPECIAL PURPOSE MODELS

We are willing to quickly handle any specific customer request to convert a bus to a mobile office, caravan, VIP vehicle, etc. and offer the customer a final concept presented as 3D animation. We work with the customer to find the very best solution as per their request, so that they can receive a finished product with maximum efficiency, fuel economy and operating reliability.

CROBUS „ZORA" VIP

Four tables with twenty passenger seats are installed in the front segment of the passenger compartment. Each table is provided with a 220 V power inlet and a computer network plug (each table may be connected wirelessly or through the network plug) and programs may be viewed and displayed through built-in monitors and TV sets.

- 28 leather seats for passengers + 1 courier seat, with 3-point seat belt, movable toward the aisle, handle, armrests, collapsible table, net and adjustable backrest;
- 16 spare passenger seats, easily and quickly installed, and seat assignment as per customer needs and requirements;
- The seats are bolted to the floor using floor rails.

Standard equipment:

- Wardrobe closet
- Coffee maker
- Refrigerator
- Sink and faucet
- Hot water boiler
- TV set – Smart TV / 28"
- Multifunctional device (scanner, printer, photocopier and fax)
- Clean water and wastewater tanks
- Toilet
- Modem for wireless internet access
- DVB-T receiver for TV channels
- 24 V–220 V converter with two additional batteries – 220 V / 6 kW, battery life of 3 hours while the bus is stationary (for maximum power used by electrical devices of up to 3 kW – coffee maker, refrigerator, hot water boiler…)
- Ramp for persons with special needs - elevator.

MINIBUS

TOURIST MINIBUS

INTERCITY MINIBUS

SPECIAL-PURPOSE MINIBUS (VIP, mobile office…)

Passenger seats

- Suburban minibus: each seat has an armrest, a handle, a 3-point seat belt, upholstery in various colors and designs, matching the interior or as per customer's request;
- Tourist minibus: each seat has an adjustable backrest, an armrest, a handle, a 3-point seat belt, upholstery in various colors and designs, matching the interior or as per customer's request;
- The seats are bolted to the floor using floor rails, seats may be reassigned as per customer's request, easy and quick mounting and demounting.

Lighting

- Overhead LED lighting inside luggage racks
- Floor LED lighting for the aisle
- Entrance lighting - steps.

Floor trim

- Floor trims of various colors and designs, hot-welded at joints, anti-slide, matching the interior or as per customer's request.

Interior trim

- Roof sides, columns and lining made of aluminum profiles or galvanized metal sheet
- Front cap made of fiberglass or aluminum profiles
- Fabric, manmade leather or leather interior trim, color-keyed.

Luggage racks

- Luggage racks with a service module, integrated passenger compartment lighting, a reading lamp above each seat and blue night lighting for the passenger compartment.

Other equipment

- Partition in front of the front seat row
- Emergency roof hatch
- Curtains on side and rear windows
- Emergency hammers
- Fire extinguisher
- First aid kit
- Entrance handles on the left and right.

Heating and cooling

- A 12 kW roof-mounted WEBASTO unit for cooling with the option of installing a heating & cooling roof-mounted unit;
- An additional 4 kW WEBASTO water heater;
- Underfloor convector heating operated by the heating controls;
- The roof-mounted unit is operated manually and a cooling & heating roof-mounted unit must be automated;
- WEBASTO water heater control unit;
- The passenger compartment is cooled using service modules installed above each seat (service module including air diffusors, a speaker and a reading lamp).

Passenger door

- Glass power door with an electric motor and a control module
- Door window with a built-in heater
- Interior and exterior emergency levers
- Entrance step with integrated lighting (floor and overhead)

Floor

- Flat, covered with water-resistant plywood
- Includes the aisle.

Floor mesh

- Made of steel profiles, mesh bolted or welded to the floor.

Thermal insulation

- 40 mm thick self-adhesive, fire-resistant acoustic and thermal insulation across the station and the floor, installed as per customer's request.

Glass

- Suburban minibus: single, fixed, tempered, tinted
- Tourist minibus: double, fixed, laminated, panoramic, thermally insulated, tinted

Optional equipment

SEATS

- Manmade leather and Alcantara upholstery
- Leather upholstery
- Each double seat may be shifted towards the aisle
- Leg rest
- Collapsible table
- Storage net
- Adjustable backrest – suburban minibus
- Folding courier seat

AUDIO & VIDEO EQUIPMENT

- MP3/DVD radio
- Amplifier
- Microphone
- Navigation
- 15"LCD monitor

HEATING AND COOLING

- 15 kW roof-mounted unit - cooling
- 12 kW and 15 kW roof-mounted units – heating and cooling
- Roof-mounted unit computerized management unit (cooling or heating)
- Additional 7.6 kW WEBASTO heater

OTHER

- Refrigerator
- Luggage compartments below the last row with four seats
- Side spoilers
- Lower front and rear fenders
- Power roll-up curtain for the driver
- Clock with a temperature indicator
- Luggage box – skibox, mounted on the double rear door of the vehicle
- Luggage compartment door – opened using a parallelogram mechanism
- Window above the luggage compartment door
- Parking sensors, LCD monitor and acoustic warning signal
- Reverse parking camera, LCD monitor
- Air suspension on the rear axle
- TELMA – retarder
- Electrical EU towing hitch.

TOWING VEHICLES - BEDS

HYDRAULIC SLIDE BEDS

HYDRAULIC TILT BEDS

FIXED BEDS

Ramp (slide or tilt)

- The floor and structure of the ramp are made of steel profiles, steel tubes and steel sheet or corrugated metal sheet (metal sheet thickness 3 mm to 4 mm; corrugated metal sheet thickness 3/4 mm to 4/5 mm)
- The entire surface of the ramp/floor is covered by steel sheet, corrugated metal sheet or aluminum corrugated sheet (as chosen by the customer)
- An option of lining the central part of the ramp with aluminum sheet and lining the left and right sides of the ramp/floor with steel sheet or corrugated metal sheet
- All steel components of the bed are sandblasted and triple painted with SIGMA paint or hot-galvanized (HRN EN ISO 1461 quality standard)
  - Doubled painted with SIGMAPRIME 200 paint
  - Single painted with SIGMACOVE 456 – 2K paint
- Ramp – bed floor with anti-slide coating
- Bed side color-keyed or as per customer's request.

Auxiliary chassis and construction

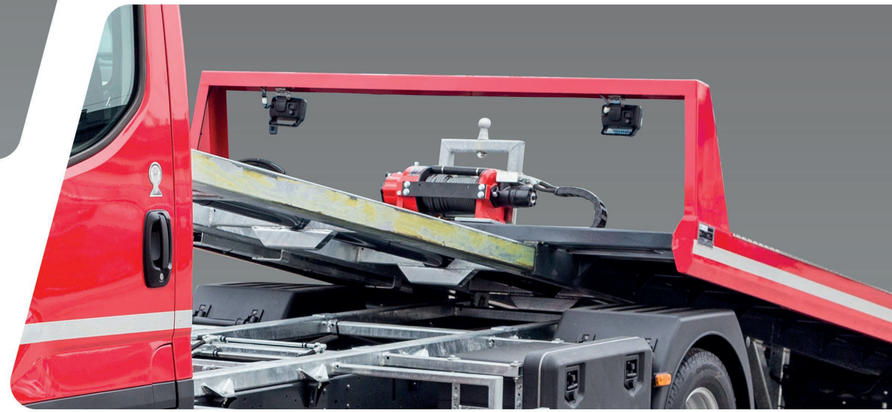
- Auxiliary chassis and construction are made of steel profiles
- Auxiliary chassis and construction are triple painted or hot-galvanized (HRN EN ISO 1461 quality standard).

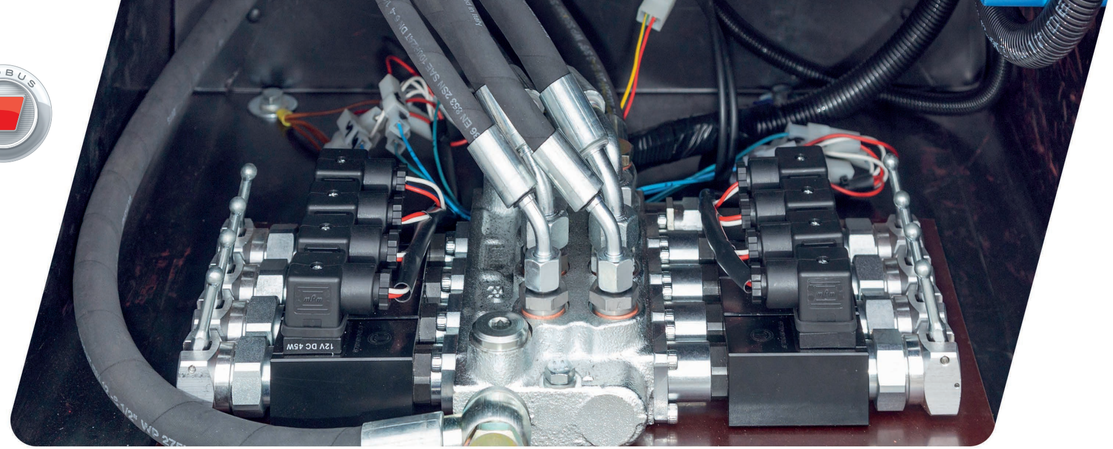
Tilt ramp's rampways

- Made of steel profiles, steel sheet or corrugated metal sheet, hot-galvanized (HRN EN ISO 1461 quality standard)
- The rampways are extended and retracted manually or hydraulically.

Fixed ramp

- Ramp floor and construction made of steel profiles, steel tubes, and steel sheet or corrugated metal sheet
- An option to make the ramp floor and construction from aluminum profiles, the steel profile dimensions depend on the bed's load carrying capacity
- All steel components of the bed are sandblasted and triple painted with SIGMA paint or hot-galvanized (HRN EN ISO 1461 quality standard)
- Ramp – floor with anti-slide coating
- Bed sides color-keyed or as per customer's request.





Lighting

- Side LED end-outline lighting – only in vehicles having an overall length in excess of 6 m or as per customer's request
- Rear end-outline lamps – mounted on both wings
- Two rotating operating reflectors on the rail behind the cabin – may be installed as per customer's request
- Two rotating lights mounted on the roof of the cabin.

Cabin facing rail (above the winch)

- Low, up to 800 mm, made of 1.5-2 mm thick steel sheet
- Low, up to the cabin roof, made of 2 mm thick steel sheet.

Hydraulics for the slide and tilt beds

- Connected to the transmission, request pre-installation when placing your order if possible
- Gear pump – flow rate depending on the bed's load carrying capacity
- Oil tank with a filter (return)
- Hydraulic control block (divider with 4 or 8 handles)
- Installation (high-pressure rubber and steel tubes)
- Power chain for hydraulic tubes
- Two ramp lifting cylinders
- A ramp extending cylinder – only for slide ramps
- Winch-moving cylinder – only for hydraulic winches.

Hydraulics for the fixed ramp

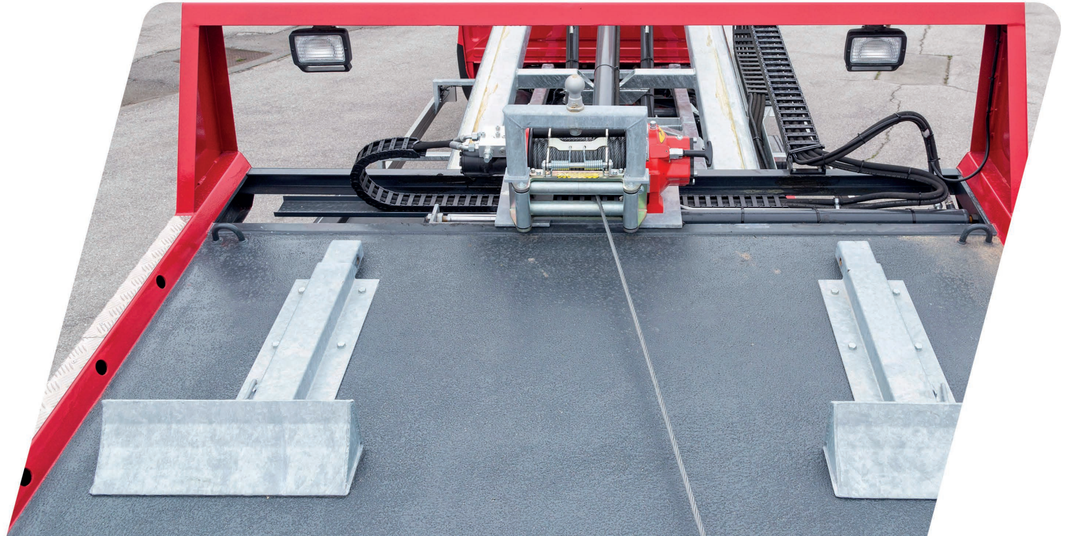
- Connected to the transmission, if possible
- Gear pump – flow rate depending on the bed's load carrying capacity
- Oil tank with a filter (reverse)
- Hydraulic control block (divider with 4 handles)
- Hydraulic installation - tubes
- Two ramp extending cylinders – at customer's option
- Winch-moving cylinder – only for hydraulic winches
- Option:
  - Electrohydraulic generator
  - Control switch in the cabin.

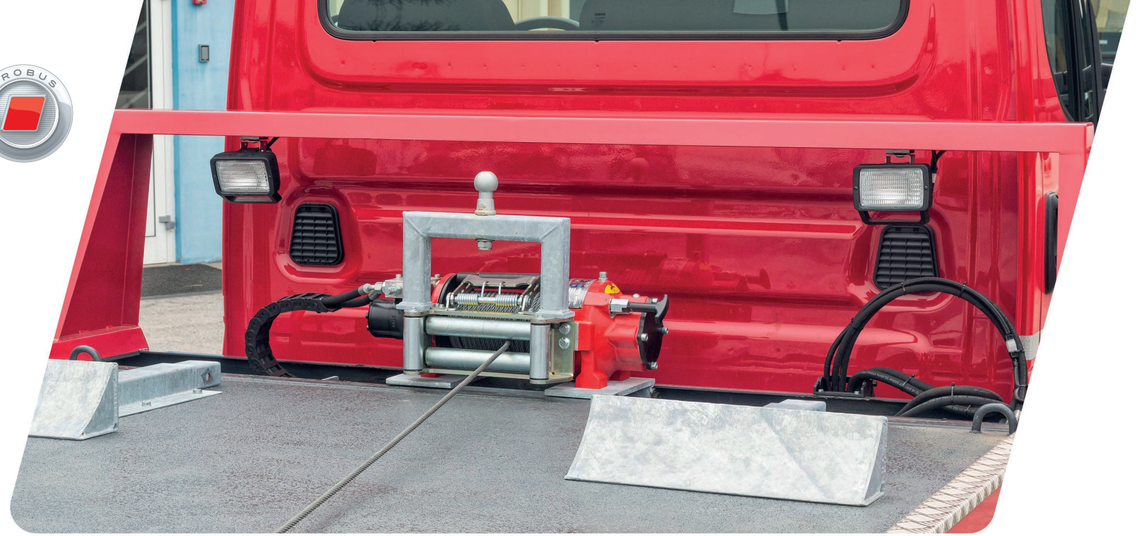
Equipment

- Aluminum side underrun protection bar – only in vehicles having an overall length in excess of 6 m
- Front restraints to block the vehicle
- Two PVC wings with mounts
- PVC box for the hydraulic control block.

Optional equipment

- Hydraulic winch with a rope – the pulling force and rope thickness depend on the load carrying capacity of the bed or customer's requirements
- Power winch – the pulling force and rope thickness depend on the load carrying capacity of the bed or customer's requirements
- Winch moving cylinder – for hydraulic and power winches
- Towing hitch with installation, certification and EU plug





- Hitch on the front part of the ramp – for trailers
- PVC toolbox with mounts (800 x 500 x 500)
- PVC fire extinguisher box
- Remote radio control – 4 options (8 channels)
- Remote radio control – 2 options (4 channels)
- 2 additional electromagnetic control valves (to roll/unroll the rope on the winch and move the winch sideways)
- 4 additional electromagnetic control valves (to roll/unroll the rope on the winch and move the winch sideways, lift and lower the bed and extend the bed)
- Flash signals – 12/24V rotating lamp (1542 x 114 x 220) – LED as an option
- Aluminum side underrun protection bar in vehicles having an overall length of less than 6 m (in accordance with the relevant ECE standards)
- Side LED end-outline lighting – only in vehicles having an overall length of less than 6 m or as per customer's request
- Rear end-outline lamps – only in vehicles having an overall length of less than 6 m or as per customer's request.

HYDRAULIC SLIDE PLATFORMS

MODEL	ACZ 5000	ACZ 6000	ACZ 7000	ACZ 8000	ACZ 9000	ACZ 10000	ACZ 11000	ACZ 12000
LENGTH	5,000 to 6,000			5,500 to 7,000				
WIDTH	2,200 to 2,300			2,300 to 2,450/2,500				
OVERALL LOAD CARRYING CAPACITY	5,000	6,000	7,000	8,000	9,000	10,000	11,000	12,000
RAMP LOAD CARRYING CAPACITY	1,600 to 1,800	2,200 to 2,400	2,800 to 3,000	3,000 to 3,300	3,800 to 4,100	4,500 to 4,800	5,000 to 5,300	5,500 to 5,800
SUPERSTRUCTURE WEIGHT	1,200 to 1,700			1,500 to 2,200				
HYDRAULIC WINCH/PULLING FORCE = KG	3,000	3,000	4,500	5,000		6,000		

LOAD BED

Auxiliary chassis

- Auxiliary chassis and construction are made of steel profiles, triple painted or hot-galvanized (HRN EN ISO 1461 quality standard)
  - Doubled painted with SIGMAPRIME 200 paint
  - Single painted with SIGMACOVE 456 – 2K paint
- Aluminum, made of profiles adapted to each type of truck chassis, for vehicles having an overall load carrying capacity of up to 7,000 kg.

Technical data – dimensions and weight

- Load carrying capacity of up to 7000 kg: 2500 – 3700 mm, up to 2300 mm wide
- Superstructure weight: 500 to 700 kg.

Load bed floor

- Water-resistant plywood, 15, 18, 21, 24 and 27 mm thick.

LOAD BEDS WITHOUT HOOPS AND TARPAULIN

LOAD BEDS WITH HOOPS AND TARPAULIN

Panels

- Aluminum or steel, rear and side panel height: between 400 mm (standard aluminum profile height) and 800 mm; front panel height: between 400 mm and full height of the superstructure – cabin roof height
- Aluminum panels with locks integrated in the panels, up to 3700 mm long
- Hinges on the panels and in the bed frame – steel, hot-galvanized.

Columns

- A set of 3 mm steel sheet columns specifically profiled up to the full height of the superstructure/panel, with a lock integrated in the column (only for steel panels)..

Hoops

- Made of steel profiles/steel tubes, demountable
- Tarpaulin side protection – wooden or aluminum bars.

Tarpaulin

- Canvass made by renowned EU manufacturers, canvass strength: 700 to 900 g/m2, color as per customer's request, reinforced wherever it is in contact with the construction, cables and customs rope.

Other equipment

- Two PVC wings with mudflaps on the rear axle
- Aluminum side underrun protection bar, only in vehicles having an overall length in excess of 6 m or as per customer's request (in accordance with the relevant ECE standards)
- Rear end-outline lamps – mounted on the bed frame or on both wings – only in vehicles having an overall length in excess of 6 m or as per customer's request
- Side LED end-outline lighting, only in vehicles having an overall length in excess of 6 m
- Cargo restraints – cargo tie-down rings.

Optional equipment

- Roof spoiler – tarpaulin level
- Load ramp - elevator
- Towing hitch with installation, certificate and EU plug
- PVC toolbox with mounts (800 x 500 x 500)
- PVC fire extinguisher box
- Flash signals – 12/24V rotating lamp (1542 x 114 x 220)
- Flash signals – 12/24V LED rotating lamp (1542 x 114 x 220)
- Aluminum side underrun protection bar, only in vehicles having an overall length of less than 6 m (in accordance with the relevant ECE standards)
- Side LED end-outline lighting – only in vehicles having an overall length of less than 6 m
- Rear end-outline lamps – mounted on the bed frame or on both wings – only in vehicles having an overall length of less than 6 m or as per customer's request.

DUMP TRUCK

REAR DUMP TRUCKS – for vehicles with a load carrying capacity of up to 7,000 kg

THREE-WAY DUMP TRUCKS – for vehicles with a load carrying capacity of up to 7,000 kg

DUMP TRUCKS WITH HOOPS AND TARPAULIN

Auxiliary chassis

- Auxiliary chassis and construction of the dump truck bed are made of steel profiles, triple painted or hot-galvanized (HRN EN ISO 1461 quality standard)
- Doubled painted with SIGMAPRIME 200 paint
- Single painted with SIGMACOVE 456 – 2K paint.

Technical data – dimensions and weight

- Load carrying capacity of up to 7000 kg: 2500 – 3700 mm, up to 2300 mm wide
- Superstructure weight: 700 to 900 kg.

Bed floor

- Steel sheet welded to the substructure, 2, 3 or 4 mm thick depending on the load carrying capacity of the bed, triple painted or hot-galvanized.

Panels

- 2-2.5 mm profiled steel sheet, panel height: 400 to 800 mm, triple painted or hot-galvanized (HRN EN ISO 1461 quality standard)
- Anodized aluminum, height: 400 to 800 mm, light or reinforced (structurally for the dump truck range)
- Fixed front panel – front panel height: between 400 mm and full height of the superstructure – cabin roof height
- Hinges on the side panels, hinge on the rear panel, top/bottom hinges on the bed frame
- Rear panel handle.

Columns

- A set of columns with a casing made of profiled steel sheet, 2-3 mm thick (front column fixed, central and rear ones demountable), central column installed next to the bed with aluminum panels having a length in excess of 2500 mm or as per customer's request.

Hydraulics

- Electrohydraulic generator drive: the set comprises a 12 V electric motor, a gear pump, an oil tank and dividing valve, dump truck cylinder with a tray and rings for securing to the auxiliary chassis, piston stroke maximizing microswitch, a dump truck control switch in the cabin, and hydraulics installation
- Driven by an auxiliary PTO mechanism; the set comprises a gear or piston pump, an oil tank with a filter on the return circuit, a dump-valve with a drawbar featuring a stroke limiter, dump truck with a tray and rings for securing to the auxiliary chassis, a dump truck control switch in the cabin, and hydraulics installation.

Other dump truck equipment

- A set of balls
- Two PVC wings with mudflaps on the rear axle.

Optional equipment

- Towing hitch with pre-installation and certificate
- PVC toolbox with mounts (800 x 500 x 500)
- PVC fire extinguisher box
- Safety rail on the cabin roof level
- Hoops made of steel profiles/tubes, demountable, with a tarpaulin
- Dump truck bed tarpaulin (mounted on the panels without substructure).

CROBUS

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