

# Aircraft towing vehicle BELAZ-74212

Aircraft towing vehicle BELAZ-74212 with wheel arrangement 14x4 is effective at towing of aircrafts by takeoff weight up to 260 tonnes at aerodromes with artificial pavement in the areas located at 2000 m altitude above sea level.



## Engine

Model	8424.10-04
Four-cycle gas-turbocharged direct diesel engine with V-type cylinders arrangement.	
Rated power @ 2100 rpm, kW (hp)	312,5 (425)
Maximum torque @ 1300 -1400 rpm, N.m	1913
Number of cylinders	8
Cylinders displacement, l	17,24
Cylinder diameter, mm	140
Piston stroke, mm	140
Air cleaning is performed by two-stage filter with dry-type elements.	
Mixed-type lubrication system is designed with "wet" crankcase.	
Fluid cooling system with forced circulation.	
Fluid preheating system.	
Starting system is actuated by electric starter.	
Electric equipment system voltage, V	24

## Transmission

Hydromechanical transmission is equipped with four-shaft step-down gear, three-shaft matching reduction unit, one-stage torque converter with hydraulic coupling mode, gearbox with friction clutches and electrohydraulic actuator of gear change control.

Ratio of step-down gear	1,059	
Ratio of matching reduction unit	0,947	
Ratios of gearbox:		
gears	forward	reverse
1	2,46	1,60
2	1,43	
3	0,70	

## Suspension

Suspension is conventional for both axles and equipped with air-hydraulic cylinders. Two cylinders are on the front axle and two cylinders are on the rear axle.

Cylinder piston stroke, mm	265
----------------------------	-----

## Steering

Hydrostatic steering with swivel axles, emergency power supply and gear-type oil pumps.

Maximum angle of axles swiveling, degree	9,5
Pressure in hydraulic system, MPa	8,5
Turning radius, m	9,5
Overall turning diameter, m	23

## Brakes

**Service brakes** are shoe-drum brake gears for all wheels with separate pneumatic actuator.

**Parking brake** is permanently closed shoe brake on rear axle driving pinion shaft with spring actuator and pneumatic control.

## Driving axles

Front and rear mechanical driving axles are equipped with single-stage bevel final drive, bevel differential with four pinions and planetary hub drives with spur pinions. Front axle is united with three-shaft interaxle reduction unit. Rear axle is equipped with parking brake gear.

Ratios:	
interaxle reduction unit	1,696
final drive	3,166
hub drive	5,100
driving axles total	16,15

## Driveline

Driveline consists of four open-type cardan shafts with joints on needle bearings and intermediate bearing.

**Towing hitches**

There are two towing hitches at the front of the vehicle and two towing hitches at the rear of the vehicle. The towing hitches are designed for attachment of aircraft tow bars.

**Frame**

High-strength low-alloy steel welded frame is equipped with box-section side-members interconnected by cross-members.



**Cabs**

Front left and rear one-man cabs are equipped with air-sprung adjustable driver seat. Front left cab is mounted on the guides of hydraulic hoisting mechanism.

Vertical movement of the cab, mm 450

Front right two-man passenger cab is equipped with rigid seats fixed at the chassis through shock absorbers.

The cabs are hermetic, heat and noise insulated and meet requirements of standards that specify permissible levels of in-cab noise, vibration, content of hazardous substances and dust.

**Tires**

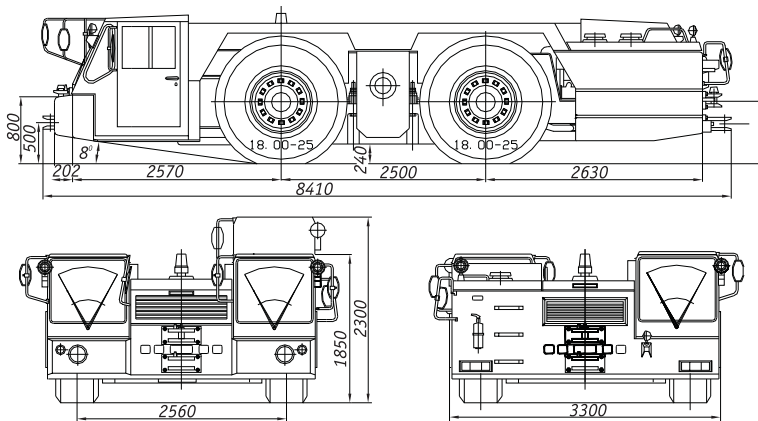
Air tires with anti-skid chains.

Tire designation 18.00-25 HC36

Inflation pressure, MPa 0,85

Rim designation 13.00-25/2.5

**Overall dimensions, mm**



**Travel speed**

Maximum travel speed without aircraft, km/h:	
- forward	27
- backward	8

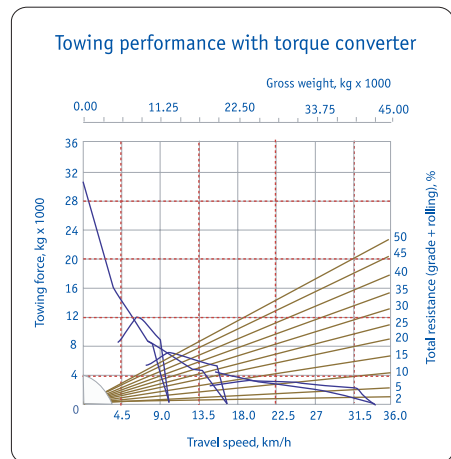
**Weight**

Maximum aircraft weight (takeoff weight), kg	260000
Gross weight, kg	45000
Gross weight distribution on axles, %:	
- front	50
- rear	50

**Refill capacities, l**

Fuel tank	400
Engine cooling system	120
Engine lubrication system	33
Step-down gear	16
Hydromechanical transmission	80
Steering hydraulic system	90
Final drives	36 (18x2)
Interaxle reduction unit	12
Hub drives	48 (12x4)
Suspension cylinders	12 (3x4)

**Towing performance**



OJSC "Belarusian Autoworks" (BELAZ)  
 40 let Oktyabrya str. 4, 222160, Zhodino, Republic of Belarus  
 phone: +375 1775 3-60-67, 3-37-37, 3-27-82  
 fax: +375 1775 7-01-37  
 e-mail: office@belaz.minsk.by  
 www.belaz.by