



RNGI



Cement bulk truck

ACV-17R1-08

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ACV-17R1-08 CEMENT BULK TRUCK

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ACV-17R1-08 cement bulk truck is designed for the bulk transportation of cement and other dry bulk materials with a bulk density of 1,300 kg/m³ on roads of categories I–V of the general road network, as well as for carrying out work as part of a cementing production unit by feeding cement to a pumping unit through a surge tank.

It is allowed to use cement mixtures with a density of up to 1,800 kg/m³, taking into account the maximum permissible loads on the chassis (the mass of the transported material).

The designated area is placing of cement plug while performing well workover and mortar preparation for cementing "liners" when sidetracking.

Technical specifications

Parameter name	ACV-17R1-08
Hopper volume, m ³	15 (2 x 7.5)
Surge tank volume, m ³	1.5
Unladen weight, kg	21 500
Technically maximum gross vehicle weight (carrying capacity), кг, kg	42 000 (20 350)
Height, mm	3 980
Width, mm	2 550
Length, mm	11 000
Chassis brand	MAZ-MAN 737459
Engine, model	WP12.460E50 (E-5)
Engine peak brake power, hp	453
Wheel arrangement	8x8
Chassis capacity, tonn	27
Fuel tank volume, l	500
Spare wheel	Behind the cabin
Tyre type	Single-pitched
Tires with all-terrain tread pattern	16.00 R20
Compressor	KM-12-2R1 (pendulum, oil-free)
Working pressure of the pneumatic product supply system, MPa (kg/cm ²), no more	0,2 (2,0)
Unloading performance, tpm (m ³ /min), no less	1,1 (12)
Methods for uploading materials:	vertically, through the top hatch via a loading line with third-party pneumatic transport through the loading line with a standard compressor (creating a vacuum in the hopper)

ACV-17R1-08 Cement bulk truck. Structure.

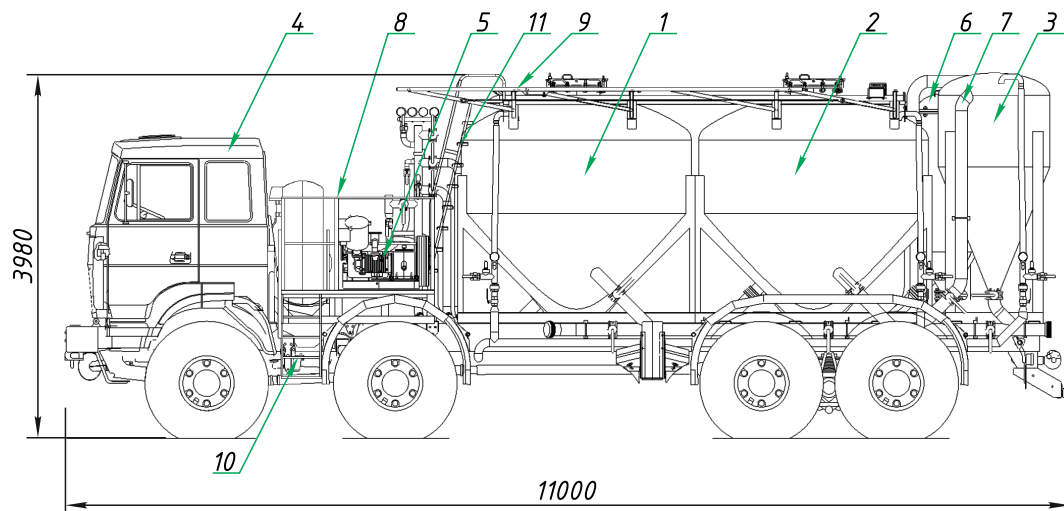


Figure 1 - ACV-17R1-08 Cement bulk truck. Structure and dimensions.

The cement truck (Fig. 1) consists of hoppers (items 1, 2, 3) mounted on the chassis of the MAZ-MAN 737459 vehicle (item 4). The ACV-17R1-08 also includes: a compressor unit driven by the chassis power take-off (item 5), a bag filter (item 6), piping (item 7), service platforms (items 8 and 9), and ladders (items 10 and 11).

Loading of transport containers is carried out in two main ways:

- gravity loading through 500 mm diameter overhead loading hatches, for which mesh with 25 x 25 mm mesh should be installed in the hatches;
- pneumatic loading from another pneumatic cement truck or pneumatic silo.

The first hopper can be loaded pneumatically while the second hopper is unloaded through a surge tank. The system design includes a service platform for the hopper loading hatches on both sides of the hopper, with a single ladder.

The work platform and fencing comply with the Federal Industrial Safety Standards and Regulations "Safety Rules in the Oil and Gas Industry," introduced by Rostekhnadzor Order No. 101 dated March 12, 2013. The platform is equipped with a manual handrail system with locking devices on both sides. The work platform is constructed with mesh decking (perforated), and the fencing is at least 1.1 m high from the edge of the decking to the handrail, in accordance with occupational safety regulations for working at height.

The ladder for climbing onto the hopper is equipped with double-sided handrails along the entire lifting height to ensure the safety of the worker.

An audible alarm is provided to indicate the fill level of the cement transport bins.

Cement is unloaded using compressed air supplied by a compressor. Unloading is possible either through or without the surge tank.

ACV-17R1-08 Cement bulk truck. Structure.

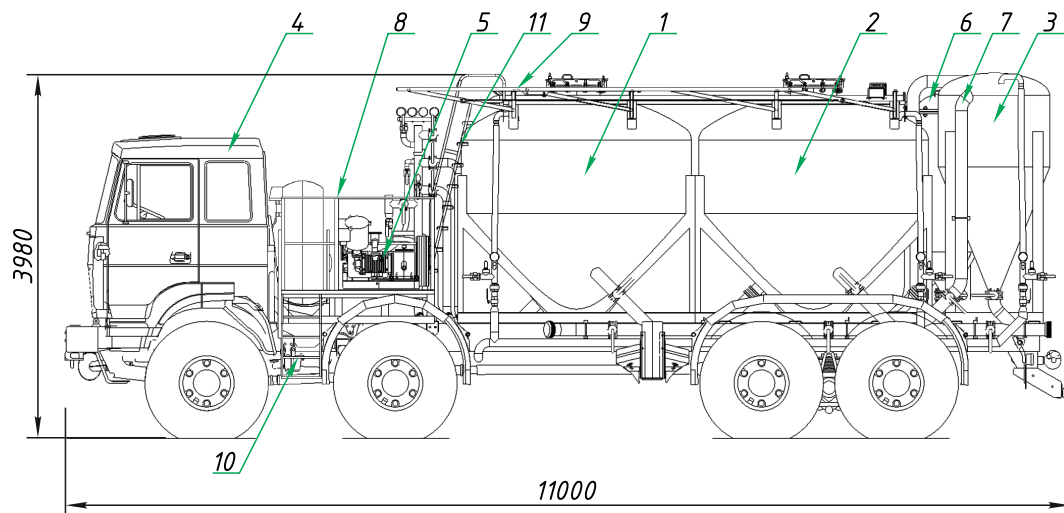


Figure 1 - ACV-17R1-08 Cement bulk truck. Structure and dimensions.

The technological piping on the cement lines is carried out using butterfly valves with a manual drive.

An additional air inlet with a diameter of 50 mm is provided, equipped with a quick-release coupling (hereinafter referred to as QRC) with a 2-inch FIG 206 thread for connection to a third-party compressor.

Each transport container is equipped with a measuring ruler for visual control of the filling level of the containers through the upper loading hatch of the container.

The observation platform is equipped with anchor points for the worker to attach a safety harness to the loading hatches of the hoppers; open spaces (corners) on the intermediate platform in places where the spheres of the hoppers are rounded must be closed.



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