Four-axle, Romanian made, pressure discharge railway wagon for carrying bulk powder materials
Discharge system: two side discharge at the bottom and equipped with air injection

It is compulsory to implement all safety directives prescribed for the place of loading and discharge and to wear all prescribed protective equipment (e.g. safety glasses, gloves) at all times during the handling of the wagons.

LOADING:

- After the loading of the tanks the rubber sealings and top cover screws have to be cleaned (with a broom or compressed air).
- Any remaining material has to be removed from the outer surface of the tanks.
- The top covers have to be closed pressure-resistantly by tightening all top cover screws.

DISCHARGE:

- Tow the wagon to the place of discharge.
- Fix the wagon by placing shoes under the wheels of the wagon from both directions to prevent displacement or by turning the handbrake (9) to the point of impact.
- Check if the top cover screws (4) are properly tightened. In case they are not sufficiently tight, close the tank manually or with a spanner pressure-resistantly.
- Close the air-release valve. (2)
- Check the safety disk of the tank (10) and the gaskets of the couplings (5,6). Replace if faulty or missing.
- Fit the flexible discharge pipe to the coupling of the tank's discharging pipe (6) and tighten it with a ¼ turn clockwise to the point of impact. (It is recommended to fix the couplings with a safety ring.)
- Fix and tighten the diameter 110 mm cap with a ¼ turn to the other end of the discharging pipe (6) on the other side of the wagon.
- Join the coupling of the diameter 52 mm compressed-air pipe of the receiving place to the coupling (5) of the pipe of discharging air supply of the tank.
- Fix and tighten the diameter 52 mm cap with a ¼ turn to the other end of the pipe of discharging air supply (5) on the other side of the wagon.
- Before charging up the air-pressure in the tank close the tap of supporting air (13,blue) and the taps of air injection (16,white and black) and if there is a butterfly valve on the discharge pipe than close the butterfly valve as well. Then open the tap of discharging air and charge up the air-pressure to a maximum of 2-3 bars. The discharge can be started by opening the butterfly valve and the tap of air injection (16, white or black) to position ½ on the opposite side of the discharge pipe (7). In case there is no butterfly valve on the discharge pipe (7), the material starts to flow as soon as the pressure in the tank reaches some tenth bar. In this case the tap of air injection (16) should be opened to position ½ after the material starts to flow.
- During the discharge constant air supply is needed, with the tap of supporting air (13) opened and an inner pressure of maximum 3 bars maintained. During the discharge the pressure can not fell under 1 bar. If the quantity of the air is not enough and the pressure in the tank would fall under 1 bar than the tap of the air injection (16) has to be tightened on the opposite side of the wagon, enabling more air to reach the tank via the supporting air pipe. The discharge of the tank takes approximately 20-30 minutes. The end of the discharge will be indicated by sudden fall of air-pressure and the discharge pipe will stop shaking. To check if there is any remaining material in the tank bang the conic plate of the tank with a rubber hammer. By the deepness of the sound the quantity of the rest material can be checked.
  In case of materials that are harder to fluidize, more likely to cohere it is useful to close the butterfly valve at the end of the discharge and charge up the air pressure to 2 bars again and continue the discharge according the above.
- After emptying the tank, first close the tap of air injection (16), then stop the air charge from the compressor by closing the valve of the air pipe and switching off the compressor.
- Release the overpressure in the tank by opening the air-release valve (2). When the overpressure has gone, remove both the air charging pipe (5) and the material discharging pipe (6).
- Reinstall the caps of the couplings (5,6) and close the air-release valve (2) and remove any stains originating from the discharge. Hereby is the discharge over, and the wagon is ready to be recharged. Due to the various characteristics of the transported material, the different transit periods and distances it may be possible to reach better discharge results with different tap settings than the above suggested.
- Should any disorder occur during the loading or the discharge, inform the operator of the wagons in English or German via fax, telephone or e-mail (PULTRANS KFT. Tel: (36) – 1- 368-9614; Fax: (36) – 1- 250-6897; E-mail: ecm@pultrans.hu) enabling to organize the elimination of the malfunction or the repair of the damage.