

ROTARY WAGON TIPPLER



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The rotary tippler designed for unloading broad-gauge open railway by inverting the wagon by inverting on its own centre of gravity through an angle of 170°, thereby discharging its contents into hopper below rail. (The tippler is designed to handle wagons having a gross load up to 110 tonnes, height from 2,250 mm (min) to 3,735 mm max) and a maximum overall width of 3,500 mm. The tippler ensures handling of wagons, without any damage.

The tippler consists of two circular rings, a platform with travel rails, support rollers, two girders as well as clamping device, which retains the wagon from the top as well as from the side during tipping.

The tippler is driven by a drive unit located on one side of the tippler. The driver unit consists of motor - with flexible coupling, thruster operated brake, helical gearbox, pinion and toothed rings. The Size / type of drive is decided on the number of tips/hour required.

The complete hydraulic equipment, including the motor and the oil tank are located on the tippler itself and rotate along with the tippler. Top clamps and side beam are hydraulically operated. Wagon is clamped before tipping operation. The top clamps and side beam are lined with rubber pads throughout the length of the tippler, which reduces the pressure on wagon walls.

A loaded wagon is placed on the tippler platform by an in-haul beetle or other means. After correct placement is achieved, the in-haul beetle returns and clears the tippler table. The hydraulic system is now actuated, and the upper and lateral beams rest on the wagon coping and sidewalls. The hydraulic system incorporates a pressure relief, which balances the pressure of the wagon springs, thus avoiding any damage to the wagon.

The tipping rate can be varied to suit particular plant requirements, up to maximum of about 60 wagons per hour. To achieve a throughput of more than 12 wagons per hour, it is necessary to incorporate integrated wagons handling equipment in the form of a beetle charger.

Dust Suppression

The dust suppression systems can also be embodied in the rotary wagon tippler to reduce dust nuisance during tipping.

Weighing

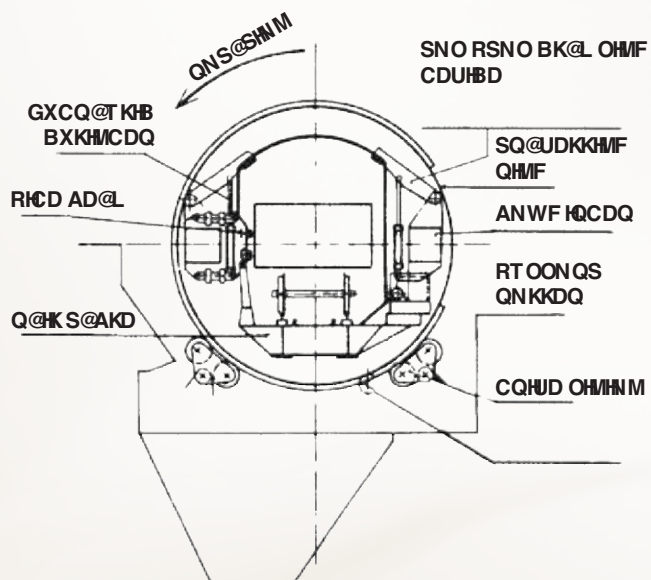
An integrated electronic weighbridge records the gross and tare weights of wagons. The weighbridge includes a printer and a recorder.

A load cell weighbridge can be incorporated with the tippler to print gross, tare and nett weights as well as other information.

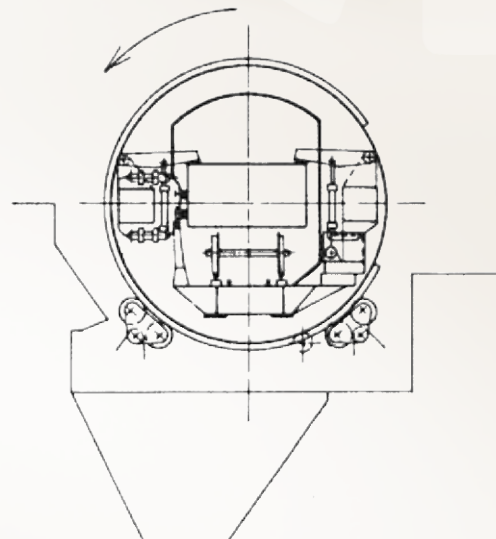
Vibrators

Electrically or pneumatically operated vibrators can be fitted to the top clamps to assist in the complete discharge of sticky materials from wagon.

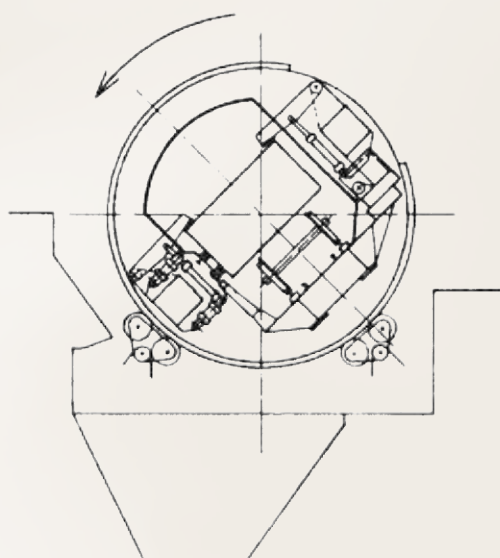
DIAGRAMS ILLUSTRATING THE PRINCIPLE OF CLAMPING ROTARY WAGON TIPPLER



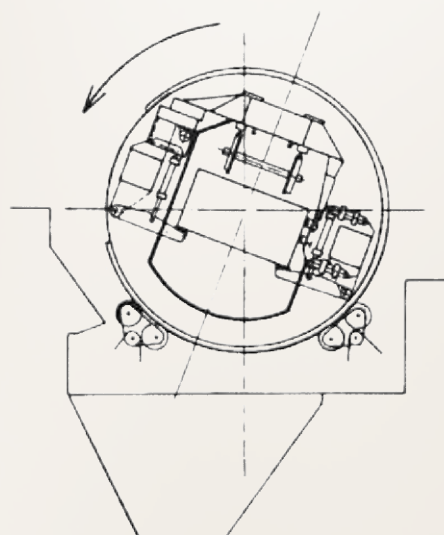
TIPPLER AT NORMAL POSITION WITH
WAGON PLACED ON RAIL TABLE



TIPPLER AT NORMAL POSITION WITH
WAGON IN CLAMPED POSITION



TIPPLER IN ROTATION



TIPPLER IN FULLY TIPPED POSITION