# Metallurgical equipment. Steelmaking equipment
# Infrastructure of steelmaking facilities

## FEED SYSTEM OF ALLOYED AND SLAG-FORMING MATERIALS TO EAF-50

Feed system of alloyed and slag-forming materials is designated for accumulation, storage, portioned input of materials, lifting by bucket belt conveyor and charging to the receiving hopper of intermediate hoppers system with subsequent feed of materials to a receiving cone of furnace water-cooled roof or to a steel ladle while metal tapping from the furnace.

Advantages:

■ Provides automated, semi-automated and manual feed of necessary material volume preset by the operator to the electric arc furnace or to the ladle.

Technical characteristics

| Parameter | Value |
|---|---|
| - Size of material being transported:<br>- Alloying addition, mm<br>- Slag-forming addition, mm | <br>5…50<br>5…50 |
| Bulked density, t/m$^3$ | 0,3…3,0 |
| Rate of material feed, kg/min | 600 |
| Vibration feeder with electromagnetic drive | 19 |
| Max production capacity, m$^3$/h | 50 |
| Conveyor length, m | 12256 |
| Belt width, mm | 800 |
| Belt speed, m/s | 0,34 |
| Capacity, t/h | 25…75 |
| Bucket belt conveyor, pcs. | 1 |
| Belt width, mm | 1000 |
| Intermediate hoppers system with pneumatic slide gates, bypasses and rotary chutes | 1 |

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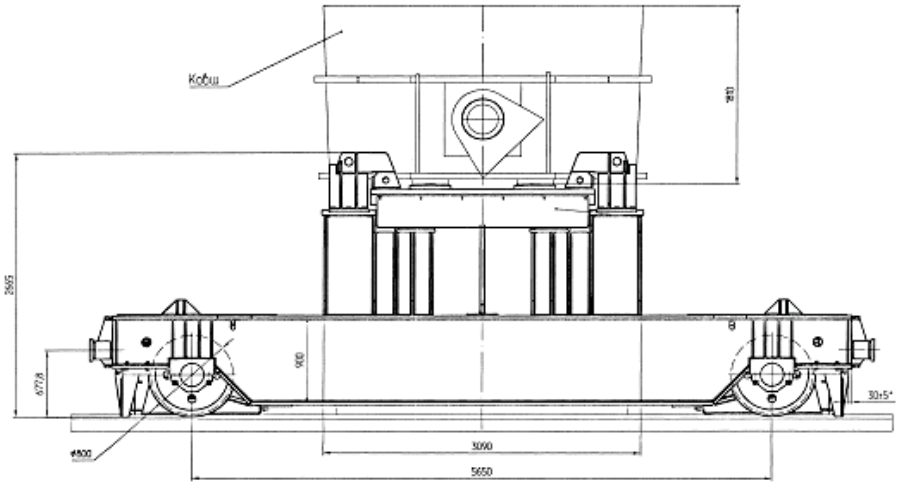
## STEEL TEEMING LADLE CAR

Steel teeming ladle car is designated for receipt of steel ladle in the raw-material bay and its subsequent transfer to the area under tapping hole of electric arc furnace.
Advantages:

- Provides receipt of metal, alloying elements and deoxidizing agents to the steel ladle with simultaneous weighing of steel being tapped;
- Enables to move a steel ladle from under the furnace to a pouring bay for transfer by the crane for treatment (pouring);
- Enables to carry out argon blow of metal in a steel ladle with a slide gate while metal tapping.




Technical characteristics

| Parameter | Value |
|---|---|
| Load-carrying capacity, t | 125 |
| Travel speed, m/min | 25 |
| Running wheel diameter, mm | 800 |
| - Actuator drive<br>- gear motor, pcs<br>- power, кW | <br>4<br>7,5 |

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SLAG CAR

Slag car is installed on the railway track in the steel melting shop and is designated for the following:

■ Receipt of a slag-notch cooler or a slag pot in the furnace bay as well as for its transfer to the area under the furnace and installation at the side of the working door;

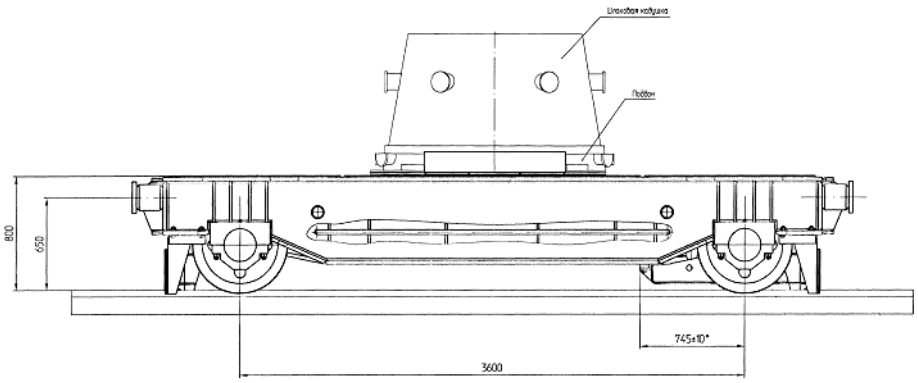
■ Receipt of slag being skimmed off from the furnace to a slag-notch cooler or to a slag pot;

■ Transfer of a slag-notch cooler or a slag pot from under the furnace to the side of a tapping hole for their transfer by the crane to the railway platform.

Advantages:

■ Mechanism for slag car transfer has two drives.

■ In emergency situations when one of the drives is broken down the slag car can be operated with one drive as well.




Technical characteristics

| Parameter | Value |
|---|---|
| Load-carrying capacity, t | 40 |
| Travel speed, m/min | 25 |
| - Actuator drive<br>- gear motor, pcs.<br>- power, кW | <br>4<br>7,5 |