KH-KIPPER
Bodies Trailers Semitrailers

W1MV

MINING
TIPPING BODY

DESCRIPTION

The growing cost of transport is the reason for new solutions that aim at making the load capacity of the vehicle greater. W1MV mining body, designed by KH-KIPPER, is the answer to these expectations. The tipper has lower weight and thus, greater load capacity.

One-way W1MV tipper is a vehicle designed for operation in mines in the extremely difficult conditions. During high-fraction material transport it is exposed to constant wear.

While preparing the design, the constructors took advantage mainly of the elastic properties of the HARDOX HB 450 steel. The kinetic energy of the impact, while loading rocks even of considerable fraction, is succesfully dispersed.

FIELD OF APPLICATION

MINING SECTOR

W1MV bodies are designed for operation inside mines in the most difficult exploitation conditions. They are succesfully used to transport load from the place of extraction to the first destination, in most cases, the crusher. With the proper preparation of the terrain they can replace dump trucks.

Tipping bodies on trucks have a significant advantage over traditional dump trucks: i.e. multifunctionality. They can be used with a range of loads and a variety of destinations, such as mines or public roads. A significant advantage of this kind of tipper is also multi-purpose dedication. They can be used for any kind of load, for expample, coal, anthracite or metallic ore.

After a special preparation using Toolox steel, they can be even used to transport hot slag with the temperature of 500 Celcius degrees. Thanks to Toolox properties the tippers are ressistant to high temperatures and wear. They are robust and resistant at the same time.

DESIGN

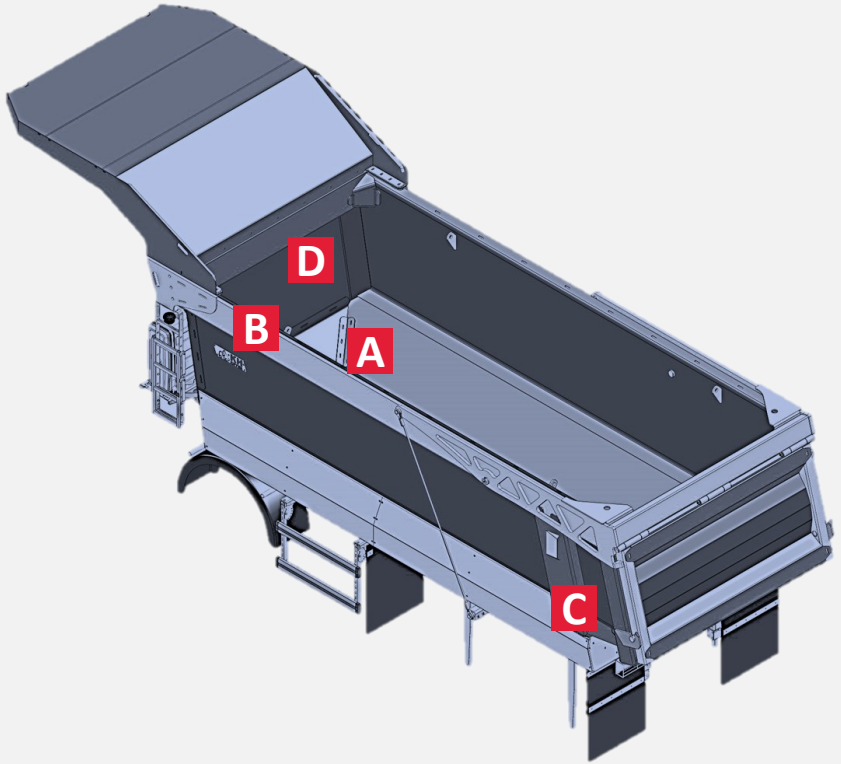
DESIGN: THE KEY TO SUCCESS

The characteristic feature of the new body is the fact that there is no need to apply any reinforcements on the floor.

In similar constructions the floor is usually reinforced with longitudinal beams, cross beams or additional bendings. All these elements aim at improving the stifness of the construction of floor. The construction of floor **[A]** of the new W1MV body is only made of HARDOX (HB 450) high-resistant steel plate with two bendings. In contrast to the previous model where the floor was made of three layers (steel and rubber), the new model is equipped with a floor which is made of only one-layer of steel.

Due to the removal of unnecessary elements, the construction has became more resilient and thus, more durable and resistant to damage.

The plate of side walls is reinforced only with the upper profile **[B]**, rear profile **[C]** and front wall **[D]**. The mechanical properties of HARDOX (HB 450) steel of which the side walls are made ensure effective protection against damage.

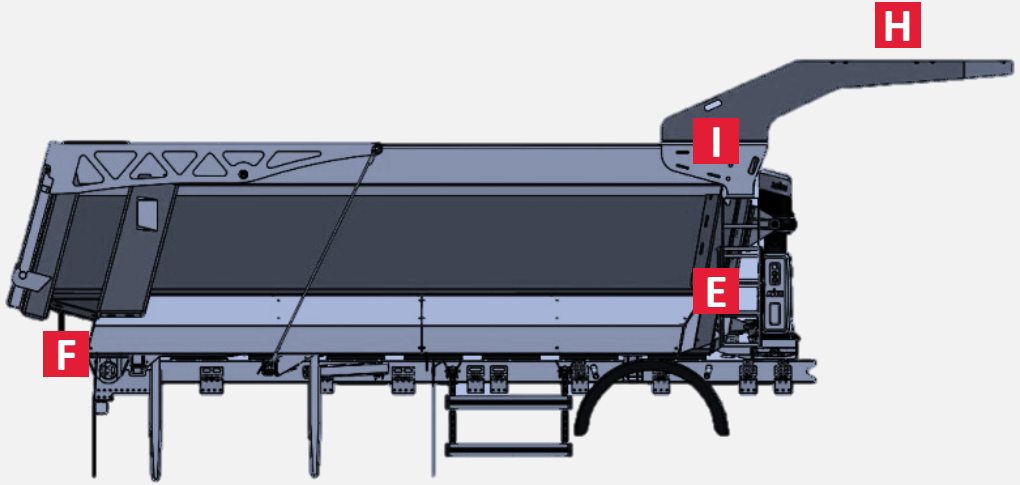


DESIGN

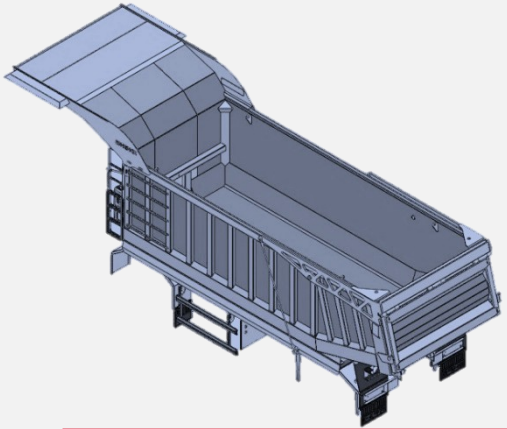
Due to half-octagonal contruction of the body and sloped front wall **[E]**, the unloaded material does not adhere in the corners of the body.

A raised rear part of the floor **[F]** prevents the load from falling out while driving on an incline. This especially involves small fraction material.

Big roof **[H]** has been mounted in such a way in order to secure the upper profile of the front wall **[I]** against falling elements during loading.



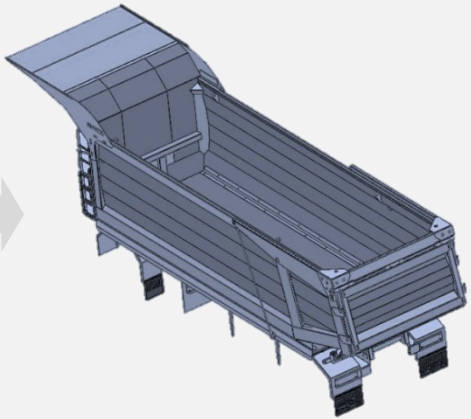
STEEL



OLD VERSION I
W1M

FLOOR AND SIDE WALLS **HARDOX HB 450**

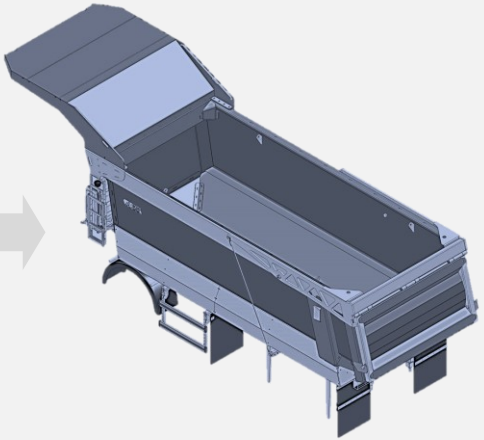
OTHER ELEMENTS **STRENX 700 / S355 STEEL**



OLD VERSION II
W1M

FLOOR AND SIDE WALLS **HARDOX HB 450**

OTHER ELEMENTS **STRENX 700 / S355 STEEL**



NEW VERSION
W1MV

FLOOR AND SIDE WALLS **HARDOX HB 450 /500**

OTHER ELEMENTS **STRENX 700 / S355 STEEL**

Due to the fact that during transport of mining material the body is exposed to difficult exploitation conditions, the main construction is made of resilient and high-resitant HARDOX HB 450 steel (floor 10-15 mm and side walls 6-10 mm), whereas the load-bearing constructions are made of durable STRENX 700 steel.

BENEFITS

- ✓ The removal of unnecessary elements of the construction improves the resilience of the body and prolongs its durability period.
- ✓ Reducing or eliminating damage of the construction caused by loadings of big rocks.
- ✓ Lowering the center of gravity of the whole vehicle ensures greater stability during unloading of the material.
- ✓ Reducing the number of elements of the body and simplifying their shapes reduces the time of production and material demand.
- ✓ Lowering of the body's own weight increases its load capacity. The driver can transport more material in the same period of time.
- ✓ Lowering of the costs connected with fuel consumption due to lower weight.
- ✓ Reducing repair costs due to smaller number of spare parts.


KH-KIPPER
40
ТОНН
15%
SCANIA

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