KTP 9 - 11 - 15 T

DESIGNED AND SUITABLE FOR THE HARDEST WORKS!
Adapted special and high-tensile steel

The JOSKIN machines are completely made of high tensile steel. The constant search for the best steel quality/weight ratio has led to a significant decrease in the empty weight of the JOSKIN machines while increasing their sturdiness. Thus, it is possible to transport still higher payloads.

The following table aims at comparing the general specifications of the steel types used by JOSKIN:

<table>
<thead>
<tr>
<th>Specifications of the steel types used by JOSKIN / traditional steels</th>
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</thead>
<tbody>
<tr>
<td><strong>Type of steel</strong></td>
</tr>
<tr>
<td>-----------------------</td>
</tr>
<tr>
<td>S235 or St 37-2 (traditional steel)</td>
</tr>
<tr>
<td>S355 or St 52-3 (traditional steel)</td>
</tr>
<tr>
<td>S420 (JOSKIN high tensile steel)</td>
</tr>
<tr>
<td>S550 (JOSKIN high tensile steel)</td>
</tr>
<tr>
<td>S690 (JOSKIN high tensile steel)</td>
</tr>
<tr>
<td>HARDOX 450 (KTP HARDOX)</td>
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</tbody>
</table>
Advanced Technique

Thanks to the outstanding resistance of the high-tensile steel types selected by JOSKIN, the lateral reinforcements and the cross-pieces under the body are now limited, or even useless, while keeping a high sturdiness! The high-tech manufacturing concept goes along with the use of production tools able to handle the necessary steel plates: 8 m laser cutting tables, 8.2 m folding press with digital control, automatic folding angle correction device (making sure the steel plate is evenly folded on the whole length), 8 m welding robot...

Careful Manufacturing

The JOSKIN tipping trailers are manufactured in accordance with the JOSKIN production philosophy. Many automated tools ensure a never-ending precision: turning and topping machines, saws, machining centre, lasers, folding machines, welding robots, ...

In the same way, the mounted and welded assemblies are exclusively made on templates. All the components, including the body, are continuously welded. Much attention is also devoted to the surface treatment: the matter is first cleaned by shot-blasting (2,500 kg of metal balls projected per minute) before applying an Ester Epoxy primer coat and a 2-component finishing paint. As part of the process, the paint is then dried at 60°C.

Fully Computerized Conception and Development

The JOSKIN tipping trailers are completely computer-designed by means of 3D-engineering software. From the very beginning of the project, the new components are linked to the SAP global management program. This integrated architecture allows to standardize the production as much as possible and to rationalize the components in order to guarantee higher manufacturing precision and production flexibility.

Individualized Parts Book

The most obvious expression of the integrated computer-aided management of the JOSKIN production is the individualized parts book that JOSKIN delivers with each vehicle. This book includes the drawings and references of the components mounted on your vehicle, with the exclusion of any other part. In this way, many mistakes can be avoided when ordering spare parts - even years later.
**CONCEPT**

The chassis of the JOSKIN Trans-KTP 9, 11 and 15 T tipping trailers is 900 mm wide and is made up of 250 x 100 x 6 mm profile tubes on the 9/45 and 11/45, and of 300 x 100 x 8 mm profile tubes on the 15/45. The driving comfort provided by the whole carriage is guaranteed by the hitching suspension with cross-springs.

**Hitching**

The Trans-KTP trailers 9, 11 and 15 T are fitted with an open drawbar, which offers a very good weight/resistance ratio thanks to its structure. Its wide fixing points (same width as the chassis) increase its manoeuvrability all the more. This solution offers a straight pull/push line and a large vertical clearance at the eyelet, thereby largely absorbing shocks.

**GENERAL POINTS**

The JOSKIN Trans-KTP 9, 11 and 15 T construction trailers are the “low-capacity” models of the JOSKIN heavy duty range. Due to their compact and strong design, these trailers are particularly suited to small earthmoving works and landscape gardening.

The bodies are pre-equipped to be fitted with two optional aluminium ramps, thereby allowing to load and transport a small excavator.

**SPECIFICITIES**

The chassis of the JOSKIN Trans-KTP 9, 11 and 15 T tipping trailers is 900 mm wide and is made up of 250 x 100 x 6 mm profile tubes on the 9/45 and 11/45, and of 300 x 100 x 8 mm profile tubes on the 15/45. The driving comfort provided by the whole carriage is guaranteed by the hitching suspension with cross-springs.

**MODELS**

<table>
<thead>
<tr>
<th>DIN volume (m³)</th>
<th>Technically permissible payload</th>
<th>Inner body dimensions (m)</th>
<th>Axle(s) [Ø (mm)] - track (mm) - studs</th>
<th>Brakes (mm)</th>
<th>Cylinder (l)</th>
</tr>
</thead>
<tbody>
<tr>
<td>9/45 (1)</td>
<td>5.10</td>
<td>9 T</td>
<td>4.50  4.60  2.18  2.26  0.50</td>
<td>ADR 130x2000-10G</td>
<td>406 x 120</td>
</tr>
<tr>
<td>11/45 (1)</td>
<td>5.10</td>
<td>11 T</td>
<td>4.50  4.60  2.18  2.26  0.50</td>
<td>ADR 190x1900-8G</td>
<td>350 x 60</td>
</tr>
<tr>
<td>15/45 (1)</td>
<td>7.60</td>
<td>15 T</td>
<td>4.50  4.60  2.18  2.26  0.75</td>
<td>ADR 2x100x2000-10G</td>
<td>400 x 80</td>
</tr>
</tbody>
</table>

(1) The first 2 figures refer to the carrying capacity in tons and the next 2 ones to the length of the body. The max. total load depends on the legislation in force in each country.
CONSTRUCTION TIPPING TRAILERS

General points and options

Tapered, light and strong body

The JOSKIN Trans-KTP tipper bodies are completely made up of high tensile steel (HARDOX 450). This steel type has very interesting elastic properties, as it takes its initial shape back after deformation. Compared to traditional steel, its tensile limit is indeed 4 to 5 times higher.

The whole body, doors included, is based on 2 steel sheets, without any linking cross-weld. Thanks to this fabrication concept, the empty weight of these tipping trailers is significantly lower and therefore allows to transport still higher payloads, without compromising on sturdiness.

Thanks to the tapered shape of the body, the contents of the trailer flow out freely. This unmatched property is further reinforced by the successive folds aiming at smoothing off the edges of the body.

Tipping

The telescopic tipping cylinder is mounted on a double oscillating frame fitted with greased bearings. It is integrated into the chassis and placed at the front. This system compensates the torsions due to the tipping strains and effectively protects the cylinder and the body from distortions. The body is fitted with two robust tipping hinges including bolted axes with large diameter. The back- and upwards position of the hinges increases the unloading height.

The standard mounted safety valve, which is directly placed on the tipping cylinder, prevents the body from unexpectedly falling down (e.g. when the hydraulic hoses break).

Tipping accessories

It is also possible to choose a front tipping cylinder instead of a tipping cylinder under the body on the front part of the chassis for the 22/50 (36 l), 27/55 (49 l) and 27/65 (76 l) models. This option requires a galvanized headboard in order to protect the cylinder.

An industrial hydraulic pump (150 l/min) with electric tipping and lowering control (1.000 rpm) can replace the tipping function directly connected to the hydraulic system of the tractor. This pump has a function "quick lowering of trailer body" and is part of the standard equipment of the 27/65 TRM model.

For the 9, 11 and 15 t models, two hydraulic pumps with capacity of 55 liters are available (PR660 : 53 l/min at 1.000 rpm and PR980 : 70 l/min at 1.000 rpm. Coupled with these pumps, an electrical or hydraulic control is available in option.
Parking Stand
The resting skid is hydraulically unfolded and can be completely integrated into the drawbar to offer a larger clearance.

Headboard
In option, the body can be fitted with a fully galvanized headboard in order to protect the hitching gear, the tractor and the tipping cylinder against possibly falling matter.

Hydraulic door
The tipping operation is made easier and quicker thanks to the hydraulic door with maximum opening angle. The one part hydraulic door (completely made of HARDOX 450) is part of the standard equipment. The door is linked to the arms by three fixing points and these arms turn on a large and sturdy axis. The door cylinders are mounted under the arms for protection purposes.

The doors of the JOSKIN tipping trailers are fitted with two safety devices:
- In order to prevent system damage, the pressure relief valve regulates the oil pressure, for example, in case the door cannot be completely closed due to an obstacle.
- The double steered valve on each door cylinder holds the door in position if the hydraulic hoses break or if the tractor stops.

Aluminium extensions
250 or 500 mm aluminium extensions can be mounted in order to increase the loading capacity. A grain chute can be mounted on one of the rear door sides.

Working lights
Rear working lights integrated into the chassis and a flashing beacon (or LED flash light) are available in option.

Protecting strip
In option, the upper strip may be protected by a PVC lining, so that the body cannot be damaged by loading tools.

Cover systems
Two cover systems are available for the Trans-KTP tipping trailers: on the one hand, the VAKO rigid cover made up of two hydraulic closing doors. On the other hand, the hydraulically closing covering net.

A 2-part rear door (also completely made of HARDOX) with 400 x 400 mm grain chute is available in option.
Rock solid running gears

The JOSKIN running gears are designed to meet, in every situation, whatever the vehicle, the criteria of reliability, stability, comfort and safety both on roads and in the fields.

This is the reason why JOSKIN proposes 5 types of running gear:

- **Double Axle:**
  - Roll-Over® boggie
  - Cross-Over boggie
  - Rocker beam
  - Hydro-Pendul
  - Hydro-Tandem

- **Triple axle:**
  - Hydro-Pendul
  - Hydro-Tridem

Manoeuvrability

For greater manoeuvrability and optimal driving comfort, JOSKIN proposes two types of steering axle: the free steering axle and the self steering axle.

Safety

Many braking system options. Air brakes can replace hydraulic brakes and the dual braking system is also available. Moreover, the load-proportional braking system ensures improved safety and driving comfort.

ROCKER BEAM

The rocker beam is available in option on the 22 and 27 t double-axle model. It consists of two large casings made up of profile tubes (300 x 300 x 12.5 mm) each supporting two half-axles. They are hinged on a central axis (mounted on bushes with grease nipples) and a monoblock table bolted to the chassis.

CROSS-OVER BOGGIE

The Trans-KTP tipping trailers 17, 22 and 27 t are standard fitted with the JOSKIN Cross-Over boggie. It is specially designed to provide the vehicle with the best compromise between ground clearance and traction ease and to meet the specific requirements of the most demanding works. The pivot point of all JOSKIN boggies lies under the leaves but the Cross-Over is particular in the sense that the axles are also fixed under these leaves. The suspension quality is thus further improved.
HYDRO-PENDUL

The hydraulic axle suspension is designed according to the “Hydro-Pendul” principle. Each axle is mounted on two double-acting hydraulic cylinders (on both sides of the chassis) and is linked to the chassis by a triangular structure of tubes with a large diameter, the end of which is fastened to an imposing knee-joint. This articulating knee-joint has a vertical axis in order to make the running gear highly stable. With the Hydro-Pendul, you can secure your tipping operation with the option “Tipping stabilizer”. Its purpose is to lock the hydraulic cylinders in order to keep them perfectly aligned.

FREE STEERING AXLE

The free steering axle follows the direction determined by the tractor. The oscillation range is more or less 15° on each side of the front tyre axis. To drive on the road (> 15 km/h) or to reverse, an ultra-powerful hydraulic locking device perfectly aligns the running gear with the front axle and makes the carriage safe to use. Two shock-absorbers stand for the stability of the free steering axle by preventing too significant vibrations.

HYDRO-TANDEM AND HYDRO-TRIDEM

The hydraulic suspension’s design provides an optimal contact with the ground. The load is distributed over the 4 or 6 wheels and, consequently, evenly distributed on the ground. Finally, it reinforces the stability of the carriage. The double hydraulic circuit works according to the communicating vessels principle. The 4 or 6 hydraulic cylinders on both sides of the chassis are linked 2 by 2 or 3 by 3 and allow a clearance up to 250 mm. The lifting axle is standard mounted on all “Hydro-Tridem” vehicles.

SELF STEERING AXLES

The self steering axle is an important safety component as it keeps your vehicle in the tractor driving line. The JOSKIN triple-axle vehicles are standard fitted with a double self steering system (first and last axles) operating in both directions (forward and reverse). The axle cylinder is operated by a sensor cylinder linked to the tractor by a hitching rod with quick coupling. This one is anchored to the drawbar by means of a knee-joint and controls, via the sensor cylinder, the hydraulic circuit operating the steering cylinder. The system is balanced by the compensated cylinders that apply the same force in both directions. The circuit is fitted with a one-piece set-up unit including a pressure gauge, two nitrogen accumulators, an aligning valve and a calibrating circuit.
JOSKIN has understood that the after-sales service is a duty, not only for each representative or dealer, but also for the manufacturer, first of all for the user's satisfaction, and in the second place, for the future development of the products. Thanks to a centralized stock for all Europe, located in the centre of a European road interchange, and given the current efficiency of the (accelerated) parcel delivery services, JOSKIN offers a quick and quality after-sales service to its customers.

The current used system of QR codes provides satisfaction to our partners and customers. Combined with the individualized spare parts book, these stickers allow the customer to make sure the parts he got corresponds to the reference he found in his nomenclature.

Today, there are two automated storage areas for the spare parts in Soumagne. The first one, which is fully automated, is active since July 2014 and houses large spare parts. With a volume of 28.000 m³, this space allows a optimal management of the stocks and therefore a faster response to the demand! The second one includes 21 automated carousels for small spare parts. These installations respect JOSKIN's aim, which is to always have all spare parts in stock so as to guarantee a quality after-sales service.

Moreover, JOSKIN promises to supply the spare part within 24 to 48 hours after the order has been taken in order to reduce wastes of time, and therefore of money, that a defective part could cause in a farming concern.
Parts Book

Since 1996, JOSKIN has been delivering each vehicle with an individualized parts book, which allows to easily identify and efficiently supply the spare parts for life. It is the very expression of the Group’s precision.

This book only contains the components used for the fabrication of the machine. They can easily be identified thanks to the detailed plans of each assembly, which allow to order the part to be replaced with the greatest accuracy.

Furthermore, JOSKIN has filed the used components since 1984 and will always supply you the appropriate spare part. The individualized parts book, far from being a luxury, is the key of a good lifetime service but also the warranty of a longer lifetime of your machine.

Assistance service

Next to the after-sales service, JOSKIN also has its own assistance service. It includes technicians who roam the roads in order to provide constant advices and support to dealers.

In order to constantly improve its assistance service, JOSKIN is regularly organizing trainings on its site of Soumagne. Their aim is to prepare in the best possible way the actors on the ground who will be in charge of maintaining or repairing your machines. Given the constant evolution of the machines and the addition of new technologies or new products, they are indispensable and aim at updating technicians’ knowledge.