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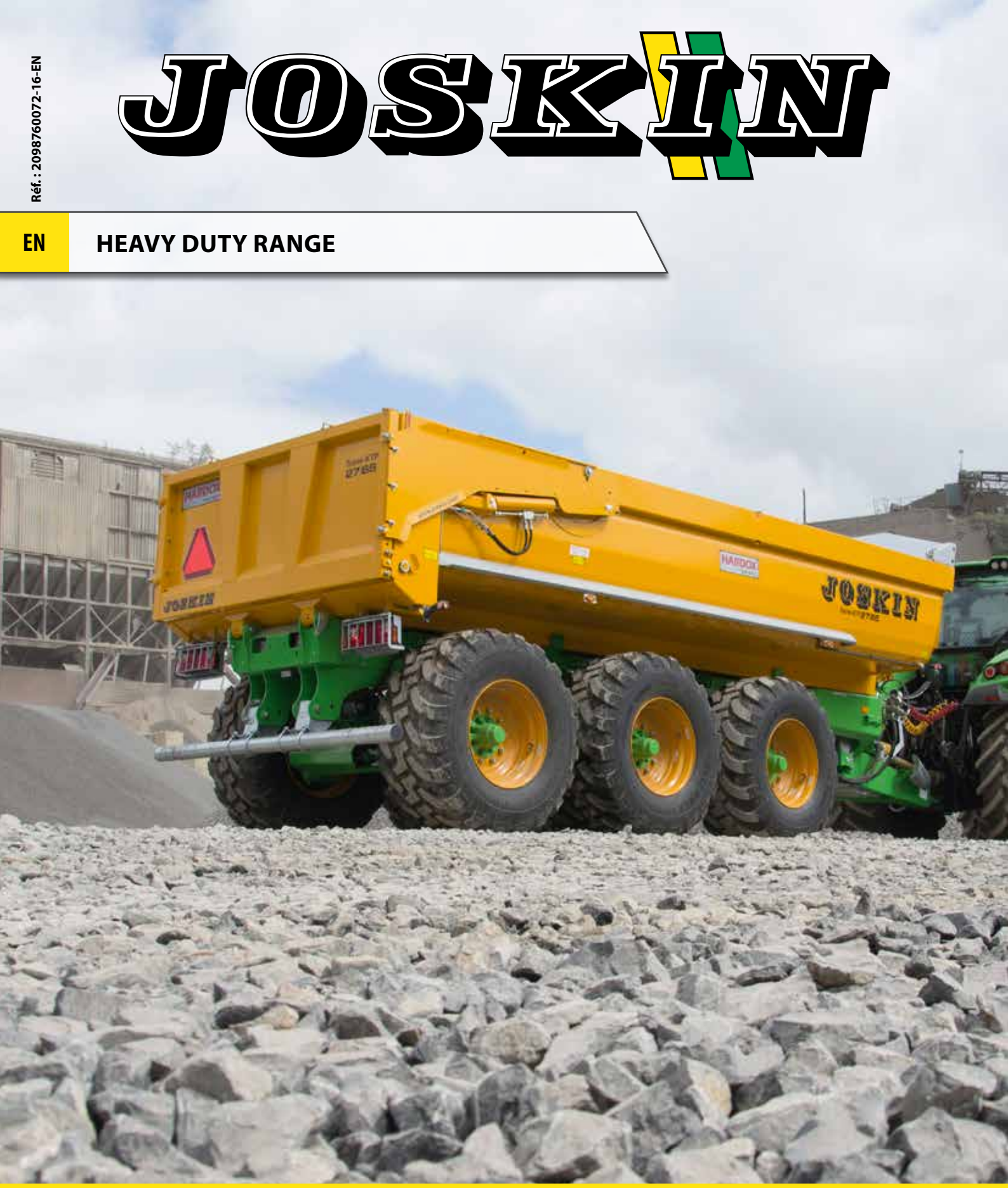
JOSKIN

EN

HEAVY DUTY RANGE



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*SUITED FOR THE **HARDEST WORK**!*

THE JOSKIN QUALITY:
6 Keys to Success

Production site (Belgium)

Strength of EXPERIENCE

FOUNDED IN 1968, the JOSKIN family business became A LEADER in the design and manufacture of agricultural machines. SPREAD OVER BELGIUM, POLAND AND FRANCE on a total surface area of almost 150,000 m², the JOSKIN production sites are EXPORTING TO MORE THAN 50 COUNTRIES.

TECHNICAL SKILLS within

VERY MODERN AND HIGHLY PRECISE TECHNIQUES are used: dynamic 3D simulation, automated lasers, folding presses, high tensile steel, hot-dip galvanization, automated continuous weldings.

Buy with CONFIDENCE

3 -YEAR WARRANTY

JOSKIN

See conditions on www.joskin.com

Technical Centre (Poland)

RESEARCH and DEVELOPMENT

JOSKIN has its own industrial design offices and 3D static and dynamic engineering software. The production is standardized as much as possible in order to ensure a precise manufacturing and a deadline compliance, while proposing hundreds of options! Our technicians and dealers are constantly trained in our technical centers.

At the SERVICE of our customers

Our great strength: the AVAILABILITY OF SPARE PARTS at any time and anywhere. Thanks to our permanent stocks, we send your parts as quickly as possible. The JOSKIN dealers undertake to have a stock of the most important spare parts of the machines.

Individualized PARTS book

The PARTS BOOK and the USER'S MANUAL are provided in your language when purchasing a machine. The parts book includes the drawings and references of the components mounted on your machine. Even years later, spare parts can be ordered efficiently!

Heavy Duty Range

Advanced Technique

The steel processing knowledge and the material choice are essential. Special steel types with high tensile limit allow to reduce – or even remove – the crosspieces and side reinforcements. Vehicles are in this way lighter, stronger and benefit from clear and elegant lines. The steel sheets are processed by modern tools like a 8 m laser cutting table, a 8.2 m folding press with digital control and automatic folding angle correction device (making sure the steel plate is evenly folded on the whole length), 8 m welding robots, etc.

Lathe with digital control

Welding robot

Laser cutting table

Folding machine with digital control

Adapted Special and High-Tensile Steel

JOSKIN machines are fully made of high tensile steel types, such as HARDOX®. 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. It is therefore possible to transport ever higher payloads.

Careful Manufacturing

JOSKIN tipping trailers are manufactured in accordance with the company's production philosophy. The many automated tools ensure an endless precision.

In the same way, the assemblies are exclusively mounted and welded on jigs. All components, including the body, are continuously welded. Surface treatment is very carefully carried out: the item is first cleaned by shot-blasting (projection of 2,500 kg of steel balls/minute) and then covered by an Ester Epoxy primer and finally a 2-component finishing coating. As part of the process, the paint is then dried at 60 °C.

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

Specifications of the steel types used by JOSKIN vs. traditional steel

Type of steel	Tensile limit (kg/mm²)	Ultimate stress (kg/mm²)
S235 or St 37-2 (traditional steel)	23.5	40
S355 or St 52-3 (traditional steel)	35.5	48
S420 (JOSKIN high-tensile steel)	42	55
S550 (JOSKIN high-tensile steel)	55	61
S690 (JOSKIN high-tensile steel)	69	75
HARDOX 450 (KTP HARDOX)	120	140

JOSKIN MANUFACTURING

Front lifting axle - standard on Hydro-Tridem

WIN PACK

"Win Pack" Advantages

To combine quality manufacturing and shortened delivery time, JOSKIN proposes WIN PACK machines. They are:

- reliable and of high quality thanks to the standardized manufacturing process;
- adapted to your farm and affordable;
- in stock or rapidly available;
- fitted with pieces of equipment that were tested in real working conditions;
- modular given the many options.

TRANS-KTP 9, 11 and 15 T

HARDOX® IN MY BODY

Choosing multi-functionality and Sturdiness

DESIGN

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

HITCHING

The Trans-KTP 9, 11 and 15 T are fitted with an open drawbar that, given its structure, ensures a very good weight/resistance ratio. Its wide fixing points (same width as the chassis) further improves the manoeuvrability.

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.

Given their compact and sturdy design (side walls and floor in HARDOX steel), they are an ideal solution for small earthmoving works, landscape gardening contractors or even public services.

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

SPECIFICATIONS

Chassis	Width 900 mm • 9/45 - 11/45: 250 x 100 x 6 mm • 15/45: 300 x 100 x 8mm
Body	Monocoque Floor and side walls: • 4 mm HARDOX 450 for 9/45 and 11/45 • 5 mm HARDOX 450 for 15/45
Running gear	JOSKIN Roll-Over Drawbar with parabolic suspension leaves
Max. wheel dimensions	Ø 1,248 mm / width 645 mm

MODELS

	DIN volume (m^3)	Technically permissible payload	Inner body dimensions (m)					Axle(s): □ (mm) - track (mm) - studs	Brakes (mm)	Ram (l)
			Length under	Length above	Width front	Width back	Height			
9/45 [1]	5.10	9 t	4.50	4.60	2.18	2.26	0.50	ADR 130x2000-10S	406 x 120	19
11/45 [1]	5.10	11 t	4.50	4.60	2.18	2.26	0.50	ADR 2x90x1900-8S	350 x 60	19
15/45 [1]	7.60	15 t	4.50	4.60	2.18	2.26	0.75	ADR 2x100x2000-10S	400 x 80	27

[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.

TRANS-KTP
17, 22 and 27 T

Combining Agility and High Capacity

GENERAL POINTS

The Trans-KTP 17, 22 and 27 T tipping trailer models are conceived and designed for the hardest works. Their body with side walls, floor and door fully made of 6 mm HARDOX 450 (5 mm for 17/50) ensures their long life span.

The double-axle models are standard fitted with the JOSKIN Cross-Over bogie and the 27/65 TRM with the Hydro-Tridem hydraulic suspension. These running gears ensure a high driving comfort on uneven ground.

Furthermore, the 27/65 TRM is standard fitted with a double self steering system (first and last axle), which further improves the manoeuvrability.

All these models are also standard fitted with a bumper that retracts hydraulically as the door opens.

NARROW CHASSIS

JOSKIN developed a narrow chassis that allows to fit the Trans-KTP with wide wheels (up to 666 mm), while not exceeding a total width of 2,550 mm. It also provides a larger steering angle and can be fitted with a more efficient braking system.

Regarding safety and stability of the vehicle, the front ram is as efficient as the one in standard position.

SPECIFICATIONS

Chassis	Width 900 mm • 17/50 - 22/50 - 27/55: 300 x 150 x 8 mm • 27/65 TRM: 300 x 150 x 10 mm
Body	Monocoque Floor and side walls: • 5 mm HARDOX 450 for 17/50 • 6 mm HARDOX 450 for 22/50 - 27/55 - 27/65
Running gear	• JOSKIN Cross-over on 17/50 - 22/50 - 27/55 • Hydro-Tridem on 27/65 • Options: JOSKIN rocker beam, Hydro-Pendul or Hydro-Tandem
Max. wheel dimensions	Ø 1,450 mm / width 666 mm Ø 1.400 mm / width 800 mm

MODELS

	Technically permissible payload	DIN volume (m^3)	Inner body dimensions (m)					Axle(s): □ (mm) - track (mm) - studs	Brakes (mm)	Ram (l)
			Length under	Length above	Width front	Width back	Height			
17/50 [1+4]	17 t	8.6	5.06	5.28	2.18	2.26	0.75	ADR 2x130x1950-10S	406 x 120	26
22/50 [1]	22 t [2]	10.9	5.06	5.28	2.18	2.26	0.95	BPW 2x150x1950-10S	410 x 180	36
27/55 [1+3]	27 t	11.9	5.54	5.75	2.18	2.26	0.95	BPW 2x150x1950-10S	410 x 180	42
27/65TRM [1+3]	27 t	13.9	6.49	6.70	2.18	2.26	0.95	BPW 3x150x2100-10S	410 x 180	70

[1] The first 2 figures refer to the carrying capacity in tons and the next 2 ones to the length of the body.
[2] For France: option 310 (1.820 mm bogie leaves) compulsory to get a maximum weight allowed to a loaded vehicle of 29 t for the 22/50.
[3] For France: only max. total load of 24 t. [4] Certification in progress for France. The max. total load depends on the legislation in force in each country.

CONSTRUCTION TIPPING TRAILER

General Points and Options

HARDOX® IN MY BODY

Tapered, Light and Strong Body

The bodies of the JOSKIN Trans-KTP construction trailers are made fully of high tensile steel of the HARDOX 450 type, which has very interesting tensile properties, as it takes its initial shape back after deformation. Compared to traditional steel, its tensile limit is indeed 4 to 5 times higher.

All bodies, including the doors, are manufactured with 2 steel sheets, without any linking cross-weld. Thanks to this manufacturing process, the empty weight of these tipping trailers is significantly lower and therefore allows transportation of higher payloads, without compromising on sturdiness.

The tapered shape of the body makes sure 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 ram is mounted on a double oscillating frame fitted with greased bearings and integrated in the chassis at a more forward position. This system compensates the torsions due to the tipping strains and effectively protects the ram and body from distortions. The body tipping is also ensured by the two robust hinges including bolted axis 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 ram, prevents the body from unexpectedly falling down (e.g. when the hydraulic hoses break).

Anchoring point of the ram on the body

Double oscillating frame in which the ram is placed

Tipping accessories

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

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 "quick lowering" function and is part of the standard equipment on the 27/65 TRM model.

For models 9, 11 and 15 T, two hydraulic pumps with a 55 l capacity are available (PR660: 53 l/min at 1,000 rpm and PR980: 70 l/min at 1,000 rpm). They can optionally be fitted with a electric or hydraulic control.

Parking Stand

The skid is hydraulically unfolded and can be completely integrated into the drawbar to ensure a larger clearance.

Headboard

As an option, the body can be fitted with a fully galvanized headboard in order to protect the hitching gear, the tractor and the tipping ram 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 leaf version of which (which is fully made of HARDOX 450 on 17, 22 and 27 T) is part of the standard equipment. The door is linked by three fixing points to the arms that pivot on a sturdy axis with a large diameter. Finally, the rams 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, a pressure relief valve regulates the oil pressure if the door cannot be completely closed, e.g. due to an obstacle.
- A safety valve on each door ram holds the door in position if hydraulic hoses break or if the tractor stops.

A 2-part rear door (also fully made of high tensile steel standard on 17, 22, 27 T - in option on 9, 11, 15 T) with 400x400 mm grain chute is available as an option.

Working Lights

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

Protecting Strip

A PVC protection of the upper body strip is proposed as an option to reduce the risks of potential damages by loading tools.

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.

Cover Systems

On the Trans-KTP tipping trailers, there are two solutions to cover the body: the VAKO rigid cover made up of two doors with hydraulic closing or a net with hydraulic closing called Flip-Tarp.

VAKO cover system

Flip-Tarp

CONSTRUCTION TIPPING TRAILER

JOSKIN Running Gears, a Reference!

Rock Solid Running Gears

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

Manoeuvrability

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

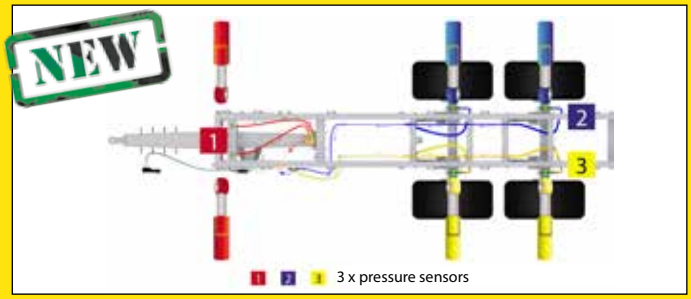
Safety

There are many braking system options. The air braking system can replace the hydraulic one and they also can be combined. Moreover, the load-proportional braking system ensures an improved safety and driving comfort.

Dynamic Weighing System on Hydraulic Suspension

Vehicles fitted with a hydraulic hitching suspension and a hydraulic running gear can be fitted with this device.

Two pressure sensors located on the hydraulic circuit of the running gear, as well as one on the hitching suspension, are connected to a computer on the running gear. These sensors send cable signals so that the weight can be displayed on a screen in the tractor cabin. Another screen can be installed on a loader or on the vehicle in order to see the load weight at any time. This system is also compatible with Isobus and can be controlled through the Isobus terminal that replaces in this case the separate screen. It is available on tipping trailers, muck and slurry spreaders, multi-purpose and silage trailers.

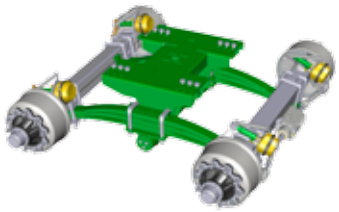


A Choice of 5 Running Gear Types:

ROLL-OVER BOGIE

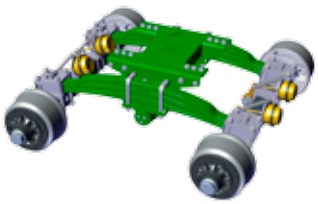
Thanks to the position of the cross-axis (under the leaves) and the upper position of the axles at the ends of the leaves, the drawline pushes the front axle over the obstacle.

The traction power needed is therefore reduced. The significant clearance (± 250 mm) is ideal, even on the most difficult grounds.



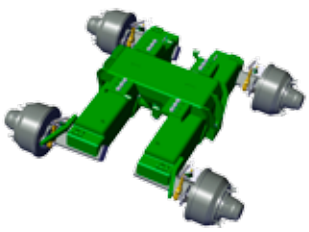
CROSS-OVER BOGIE

The Trans-KTP 17, 22 and 27 T tipping trailers are standard fitted with the JOSKIN Cross-Over bogie. 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 on the Cross-Over and Roll-Over bogies lies under the leaves, which provide a further improved suspension quality because of their outstanding resistance to torsions.



ROCKER BEAM

The rocker beam is available as an option on the 22 and 27 T double-axle models. 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.



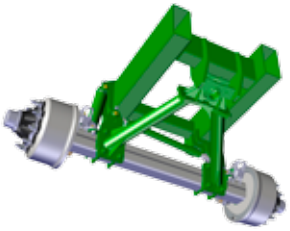
HYDRO-TANDEM AND HYDRO-TRIDEM

Simplicity, clearance and stability: these are the three key specifications of the Hydro-Tandem/Tridem running gear. It combines the following advantages: the axles can easily be pulled over obstacles and they are semi-independent. That is why they allow a significant clearance (up to +/- 250 mm). Given the design of the JOSKIN Hydro-Tandem/Hydro-Tridem, the ground pressure is perfectly distributed over the wheels. The ground is therefore less compressed, which allows to spare its structure. The stability of the vehicle will therefore also be significantly improved. Each axle is pulled by leaves attached to a fixing element that is located ahead of the assembly. Four or six hydraulic rams are placed two by two or three by three on both sides of the chassis. Those of a same side are linked to each other in closed circuit and the oil flow takes place according to the communicating vessels principle. The independence of the circuits on each side of the vehicle, combined with the incompressible properties of oil, ensures a perfect side stability and prevents swaying. This explains why the vehicle is less likely to tilt when driving in bends and on hills.

The first lifting axle is standard mounted on all Hydro-Tridem vehicles.

HYDRO-PENDUL

On the Hydro-Pendul hydraulic suspension, each axle is mounted on two double-acting hydraulic rams (one on each side 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, which has a vertical axis in order to make the running gear highly stable.

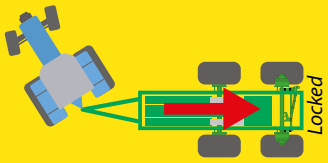


On the Hydro-Pendul, you can secure your tipping operation with the option "Tipping stabilizer". Its purpose is to lock the hydraulic rams in order to keep them perfectly aligned.

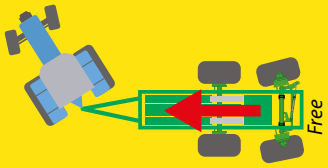
Free Steering Axles

The free steering axle follows the direction taken by the tractor. The oscillation range is +/- 15° depending on the tyre size

To drive on the road (> 15 km/h) or reverse, an hydraulic device ensures a powerful locking and a perfect alignment of the rear axle with the front axle, which thereby ensures the safety of the carriage. A shock-absorber stands for the stability of the free steering axle by preventing too significant vibrations.



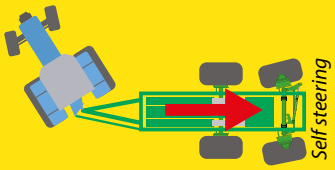
Free steering axles
(50% steering)



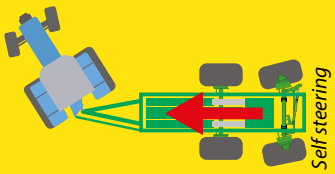
Self Steering Axles

The self steering axle is an important safety component as it keeps your vehicle in the tractor driving line. 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 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 monoblock set-up unit including a pressure gauge, one nitrogen accumulators, an aligning valve and a calibrating circuit.



Steering axles
(100% self steering)



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