



# Earthmoving tippers



### Seven good reasons for buying Krampe

#### **Quality on wheels**

This is the guiding principle of our company that has made us what we are today – Germany's uncontested market leader and manufacturer of tractor-pulled halfpipes and body tippers for the agricultural industry.

#### Quality engineering with distinction

Our trailers are outstanding for their superior dependability and long machine life. Furthermore, they enjoy a resale value that tells its own tale.

#### Light-footed but ultra strong

Well-conceived designs and the use of high-tensile steels make for a reduced empty weight of our trailers.

#### Tailored to your needs

We customise your trailer to your specific requirements and applications. There is (virtually) nothing we cannot deliver!

#### High quality, right down to the finest detail

We exclusively rely on the highest-quality components and assemblies for the manufacture of your trailer.

#### We never stand still

We continuously advance our products and develop viable solutions that work for you. We listen and respond fast and flexibly.

#### Made in Germany

We are based in Germany, and we manufacture in Germany.





Krampe has grown from a small village smithy...



... and established itself through devotion and aptitude as well as through the tenacity for which the Westphalian folks in our region are known.



The Krampe vehicle manufactures aim to deliver "Quality on Wheels" and innovative products.

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## **Krampe tippers**

All Krampe earthmoving trailers are available in a wide range of different specifications.

All our models undergo constant revisions and upgrades as our team listens to farmers and contractors who share their experience with us. This way we can design and build equipment that works for them and which they value because they can depend on it.

Combining a low empty weight with a high-quality running gear and excellent tyres, our machines offer very light pulling and therefore lead to great fuel economy. More than that, they are also suitable for being pulled by relatively lightweight tractors.

You are invited to benefit from a superior level of quality that stems from more than thirty years of manufacturing tippers and premium running gears. Take advantage of incredibly robust earthmoving tippers!



## All the benefits at a glance

A viable option

industrial dumpers.

There has been a growing demand for earthmoving tippers in recent years as civil engineering companies have

come to realise that in rough and

boggy terrain high powered tractor-

trailer combinations have the edge on

#### Less is more

This principle is certainly valid when it comes to the weight of a trailer, where every tonne of empty weight impacts on the tractor's fuel economy. We at Krampe have focused for years on optimising trailer weights by using highquality steels.

#### Full range of hitch options

The height-adjustable drawbars are available with rubber, pneumatic or hydraulic damping options. Anybody out there who can match with this?



HITTHIT

#### A good base

The extremely robust and rigid chassis made from section steel comes with a choice of different suspension systems – standard parabolic springs, optional walking beam running gear for superior off-road rides, axles with hydraulic equalisation, and air suspension.

#### **Unlimited choice of tyres** Our trailers are supplied with

factory fitted tyres of your choice. You name the brand, size and tread.



#### Viable indeed

Haulage jobs offer a welcome opportunity to improve your fleet's utilisation and keep employed staff busy during the quiet season.

#### Soft footed

The advantage of earthmoving trailers over regular dumpers is their lower empty weight which leads to less soil pressure.

## The jack-of-all-trades

The SK series mirrors our consistent drive for technical developments. The established and well-proven body was developed from our Big Body models. Introduced in 2003, it marked the beginning of a new era in the agricultural industry and developed into a real best seller. Engineered with earthmoving applications in mind, the six Tandem SK models can also be fitted with side extensions to haul grain and silage as well as maize and wood chips for biogas plants and wood chip heating systems but it can also be mounted for the transport ofcereals, silage or wood chips.

Krampe

Kipper

The benefits

#### A heavy-duty lightweight

The 6 mm floor and the 5 mm sides are fabricated from a single sheet each. The curved sides have turned edges for maximum rigidity, eliminating the need for extra stanchions and reducing the empty weight.

#### Astounding fuel economy

Assuming reasonable driving, a 200 hp tractor may well get by on a modest 10 to 12 litres of fuel per hour - a figure that may not please the petrol station attendant but will suit your wallet and cost manager.

#### Powerful

The telescoping ram gives a large 55° tipping angle.

#### Dumping made easy

The conical and curved design of the body allows the material to flow easily from the tipper without sticking to the walls.

#### Expandable

Side extensions 40, 60, 80 cm high as well as alu boards 20 cm high to be attached on the 80 cm extensions can be mounted so that the transport volume increases there by up to 26,5 m<sup>3</sup>.

#### A great tailgate

The tailgate is a matured masterpiece that offers absolutely tight fit. Operated hydraulically as a standard feature, the tailgate has a cylinder with an integral check valve and an additional load holding check valve which maintain the pressure that is applied to keep the gate closed.

#### Less is sometimes more

The tailgate offers great modulation for controlled unloading, making these sand and gravel tippers also suitable for road metalling applications.

## The heavy-duty machine

Tractor drawn sand and gravel tippers have for many years been a familiar sight at highway construction sites and in rough terrain. Indeed, Krampe, too, would not be without them. In fact, we have added a Tridem model to the family.



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**.** 





The benefits

#### The advantages at one view

The proven Tridem earth-moving tippers are available in lengths of 7.50 or 8.00 m. Two wheelbases (1.55 or 1.81 m) are provided for your selection.

#### Unrivalled driver comfort

These earth-moving tippers can be equipped with a pneumatic suspension. The pneumatic running gear optimized by the Krampe engineers convinces with its excellent engine smoothness as well as its high stability and its cross-country capability.

#### Well equipped

A suspended towing device is also part of the standard equipment as well as a 40 km/h version and a hydraulic tailgate with automatic locking device at bottom.

#### Just as you wish

According to the proven Krampe motto "quality on wheels", HARDOX sheets as well as forced steering axles or 30.5" tyres are also available. For export vehicles with hydraulic brakes, running gears with hydraulic axle compensation are included in the programme.

#### Still remaining strong

For many years, Krampe has attached importance to a low own weight for maximum payload. Therefore, fine-grained steels find more and more their way in the production of robust earth-moving tippers that benefits the long durability and the high payload. This amounts to 30 t for the SK 750.

#### How about some more volume?

Side extensions are available in three different heights. Thereby, these all- rounder trailers can be used for the transport of wood chips, cereals or silage.

## The Halfpipe HP 20 The ultimate at any construction site

Always in the vanguard of new developments, Krampe was the first manufacturer to install a halfpipe on a tandem-axle running gear. With the benefit of decades of experience, we manufacture trailers that are well-conceived down to the tiniest detail and reveal their superior qualities in every terrain.

Sold thousands of times, our halfpipes are held in high regard by operators and owners.

#### The benefits

#### Powerful

The tipping ram is located on the front wall where it requires minimum effort to tip the halfpipe whilst minimising torsion between chassis and halfpipe.

#### Steadfast

The centre of gravity is 200 mm lower than on a traditional body tipper after we took out the beams underneath the body and placed the body on the chassis itself – a design that improves the machine's stability on slopes enormously whilst reducing the unloading height.

#### Robust lightweight

The curved body design eliminates the need for axial braces and traverses and leads to a higher payload. After all, every single tonne of weight counts, and only laden weight earns money.

#### Design creates rigidity

The special design of the halfpipe allows the material to slide in at a shallower angle, while loading, this eliminates the risk of dents when transporting rocks and boulders.

#### Very practical

As the material slides automatically to the centre of the halfpipe while unloading, the machine benefits from greater stability during dumping.

#### **Extremely robust**

The body is almost entirely made from 450 HARDOX steel. The sheets are 6 mm thick and hence extremely resistant to damage and wear. Thanks to the steel's outstanding elasticity, dents have become an issue of the past.

#### A neat feat

The halfpipe and the tailgate have pointed tops which prevent dirt from collecting here.

#### A great tailgate

The hydraulic tailgate pivots up and over for big rocks to pass through smoothly.

#### **High flotation**

High flotation tyres and the off-road chassis reduce soil pressure and keep the combination afloat in difficult terrain.

## **Boosting work cycles**

400 hp (295 kW) tractors are now available from many tractor manufacturers. Translating this extra power into extra productivity has always been a problem. But not for Krampe. The Tridem Halfpipe HP 30 is 7 m long, offering plenty of capacity, hence more productivity.



Kipper

Info: Still with old tailgate

#### The benefits

#### **Giant payload**

Offering a payload of 30 t for on-site use, HP 30 really comes into its own when attached to a new and modern tractor.

#### Ultimate stability working off-road

The BPW axles with hydraulic running gear provide superior stability and large travel for excellent flotation in difficult terrain.

#### Dependable tracking

Hydraulic force-steer axles are an option that ensures the trailer tracks well behind the tractor at all times and in the most arduous conditions. Tridec gear with threepoint links are available as an option, which keeps the machine's overall width within 2.55 m.

#### Time is money

The extremely powerful, optional hydraulic system tips and lowers the body extremely fast.

#### Nearly automatic

The Tridec running gear is offered with an optional hydraulic system which levels the trailer before tipping is started, making unloading a safe operation even in extremely difficult terrain.



## The running gear is fundamental

#### The running gear

- is what you don't really see
- is the assembly on a Krampe trailer that is packed with all our expertise
- is by far the most costly assembly on a trailer
- is what accounts for the ride quality
- is what sets your Krampe tipper apart from other brands
- will be the reason for great regret if it turns out to be a mispurchase

During the past few years, our engineers at Krampe have devoted themselves to the development of high-end solutions. Indeed, far from being mass products, our running gears are customised and tailored to individual requirements and needs, offering our customers the greatest choice of hitch systems, running gears and tyres.

The proper running gear and the use of excellent tyres are essential for dependable performance on the rough. These components will ultimately determine the trailer's ease of pulling and stability on the site.



The Krampe earthmoving tippers are veritable work horses which are equipped with running gears that withstand the most arduous conditions and applications.

While some manufacturers merely modify agricultural body tippers and place them on traditional running gears, Krampe offers axle assemblies that offer true off-road mobility and have proven their worth for many years.

We will be pleased to help you determine your specific needs. After all, even the best trailer will fail if running on inadequate gear.

Furthermore, all of our tippers have been approved for operation at various speeds.





The ZV 22 drawbar with two in-line rubber blocks offers a tongue load of up to 4 tonnes.



On demand, the vehicles can be equipped with a hydraulically heightadjustable drawbar.



Just another typical Krampe innovation – axles with true independent wheel suspension and connectable suspension via nitrogen dampers.



The axle assembly with walking beam running gear has the axles arranged asymmetrically (55/45 %), a design that prevents the front axle from 'digging in' and cares for excellent stability and terrain-following capabilities. The tube section pivoting arms give effective self cleaning. A ALB valve is part of the standard equipment.



Running gear comprising 24 t - 32 t parabolic springs with axial arms and axles spaced at 1.36 m or 1.55 m.



Few manufacturers have the experience we have in building hydraulic running gears. The standard guard tubes protect the chromeplated piston rods from damage from stones.



The Tandem HP 20 Halfpipe is an earthmoving tipper for real professionals and complies with commercial approval legislation, hence requiring no special permit for travelling on public roads in Germany.







Massive pneumatic bellows mounted on cranked holders bring exceptionally quiet running to our heavy-duty Tridem tippers. Bleeding takes place automatically during tipping.



Option: The advanced Tridec running gear results in light pulling and great adaptation to difficult terrain. Measuring only 2.55 m in overall width, it still features forced steering and 600 tyres.

# Precision solutions for professional applications



The extremely slim drawbar assembly makes for very tight turns. Forced steering ensures your trailer tracks perfectly behind the tractor – when travelling at speed, in boggy terrain and during reversing.



Krampe modified the brake cylinder of the ADR steering axle which leads to superior ground clearance and protection to the diaphragm cylinders.



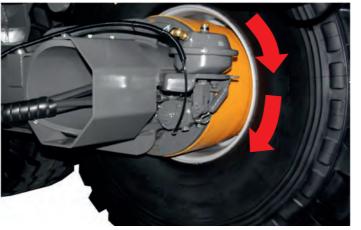
Working in rough terrain calls for optimum ground contour following and maximum stability.



The electronic forced steering system allows operators to select one of many programs that control the trailer's response to their steering.



This illustration shows the cross section of a profi axle – generously sized wheel bearings and a massive stub axle.



Option: The wheels are driven hydraulically for added thrust in rough terrain whilst the light-weight driveline results in better traction.



The leaf springs are generously spaced to enhance machine stability on the rough, an asset not only in rough terrain but also if the machine's centre of gravity is high.



The telescoping ram features a gimbal ring and a tap. Cross braces and oversized traverses bring the necessary rigidity to the structure.



The optional side guard improves road safety and is a statutory requirement in many countries.



Pointed roof covering prevents dirt from collecting on the rear lights. Grids give protection and flexible position lamps provide added safety.

Option: The underride guard swings up to give optimum ground clearance in difficult terrain.

Machines with walking beam running gear or independent hydraulic wheel suspension have a lubrication bank that attends to all greasing points, especially those in awkward positions.

## **Bodies that last for ever**



The curved design of the Halfpipe (left) results in material dropping into the body at a shallow angle, preventing damage and dents. While unloading the material flows to the middle of the body, this provides a higher stability. The body of the SK sand and gravel tipper (right) was developed from the established and well-proven Big Body structure. HARDOX steel offers enormous resistance to wear and dents while minimising the kerb weight.



The heavy-duty 80 mm and 100 mm ball bearings on the heavy-duty Tridem tippers and Halfpipe earthmovers have replaceable PU wearing cups.



Massive tipping bearings with one full-length 40 mm pin are used on the SK trailers. This gap-free assembly has not failed a single time in more than 30 years.



The plastic 'Okuslide' lining for trailer bodies is a retrofit option which ensures the cargo glides off smoothly and quickly, so no material is left in the body (even when working in sub-zero temperatures).



The base of the floor on the SK models is heavily ribbed for superior rigidity of the structure. The base bearers are made from section steel rather than from cheap angle bars. The braces underneath the body are fully welded to eliminate any cavities and risk of corrosion.

## **Comprehensive specification**



The silage sides are made from profiled sheet steel. Sides on 6.5 m and longer machines are split in two parts. The sides come in heights of 50 cm, 60 cm and 80 cm.



The top frame is optionally lined by a wooden edge which protects it from damage by the wheel loader.



points is available.

A dual line system makes for quick lowering.



An on-board hydraulic system complete with drive shaft, hydromotor and control unit is optionally available.



An electric quick-drop valve is an option that speeds up operations even further, returning the oil to the tipper's oil tank or to the tractor's pressureless return line.

## A great tailgate

A hydraulic tailgate has become a standard item on all body tippers nowadays. A typical Krampe innovation is the floormounted latch which presses the tailgate automatically to the body – a design that has meanwhile been copied by nearly all of our competitors. The system is both very simple and extremely effective.

The double-acting rams are retracted when the tailgate is closed and in this position, their piston rods are well protected of course. These rams feature an automatic locking valve – the former nitrogen tank has long since served its time – which implements a much higher pressure and tighter fit, especially in those cases where the tractor spools leak.



The hydraulic tailgate opens without effort.



The tailgate pivots open.



A demonstration of pivoting benefits.



Naturally, the tailgate also opens clear if necessary.



The tailgate on our SK models can be equipped with an optional outlet slide for controlled and consistent unloading.



Better seal of the tailgate trough locking hooks and a lock-pressure value.

## **Effective protection**

Securing loads will become an issue in many countries in the next few years. Some countries will require haulers to contain the hauled material such as silage on the trailer to make sure there are no losses during road transport. This



The roll-over sheet is attached to the body itself. Silage sides are no problem. The Quick-Cover net is the easiest and fastest way to secure the cargo.

The sealed tailgate makes for safe hauls of wet material.

For the transport of coarse graved and stones, the locking hooks remain in open position by turning the locking pieces.

means time is lost in each haul for attaching and removing the cover. Unfortunately, covers on long machines are not

the cover. Unfortunately, covers on long machines are not very easy to handle, but our engineers have developed a solution that suits every application and wallet.



## Great appearance and great protection

The paint coat **plays a crucial role in the anti-corrosion** formula of a machine. However, it is the overall spraying process that gives the paint coat its protecting properties as well as the finishing touch to the machine's unique appearance. Sound paintwork requires a well prepared base coat applied on an equally well prepared work piece. Many of our steel components are sand-blasted whereas aluminium components are supplied in a sand papered condition.

Before the parts and sheets enter the spray booth all surfaces are cleaned thoroughly with a vapour steam cleaner. Then they are phosphated and passivated. This treatment creates excellent conditions for applying an optimum coat.

We exclusively rely on manual spraying processes, because the complexity of our products and the great variety of options make it impossible to use automated painting. Besides, we often manufacture in small quantities and offer multiple colours, so that manual painting presents the most flexible and viable solution for us.

The paint is sprayed using electrostatic application. Here a two-component lacquer is heated to 60 °C while it is being pumped through the feeding line to the spray gun, a technology that minimises the use of thinners. The two components of this so-called 2K paint are metered and mixed vigorously in the correct ratio before the mix is pumped to the spray gun at 120bar.

As the paint is atomised by the nozzle, it is charged with a voltage of 80,000V and thereby accelerated towards the work piece, which attracts the paint like a magnet. The system is controlled electronically and provides maximum precision, consistent quality and uniform thickness. Furthermore, by minimising the use of solvents and avoiding overspray, this technology is friendly to the environment and economises the use of resources.

We have been applying electrostatic single-layer painting since 2008. The paint bonds very well to the metal base, offering excellent protection from corrosion. Rigorous tests in close collaboration with our paint supplier subject the paints to continuous quality assessments and optimisation.

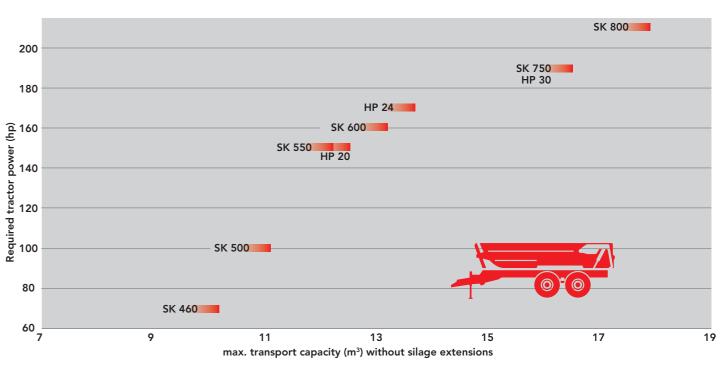
Our experience has been extremely good in the past few years. In addition to offering excellent resistance to corrosion, these paint coats also offer great light stability and therefore long-lasting colour and gloss retention even when exposed to intensive light conditions.

Besides, the single-layer paint coat offers great elasticity so that it will not crack upon stone impacts.

As well as striving for high-quality finishes we also aim to protect the environment. Therefore we use paints of high solid contents, which generate low-solvent emission levels. The drying process is given the time it takes to form a network-like structure. This way we also contain CO, emission levels, which for years have been maintained below the statutory VOC limits.

Our expert and experienced painters as well as our stateof-the-art spray painting and drying facility ensure a consistently high quality of our paint coats. This in turn takes a close collaboration of everybody involved - the manufacturers of the substances and those of the technical facilities. This is the way forward so we continue delivering those premium paint finishes that live up to Krampe's 'Quality on Wheels' claim.

## Which tipper works best for you?



Silage sides expand the capacities of our sand and gravel tippers up to 33 m<sup>3</sup>.

#### Aspects to consider when buying a tipper.

#### What type of tractor is used to pull the trailer? (number/size of machines used, horsepower)

Parabolic springs give excellent suspension in short distance haulage applications at slow speeds. In very rough terrain, the walking beam running gear is an enormous gain. Further options include pneumatic and hydraulic running gears. Choosing the right tyre is crucial for minimising wear and running costs. You will find a large selection of tyres on page 27.

The above graph illustrates the matches of tractor power and trailer model. What type of hitch system is required? We offer a range of drawbar designs and attachment heights as well as a variety of running gears, see page 14 ff.

#### What materials are typically hauled?

See the specification sheets on pp 24-26 to strike the optimum balance of capacity and payload.



#### What ride qualities should the tipper offer - site and/ or road?

#### What is the application?

Our tippers are designed for agricultural and forestry applications as well as the construction industry, but we also offer tippers for industrial haulage applications, naturally complete with the appropriate cargo securement systems.

Please do not hesitate to contact us for further information. We will be pleased to offer further advice.

### Custom specification

Specifications	Tandem				
Model	SK 460	SK 500	SK 550	SK 600	SK 750
Type of body	Flat floor	Flat floor	Flat floor	Flat floor	Flat floor
GVWR	16 t bei 40 km/h	22 t bei 40 km/h	22 t bei 40 km/h	22 t bei 40 km/h	31 t (34 t) bei 40 km/h
Payload (on-site use)*	Approx. 14 t	Approx. 20 t	Approx. 22 t	Approx. 22 t	Approx. 30 t
Empty weight*	Approx. 4.3 – 4.9 t	Approx. 5.3 – 6.7 t	Approx. 5.6 – 6.9 t	Approx. 5.9 – 7.2 t	Approx. 8.1 – 9.7 t
80 mm hitch ball, permissible tongue load	2 t	4 t	4 t	4 t	4 t
Dampened drawbar system	-	Standard	Standard	Standard	Standard
Hitch height	95+101+106 cm	ca. 55 – 90 cm	ca. 55 – 90 cm	ca. 55 – 90 cm	55-63 cm
Min hp requirement	ab 55 kW (75 PS)	ab 74 kW (100 PS)	ab 110 kW (150 PS)	ab 118 kW (160 PS)	ab 140 kW (190 PS)
Oil requirement/tipping angle	201/51°	271/55°	341/55°	41 I/55°	601/55°
Hydraulic ram type	Telescoping ram	Telescoping ram	Telescoping ram	Telescoping ram	Telescoping ram
Lift range / number of stages	2,305 mm/4-stage	2,250 mm/4-stage	2,230 mm/5-stage	2,780 mm/5-stage	3,225 mm/5-stage
Axles, axle cross section	130 x 130 mm	150 x 150 mm	150 x 150 mm	150 x 150 mm	150 x 150 mm
Lift capacity (sand)	Approx. 12 t	Approx. 20 t	Approx. 20 t	Approx. 22 t	Approx. 30 t
Brake system	Dual-line air brake, two hose, ALB-valve	Dual-line air brake, two hose, ALB-valve	Dual-line air brake, two hose, ALB-valve	Dual-line air brake, two hose, ALB-valve	Dual-line air brake, two hose, ALB-valve
Wheel brake / trackwidth	406 x 120/1,950 mm	410 x 180/1,950 mm	410 x 180/420 x 180 mm 1,950/2,150 mm	410 x 180/420 x 180 mm 1,950/2,150 mm	420 x 180 (410 x 180) mm 2,150 mm
Axel distance	1,360 mm	1,360 mm / 1,550 mm	1,550 mm	1,550 mm	1,550 mm (1,810 mm)
Running gear	Parabolic springs 20 t	Parabolic springs 24 t Optional pivoting axles	Parabolic springs 32 t Optional pivoting axles	Parabolic springs 32 t Optional pivoting axles	Parabolic springs 36 t, Optional pivoting axles
Body dimensions (internal)	4.65 x 2.30 m/ 2.20 x 1.01 m (conical)	5.05 x 2.30 m/ 2.20 x 1.01 m (conical)	5.55 x 2.30 m/ 2.20 x 1.01 m (conical)	6.00 x 2.30 m/ 2.20 x 1.01 m (conical)	7.50 x 2.30 m/ 2.20 x 1.01 m (conical)
Transport volume (water volume)	10.3 m <sup>3</sup>	11.2 m <sup>3</sup>	12.3 m <sup>3</sup>	13.3 m <sup>3</sup>	16.6 m <sup>3</sup>
Transport capacity to SAE 221	13.3 m <sup>3</sup>	14.4 m <sup>3</sup>	15.7 m <sup>3</sup>	17.2 m <sup>3</sup>	21.5 m <sup>3</sup>
Transport capacity with 60 cm extensions	16.4 m³	17.9 m <sup>3</sup>	19.6 m <sup>3</sup>	21.2 m <sup>3</sup>	26.5 m <sup>3</sup>
Transport capacity with 80 cm extensions	18.5 m <sup>3</sup>	20.1 m <sup>3</sup>	22.1 m <sup>3</sup>	23.9 m <sup>3</sup>	29.8 m <sup>3</sup>
Transport volume with 20 cm top bar additional to the 80 cm silage sides	20.5 m³	22.3 m <sup>3</sup>	24.5 m³	26.5 m³	33.1 m³
Floor sheet S355/HARDOX 450**	5 mm S355 or 5 mm HARDOX 450	6 mm S355 or 6 mm HARDOX 450	6 mm S355 or 6 mm HARDOX 450	6 mm S355 or 6 mm HARDOX 450	6 mm S355 or 6 mm HARDOX 450
Total height (f) at tyre size	ab 2.35 m 560/60 R 22.5	ab 2.49 m 560/60 R 22.5	ab 2.60 m 600/55 R 26.5	ab 2.60 m 600/55 R 26.5	ab 2.58 m 600/55 R 26.5
Total height (pivoting axles)	-	2.53 m (22.5")	2.64 m (26.5")	2.64 m (26.5")	-
Total height at 55° tip (w)	5.53 m	5.97 m	6.50 m	6.87 m	8.05 m
Total length (g)	6.58 m	6.95 m	7.43 m	7.88 m	9.52 m
Recommended tyres	560/60 R 22.5 560/45 R 22.5	560/60 R 22.5 600/55 R 26.5 650/55 R 26.5			

Approx. 8.3 – 9.9 t
4 t
Standard
55-63 cm
ab 140 kW (190 PS)
64 l/55°
Telescoping ram
3,425 mm/5-stage
150 x 150 mm
Approx. 30 t
Dual-line air brake, two hose, ALB-valve
420 x 180 (410 x 180) mm 2,150 mm
1,550 mm (1,810 mm)
Parabolic springs 36 t, Optional pivoting axles
8.00 x 2.30 m/ 2.20 x 1.01 m (conical)
17.7 m <sup>3</sup>
23.0 m <sup>3</sup>
4.796
31.8 m <sup>3</sup>
35.3 m³
6 mm S355 or 6 mm HARDOX 450
ab 2.58 m 600/55 R 26.5
-
8.25 m
9.93 m
560/60 R 22.5 600/55 R 26.5 650/55 R 26.5

Tridem SK 80 Flat floor 31 t (34 t) bei 40 km/h Approx. 30 t

Specifications	Tano	Tridem		
Model	"Halfpipe" HP 20	"Halfpipe" HP 24	"Halfpipe" HP 30	
Type of body	Halfpipe	Halfpipe	Halfpipe	
GVWR	22 t bei 40 km/h	24 t bei 40 km/h	31 t bei 40 km/h	
Payload (on-site use)*	Approx. 25 t	Approx. 26 t	Approx. 30 t	
Empty weight*	Approx. 5.6 – 6.3 t	Approx. 5.9 – 6.5 t	Approx. 8.7 – 9.7 t	
80 mm hitch ball, permissible tongue load	4 t	4 t	4 t	
Dampened drawbar system	Standard	Standard	Standard	
Hitch height	ca. 55 – 70 cm	ca. 55 – 70 cm	55–65 cm	
Min hp requirement	ab 110 kW (150 PS)	ab 125 kW (170 PS)	ab 140 kW (190 PS)	
Oil requirement/tipping angle	35 l/55°	391/55°	81 I/55°	
Hydraulic ram type	Front mounted	Front mounted	Front mounted	
Lift range / number of stages	4-stage	4-stage	5-stage	
Axles, axle cross section	150 x 150 mm	150 x 150 mm	150 x 150 mm	
Lift capacity (sand)	Approx. 26 t	Approx. 27 t	Approx. 34 t	
Brake system	Dual-line air brake, two hose, ALB-valve	Dual-line air brake, two hose, ALB-valve	Dual-line air brake, two hose, ALB-valve	
Wheel brake / trackwidth	410 x 180/420 x 180 mm 1,950/2,150 mm	410 x 180/420 x 180 mm 1,950/2,150 mm	410 x 180/420 x 180 mm 2,150 mm	
Axel distance	1,550 mm	1,810 mm	1,550 mm	
Running gear	Parabolic springs 32 t Pivoting axles, independent wheel suspension or hydr. running gear	Parabolic springs 32 t Pivoting axles, independent wheel suspension or hydr. running gear	Hydr. running gear with full-width axles or Tridec running gear	
Body dimensions (internal)	5.25x 2.30 x 1.20 m	5.65 x 2.30 x 1.20 m	7.00 x 2.30 x 1.20 m	
Standard body 1.20 m Transport volume (water volume) Transport volumeaccording to SAE 221 (heaped volume)	12.1 m³ 15.7 m³	13.0 m³ 16.9 m³	16.1 m³ 21.9 m³-	
Increased Body 1.40 m Transport volume (water volume) Transport volume according to SAE 221 (heaped volume)	14.5 m³ 18.8 m³	-	Ξ	
Floor sheet \$355/HARDOX 450**	6 mm S355 or 6 mm HARDOX 450	6 mm S355 or 6 mm HARDOX 450	6 mm S355 or 6 mm HARDOX 450	
Total height (f) at tyre size 2.58 m   600/55 R 26.5		2.58 m 600/55 R 26.5	2.80 m 600/55 R 26.5	
Total height (pivoting axles)	2.62 m (26.5")	2.62 m (26.5")	-	
Total height at 55° tip (w)	6.75 m	7.05 m	8.25 m	
Total length (g)	7.63 m	8.03 m	9.45 m	
Recommended tyres	560/60 R 22.5 650/55 R 26.5 24 R 20.5	560/60 R 22.5 650/55 R 26.5 24 R 20.5	560/60 R 22.5 600/55 R 26.5 650/55 R 26.5	

\* Unladen weight and payload down to specification \*\* Optional extra

All specification are non-binding, we reserve the right to make consructional alterations

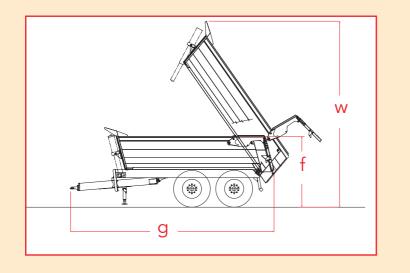




#### **Specifications HP 20 Carrier**

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Specifications	Tandem		
Model	HP 20 Carrier		
Type of body	Halfpipe		
Axle type	Tandem		
GVWR	22 t bei 40 km/h		
Payload (on-site use)*	ca. 25 t		
Empty weight	ca. 6 t		
80 mm hitch ball, permissible tongue load	4 t		
Dampened drawbar system	Standard		
Hitch height	ca. 55 – 70 cm		
Min hp requirement	ab 110 kW (150 PS)		
Oil requirement/tipping angle	35 I/55°		
Hydraulic ram type	Front mounted		
Lift range / number of stages	4-stage		
Axles, axle cross section	BPW braking axle, 150 x 150 mm		
Lift capacity (sand)	ca. 26 t		
Brake system	Dual-line air brake, two hose, ALB-valve		
410 x 180 wheel brake / trackwidth	1,950 mm		
Running gear	pivoting axles		
Body dimensions (internal)	5.25 x 2.30 x 1.20 m		
Transport volume (water volume)	12.1 m <sup>3</sup>		
Transport capacity to SAE 221	15.7 m³		
Floor sheet	HARDOX 450		
Total height (pivoting axle) at tyre size (f)	2.62 m 600/55 R 26.5		
Total height at 55° tip (w)	6.78 m		
Total length (g)	7.63 m		
Recommended tyres	560/60 R 22.5 650/55 R 26.5 24 R 20.5		



## Strong. Big. Powerful.

Our Halfpipe HP 20 was designed as a tractordrawn trailer and in fact the combination has become a common sight at so many highway construction sites and similar applications.

"Particular requirements? Anything is possible" – that is part of our company philosophy. Krampe did and still does produce individual trailers. Special wishes are our daily business.

With the new "Halfpipe HP 20 Carrier" we follow a new, additional way.

Decades of trailer manufacturing taught us that some configurations are more popular than others, meeting the demands of a wide range of customers.

Based on this experience the HP 20 Carrier features high quality and defined specifi ations, that comprise a walking beam running gear, BPW axles, a 6 mm HARDOX 400 body, a hydraulic pivoting tailgate, a pivoting underride guard and a paint finish in Krampe Red RAL 3002.

This standardised manufacturing leads to a greater availability and a more competitive price. Contact your local dealer for further information.

## Precision down to the last millimetre!

See the table above for dimensions

#### Tyres

Dimension	Design	Height (mm)	Max. width	Load Index
385/55 R 22.5	new	1,001	380	160 J
385/65 R 22.5	new	1,060	390	160 F
425/65 R 22.5	new	1,122	425	165 F
445/65 R 22.5	new	1,150	450	168 K
525/65 R 20.5	new	1,200	521	173 F
24 R 20.5	new	1,378	604	176 F
500/60 R 22.5	new	1,180	513	155 D
560/45 R 22.5	new	1,080	545	152 D
560/60 R 22.5	new	1,251	570	161 D
580/65 R 22.5	new	1,300	586	166 D
600/50 R 22.5	new	1,181	616	159 D
600/55 R 22.5	new	1,245	600	162 E
650/50 R 22.5	new	1,235	650	163 E
600/55 R 26.5	new	1,348	626	165 D
620/55 R 26.5	new	1,340	620	166 D
650/55 R 26.5	new	1,360	645	167 E
710/50 R 26.5	new	1,390	730	170 E
750/45 R 26.5	new	1,350	750	170 E
800/45 R 26.5	new	1,395	815	174 D
600/60 R 30.5	new	1,496	639	169 D
710/50 R 30.5	new	1,495	727	167 D
550/45-22.5	new	1,070	550	159 A8/156 B
550/60-22.5	new	1,230	550	163 B/159 E
600/55-22.5	new	1,270	600	166 B/161 E
600/55-26.5	new	1,350	610	165 E
700/50-26.5	new	1,333	700	170 B/166 C
850/50-30.5	new	1,670	850	186 A8/182 B

Different manufacturer information may apply.

No wheel strikes the perfect balance between off-road and on-road applications. Therefore this table lists the full range of relevant tyre sizes and treads available from leading manufacturers, providing a comprehensive choice of wheel options. We are happy to offer advice on the best choice for your specific machine and application.







BKT FL 630









Alliance Profil 390

Michelin Profil XS





Michelin

Cargo X-BiB

Michelin Cargo X-BiB High Flotation





Nokian CT BAS



Road truck



Aeolus 74 A





Vredestein

Vredestein Flotation Trac



Nokian Country King



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Krampe is not only a renowned manufacturer of Tandem and Tridem trailers; the name has become a synonym for creative and innovative engineering. Every tipper that rolls out of our factory is packed with more than 35 years of experience in trailer manufacturing. Even our earliest models were manufactured to such high standards that many of them are still in operation today. Don't hesitate to contact us or one of our dealers for further information. We will be pleased to advise you!

#### Krampe Fahrzeugbau GmbH

Zusestraße 4, D-48653 Coesfeld Tel.: +49 (0) 25 41/80 178-0 Fax: +49 (0) 25 41/80 178-14 E-Mail: info@krampe.de Internet: www.krampe.de





Contact your local dealer for further information.