

K.T.S Hydraulic Crane 5.3 - 6.4 - 6.7 - 7.5 m

1

The K.T.S Crane does not only have very good manoeuvre capabilities - it is also **extremely strong!**

Big cranes expose slewing house, 3-point hitch and support legs to enormous pressure when handling large logs. Then, **it is safe for you as the owner to know that the equipment is built for tough jobs.** *K.T.S Timber Trailer 10.6 t with double frame and 6.4 m crane.*



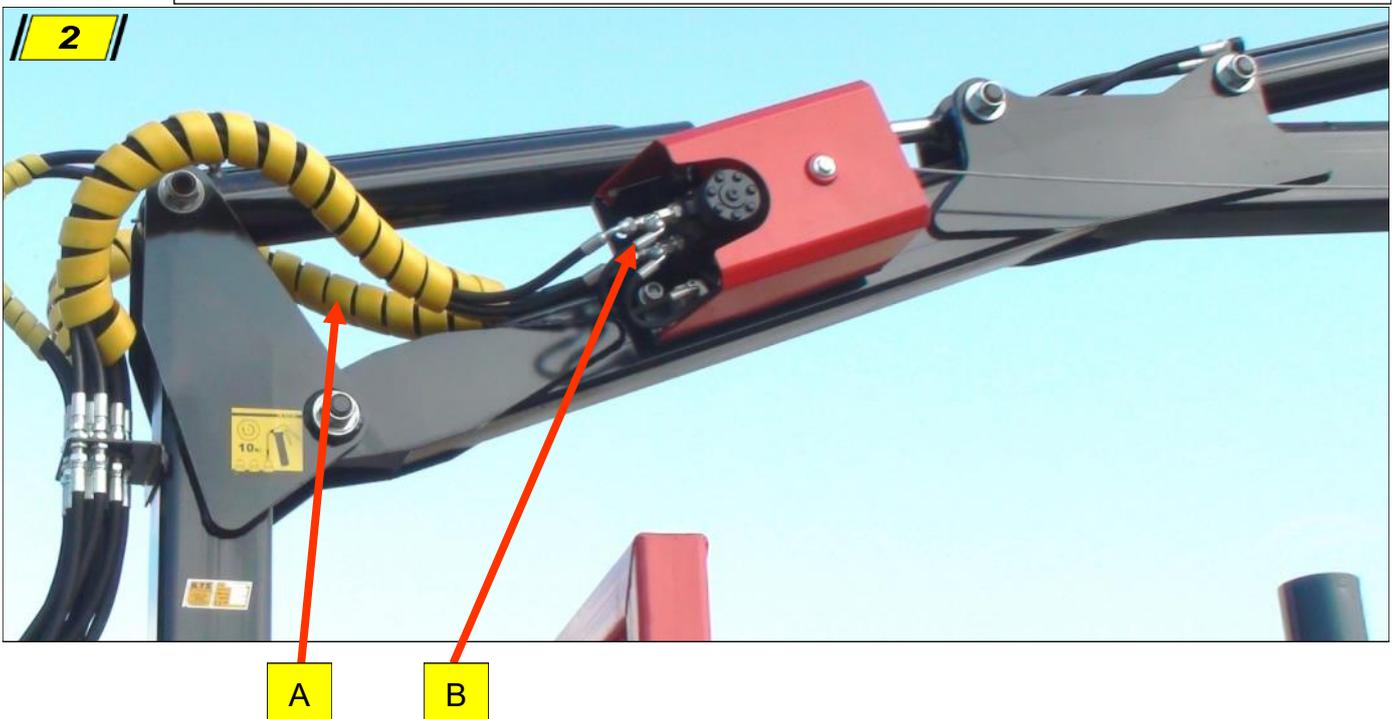
1

2

Hose routing is most important in avoiding abrasion damage or leaks. Apart from the risk of breakdowns, we know that leaking oil can harm the ground and pollute groundwater.

Hoses are **well protected on top of the booms.** A are hoses for the crane, and B are hoses for the winch. Holes should never be done in either of the booms, since it will weaken the design.

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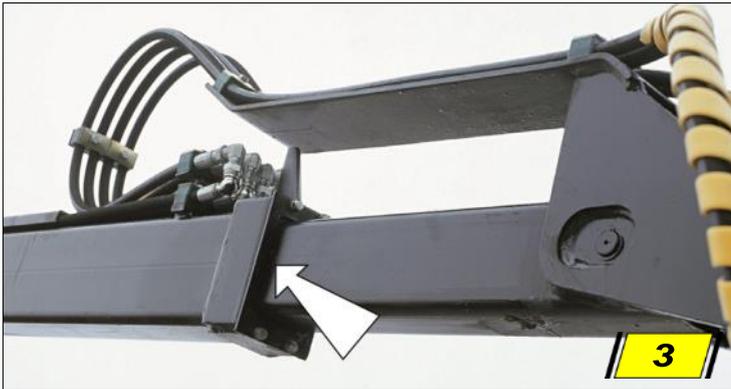


A

B

3

The inner section of the telescopic boom on the 6.4 - 6.7 and 7.5 m outreach cranes runs in adjustable sliding bearings in order to reduce play and increase strength, the same construction as on a forwarder crane. Then we here at K.T.S can be sure that it works.



4

The **Comfort Joint** is an additional joint that **significantly increases the motions available**, i.e. the crane can work much more closely inboard. Some manufacturers' cranes have the hydraulic cylinder connected directly to the boom, which restricts the angle through which the boom can move. When loaded with such a crane, the logs are gripped at the middle as usual in order to provide balance, but they then cannot be loaded sufficiently far forward on the trailer. The grapple has to be released and moved to a new grapple on the logs, in order to move them forward on the trailer. The K.T.S Comfort Joint makes it possible for you to grapple the logs from the ground for direct loading onto the trailer, without having to re-grip the logs, also making it **easier to operate the K.T.S Crane**.

All pins are oversized, with a diameter of 40 mm, in order to withstand high loads. All joints either have bushings that can be lubricated, or spherical joint bearings.

All pins in exposed positions are locked with special flange bolts in order not to rotate.



5

The area between the booms is one exposed to hose damage. **The hoses run on top of the booms** because **making holes for the hoses in the booms dramatically weakens the design**. For this reason we have chosen to run the hoses inside the comfort joint so that **they are protected by the links**.

The hoses are jointed on the crane post in order to facilitate replacing. This also means saving money, since the *entire* hose does not need to be changed.

6

The Comfort Joint also means the crane can **lift timber close to the tractor**.

Naturally, the K.T.S crane can slew through an angle of 370°, enabling it to reach timber in front of the tractor.

All functions of the K.T.S Crane are double-acting, which is a prerequisite for digging with the crane. Moreover, it is most useful with double-acting functions, should the trailer overturn, so that it has to be raised by means of the crane. *K.T.S Timber Trailer 10.0 t with 6.4 m crane.*

7

The K.T.S Comfort Joint **simplifies work**, as it allows timber to be loaded without having to re-grip it. It also means that short 1 m lengths can be loaded against the gate, useful when e.g. working with firewood.

The Comfort Joint also provides greater flexibility when loading, for example, brushwood.

It also allows the crane to be folded so that it takes less space. *K.T.S Timber Trailer 10.0 t with 6.4 m crane.*

8

All hydraulic cylinders are mounted above the booms, and all hoses are run inside the booms, thus protecting them from damage by logs. **Protecting the cylinders reduces breakages and lowers costs**.

The K.T.S Crane does not only have very good manoeuvre capabilities - it is also **extremely strong!**

The crane column-boom connection is extra wide in order to cope with heavy loads for many years of hard work. The joint pin is 40 mm and made of chromed material, the same as in piston rods.

K.T.S Timber Trailer 11.0 t with 6.4 m crane.

9

With the slewing mechanism designed the K.T.S way, the crane can be turned through 370°. In combination with the K.T.S design for the drawbar steering of the trailer, this enables you to reach even logs located in front of the tractor. Just imagine what an advantage, when the logs are difficult to reach!

- Drive straight ahead to the logs – it's always easier than reversing, because you have a better overview, and the risk for damaging the tractor or growing plants is reduced considerably.
- Adjust the drawbar steering so that the trailer will come somewhat outside of the tractor, see picture.
- Turn the crane to the front and pick up the logs.
- **Operation is easier using the K.T.S units.** *K.T.S Timber Trailer 8.5 t with 6.7 m crane.*

10

Safety first for K.T.S! The grease fittings for the boom and the lifting cylinder are extended downward so that the nipples can be safely lubricated from the ground, see arrow. Climbing a timber trailer always means a risk of slipping/injuries.

The hose joint on the crane post means that only the damaged parts of the hoses - instead of the entire hoses - can be replaced. *K.T.S Timber Trailer 10.0 t with 6.4 m crane.*



11

The forces acting on the chassis, drawbar, axles and wheels, when the trailer is fully loaded with coarse and heavy logs, are almost incredible. Even the slewing house, 3-point hitch and support legs will be exposed to enormous pressure when handling large logs. Then, **it is safe for you as the owner to know that the equipment is built for tough jobs.** *K.T.S Timber Trailer 10.0 t with 6.4 m crane.*

Choose between different types of control lever systems

See specifications for standard equipment

For the controls there are also **a variety of models to choose from** to fulfil any requirement, see below. Of course the K.T.S Cranes may also be fitted with an electrical servo. It is then very easy to fit the control levers, when only the electrical wires need to be run into the cabin, the perfect solution for anyone who would rather not have the valve package or/and who wants to place the levers in the armrests of the seat.

12

A common way of mounting the valve block on the tractor.

13

7-lever system, one control lever for each function for the 5.3 m and 5.4 m cranes, see specifications. The short levers are intended for the operation of the support legs.

14

8-coil control arrangement with 2-lever system for the 6.4 - 6.7 and 7.5 m cranes, see specifications. Standard when the crane is equipped with hydraulic extension.

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8-coil control arrangement with 3-lever system 'reindeer antler' as optional equipment for all cranes. Using this control lever arrangement, the entire crane is operated by means of two levers.

16

K.T.S Lightweight Package consists of two series-connected valve packages and is only half the size and weight of a standard valve package. It is a 2-lever valve package, which is mounted in the cab and controls the slewing, booms and rotator. The grapple, the hydraulic extension and the support legs are controlled by means of buttons on the lever handles and cables to a valve which is permanently attached to the crane.

17

8-coil control arrangement with 2-lever system and electric control of the extension boom and grapple opening and closing functions, optional equipment for the 6.4 - 6.7 and 7.5 m cranes. Toggle switches for these two functions are located on top of the long levers. The short central levers are for the operation of the support legs. Using this control lever arrangement, the entire crane is also operated by means of two levers.

18

The control unit might be considered heavy to lift onto the tractor. Therefore, it is possible to equip our cranes with low pressure servo, which means there are only thin hoses (see pictures 18 - 19) for the control levers. The valve package is then fixed to the crane.

19

The valve is attached to the 3-point adaptor, and from that hoses run to the different functions of the crane.

20

K.T.S Electro-Hydraulic Valve EHC has very easily positioned controls, which can be placed in e.g. the armrests of the reversible seat for comfort and ease. Only electrical cables, i.e. no hydraulic hoses, go to the switch in the driver's cab.

21

K.T.S Radio-Controlled Valve gives you freedom to manoeuvre the crane.

*Important! This control system is delivered with a chain that must be attached to the tractor cabin. Manoeuvring the crane from a position outside of the driver's cab exposes you to great danger, since you are then without protection, **according to EC regulations.***

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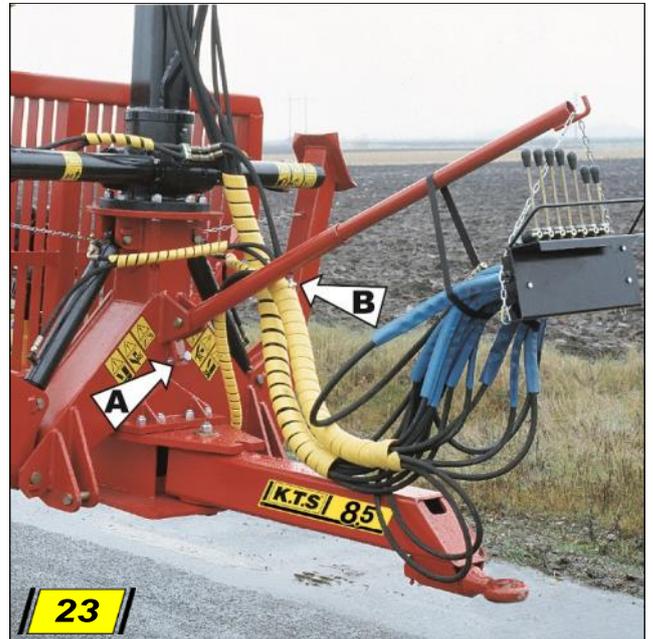


23

The valve block is a heavy unit to lift into its place on board the tractor. For this reason we have developed a practical additional unit with a quick-release coupling to the drawbar attachment on the 3-point adaptor.

The unit is adjusted vertically by means of the screw A and horizontally by means of the screw B.

The 'tine' will make it easier for you to lift the unit onto the tractor. *K.T.S Timber Trailer 8,5 t with 5.3 m crane.*



24

It is possible to equip the K.T.S Timber Trailers with cranes of various sizes in order to meet different needs and conditions. A 7.5 m crane can be mounted onto an 8.5 tonne trailer. The trailer is then additionally equipped with a central frame with a coarser wall thickness. Kindly also note the lifting capacities of our cranes in the table further back in this leaflet! *K.T.S Timber Trailer 11.0 t and 7.5 m crane.*



25

In some countries it is possible to fit an operator platform, as the picture shows.



K.T.S Crane mounted on a tractor / forwarder / wood chipper or 3-point-mounted on an existing trailer

26

Thanks to the comfort joint, the K.T.S crane has a very good operating schedule and is thus very versatile and suitable for different purposes. Here the K.T.S 6.4 m crane is mounted on an NHS wood chipper.



26

27

The K.T.S Crane is very adjustable for different purposes and fittings, as is shown in pictures 27 and 30, fitted on Valtra and Valmet tractors. Or if you want you can fit it on a forwarder.

28

One of the reasons the K.T.S Crane is so versatile is that you can order it with different crane pillar lengths, as you can see in the specifications. *K.T.S Hydraulic crane 6.4 m*

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K.T.S 7.5 m crane mounted on a Valtra. The design and assembly has been done at K.T.S in Kumla, Sweden.

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K.T.S 6.7 m crane mounted on an EnviroMax skidder.

32

K.T.S 6.4 m crane equipped with a 14 cm K.T.S Tree Shears. See pictures and text further back in this leaflet.

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- Withdrawing of the support legs decreases the width of the transport area, thus making the outrigger support legs pass inside the tractor and the gate of the trailer when withdrawn.

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- The high ground clearance beneath the 3-point adaptor enables it to **straddle the tow hook on e.g. a log trailer**. The outrigger support legs will also pass far outside the tractor, for maximum crane stability and less pressure on the hydraulic arms of the tractor. This is very important if the crane is to be fitted with a digging device.

36

- If purchased separately from the timber trailer, all models of the crane are fitted with hydraulic support legs.

37

K.T.S Hydraulic crane with hydraulic outrigger support legs attached to the tractor 3-point hitch. *K.T.S Hydraulic crane 6.4 m.*





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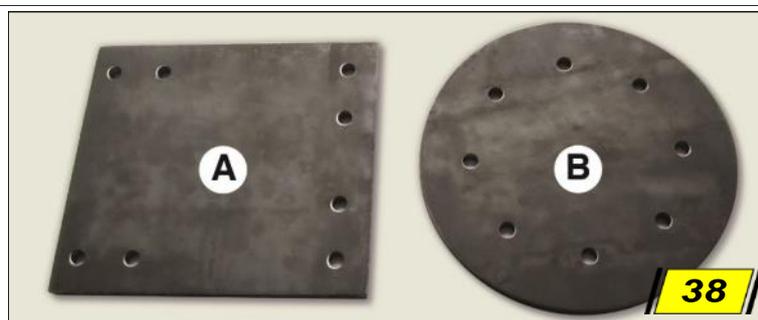
K.T.S Hydraulic crane is very adaptable to various purposes and combinations, as e.g. in pictures 27 and 30, fitted on Valtra and Valmet tractors. It can also be mounted on a forwarder.

Therefore, we have developed welding plates to facilitate assembly.

A is for welding on e.g. a trailer. K.T.S 3-point attachment is then bolted to the welding plate. The 3-point attachment can also be equipped with support legs.

B is for fitting the slewing house to the welding plate, which can be welded on a trailer, wood chipper or something else.

Both welding plates are made from 20 mm sheet steel and have corresponding hole patterns.



K.T.S Timber Trailers with central frame 8.5 - 10.0 and 11.0 t

39

No matter how hard forest working conditions are, the combination of strength and quality of K.T.S timber trailers is your guarantee of the best possible performance. The **180 x 180 mm main central frame, generously-sized joints for the steering mechanism**, bogie frames, axles and wheels all work together to provide many years' service in carrying heavy loads. High ground clearance and large wheels reduce the risk of damage to the ground or growing plants.

When transporting an empty trailer, it is an advantage to place the grapple close to the headboard, in order to have as low a centre of gravity for the crane as possible. A low centre of gravity means that the trailer **will not overturn easily**. It will only be possible to place the grapple close to the headboard and reduce the height of the centre of gravity, if the crane is equipped with a *comfort joint*.

Also, look at the extremely good ground clearance, which reduces the risk of getting stuck by stumps and stones! *K.T.S Timber Trailer 10.0 t with 6.4 m crane.*



40

The K.T.S crane and the K.T.S trailer are designed **to work together as a complete unit**.

Lifting timber with the grapple loads every part of the entire vehicle. Some of these loads are transferred to the ground through the support outriggers, while others load different parts of the crane and trailer, before finally being transferred to the ground through the bogies, axles and wheels.

FEM (Finite Element Method) design ensures that all components of the crane and trailer are **carefully matched** to each other in terms of strength. This avoids, on the one hand, an excessively heavy trailer and, on the other, a trailer that is light but which will have only a limited life. Which is the cheaper in the long run - a strong trailer with a long life, or one that lasts only a few years?

Full load on a K.T.S Timber Trailer 10.0 t.

41

In addition to withstanding the forces associated with use of the crane for loading, the trailer must also be capable of **carrying full loads at high speed** over uneven ground, which imposes considerable stresses on the drawbar, steering, chassis, bogies, axles and wheels. The only way to design and test the trailer to ensure that it can continue to withstand such loads for 10-15 years or more is to do as K.T.S does: to use **Solidworks** for the design and check the strength by **FEM analysis**.

42

This is why **you can trust** your investment in K.T.S trailers and cranes, knowing that they will last, not just for a year or two, but for many years into the future.

K.T.S also makes customized timber trailers in different colours and design.



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43

The connection between the 3-point adaptor and the trailer is a particularly critical point, carrying heavy loads. It is important that no wear develops after some years' use. Our 3-point adaptor is therefore secured to the trailer by eight M20 bolts. **Using bolts, rather than pins, means that there is no possibility of wear gradually developing.**

44

The 3-point adaptor is a welded box structure. This ensures that the forces from the crane are evenly distributed to the support legs and the trailer chassis. *K.T.S Timber Trailer 10.0 t.* The trailer steering cylinders are very **well protected against damage**: the bottom plate protects the entire underside of the cylinders. As a result, there is less risk of damage, and lower operating costs.

45

The steering pivot has been arranged immediately in front of the crane, which means all of this can be made much more substantial:

- the pivot
- the joint between the 3-point adaptor and the trailer
- the fastenings of the headboard

As the steering pivot can swing through 40° to either side, manoeuvrability is **just as good** as if the pivot was further back. *K.T.S Timber Trailer 10.0 t.*

46

On full lock, the reach of the crane is increased by about 0.6 m. In other words, **longer reach for no additional cost.** *K.T.S Timber Trailer 10.0 t with 6.4 m crane.*

47

The steering pivot improves tracking in the forest, thus reducing damage to growing trees.

The **steering angle of the K.T.S trailer is no less than 40°**, so that, on full lock, the trailer tracks the tractor, i.e. it is not dragged sideways behind the tractor in turns.

The left-hand picture shows a trailer with a steering pivot, and the right-hand one shows a trailer without a steering pivot.

48

A box-section bogie bolster, with a single long axle running in replaceable, lubricatable bushings, provides extra strength. The bogie bolster can swing through $\pm 30^\circ$, and is of the 'climbing' type, providing **excellent accessibility over difficult ground.** Front and tail ends have been bevelled, so as not get stuck on stumps.

The stakes can naturally swing aside if they are hit by something when the trailer is unloaded, reducing damage to growing trees.

The stakes are securely fastened to the trailer.

Easy to transfer the crane from the trailer to the tractor's 3-point hitch

K.T.S believes that **it should be simple to transfer the crane from the trailer to the tractor's 3-point hitch.** Just imagine how useful it is to be able to use the crane for other purposes, which would not be possible if it was permanently mounted on the trailer. This means that the crane can also be used for:

- General lifting duties at building sites.
- Lifting fertiliser or seed bags etc. for spring planting.
- Using the crane to dig with (after changing the grapple for a bucket), see further down the text.
- Loading bulk powders etc. after fitting liner plates in the grapple.

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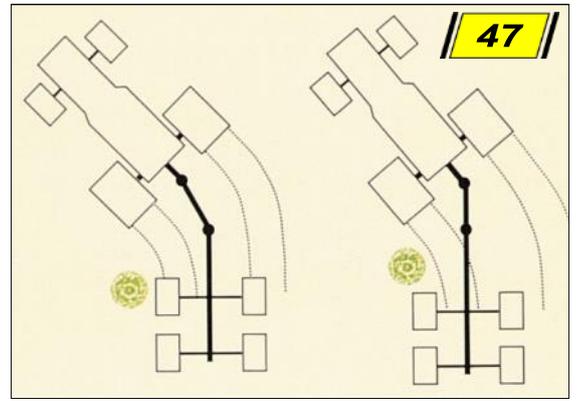
The 3-point adapter is standard equipped with attachments for both hydraulic arms and top link. *See also picture 43!*

- Extend the trailer support legs, and lift the trailer until the towing eye no longer loads the towing hook.
- Release the towing hook and drive the tractor forward about 20 cm. There is no need to disconnect the hoses to the valve block.
- Raise the support legs so that the trailer is lowered to the ground. *K.T.S Timber Trailer 8.5 t with 5.3 m crane.*

50

- Reverse the tractor and connect the 3-point hitch to the 3-point adaptor.
- Remove the bolts that secure the adaptor.





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- The crane is now attached to the tractor, and can be driven away from the trailer for use elsewhere.
- The valve block for the crane is already prepared with ‘floating positions’ for both slewing and boom, which means you could use the grapple for loading with the crane attached to the 3-point adaptor.

52

A small, but important, detail!

- The heavy-duty mounting plate for the 3-point adaptor.

53

Another common area of use is lifting material during construction work. Imagine how much easier building a house will be when you can lift tile or roof trusses. Just imagine how much easier work might be if you do not have to bring the trailer! *K.T.S Timber Trailer 10.0 t with 6.4 m crane.*

Outriggers or telescopic support legs - which are most suitable for you?

54

- K.T.S provides a **choice** between outrigger legs or telescopic support legs.
- Both types have their advantages and drawbacks. With both available, you can choose which is the best for you.
- Both have excellent ground clearance when raised/retracted, thus minimising the risk of catching in stumps, boulders or shrub growth.
- Both types can be extended to some distance below the nominal ground level, which means that the trailer can be levelled even if a leg happens to be over a hollow.
- The support legs are secured to the 3-point adaptor by **very substantial bolts**, in order to **withstand heavy use**.
- The picture shows the substantial 3-point adaptor and the eight M20 bolts that secure it to the trailer.
- As standard our cranes come with **outriggers**, because they reach out longer than telescopic support legs, making the trailer/**crane more stable during loading**.

Pictures 105 and 106 show both telescopic support legs and outriggers to demonstrate that both alternatives are possible, but in practice you choose only one of these. K.T.S Timber Trailer 10.0 t.

55

- The support legs of both types are secured to the 3-point adaptor in the same manner. The joint pin has a diameter of as much as 40 mm!
- The outrigger support legs can be extended further than the telescopic support legs, thus improving the stability of the trailer/crane when loading.
- The outrigger support legs come as standard with our K.T.S Trailers and Cranes.

K.T.S Timber Trailer 10.0 t.

56

The chain-saw container comes as standard with the K.T.S Timber trailers 10.0, 11.0, 10.6 and 13.0 t.

(Not applicable in case some extra equipment is mounted on the headboard.)

57

- K.T.S timber trailers deliver! **Very large loading area:**
- 1.8 m² for the 8.5 t trailer.
- 2.35 m² for the 10.0 and 11.0 t trailers.
- **These are actual measurements.** Compare them with the loading areas of other trailers, but check how the values have been calculated.
- The loading area is very large, despite the fact that the total width does not exceed 2.05 m on any of the models. Narrower vehicles are easier handled in the forest.



58

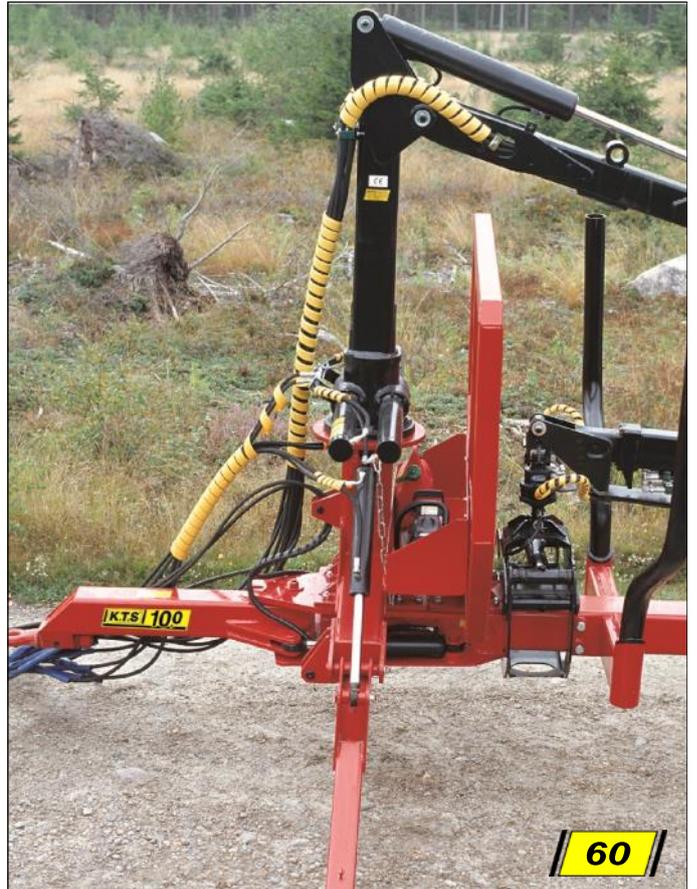
- Generous ground clearance height increases accessibility.
 - **The substantial central frame of 180 x 180 mm special steel** withstands many years' hard work. The diameter of the frame is more important from a durability point of view than the thickness of the material - look at a load chart for CFRHS frames and compare! We previously used both 140 x 140 and 160 x 160 mm, but a larger centre frame has a better strength.
 - The bogie positions can be changed, to suit different stock lengths, provided the trailer is not equipped with a brake and/or hub motor.
 - The bogies are of climbing type, with extra-large wheels, providing good load-carrying capacity even over wet ground. *K.T.S Timber Trailer 10.0 t.*
- A forged towing eye made of high-grade special steel provides a reliable connection between the tractor and the trailer.

59

The K.T.S Timber Trailer is exported to more than 20 countries. It goes without saying that we will equip the trailer so as to comply with laws and rules applicable in each country. The picture shows a German drawbar arrangement that has been approved by the TÜV (the German Technical Testing Association).

60

A practical storage compartment for a chain saw in front of the headboard, with sufficient space for the chain saw itself, oil container, tools, spare chains etc. *On certain models, the saw compartment is an optional extra item, see specifications. K.T.S Timber Trailer 10.0 t.*
Not possible to fit when the trailer is equipped with extra pump or pneumatic brakes.



61



61

You can also equip our cranes with an auxiliary pump - a good alternative when the crane is used together with an older tractor with a low oil flow or if it is going to be used with different tractors, thus avoiding mixing of different oils.

With a separate pump you can also operate the crane at low rpm on the tractor, thus **saving fuel**.

The hydraulic oil tank is positioned very low so as not to obscure the view. The tank is equipped with a sight glass for easy oil level check, and a return filter which cleans the oil and protects the pump.

In this picture you can see how the drawbar has been modified to make room for the hydraulic pump.

The pump is fitted directly onto the PTO shaft.

62

Drum- or disc brakes on two or four wheels are optional equipment.

The brake hoses are well protected, run in pipes from the brakes to the central frame. Compressed air brakes, disc brakes and drum brakes all have the same **protected hosing**.



63

Disc brakes.



64

In order to increase road safety, the K.T.S Timber trailers may be equipped with TÜV (the German material testing institute)-approved compressed air brakes on two or four wheels.

The tank and the valves are safely situated behind the 3-point adapter.

65

Overrun brake "Auflaufbremse" for Germany and Austria.

66

K.T.S Timber trailers can be equipped with mudguards.

67

We have put in a lot of work to protect brakes and all hoses to increase safety and reduce the risk of costly repairs.

68

It is possible to equip the K.T.S trailer with well-protected rear/brake lights and direction indicators increasing road safety. The taillights are retractable for maximum protection. The tractor connection is according to Bosch standard.

69

K.T.S Timber trailers can be equipped with many different tire dimensions for different conditions. The picture shows a trailer equipped with 520/50x17.

70

The trailer can be equipped with an adjustable support foot.



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More uses for K.T.S Timber Trailers

71

Transporting brushwood on a standard equipped timber trailer means many transports with small loads each time. More fuel will be used and many extra hours will be spent.

This is why K.T.S has developed the optional equipment for **loading twice as much on the trailer**. Just imagine – what will driving back and forth 50 times instead of 100 mean to you?



72

With an empty trailer you may easily retract the stakes so that the transport width will not cause a problem.



73

K.T.S Timber trailer may be fitted with brushwood supports which increase the width of the load to 3 metres. You can also mount a 1.2 m frame extension and an extra bolster, thus increasing the load volume to the double! The frame extension is only intended for brushwood loads. **The trailer can be ordered with a longer central frame and any number of bolsters.**

74

The 180 x 180 mm central frame of the trailer provides plenty of strength for the joint between the frame and the bogie bolster.

The bogie is clamped to the central frame, so that the larger contact areas prevent slippage of the joint or damage to the central frame. We use the same type of attachment for the extension of the frame.

75

Look at the huge branch loads you can fit on a K.T.S Timber Trailer equipped with brushwood stakes.



76

K.T.S Timber Trailer can be equipped with insert plates for loading of stumps and brushwood. The plates are easily lifted in and out by means of the crane.

At an additional cost, our trailers can be painted in different colours.



Specifications K.T.S Timber Trailers

Equipment	Trailer 8.5 t	Trailer 10.0 t	Trailer 11.0 t
Maximum load	8.5 t	10.0 t	11.0 t
Trailer type	Single frame - Central frame		
Possible to install a crane up to 7.5 m	Yes		
The trailer is homologated	Yes		
Possible to move crane from trailer to tractor's 3-point	Yes / standard		
Effective load area	1.80 m ²	2.35 m ²	
Chain saw box	Extra equipment	Yes / standard	
Gate height	1,100 mm	1,400 mm	
Stake height	1,100 mm	1,400 mm	
Stake dimension, internal reinforcement in base	89 x 6 mm		
Divider stakes, for timber sorting	Extra equipment		
No. of stakes	4	6	
More bolsters can be fitted	Yes		
Hydraulic support legs	Yes		
Folding support legs	Yes / standard		
Telescopic support legs	Extra equipment		
Trailer steering	Yes / standard		
No. of steering cylinders	1 pc.	2 pcs.	
Max. steering angle	40° to both left and right		
Lubricatable bushings or link bearings in all joints	Yes / standard		
Diameter of steering pivot	70 mm		
Tip angle of bogies	± 30°		
Axle separation	995 mm		
Distance on bogie from centre of front axle to centre of pivot	530 mm		
Track width	1,649 mm	1,803 mm	
Tyre size, standard, other sizes available to order	400/60 x 15.5 14-ply	500/50-17	
Brakes, drum or disc	Extra equipment		
Pneumatic brakes	Extra equipment		
Brake hoses run fully protected in frame or substantial steel tubes	Yes / standard when trailer is fitted with brakes		
Number of hydraulic outlets needed	1 double-acting + 1 single-acting with separate return, or 2 double-acting Extra equipment available so that 1 single-acting and 1 return will be enough		
Support foot	Extra equipment		
Hydraulic wheel drive, incl. tractor tread wheels	Extra equipment		
Stub shaft dimension	70 x 70 mm	80 x 80 mm	
Central frame of special steel	180 x 180 x 6 mm	180 x 180 x 8 mm	180 x 180 x 10 mm
Load width at bottom of load area	910 mm		
Load width at top of stakes	1,830 mm		
Loading width at top of brushwood stakes	3,000 mm		
Weight complete, without crane and 3-point adaptor	1,360 kg	1,495 kg	1,675 kg

Specifications K.T.S Hydraulic Crane

Crane size	5.3 m	6.4 m	6.7 m	7.5 m
Comfort joint to simplify work	Yes / standard			
Hydraulic extension	No	Yes / 1.2 m	Yes / 2.0 m	
Digging equipment can be mounted	Yes			
Gross lifting force of crane	3.5 tonmeter		5.0 tonmeter	
Fully rotating rotator	Yes / standard			
Rotator torque	750 Nm (75 kpm)			
Slewing attenuator on rotator link	Yes / standard			
Telescopic support legs instead of folding support legs	Extra equipment			
No. of slewing cylinders on slewing house	4			
Slewing angle	370° (360° is a complete revolution)			
Slewing torque	10.4 kNm (1,060 kpm)		13.0 kNm (1,326 kpm)	
Height of slewing house	290 mm			
Control levers	7 lever	1 + 1 levers with 2 functions each + 4 levers (known as 2-lever arrangement)		
Other control lever systems available	Yes, extra equipment			
Float position on hydraulic valve	No	On 2 functions: boom and slewing of crane		
Hydraulic valve suitable for open or closed hydraulic systems (Closed hydraulic system for e.g. John Deere)	Yes, extra equipment			
Recommended pump capacity (Lower or higher flows can be used: the crane will simply perform more slowly or faster)	15-50 l/min	20-60 l/min		
System pressure (Lower pressure: lifting capacity will be reduced. Higher pressure: no increase in lifting capacity.)	175 bar (175 kg/cm ²)			
Maximum pressure	220 bar (220 kg/cm ²)			
Separate PTO pump	Yes, extra equipment			
Lubricatable bushings or link bearings in all joints	Yes / standard			
3-point adaptor for 3-point hitch	28 mm, category 2 825 mm between hydraulic arms attachment points			
Weight, including grapple, but without 3-point adaptor	751 kg	834 kg	992 kg	1 059 kg
Weight, 3-point adaptor	280 kg			
All performance specifications that are pressure dependent are calculated at 175 bar pressure.				

K.T.S Hydraulic Cranes 5.3 - 6.4 - 6.7 - 7.5 m

Grapple lifting capacities as functions of outreach, horizontal crane arm, kg

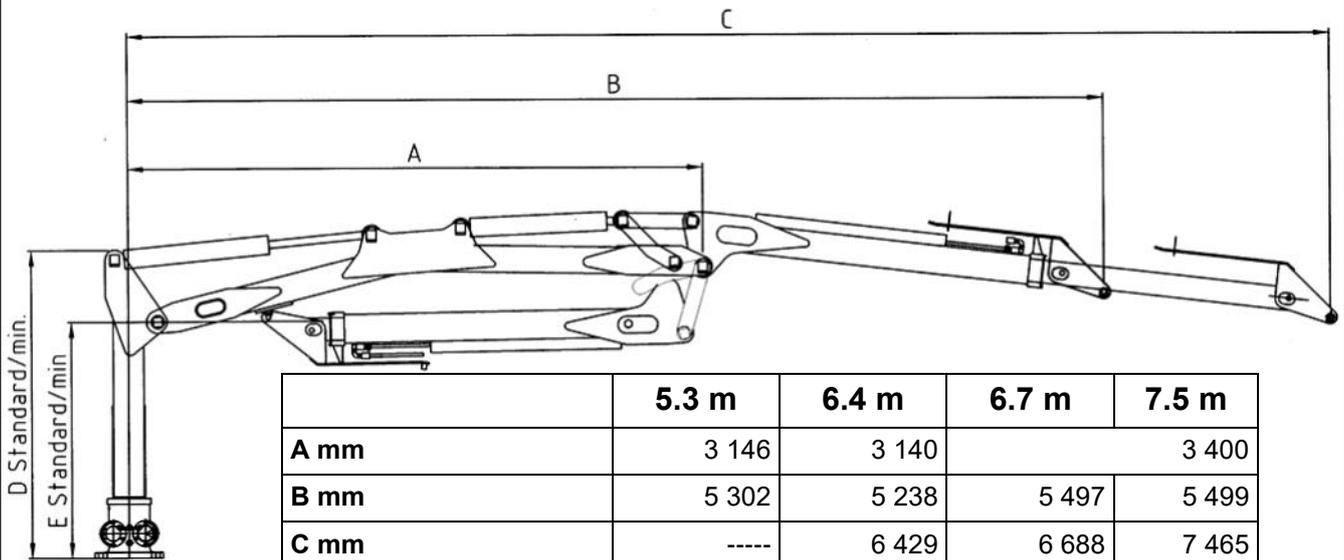
Crane model	1.0 m	2.0 m	3.0 m	4.0 m	5.0 m	5.3 m	6.0 m	6.4 m	6.7 m	7.0 m	7.5 m
5.3 m	2 720	1 840	1 100	844	524	481	-	-	-	-	-
6.4 m	2 700	1 820	1 112	824	504	461	360	330	-	-	-
6.7 m	3 861	2 603	1 590	1 178	721	669	505	472	426	-	-
7.5 m	3 851	2 593	1 580	1 168	711	659	495	462	416	351	243

Grapple lifting capacities as functions of outreach, ground level, kg

Crane model	1.0 m	2.0 m	3.0 m	4.0 m	5.0 m	5.2 m	6.0 m	6.2 m	6.6 m	7.0 m	7.4 m
5.3 m	2 230	1 520	1 132	761	432	370	-	-	-	-	-
6.4 m	2 214	1 500	1 112	741	412	350	319	309	-	-	-
6.7 m	3 162	2 174	1 590	1 060	589	501	456	442	406	-	-
7.5 m	3 158	2 164	1 580	1 050	579	491	446	432	396	331	223

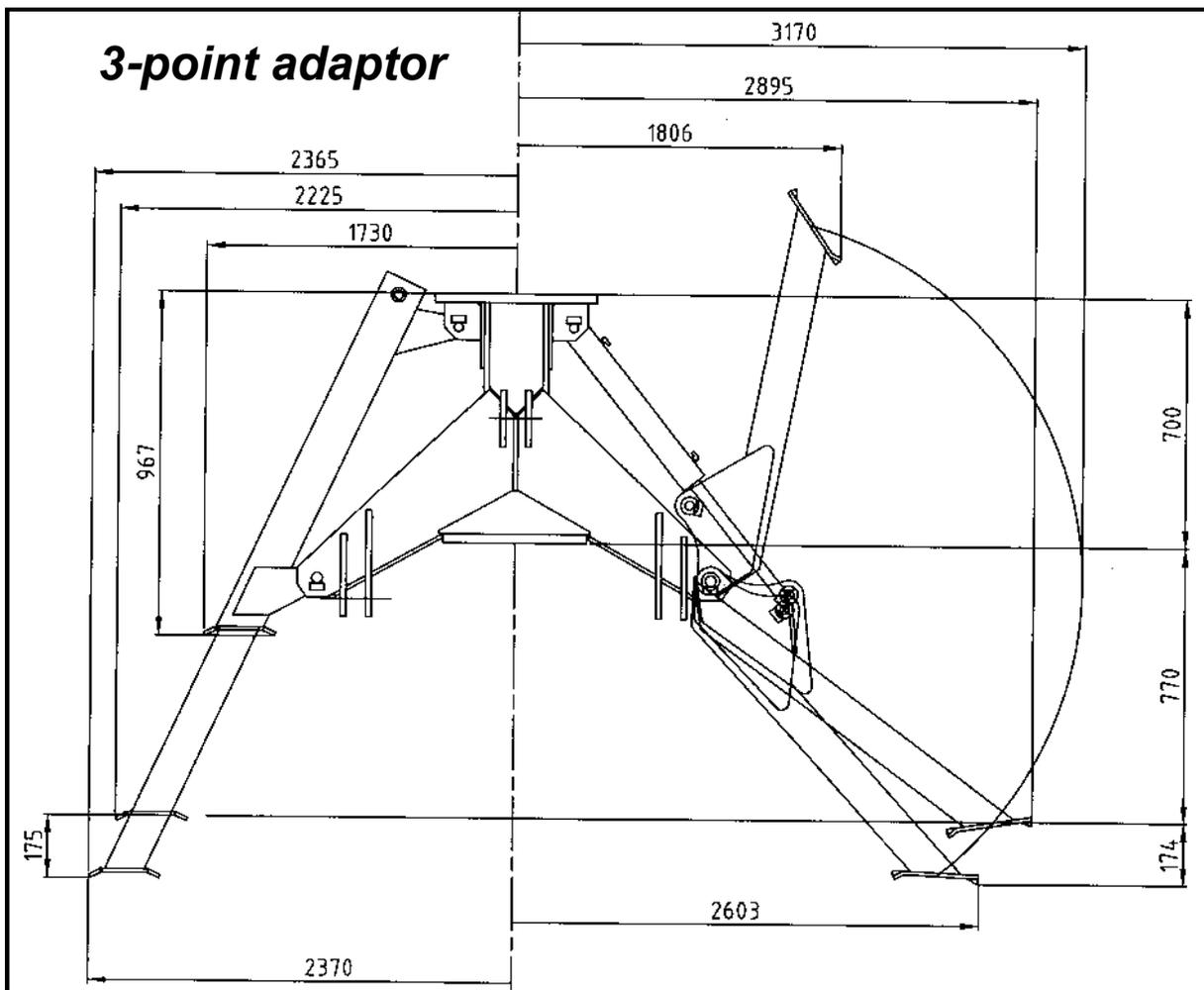
All lifting capacities have been stated as useful grapple load, including grapple and rotator.

K.T.S Hydraulic Cranes S 5.4 - 5.3 - 6.4 - 6.7 and 7.5 m

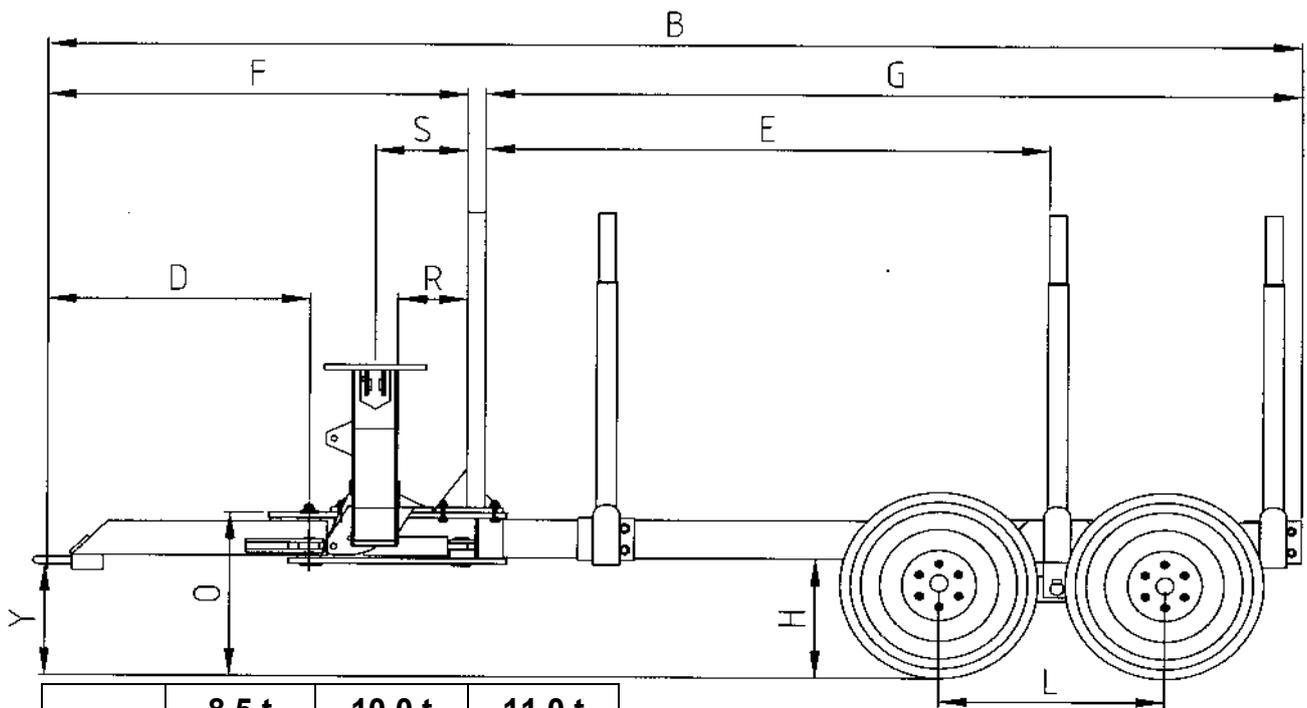


	5.3 m	6.4 m	6.7 m	7.5 m
A mm	3 146	3 140	3 400	
B mm	5 302	5 238	5 497	5 499
C mm	-----	6 429	6 688	7 465
D Standard mm	1 324	1 524	1 436	
D Minimum mm	920		980	
E Standard mm	944	1 144	1 025	
E Minimum mm	540		650	
Slewing cylinder width, mounting dimension	1 472			
When 6.4 - 7.5 m cranes are sold with 8.5 ton trailers, dimension D = 1 318 mm				

3-point adaptor

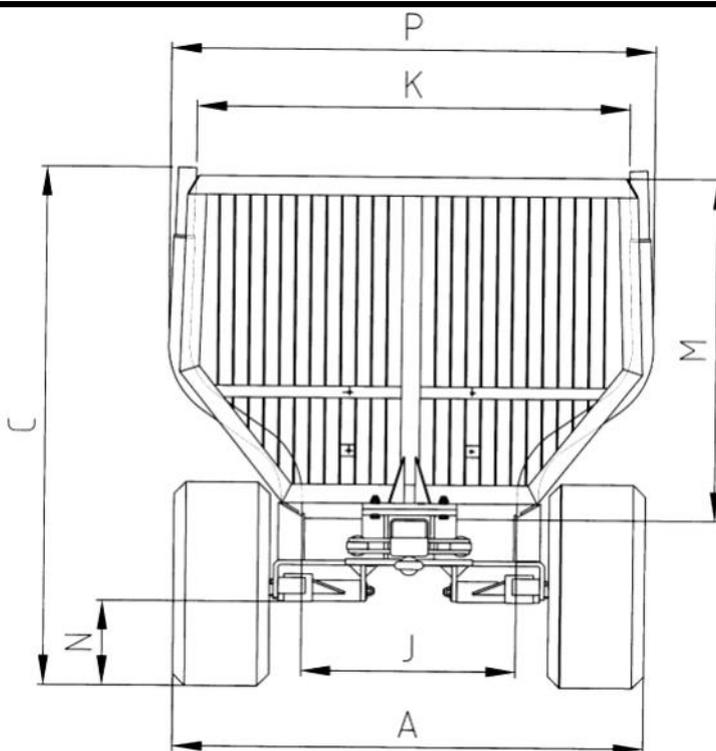


Dimensions K.T.S Timber Trailers 8.5 - 10.0 and 11.0 t



	8.5 t	10.0 t	11.0 t
B mm	5,575		
D mm	1,200		
E mm	2,500		
F mm	1,905		
G mm	3,600		
Can be ordered with 0.8 m longer frame.			

	8.5 t	10.0 t	11.0 t
H mm	548	577	
L mm	995	1,200	
O mm	760	795	
Y mm	505	540	
R mm	315		
S mm	415		



	8.5 t	10.0 t	11.0 t
A mm	2,255		2,303
C mm	1,879	2,179	2,214
J mm	910		
K mm	1,840		
M mm	1,120	1,420	
N mm	354		380
P mm	2,049		2,137