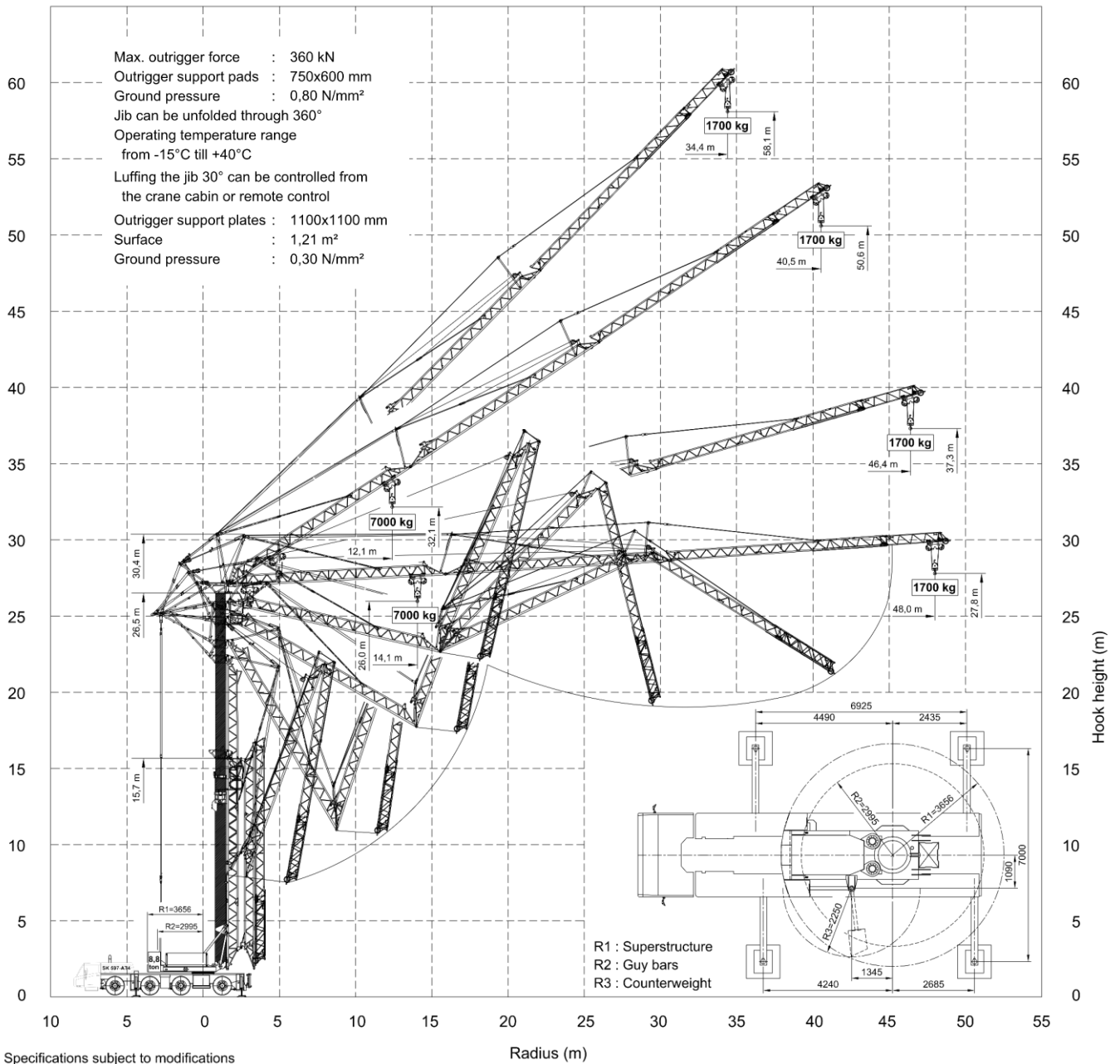




# SK597-AT4

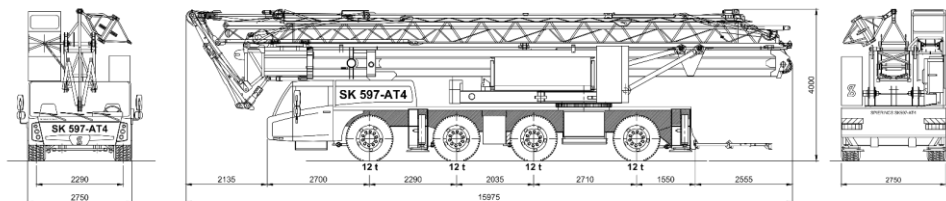
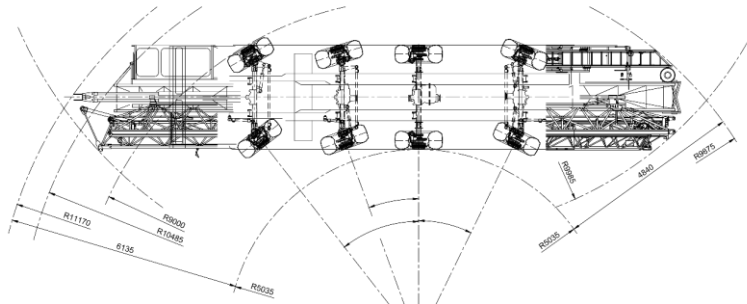
- Max. jib length: **48 m**
- Max. load : **7.000 kg**
- Height under the jib: **29,7 m**
- Max. lifting height: **58,1 m**
- Duration to erect: **9 min**

Erection procedure / Dimensions



Specifications subject to modifications

Radius (m)

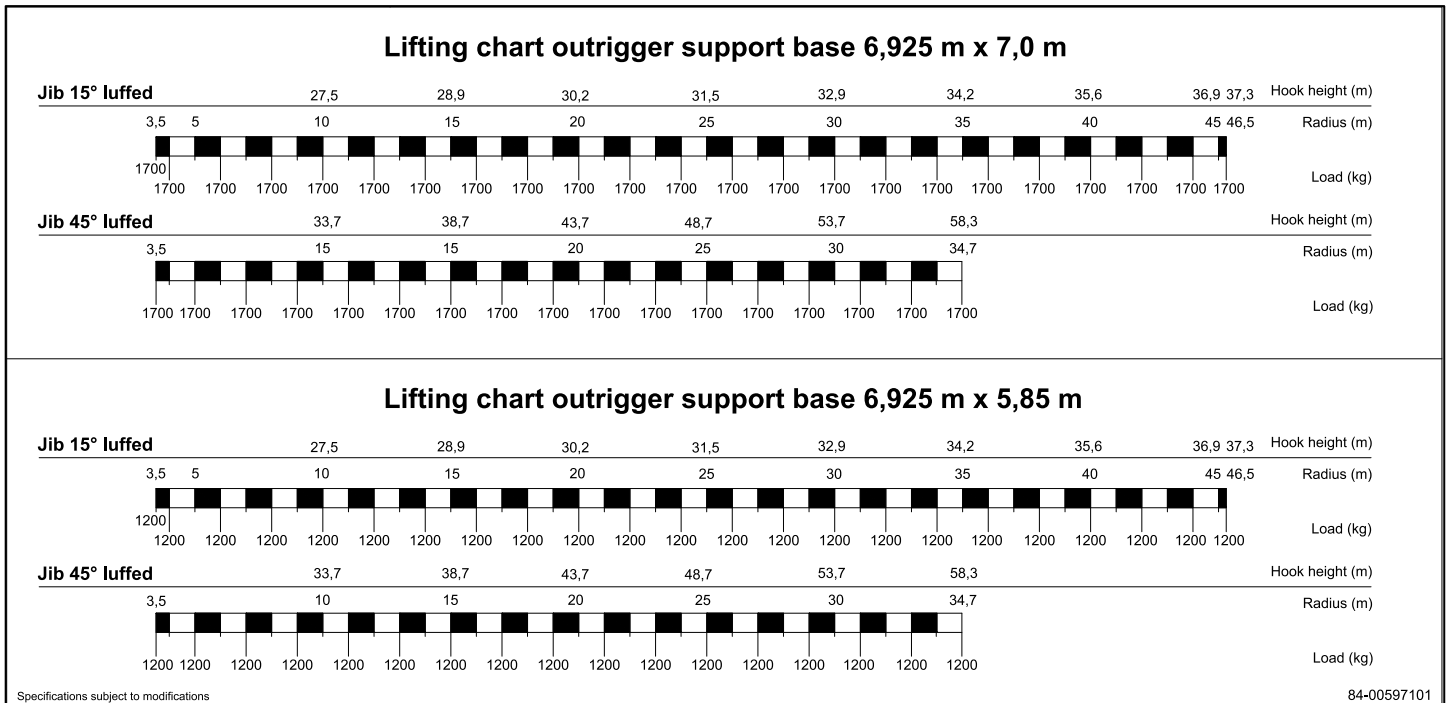
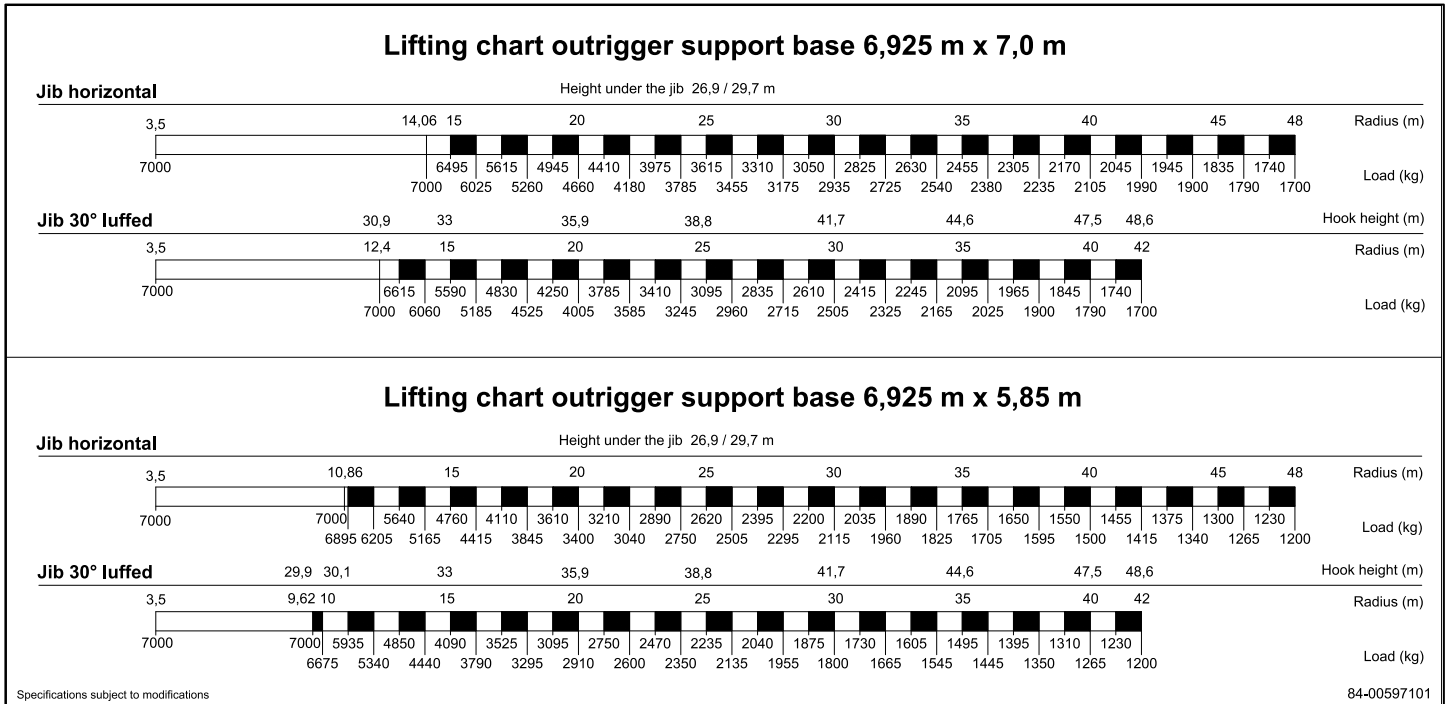


Specifications subject to modifications

Lift to the max.



Lifting chart



Operation allowed up to wind force 7 Bf (14 m/sec).

## Specifications



### Upper crane

#### Capacity

Max Load:

**7 000 kg, up to 14,05 m.**

Max. jib length:

**48m with maximum load 1 700 kg, or**

**44m with maximum load 1 900 kg.**

Height under the jib:

**29,7m**

Max. lifting height:

**jib horizontal: 27,8 m**

**jib luffed 15°: 37,3 m**

**luffed 30°: 50,6 m**

**luffed 45°: 58,1 m**

#### Fast erection

a computer aided erection mechanism;

**duration to erect : 9 min;**

**duration to fold : 9 min.**

All motions of the erecting and folding process are hydraulically powered.

#### Upper crane engine

A 4-cylinder Stage V diesel engine is mounted in the superstructure. Cylinder capacity: 4,5 liter. Max power 105 kW (143 bhp) at 2.200 rpm. Max torques 550 Nm at 1.600 rpm. This engine drives directly the 3 hydro pumps. The engine as well as the hydro pumps are mounted in a high quality sound reducing cover. It makes the noise levels of the engine extremely quiet. Also, a Leroy Somer 15,5kVA generator is mounted in the superstructure. The Stage V engine complies with the current European emission regulations.

#### Hydraulic pumps

All motions of the crane are hydraulic proportional controlled. The Stage V engine drives 3 hydraulic pumps:

1. a pump for slew motion. This pump is mounted in a closed circuit, the pressure is continuously variable. The oil output is also continuously variable.
2. a pump for hoisting. Pump mounted in a closed circuit. The oil output is continuously variable as well as the volume of the hydraulic motor for hoisting.
3. a load-sensing pump for trolley movements. Also used for the erecting process. Two proportional valves take care for the right speed of all the cylinders used in the (de)erecting process.

#### Crane cabin

A spacious, comfortable crane cabin, equipped with separate control system and a modern Siemens touchscreen display, indicating:

- radius of the load;
- hook height;
- max. load as per lifting chart;
- load in kg;
- wind gauge;
- slewing limiter;

The cabin is also equipped with a comfortable seat, radio/MP3-player/Bluetooth, DAB+, intercom system, sunscreens, and an electrical heater (3.000 W). The entrance of this cabin is in the floor behind the seat. The floor surface of this spacious cabin is 850 mm x 1.700 mm. 10 Windows assure excellent visibility on the load and working area, 4 can be opened for ventilation. There is also a windscreen wiper and washer system. The cabin has a hatch in the roof which can be used as an emergency escape. The crane cabin can be mounted to the outer mast (cabin height 15 m) or to the inner mast (cabin height 26 m). The height can be adjusted by merely locating one nut to either the roof or floor of the cab. The operator uses an elevator to reach the crane cabin.

#### Zone limitation programs

5 different slewing and CAT-limiter programs, which can be adjusted to the desired slewing limit, by using the touchscreen in de crane cabin or by using the electrical cabinet.

#### Remote control

A remote radio control (HBC) for continues variable crane movements. Erecting and folding is done with the remote control. Read-out of load moment indicator on HBC remote control. Same information are displayed on the remote control as on the cabin's screen.

#### Jib angles

Jib with 15°, 30° and 45° offset controlled from the crane cabin or via remote controls. Trolley movements are as under normal operation. Because the hoist rope end is fixed to the trolley (automatic during erection of the jib) the hoist rope compensation system ensures the hook remains at the same height during trolley movements both forward and reverse. This enables precise operation, even with the jib offset and with a load of 7.000 kg. Erection and lowering is fully automatic. Changeover time is approx. 3 min. This has to be done without any load in the hook. If the jib is luffed 15° or 45°, the maximum tip load is 1.700 kg.

#### Swing round counterweight

One swing round counterweight to ensure all axles are 12 tones for road travel. Radius counterweight 1,80 m.

#### Slip ring

A slip ring body mounted in the centre of the slewing bearing for transmitting the power signals. Through a swivel in the slip ring body, fuel is also pumped to the tank for the Stage 5 engine.

#### Transport locker

The crane can be hydraulically locked to the carrier; important during road travel and transport of the crane in erected position while the jib is folded in.

#### Greasing system

An automatic greasing system. The tower head needs to be lubricated manually, by 3 nipples. Brand SKF. LGHB 2 grease.

#### Lights / Air beacon

4 LED lights mounted in jib and tower, 300 W, power supply 220 V by an hydraulic operated generator.

A flashing light mounted at the front right on the tower head.

Continuously luminous aircraft warning lights mounted on top of the main jib A-frame and the third jib section.

#### Windmeter

The measurements of the wind gauge are shown on the screen in the crane cabin and on the display at the switchboard.

#### Paint / color

All parts of the crane and carrier are shot blasted and painted with 3 coats of 2-pack paint. The superstructure is finished in your company colours (Max 2 RAL colours).

#### Certification

The crane is Aboma checked, approved and has the CE-markings

## Specifications



### Crane carrier

#### Carrier

The carrier of the SPIERINGS AT4 model is a vehicle registered with 4 axles (8x6x6) designed and build by Spierings.

#### Axles

The carrier is equipped with Kessler axles. The first, second and fourth axle are steerable. The second, third and fourth axle are driven and equipped with locking device. The rear axle steering is controlled by the steering wheel. A special electronic system ensures that the rear axle steering only works on low speeds.

#### Engine

A DAF diesel engine, model MX-11; Euro 6, type MX-11 330. Max power 330KW/436HP at 1000-1450 rpm. Max torques 2300Nm, cylinder capacity 10,8 liters.

#### Gear box

A ZF gearbox type 12 TraXon with retarder. 12 gears forward and two reverse. Automatic gearbox with automatic mechanical clutch. The gearbox has been equipped with a torque converter. In the truck cabin is only a gear shift stick, gas pedal and a brake pedal available.

#### Splitter box

A ZF splitter box VG2001 to provide on/off road capability (differential can be locked). Road gear  $i=0,89$ . Off road gear  $i=1,54$ .

#### Brakes

The crane carrier is equipped with Kessler axles with disc brakes. ABS is standard.

#### Suspensions

Hydro-pneumatic suspension on all axles with three positions:

1. Levelling the carrier. The suspension system automatically set on driving spring stroke.
  2. Maximum stroke for maximum ground clearance.
  3. Fully retracted the crane can be levelled with the outriggers on a 2° slope without the need of using additional timber.
- The hydro-pneumatic suspension is also equipped with a hydraulic positioning manual system. This gives the crane the possibility (when positioned on the tyres) to level the carrier.

#### Maneuvering

The rear axle steering of the carrier can be switched over to automatic crab-steering or independent steering through pushbuttons on the dashboard. The rear axle can be steered separately of the two first axles. The (fixed) third axle will then be fully retracted.

#### Outriggers

4 hydraulically controlled outrigger beams (remote radio control). The outrigger feet are permanently fitted to the cylinders even during road travel.

Outrigger foot: 750 x 600 mm. Dimensions outrigger square 6.925 x 7.000 mm.

A LED working light mounted around all the outrigger beams.

4 fiberglass outrigger pads (1.100 x 1.100 x 20 mm) which will be stored in the drawers underneath the storage compartments at both sides of the carrier. If the option auxiliary crane is ordered, these fiberglass pads will automatically be cancelled.

#### Direction

Power-steering, all steered axles have assistance from an auxiliary steering cylinder.

#### Fuel tank

a 600 l fuel tank. The Stage V crane engine is also automatically refueled from this tank.

#### Tires

Goodyear tires, 445/75 R22.5 or Michelin tires 445/65 R22.5. Tire pressure system (TPMS) integrated on the monitor in the truck cab.

#### Automatic greasing system

An automatic greasing system. Brand SKF, LGHB 2 grease.

#### Towing ball

a towing ball mounted at the rear of the truck for carrying a trailer (max 3.383 kg) and a (de-)mountable shunt coupling at the front.

#### Storages

A storage compartment is mounted between the third and fourth axle on both sides of the of the carrier.

A toolbox over the full width of the carrier with two sliding doors and two side doors, mounted at the rear of the carrier. On the toolbox are 2 flashing lights mounted.

A buffer beam with LED lights. If a trailer (max 3.383 kg) is carried, the buffer beam can be retracted and folded.

#### Cabin

Modern designed cabin with two-seater, equipped with comfortable seats (driver's seat equipped with air suspension), radio/MP3/Bluetooth, DAB+, heated and adjustable exterior mirrors, electric window lifts, fire-extinguisher, navigation and cruise control. The instruments are arranged in a convenient, functional semi-circular layout.

A reverse camera is mounted on the bottom of the tower, complete with monitor in the truck cabin. The signal is passed through the slip ring body.

The image for the reversing camera is integrated with the standard equipped radio/navigation system.

Truck cabin equipped with air-conditioning.

Pre-heating for engine and truck cabin including timer.

An air horn (1 tone) is located below the cabin.

#### Electricity

4 LED working lights; 2 mounted on the back of the truck cabin and 2 on the back of the chassis.

Drop charger mounted near the batteries.

Jumpstarter cable with NATO plug are included.

Headlights, which are equipped with LED low beam and combined LED full-, position- and daytime running light.

#### Total weight

The standard machine weighs 48.000 kg (12.000 kg per axle). All axles are ensured 12 tones for road travel. The distribution of weight is also excellent in with erected tower and jib; this ensures a good stability for driving with the crane in this position.

Specifications subject to modifications

# Lift to the max.

## Specifications



### Options



#### Trolley camera

A camera mounted in the trolley. This camera has a zoom lens which is operated with a foot pedal in the crane cabin. The signal is transferred wireless to the screen in the crane cabin.



#### Air Conditioning

An air conditioning system is installed in the crane cabin to offer more comfort to the operator.



#### A side view camera

A side view camera installed below the right hand mirror to increase side visibility.



#### Extra toolbox

A big toolbox in aluminum is placed on the full width of the carrier. If the auxiliary crane option is selected, the tool box will be slightly lowered so the steel pads can be placed on top of it.



#### Extra flashing beacon

2 extra flashing beacons will be installed on the back of the counterweights.



#### 2 extras repartition plates

2 fiberglass pads extra come on top of the 4 standards. 4 steel frames to guaranty the optimal distribution of the outrigger pressure.



#### Auxiliary crane arm + 4 steel pads

An auxiliary crane arm for placing the steel pads is integrated with the boom of the crane. The steel pads (2,000 x 900 x 76mm) are placed on top of the toolbox at the rear of the carrier. In case of this option is selected, the fiberglass pads are canceled. The toolbox will be slightly lowered.



#### Spare wheel

A spare wheel is installed on the rear of the truck.



#### Clear coat layer

A extra clear coat for better painting resistance in extreme environments.



#### Rear view camera

An extra rear view camera installed on the rear of the carrier increase visibility in case of carrying a trailer.

Specifications subject to modifications

# Lift to the max.

**Lift to the max.**

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MOBILE CRANES

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