SK1265-AT6-eLift-2020-R1.2-ENG



# SK1265-AT6 eLift

**Mighty Tiny** 

Max. jib length: 60 m

Max. load: 10.000 kg

Height under the jib: 37,2 m

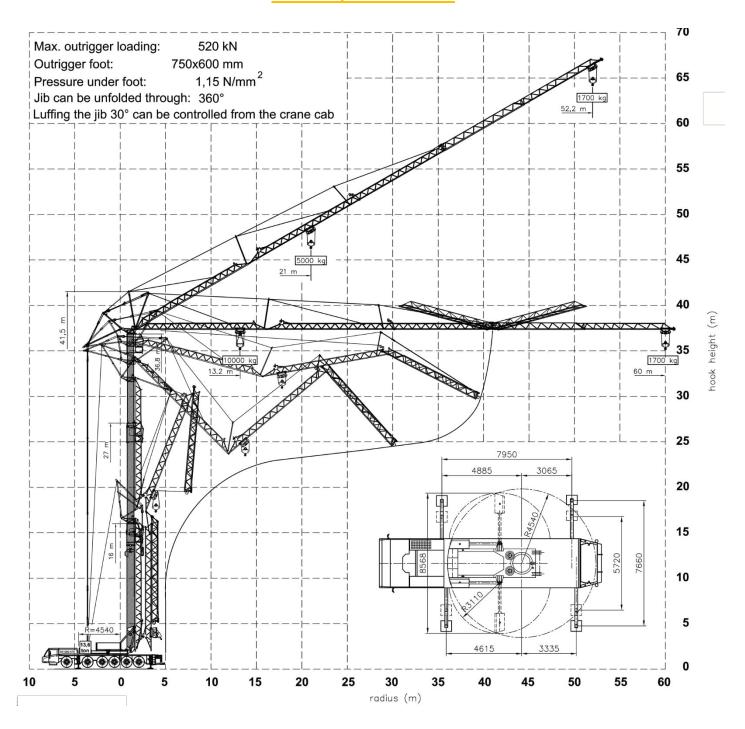
Max. lifting height: 64 m

Duration to erect: 14 min



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#### **Erection procedure 60m**

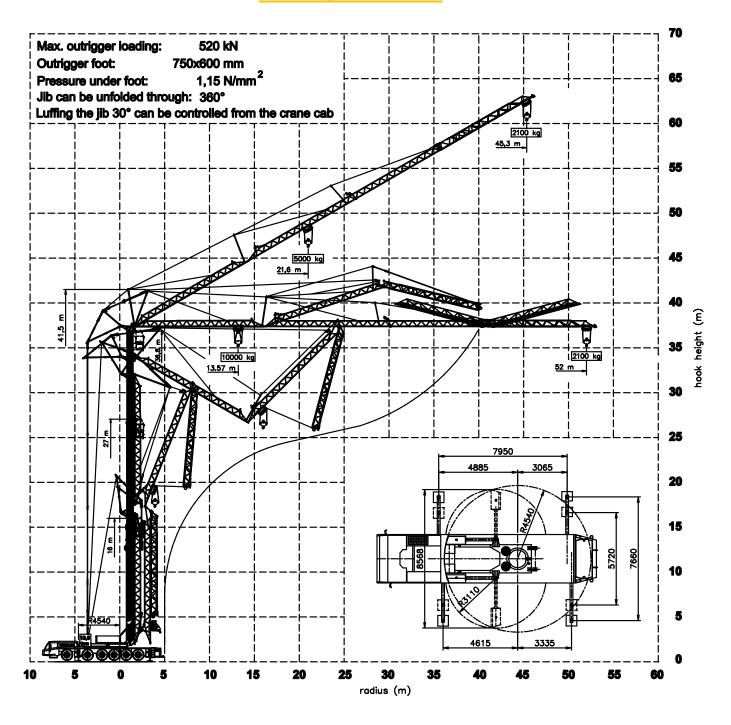


Specifications subject to modifications

# Lift to the max.

8

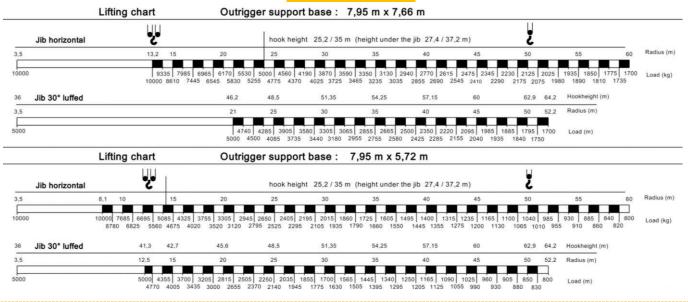
#### **Erection procedure 52m**



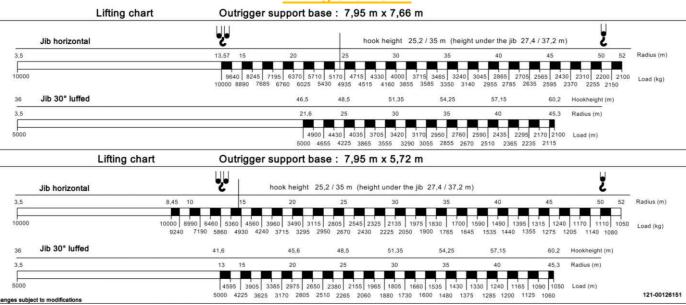
**Specifications** 

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#### Lifting chart 60m



#### **Lifting chart 52m**



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# Lift to the max.

# Capacity

5.000 kg at 20,5 m radius (two rope fall) or 10.000 kg at 13,2 m radius (four rope fall).

Max. jib length:

60 m with a max load of 1.700 kg or 51,5 m with a max load of 2.100 kg.

Max. height under jib:

27,4 m with 2 towers erected or 37,2 m with 3 towers erected.

Max. lifting height:

Jib horizontal 35 m, jib offset +30° 64 m.

## Fast erection

A computer aided erection mechanism;

duration to erect machine : 14 min: duration to fold machine : 14 min.

All motions of the rigging and de-rigging process are hydraulically actuated.

#### Upper engine

#### Zero-emission eLift

A 130kW electric motor with a max torque of 538 Nm is mounted in the superstructure. This motor drives the three hydro pumps when it's connected to 11a or 32a grid connection. in this mode, the crane can work fully electric and operates zero emission.

Next to the electric motor, a 3-cylinder Stage V diesel engine from John

Deere type 3029HI530 is mounted. Cylinder capacity: 2,9 liter. Max power 55 kW (74 bhp) at 2.400 rpm. Max torques 292 Nm at 1.600 rpm. The both engines can work together in Hybrid mode. In that case, the electric motor mostly will function as a generator, but in case the crane requires more power, it will also functions in support of the diesel engine. In addition to these engines, a 33kWh Li-ion battery pack has been installed. This battery will function as an storage for unused energy. In both Hybrid as electrical modus, the stored energy in the battery pack shall be used during peak load of the crane.

The John Deere diesel engine is a Stage V engine which complies with the current European emission regulations.

## Hydraulic pumps

All motions of the crane are hydraulic proportionally controlled. A Stage

V diesel engine drives three hydraulic pumps:

1. a pump for slewing movements. 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. This pump is 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 rigging process. Two proportional valves take care for the right speed of all the cylinders used in the (de)rigging process.

# Crane cabin

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 chartload in kgs
- · wind gauge
- slewing limiter

equipped with a comfortable seat, radio/MP3player/Bluetooth, DAB+, intercom system, sunscreens, cabin lights, 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 1.700 x 850 mm.

10 windows assure excellent visibility on the load and working site, 4 out of 10 windows 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 cabin can be mounted to the outer tower (cabin-height 15,2 m) or to the inner tower (cabin-height 26,9 m on 2 towers, 36,7 m on 3 towers). By just placing one bolt in the roof or the floor of the cabin, the position (height) can be selected. The operator uses a lift to reach the crane cabin.

# Zone limitation programs

5 different slewing and trolley-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.

#### Superstructure

#### Remote control

Remote radio control (HBC) for continues variable crane movements. Rigging and de-rigging can be done with the remote control.

Also the auxiliary crane arm for placing the steel pads under the outriggers can be controlled by remote control.

Read out of load moment indicator on the remote control, which will also

be shown on the read out touch screen inside the crane cabin.



#### Jib angles

Jib with +30° luffing feasibility controlled from the crane cabin or via remote control. Trolley movements are as under normal operation. Because the hoist rope end is fixed to the trolley (automatic during raising 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 lufted and with a load of 5.000 kg. Raising and lowering the jib is fully automatic and can be controlled from the remote control as well as the crane cabin. Changeover time is approx. 2 mins. This has to be done without any load in the hook.



#### Rotating counterweight

Rotating counterweights to ensure all axles are 12 tones for road travel. Radius counterweight 4,55 m.



## Slip ring

Slip ring body mounted in the center of the slewing bearing for transmitting the electrical power and power signals. Through a swivel in the slip ring body, fuel is also pumped to the Stage V engine.



# Transport locker

The crane can be hydraulically locked to the carrier, important during road travel.



#### Greasing system

Automatic greasing system (SKF). Grease LGHB 2. A separate system for the top of the tower (manually), a separate system for the crane chassis (automatic grease pump), a separate system for the 3rd jib and a separate system for the 5th jib (both manually).



#### Lights / Air beacon

5 LED lights mounted in jib and tower, 300W, power supply 220 V by an hydraulic operated generator. Light intensity 81.000 lm per lamp A flashing beacon at the left side of the truck cabin.

Two continuously luminous aircraft warning lights, one mounted on top of the main jib A-frame and one on the 5th jib section.



#### Anemometer

Wind gauge with measurements are shown on the screen in the crane cabin and on the display at the switchboard.



#### Trolley camera

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



#### Paint / Colors

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 colors.



#### Certification

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

#### **Specifications**

#### **Crane carrier**



#### Carrier

The carrier of the SPIERINGS AT6 model is a vehicle registered with 6 axles (12 x 10 x 6) design and build by Spierings.



The carrier is equipped with Kessler axles.

The first, second, third, fifth and sixth axle are steerable. The second, third and sixth axle are driven and equipped with locking device. Axle 2, 3 and 6 are driven permanently. 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 6 cylinder diesel engine Euro 6, model MX-13 390. Cylinder capacity 12,9 liters. Power 390 kW (510 bhp) at 1.425 rpm.

ZF gearbox type 16 TraXon with retarder. 16 gears forward and 2 reverse. Automatic gearbox with automatic mechanical clutch. In the truck cabin is only a gear shift stick, gas pedal and a brake pedal available.

# Splitter box

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.



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

#### <u>Suspensions</u>

hydro-pneumatic suspension on all axles with three positions:

- 1. levelling the chassis. The suspension system automatically set on driving spring stroke.
- 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 tires) 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 two rear axles and the 3th axle can be steered separately of the two first axles. The (fixed) fourth axle will then be fully retracted.

## MOutriggers

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

Outrigger foot: 750 x 600 mm. Dimensions outrigger square 7.950 x 7.660

A LED working light mounted around all the outrigger beams.

#### Auxiliary crane arm

An auxiliary crane arm for placing the steel pads. These steel pads (4) are put on top of the toolbox at the back of the chassis.

## **⊕**|Di<u>rection</u>

Modified two-ring power-steering, all steered axles have assistance from an auxiliary steering cylinder.

## 📕 Fuel tank

a 600 I fuel tank. The Stage V crane engine is also automatically refueled

Good Year tires 445/75 R22.5 or Michelin tires 445/65 R22.5.

Tire pressure system (TPMS) integrated on the monitor in the truck cab.

## **Greasing system**

Automatic greasing system (SKF). Grease LGHB 2.

#### Towing ball

a towing ball mounted at the rear of the truck for carrying a trailer (max 3.305 kg) and a (de-)mountable shunt coupling at the front.

#### Storages

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 3.305 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 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

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

- 4 LED flashing lights, 2 at the rear, 1 at the front left on the engine encasing, 1 at the front right on the towerhead.
- 4 LED working lights (70W); 2 mounted behind the engine encasing and 2 mounted on the back of the truck.

A battery charger is installed near the batteries. A jumpstarter cable with NATO plug are included.

#### **Specifications**

#### **Options**

<u>Options</u>
Air Conditioning  An air conditioning system is installed in the crane cabin to offer more comfort to the operator.
Spare wheel A spare wheel is installed on the rear of the truck.
Extra flashing beacon  2 extra flashing beacons will be installed on the back of the counterweights.
Clear coat layer  A extra clear coat for better painting resistance in extreme environments.
A side view camera  A side view camera installed below the right hand mirror to increase side visibility.
1 1

LED strip A LED strip will be installed in the grille of the front bumper for a better visibility.

Additional rear view camera An additional rear view camera mounted on the toolbox at the rear of the chassis pointed on the towing ball. The image of this camera will be

transferred to the screen in the truck cabin.

# Lift to the max.



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