

INDUSTRIAL CRANES
NUCLEAR CRANES
PORT CRANES
HEAVY-DUTY LIFT TRUCKS
SERVICE
MACHINE TOOL SERVICE

CONTAINER LIFT TRUCKS

KONECRANES®
Lifting Businesses™

Empty 8–10 tons, laden 33–45 tons
CONTAINER LIFT TRUCKS
WITH HEART





TAKING CONTAINER HANDLING TO A HIGHER LEVEL

Konecranes has a long history of working with leading container ports and terminals that are expert buyers and operators of container lift trucks. Our customers demand a lot of us, and we have a long track record of meeting their requirements year after year.

Empty container lift trucks

Empty containers have to be moved out of the way and brought back into play, with the greatest possible efficiency. Our empty container lift trucks offer a very fast total operating speed as a function of lifting, lowering, and driving speed based on load-sensing hydraulics. The range has mid-mounted or rear-mounted cabins and excellent stability.

Laden container lift trucks

Laden containers need to be moved with the right balance of efficiency and precision within the container handling process. Our laden container lift trucks offer a fast total operating speed (lifting + lowering + driving speed). The ratio of lifting capacity to truck size and length is best-in-class. These heavy-duty top-loaders are very stable and still rather compact.

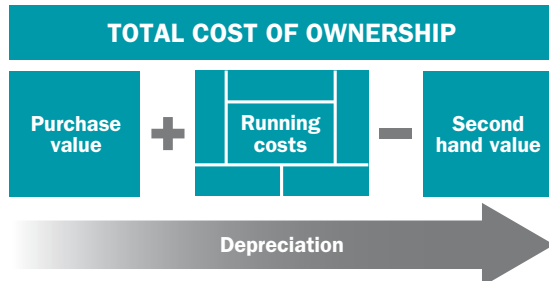


**Made with heart
in every detail**

SMARTER WHERE IT MATTERS

Konecranes has been manufacturing, selling, and supporting heavy-duty lift trucks for some 60 years. Buy a container lift truck from us today and you will get the latest technology, the lowest Total Cost of Ownership, and a lift truck made with heart.

We claim the lowest Total Cost of Ownership with our container lift trucks, understood as an equation running over a time period of years as shown below. When you're shopping around the suppliers and comparing prices, our truck will probably not be the cheapest. But it will provide the best value over time.



Close to you

We sell our lift trucks around the world in two main ways: directly via our own sales and service organizations, and indirectly via distributors. In both cases, our container lift trucks are fully supported with spare parts and personalized service. Konecranes has the widest service reach of any company in the lifting business. And our distributors are some of the most respected in the business.

Service made easy

To reduce lifetime running and maintenance costs, we have extended the service interval of the engine by 500 hours, the gearbox by 1000 hours, and the hydraulics by 4000 hours.

Our HLL ultra-fine filter system extends the hydraulic oil change interval from 4000 up to 12000 hours. In practice, you will use up to 80% less hydraulic oil than with a conventional hydraulic system.

GENUINE KONECRANES PARTS

Genuine Konecranes parts are the best protection for your investment. They pay off in truck performance and uptime.

PARTS ONLINE

> Easy to find, easy to buy

REAL-TIME SHIPMENT INFORMATION

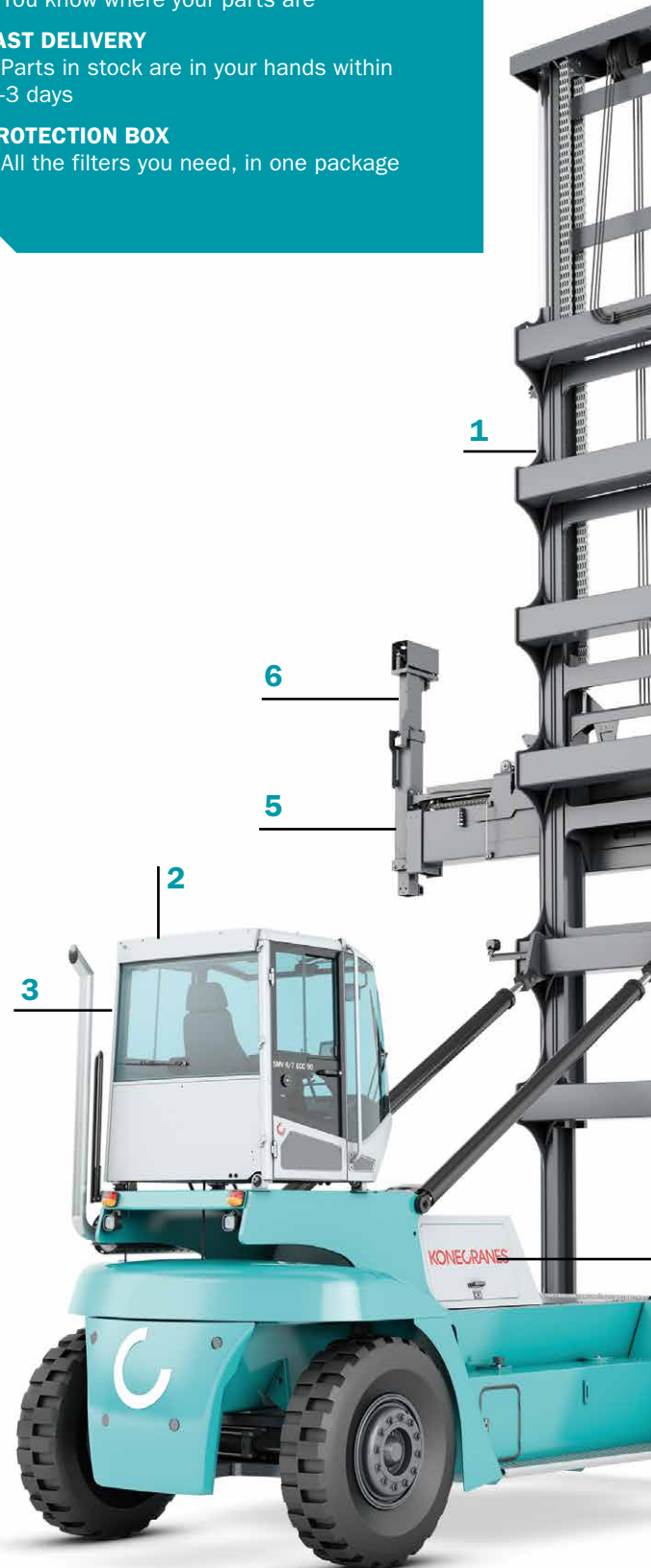
> You know where your parts are

FAST DELIVERY

> Parts in stock are in your hands within 1–3 days

PROTECTION BOX

> All the filters you need, in one package



LADEN CONTAINER LIFT TRUCKS

1 Reliable lifting

Lift masts adapted for laden container handling. Hoses and cables kept to a minimum for low maintenance costs and maximum uptime.

2 Single stacking spreader

Toplift handling of 20–40 ft containers, 45–53 ft containers are lifted in 40 ft position with the 4 twistlocks. There are 4 lift eyes for sling cargo, large sideshift, reach in & out, slew left & right, and mechanical pile slope. Large sideshift, mechanical pile slope, and optional hydraulic pile slope.

3 Maintenance-free brakes

Brakes with continuous oil cooling provide full braking power in every situation.

4 Powerful engine

Certified low-emission engine provides extra high torque at low revs, reduced fuel consumption, and low noise levels. We offer a variety of engines for EU stage 4 and EPA Tier 4f.

5 Excellent stability

Wide drive axle and long wheelbase: the two keys to excellent stability.

6 Heavy-duty box-type chassis

The strongest on the market. The foundation of long-lasting high performance.

7 OPTIMA – probably the best cabin on the market

Every detail has been carefully designed for comfort and safety. Controls, displays, ventilation, and seating work to boost driver productivity. Excellent visibility in all directions.



EMPTY CONTAINER LIFT TRUCKS

1 Very fast lifting and lowering

The trucks can lift 8 containers high thanks to the wide mast: hoses and cables are kept to a minimum for low maintenance costs and maximum uptime. Heavy-duty mast and tilt cylinder solution for high stability and safety.

2 Electronic Machine Control, EMC Master

Full monitoring of all the vital components and functions on a 7" touch screen. Programmable settings. CanBus technology increases engine and transmission reliability as well as hydraulics and joystick.

3 OPTIMA – probably the best cabin on the market

Every detail has been carefully designed for comfort and safety. Controls, displays, ventilation, and seating work to boost driver productivity. Excellent visibility in all directions.

4 Powerful engine

Certified low-emission engine provides extra high torque at low revs, reduced fuel consumption, and low noise levels. We offer a variety of engines for EU stage 4 and EPA Tier 4f.

5 Smart load-sensing hydraulics

They sense the load and adapt the lifting power to the weight of the load. The truck provides maximum power only when really needed, so it consumes less fuel while reducing emissions and noise.

6 Single and double stacking

Sidelift handling of 20–40 ft containers, 45–53 ft containers are lifted in 40 ft position with the twistlocks only. Large sideshift, mechanical pile slope, and optional hydraulic pile slope. Single mode lifts up to 8 containers high. Double mode lifts up to 2-over-6.

7 Maintenance-free brakes

Brakes with continuous oil cooling provide full braking power in every situation.



**Satisfied customers
around the world**

OUT IN THE FIELD

Konecranes
container lift
trucks are hard
at work around
the world as an
essential part of
container port
and intermodal
operations.



Empty stacker, China

Empty stacker, Netherlands



Laden top-loader, United Kingdom



Laden top-loader, Saudi Arabia





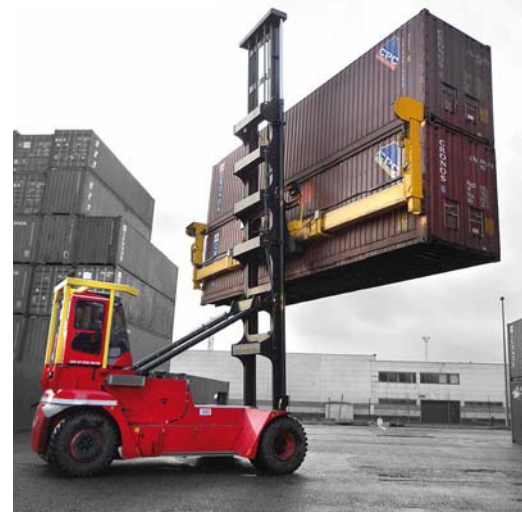
Empty stacker, Indonesia



Laden top-loader, Australia



Empty stacker, Belgium



Empty stacker, Germany



Laden top-loader, USA



OPTIMA ENHANCED SPACIOUSNESS AND VISIBILITY

Customized for your container handling needs.

When you step inside OPTIMA cabin, you find outstanding spaciousness and superior visibility. That makes operating the lift truck safe and efficient, along with valuable extra equipment.

The remarkable visibility is made possible by very large, lowered windows with no corner posts, thin but very strong roof crossmember, and curved panels. Sightlines to key working areas are clear both in the front, to the sides, and to the rear.

New EMC Master with MD4 7" touch screen enables a more spacious cabin with its integrated solutions. There is also more space for operating the foot pedals.

The positioning of the instrumentation improves operating ergonomics. Instrumentation has been moved from the driver's left side to his right, above his seat, where it is conveniently accessible.

OPTIMA is customizable for your exact operational needs. You can select mini-wheel steering, lever steering, the driver's seat, and precisely the instrumentation that you need. The empty handlers have set cabin positions for optimized visibility: mid-mounted or rear-mounted on the chassis. The laden handlers have a forward-mounted cabin (3–4 high) or a raised, mid-mounted cabin (4–5 high).

1 Remarkable visibility

You know great visibility when you see it. Sitting down in OPTIMA shows you what superior visibility means.

2 Electronic Machine Control, EMC Master

Full monitoring of all the vital components and functions on a MD4 7" touch screen. Programmable settings. CanBus technology increases engine and transmission reliability as well as hydraulics and joystick control.

3 Left armrest lever or mini-steering options

Optional, ergonomic steering solutions that improve productivity.

4 Ergonomic instrumentation

Whatever extra equipment you need, we can install it as part of an ergonomic instrumentation layout. OPTIMA is truly spacious.

5 Comfort

An excellent seat with compressor suspension, powerful cabin heating and ventilation, air conditioning – the driver is provided with every possible comfort.

6 Joystick control

Available with electronic joystick with auto accelerator/power control.





Lever steering
with return



Mini-wheel
steering



Lever steering
without return



Remote control unit for rail and barge handling

A world of options

BOOSTING SAFETY AND EFFICIENCY

Konecranes invests significantly in container lift truck R&D to be the first to offer new technologies that improve performance and safety. We also ensure that our container lift trucks are fully compliant with emissions regulations, anticipating their evolution as a normal part of our product development process.

Emissions-compliant diesel engines

We offer a wide range of powerful Volvo and Scania engines certified according to EU stage 4 and US EPA Tier 4f.

EMC Master

Our Electronic Machine Control system, EMC Master, provides the following functions as standard:

- Full truck monitoring
- ECO-Drive and fuel management
- Productivity counter management
- Auto accelerator / power control
- Data logging of alarms and errors
- Driver log-in (20 drivers)

The following functions are optional:

- Electronic weight scale
- Mini-wheel steering
- Lever steering
- Auto engine shut-down
- Auto parking brake
- Auto tilt-to-zero of lift mast
- Remote Access Service via GPRS/(3G)
- Drive speed limitation (unloaded/loaded)
- TRUCONNECT Remote Services

TRUCONNECT® Remote Monitoring and Reporting

TRUCONNECT Remote Monitoring and Reporting enables you to track the real usage of your lift trucks through a remote connection. It provides you with an online view and periodic PDF reports that illustrate the actual use of your lift trucks, making it a great tool for scheduling your lift truck fleet's maintenance actions and consequently improving the fleet's uptime.

The reports include:

- Safety alerts
- Machine status
- Average fuel consumption
- Average fuel consumption per lifted load
- Total fuel consumption

- Traveling distance
- Average traveling speed
- Load spectrum
- Total load lifted
- Tire pressure monitoring
- Collision sensors
- Cleanliness of hydraulic oil

Tire pressure

Under-inflated tires can increase fuel consumption by as much as 15% while impairing stability and drivability. Our tire pressure monitor makes it easy to keep your lift truck tires properly inflated. It's installed in minutes. If you combine it with the drive speed limitation provided by EMC Master, you can extend the life of your tires even further.

Fire alarm and suppression system

We offer an effective fire alarm and suppression system that can be activated either manually or automatically. When the lift truck is in use, the system discharges in three ways: manually from inside the cabin; manually from outside via a mudguard trigger; automatically by sensors in the engine compartment. When the truck is not in use, i.e. when the master power switch is turned off, the system discharges automatically when the fire alarm goes off.

Other safety options

- Parking Distance Control (PDC): with sensors for driving in reverse
- Breath Analyzer: an alcohol test unit which requires the driver to take a breath test before starting the lift truck
- Camera Supervision System: can be mounted as a reversing camera on the rear of the lift truck, or as a forward camera mounted on e.g. the mast

- 1 EMC Master – full monitoring of all the vital components and functions on a 7" touch screen
- 2 TRUCONNECT® remote monitoring and reporting for lift trucks
- 3 Cabin options: keyboard, reading lamp, side mirror, side-mounted roof wiper, sun visor roof & front, compressor seat etc.



2

REMOTE V



Portal

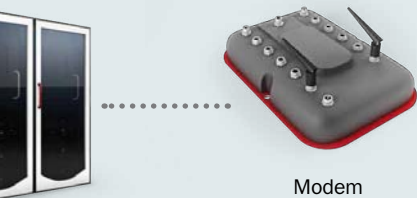


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Remote

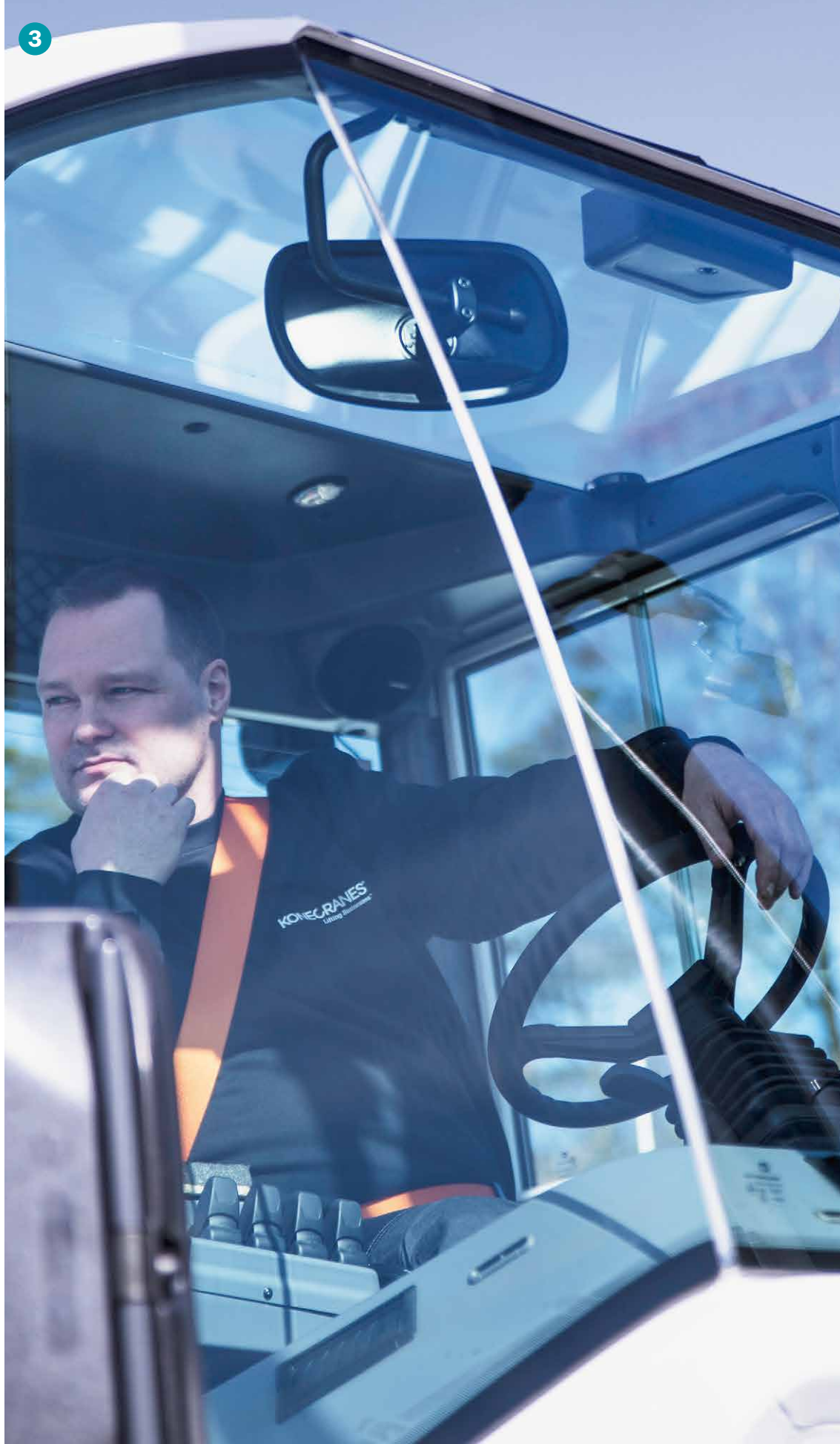




WORKFLOW



Konecranes
Data Center



Getting the job done right **ATTACHMENTS**

For empty container handling



ELME 588-TB single stacking spreader

Telescopic sidelift spreader for empty ISO containers with capacity up to 9 tons. Strong and well-proven single beam spreader design, two floating heads (± 70 mm) with hydraulic operation and mechanical safety locking. Hydraulic extension with 2 cylinders (20–40 ft), large sideshift (± 300 mm) with 1 cylinder. Spreader side tilt with floating end-posts (stroke 200 mm / mechanical pile slope). Hydraulic pile slope (± 6 deg) and longer sideshift (± 600 mm) are optional. Four strong LED work lamps (top-bottom/left-right).



ELME 584-LB double stacking spreader

Telescopic sidelift spreader for single and double stacking of empty ISO containers with capacity up to 10 tons. Strong and well-proven single beam spreader design, with two fixed horizontal lifting hooks and two hydraulic side clamps with safety locking and sensors. Same extension 20–40 ft, large sideshift, side tilt with vertical floating end-posts (mechanical pile slope). Hydraulic pile slope (± 6 deg) and longer sideshift (± 600 mm) are optional. Four strong LED work lamps.

For laden container handling

ELME 818 gantry-type spreader

Telescopic toplift spreader for laden ISO containers with capacity up to 45 tons. Strong and well-proven parallel double beam spreader design, pendular twistlock system (± 10 mm) with hydraulic operation and mechanical safety locking. Hydraulic cylinder extension (20–40 ft), large sideshift (± 200 mm), reach in/out (0–240 mm), and slew left/right (± 6 deg). Spreader side tilt with stroke of ± 5 deg (MPS mechanical pile slope) and 4 lift eyes included for slings (45 tons). Hydraulic pile slope HPS is optional (± 6 deg). The spreader frame and the end beams are of strong heavy-duty design. Weight 818-MPS/HPS = appr. 7.1 tons.





ELME 582-LS double stacking spreader

Telescopic sidelifter spreader for single and double stacking of empty ISO containers with capacity up to 10 tons. Strong and well-proven single beam spreader design, with two pairs of horizontal twistlocks and safety locking with sensors. The lower twistlock pair lifts the lower container and the upper twistlock pair lifts the upper container, each twistlock pair with safety locking and sensors. The upper pair has a retract stroke of 110 mm (4,3") for alignment of the upper container. Same extension 20–40 ft, large sideshift, side tilt with vertical floating end-posts. Hydraulic pile slope (± 6 deg) and longer sideshift (± 600 mm) are optional. Four strong LED work lamps.



EQUIPMENT

For all Konecranes container lift trucks

STANDARD EQUIPMENT	OPTIONAL EQUIPMENT
<div>TRUCK BODY</div> <div><div>Box-type chassis</div><div><div>Strong box profiles and crossmembers</div><div>Thick steel plate reinforcement, both front and rear</div><div>Empty handlers: safe, ergonomic access steps and hand rails LHS</div><div>Empty handlers: extra high tilt cylinder fixtures on mast and rear of chassis</div><div>Empty handlers: lifting eyes, front in mast and rear in steer axle stops</div><div>Laden handlers: safe, ergonomic access steps and hand rails LHS+RHS</div><div>Laden handlers: high tilt cylinder fixtures on mast and mid of chassis</div><div>Laden handlers: lifting eyes, front in mast and rear on top of counter weight</div></div><div>Standard counterweights and stability</div><div>Empty handlers: raised 875 mm / middle of chassis position (ECB 80)</div><div>Empty handlers: low / rear of chassis position (ECB 90–100)</div><div>Laden handlers: low / front of chassis position (37 G3–52 G4)</div><div>Laden handlers: raised 840 mm / middle of chassis position (37 G4S–52 G5S)</div><div>Steel mudguards</div></div> <div><div>Standard colors:</div><div><div>Chassis, tanks, mudguards and rear: seagreen NCS S2555 B30G</div><div>Mast, carriage, spreader and axles: black RAL 7021</div><div>Cabin and engine hood: light grey RAL 70335</div></div></div>	<div>TRUCK BODY</div> <div><div>Extra counterweights for increased stability</div><div>Empty handlers ECB 90–100: raised rear cabin position, 1200 mm higher than standard (cab roof 5100 mm)</div><div>Laden handlers 37 G3/4, 45 G3/4, 52 G3/4: raised front cabin position, 400 or 700 mm higher than standard</div><div>Different mud flap models, front and rear</div><div>Extra chassis mirrors</div><div>Slip protection: strips or aluminum plates</div><div>Fire extinguisher on truck body or inside cabin</div><div>Fire fighting system for driveline compartment (semi-automatic)</div><div>Galvanized storage boxes with lid (on bottom step)</div><div>Custom colour painting, stickers, customer logos</div></div>
<div>STEERING AXLE</div> <div><div>Smooth power steering with double-acting cylinder</div><div>Wide steering angles providing small turning radius</div></div>	<div>STEERING AXLE</div> <div><div>Wheel nut protection and steering cylinder spacers</div></div>
<div>DRIVE AXLE</div> <div><div>Empty handlers: Kessler D81</div><div>Laden handlers: Kessler D102 (37G–45G) / Kessler D106 (52G)</div><div>Wide axles with 2-stage hub reduction and differential</div><div>Oil-cooled, maintenance-free wet disc brakes</div></div>	<div>DRIVE AXLE</div> <div><div>Laden handlers 37G–45G: Kessler D106 extra strength</div></div>
<div>DIESEL ENGINE</div> <div><div>See technical info chart, certified for EU stage 4 / EPA Tier 4f</div><div><div>Certified for EU stage 4 / EPA Tier 4f</div><div>Low-emission</div><div>Clean, powerful, fuel-efficient with CanBus controls</div></div><div>Engine air filter, 2-stage type</div></div>	<div>DIESEL ENGINE</div> <div><div>Empty handlers: Volvo (160–185 kW / 910–1160 Nm)</div><div>Laden handlers: Volvo and Scania (256–294 kW / 1640–2157 Nm)</div><div>Certified for EU 4 / EPA Tier 4f</div><div>Low-emission</div><div>Clean, powerful, fuel-efficient with CanBus controls</div><div>Engine air filter Turbo II, 2-stage cyclone type</div></div>
<div>TRANSMISSION</div> <div><div>Empty handlers: ZF 3WG-171 (3+3 gears), ZF 4WG-191 (4+3 gears)</div><div>Laden handlers: DANA TE-27 (4+4 gears)</div><div>Fully automatic, softshift</div><div>Torque converter, smooth powershift, declutch, reverse protection, CanBus controls</div></div>	<div>TRANSMISSION</div> <div><div>Laden handlers: DANA TE-32 (4+4 gears), ZF 4WG-261 (4+3 gears)</div><div>Fully automatic, softshift</div><div>Torque converter, smooth powershift, declutch, reverse protection, CanBus controls</div></div>
<div>COOLING SYSTEM</div> <div><div>Tropical, multi-radiator</div><div>Radiators for engine water, air for intercooler, oil for transmission</div><div>Oil cooling / flushing for brakes</div></div>	<div>COOLING SYSTEM</div> <div><div>Extra radiator / cooling circuit for hydraulic system</div></div>
<div>HYDRAULIC SYSTEM</div> <div><div>Load-sensing, power-on-demand</div><div><div>Smooth, accurate, high-speed lifting and lowering</div><div>Variable piston pumps with intelligent control</div><div>Leak-free ORFS couplings (O-ring) for entire truck</div><div>Shock-absorbing lift mast accumulator (models ECB 90–100)</div><div>Large oil tanks with return line filters (12 microns)</div></div></div>	<div>HYDRAULIC SYSTEM</div> <div><div>Shock-absorbing lift mast accumulator (models ECB 80 / 37G–52G)</div><div>High-pressure filters (12 um)</div><div>HLL hydraulic longlife filters (3 um)</div><div>Hydraulic oil cooling circuit for working hydraulics</div></div>
<div>ELECTRICAL SYSTEM 24V</div> <div><div>Alternator standard size 100–110 Ah (see engine chart)</div></div>	<div>ELECTRICAL SYSTEM 24V</div> <div><div>Reverse alarm (beeping)</div><div>NearGuard RFID warning system (receiver and transmitters)</div><div>NATO starting aid contact</div><div>Built-in battery charger</div><div>Pre-heater for engine, transmission, hydraulics and cabin</div><div>Power connections 400V/3-phase for multiple preheaters</div></div>

STANDARD EQUIPMENT

LIGHTS
Full road lighting LED: blinkers, brake lights, tail lights, position lights
2 x LED front lights on mudguard
2 x LED reverse lights on cabin (ECB 80–100) / counter weight (37G–52G)
2 x LED work lights in lift mast
4 x LED work lights on spreader (ECB 80–100)
2 x LED work lights on spreader (37G–52 G)
CABIN
L x W x H = 1605 x 1480 x 1620 mm
Spacious, comfortable, excellent ergonomics
Excellent visibility: no front corner posts
Powerful heating and cooling unit
Electrical connection 24V (1 x in cab roof RHS)
Three windshield wipers/washers
Adjustable seat, seat belt, steering wheel

Joystick (electric servo) auto throttle

MACHINE CONTROL

Intelligent machine control with EMC Master Display: MD4, size 7"

Monitoring of engine, transmission, hydraulic system, service, hydraulic joystick, counters and info
EMC 106: Monitoring (diagnostics/parameters/settings)
EMC 123: ECO-Drive (fuel consumption, saving, settings)
EMC 125: DATA-Log (storage of alarms and errors)

LIFTING MASTS

High-speed, wide, high stability
Only two hydraulic hoses and one cable over top of mast

SPREADERS

Empty handlers: for single lifting ELME 588TB with 2 vertical twistlocks (ECB 80–90)
20–40 ft stops
MPS Mechanical Pile Slope 200 mm
Sideshift ±300 mm
Empty handlers: for double lifting ELME 584LB with 2 side lifting hooks + 2 side clamps (ECB 100 DS)
20 ft and 40 ft stops
MPS Mechanical Pile Slope 200 mm
Sideshift ±300 mm
Laden handling: ELME 818 with 4 vertical floating twistlocks
20–40 ft stops
MPS Mechanical Pile Slope ±5 deg
Sideshift ±200 mm
Reach in/out 0–240 mm
Slewing ±6 deg

SERVICE AND PARTS

Regular warranty 12 months / 2000 hours

OPTIONAL EQUIPMENT

LIGHTS
Lamp console on cabin roof: up to 10 work lamps and 2 warning beacons
Extra work lights: Halogen (70 W), Xenon (3250 Lum), or LED (2900 Lum)
LED warning beacons: cabin roof, lamp console, mast, rear or other position
LED strobe warning flash lights: front, rear or other position

CABIN

Extra mirrors inside cabin
Reverse and front cameras with 6.7" display (MOTEC)
Air conditioning or climate control unit (stepless fan speed)
Extra electric cabin heater 220V (DEFA)
Extra diesel-powered cabin heater (Webasto)
Extra electrical connections 24V (cab roof or front panel RHS)
Extra electrical connections 12V (cab roof or front panel RHS)
Interval wiper speed switches: front, roof, and rear windows
Pneumatic compressor horn: extra button or on joystick
Various compressor seats: BEGE, ISRI, Grammer
Additional seat dampening: single or double
Two-point or three-point seat belt
Seat heating
Extra trainer's seat, leather, fully-foldable LHS
Joystick (electronic servo / auto throttle)
Tire pressure monitor: cabin display, 6 tire sensors
Sun blinds: front, roof or rear windows, fixed or adjustable
Alcohol lock / start-up prohibitor (Draeger)
Reverse alarm (beeping)
Universal mounting system for RHS for A4/A5 writing pad, keyboard, computer monitor, com radio, iPad, and reading lamp
CD player / radio / MP3 player with dual loudspeakers

MACHINE CONTROL

EMC 102: Lever steering (with spring return to zero)
EMC 103: Lever steering (no spring return to zero)
EMC 104: Mini-wheel steering (speed progressive steer function)
EMC 107: Electronic weight scale (resolution 0.1 ton)
EMC 112: Auto engine shut-down timer
EMC 122: Drive speed settings (on/off, programmable)
EMC 124: Driver log-in (up to 20 drivers)
EMC 126: GSM remote access
NearGuard RFID warning system (receiver and transmitters)

LIFTING MASTS

SPREADERS

Extra electrical stops at 24 ft, 30 ft, 35 ft (only single stacking)
HPS Hydraulic Pile Slope ±6 deg
Larger sideshift ±600 mm (ECB 90–100)
Empty handlers: ELME 582LS with 2+2 side twistlocks (ECB 100 DS)
HPS Hydraulic Pile Slope ±6 deg
Extra stops at 24 ft, 30 ft, 35 ft
Larger sideshift ±400 mm

SERVICE AND PARTS

Extended warranty on truck and driveline (18–36 months / 3000–6000 hours)
Spare tires, rims, complete wheels: various brands
Spare part kits: basic, extended, special
Complete filter kits: 2000 hours up to 8000 hours

DRIVELINES

Empty container lift trucks 8–10 tons

MODEL		SMV 3-6 / ECC 80		SMV 4-8 / ECC 90-100 DS	
Engine	Units				
Make		Volvo	Volvo	Volvo	
Model		TAD-572-VE	TAD-871-VE	TAD-871-VE	
Emission approval, EU / US		St 4 / Tier 4f	St 4 / Tier 4f	St 4 / Tier 4f	
Power / max speed (ISO 3046)	kW/rpm	160 / 2300	185 / 2200	185 / 2200	
Torque @ speed (ISO 3046)	Nm/rpm	910 / 1200	1160 / 1200	1160 / 1200	
Displacement / cylinders	L/-	5.1 / 4-cyl	7.7 / 6-cyl	7.7 / 6-cyl	
Alternator power / capacity	W/Amp	2800 / 100	2800 / 100	2800 / 100	
Fuel consumption (normal)	L/hour	5-10	7-13	7-13	
Transmission (make / model)		ZF 3WG-171	ZF 4WG-191	ZF 4WG-191	

MODEL		SMV 3-6 / ECC 80		SMV 4-8 / ECC 90-100 DS	
Transmission	Units				
Make		ZF	ZF	ZF	
Model		3WG-171	4WG-191	4WG-191	
Gear shift type		Automatic	Automatic	Automatic	
No. of gears (fwd / rev)	No.	3 / 3	3 / 3	4 / 3	
Power rating (max)	kW	180	200	200	

Laden container lift trucks 33–45 tons

MODEL		SMV 37 GC3-52 GC5S				
Engine	Units					
Make		Volvo	Volvo	Volvo	Scania	Scania
Model		TAD-1171-VE	TAD-1172-VE	TAD-1371-VE	DC-13-087	DC-13-084
Emission approval, EU / US		St 4 / Tier 4f	St 4 / Tier 4f	St 4 / Tier 4f	St 4 / Tier 4f	St 4 / Tier 4f
Power / max speed (ISO 3046)	kW/rpm	265 / 2100	285 / 2000	285 / 1900	257 / 2100	294 / 2100
Torque @ speed (ISO 3046)	Nm/rpm	1785 / 1250	1938 / 1250	1965 / 1200	1950 / 1300	2157 / 1200
Displacement / cylinders	L/-	10.84 / 6-cyl	10.84 / 6-cyl	12.78 / 6-cyl	12.7 / 6-cyl	12.7 / 6-cyl
Alternator power / capacity	W/Amp	3080 / 110	3080 / 110	3080 / 110	2800 / 100	2800 / 100
Fuel consumption (normal)	L/hour	12-18	12-18	14-20	12-18	14-20
Transmission (make / model)		DANA TE27 (opt. ZF 4WG-261)	DANA TE32	DANA TE32	DANA TE27 (opt. ZF 4WG-261)	DANA TE-32

MODEL		SMV 37 GC3-52 GC5S				
Transmission	Units					
Make		DANA	ZF	DANA		
Model		TE-27400	4WG-261	TE-32400		
Gear shift type		Automatic	Automatic	Automatic		
No. of gears (fwd / rev)	No.	4 / 4	4 / 3	4 / 4		
Power rating (max)	kW	270	280	325		

Empty container handlers

Single stacking
3–6 high
up to 8 tons



MODEL NAME	CAPACITY	WHEELBASE
SMV 3 ECC 80	8 tons at 1220 mm	3750 mm
SMV 4 ECC 80	8 tons at 1220 mm	3750 mm
SMV 5 ECC 80	8 tons at 1220 mm	3750 mm
SMV 6 ECC 80	8 tons at 1220 mm	3750 mm

Single stacking
5–8 high
up to 9 tons



MODEL NAME	CAPACITY	WHEELBASE
SMV 5/6 ECC 90	9 tons at 1220 mm	4500 mm
SMV 6/7 ECC 90	9 tons at 1220 mm	4500 mm
SMV 7/8 ECC 90	9 tons at 1220 mm	4500 mm

Double stacking
4–8 high
up to 10 tons



MODEL NAME	CAPACITY	WHEELBASE
SMV 4/5 ECC 100 DS*	10 tons at 1220 mm	4500 mm
SMV 5/6 ECC 100 DS*	10 tons at 1220 mm	4500 mm
SMV 6/7 ECC 100 DS*	10 tons at 1220 mm	4500 mm

*DS = double-stacking spreader

Laden container handlers

Low cabin
3–4 high
33–35 tons



MODEL NAME	CAPACITY	WHEELBASE
SMV 37 GC3-GC4	35/33 tons at 1490/1730 mm	5000 mm

High/mid cabin
4 high
33–35 tons



MODEL NAME	CAPACITY	WHEELBASE
SMV 37 GC4S	35/33 tons at 1490/1730 mm	5000 mm

Low cabin
3–4 high
41–45 tons



MODEL NAME	CAPACITY	WHEELBASE
SMV 45 GC3-GC4	43/41 tons at 1490/1730 mm	5500 mm
SMV 52 GC3-GC4	45/43 tons at 1490/1730 mm	6000 mm

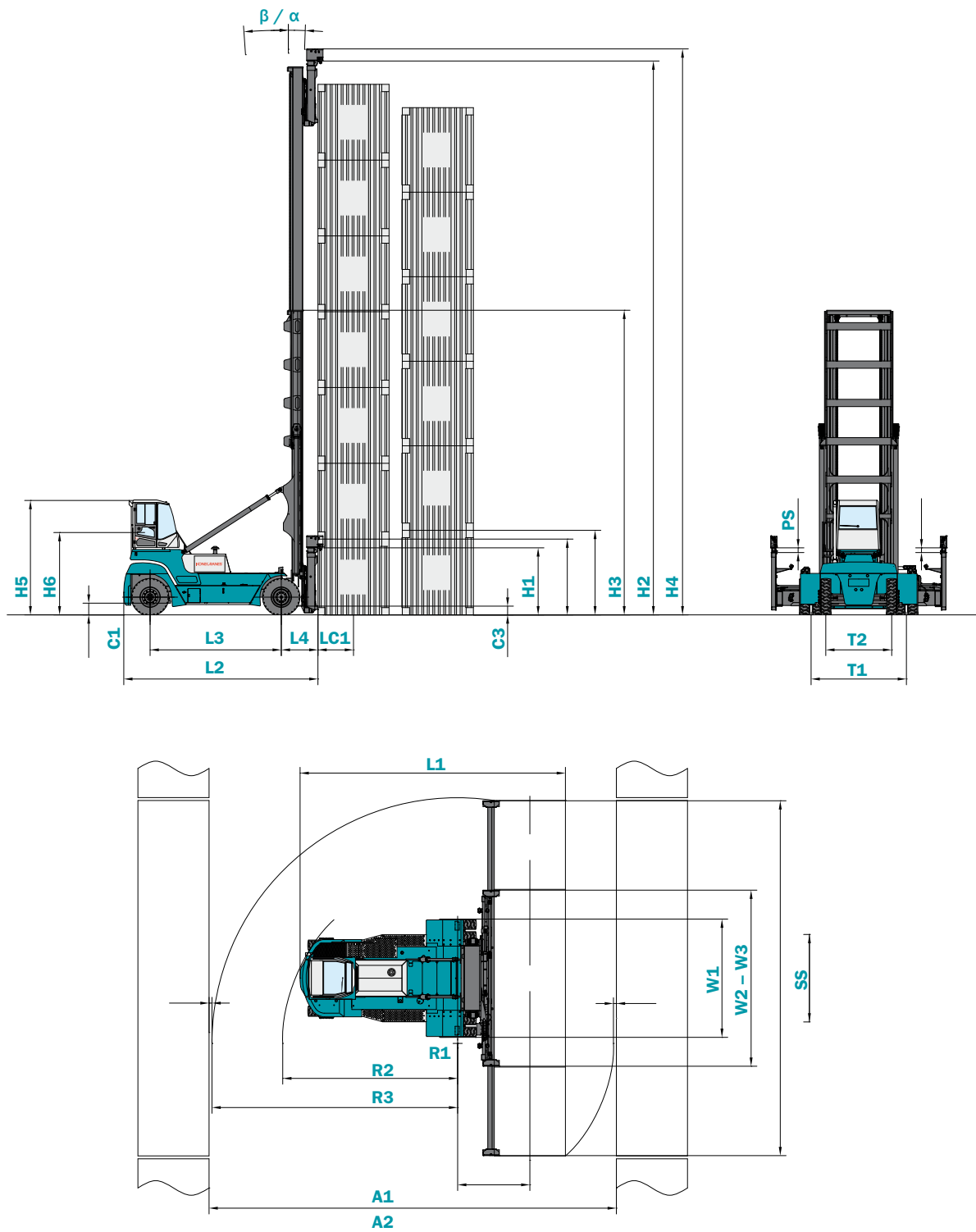
High/mid cabin
4–5 high
41–45 tons



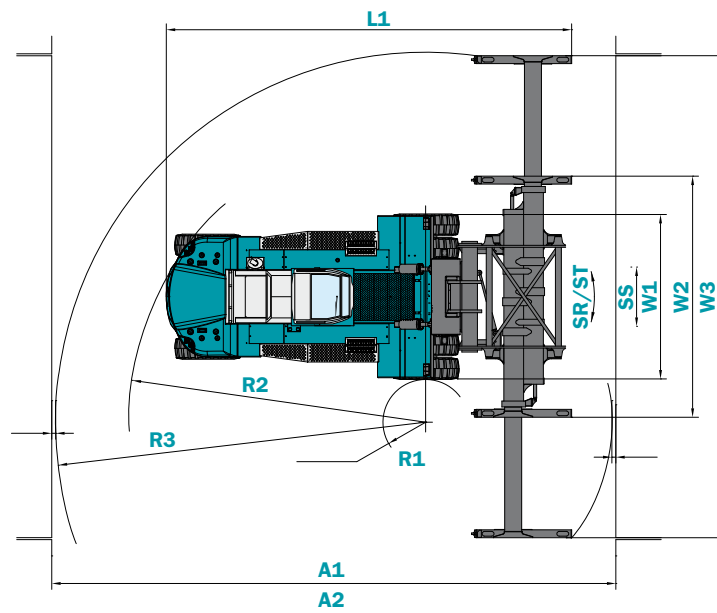
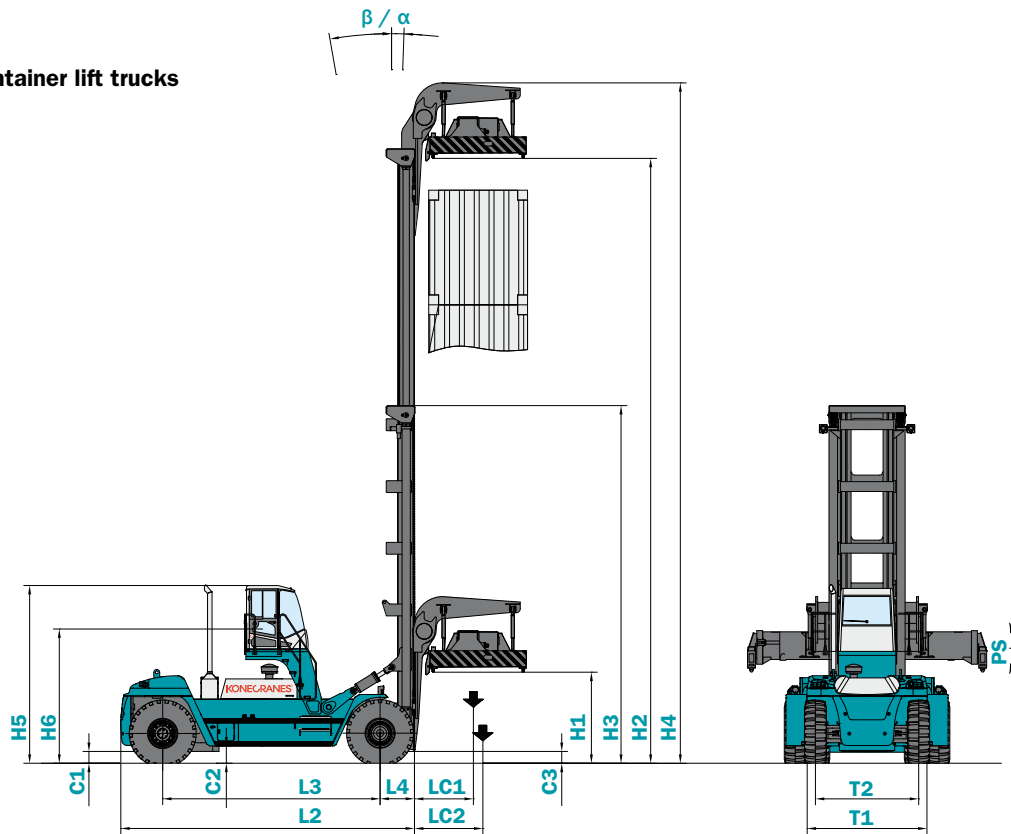
MODEL NAME	CAPACITY	WHEELBASE
SMV 45 GC4S-GC5S	42/41 tons at 1490/1730 mm	5500 mm
SMV 52 GC4S-GC5S	45/43 tons at 1490/1730 mm	6000 mm

DIMENSION MEASUREMENT IDENTIFIERS

Empty container lift trucks



Laden container lift trucks



TECHNICAL DATA

Empty container lift trucks, 8–10 tons

MODEL			SMV 3 ECC 80	SMV 4 ECC 80	SMV 5 ECC 80	SMV 6 ECC 80
LIFTING DATA	Dimensions	Identifier	Units			
	Lifting capacity / load center	LC1	kg/mm	8000 / 1220	8000 / 1220	8000 / 1220 (up to 5 high)
	Stacking height, single mode (9'6" / 8'6")			3 x 9'6" / 3 x 8'6"	4 x 9'6" / 4 x 8'6"	5 x 9'6" / 5 x 8'6"
	Stacking height, double mode (9'6" / 8'6")			-	-	-
	Spreader type, telescopic, locking			Vertical twistlocks, 20-40 ft, safety locking, LED lamps		
	Lost load center	L4	mm	1095	1095	1095
WEIGHT	Wheelbase	L3	mm	3750	3750	3750
	Service weight		kg	26900	28000	28800
	Axle pressure front, unloaded / at rated load		kg	14600 / 27500	15700 / 28600	16700 / 29600
WHEELS	Axle pressure rear, unloaded / at rated load		kg	12300 / 7400	12300 / 7400	12100 / 7200
	Tire type			Pneumatic	Pneumatic	Pneumatic
	Tire dimensions / ply rating, front & rear		Inch	12.00 x 20" / PR 20	12.00 x 20" / PR 20	12.00 x 20" / PR 20
	Rim dimensions, front & rear		Inch	8.00 x 20"	8.00 x 20"	8.00 x 20"
	Tire pressure, front / rear		MPa	1.0 / 1.0	1.0 / 1.0	1.0 / 1.0
	Number of wheels, front / rear (X = driven)			4X / 2	4X / 2	4X / 2
DIMENSIONS	Track width, front / rear	T1 / T2	mm	2843 / 2036	2843 / 2036	2843 / 2036
	Mast tilt, backward / forward	β / α	deg	2 / 4	2 / 4	2 / 4
	Lifting height, min - max	H1 - H2	mm	2255 - 9170	2255 - 11920	2255 - 14920
	Mast height, retracted / extended	H3 - H4	mm	5145 / 9490	6520 / 12240	8020 / 15240
	Truck height over cabin / seat height	H5 - H6	mm	2905 - 1815	3780 - 2680	3780 - 2680
	Overall length, incl. spreader / container	L1 - L2	mm	8080 - 5640	8080 - 5640	8080 - 5640
	Drive axle width	W1	mm	2500	3530	3530
	Spreader width, min - max	W2 - W3	mm	6085 - 12220	6085 - 12220	6085 - 12220
	Spreader sideshift	SS	mm	± 300	± 300	± 300
	Mechanical Pile Slope (side tilt / no power)	PS	mm	0 - 200	0 - 200	0 - 200
	Ground clearance, mast / steering axle	C1 / C3	mm	250 / 200	250 / 200	250 / 200
	Aisle width (with 20 ft / 40 ft container)	A1 / A2	mm	8965 / 13700	8965 / 13700	8965 / 13700
	Turning radius, inner	R1	mm	100 (±100)	100 (±100)	100 (±100)
PERFORMANCE	Turning radius, outer 20 ft / outer 40 ft	R2 / R3	mm	5055 / 7985	5055 / 7985	5055 / 7985
	Drive speed forward, unloaded / at rated load		km/h	25 / 25	25 / 25	25 / 25
	Drive speed reverse, unloaded / at rated load		km/h	25 / 25	25 / 25	25 / 25
	Lifting speed, unloaded / at 70% of rated load		m/s	0.52 / 0.45	0.52 / 0.45	0.52 / 0.45
	Lowering speed, unloaded / at rated load		m/s	0.55 / 0.58	0.55 / 0.58	0.55 / 0.58
DRIVELINE	Gradeability, at rated load, 0/2 km/h		% / %	26 / 22	26 / 22	26 / 22
	Towing power, at rated load, 0/2 km/h		kN / kN	107 / 85	107 / 85	107 / 85
	Engine power (min - max)	EU4	kW	160 - 185	160 - 185	160 - 185
	Engine torque (min - max)	EU4	Nm	910 - 1160	910 - 1160	910 - 1160
	Transmission, gears forward + reverse			ZF 3+3	ZF 3+3	ZF 3+3
	Transmission type, function, shifting			Fully automatic, torque convertor, reverse protection, powershift		
OTHERS	Drive axle model			Kessler D81 with differential		
	Driving brake system, type			Oil-cooled multiple wet disk brakes (WDB)		
	Parking brake system, type			Dry single disc / spring release		
	Steering system / steering axle type			Hydraulic power steering / HD axle with double-acting cylinder		
	Load-sensing hydraulics / power-on-demand			Yes / yes	Yes / yes	Yes / yes
	Hydraulic oil pressure, mast / spreader		MPa	22 / 15	22 / 15	23 / 15
	Diesel / hydraulic tank volumes		Lit	243 / 272	243 / 272	243 / 272
	Noise level inside cab (LM) DIN 45635	EU4	dB(A)	66	66	66
	Noise level inside cab (LpAZ) EN 12053		dB(A)	72	72	72
	Noise level outside (LWA) 2000/14/EC		dB(A)	109	109	109

NOTE 1. Other capacities available upon request

NOTE 2. Additional container stops can be provided at 24 ft, 30 ft and 35 ft (only for single-stacking)

NOTE 3. For models ECC 90–100, Hydraulic Pile Slope ±6 deg and increased sideshift to ±600 mm are available

NOTE 4. For models ECC 90, 14.00 x 24" / PR 24 tires are available

NOTE 5. For available driveline combinations, see the driveline chart and the latest factory information

NOTE 6. SMV 6 ECC 80 lifts 8000 kg up to 5 high and 6000 kg up to 6 high

SMV 5/6 ECC 90	SMV 6/7 ECC 90	SMV 7/8 ECC 90	SMV 4/5 ECC 100 DS	SMV 5/6 ECC 100 DS	SMV 6/7 ECC 100 DS
9000 / 1220	9000 / 1220	9000 / 1220	10000 / 1220	10000 / 1220	10000 / 1220
5 x 9'6" / 6 x 8'6"	6 x 9'6" / 7 x 8'6"	7 x 9'6" / 8 x 8'6"	4 x 9'6" / 5 x 8'6"	5 x 9'6" / 6 x 8'6"	6 x 9'6" / 7 x 8'6"
-	-	-	1+4 x 9'6" / 1+5 x 8'6"	1+5 x 9'6" / 1+6 x 8'6"	1+6 x 9'6" / 1+7 x 8'6"
Vertical twistlocks, 20-40 ft, safety locking, LED lamps			Lift hooks & hydr. side clamps, 20-40 ft, safety locking, LED lamps		
1195	1195	1195	1255	1255	1255
4500	4500	4500	4500	4500	4500
34500	36400	38400	36200	37500	39500
21800 / 35600	23100 / 36900	24500 / 38300	21400 / 36900	22800 / 38300	24200 / 39700
12700 / 7900	13300 / 8500	13900 / 9100	14800 / 9300	14700 / 9200	15300 / 9800
Pneumatic	Pneumatic	Pneumatic	Pneumatic	Pneumatic	Pneumatic
12.00 x 24" / PR 20	12.00 x 24" / PR 20	12.00 x 24" / PR 20	14.00 x 24" / PR 24	14.00 x 24" / PR 24	14.00 x 24" / PR 24
10.00 x 24" / HD	10.00 x 24" / HD	10.00 x 24" / HD	10.00 x 24" / HD	10.00 x 24" / HD	10.00 x 24" / HD
0.9 / 0.9	0.9 / 0.9	0.9 / 0.9	0.9 / 0.9	0.9 / 0.9	0.9 / 0.9
4X / 2	4X / 2	4X / 2	4X / 2	4X / 2	4X / 2
3270 / 2262	3270 / 2262	3270 / 2262	3286 / 2290	3286 / 2290	3286 / 2290
2 / 4	2 / 4	2 / 4	2 / 4	2 / 4	2 / 4
2245 - 16325	2245 - 18925	2245 - 21525	2310 - 13870	2310 - 16470	2310 - 19070
9130 / 16645	10430 / 19245	11730 / 21845	7890 / 14510	9190 / 17110	10490 / 19710
3900 - 2800	3900 - 2800	3900 - 2800	3965 - 2865	3965 - 2865	3965 - 2865
9045 - 6600	9045 - 6600	9045 - 6600	9100 - 6660	9100 - 6660	9100 - 6660
4060	4060	4060	4100	4100	4100
6085 - 12220	6085 - 12220	6085 - 12220	6565 - 12700	6565 - 12700	6565 - 12700
± 300	± 300	± 300	± 300	± 300	± 300
0 - 200	0 - 200	0 - 200	0 - 200	0 - 200	0 - 200
280 / 325	280 / 325	280 / 325	345 / 390	345 / 390	345 / 390
9925 / 13920	9925 / 13920	9925 / 13920	9980 / 13960	9980 / 13960	9980 / 13960
200 (±100)	200 (±100)	200 (±100)	200 (±100)	200 (±100)	200 (±100)
6000 / 8420	6000 / 8420	6000 / 8420	6000 / 8420	6000 / 8420	6000 / 8420
25 / 25	25 / 25	25 / 25	25 / 25	25 / 25	25 / 25
25 / 25	25 / 25	25 / 25	25 / 25	25 / 25	25 / 25
0.68 / 0.61	0.68 / 0.61	0.68 / 0.61	0.68 / 0.61	0.68 / 0.61	0.68 / 0.61
0.60 / 0.60	0.60 / 0.60	0.60 / 0.60	0.60 / 0.60	0.60 / 0.60	0.60 / 0.60
38 / 29	37 / 28	37 / 28	33 / 24	33 / 24	32 / 23
168 / 133	168 / 133	168 / 133	153 / 120	153 / 120	153 / 120
185	185	185	185	185	185
910 - 1160	910 - 1160	910 - 1160	910 - 1160	910 - 1160	910 - 1160
ZF 4+3	ZF 4+3	ZF 4+3	ZF 4+3	ZF 4+3	ZF 4+3
Yes / yes	Yes / yes	Yes / yes	Yes / yes	Yes / yes	Yes / yes
17 / 15	17.5 / 15	18.5 / 15	17.5 / 15	18.5 / 15	19.5 / 15
400 / 430	400 / 430	400 / 430	400 / 430	400 / 430	400 / 430
68	68	68	68	68	68
75	73 - 75	75	75	75	75
110	110	110	110	110	110

TECHNICAL DATA

Laden container lift trucks, 33–45 tons

MODEL			SMV 37 C3	SMV 37 C4 (C4S*)	SMV 45 C3	SMV 45 C4 (C4S*)
LIFTING DATA	Dimensions	Identifier	Units			
	Lift capacity / load center	LC1	kg/mm	35000 / 1490	35000 / 1490	43000 / 1490
	Lift capacity / load center	LC2	kg/mm	33000 / 1730	33000 / 1730	41000 / 1730
	Stacking height, single mode (9'6" / 8'6")			3 x 9'6" / 3 x 8'6"	4 x 9'6" / 4 x 8'6"	3 x 9'6" / 3 x 8'6"
	Spreader type, telescopic, locking			Twistlocks, 20-40 ft, safety locking	Twistlocks, 20-40 ft, safety locking	Twistlocks, 20-40 ft, safety locking
	Lost load center	L4	mm	870	870	870
WEIGHT	Wheelbase	L3	mm	5000	5000	5500
	Service weight		kg	60500	61700	63300
	Axle pressure front, unloaded / at rated load		kg	38100 / 89600	39300 / 90800	38100 / 99600
	Axle pressure rear, unloaded / at rated load		kg	22400 / 5900	22400 / 5900	25200 / 6700
WHEELS	Tire type			Pneumatic	Pneumatic	Pneumatic
	Tire dimension / ply rating, front & rear		Inch	18.00 x 25" / PR 40	18.00 x 25" / PR 40	18.00 x 25" / PR 40
	Rim dimensions, front & rear		Inch	13.00 x 25"	13.00 x 25"	13.00 x 25"
	Tire pressure, front / rear		MPa	0.9 / 0.9	0.9 / 0.9	1.0 / 1.0
	Number of wheels, front / rear (X = driven)			4X / 2	4X / 2	4X / 2
	Track width, front / rear	T1 / T2	mm	3030 / 2612	3030 / 2612	3030 / 2612
DIMENSIONS	Mast tilt, backward / forward	β / α	deg	2 / 10	2 / 10	2 / 10
	Lifting height, min - max	H1 - H2	mm	2300 - 9500	2300 - 12400	2300 - 9500
	Mast height, retracted / extended	H3 - H4	mm	6150 / 11400	7600 / 14300	6150 / 11400
	Truck height over cabin / seat height	H5 - H6	mm	3660 - 2560	3660 - 2560 (4500 - 3400)	3660 - 2560
	Overall length, incl. spreader / container	L1 - L2	mm	6930 - 9760	6930 - 9760	7430 - 10250
	Drive axle width	W1	mm	4160	4160	4160
	Spreader width, min - max	W2 - W3	mm	6050 - 12175	6050 - 12175	6050 - 12175
	Spreader sideshift	SS	mm	± 200	± 200	± 200
	Spreader reach in - out	SR	mm	0 - 240	0 - 240	0 - 240
	Spreader turn left / right	ST	deg	± 6	± 6	± 6
	Mechanical Pile Slope (side tilt / no power)	PS	deg	± 5	± 5	± 5
	Ground clearance, mast / mid / steering axle	C1 / C2 / C3	mm	300 / 440 / 270	300 / 440 / 270	300 / 440 / 270
	Aisle width (with 20 ft / 40 ft container)	A1 / A2	mm	10900 / 14200	10900 / 14200	11400 / 14300
	Turning radius, inner	R1	mm	< 750	< 750	< 1100
PERFORMANCE	Turning radius, outer 20 ft / outer 40 ft	R2 / R3	mm	6900 / 9000	6900 / 9000	7500 / 9350
	Drive speed forward, unloaded / at rated load		km/h	24 / 22	24 / 22	24 / 22
	Drive speed reverse, unloaded / at rated load		km/h	24 / 22	24 / 22	24 / 22
	Lifting speed, unloaded / at rated load		m/s	0.26 / 0.21	0.26 / 0.21	0.26 / 0.21
	Lowering speed, unloaded / at rated load		m/s	0.40 / 0.40	0.40 / 0.40	0.40 / 0.40
	Gradeability, at rated load, 0/2 km/h		% / %	29 / 22	29 / 22	29 / 22
DRIVELINE	Towing power, at rated load, 0/2 km/h		kN / kN	315 / 251	315 / 251	315 / 251
	Engine power (min - max)	EU4	kW	257 - 294	257 - 294	257 - 294
	Engine torque (min - max)	EU4	Nm	1785 - 2157	1785 - 2157	1785 - 2157
	Transmission, gears forward + reverse			DANA 4+4 / ZF 4+3	DANA 4+4 / ZF 4+3	DANA 4+4 / ZF 4+3
	Transmission type, function, shifting			Automatic, torque convertor, reverse protection, powershift		
	Drive axle model			Kessler D102 with differential		
	Driving brake system, type			Oil-cooled multiple wet disk brakes (WDB)		
	Parking brake system, type			Dry single disc / spring release		
OTHERS	Steering system / steer axle type			Hydraulic power steering / HD axle + double-acting cylinder		
	Load-sensing hydraulics / power-on-demand			Yes / yes	Yes / yes	Yes / yes
	Hydraulic oil pressure, mast/spreader		MPa	21 / 15	21 / 15	23 / 15
	Diesel / hydraulic tank volumes		L	410 / 480	410 / 480	510 / 550
	Noise level inside cab (LM) DIN 45635	EU4	dB(A)	71	71	71
	Noise level inside cab (LPaZ) EN 12053		dB(A)	75	75	75
	Noise level outside (LWA) 2000/14/EC		dB(A)	111	111	111

NOTE 1. Other capacities available upon request
NOTE 2. Increased sideshift to ±400 mm is available
NOTE 3. Container guides on one side of spreader are also available
NOTE 4. Four lifting eyes on spreader are standard; extra ones are available
NOTE 5. Additional container stops can be provided at 24 ft, 30 ft and 35 ft (only for single-stacking)
NOTE 6. For available driveline combinations, see the driveline chart and the latest factory information

SMV 45 C5S	SMV 52 C3	SMV 52 GC4 (GC4S*)	SMV 52 GC5S
42000 / 1490	45000 / 1490	45000 / 1490	45000 / 1490
41000 / 1730	43000 / 1730	43000 / 1730	43000 / 1730
5 x 9'6" / 5 x 8'6"	3 x 9'6" / 3 x 8'6"	4 x 9'6" / 4 x 8'6"	5 x 9'6" / 5 x 8'6"
	Twistlocks, 20-40 ft, safety locking		
870	970	970	970
5500	6000	6000	6000
67500	64300	66500	69500
42300 / 102400	39800 / 107500	41000 / 107500	44000 / 107500
25200 / 7100	25500 / 6600	25500 / 6600	25500 / 7000
Pneumatic	Pneumatic	Pneumatic	Pneumatic
18.00 x 25" / PR 40	18.00 x 33" / PR 36	18.00 x 33" / PR 36	18.00 x 33" / PR 36
13.00 x 25"	13.00 x 33"	13.00 x 33"	13.00 x 33"
1.0 / 1.0	1.0 / 1.0	1.0 / 1.0	1.0 / 1.0
4X / 2	4X / 2	4X / 2	4X / 2
3030 / 2612	3030 / 2612	3030 / 2612	3030 / 2612
2 / 10	2 / 10	2 / 10	2 / 10
2300 - 15300	2300 - 9500	2300 - 12400	2300 - 15300
9050 / 17200	6300 / 11400	7700 / 14300	9220 / 17200
4500 - 3400	3860 - 2780	3860 - 2780 (4700 - 3600)	4700 - 3600
7430 - 10250	8100 - 10950	8100 - 10950	8100 - 10950
4160	4160	4160	4160
6050 - 12175	6050 - 12175	6050 - 12175	6050 - 12175
± 200	± 6	± 6	± 6
0 - 240	0 - 240	0 - 240	0 - 240
± 6	± 6	± 6	± 6
± 5	± 5	± 5	± 5
300 / 440 / 270	470 / 600 / 400	470 / 600 / 400	470 / 600 / 400
11400 / 14300	12000 / 14400	12000 / 14400	12000 / 14400
< 1100	< 1200	< 1200	< 1200
7500 / 9350	8050 / 9400	8050 / 9400	8050 / 9400
24 / 22	25 / 22	25 / 22	25 / 22
24 / 22	25 / 22	25 / 22	25 / 22
0.26 / 0.21	0.26 / 0.21	0.26 / 0.21	0.26 / 0.21
0.40 / 0.40	0.40 / 0.40	0.40 / 0.40	0.40 / 0.40
29 / 22	34 / 22	34 / 22	34 / 22
315 / 251	260 / 214	260 / 214	260 / 214
257 - 294	257 - 294	257 - 294	257 - 294
1785 - 2157	1785 - 2157	1785 - 2157	1785 - 2157
DANA 4+4 / ZF 4+3	DANA 4+4 / ZF 4+3	DANA 4+4 / ZF 4+3	DANA 4+4 / ZF 4+3
	Automatic, torque convertor, reverse protection, powershift		
	Kessler D106 with differential		
	Oil-cooled multiple wet disk brakes (WDB)		
	Dry single disc / spring release		
	Hydraulic power steering / HD axle + double-acting cylinder		
Yes / yes	Yes / yes	Yes / yes	Yes / yes
24 / 15	22 / 15	24 / 15	24 / 15
510 / 550	550 / 620	550 / 620	550 / 620
71	71	71	71
75	75	75	75
111	111	111	111



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