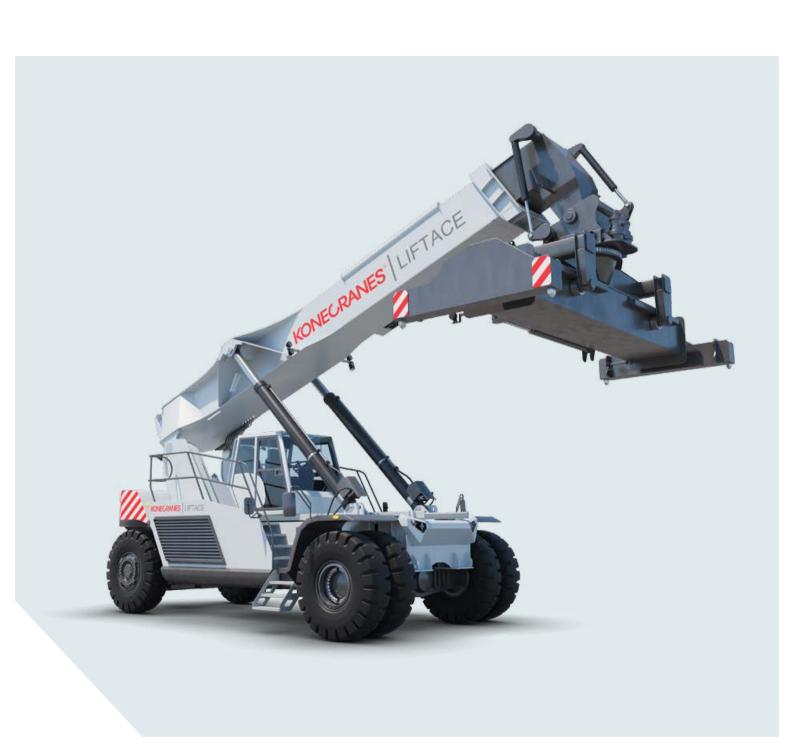


HIGH STANDARD LIFT TRUCKS

KONECRANES LIFTACE REACH STACKERS



Konecranes Konecranes Liftace Reach Stackers Konecranes

KONECRANES LIFTACE REACH STACKERS

Konecranes Liftace Reach Stackers consist of the well-known TFC models and the R models launched in April 2015 under the Liftace name. Built on engineering tradition and expertise, these reach stackers are dependable workhorses, simple to maintain, robust and good value for money. Thanks to a high degree of standardization, terminal operators benefit from short delivery lead times – making Konecranes Liftace Reach Stackers available, servicable and durable.

Konecranes Liftace Reach Stackers are of high standard and specially designed to work with modern control systems and drive technology. Engines comply with emission standards EU Stage IIIA (EPA Tier 3) and EU Stage IV (EPA Tier 4 final).

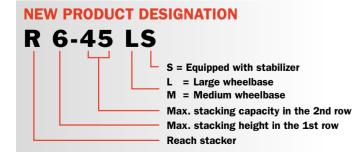
Versatile, reliable and powerful

Whether for use in port, railway or intermodal terminals, in container stackyards or any other area of logistics, Konecranes Liftace Reach Stackers are known for good quality, robust design and reliability in operation when handling containers or heavy general cargo. With the durable Konecranes Liftace Spreaders, 20' to 40' containers are stacked up to 1-over-6 high-cube containers high.

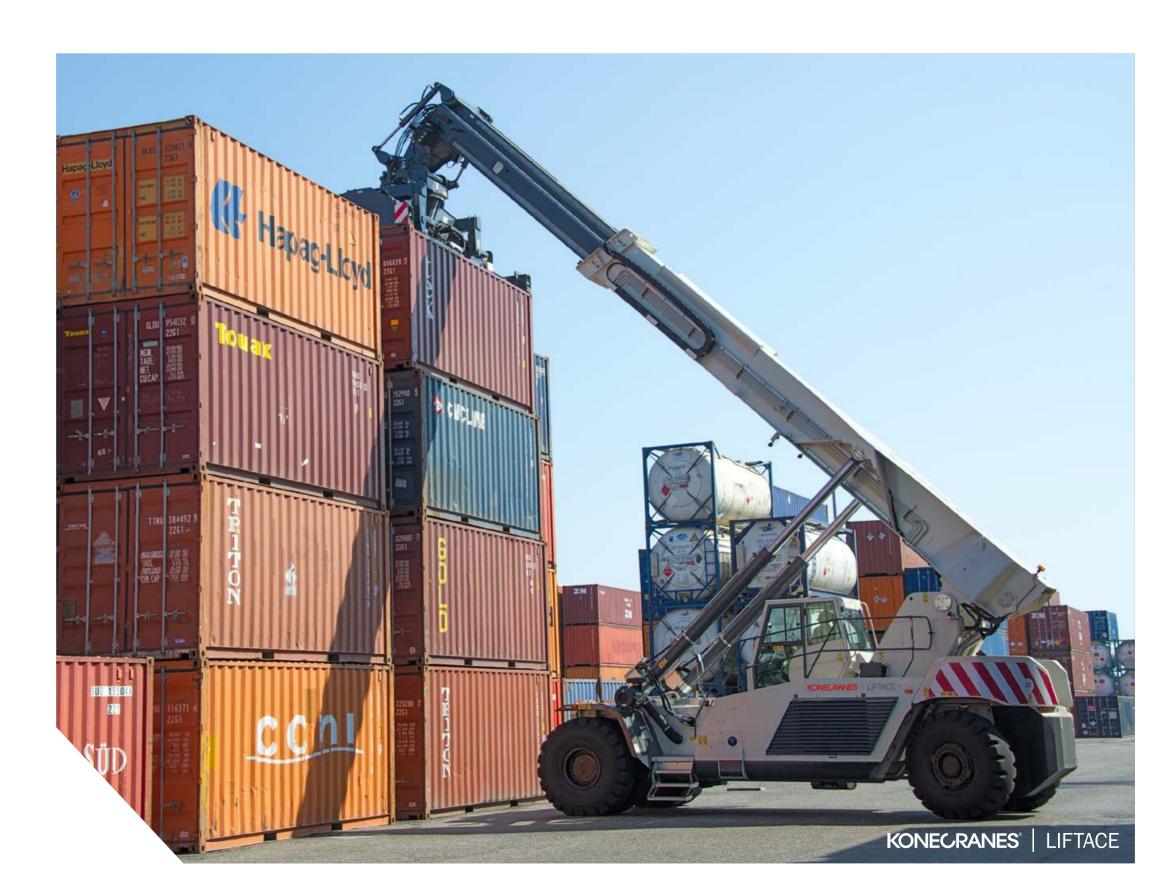
To handle general cargo, the machines can be fitted with dedicated lifting gear. Konecranes Liftace Reach Stackers meet the challenges of professional cargo handling with high loading capacities of 45 t and high working speeds while providing simple and safe operation.

Konecranes Liftace Reach Stackers at a glance

- Productive working speeds for efficient handling rates
- Economical low fuel consumption and predictable maintenance cost
- · Simple operation and maintenance
- · Proven technology agile, robust and reliable
- Safe reliable monitoring and excellent visibility



The reach stackers launched under the Liftace name in April 2015 have been renamed. Their previous designation is now preceded by an R.



Konecranes Liftace Reach Stackers

Model	TFC 45 h/hc *	TFC 45 R h/hc *	R 5-31	R 5-33	R 5-36	R 6-36 M	R 6-41 MS	R 6-45 LS
Capacities								
Front stabilizer (stacking capacities with stabilizer applied)							V	V
Maximum stacking height, 1st / 2nd / 3rd row								
- 8'6" standard containers	5/5/4	5/5/4	5/5/4	5/5/4	5/5/4	6/6/5	6/6/5	6 / 5 / 4
- 9'6" high-cube containers	5 / 4 / 3	5 / 4 / 3	5 / 4 / 3	5 / 4 / 3	5 / 4 / 3	6 / 5 / 4	6 / 5 / 4	5/5/4
Maximum capacity, 1st / 2nd / 3rd row [t]								
- 8'6" and 9'6" containers	45 / 27 / 13	45 / 31 / 16	45 / 31 / 15	45 / 33 / 17	45 / 36 / 18	45 / 36 / 18	45 / 41 / 31	45 / 45 / 36
Maximum speeds								
Lifting [m/s]								
- laden, 26 t	h: 0.25 / hc: 0.26	h: 0.25 / hc: 0.26	0.34	0.34	0.34	0.34	0.34	0.34
- unladen	h: 0.34 / hc: 0.40	h: 0.34 / hc: 0.40	0.45	0.45	0.45	0.45	0.45	0.45
Lowering [m/s]								
- laden, 26 t	0.50	0.50	0.45	0.45	0.45	0.45	0.45	0.45
- unladen	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30
Traveling [km/h]								
- laden, 45 t	25	25	25	25	25	25	25	20
- unladen	25	25	25	25	25	25	25	20
Weights [t]								
Total weight (unladen, with standard top pick spreader)	68	72	71	73	75	72	80	81
Axle load, front / rear [t]								
- laden, 45 t (boom α = 45°)	87 / 26	87 / 30	87 / 29	87 / 31	87 / 33	88 / 29	89 / 36	85 / 41
- laden, 30 t (boom $\alpha = 45^{\circ}$)	69 / 29	69 / 33	69 / 32	69 / 34	69 / 36	70 / 32	71 / 39	68 / 43
– unladen (boom $\alpha = 25^{\circ}$)	36 / 32	36 / 36	38 / 33	38 / 35	38 / 37	38 / 34	40 / 40	39 / 42
Wheels and tires								
Tire size	18.00-25	18.00-25	18.00-25	18.00-25	18.00-33	18.00-25	18.00-33	18.00-33
Rim size	13.00-25	13.00-25	13.00-25	13.00-25	15.00-25	13.00-25	15.00-25	15.00-25
Number of wheels, front (driven) / rear	4 / 2	4 / 2	4 / 2	4 / 2	4 / 2	4 / 2	4 / 2	4 / 2
Additional data								
Drawbar pull [kN]								
- with standard Stage IIIA (Tier 3) engine Cummins QSM11	290	290	280	280	260	280	260	260
- with standard Stage IV (Tier 4f) engine Volvo TAD1170VE	n.a.	n.a.	280	280	260	280	260	260
- with optional Stage IV (Tier 4f) engine Cummins QSL9	n.a.	n.a.	280	280	260	280	260	260
Maximum gradeability with standard Stage IIIA (Tier 3) engine [%]								
- laden, 45 t	24.8	24.5	24.0	23.0	20.0	23.0	20.0	20.0
– unladen	42.0	40.0	40.0	38.0	34.0	39.0	32.0	32.0
Maximum gradeability with standard Stage IV (Tier 4f) engine [%]								
- laden, 45 t	n.a.	n.a.	24.0	23.0	20.0	23.0	20.0	20.0
- unladen	n.a.	n.a.	40.0	38.0	34.0	39.0	32.0	32.0
Maximum gradeability with optional Stage IV (Tier 4f) engine [%]								
- laden, 45 t	n.a.	n.a.	24.0	23.0	20.0	23.0	20.0	20.0
– unladen	n.a.	n.a.	40.0	38.0	34.0	39.0	32.0	32.0

 $^{^{\}ast}$ TFC 45 and TFC 45 R are available with hydraulic (h) or electronic (hc) controls. All other models are equipped with electronic controls.

Konecranes Liftace Reach Stackers Konecranes Liftace Reach Stackers Konecranes

LOAD CHARTS

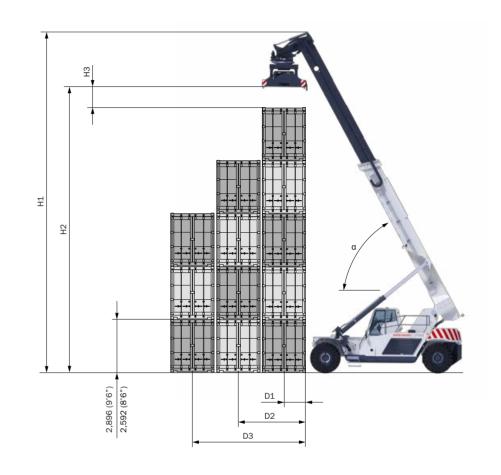


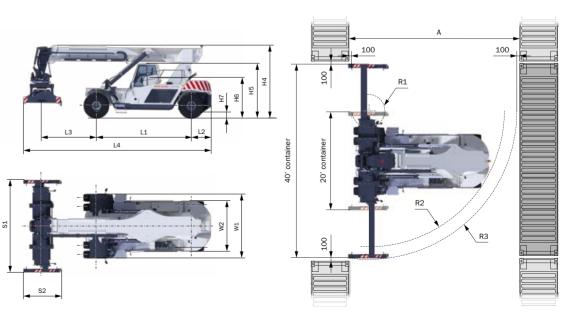
Konecranes Konecranes Liftace Reach Stackers Konecranes

DIMENSIONS

Model		TFC 45 h/hc*	TFC 45 R h/hc*	R 5-31	R 5-33	R 5-36	R 6-36 M	R 6-41 MS	R 6-45 LS
Height	s [mm]								
H1	Maximum boom height, 1st row	18,530	18,530	18,900	18,900	18,970	20,780	20,850	20,850
H2	Maximum lifting height under twist-lock, 1st row	15,230	15,230	15,710	15,710	15,780	17,375	17,375	17,070
НЗ	Lifting height clearance 1)								
	- 8'6" containers	2,270	2,270	2,755	2,755	2,825	2,150	2,090	1,500
	- 9'6" containers	750	750	1,240	1,240	1,310	330	280	2,570
H4	Minimum boom height	4,530	4,530	4,640	4,640	4,710	4,710	4,710	4,710
H5	Cab height	3,600	3,600	3,550	3,550	3,620	3,620	3,620	3,620
H6	Seat height	2,600	2,600	2,530	2,530	2,600	2,600	2,600	2,600
H7	Ground clearance (unladen)	320	320	270	270	340	270	340	340
Widths	[mm]								
W1	Front	4,190	4,190	4,190	4,190	4,190	4,190	4,190	4,190
W2	Rear	3,345	3,345	3,345	3,345	3,345	3,345	3,345	3,345
Length	s [mm]								
.1	Wheelbase	6,000	6,000	6,200	6,200	6,200	6,600	6,600	7,000
.2	Rear overhang	1,300	1,300	1,300	1,300	1,300	1,300	1,300	1,300
.3	Minimum distance driving axle center to load center	3,450	3,450	3,580	3,580	3,580	3,920	3,920	3,515
_4	Overall length	11,950	11,950	12,290	12,290	12,290	13,020	13,020	13,020
Distand	ces [mm]								
)1	From tires to load center (1st row)	2,500	2,500	2,500	2,500	2,500	2,500	2,500	2,000
)2	From tires to load center (2nd row)	3,860	3,860	3,815	3,815	3,815	3,815	3,815	3,815
)3	From tires to load center (3rd row)	6,400	6,400	6,315	6,315	6,315	6,315	6,315	6,315
Other o	dimensions								
ſ	Maximum boom angle [°]	62.0	62.0	65.0	65.0	65.0	65.0	65.0	60.0
	90° stacking aisle [mm]								
	- 20' container	10,210	10,210	9,900	9,900	9,900	9,900	10,620	10,820
	- 40' container	12,830	12,830	12,390	12,390	12,390	12,390	12,390	12,390
R1	Internal turning radius [mm]	1,840	1,840	1,200	1,200	2,000	1,300	2,100	2,300
2	Rear turning radius [mm]	8,700	8,700	8,500	8,500	8,900	8,950	9,350	9,600
3	External turning radius, 40' container [mm]	10,420	10,420	9,500	9,500	10,250	10,420	10,420	10,620
pread	er [mm]								
61	Length	6,072	6,072	6,072	6,072	6,072	6,072	6,072	6,072
62	Width	2,400	2,400	2,400	2,400	2,400	2,400	2,400	2,400

¹⁾ Referred to maximum stacking height.





All dimensions in mm. All capacities in t.

Nonecranes Konecranes Liftace Reach Stackers Konecranes Konecranes Liftace Reach Stackers Konecranes

STANDARD EQUIPMENT

TFC models	R models		
Control system	Control system		
IQAN-MD3 1)	Motronica® control system		
 Load moment indicator 	- 7" TFT color display		
- 3.5" TFT color display	- Operative and diagnostic black box		
 Displayed values: boom length, angle and radius; 	- Container counter		
hydraulic flows and pressures	 Load moment indicator with pressure sensors 		
 Internal memory capacity of 80,000 records 	- EcoPower fuel saving mode		
 Load moment indicator 	- Black box data download via USB		
Auto-diagnostic function	- My Service system		
Anti-tipping device	CAN bus for engine, transmission and hydraulics		
Cab	Vertical lifting control		
Ergonomically designed, soundproofed	Automatic lifting cut-off in case of overload detection		
(noise level $\leq 70 \text{ dB(A)}$)	Engine and transmission protection system		
High comfort seat	Power on demand		
- with mechanical suspension	Reverse driving audio signal		
Air conditioning and heating system	Cab		
CD audio system ²⁾	Comfortable and ergonomically designed		
Additional design features	with excellent visibility		
Lighting	2-point driver safety belt		
 Bulb traffic and working lights 	Air conditioning and heating systems		
Tires	Manual sliding		
- Tubeless pneumatic tires	Rear emergency window		
Spreader and lifting gear	Front, rear and top wipers		
Top pick spreader	12 V & 24 V plugs		
- ISO containers (20' / 40') with mechanical pile slope	CD/radio system		
Automatic stop at 30' and automatic locking 3)	Additional design features		
Electrical & mechanical twistlock safety system	Lighting		
12 t lifting eye on each spreader corner	– LED working lights		
	– LED traffic lights		
1) Option for model TFC 45 h. 2) Option for models TFC 45 h and TFC 45 R h.	- Marker lights		
3) Only for hc versions.	Wheel nut protection		
More information about additional options on request.	Master battery disconnect		
more information about additional options on request.	2-stage heavy duty air intake filter		
	Spreader and lifting gear		
	Top pick spreader – ISO containers (20' / 40') with mechanical pile slope Automatic stop at 30'		
	Electrical & mechanical twistlock safety system		
	12 t lifting eye on each spreader corner		

More information about additional options on request.

Emission s
Туре
Cooling sys
Displaceme
Maximum p
Maximum t
Alternator
Batteries
Transmissi
Make
Туре
Speeds, fo
Driving axl
Make
Туре
Braking sys
Steering sy
Hydraulic s
Main syste
Main pump
Maximum w
Tank capa
Hydraulic o
Fuel [I]

	TFC models	R models		
Diesel engines				
Make	Cummins QSM 11	Cummins QSM 11	Volvo TAD1170VE	
Emission standard	Stage IIIA (Tier 3)	Stage IIIA (Tier 3)	Stage IV (Tier 4 final)	
Туре	Inline 6 cylinders, turbocharged	Inline 6 cylinders, turbocharged	Inline 6 cylinders, turbocharged	
Cooling system	Water	Water	Water	
Displacement [I]	11	11	11	
Maximum power [kW @ rpm]	239 @ 1,800	239 @ 1,800	235 @ 1,800	
Maximum torque [Nm @ rpm]	1,478 @ 1,500	1,478 @ 1,500	1,550 @ 1,400	
Alternator	70 A - 24 V	70 A - 24 V	110 A - 24 V	
Batteries	2 x 12 V - 200 Ah	2 x 12 V - 200 Ah	2 x 12 V - 200 Ah	
Transmission				
Make	Dana TE27 418	Dana TE30 (Optionally with lock-up clutch)		
Туре	Automatic powershift control	Automatic pow	ershift control	
Speeds, forward / reverse	4 / 4	5 / 3		
Driving axle				
Make	Kessler D102	Kessler	D102	
Туре	Double reduction	Double reduction		
Braking system	Maintenance free wet disc brakes	Maintenance free wet disc brakes		
Steering system	Fully hydrostatic with double acting steering cylinders	Fully hydrostatic with double acting steering cylinders		
Hydraulic system				
Main system	Load sensing control	Load sensi	ng control	
Main pump	Variable displacement double piston pump (145 cm³ + 75 cm³)	Variable displacement (145 cm³ -		
Maximum working pressure [bar]	320	32	0	
Tank capacities				
Hydraulic oil [I]	750	75	0	
Fuel [I]	700	700		

Konecranes Liftace Top Pick Spreader for TFC and R models		
Lifting system	4 vertical twistlocks, ISO pendular	
Telescoping, 20' to 40' [s]	12	
Side shift, +/- 800 mm [s]	15	
Slewing, +210°/-125° [s]	65	
Mechanical pile slope [°]	+/- 4	
Powered pile slope [°] (optional)	+/- 5	
Tilting [°]	+/- 10	
Weight [t]	8	

This publication is for general informational purposes only. Konecranes reserves the right at any time, without notice, to alter or discontinue the products and/or specifications referenced herein. This publication creates no warranty on the part of Konecranes, express or implied, including but not limited to any implied warranty or merchantability or fitness for a particular purpose.





Konecranes is a world-leading group of Lifting Businesses™, serving a broad range of customers, including manufacturing and process industries, shipyards, ports and terminals. Konecranes provides productivity enhancing lifting solutions as well as services for lifting equipment of all makes. The Group has 18,000 employees at 600 locations in 50 countries. Konecranes is listed on Nasdaq Helsinki (symbol: KCR).

© 2017 Konecranes. All rights reserved. 'Konecranes', 'Lifting Businesses' and 💪 are either registered trademarks of Konecranes





Global Port Equipment Americas, S.A.

Building 3835, unit 102C, Panamá Pacifico Boulevard, Int Business Park, Panamá T 00 507 3989555, E-mail: americas@globalportequipment.com www.globalportequipment.com

GLOBAL PORT EQUIPMENT Colombia

Global Port Equipment Colombia, S.A.S.
Calle 90 No 19-41 Oficina 801, Bogotá, Colombia
T 00 57 (1) 7449566, E-mail: colombia@gpeamericas.com
www.globalportequipment.com