



NARROW AISLE, SINGLE, DOUBLE REACH TRUCK

CAPACITY: 3,000 – 4,500 lbs.

R15SX | R17SX | R22SX

SERIES 5195

Design

At Linde, we understand narrow aisle applications. The result, over 70 years of designing and manufacturing the most reliable forklift trucks in the industry. At any location across the globe, you will see a Linde forklift operating in any environment. Extensive testing and design result in the most efficient electric trucks in the market. Cutting-edge technology leads to a competitive edge. Linde warehouse products are recognized as the highest potential cost of operation gains in the industry.

Performance

Controlled acceleration, smooth maneuvering and responsive braking are all active functions for travel including cushioned hydraulic functions. Variable steering resistance gives the reassuring feeling of maintaining perfect control of the truck while the truck status is continuously monitored on an informative display. At a glance, the operator can check steering angle, battery state, operating hours, motor temperature or servicing due.

Comfort

Tailored to the operator, the Linde Ergo-concept ensures the operator has enough room to comfortably move within the operator compartment. Not being locked in a position, the operator can move and still be within the frame of the truck thereby reducing fatigue and improving productivity. Visibility in all load handling functions is enhanced with a clear view overhead guard, not obstructed by a metal structure. The result, the operator does not have to lean outside the frame of the truck to see loads and extended lift heights.

Reliability/Durability

Before you take delivery of a new Linde truck, it has been through a series of product-proving tests through various applications to assure you of its dependability. Linde's AC and controllers run cooler, double-sealed electrical components, CAN bus communications result in very little moving parts. Confidence in the quality of the Reach Truck also allows us to offer a standard 3-year or 6000-hour warranty.

Serviceability

The service compartment allows full access to the main components. A 2-piece cover provides noise reduction and full access to key components. On-board diagnostics allows Linde technicians to quickly and effectively check and address truck systems. CAN bus electronics integrate truck systems with reduced wiring and electrical connections for better reliability with less componentry to maintain. Easy access with minimal moving parts improves your cost of operation over the life of the truck.

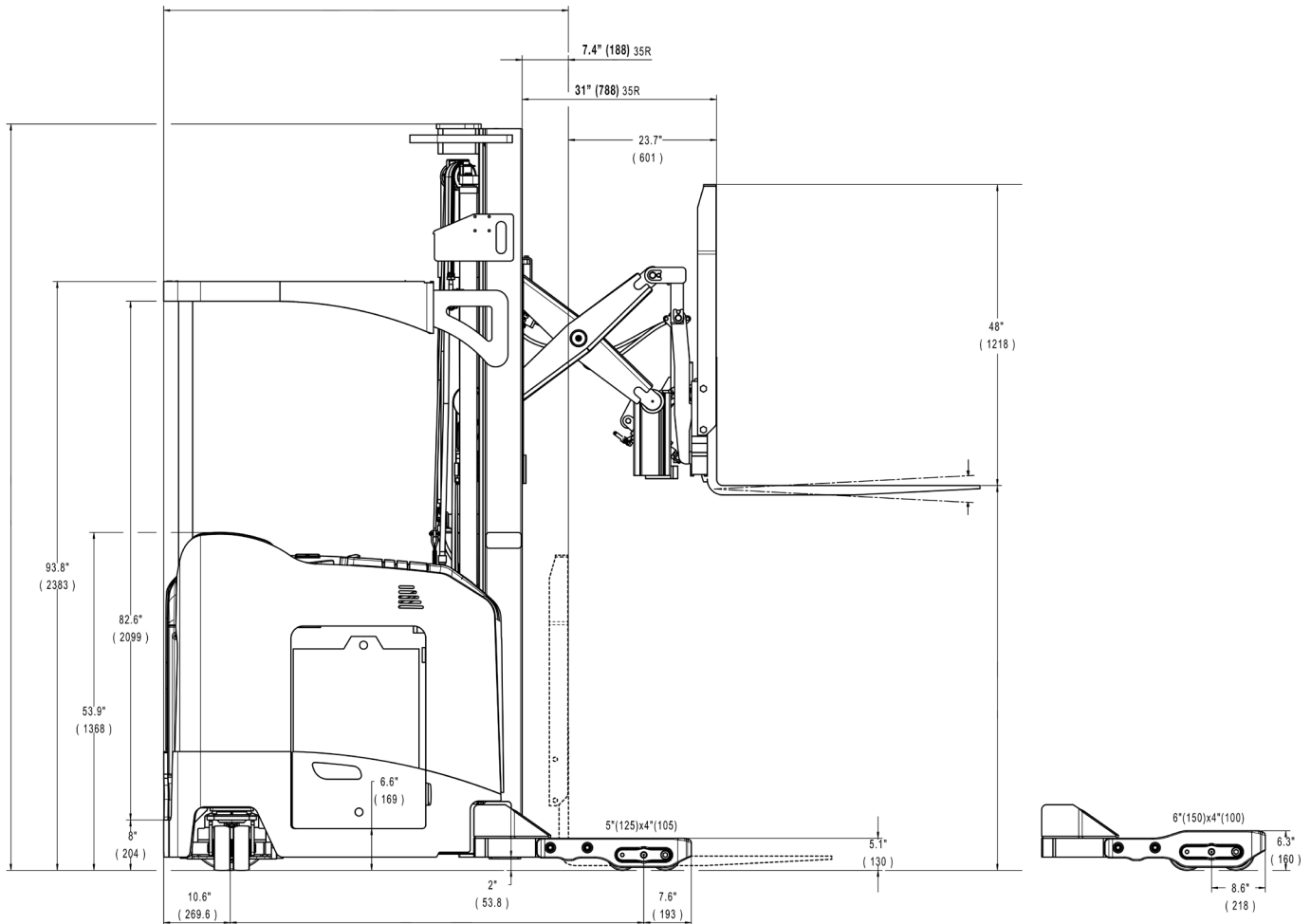
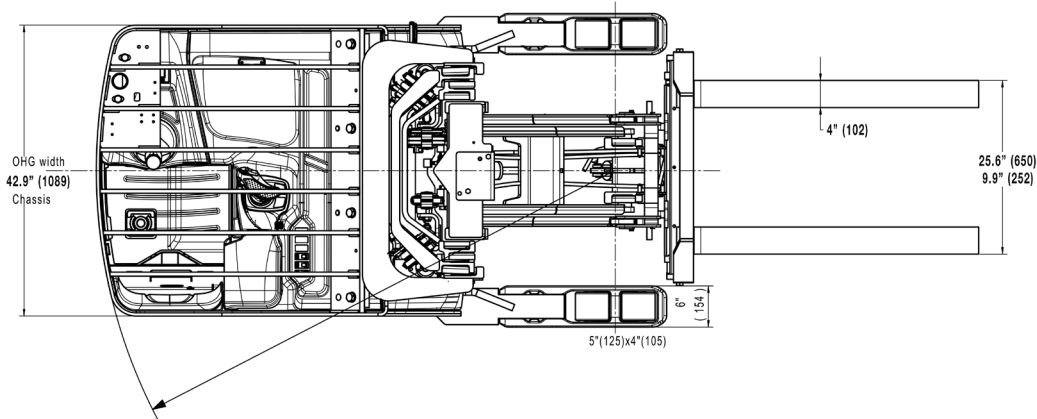
REACH TRUCK TECHNICAL DATA

February 2019

				LINDE											
Characteristics	1.1	Manufacturer													
	1.2	Model designation			R17SX-24V		R17SX-36V		R22SX		R15SX				
	1.3	Power unit			Electric		Electric		Electric		Electric				
	1.4	Operation			Stand-on		Stand-on		Stand-on		Stand-on				
	1.5	Load capacity	Q	lbs	kg	3500	1588	3500	1588	4500	2041	3000	1361		
	1.6	Load center	c	in	mm	24	600	24	600	24	600	24	600		
	1.8	Axle center to fork face	x	in	mm	11.8	299	11.8	299	10.8	274	5.4	136		
	1.9	Wheelbase	y	in	mm	58.9	1497	60.9	1548	60.9	1548	60.9	1548		
	Weights	2.1	Service weight			lbs	kg	7517.8	3410	8245.3	3740	8774.4	3980	8950.8	4060
2.3		Axle load without load, front (drive)/rear (load)			lbs	kg	934.4	2060	5026.5	2280	5180.9	2350	5180.9	2350	
2.4		Axle load, fork outreached with load, front (drive)/rear (load)			lbs	kg	412.8	910	2579.4	1170	2314.9	1050	1399.9	635	
2.5		Axle load, fork retracted with load, front (drive)/rear (load)			lbs	kg	753	1660	4188.8	1900	3825	1735	4100.6	1860	
Wheels	3.1	Tires, front/rear ¹ C=cushion rubber, P=polyurethane			P/P		P/P		P/P		P/P				
	3.2	Tire size, front (drive) wheel			in	mm	13.5x5.1	343x135	13.5x5.1	343x135	13.5x5.1	343x135	13.5x5.1	343x135	
	3.3	Tire size, rear (load) wheel			in	mm	5x4	127x102	5x4	127x102	5x4	152x102	5x4	152x102	
	3.5	Wheels, number front (drive)/rear (load) (X=driven)			1x+1/4		1x+1/4		1x+1/4		1x+1/4				
	3.6	Track width, front (drive)	b ₁₀	in	mm	30.5	774	30.5	774	30.5	774	30.5	774		
	3.7	Track width, rear (load)	b ₁₁	in	mm	40.1	1018	40.1	1119	40.1	1170	40.1	1170		
Dimensions	4.1	Mast/fork carriage tilt, forward/backward			3/4		3/4		3/4		3/4				
	4.2	Height of mast, lowered			h ₁	in	mm	107	2718	107	2718	107	2718	107	2718
	4.3	Free lift			h ₂	in	mm	74.6	1895	74.6	1895	78.8	2002	78.8	2002
	4.4	Lift			h ₃	in	mm	240	6096	240	6096	240	6096	240	6096
	4.5	Height of mast, extended			h ₄	in	mm	281.7	7155	281.7	7155	281.7	7155	281.7	7155
	4.7	Height of overhead guard (cabin)			h ₅	in	mm	100.2	2545	100.2	2545	93.8	2383	93.8	2383
	4.10	Height of reach legs			h ₆	in	mm	5.1	130	5.1	130	5.1	160	5.1	160
	4.19	Overall length			l ₁	in	mm	101	2566	103	2617	105.3	2675	108	2744
	4.20	Length to fork face			l ₂	in	mm	58.7	1491	60.7	1542	70	1549	67.1	1704
	4.21	Overall length			b ₁ /b ₂	in	mm	43.2/45	1098/1142	42.9/48.9	1089/1243	42.9/48.9	1089/1294	42.9/48.9	1089/1294
	4.22	Fork dimensions			s ₁ e ₁ l	in	mm	1.5*4*42	38*102*1067	1.5*4*42	38*102*1067	1.8*4*42	45*102*1067	1.5*4*42	38*102*1067
	4.23	Fork carriage to DIN 15 173, Class/Form A,B			2A		2A		2A		2A				
	4.24	Width of fork carriage			b ₃	in	mm	33	838	33	838	33	838	33	838
	4.25	Fork spread, minimum/maximum			b ₅	in	mm	25.4/9.7	644/246	25.4/9.7	644/246	25.4/9.7	644/246	25.4/9.7	644/246
	4.26	Width between reach legs			b ₄	in	mm	34.1	865	38	966	40	1017	40	1017
	4.28	Reach travel			l ₄	in	mm	23.7	603	23.7	603	23.7	603	41.2	1047
	4.31	Ground clearance, mast			m ₁	in	mm	1.9	47	1.9	47	1.9	47	1.9	47
	4.32	Ground clearance, center of wheelbase			m ₂	in	mm	1.8	45	1.8	45	1.8	45	1.8	45
	4.33	Aisle width, with pallet 39.37" x 47.24" across forks			A ₃₁	in	mm	114.7	2913	116.7	2964	116.7	2965	121.7	3092
		Aisle width, with pallet 39.37" x 47.24" across forks			A ₃₂	in	mm	106.8	2713	108.8	2764	108.8	2765	113.9	2892
	4.34	Aisle width, with pallet 31.50" x 47.24" across forks			A ₃₃	in	mm	117.2	2976	119.2	3027	119.4	3032	125.1	3177
		Aisle width, with pallet 31.50" x 47.24" across forks			A ₃₄	in	mm	109.3	2776	111.3	2827	111.5	2832	117.2	2977
		Aisle width, with pallet 43.30" x 43.30" across forks			A ₃₅	in	mm	116.6	2962	118.6	3012	118.7	3015	124	3150
	Aisle width, with pallet 43.30" x 43.30" across forks			A ₃₆	in	mm	108.7	2762	110.7	2812	110.8	2815	116.1	2950	
4.35	Turning radius			W _a	in	mm	70.5	1790	72.5	1841	71.8	1823	72.4	1840	
4.37	Length of chassis			l ₇	in	mm	78.1	1983	80.1	2034	80.4	2041	81	2058	
Performance	5.1	Traveling speed, with/without load			mph	km/h	6.5/8.1	10.5/13	6.5/8.1	10.5/13	6.5/8.1	10.5/13	6.5/8.1	10.5/13	
	5.2	Lifting speed, with/without load			m/s		0.89/1.5	0.27/0.45	1.3/2.1	0.40/0.65	1.1/2.1	0.35/0.65	1.1/2.1	0.35/0.65	
	5.3	Lowering speed, with/without speed			m/s		1.7/1.5	0.53/0.43	1.7/1.7	0.53/0.53	1.7/1.7	0.53/0.53	1.7/1.7	0.53/0.53	
	5.4	Reach speed, with/without load			m/s		0.56/0.56	0.17/0.17	0.56/0.56	0.17/0.17	0.56/0.56	0.17/0.17	0.56/0.56	0.17/0.17	
	5.8	Max climbing ability, with/without load, 5 min. rating			%		10/10		10/10		10/10		10/10		
	5.10	Service brake					Electrical		Electrical		Electrical		Electrical		
Drive	6.1	Drive motor, 60 minute rating			kW		4.9		6.6		6.6		6.6		
	6.2	Lift motor, 15% rating			kW		9.3		15.4		15.4		15.4		
	6.3	Battery according to IEC					60254-2		60254-2		60254-2		60254-2		
	6.4	Battery voltage/rated capacity (5H)			V/Ah		24		36		36		36		
	6.5	Battery weight (±5%)			lbs	kg	1684.3	764	2151.7	976	2151.7	976	2151.7	976	

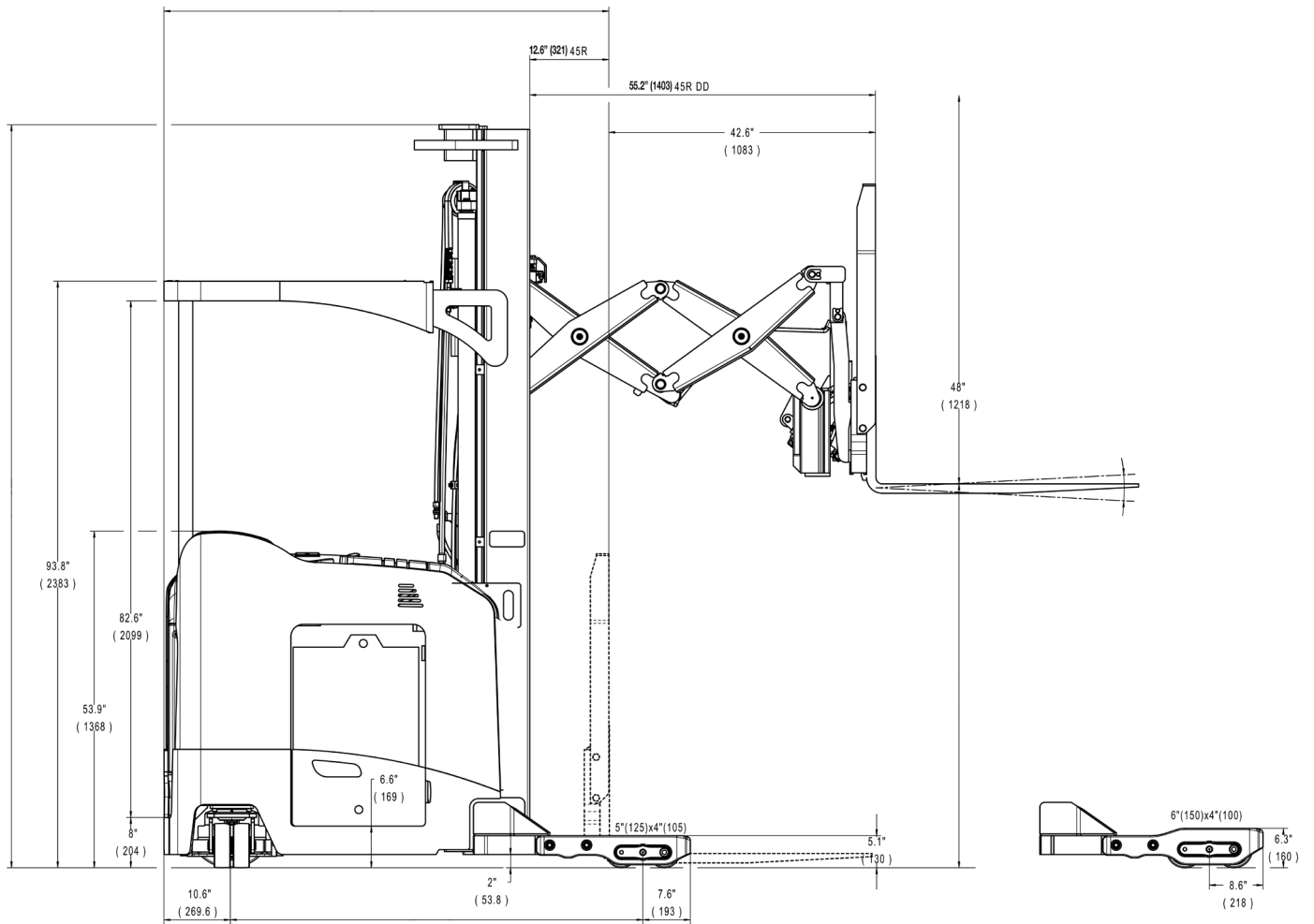
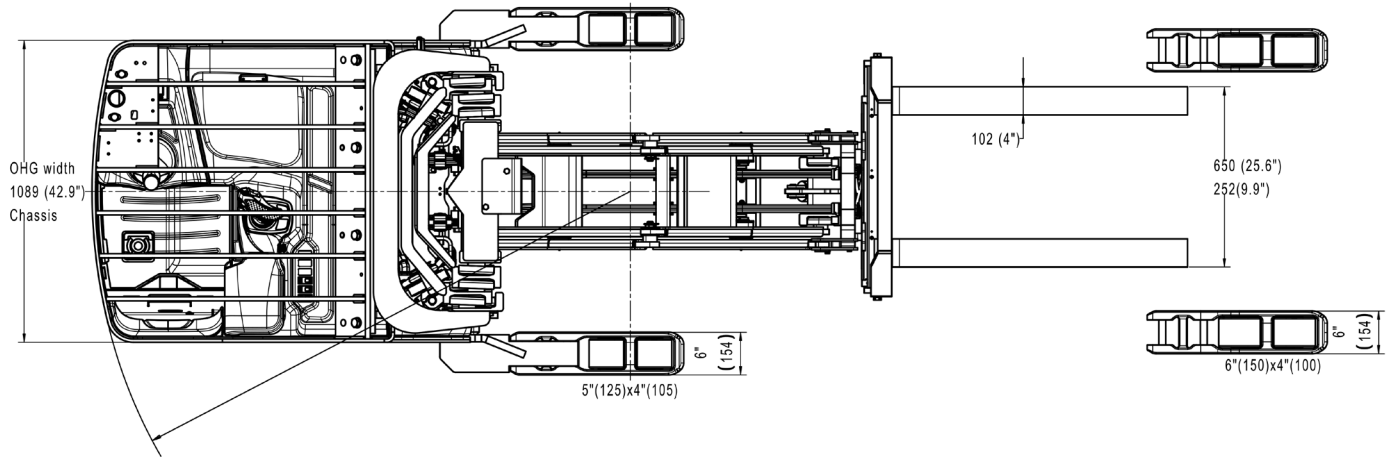
R17-22SX TECHNICAL DRAWING

February 2019



R15SX TECHNICAL DRAWING

February 2019



MAST DIMENSIONS AND BATTERY SPECIFICATIONS

MAST DIMENSIONS			
Max Fork Height	Overall Lowered Height	Overall Height (Mast Extended) Highest Point w/42" Load Backrest	Free-lift (TOF)
in (mm)	in (mm)	in (mm)	in (mm)
210 (5334)	95 (2413)	252 (6401)	62.6 (1590)
240 (6096)	107 (2718)	282 (7193)	74.6 (1895)
258 (6553)	113 (2870)	300 (7620)	80.6 (2047)
270 (6858)	119 (3023)	312 (7625)	86.6 (2199)
300 (7620)	131 (3327)	342 (8681)	98.6 (2504)
318 (8077)	139 (3531)	360 (8144)	106.6 (2707)
330 (9296)	149 (3785)	372 (9442)	116.6 (2961)
366 (9296)	161 (4089)	408 (10363)	128.6 (3266)
385 (9779)	167 (4242)	427 (10846)	134.6 (3419)
400 (10160)	173 (4394)	442 (11222)	140.6 (3571)
425 (10795)	185 (4699)	467 (11862)	152.6 (3876)

RIGHT ANGLE AISLE STACKING

R17SX - 24V					
Truck with 14.5" Battery Compartment and 34" ID					
3 Stage - 4" Between Loads					
Pallet Length (in)	Pallet Width (in)				
		36	40	44	48
	36	93	94	95	97
	40	96	97	98	100
	44	99	100	101	103
48	103	104	105	106	

Add 2" for 16.5" battery compartment
Add 2" for 18.5" battery compartment

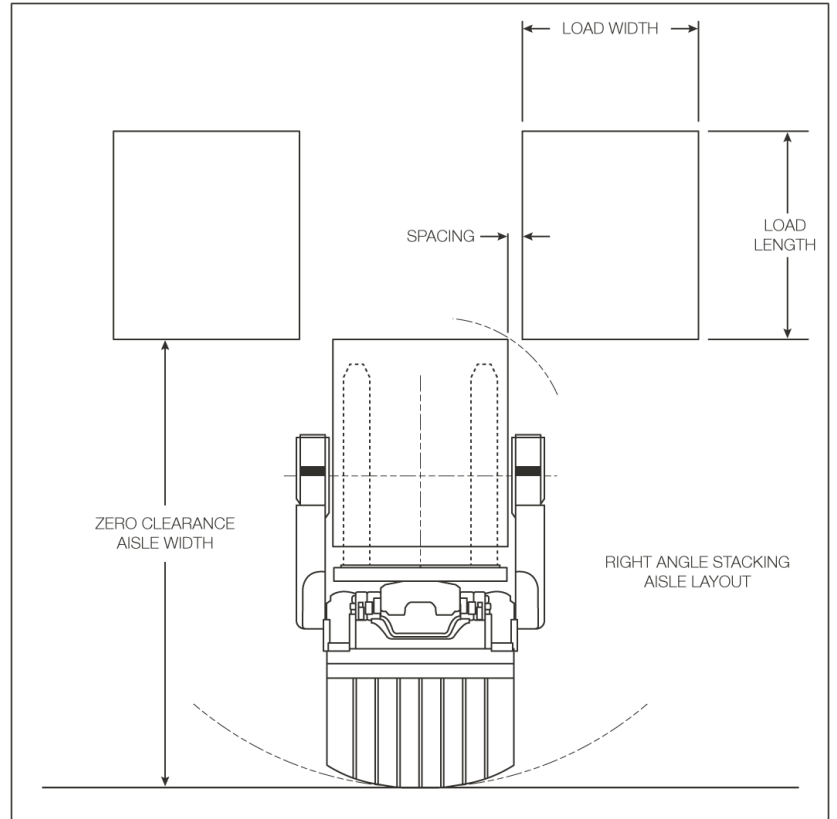
R22SX					
Truck with 16.5" Battery Compartment and 40" ID					
3 Stage - 4" Between Loads					
Pallet Length (in)	Pallet Width (in)				
		36	40	44	48
	36	95	96	97	99
	40	98	99	100	102
	44	102	103	104	105
48	105	106	107	108	

Add 2" for 18.5" battery compartment
Add 2" for 20.5" battery compartment

R15SX					
Truck with 16.5" Battery Compartment and 42" ID					
3 Stage - 4" Between Loads					
Pallet Length (in)	Pallet Width (in)				
		36	40	44	48
	36	100	101	102	103
	40	103	104	105	107
	44	107	108	109	110
48	111	112	112	113	

Add 2" for 18.5" battery compartment
Add 2" for 20.5" battery compartment

For right angle stack, add min. 6" clearance for ease of operation



Battery and Compartment Specifications											
Battery Specifications											
Battery Compartment Size	Battery Voltage	Maximum 6-hr Rate		Battery Dimensions						Min. Battery Weight	Max. Battery Weight
				"X" Max.		"Y" Max.		"Z" Max.			
		ah	kwh	in	mm	in	mm	in	mm	lbs (kg)	lbs (kg)
14.5"	24	1240	29.0	38.8	(985)	14.25	(362)	30.5	(775)	1684.3 (764)	2184 (991)
16.5"	36	775	27.2	38.8	(985)	16.25	(413)	30.5	(775)	2151 (976)	2651 (1202)
18.5"	36	1395	32.6	38.8	(985)	18.25	(467)	30.5	(775)	2151 (976)	2651 (1202)
21.5"	36	930	32.6	38.8	(985)	21.25	(540)	30.5	(775)	2151 (976)	2651 (1202)

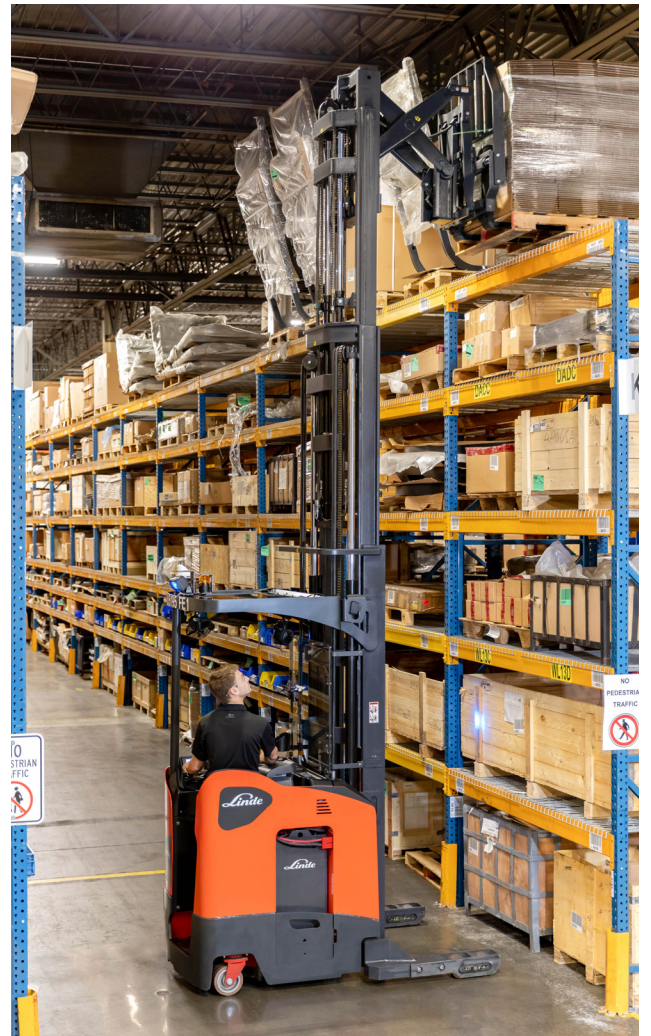
STANDARD & OPTIONAL EQUIPMENT

STANDARD

- Side stance position
- 24V system (includes 350 Amp battery connector)
- Single reach mast (24" extend) with 33" wide class II hook type carriage
- Double reach mast (42" extend) with 33" wide class II hook type carriage (R15SX)
- Tilting carriage: 3° forward / 4° backward
- Rear post operator protection
- Operator's overhead guard
- Comfort floormat
- Cushioning soft hydraulics
- Reduced travel speed with carriage extended
- Control handle with simultaneous hydraulic functions
- Forks 1.5" x 4" x 42" class II hook type carriage (R17SX, R15SX)
- Forks 1.75" x 4" x 42" class II hook type carriage (R22SX)
- 5" x 4" poly articulating tandem load wheels (R17SX, R15SX)
- 6" x 4" poly articulating tandem load wheels (R22SX)
- 13.5" x 5.3" polyurethane drive tire construction
- Integral side-shift standard
- 42.0" L x 14.6" W x 38.75" H battery compartment
- AC traction, lift/lower and steering
- Standard connection
- Low step height
- Cup holder
- UL classification type "E"
- Key switch start
- Steering returns to 0 upon start
- Battery rollers
- Power disconnect
- Padded operator compartment
- Static strap
- Electronic horn
- 42" load backrest
- AC traction, lift/lower steering
- Programmable traction speed and acceleration
- Electric power steering
- Dual polyurethane caster wheels
- Key switch
- LED display
 - Back lighting
 - Battery discharge indicator with lift interrupt
 - Hour meter; truck, traction and hoist pump
 - LED status indicators and symbols
 - Steer wheel angle graphic indication
 - Truck speed in mph or km/h

OPTIONAL

- 36V electrical system
- UL classification "EE"
- Reverse steering
- Power lower unloaded
- Regenerative lower loaded (standard on the R15SX)
- Laser position indicator
- Camera system for extended lift heights
- Fork height indicator
- Safety glass mast guard
- See-through armored glass OHG
- Pin code / toggle switch
- Environmental construction
 - Cooler freezer conditioning: -26°F to 110°F
 - Corrosion
 - Food grade: 32°F to 110°F
- Various mast options available
- Various fork length options available
- Keyless start
- Poly siped tires
- Poly x groove tires
- 48" load backrest extension
- Back-up / motion alarms
- Amber strobe light
- Blue spot front
- Blue spot back
- Operator desktop light
- Dual headlights
- Rear work light
 - Operator fan
 - RF utility pole
 - Parts manual
 - Service manual



FEATURES

Uptime

- CAN bus communication reduces wiring and electrical connections
- Stationary drive motor eliminates power cable flexing
- Full swing out service compartment doors give complete access to componentry
- Extended maintenance intervals to improve uptime and productivity
- AC motor technology no more commutating brushes
- LED lights reduce energy consumption, reduce heat and extend life
- Unitized frame and welded construction provide rigid strength and durability
- Operator console made of high impact plastic that is removable for service access



Operator Compartment

- Low step height for easy entry / exit of the truck
- Large open compartment allows the operator to change position throughout the day
- Storage area and workspace are large enough for a clipboard and other items
- Adjustable steering and padded armrest for comfort
- Cushioned hydraulics result in little vibration to the operator
- The operator presence switch is pressure sensitive within the floor mat



Chassis

- Increased foot room and low step height for operator comfort
- Large hinges allow added open access for service
- Suspended floor plate cushions the ride for the operator
- Larger operator compartment to reduce fatigue and allows the operator to change positions



Controls

- The multifunction control handle's unique design, shape and angle reduce hand movement
- Simultaneous control of travel and hydraulic functions are fully proportional
- Mast functions and hydraulic functions are cushioned and proportional
- Forward or reverse steering is available
- Auto deceleration is adjustable
- Load cushioning is built into the reach and retract cylinders
- Adjustable armrest
- Programmable multifunction handle to match operator performance



For more information on Linde material handling equipment, please contact:

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Linde Material Handling

Linde

KION NORTH AMERICA

ANSI: Standard truck meets all applicable mandatory requirements of ANSI/ITSDF B56.1 standards for powered industrial trucks.
NOTE: Performance data may vary due to motor and system efficiencies. The performance depicted represents nominal values obtained under typical operating conditions. Metric dimensions are in millimeters unless otherwise specified. All metric dimensions are not direct equivalents due to rounding data. The descriptions and specifications included on this data sheet were in effect at the time of printing. KION North America Corporation reserves the right to make improvements and changes in specification or design without notice and without incurring obligation. Please check with your authorized Linde dealer for information on possible updates or revisions.

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