

TECHNICAL DATA LRS 645

Stand: 07.09.06			Toplift	Intermodal
Lifting Capacity				
	1. / 2. / 3. row (without supporting pads)	t	45 / 35 / 18	45 / 31 / 14
	1. / 2. / 3. row (on supporting pads - optional)	t	45 / 38 / 23.5	45 / 34 / 19.5
Number of Containers				
	1. / 2. / 3. row	(8'6")	6 / 5 / 4	5 / 5 / 4
	1. / 2. / 3. row	(9'6")	5 / 5 / 4	5 / 4 / 3
Lifting Height first row				
	standard toplift spreader	[mm]	16000	15500
Weight				
		[kg]	70800	75300
Reach Stacker Calculation				
	according to FEM 1.001			A7
Lifting Speed				
	full load 1. row (vertical load path)	[m/s]		0,3
Lowering Speed				
	full load 1. row (vertical load path)	[m/s]		0,5
Driving Speed f/r				
	unloaded	[km/h]		25
	rated load	[km/h]		20
Supporting Pads (optional)				
	lowering time	[s]		7.5
	lifting time	[s]		7.5
Gradient Capability				
	unloaded	[%]		25
	loaded (2km/h)	[%]		15
Towing Capacity				
	unloaded	[kg]		15000
Environmental Conditions				
	ambient temperature	[°C]		-20 to 45
	humidity (relative)	[%]		97
	max. wind speed in operation	[m/s]		12.2

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Axle Load front			
	static axle load first row	[kg]	97.200
	static axle load second row = maximum	[kg]	98.000
	static axle load third row	[kg]	82.300
	static axle load loaded (travel window)	[kg]	90.000
	static axle load unloaded (travel window)	[kg]	32.600
	1. row loaded (extreme loadcase, dyn. axle load)	[kg]	111.500
Axle Load back			
	static axle load loaded (travel window)	[kg]	24.000
	static axle load unloaded (travel window)	[kg]	36.000
Load on Supporting pads			
Engine			
	make		LIEBHERR
	type		D936L
	power	[kW]	270 at 2000 rpm
	number of cylinders		6
	displacement	[l]	10,52
	torque	[Nm]	1720
	fuel consumption	g/kWh	217
	fuel volume	[l]	600
	emission		EPA / CARB Tier 2
	temperature of cooling water	[°C]	100
Battery			
	make		Banner
	capacity	V - Ah	2x12 - 170
	cold cranking	[A]	1000
Alternator			
	make		Bosch
	capacity	[A]	100
Gearbox			
	type of clutch		hydrostatic
	number of gears (f/r)		stepless
Drive Axle			
	make		Kessler
	type		D 102

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Steering Axle			
	make		Kessler
	type		L 102
	steering cylinder		double acting single cyl.
	pendulum suspension		elastic damping
Wheels			
	dimensions		18.00x25/PR40
	number of wheels (f/r)		4 / 2
	inflation pressure	[bar]	10
Steering			
	type		hydraulic servo
Service Brake			
	drive axle		hydrostatic
Parking Brake			
	drive axle		spring loaded disc brake
Hydraulic oil tank		[l]	940
Hydr. oil cooling system			standard
No. of pumps			7
Min. Aisle width, incl. 100mm safety		[mm]	13900
Chassis			
	variations of wheels		yes
	supporting pads		optional
	overall length	[mm]	12510
	width (f/r)	[mm]	4231 / 3313
	chassis height	[mm]	4250
	seat height	[mm]	2500
	wheelbase	[mm]	6500
	turning radius outer 40'	[mm]	9826
	ground clearance (center wheelbase)	[mm]	300
Counterweight			
	material		casting
Boom			
	topping angle	[deg]	65

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	number of lifting cylinders		1
	number of telescopic cylinders		2
Cabin			
	longit. movable		optional
	steering console		n/A
	seat		adjustable
	secondary seat		yes
	safety belt		yes
	number of joysticks		2
	functions controlled by joysticks		steering/travelling/ boom/spreader
	heating, ventilation		yes
	air filters		yes
	air-conditioning		optional
	air-suspended seat		optional
	heatable seat		optional
	electrical mirror adjustment		optional
	spot lamps		optional
	tinted glass		yes
	safety glass		yes
	1 external mirror for rear view		standard
	2 external mirrors for side view		standard
	front and top wiper		standard
	rear wiper		optional
Lighting/Electrics			
	2 working lights operation:		
	on chassis front (halogen)		standard
	on chassis rear (halogen)		standard
	on cab (halogen)		standard
	on boom (halogen)		standard
	on spreader (halogen)		standard
	2 add. working lights operation:		
	on chassis front (halogen)		optional
	on chassis front (xenon)		optional
	on chassis rear (halogen)		optional
	on chassis rear (xenon)		optional
	on cabin (halogen)		optional
	on cabin (xenon)		optional
	on boom (halogen)		optional
	on boom (xenon)		optional

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Stand: 07.09.06		Toplift	Intermodal
	electric air pressure horn		yes
	rotating warning light on boom hinge point		yes
	front and rear direction light		yes
	brake lights		yes
	turn signals left/right		yes
	reverse buzzer		yes
Overload Protection			
	electrical tilt protection		yes
	electronic load indication		optional
	electronic load position indication		optional
Safety devices			
	safety valves on cylinders		yes
	device inhibiting F/R change during motion		yes
	rear camera		optional
	safety lever		yes
	anti-slip protection on steps		yes
	hydr. operated wet disc brakes on drive axle		yes
	hydr. operated spring loaded parking brake		yes
	distance warning (not yet available)		optional
	twistlock safety interlock		yes
Rotator			
	turning angle		hydr. +195°/-105°
	spreader rotation limit above 3500mm		optional
	with bypass switch		
	swing damping by 2 cyl.		yes
	possibility to lock/power (powerdamping)		optional
Spreader			
	twistlocks for 20' and 40' for top lift (2 cyl.)		yes
	side slope		mech. +/-3°
	side shift		hydr. +/-800mm
	spreader stop 30'		optional
	twistlock position indication lights in cab		yes
	twistlock position indication lights on spreader		yes
	safety interlock		yes
	4 lifting lugs on spreader		yes
Additional Equipment			
	supporting pads		optional
	automatic central greasing system chassis		optional
	automatic central greasing system spreader		optional
	fire extinguisher		optional

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Stand: 07.09.06		Toplift	Intermodal
	colour as per customer's choice		optional
	GSM modem / radio transmission		optional