Equipment

Telescopic Container side lift beam
Standard equipment includes a telescopic side lift beam 20 ft to 40 ft, mounted directly on the (outer) moving mast; it incorporates hydraulically operated twistlocks with electronic safety release switches, indicator lights on the mast and in the cab, in addition to mechanical indicator flags fitted to the twistlock camshaft. Internally mounted hydraulic extension and retraction cylinders, sideshift +/– 300 mm.

Safety
- Transmission integrated forward/reverse interlock and downshift protection.
- Engine – Neutral start transmission safety interlock.
- Safe load lowering valve.
- Steering control – integrated 'anti-kick' valve.
- Steering axle proximity mounted – shock valve.
- High mounted cabin – excellent all-round visibility.
- Low noise emissions.
- Central warning lamp (instrument monitoring).
- Horn.

Standard equipment
- Fully equipped cab with hinged doors, wipers and washers for windscreen, rear screen and overhead guard screen, heater and de-mister.
- Fully adjustable suspension-type seat.
- Comprehensive instrumentation.
- Perkins diesel engine with turbo-charger.
- Clark 3 speed Powershift transmission with integrated forward/reverse safety interlock; automatic transmission ratio selection.
- Heavy-duty double hub reduction drive axle, incorporating Oil bath – type multi-disc brakes with zero maintenance requirements.
- Anti-stall engine speed-up device for all working hydraulic functions.
- Power-assisted hydraulic steering.
- Twin mounted drive wheels
- Pneumatic tyres
- Standard ultra-wide clearview lift mast.
- Container side lift beam.
- Safety monitors for engine and transmission oil pressure.
- Standard colour scheme – vermilion and charcoal grey.

Optional equipment
- Hook type side lift beam.
- 30 ft and 35 ft hydraulic lock stops.
- Load weight indicator
- Particle filter.
- High level engine pre-filter.
- Spark arrestor.
- Exhaust purifier.
- Cold climate specification to – 25 °C.
- Cabin pre-heat system.
- Air conditioning unit.
- High level heater intake.
- Road lighting.
- Working lights.
- Spreader mounted lights.
- Radio cassette player.
- Alternative colour schemes.

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Printed in Germany · 126 · o · 3 · 0498 · S · Ind. A

Empty Container handler

Introduction
The Linde dedicated Empty Container Handlers C 80 are capable of stacking all types of empty containers, including reefers, 3, 4, 5 and 6 high respectively.

The major characteristics at a glance:
- 8000 kg carrying capacity up to maximum elevation (C 80/6, 6000 kg).
- Ultra-wide innovative design, clearview lift mast, combining excellent rigidity with optimum visibility.
- Ergonomically optimised elevated driver's cab providing excellent forward visibility, and optimised around truck free-sight.
- Powerful, modern diesel engine combining low fuel consumption with excellent exhaust emission characteristics fully satisfying the latest EURO 1 standards.
- Automatic three-speed transmission incorporating a reverse interlock, enabling safe, efficient working and providing high rates of acceleration and slow down.
- Engine speed-up design affording power-on-demand and anti-stall feature.
- Robust wide-track drive axle with 'Zero' maintenance wet disc brakes.
- Heavy-duty steer axle.

Driver's compartment with optimised ergonomics
Access to the elevated driver's compartment is provided by a staircase with safety rails. The comfortable suspension-type driver's seat is fully adjustable to weight and size of the operator. The controls not only satisfy the ergonomic standards defined by ISO 6682 but have all been further optimised for easy, effortless operation. A Multi-function hydraulic control lever is provided for all load movements, facilitating smooth easy load handling.
Control and supervision instruments are installed below the lower front cross member of the overhead guard; they do not require constant monitoring by the driver, because possible malfunctions are signalled by a central warning light – the driver is able to concentrate fully on the job in hand, in the safe knowledge that all important truck functions are subject to permanent, automatic supervision.

Stable, robust chassis
The Monocoque chassis of fabricated steel plate and tubes gives high strength to weight ratio and full protection to components. All inside surfaces are covered in sound deadening material, full underbody covers are standard.

High-tech Diesel Engine
Perkins 6 cylinder diesel engine of 6 litres cubic capacity, equipped with turbo-charger providing a rated output of 112 kW. This modern propulsion unit is notable for particularly smooth running with low noise emissions and outstandingly clean exhaust.

The automatic transmission and drive axle
The engine is in unit with a torque converter and an automatic three-speed powershift transmission. A reversing interlock is standard. For accurate lower-speed handling and positioning, a secondary brake pedal actuated by the left foot incorporates a pressure switch providing an inching facility.
The wide-track front drive axle incorporates two-stage reduction gearboxes and has been optimised for heavy-load handling.

Powerful brakes
The robust front drive axle incorporates oil bath-type multi-disc brakes with zero maintenance requirements. The brakes are actuated by a centrally positioned service brake pedal, alternatively by a secondary brake pedal incorporating a pressure-switch-actuated inching facility. The disc-type parking brake on differential input shaft, can be actuated by a switch on the operator's seat.

Smooth power steering
The hydrostatic power steering allows full steering lock to be attained even at standstill; it enables the driver to carry out highly accurate manoeuvres with minimum effort. A heavy-duty steer axle is mounted to the chassis via spherelastic bushes to allow axle articulation over uneven ground.

Innovative lift mast
The design of the ultra-wide clearview lift mast qualifies as revolutionary; in contrast to established fork truck design principles, the inner mast is pivoted on the chassis whereas it is the outer mast that telescopes. This results in particularly good forward visibility, whilst the mast construction itself is extremely stiff in torsion, guaranteeing perfect load elevation up to maximum lift. Torsional loads imposed on the load carrier are transmitted to the cab-supporting structure via high-mounted tilt jacks, themselves hydraulically interconnected via a special interlock valve.

LINDE

April 1998

Empty Container Trucks

Designation to VDI 3586

Data sheet for Industrial trucks

DFG

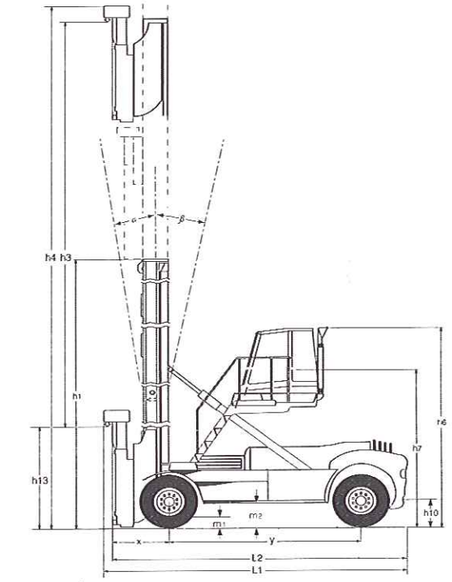
Registration note to VDI 3586

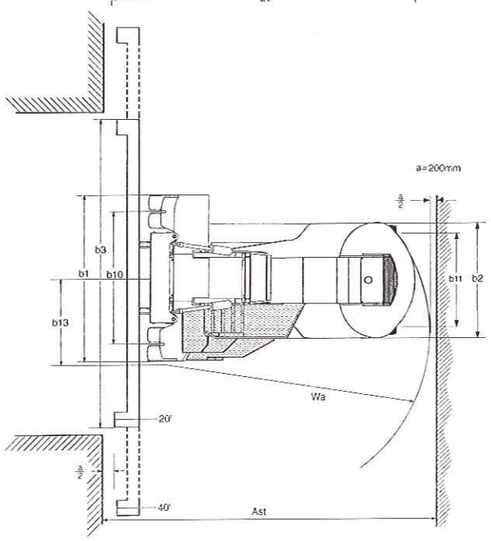
VDI 2198

Characteristics	1.1	Manufacturer		Linde	Linde		Linde	Linde
	1.2	Model designation		**C 80/3**	**C 80/4**		**C 80/5**	**C 80/6**
	1.3	Power unit: battery, diesel, LP gas, mains power		Diesel	Diesel		Diesel	Diesel
	1.4	Operation: manual, pedestrian, stand-on, seated, order picker		Rider, seated	Rider, seated		Rider, seated	Rider, seated
	1.5	Load capacity	Q (t)	8.0	8.0		8.0	6.0 1) 2)
	1.6	Load centre	c (mm)	1295	1295		1295	1295
	1.8	Load centre distance	x (mm)	1040	1040		1040	1040
	1.9	Wheelbase	y (mm)	3670	3670		3670	3670
Weights	2.1	Service weight	kg	24000	26150		28500	29550
	2.2	Axle load with load, front / rear	kg	28540 / 3460	30330 / 3660		31020 / 5180	28710 / 6590
	2.3	Axle load without load, front / rear	kg	15450 / 8550	17620 / 8530		18190 / 10310	19500 / 10050
Wheels and tyres	3.1	Tyres, front / rear. SE = (superelastic), P = (pneumatic)		P / P	P / P		P / P	P / P
	3.2	Tyre size, front	b_{10} (mm)	12.00 x 20 / 20pr	12.00 x 20 / 20pr		12.00 x 20 / 20pr	12.00 x 20 / 20pr
	3.3	Tyre size, rear	b_{11} (mm)	12.00 x 20 / 20pr	12.00 x 20 / 20pr		12.00 x 20 / 20pr	12.00 x 20 / 20pr
	3.5	Wheels, number front / rear (x = driven)		4x / 2	4x / 2		4x / 2	4x / 2
	3.6	Track width, front	b_{10} (mm)	2800	2800		2800	2800
	3.7	Track width, rear	b_{11} (mm)	2067	2067		2067	2067
Dimensions	4.1	Mast / fork carriage / truck tilt, forward / backward	Grad	3 / 3.5	3 / 3.5		3 / 3.5	3 / 3.5
	4.2	Height of mast, lowered	h_1 (mm)	5930	7330		8780	9580
	4.4	Lift	h_3 (mm)	6700	9500		12400	14000
	4.5	Height of mast, extended	h_4 (mm)	9360	12160		15060	16660
	4.7	Height of overhead guard (cabin)	h_6 (mm)	4605	4605		4605	4605
	4.8	Height operators seat / stand-on platform	h_7 (mm)	3520	3520		3520	3520
	4.12	Towing coupling height	h_{10} (mm)	550	550		550	550
	4.15	Twistlock height lowered	h_{13} (mm)	2290	2290		2290	2290
	4.19	Overall length	l_1 (mm)	5630	5630		5830	5830
	4.20	Length to fork face	l_2 (mm)	5430	5430		5630	5630
	4.21	Overall width	b_1/b_2 (mm)	3500 / 2550	3500 / 2550		3500 / 2550	3500 / 2550
	4.24	Width of attachment 20' / 40'	b_3 (mm)	6050 / 12150	6050 / 12150		6050 / 12150	6050 / 12150
	4.31	Ground clearance, mast	m_1 (mm)	250	250		250	250
	4.32	Ground clearance, centre of wheelbase	m_2 (mm)	320	320		320	320
	4.33	Stacking aisle, 20' container	Ast (mm)	9603	9603		9603	9603
		Stacking aisle, 40' container	Ast (mm)	14905	14905		14905	14905
	4.35	Turning radius	Wa (mm)	5000	5000		5200	5200
	4.36	Minimum pivoting point distance	b_{13} (mm)	1770	1770		1770	1770
Performance	5.1	Travel speed, with / without load	km/h	25 / 25	25 / 25		25 / 25	25 / 25
	5.2	Lift speed, with / without load	m/s	0.50 / 0.55	0.50 / 0.55		0.44 / 0.53	0.44 / 0.53
	5.3	Lowering speed, with / without load	m/s	0.56 / 0.59	0.56 / 0.59		0.56 / 0.59	0.56 / 0.59
	5.5	Tractive force, with / without load	N	94 / 94	94 / 94		94 / 94	94 / 94
	5.7	Climbing ability with / without load	%	29 / 30	29 / 30		29 / 30	29 / 30
	5.9	Acceleration time, with / without load	s					
	5.10	Service brake		Wet disc	Wet disc		Wet disc	Wet disc
	6.4	Battery voltage, rated capacity	V/Ah	12 / 128	12 / 128		12 / 128	12 / 128
Drive	7.1	Engine manufacturer / type		Perkins 1006-60 T	Perkins 1006-60 T		Perkins 1006-60 T	Perkins 1006-60 T
	7.2	Engine performance according to ISO 1585	kW	112	112		112	112
	7.3	Rated speed	1/min	2500	2500		2500	2500
	7.4	Number of cylinders / displacement	/ cm^3	6 / 6000	6 / 6000		6 / 6000	6 / 6000
	7.5	Fuel consumption according to VDI cycle	l/h	–	–		–	–
Other	8.1	Type of drive control		Torque converter 3 / 3	Torque converter 3 / 3		Torque converter 3 / 3	Torque converter 3 / 3
	8.2	Working pressure for attachments	bar	200	200		200	200
	8.4	Noise level, at operator's ear, Overhead guard / Cab	dB(A)	74	74		74	74
	8.5	Trailer coupling, design / type DIN	Ø (mm)	50	50		50	50

1) C 80/6: 6 Container (8' 6") high 6th Container 6 tonne max. weight up to 5 high 7 tonne max. weight

2) C 80/6: 5 Container (9' 6") high all Containers 7 tonne max. weight





Container load weight

C 80 / 3

8' Container		8'6" Container		9'6" Container	
Q	Height (mm)	Q	Height (mm)	Q	Height (mm)
8 t	7314	8 t	7773	8 t	8688
8 t	4876	8 t	5182	8 t	5792
8 t	2438	8 t	2591	8 t	2896

to c = 1295 mm

C 80 / 4

8' Container		8'6" Container		9'6" Container	
Q	Height (mm)	Q	Height (mm)	Q	Height (mm)
8 t	9752	8 t	10364	8 t	11584
8 t	7314	8 t	7773	8 t	8688
8 t	4876	8 t	5182	8 t	5792
8 t	2438	8 t	2591	8 t	2896

to c = 1295 mm

C 80 / 5

8' Container		8'6" Container		9'6" Container	
Q	Height (mm)	Q	Height (mm)	Q	Height (mm)
8 t	12190	8 t	12955	8 t	14480
8 t	9752	8 t	10364	8 t	11584
8 t	7314	8 t	7773	8 t	8688
8 t	4876	8 t	5182	8 t	5792
8 t	2438	8 t	2591	8 t	2896

to c = 1295 mm

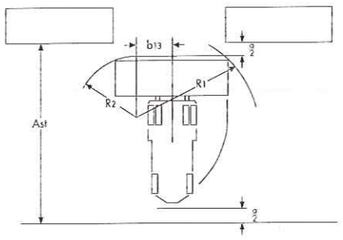
C 80 / 6

8' Container		8'6" Container		9'6" Container	
Q	Height (mm)	Q	Height (mm)	Q	Height (mm)
6 t	14628	6 t	15546		
8 t	12190	8 t	12955	7 t	14480
8 t	9752	8 t	10364	8 t	11584
8 t	7314	8 t	7773	8 t	8688
8 t	4876	8 t	5182	8 t	5792
8 t	2438	8 t	2591	8 t	2896

to c = 1295 mm

Ast = 90° stacking aisle

a = 200 mm



Model	20 FR		40 FR		Ast		Wa
	R_1	R_2	R_1	R_2	20 Fr	40 Fr	
C 80/3	4920	3810	7927	5623	9603	14905	5000
C 80/4	4920	3810	7927	5623	9603	14905	5000
C 80/5	4920	3810	7927	5623	9603	14905	5000
C 80/6	4920	3810	7927	5623	9603	14905	5200