NEXEN

LIBERO BROCHURE

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NEXEN

LIBERO Series

1.0 / 1.5 / 1.8 / 2.0 / 2.5 / 3.0 / 3.5 T
Diesel / Gasoline / LPG

Comfortable operation

1. The extra foot space is provided to reduce operator fatigue significantly. The new wide-open, non-slip step makes getting in and out easy and safe. .

   The optional Electro-hydraulic proportional control system contributes more sensitive and precise load handling. The easy- to-operate levers provide total load handling operation. An armrest is provided to reduce fatigue.

2. In addition to the soft landing system, the soft lifting system is adopted (front lifting cylinders of triplex mast and full free duplex mast) , as a result, the noise and shock of the mast significantly decreases.

3. The developed front lifting cylinders with smaller outer diameter give the operator superior forward visibility.

   The double front lifting cylinders provide better forward visibility.

Reliability

By focusing on enhancing reliability, reducing downtime, the *L* series is able to make the greater productivity for customer.

The new aluminum alloy transmission with full floating structure features excellent heat dissipation capability, more and thicker disc meet the most demanding applications.

L series features rugged design, stamped frame and engine hood, stamped instrument panel and head guard, heavy profile rail mast combine to provide excellent rigidity, which ensures outstanding reliability even in heavy-duty work.

4 Extra capacity combined radiator with serpentine wave and optimized heat dissipation channel enhance the heat dissipation capability to keep engine reliability even in heavy-duty applications.

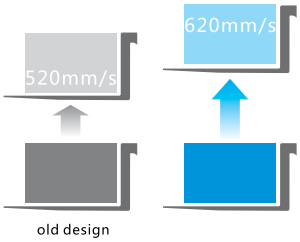
Productivity

Dynamic load sensing hydraulic steering system, Efficiency lighting system, lower fuel consumption, combine to provide increased productivity and reduced operating costs.

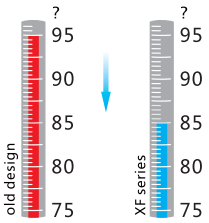
The new Dynamic load sensing hydraulic steering system contributes to reduce loss of hydraulic and improve energy efficiency.

The new efficiency lighting system employs LED illuminant and new type reflector to reduce energy consumption, improve significantly illumination performance and prolong work time.

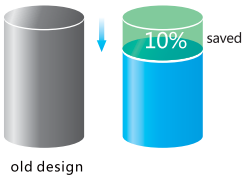
By optimizing transmission design, the power train provides higher efficiency. The fuel consumption is reduced by 10%.



Speed at full load
(2.5T 4TNE98)



Hydraulic oil
balanced temperature
(2.5T 4TNE98)



fuel consumption

Environmental Friendliness

A lineup of powerful and clean engines and environment friendly materials help to reduce the output of undesirable substances over the lifetime of the truck, while creating a cleaner work environment.

Each model employs a specially developed engine for the optimum balance of power and superior environmental performance. All engines are in compliance with EU stage-III control regulation.

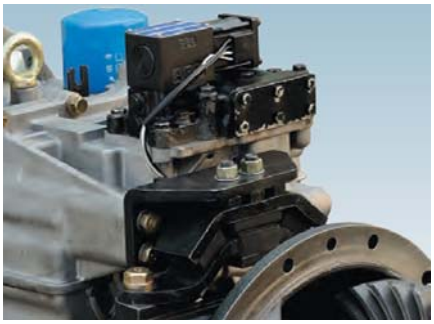
The environment friendly materials, such as non-asbestos brake shoe and new type sealing gasket, are adopted entirely to pursue environmental safety.

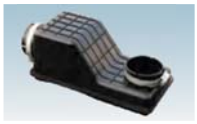
Comfortable operation

In developing the new **L** Series, comfort and ease of operation is carefully considered, for example, to improve vibration levels, compound engine damper and full floating power train are adopted.
Comfortable operating environments for operator also contribute to increased productivity.

In addition to rubber damper between frames and steering axle, compound engine damper and full floating power train achieve flexible connection between frames and driving system, as a result, traveling vibrations and vibrations from the driving system are significantly reduced.

The enlarged capacity of optimized exhaust muffler, the intake muffler and the noise shield technologies provide significantly lower noise levels.





❶ The new, relocated easy- to-see LCD meter lets the operator check on all aspects of operational status at a glance.

❷ The new automobile-style light/turn-signal lever and forward-reverse lever are ergonomically designed and arranged to improve comfort and productivity.

❸ The small diameter steering wheel with tilt adjustment provides the ideal operating position. The superior responsiveness of the steering wheel optimizes maneuverability even in narrow spaces.

❹ The parking brake is specially developed.The operational force is reduced by 30%.

❺ The automobile-style suspended pedals provide more ergonomic operation .

The new vehicle controller integrates all electrical components, features excellent durability for temperature, water and vibration for most demanding operation.

The new stamped air cleaner featuring tangential intake, double seal with safety filter is durable, corrosion-free and vibration-resistant, provides better filter efficiency and lower intake resistance than the previous.

Easy maintenance

Careful design facilitates inspection and servicing. Easy maintenance reduces the amount of downtime and helps to reduce cost also.

The cover on the Panel can be lifted up simply to check the brake fluid.

The easy-to-operate latch provides quick access to the engine compartment.

The two-piece design makes the floorboard easy to lift and remove for access to the power train.

The fasteners of the radiator cover can be turned easily by hand to enable quick inspections or servicing.

Safety

A wide range of technologies are applied to ensure absolute safety for both the operator and those in the surrounding.

An optional rear-pillar assist grip with a horn button enhances safety of operator while traveling in reverse.

The locking device of the engine hood damper and parking brake help add to safety.

1. The operator presence sensing system incorporates lifting/tilting and traveling locking function. When the operator leaves the seat, the system automatically locks lifting / tilting and disables traveling to ensure safety.
2. A throttling device is adopted to avoid the mast being out of control even some pipes are broken.

NEXEN LIBERO FDL15-FDL18

CHARACTERISTICS	1.1	Manufacturer		**Nexen**	**Nexen**	**Nexen**
	1.2	Model designation		**FDL15**	**FDL15**	**FDL15**
		Model – Manufacturer designation		Libero	Libero	Libero
		Engine		KUBOTA V2607	YANMAR 4TNE92	YANMAR 4TNE92
		Transmission		Automatic	Automatic	Okamura
	1.3	Drive		Diesel	Diesel	Diesel
	1.4	Operation		Seated	Seated	Seated
	1.5	Load capacity / rated load	Q (kg)	1500	1500	1500
	1.6	Load centre distance	c (mm)	500	500	500
	1.8	Load distance, centre of drive axle to fork	x (mm)	405	405	405
	1.9	Wheelbase	y (mm)	1475	1475	1475
WEIGHTS	2.1	Service weight 💻	kg	2650	2650	2650
	2.2	Axle loading, laden, front/rear 💻	kg	3660/490	3660/490	3660/490
	2.3	Axle loading, unladen, front/rear 💻	kg	1240/1410	1240/1410	1240/1410
WHEELS & TYRES	3.1	Tyres: L=pneumatic, V=solid		L	L	L
	3.2	Tyre size, front		6.50-10-10PR	6.50-10-10PR	6.50-10-10PR
	3.3	Tyre size, rear		5.00-8-10PR	5.00-8-10PR	5.00-8-10PR
	3.5	Wheels, number front rear (X=driven wheels)		2/2	2/2	2/2
	3.6	Tread, front	b_{10} (mm)	900	900	900
	3.7	Tread, rear	b_{11} (mm)	920	920	920
DIMENSIONS	4.1	Mast tilt, α = forward / β = back (base duplex mast)	degrees	6/12	6/12	6/12
	4.2	Height of mast, lowered	h_1 (mm)	1995	1995	1995
	4.3	Free lift	h_2 (mm)	155	155	155
	4.4	Lift	h_3 (mm)	3000	3000	3000
	4.5	Height, mast extended ☑	h_4 (mm)	3955	3955	3955
	4.7	Height of overhead guard (cabin) ⇳	h_6 (mm)	2125 (2205*)	2125 (2205*)	2125 (2205*)
	4.8	Seat height	h_7 (mm)	☎	☎	☎
	4.12	Coupling height	h_{10} (mm)	☎	☎	☎
	4.19	Overall length (inc. standard forks)	l_1 (mm)	3205	3205	3205
	4.2	Length to face of forks	l_2 (mm)	2285	2285	2285
	4.21	Overall width, standard	b_1/b_2(mm)	1080	1080	1080
	4.22	Fork dimensions	s/e/l (mm)	35x100x920	35x100x920	35x100x920
	4.23	Fork carriage DIN 15173, class/type A,B		2A	2A	2A
	4.24	Fork carriage width ⇔	b_3 (mm)	☎	☎	☎
	4.31	Ground clearance, laden, below mast	m_1 (mm)	115	115	115
	4.32	Ground clearance, centre of wheelbase	m_2 (mm)	140	140	140
	4.33	Aisle width for pallets 1000x1200 crossways ☝	Ast (mm)	☎	☎	☎
	4.34	Aisle width for pallets 800x1200 crossways ☝	Ast (mm)	☎	☎	☎
	4.35	Outer turning radius	W_a (mm)	1990	1990	1990
	4.36	Inner turning radius	b_{13} (mm)	☎	☎	☎
PERFORMANCE	5.1	Travel speed, unload	km/h	19	19.3	19
	5.2	Lift speed, laden	mm/sec	580	580	580
	5.3	Lowering speed, laden	mm/sec	500	500	500
	5.5	Drawbar pull, laden/unladen 💻	N	☎	☎	☎
	5.6	Max. drawbar pull, laden	KN	14600	14400	14100
	5.7	Gradeability, laden/unladen 💻	%	☎	☎	☎
	5.8	Max. gradeability, laden	%	33	33	32
	5.1	Service brake		Hydraulic	Hydraulic	Hydraulic
ENGINE	7.1	Engine manufacturer/type		KUBOTA V2607	YANMAR 4TNE92	YANMAR 4TNE92
	7.2	Engine power acc. to ISO 1585 / DIN 6271	kW	42	32.8	32.8
	7.3	Rated speed	rpm	2700	2450	2450
	7.4	Number of cylinders/displacement	cm^3	4/2615	4/2659	4/2659
OTHER	8.1	Type of drive control		Automatic	Automatic	Okamura
	8.2	Operating pressure for attachments	bar	145	145	145
	8.3	Oil volume for attachments	l/min	☎	☎	☎
	8.4	Average noise level at operator's ear (Lpaz)	dB (A)	☎	☎	☎
		Guaranteed sound power 2001/14/EC (Lwaz))	dB	☎	☎	☎
	8.5	Towing coupling, type DIN		☎	☎	☎

Note: *With suspension seat or cabin

SPECIFICATION DATA ACCORDING TO VDI 2198

NEXEN LIBERO FDL15-FDL18

CHARACTERISTICS	1.1	Manufacturer		**Nexen**	**Nexen**	**Nexen**
	1.2	Model designation		**FDL18**	**FDL18**	**FDL18**
		Model – Manufacturer designation		Libero	Libero	Libero
		Engine		KUBOTA V2607	YANMAR 4TNE92	YANMAR 4TNE92
		Transmission		Automatic	Automatic	Okamura
	1.3	Drive		Diesel	Diesel	Diesel
	1.4	Operation		Seated	Seated	Seated
	1.5	Load capacity / rated load	Q (kg)	1800	1800	1800
	1.6	Load centre distance	c (mm)	500	500	500
	1.8	Load distance, centre of drive axle to fork	x (mm)	405	405	405
	1.9	Wheelbase	y (mm)	1475	1475	1475
WEIGHTS	2.1	Service weight	kg	2760	2760	2760
	2.2	Axle loading, laden, front/rear	kg	3995/520	3995/520	3995/520
	2.3	Axle loading, unladen, front/rear	kg	1225/1540	1225/1540	1225/1540
WHEELS & TYRES	3.1	Tyres: L=pneumatic, V=solid		L	L	L
	3.2	Tyre size, front		6.50-10-10PR	6.50-10-10PR	6.50-10-10PR
	3.3	Tyre size, rear		5.00-8-10PR	5.00-8-10PR	5.00-8-10PR
	3.5	Wheels, number front rear (X=driven wheels)		2/2	2/2	2/2
	3.6	Tread, front	b_{10} (mm)	900	900	900
	3.7	Tread, rear	b_{11} (mm)	920	920	920
DIMENSIONS	4.1	Mast tilt, α = forward / β = back (base duplex mast)	degrees	6/12	6/12	6/12
	4.2	Height of mast, lowered	h_1 (mm)	1995	1995	1995
	4.3	Free lift	h_2 (mm)	155	155	155
	4.4	Lift	h_3 (mm)	3000	3000	3000
	4.5	Height, mast extended ☑	h_4 (mm)	3955	3955	3955
	4.7	Height of overhead guard (cabin)	h_6 (mm)	2125 (2205*)	2125 (2205*)	2125 (2205*)
	4.8	Seat height	h_7 (mm)	☎	☎	☎
	4.12	Coupling height	h_{10} (mm)	☎	☎	☎
	4.19	Overall length (inc. standard forks)	l_1 (mm)	3230	3230	3230
	4.2	Length to face of forks	l_2 (mm)	2310	2310	2310
	4.21	Overall width, standard	b_1/b_2(mm)	1080	1080	1080
	4.22	Fork dimensions	s/e/l (mm)	35x100x920	35x100x920	35x100x920
	4.23	Fork carriage DIN 15173, class/type A,B		2A	2A	2A
	4.24	Fork carriage width	b_3 (mm)	☎	☎	☎
	4.31	Ground clearance, laden, below mast	m_1 (mm)	115	115	115
	4.32	Ground clearance, centre of wheelbase	m_2 (mm)	140	140	140
	4.33	Aisle width for pallets 1000x1200 crossways	Ast (mm)	☎	☎	☎
	4.34	Aisle width for pallets 800x1200 crossways	Ast (mm)	☎	☎	☎
	4.35	Outer turning radius	W_a (mm)	2015	2015	2015
	4.36	Inner turning radius	b_{13} (mm)	☎	☎	☎
PERFORMANCE	5.1	Travel speed, unload	km/h	19	19.3	19
	5.2	Lift speed, laden	mm/sec	580	580	580
	5.3	Lowering speed, laden	mm/sec	500	500	500
	5.5	Drawbar pull, laden/unladen	N	☎	☎	☎
	5.6	Max. drawbar pull, laden	KN	14600	14400	14100
	5.7	Gradeability, laden/unladen	%	☎	☎	☎
	5.8	Max. gradeability, laden	%	30	30	29
	5.1	Service brake		Hydraulic	Hydraulic	Hydraulic
ENGINE	7.1	Engine manufacturer/type		KUBOTA V2607	YANMAR 4TNE92	YANMAR 4TNE92
	7.2	Engine power acc. to ISO 1585 / DIN 6271	kW	42	32.8	32.8
	7.3	Rated speed	rpm	2700	2450	2450
	7.4	Number of cylinders/displacement	cm^3	4/2615	4/2659	4/2659
OTHER	8.1	Type of drive control		Automatic	Automatic	Okamura
	8.2	Operating pressure for attachments	bar	145	145	145
	8.3	Oil volume for attachments	l/min	☎	☎	☎
	8.4	Average noise level at operator's ear (Lpaz)	dB (A)	☎	☎	☎
		Guaranteed sound power 2001/14/EC (Lwaz))	dB	☎	☎	☎
	8.5	Towing coupling, type DIN		☎	☎	☎

Note: *With suspension seat or cabin

SPECIFICATION DATA ACCORDING TO VDI 2198

NEXEN LIBERO FGL15-FGL18

CHARACTERISTICS	1.1	Manufacturer		**Nexen**	**Nexen**
	1.2	Model designation		**FGL15**	**FGL15**
		Model – Manufacturer designation		LIBERO	LIBERO
		Engine		GCT GK21	GCT GK21
		Transmission		Automatic	Okamura
	1.3	Drive		LPG	LPG
	1.4	Operation		Seated	Seated
	1.5	Load capacity / rated load	Q (kg)	1500	1500
	1.6	Load centre distance	c (mm)	500	500
	1.8	Load distance, centre of drive axle to fork	x (mm)	405	405
	1.9	Wheelbase	y (mm)	1475	1475
WEIGHTS	2.1	Service weight 💻	kg	2650	2650
	2.2	Axle loading, laden, front/rear 💻	kg	3660/490	3660/490
	2.3	Axle loading, unladen, front/rear 💻	kg	1240/1410	1240/1410
WHEELS & TYRES	3.1	Tyres: L=pneumatic, V=solid		L	L
	3.2	Tyre size, front		6.50-10-10PR	6.50-10-10PR
	3.3	Tyre size, rear		5.00-8-10PR	5.00-8-10PR
	3.5	Wheels, number front rear (X=driven wheels)		2/2	2/2
	3.6	Tread, front	b_{10} (mm)	900	900
	3.7	Tread, rear	b_{11} (mm)	920	920
DIMENSIONS	4.1	Mast tilt, α = forward / β = back (base duplex mast)	degrees	6/12	6/12
	4.2	Height of mast, lowered	h_1 (mm)	1995	1995
	4.3	Free lift	h_2 (mm)	155	155
	4.4	Lift	h_3 (mm)	3000	3000
	4.5	Height, mast extended ☑	h_4 (mm)	3955	3955
	4.7	Height of overhead guard (cabin) ⇳	h_6 (mm)	2125	2125
	4.8	Seat height	h_7 (mm)	☎	☎
	4.12	Coupling height	h_{10} (mm)	☎	☎
	4.19	Overall length (inc. standard forks)	l_1 (mm)	3205	3205
	4.2	Length to face of forks	l_2 (mm)	2285	2285
	4.21	Overall width, standard	b_1/b_2(mm)	1080	1080
	4.22	Fork dimensions	s/e/l (mm)	35x100x920	35x100x920
	4.23	Fork carriage DIN 15173, class/type A,B		2A	2A
	4.24	Fork carriage width ⇔	b_3 (mm)	☎	☎
	4.31	Ground clearance, laden, below mast	m_1 (mm)	115	115
	4.32	Ground clearance, centre of wheelbase	m_2 (mm)	140	140
	4.33	Aisle width for pallets 1000x1200 crossways	Ast (mm)	☎	☎
	4.34	Aisle width for pallets 800x1200 crossways	Ast (mm)	☎	☎
	4.35	Outer turning radius	W_a (mm)	1990	1990
	4.36	Inner turning radius	b_{13} (mm)	☎	☎
PERFORMANCE	5.1	Travel speed, unload	km/h	18	18
	5.2	Lift speed, laden	mm/sec	510	510
	5.3	Lowering speed, laden	mm/sec	500	500
	5.5	Drawbar pull, laden/unladen 💻	N	☎	☎
	5.6	Max. drawbar pull, laden	KN	14800	14600
	5.7	Gradeability, laden/unladen 💻	%	☎	☎
	5.8	Max. gradeability, laden	%	34	33
	5.1	Service brake		Hydraulic	Hydraulic
ENGINE	7.1	Engine manufacturer/type		GCT GK21	GCT GK21
	7.2	Engine power acc. to ISO 1585 / DIN 6271	kW	40	40
	7.3	Rated speed	rpm	2700	2700
	7.4	Number of cylinders/displacement	cm^3	4/2065	4/2065
OTHER	8.1	Type of drive control		Automatic	Okamura
	8.2	Operating pressure for attachments	bar	145	145
	8.3	Oil volume for attachments	l/min	☎	☎
	8.4	Average noise level at operator's ear (Lpaz)	dB (A)	☎	☎
		Guaranteed sound power 2001/14/EC (Lwaz))	dB	☎	☎
	8.5	Towing coupling, type DIN		☎	☎

SPECIFICATION DATA ACCORDING TO VDI 2198

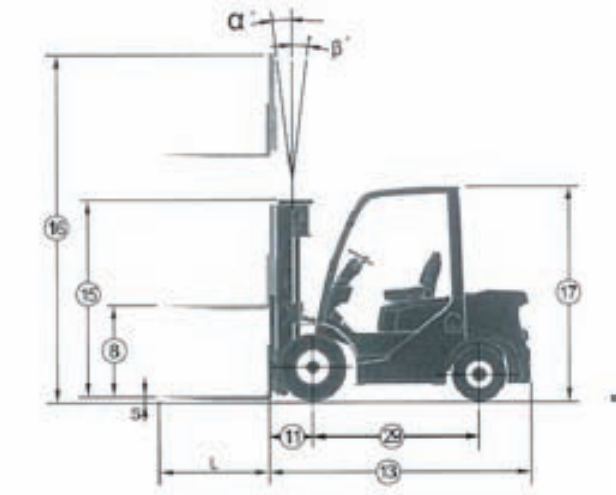
NEXEN LIBERO FGL15-FGL18

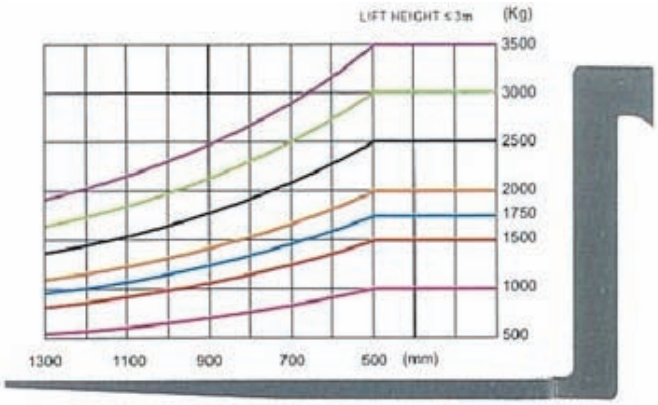
CHARACTERISTICS	1.1	Manufacturer		**Nexen**	**Nexen**
	1.2	Model designation		**FGL18**	**FGL18**
		Model – Manufacturer designation		LIBERO	LIBERO
		Engine		GCT GK21	GCT GK21
		Transmission		Powershift	Powershift
	1.3	Drive		LPG	LPG
	1.4	Operation		Seated	Seated
	1.5	Load capacity / rated load	Q (kg)	1750	1750
	1.6	Load centre distance	c (mm)	500	500
	1.8	Load distance, centre of drive axle to fork	x (mm)	405	405
	1.9	Wheelbase	y (mm)	1475	1475
WEIGHTS	2.1	Service weight 💻	kg	2760	2760
	2.2	Axle loading, laden, front/rear 💻	kg	3995/520	3995/520
	2.3	Axle loading, unladen, front/rear 💻	kg	1225/1540	1225/1540
WHEELS & TYRES	3.1	Tyres: L=pneumatic, V=solid		L	L
	3.2	Tyre size, front		6.50-10-10PR	6.50-10-10PR
	3.3	Tyre size, rear		5.00-8-10PR	5.00-8-10PR
	3.5	Wheels, number front rear (X=driven wheels)		2/2	2/2
	3.6	Tread, front	b_{10} (mm)	900	900
	3.7	Tread, rear	b_{11} (mm)	920	920
DIMENSIONS	4.1	Mast tilt, α = forward / β = back (base duplex mast)	degrees	6/12	6/12
	4.2	Height of mast, lowered	h_1 (mm)	1995	1995
	4.3	Free lift	h_2 (mm)	155	155
	4.4	Lift	h_3 (mm)	3000	3000
	4.5	Height, mast extended ☑	h_4 (mm)	3955	3955
	4.7	Height of overhead guard (cabin) ⇳	h_6 (mm)	2125	2125
	4.8	Seat height	h_7 (mm)	☎	☎
	4.12	Coupling height	h_{10} (mm)	☎	☎
	4.19	Overall length (inc. standard forks)	l_1 (mm)	3230	3230
	4.2	Length to face of forks	l_2 (mm)	2310	2310
	4.21	Overall width, standard	b_1/b_2(mm)	1080	1080
	4.22	Fork dimensions	s/e/l (mm)	35x100x920	35x100x920
	4.23	Fork carriage DIN 15173, class/type A,B		2A	2A
	4.24	Fork carriage width ⇔	b_3 (mm)	☎	☎
	4.31	Ground clearance, laden, below mast	m_1 (mm)	115	115
	4.32	Ground clearance, centre of wheelbase	m_2 (mm)	140	140
	4.33	Aisle width for pallets 1000x1200 crossways	Ast (mm)	☎	☎
	4.34	Aisle width for pallets 800x1200 crossways	Ast (mm)	☎	☎
	4.35	Outer turning radius	W_a (mm)	2015	2015
	4.36	Inner turning radius	b_{13} (mm)	☎	☎
PERFORMANCE	5.1	Travel speed, unload	km/h	18	18
	5.2	Lift speed, laden	mm/sec	510	510
	5.3	Lowering speed, laden	mm/sec	500	500
	5.5	Drawbar pull, laden/unladen 💻	N	☎	☎
	5.6	Max. drawbar pull, laden	KN	14800	14600
	5.7	Gradeability, laden/unladen 💻	%	☎	☎
	5.8	Max. gradeability, laden	%	31	30
	5.1	Service brake		Hydraulic	Hydraulic
ENGINE	7.1	Engine manufacturer/type		GCT GK21	GCT GK21
	7.2	Engine power acc. to ISO 1585 / DIN 6271	kW	40	40
	7.3	Rated speed	rpm	2700	2700
	7.4	Number of cylinders/displacement	cm^3	4/2065	4/2065
OTHER	8.1	Type of drive control		Automatic	Okamura
	8.2	Operating pressure for attachments	bar	145	145
	8.3	Oil volume for attachments	l/min	☎	☎
	8.4	Average noise level at operator's ear (Lpaz)	dB (A)	☎	☎
		Guaranteed sound power 2001/14/EC (Lwaz))	dB	☎	☎
	8.5	Towing coupling, type DIN		☎	☎

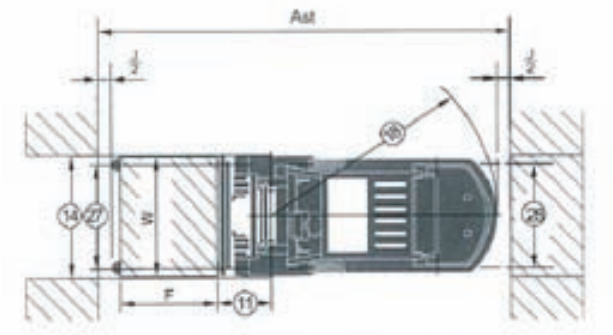
SPECIFICATION DATA ACCORDING TO VDI 2198

MAST SPECIFICATIONS

Type	Max Fork Height	Overall height			Free lift		Front Overhang		Tilt range		Capacity			
		Lowered	Extended		Without backrest	With backrest			FWD	BWD	Load Capacity at 500mm			
			Without backrest	With backrest							Single Tire		Double Tire	
							1.5t	1.75t			1.5t	1.75t	1.5t	1.75t
	mm	mm	mm	mm	mm	mm	mm	mm	Deg	Deg	kg	kg	kg	kg
Wide view mast	2000	1495	2565	2955	155	155	405	410	6	12	1500	1750	1500	1750
	2500	1745	3065	3455	155	155	405	410	6	12	1500	1750	1500	1750
	2700	1845	3265	3655	155	155	405	410	6	12	1500	1750	1500	1750
	3000	1995	3565	3955	155	155	405	410	6	12	1500	1750	1500	1750
	3300	2145	3865	4255	155	155	405	410	6	12	1500	1750	1500	1750
	3500	2245	4065	4455	155	155	405	410	6	12	1500	1750	1500	1750
	3700	2395	4265	4655	155	155	405	410	6	12	1500	1750	1500	1750
	4000	2595	4600	4955	155	155	405	410	6	12	1500	1650	1500	1700
	4300	2745	4900	5255	155	155	405	410	6	6	1450	1600	1450	1650
	4500	2845	5100	5455	155	155	405	410	6	6	1400	1550	1400	1600
	4700	2945	5300	5655	155	155	405	410	6	6	1350	1500	1350	1550
	5000	3095	5600	5955	155	155	405	410	6	6	1300	1450	1300	1500
	5500	3345	6100	6455	155	155	405	410	6	6			1150	1300
	6000	3595	6600	6955	155	155	405	410	6	6			1050	1150
Wide view full free duplex mast	2000	1560	2585	2945	975	615	405	410	6	12	1500	1750	1500	1750
	2500	1810	3085	3445	1225	865	405	410	6	12	1500	1750	1500	1750
	2700	1910	3285	3645	1325	965	405	410	6	12	1500	1750	1500	1750
	3000	2010	3590	3950	1425	1065	405	410	6	12	1500	1750	1500	1750
	3300	2160	3885	4245	1575	1215	405	410	6	12	1500	1750	1500	1750
	3500	2260	4085	4445	1675	1315	405	410	6	12	1500	1750	1500	1750
	3700	2360	4285	4645	1775	1415	405	410	6	12	1500	1750	1500	1750
	4000	2560	4585	4945	1975	1615	405	410	6	12	1500	1650	1500	1700
Wide view full free triplex mast	4000	1970	4680	4955	1300	1025	420	425	6	6	1400	1550	1400	1600
	4300	2070	4980	5255	1400	1125	420	425	6	6	1350	1500	1350	1550
	4500	2120	5130	5455	1500	1175	420	425	6	6	1300	1450	1300	1500
	4700	2170	5380	5750	1585	1225	420	425	6	6	1250	1400	1250	1450
	5000	2270	5595	5955	1685	1325	420	425	6	6	1200	1350	1250	1450
	5500	2470	6095	6455	1885	1525	420	425	3	6	950	1050	1150	1300
	6000	2720	6730	7055	2100	1775	420	425	3	6	700	750	1050	1150
	6500	2870	7180	7455	2200	1925	420	425	3	6			800	900
	7000	2970	7595	7955	2385	2025	420	425	3	6			550	650







J = 200 mm safety clearance

AST = J + F + ⑪ + ⑱

NEXEN LIBERO FDL20-FDL25

CHARACTERISTICS	1.1	Manufacturer		**Nexen**	**Nexen**	**Nexen**	**Nexen**
	1.2	Model designation		**FDL20**	**FDL20**	**FDL20**	**FDL20**
		Model – Manufacturer designation		Libero	Libero	Libero	Libero
		Engine		YANMAR 4TNE92	KUBOTA V2607	YANMAR 4TNE98	YANMAR 4TNE98
		Transmission		Automatic	Automatic	Automatic	Okamura
	1.3	Drive		Diesel	Diesel	Diesel	Diesel
	1.4	Operation		Seated	Seated	Seated	Seated
	1.5	Load capacity / rated load	Q (kg)	2000	2000	2000	2000
	1.6	Load centre distance	c (mm)	500	500	500	500
	1.8	Load distance, centre of drive axle to fork	x (mm)	465	465	465	465
	1.9	Wheelbase	y (mm)	1650	1650	1650	1650
WEIGHTS	2.1	Service weight	kg	3405	3405	3405	3405
	2.2	Axle loading, laden, front/rear	kg	4705/700	4705/700	4705/700	4705/700
	2.3	Axle loading, unladen, front/rear	kg	1610/1795	1610/1795	1610/1795	1610/1795
WHEELS & TYRES	3.1	Tyres: L=pneumatic, V=solid		L	L	L	L
	3.2	Tyre size, front		7.00-12-12PR	7.00-12-12PR	7.00-12-12PR	7.00-12-12PR
	3.3	Tyre size, rear		6.00-9-10PR	6.00-9-10PR	6.00-9-10PR	6.00-9-10PR
	3.5	Wheels, number front rear (X=driven wheels)		2/2	2/2	2/2	2/2
	3.6	Tread, front	b_{10} (mm)	965	965	965	965
	3.7	Tread, rear	b_{11} (mm)	973	973	973	973
DIMENSIONS	4.1	Mast tilt, α = forward / β = back (base duplex mast)	degrees	6/12	6/12	6/12	6/12
	4.2	Height of mast, lowered	h_1 (mm)	2035	2035	2035	2035
	4.3	Free lift	h_2 (mm)	140	140	140	140
	4.4	Lift	h_3 (mm)	3000	3000	3000	3000
	4.5	Height, mast extended ☑	h_4 (mm)	4045	4045	4045	4045
	4.7	Height of overhead guard (cabin)	h_6 (mm)	2125	2125	2125	2125
	4.8	Seat height	h_7 (mm)	☎	☎	☎	☎
	4.12	Coupling height	h_{10} (mm)	☎	☎	☎	☎
	4.19	Overall length (inc. standard forks)	l_1 (mm)	3600	3600	3600	3600
	4.2	Length to face of forks	l_2 (mm)	2530	2530	2530	2530
	4.21	Overall width, standard	b_1/b_2(mm)	1155	1155	1155	1155
	4.22	Fork dimensions	s/e/l (mm)	40x122x1070	40x122x1070	40x122x1070	40x122x1070
	4.23	Fork carriage DIN 15173, class/type A,B		2A	2A	2A	2A
	4.24	Fork carriage width	b_3 (mm)	☎	☎	☎	☎
	4.31	Ground clearance, laden, below mast	m_1 (mm)	115	115	115	115
	4.32	Ground clearance, centre of wheelbase	m_2 (mm)	150	150	150	150
	4.33	Aisle width for pallets 1000x1200 crossways	Ast (mm)	☎	☎	☎	☎
	4.34	Aisle width for pallets 800x1200 crossways	Ast (mm)	☎	☎	☎	☎
	4.35	Outer turning radius	W_a (mm)	2180	2180	2180	2180
	4.36	Inner turning radius	b_{13} (mm)	☎	☎	☎	☎
PERFORMANCE	5.1	Travel speed, unload	km/h	19.4	18.2	18.6	17.9
	5.2	Lift speed, laden	mm/sec	600	620	620	620
	5.3	Lowering speed, laden	mm/sec	500	500	500	500
	5.5	Drawbar pull, laden/unladen	N	☎	☎	☎	☎
	5.6	Max. drawbar pull, laden	KN	14300	19800	19400	19500
	5.7	Gradeability, laden/unladen	%	☎	☎	☎	☎
	5.8	Max. gradeability, laden	%	24	35	34	34
	5.1	Service brake		Hydraulic	Hydraulic	Hydraulic	Hydraulic
ENGINE	7.1	Engine manufacturer/type		YANMAR 4TNE92	KUBOTA V2607	YANMAR 4TNE98	YANMAR 4TNE98
	7.2	Engine power acc. to ISO 1585 / DIN 6271	kW	32.8	42	44.3	44.3
	7.3	Rated speed	rpm	2450	2700	2300	2300
	7.4	Number of cylinders/displacement	cm^3	4/2659	4/2615	4/3319	4/3319
OTHER	8.1	Type of drive control		Automatic	Automatic	Automatic	Okamura
	8.2	Operating pressure for attachments	bar	145	145	145	145
	8.3	Oil volume for attachments	l/min	☎	☎	☎	☎
	8.4	Average noise level at operator's ear (Lpaz)	dB (A)	☎	☎	☎	☎
		Guaranteed sound power 2001/14/EC (Lwaz))	dB	☎	☎	☎	☎
	8.5	Towing coupling, type DIN		☎	☎	☎	☎

SPECIFICATION DATA ACCORDING TO VDI 2198

NEXEN LIBERO FDL20-FDL25

CHARACTERISTICS	1.1	Manufacturer		**Nexen**	**Nexen**
	1.2	Model designation		**FDL20**	**FDL20**
		Model – Manufacturer designation		Libero	Libero
		Engine		MITSUBISHI S4S	MITSUBISHI S4S
		Transmission		Automatic	Okamura
	1.3	Drive		Diesel	Diesel
	1.4	Operation		Seated	Seated
	1.5	Load capacity / rated load	Q (kg)	2000	2000
	1.6	Load centre distance	c (mm)	500	500
	1.8	Load distance, centre of drive axle to fork	x (mm)	465	465
	1.9	Wheelbase	y (mm)	1650	1650
WEIGHTS	2.1	Service weight	kg	3405	3405
	2.2	Axle loading, laden, front/rear	kg	4705/700	4705/700
	2.3	Axle loading, unladen, front/rear	kg	1610/1795	1610/1795
WHEELS & TYRES	3.1	Tyres: L=pneumatic, V=solid		L	L
	3.2	Tyre size, front		7.00-12-12PR	7.00-12-12PR
	3.3	Tyre size, rear		6.00-9-10PR	6.00-9-10PR
	3.5	Wheels, number front rear (X=driven wheels)		2/2	2/2
	3.6	Tread, front	b_{10} (mm)	965	965
	3.7	Tread, rear	b_{11} (mm)	973	973
DIMENSIONS	4.1	Mast tilt, α = forward / β = back (base duplex mast)	degrees	6/12	6/12
	4.2	Height of mast, lowered	h_1 (mm)	2035	2035
	4.3	Free lift	h_2 (mm)	140	140
	4.4	Lift	h_3 (mm)	3000	3000
	4.5	Height, mast extended ☑	h_4 (mm)	4045	4045
	4.7	Height of overhead guard (cabin)	h_6 (mm)	2125	2125
	4.8	Seat height	h_7 (mm)	☎	☎
	4.12	Coupling height	h_{10} (mm)	☎	☎
	4.19	Overall length (inc. standard forks)	l_1 (mm)	3600	3600
	4.2	Length to face of forks	l_2 (mm)	2530	2530
	4.21	Overall width, standard	b_1/b_2(mm)	1155	1155
	4.22	Fork dimensions	s/e/l (mm)	40x122x1070	40x122x1070
	4.23	Fork carriage DIN 15173, class/type A,B		2A	2A
	4.24	Fork carriage width	b_3 (mm)	☎	☎
	4.31	Ground clearance, laden, below mast	m_1 (mm)	115	115
	4.32	Ground clearance, centre of wheelbase	m_2 (mm)	150	150
	4.33	Aisle width for pallets 1000x1200 crossways	Ast (mm)	☎	☎
	4.34	Aisle width for pallets 800x1200 crossways	Ast (mm)	☎	☎
	4.35	Outer turning radius	W_a (mm)	2180	2180
	4.36	Inner turning radius	b_{13} (mm)	☎	☎
PERFORMANCE	5.1	Travel speed, unload	km/h	18.2	18.6
	5.2	Lift speed, laden	mm/sec	620	620
	5.3	Lowering speed, laden	mm/sec	500	500
	5.5	Drawbar pull, laden/unladen	N	☎	☎
	5.6	Max. drawbar pull, laden	KN	19800	19400
	5.7	Gradeability, laden/unladen	%	☎	☎
	5.8	Max. gradeability, laden	%	35	34
	5.1	Service brake		Hydraulic	Hydraulic
ENGINE	7.1	Engine manufacturer/type		MITSUBISHI S4S	MITSUBISHI S4S
	7.2	Engine power acc. to ISO 1585 / DIN 6271	kW	34.4	34.4
	7.3	Rated speed	rpm	2250	2250
	7.4	Number of cylinders/displacement	cm^3	4/3331	4/3331
OTHER	8.1	Type of drive control		Automatic	Okamura
	8.2	Operating pressure for attachments	bar	145	145
	8.3	Oil volume for attachments	l/min	☎	☎
	8.4	Average noise level at operator's ear (Lpaz)	dB (A)	☎	☎
		Guaranteed sound power 2001/14/EC (Lwaz))	dB	☎	☎
	8.5	Towing coupling, type DIN		☎	☎

SPECIFICATION DATA ACCORDING TO VDI 2198

NEXEN LIBERO FDL20-FDL25

CHARACTERISTICS	1.1	Manufacturer		**Nexen**	**Nexen**	**Nexen**	**Nexen**
	1.2	Model designation		**FDL25**	**FDL25**	**FDL25**	**FDL25**
		Model – Manufacturer designation		Libero	Libero	Libero	Libero
		Engine		YANMAR 4TNE92	KUBOTA V2607	YANMAR 4TNE98	YANMAR 4TNE98
		Transmission		Automatic	Automatic	Automatic	Okamura
	1.3	Drive		Diesel	Diesel	Diesel	Diesel
	1.4	Operation		Seated	Seated	Seated	Seated
	1.5	Load capacity / rated load	Q (kg)	2500	2500	2500	2500
	1.6	Load centre distance	c (mm)	500	500	500	500
	1.8	Load distance, centre of drive axle to fork	x (mm)	465	465	465	465
	1.9	Wheelbase	y (mm)	1650	1650	1650	1650
WEIGHTS	2.1	Service weight	kg	3405	3405	3405	3405
	2.2	Axle loading, laden, front/rear	kg	4705/700	4705/700	4705/700	4705/700
	2.3	Axle loading, unladen, front/rear	kg	1610/1795	1610/1795	1610/1795	1610/1795
WHEELS & TYRES	3.1	Tyres: L=pneumatic, V=solid		L	L	L	L
	3.2	Tyre size, front		7.00-12-12PR	7.00-12-12PR	7.00-12-12PR	7.00-12-12PR
	3.3	Tyre size, rear		6.00-9-10PR	6.00-9-10PR	6.00-9-10PR	6.00-9-10PR
	3.5	Wheels, number front rear (X=driven wheels)		2/2	2/2	2/2	2/2
	3.6	Tread, front	b_{10} (mm)	965	965	965	965
	3.7	Tread, rear	b_{11} (mm)	973	973	973	973
DIMENSIONS	4.1	Mast tilt, α = forward / β = back (base duplex mast)	degrees	6/12	6/12	6/12	6/12
	4.2	Height of mast, lowered	h_1 (mm)	2035	2035	2035	2035
	4.3	Free lift	h_2 (mm)	140	140	140	140
	4.4	Lift	h_3 (mm)	3000	3000	3000	3000
	4.5	Height, mast extended ☑	h_4 (mm)	4045	4045	4045	4045
	4.7	Height of overhead guard (cabin)	h_6 (mm)	2125	2125	2125	2125
	4.8	Seat height	h_7 (mm)	☎	☎	☎	☎
	4.12	Coupling height	h_{10} (mm)	☎	☎	☎	☎
	4.19	Overall length (inc. standard forks)	l_1 (mm)	3675	3675	3675	3675
	4.2	Length to face of forks	l_2 (mm)	2605	2605	2605	2605
	4.21	Overall width, standard	b_1/b_2(mm)	1155	1155	1155	1155
	4.22	Fork dimensions	s/e/l (mm)	40x122x1070	40x122x1070	40x122x1070	40x122x1070
	4.23	Fork carriage DIN 15173, class/type A,B		2A	2A	2A	2A
	4.24	Fork carriage width	b_3 (mm)	☎	☎	☎	☎
	4.31	Ground clearance, laden, below mast	m_1 (mm)	115	115	115	115
	4.32	Ground clearance, centre of wheelbase	m_2 (mm)	150	150	150	150
	4.33	Aisle width for pallets 1000x1200 crossways	Ast (mm)	☎	☎	☎	☎
	4.34	Aisle width for pallets 800x1200 crossways	Ast (mm)	☎	☎	☎	☎
	4.35	Outer turning radius	W_a (mm)	2245	2245	2245	2245
	4.36	Inner turning radius	b_{13} (mm)	☎	☎	☎	☎
PERFORMANCE	5.1	Travel speed, unload	km/h	19.4	18.2	18.6	17.9
	5.2	Lift speed, laden	mm/sec	600	620	620	620
	5.3	Lowering speed, laden	mm/sec	500	500	500	500
	5.5	Drawbar pull, laden/unladen	N	☎	☎	☎	☎
	5.6	Max. drawbar pull, laden	KN	14300	19800	19400	19500
	5.7	Gradeability, laden/unladen	%	☎	☎	☎	☎
	5.8	Max. gradeability, laden	%	21	30	29	29
	5.1	Service brake		Hydraulic	Hydraulic	Hydraulic	Hydraulic
ENGINE	7.1	Engine manufacturer/type		YANMAR 4TNE92	KUBOTA V2607	YANMAR 4TNE98	YANMAR 4TNE98
	7.2	Engine power acc. to ISO 1585 / DIN 6271	kW	32.8	42	44.3	44.3
	7.3	Rated speed	rpm	2450	2700	2300	2300
	7.4	Number of cylinders/displacement	cm^3	4/2659	4/2615	4/3319	4/3319
OTHER	8.1	Type of drive control		Automatic	Automatic	Automatic	Okamura
	8.2	Operating pressure for attachments	bar	175	175	175	175
	8.3	Oil volume for attachments	l/min	☎	☎	☎	☎
	8.4	Average noise level at operator's ear (Lpaz)	dB (A)	☎	☎	☎	☎
		Guaranteed sound power 2001/14/EC (Lwaz))	dB	☎	☎	☎	☎
	8.5	Towing coupling, type DIN		☎	☎	☎	☎

SPECIFICATION DATA ACCORDING TO VDI 2198

NEXEN LIBERO FDL20-FDL25

CHARACTERISTICS	1.1	Manufacturer		**Nexen**	**Nexen**
	1.2	Model designation		**FDL25**	**FDL25**
		Model – Manufacturer designation		Libero	Libero
		Engine		MITSUBISHI S4S	MITSUBISHI S4S
		Transmission		Automatic	Okamura
	1.3	Drive		Diesel	Diesel
	1.4	Operation		Seated	Seated
	1.5	Load capacity / rated load	Q (kg)	2500	2500
	1.6	Load centre distance	c (mm)	500	500
	1.8	Load distance, centre of drive axle to fork	x (mm)	465	465
	1.9	Wheelbase	y (mm)	1650	1650
WEIGHTS	2.1	Service weight 💻	kg	3405	3405
	2.2	Axle loading, laden, front/rear 💻	kg	4705/700	4705/700
	2.3	Axle loading, unladen, front/rear 💻	kg	1610/1795	1610/1795
WHEELS & TYRES	3.1	Tyres: L=pneumatic, V=solid		L	L
	3.2	Tyre size, front		7.00-12-12PR	7.00-12-12PR
	3.3	Tyre size, rear		6.00-9-10PR	6.00-9-10PR
	3.5	Wheels, number front rear (X=driven wheels)		2/2	2/2
	3.6	Tread, front	b_{10} (mm)	965	965
	3.7	Tread, rear	b_{11} (mm)	973	973
DIMENSIONS	4.1	Mast tilt, α = forward / β = back (base duplex mast)	degrees	6/12	6/12
	4.2	Height of mast, lowered	h_1 (mm)	2035	2035
	4.3	Free lift	h_2 (mm)	140	140
	4.4	Lift	h_3 (mm)	3000	3000
	4.5	Height, mast extended ☑	h_4 (mm)	4045	4045
	4.7	Height of overhead guard (cabin) ⇳	h_6 (mm)	2125	2125
	4.8	Seat height	h_7 (mm)	☎	☎
	4.12	Coupling height	h_{10} (mm)	☎	☎
	4.19	Overall length (inc. standard forks)	l_1 (mm)	3675	3675
	4.2	Length to face of forks	l_2 (mm)	2605	2605
	4.21	Overall width, standard	b_1/b_2(mm)	1155	1155
	4.22	Fork dimensions	s/e/l (mm)	40x122x1070	40x122x1070
	4.23	Fork carriage DIN 15173, class/type A,B		2A	2A
	4.24	Fork carriage width ⇔	b_3 (mm)	☎	☎
	4.31	Ground clearance, laden, below mast	m_1 (mm)	115	115
	4.32	Ground clearance, centre of wheelbase	m_2 (mm)	150	150
	4.33	Aisle width for pallets 1000x1200 crossways	Ast (mm)	☎	☎
	4.34	Aisle width for pallets 800x1200 crossways	Ast (mm)	☎	☎
	4.35	Outer turning radius	W_a (mm)	2245	2245
	4.36	Inner turning radius	b_{13} (mm)	☎	☎
PERFORMANCE	5.1	Travel speed, unload	km/h	18.6	18.6
	5.2	Lift speed, laden	mm/sec	620	620
	5.3	Lowering speed, laden	mm/sec	500	500
	5.5	Drawbar pull, laden/unladen 💻	N	☎	☎
	5.6	Max. drawbar pull, laden	KN	19800	19400
	5.7	Gradeability, laden/unladen 💻	%	☎	☎
	5.8	Max. gradeability, laden	%	29	29
	5.1	Service brake		Hydraulic	Hydraulic
ENGINE	7.1	Engine manufacturer/type		MITSUBISHI S4S	MITSUBISHI S4S
	7.2	Engine power acc. to ISO 1585 / DIN 6271	kW	34.4	34.4
	7.3	Rated speed	rpm	2250	2250
	7.4	Number of cylinders/displacement	cm^3	4/3331	4/3331
OTHER	8.1	Type of drive control		Automatic	Okamura
	8.2	Operating pressure for attachments	bar	175	175
	8.3	Oil volume for attachments	l/min	☎	☎
	8.4	Average noise level at operator's ear (Lpaz)	dB (A)	☎	☎
		Guaranteed sound power 2001/14/EC (Lwaz))	dB	☎	☎
	8.5	Towing coupling, type DIN		☎	☎

SPECIFICATION DATA ACCORDING TO VDI 2198

NEXEN LIBERO FGL20-FGL25

CHARACTERISTICS	1.1	Manufacturer		Nexen	Nexen	Nexen	Nexen
	1.2	Model designation		FGL20	FGL20	FGL20	FGL20
		Model – Manufacturer designation		LIBERO	LIBERO	LIBERO	LIBERO
		Engine		GCT GK25	GCT GK25	GCT K25	GCT K25
		Transmission		Automatic	Okamura	Automatic	Okamura
	1.3	Drive		LPG	LPG	LPG	LPG
	1.4	Operation		Seated	Seated	Seated	Seated
	1.5	Load capacity / rated load	Q (kg)	2000	2000	2000	2000
	1.6	Load centre distance	c (mm)	500	500	500	500
	1.8	Load distance, centre of drive axle to fork	x (mm)	465	465	465	465
	1.9	Wheelbase	y (mm)	1650	1650	1650	1650
WEIGHTS	2.1	Service weight	kg	3405	3405	3405	3405
	2.2	Axle loading, laden, front/rear	kg	4705/700	4705/700	4705/700	4705/700
	2.3	Axle loading, unladen, front/rear	kg	1610/1795	1610/1795	1610/1795	1610/1795
WHEELS & TYRES	3.1	Tyres: L=pneumatic, V=solid		L	L	L	L
	3.2	Tyre size, front		7.00-12-12PR	7.00-12-12PR	7.00-12-12PR	7.00-12-12PR
	3.3	Tyre size, rear		6.00-9-10PR	6.00-9-10PR	6.00-9-10PR	6.00-9-10PR
	3.5	Wheels, number front rear (X=driven wheels)		2/2	2/2	2/2	2/2
	3.6	Tread, front	b_{10} (mm)	965	965	965	965
	3.7	Tread, rear	b_{11} (mm)	973	973	973	973
DIMENSIONS	4.1	Mast tilt, α = forward / β = back (base duplex mast)	degrees	6/12	6/12	6/12	6/12
	4.2	Height of mast, lowered	h_1 (mm)	2035	2035	2035	2035
	4.3	Free lift	h_2 (mm)	140	140	140	140
	4.4	Lift	h_3 (mm)	3000	3000	3000	3000
	4.5	Height, mast extended ☑	h_4 (mm)	4045	4045	4045	4045
	4.7	Height of overhead guard (cabin)	h_6 (mm)	2135	2135	2135	2135
	4.8	Seat height	h_7 (mm)	☎	☎	☎	☎
	4.12	Coupling height	h_{10} (mm)	☎	☎	☎	☎
	4.19	Overall length (inc. standard forks)	l_1 (mm)	3600	3600	3600	3600
	4.2	Length to face of forks	l_2 (mm)	2530	2530	2530	2530
	4.21	Overall width, standard	b_1/b_2(mm)	1155	1155	1155	1155
	4.22	Fork dimensions	s/e/l (mm)	40x122x1070	40x122x1070	40x122x1070	40x122x1070
	4.23	Fork carriage DIN 15173, class/type A,B		2A	2A	2A	2A
	4.24	Fork carriage width	b_3 (mm)	☎	☎	☎	☎
	4.31	Ground clearance, laden, below mast	m_1 (mm)	115	115	115	115
	4.32	Ground clearance, centre of wheelbase	m_2 (mm)	150	150	150	150
	4.33	Aisle width for pallets 1000x1200 crossways	Ast (mm)	☎	☎	☎	☎
	4.34	Aisle width for pallets 800x1200 crossways	Ast (mm)	☎	☎	☎	☎
	4.35	Outer turning radius	W_a (mm)	2180	2180	2180	2180
	4.36	Inner turning radius	b_{13} (mm)	☎	☎	☎	☎
PERFORMANCE	5.1	Travel speed, unload	km/h	18.2	19	19.4	18.7
	5.2	Lift speed, laden	mm/sec	490	560	560	560
	5.3	Lowering speed, laden	mm/sec	500	500	500	500
	5.5	Drawbar pull, laden/unladen	N	☎	☎	☎	☎
	5.6	Max. drawbar pull, laden	KN	14500	18700	18300	18400
	5.7	Gradeability, laden/unladen	%	☎	☎	☎	☎
	5.8	Max. gradeability, laden	%	25	33	32	32
	5.1	Service brake		Hydraulic	Hydraulic	Hydraulic	Hydraulic
ENGINE	7.1	Engine manufacturer/type		GCT GK25	GCT GK25	GCT K25	GCT K25
	7.2	Engine power acc. to ISO 1585 / DIN 6271	kW	40	40	38	38
	7.3	Rated speed	rpm	2700	2700	2400	2400
	7.4	Number of cylinders/displacement	cm^3	4/2065	4/2065	4/2488	4/2488
OTHER	8.1	Type of drive control		Automatic	Okamura	Automatic	Okamura
	8.2	Operating pressure for attachments	bar	175	175	175	175
	8.3	Oil volume for attachments	l/min	☎	☎	☎	☎
	8.4	Average noise level at operator's ear (Lpaz)	dB (A)	☎	☎	☎	☎
		Guaranteed sound power 2001/14/EC (Lwaz))	dB	☎	☎	☎	☎
	8.5	Towing coupling, type DIN		☎	☎	☎	☎

SPECIFICATION DATA ACCORDING TO VDI 2198

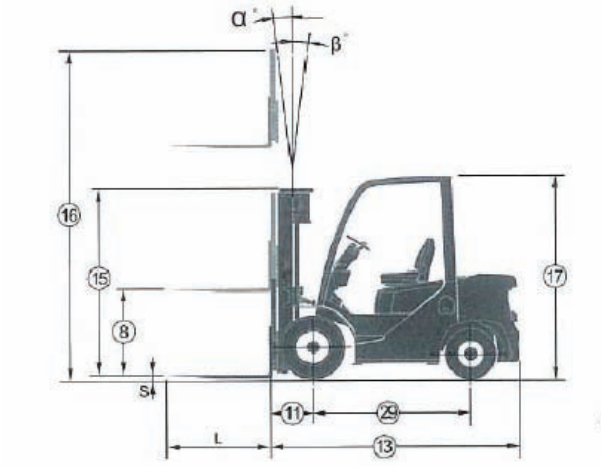
NEXEN LIBERO FGL20-FGL25

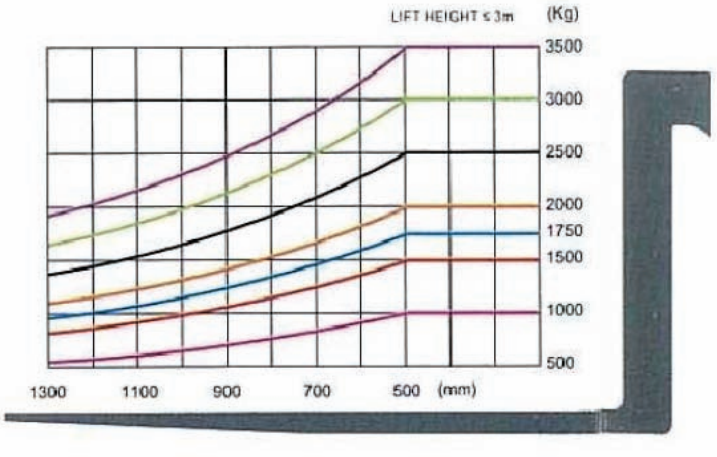
CHARACTERISTICS	1.1	Manufacturer		**Nexen**	**Nexen**	**Nexen**	**Nexen**
	1.2	Model designation		**FGL25**	**FGL25**	**FGL25**	**FGL25**
		Model – Manufacturer designation		LIBERO	LIBERO	LIBERO	LIBERO
		Engine		GCT GK25	GCT GK25	GCT K25	GCT K25
		Transmission		Automatic	Okamura	Automatic	Okamura
	1.3	Drive		LPG	LPG	LPG	LPG
	1.4	Operation		Seated	Seated	Seated	Seated
	1.5	Load capacity / rated load	Q (kg)	2500	2500	2500	2500
	1.6	Load centre distance	c (mm)	500	500	500	500
	1.8	Load distance, centre of drive axle to fork	x (mm)	465	465	465	465
	1.9	Wheelbase	y (mm)	1650	1650	1650	1650
WEIGHTS	2.1	Service weight	kg	3765	3765	3765	3765
	2.2	Axle loading, laden, front/rear	kg	5475/790	5475/790	5475/790	5475/790
	2.3	Axle loading, unladen, front/rear	kg	1560/2205	1560/2205	1560/2205	1560/2205
WHEELS & TYRES	3.1	Tyres: L=pneumatic, V=solid		L	L	L	L
	3.2	Tyre size, front		7.00-12-12PR	7.00-12-12PR	7.00-12-12PR	7.00-12-12PR
	3.3	Tyre size, rear		6.00-9-10PR	6.00-9-10PR	6.00-9-10PR	6.00-9-10PR
	3.5	Wheels, number front rear (X=driven wheels)		2/2	2/2	2/2	2/2
	3.6	Tread, front	b_{10} (mm)	965	965	965	965
	3.7	Tread, rear	b_{11} (mm)	973	973	973	973
DIMENSIONS	4.1	Mast tilt, α = forward / β = back (base duplex mast)	degrees	6/12	6/12	6/12	6/12
	4.2	Height of mast, lowered	h_1 (mm)	2035	2035	2035	2035
	4.3	Free lift	h_2 (mm)	140	140	140	140
	4.4	Lift	h_3 (mm)	3000	3000	3000	3000
	4.5	Height, mast extended ☑	h_4 (mm)	4045	4045	4045	4045
	4.7	Height of overhead guard (cabin)	h_6 (mm)	2135	2135	2135	2135
	4.8	Seat height	h_7 (mm)	☎	☎	☎	☎
	4.12	Coupling height	h_{10} (mm)	☎	☎	☎	☎
	4.19	Overall length (inc. standard forks)	l_1 (mm)	3675	3675	3675	3675
	4.2	Length to face of forks	l_2 (mm)	2605	2605	2605	2605
	4.21	Overall width, standard	b_1/b_2(mm)	1155	1155	1155	1155
	4.22	Fork dimensions	s/e/l (mm)	40x122x1070	40x122x1070	40x122x1070	40x122x1070
	4.23	Fork carriage DIN 15173, class/type A,B		2A	2A	2A	2A
	4.24	Fork carriage width ⇔	b_3 (mm)	☎	☎	☎	☎
	4.31	Ground clearance, laden, below mast	m_1 (mm)	115	115	115	115
	4.32	Ground clearance, centre of wheelbase	m_2 (mm)	150	150	150	150
	4.33	Aisle width for pallets 1000x1200 crossways	Ast (mm)	☎	☎	☎	☎
	4.34	Aisle width for pallets 800x1200 crossways	Ast (mm)	☎	☎	☎	☎
	4.35	Outer turning radius	W_a (mm)	2245	2245	2245	2245
	4.36	Inner turning radius	b_{13} (mm)	☎	☎	☎	☎
PERFORMANCE	5.1	Travel speed, unload	km/h	18.2	19	19.4	18.7
	5.2	Lift speed, laden	mm/sec	490	560	560	560
	5.3	Lowering speed, laden	mm/sec	500	500	500	500
	5.5	Drawbar pull, laden/unladen	N	☎	☎	☎	☎
	5.6	Max. drawbar pull, laden	KN	14500	18700	18300	18400
	5.7	Gradeability, laden/unladen	%	☎	☎	☎	☎
	5.8	Max. gradeability, laden	%	21	28	27	27
	5.1	Service brake		Hydraulic	Hydraulic	Hydraulic	Hydraulic
ENGINE	7.1	Engine manufacturer/type		GCT GK25	GCT GK25	GCT K25	GCT K25
	7.2	Engine power acc. to ISO 1585 / DIN 6271	kW	40	40	38	38
	7.3	Rated speed	rpm	2700	2700	2400	2400
	7.4	Number of cylinders/displacement	cm^3	4/2065	4/2065	4/2488	4/2488
OTHER	8.1	Type of drive control		Automatic	Okamura	Automatic	Okamura
	8.2	Operating pressure for attachments	bar	175	175	175	175
	8.3	Oil volume for attachments	l/min	☎	☎	☎	☎
	8.4	Average noise level at operator's ear (Lpaz)	dB (A)	☎	☎	☎	☎
		Guaranteed sound power 2001/14/EC (Lwaz))	dB	☎	☎	☎	☎
	8.5	Towing coupling, type DIN		☎	☎	☎	☎

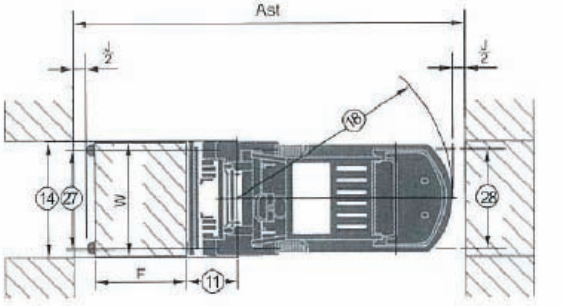
SPECIFICATION DATA ACCORDING TO VDI 2198

MAST SPECIFICATIONS

Type	Max Fork Height	Overall height			Free lift		Front Overhang	Tilt range		Capacity			
		Lowered	Extended		Without backrest	With backrest		FWD	BWD	load capacity at 500mm			
			Without backrest	With backrest						Single tire		Dual tire	
										2.0t	2.5t	2.0t	2.5t
	mm	mm	mm	mm	mm	mm	mm	Deg	Deg	kg	kg	kg	kg
Wide view mast	2000	1535	2660	3045	140	140	465	6	12	2000	2500	2000	2500
	2500	1785	3160	3545	140	140	465	6	12	2000	2500	2000	2500
	2700	1885	3360	3745	140	140	465	6	12	2000	2500	2000	2500
	3000	2035	3660	4045	140	140	465	6	12	2000	2500	2000	2500
	3300	2185	3960	4345	140	140	465	6	12	2000	2500	2000	2500
	3500	2285	4160	4545	140	140	465	6	12	2000	2500	2000	2500
	3700	2435	4360	4745	140	140	465	6	12	2000	2500	2000	2500
	4000	2635	4660	5045	140	140	465	6	12	2000	2450	2000	2500
	4300	2785	4960	5345	140	140	465	6	6	1950	2300	2000	2450
	4500	2855	5160	5545	140	140	465	6	6	1900	2150	1950	2300
	4700	2985	5360	5745	140	140	465	6	6	1850	2000	1900	2150
	5000	3135	5660	6045	140	140	465	6	6	1800	1850	1850	2000
	5500	3385	6160	6545	140	140	465	3	6			1600	1900
	6000	3635	6660	7045	140	140	465	3	6			1400	1750
Wide view full free duplex mast	2000	1560	2680	3045	880	510	465	6	12	2000	2500	2000	2500
	2500	1810	3180	3545	1130	760	465	6	12	2000	2500	2000	2500
	2700	1910	3380	3745	1230	860	465	6	12	2000	2500	2000	2500
	3000	2010	3680	4045	1330	960	465	6	12	2000	2500	2000	2500
	3300	2160	3980	4345	1480	1110	465	6	12	2000	2500	2000	2500
	3500	2260	4180	4545	1580	1210	465	6	12	2000	2500	2000	2500
	3700	2360	4330	4745	1680	1310	465	6	12	2000	2500	2000	2500
	4000	2560	4680	5045	1880	1510	465	6	12	2000	2450	2000	2500
Wide view full free triplex mast	4000	2000	4700	5045	1300	955	480	6	6	1900	2350	1950	2450
	4300	2100	5000	5345	1400	1055	480	6	6	1850	2200	1900	2350
	4500	2150	5230	5595	1470	1105	480	6	6	1800	2050	1850	2200
	4700	2200	5380	5745	1520	1155	480	6	6	1750	1900	1800	2050
	5000	2300	5680	6045	1620	1255	480	6	6	1700	1750	1800	2050
	5500	2500	6180	6545	1820	1455	480	3	6	1300	1400	1600	1900
	6000	2750	6730	7095	2070	1705	480	3	6	900	1000	1400	1750
	6500	2900	7200	7545	2200	1855	480	3	6			1200	1450
	7000	3050	7680	8045	2370	2005	480	3	6			1000	1150







J = 200 mm safety clearance

AST = J + F + (11) + (18)

NEXEN LIBERO FDL30-FDL35

CHARACTERISTICS	1.1	Manufacturer		**Nexen**	**Nexen**	**Nexen**
	1.2	Model designation		**FDL30**	**FDL30**	**FDL30**
		Model – Manufacturer designation		Libero	Libero	Libero
		Engine		KUBOTA V2607	ISUZU 4JG2PE	YANMAR 4TNE98
		Transmission		Automatic	Automatic	Automatic
	1.3	Drive		Diesel	Diesel	Diesel
	1.4	Operation		Seated	Seated	Seated
	1.5	Load capacity / rated load	Q (kg)	3000	3000	3000
	1.6	Load centre distance	c (mm)	500	500	500
	1.8	Load distance, centre of drive axle to fork	x (mm)	480	480	480
	1.9	Wheelbase	y (mm)	1700	1700	1700
WEIGHTS	2.1	Service weight	kg	4350	4350	4350
	2.2	Axle loading, laden, front/rear	kg	6450/900	6450/900	6450/900
	2.3	Axle loading, unladen, front/rear	kg	1750/2600	1750/2600	1750/2600
WHEELS & TYRES	3.1	Tyres: L=pneumatic, V=solid		L	L	L
	3.2	Tyre size, front		28x9-15-12PR	28x9-15-12PR	28x9-15-12PR
	3.3	Tyre size, rear		6.50-10-10PR	6.50-10-10PR	6.50-10-10PR
	3.5	Wheels, number front rear (X=driven wheels)		2/2	2/2	2/2
	3.6	Tread, front	b_{10} (mm)	1005	1005	1005
	3.7	Tread, rear	b_{11} (mm)	975	975	975
DIMENSIONS	4.1	Mast tilt, α = forward / β = back (base duplex mast)	degrees	6/12	6/12	6/12
	4.2	Height of mast, lowered	h_1 (mm)	2050	2050	2050
	4.3	Free lift	h_2 (mm)	145	145	145
	4.4	Lift	h_3 (mm)	3000	3000	3000
	4.5	Height, mast extended ☑	h_4 (mm)	4145	4145	4145
	4.7	Height of overhead guard (cabin)	h_6 (mm)	2150	2150	2150
	4.8	Seat height	h_7 (mm)			
	4.12	Coupling height	h_{10} (mm)			
	4.19	Overall length (inc. standard forks)	l_1 (mm)	3800	3800	3800
	4.2	Length to face of forks	l_2 (mm)	2730	2730	2730
	4.21	Overall width, standard	b_1/b_2(mm)	1225	1225	1225
	4.22	Fork dimensions	s/e/l (mm)	45x122x1070	45x122x1070	45x122x1070
	4.23	Fork carriage DIN 15173, class/type A,B		3A	3A	3A
	4.24	Fork carriage width	b_3 (mm)			
	4.31	Ground clearance, laden, below mast	m_1 (mm)	130	130	130
	4.32	Ground clearance, centre of wheelbase	m_2 (mm)	165	165	165
	4.33	Aisle width for pallets 1000x1200 crossways	Ast (mm)			
	4.34	Aisle width for pallets 800x1200 crossways	Ast (mm)			
	4.35	Outer turning radius	W_a (mm)	2355	2355	2355
	4.36	Inner turning radius	b_{13} (mm)			
PERFORMANCE	5.1	Travel speed, unload	km/h	17.2	17.6	17.6
	5.2	Lift speed, laden	mm/sec	490	490	490
	5.3	Lowering speed, laden	mm/sec	500	500	500
	5.5	Drawbar pull, laden/unladen	N			
	5.6	Max. drawbar pull, laden	KN	21000	20500	19900
	5.7	Gradeability, laden/unladen	%			
	5.8	Max. gradeability, laden	%	27	26	25
	5.1	Service brake		Hydraulic	Hydraulic	Hydraulic
ENGINE	7.1	Engine manufacturer/type		KUBOTA V2607	ISUZU 4JG2PE	YANMAR 4TNE98
	7.2	Engine power acc. to ISO 1585 / DIN 6271	kW	42	44.9	44.3
	7.3	Rated speed	rpm	2700	2450	2300
	7.4	Number of cylinders/displacement	cm^3	4/2615	4/3059	4/3319
OTHER	8.1	Type of drive control		Automatic	Automatic	Automatic
	8.2	Operating pressure for attachments	bar	175	175	175
	8.3	Oil volume for attachments	l/min			
	8.4	Average noise level at operator's ear (Lpaz)	dB (A)			
		Guaranteed sound power 2001/14/EC (Lwaz))	dB			
	8.5	Towing coupling, type DIN				

SPECIFICATION DATA ACCORDING TO VDI 2198

NEXEN LIBERO FDL30-FDL35

CHARACTERISTICS	1.1	Manufacturer		**Nexen**	**Nexen**	**Nexen**
	1.2	Model designation		**FDL30**	**FDL30**	**FDL30**
		Model – Manufacturer designation		Libero	Libero	Libero
		Engine		MITSUBISHI S4S	MITSUBISHI S4S	YANMAR 4TNE98
		Transmission		Automatic	Okamura	Okamura
	1.3	Drive		Diesel	Diesel	Diesel
	1.4	Operation		Seated	Seated	Seated
	1.5	Load capacity / rated load	Q (kg)	3000	3000	3000
	1.6	Load centre distance	c (mm)	500	500	500
	1.8	Load distance, centre of drive axle to fork	x (mm)	480	480	480
	1.9	Wheelbase	y (mm)	1700	1700	1700
WEIGHTS	2.1	Service weight	kg	4350	4350	4350
	2.2	Axle loading, laden, front/rear	kg	6450/900	6450/900	6450/900
	2.3	Axle loading, unladen, front/rear	kg	1750/2600	1750/2600	1750/2600
WHEELS & TYRES	3.1	Tyres: L=pneumatic, V=solid		L	L	L
	3.2	Tyre size, front		28x9-15-12PR	28x9-15-12PR	28x9-15-12PR
	3.3	Tyre size, rear		6.50-10-10PR	6.50-10-10PR	6.50-10-10PR
	3.5	Wheels, number front rear (X=driven wheels)		2/2	2/2	2/2
	3.6	Tread, front	b_{10} (mm)	1005	1005	1005
	3.7	Tread, rear	b_{11} (mm)	975	975	975
DIMENSIONS	4.1	Mast tilt, α = forward / β = back (base duplex mast)	degrees	6/12	6/12	6/12
	4.2	Height of mast, lowered	h_1 (mm)	2050	2050	2050
	4.3	Free lift	h_2 (mm)	145	145	145
	4.4	Lift	h_3 (mm)	3000	3000	3000
	4.5	Height, mast extended ☑	h_4 (mm)	4145	4145	4145
	4.7	Height of overhead guard (cabin)	h_6 (mm)	2150	2150	2150
	4.8	Seat height	h_7 (mm)	☎	☎	☎
	4.12	Coupling height	h_{10} (mm)	☎	☎	☎
	4.19	Overall length (inc. standard forks)	l_1 (mm)	3800	3800	3800
	4.2	Length to face of forks	l_2 (mm)	2730	2730	2730
	4.21	Overall width, standard	b_1/b_2(mm)	1225	1225	1225
	4.22	Fork dimensions	s/e/l (mm)	45x122x1070	45x122x1070	45x122x1070
	4.23	Fork carriage DIN 15173, class/type A,B		3A	3A	3A
	4.24	Fork carriage width	b_3 (mm)	☎	☎	☎
	4.31	Ground clearance, laden, below mast	m_1 (mm)	130	130	130
	4.32	Ground clearance, centre of wheelbase	m_2 (mm)	165	165	165
	4.33	Aisle width for pallets 1000x1200 crossways	Ast (mm)	☎	☎	☎
	4.34	Aisle width for pallets 800x1200 crossways	Ast (mm)	☎	☎	☎
	4.35	Outer turning radius	W_a (mm)	2355	2355	2355
	4.36	Inner turning radius	b_{13} (mm)	☎	☎	☎
PERFORMANCE	5.1	Travel speed, unload	km/h	17.2	17.6	17.2
	5.2	Lift speed, laden	mm/sec	490	490	490
	5.3	Lowering speed, laden	mm/sec	500	500	500
	5.5	Drawbar pull, laden/unladen	N	☎	☎	☎
	5.6	Max. drawbar pull, laden	KN	21000	20500	21000
	5.7	Gradeability, laden/unladen	%	☎	☎	☎
	5.8	Max. gradeability, laden	%	27	26	26
	5.1	Service brake		Hydraulic	Hydraulic	Hydraulic
ENGINE	7.1	Engine manufacturer/type		MITSUBISHI S4S	MITSUBISHI S4S	YANMAR 4TNE98
	7.2	Engine power acc. to ISO 1585 / DIN 6271	kW	34.4	34.4	44.3
	7.3	Rated speed	rpm	2250	2250	2300
	7.4	Number of cylinders/displacement	cm^3	4/3331	4/3331	4/3319
OTHER	8.1	Type of drive control		Automatic	Okamura	Okamura
	8.2	Operating pressure for attachments	bar	175	175	175
	8.3	Oil volume for attachments	l/min	☎	☎	☎
	8.4	Average noise level at operator's ear (Lpaz)	dB (A)	☎	☎	☎
		Guaranteed sound power 2001/14/EC (Lwaz))	dB	☎	☎	☎
	8.5	Towing coupling, type DIN		☎	☎	☎

SPECIFICATION DATA ACCORDING TO VDI 2198

NEXEN LIBERO FDL30-FDL35

CHARACTERISTICS	1.1	Manufacturer		**Nexen**	**Nexen**	**Nexen**
	1.2	Model designation		**FDL35**	**FDL35**	**FDL35**
		Model – Manufacturer designation		Libero	Libero	Libero
		Engine		KUBOTA V2607	ISUZU 4JG2PE	YANMAR 4TNE98
		Transmission		Automatic	Automatic	Automatic
	1.3	Drive		Diesel	Diesel	Diesel
	1.4	Operation		Seated	Seated	Seated
	1.5	Load capacity / rated load	Q (kg)	3500	3500	3500
	1.6	Load centre distance	c (mm)	500	500	500
	1.8	Load distance, centre of drive axle to fork	x (mm)	485	485	485
	1.9	Wheelbase	y (mm)	1700	1700	1700
WEIGHTS	2.1	Service weight 💻	kg	4705	4705	4705
	2.2	Axle loading, laden, front/rear 💻	kg	7255/950	7255/950	7255/950
	2.3	Axle loading, unladen, front/rear 💻	kg	1720/2985	1720/2985	1720/2985
WHEELS & TYRES	3.1	Tyres: L=pneumatic, V=solid		L	L	L
	3.2	Tyre size, front		28x9-15-12PR	28x9-15-12PR	28x9-15-12PR
	3.3	Tyre size, rear		6.50-10-10PR	6.50-10-10PR	6.50-10-10PR
	3.5	Wheels, number front rear (X=driven wheels)		2/2	2/2	2/2
	3.6	Tread, front	b_{10} (mm)	1005	1005	1005
	3.7	Tread, rear	b_{11} (mm)	975	975	975
DIMENSIONS	4.1	Mast tilt, α = forward / β = back (base duplex mast)	degrees	6/12	6/12	6/12
	4.2	Height of mast, lowered	h_1 (mm)	2165	2165	2165
	4.3	Free lift	h_2 (mm)	145	145	145
	4.4	Lift	h_3 (mm)	3000	3000	3000
	4.5	Height, mast extended ☑	h_4 (mm)	4145	4145	4145
	4.7	Height of overhead guard (cabin) ⇳	h_6 (mm)	2150	2150	2150
	4.8	Seat height	h_7 (mm)	☎	☎	☎
	4.12	Coupling height	h_{10} (mm)	☎	☎	☎
	4.19	Overall length (inc. standard forks)	l_1 (mm)	3870	3870	3870
	4.2	Length to face of forks	l_2 (mm)	2800	2800	2800
	4.21	Overall width, standard	b_1/b_2(mm)	1225	1225	1225
	4.22	Fork dimensions	s/e/l (mm)	50x122x1070	50x122x1070	50x122x1070
	4.23	Fork carriage DIN 15173, class/type A,B		3A	3A	3A
	4.24	Fork carriage width ⇔	b_3 (mm)	☎	☎	☎
	4.31	Ground clearance, laden, below mast	m_1 (mm)	130	130	130
	4.32	Ground clearance, centre of wheelbase	m_2 (mm)	165	165	165
	4.33	Aisle width for pallets 1000x1200 crossways ☝	Ast (mm)	☎	☎	☎
	4.34	Aisle width for pallets 800x1200 crossways ☝	Ast (mm)	☎	☎	☎
	4.35	Outer turning radius	W_a (mm)	2415	2415	2415
	4.36	Inner turning radius	b_{13} (mm)	☎	☎	☎
PERFORMANCE	5.1	Travel speed, unload	km/h	17.2	17.6	17.6
	5.2	Lift speed, laden	mm/sec	430	430	430
	5.3	Lowering speed, laden	mm/sec	500	500	500
	5.5	Drawbar pull, laden/unladen 💻	N	☎	☎	☎
	5.6	Max. drawbar pull, laden	KN	21000	20500	19900
	5.7	Gradeability, laden/unladen 💻	%	☎	☎	☎
	5.8	Max. gradeability, laden	%	24	23	22
	5.1	Service brake		Hydraulic	Hydraulic	Hydraulic
ENGINE	7.1	Engine manufacturer/type		YANMAR 4TNE98	YANMAR 4TNE98	YANMAR 4TNE98
	7.2	Engine power acc. to ISO 1585 / DIN 6271	kW	44.3	44.3	44.3
	7.3	Rated speed	rpm	2300	2300	2300
	7.4	Number of cylinders/displacement	cm^3	4/3319	4/3319	4/3319
OTHER	8.1	Type of drive control		Automatic	Automatic	Automatic
	8.2	Operating pressure for attachments	bar	175	175	175
	8.3	Oil volume for attachments	l/min	☎	☎	☎
	8.4	Average noise level at operator's ear (Lpaz)	dB (A)	☎	☎	☎
		Guaranteed sound power 2001/14/EC (Lwaz))	dB	☎	☎	☎
	8.5	Towing coupling, type DIN		☎	☎	☎

SPECIFICATION DATA ACCORDING TO VDI 2198

NEXEN LIBERO FDL30-FDL35

CHARACTERISTICS	1.1	Manufacturer		**Nexen**	**Nexen**	**Nexen**
	1.2	Model designation		**FDL35**	**FDL35**	**FDL35**
		Model – Manufacturer designation		Libero	Libero	Libero
		Engine		MITSUBISHI S4S	MITSUBISHI S4S	YANMAR 4TNE98
		Transmission		Automatic	Okamura	Okamura
	1.3	Drive		Diesel	Diesel	Diesel
	1.4	Operation		Seated	Seated	Seated
	1.5	Load capacity / rated load	Q (kg)	3500	3500	3500
	1.6	Load centre distance	c (mm)	500	500	500
	1.8	Load distance, centre of drive axle to fork	x (mm)	485	485	485
	1.9	Wheelbase	y (mm)	1700	1700	1700
WEIGHTS	2.1	Service weight	kg	4705	4705	4705
	2.2	Axle loading, laden, front/rear	kg	7255/950	7255/950	7255/950
	2.3	Axle loading, unladen, front/rear	kg	1720/2985	1750/2985	1750/2985
WHEELS & TYRES	3.1	Tyres: L=pneumatic, V=solid		L	L	L
	3.2	Tyre size, front		28x9-15-12PR	28x9-15-12PR	28x9-15-12PR
	3.3	Tyre size, rear		6.50-10-10PR	6.50-10-10PR	6.50-10-10PR
	3.5	Wheels, number front rear (X=driven wheels)		2/2	2/2	2/2
	3.6	Tread, front	b_{10} (mm)	1005	1005	1005
	3.7	Tread, rear	b_{11} (mm)	975	975	975
DIMENSIONS	4.1	Mast tilt, α = forward / β = back (base duplex mast)	degrees	6/12	6/12	6/12
	4.2	Height of mast, lowered	h_1 (mm)	2165	2165	2165
	4.3	Free lift	h_2 (mm)	145	145	145
	4.4	Lift	h_3 (mm)	3000	3000	3000
	4.5	Height, mast extended ☑	h_4 (mm)	4145	4145	4145
	4.7	Height of overhead guard (cabin)	h_6 (mm)	2150	2150	2150
	4.8	Seat height	h_7 (mm)	☎	☎	☎
	4.12	Coupling height	h_{10} (mm)	☎	☎	☎
	4.19	Overall length (inc. standard forks)	l_1 (mm)	3870	3870	3870
	4.2	Length to face of forks	l_2 (mm)	2800	2800	2800
	4.21	Overall width, standard	b_1/b_2(mm)	1225	1225	1225
	4.22	Fork dimensions	s/e/l (mm)	50x122x1070	50x122x1070	50x122x1070
	4.23	Fork carriage DIN 15173, class/type A,B		3A	3A	3A
	4.24	Fork carriage width	b_3 (mm)	☎	☎	☎
	4.31	Ground clearance, laden, below mast	m_1 (mm)	130	130	130
	4.32	Ground clearance, centre of wheelbase	m_2 (mm)	165	165	165
	4.33	Aisle width for pallets 1000x1200 crossways	Ast (mm)	☎	☎	☎
	4.34	Aisle width for pallets 800x1200 crossways	Ast (mm)	☎	☎	☎
	4.35	Outer turning radius	W_a (mm)	2415	2415	2415
	4.36	Inner turning radius	b_{13} (mm)	☎	☎	☎
PERFORMANCE	5.1	Travel speed, unload	km/h	17.2	17.6	17.2
	5.2	Lift speed, laden	mm/sec	490	490	490
	5.3	Lowering speed, laden	mm/sec	500	500	500
	5.5	Drawbar pull, laden/unladen	N	☎	☎	☎
	5.6	Max. drawbar pull, laden	KN	21000	20500	21000
	5.7	Gradeability, laden/unladen	%	☎	☎	☎
	5.8	Max. gradeability, laden	%	24	23	22
	5.1	Service brake		Hydraulic	Hydraulic	Hydraulic
ENGINE	7.1	Engine manufacturer/type		MITSUBISHI S4S	MITSUBISHI S4S	YANMAR 4TNE98
	7.2	Engine power acc. to ISO 1585 / DIN 6271	kW	34.4	34.4	44.3
	7.3	Rated speed	rpm	2250	2250	2300
	7.4	Number of cylinders/displacement	cm^3	4/3331	4/3331	4/3319
OTHER	8.1	Type of drive control		Automatic	Okamura	Okamura
	8.2	Operating pressure for attachments	bar	175	175	175
	8.3	Oil volume for attachments	l/min	☎	☎	☎
	8.4	Average noise level at operator's ear (Lpaz)	dB (A)	☎	☎	☎
		Guaranteed sound power 2001/14/EC (Lwaz))	dB	☎	☎	☎
	8.5	Towing coupling, type DIN		☎	☎	☎

SPECIFICATION DATA ACCORDING TO VDI 2198

NEXEN LIBERO FGL30-FGL35

CHARACTERISTICS	1.1	Manufacturer		**Nexen**	**Nexen**	**Nexen**
	1.2	Model designation		**FGL30**	**FGL30**	**FGL30**
		Model – Manufacturer designation		LIBERO	LIBERO	LIBERO
		Engine		GCT GK25	GCT GK25	GCT K25
		Transmission		Automatic	Okamura	Automatic
	1.3	Drive		LPG	LPG	LPG
	1.4	Operation		Seated	Seated	Seated
	1.5	Load capacity / rated load	Q (kg)	3000	3000	3000
	1.6	Load centre distance	c (mm)	500	500	500
	1.8	Load distance, centre of drive axle to fork	x (mm)	480	480	480
	1.9	Wheelbase	y (mm)	1700	1700	1700
WEIGHTS	2.1	Service weight	kg	4350	4350	4350
	2.2	Axle loading, laden, front/rear	kg	6450/900	6450/900	6450/900
	2.3	Axle loading, unladen, front/rear	kg	1750/2600	1750/2600	1750/2600
WHEELS & TYRES	3.1	Tyres: L=pneumatic, V=solid		L	L	L
	3.2	Tyre size, front		28x9-15-12PR	28x9-15-12PR	28x9-15-12PR
	3.3	Tyre size, rear		6.50-10-10PR	6.50-10-10PR	6.50-10-10PR
	3.5	Wheels, number front rear (X=driven wheels)		2/2	2/2	2/2
	3.6	Tread, front	b_{10} (mm)	1005	1005	1005
	3.7	Tread, rear	b_{11} (mm)	975	975	975
DIMENSIONS	4.1	Mast tilt, α = forward / β = back (base duplex mast)	degrees	6/12	6/12	6/12
	4.2	Height of mast, lowered	h_1 (mm)	2050	2050	2050
	4.3	Free lift	h_2 (mm)	145	145	145
	4.4	Lift	h_3 (mm)	3000	3000	3000
	4.5	Height, mast extended	h_4 (mm)	4145	4145	4145
	4.7	Height of overhead guard (cabin)	h_6 (mm)	2150	2150	2150
	4.8	Seat height	h_7 (mm)	☎	☎	☎
	4.12	Coupling height	h_{10} (mm)	☎	☎	☎
	4.19	Overall length (inc. standard forks)	l_1 (mm)	3800	3800	3800
	4.2	Length to face of forks	l_2 (mm)	2730	2730	2730
	4.21	Overall width, standard	b_1/b_2(mm)	1225	1225	1225
	4.22	Fork dimensions	s/e/l (mm)	45x122x1070	45x122x1070	45x122x1070
	4.23	Fork carriage DIN 15173, class/type A,B		3A	3A	3A
	4.24	Fork carriage width	b_3 (mm)	☎	☎	☎
	4.31	Ground clearance, laden, below mast	m_1 (mm)	130	130	130
	4.32	Ground clearance, centre of wheelbase	m_2 (mm)	165	165	165
	4.33	Aisle width for pallets 1000x1200 crossways	Ast (mm)	☎	☎	☎
	4.34	Aisle width for pallets 800x1200 crossways	Ast (mm)	☎	☎	☎
	4.35	Outer turning radius	W_a (mm)	2355	2355	2355
	4.36	Inner turning radius	b_{13} (mm)	☎	☎	☎
PERFORMANCE	5.1	Travel speed, unload	km/h	17.9	18.4	18.3
	5.2	Lift speed, laden	mm/sec	450	450	450
	5.3	Lowering speed, laden	mm/sec	500	500	500
	5.5	Drawbar pull, laden/unladen	N	☎	☎	☎
	5.6	Max. drawbar pull, laden	KN	19800	19300	18700
	5.7	Gradeability, laden/unladen	%	☎	☎	☎
	5.8	Max. gradeability, laden	%	25	24	23
	5.1	Service brake		Hydraulic	Hydraulic	Hydraulic
ENGINE	7.1	Engine manufacturer/type		GCT GK25	GCT GK25	GCT K25
	7.2	Engine power acc. to ISO 1585 / DIN 6271	kW	40	40	38
	7.3	Rated speed	rpm	2700	2700	2400
	7.4	Number of cylinders/displacement	cm^3	4/2065	4/2065	4/2488
OTHER	8.1	Type of drive control		Automatic	Okamura	Automatic
	8.2	Operating pressure for attachments	bar	175	175	175
	8.3	Oil volume for attachments	l/min	☎	☎	☎
	8.4	Average noise level at operator's ear (Lpaz)	dB (A)	☎	☎	☎
		Guaranteed sound power 2001/14/EC (Lwaz))	dB	☎	☎	☎
	8.5	Towing coupling, type DIN		☎	☎	☎

SPECIFICATION DATA ACCORDING TO VDI 2198

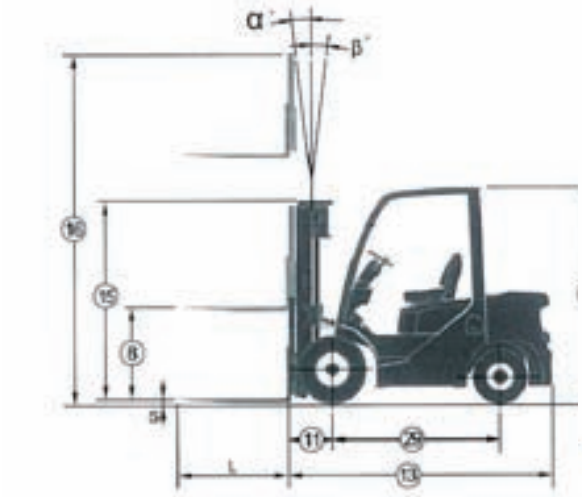
NEXEN LIBERO FGL30-FGL35

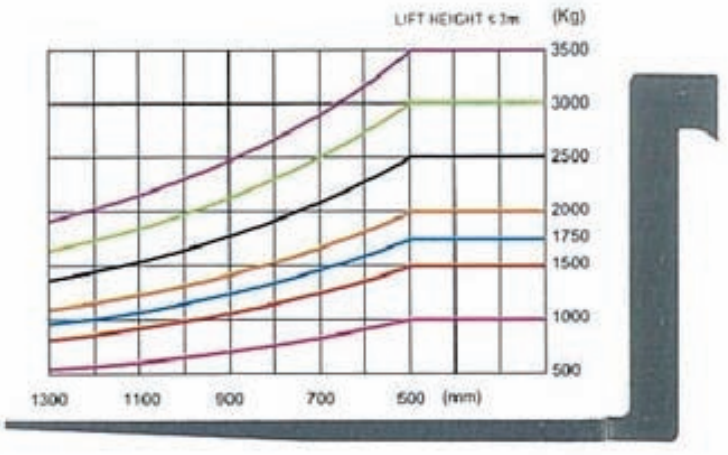
CHARACTERISTICS	1.1	Manufacturer		**Nexen**	**Nexen**	**Nexen**
	1.2	Model designation		**FGL35**	**FGL35**	**FGL35**
		Model – Manufacturer designation		LIBERO	LIBERO	LIBERO
		Engine		GCT GK25	GCT GK25	GCT K25
		Transmission		Automatic	Okamura	Automatic
	1.3	Drive		LPG	LPG	LPG
	1.4	Operation		Seated	Seated	Seated
	1.5	Load capacity / rated load	Q (kg)	3500	3500	3500
	1.6	Load centre distance	c (mm)	500	500	500
	1.8	Load distance, centre of drive axle to fork	x (mm)	485	485	485
	1.9	Wheelbase	y (mm)	1700	1700	1700
WEIGHTS	2.1	Service weight 💻	kg	4705	4705	4705
	2.2	Axle loading, laden, front/rear 💻	kg	7255/950	7255/950	7255/950
	2.3	Axle loading, unladen, front/rear 💻	kg	1720/2985	1720/2985	1720/2985
WHEELS & TYRES	3.1	Tyres: L=pneumatic, V=solid		L	L	L
	3.2	Tyre size, front		28x9-15-12PR	28x9-15-12PR	28x9-15-12PR
	3.3	Tyre size, rear		6.50-10-10PR	6.50-10-10PR	6.50-10-10PR
	3.5	Wheels, number front rear (X=driven wheels)		2/2	2/2	2/2
	3.6	Tread, front	b_{10} (mm)	1005	1005	1005
	3.7	Tread, rear	b_{11} (mm)	975	975	975
DIMENSIONS	4.1	Mast tilt, α = forward / β = back (base duplex mast)	degrees	6/12	6/12	6/12
	4.2	Height of mast, lowered	h_1 (mm)	2165	2165	2165
	4.3	Free lift	h_2 (mm)	145	145	145
	4.4	Lift	h_3 (mm)	3000	3000	3000
	4.5	Height, mast extended ☑	h_4 (mm)	4145	4145	4145
	4.7	Height of overhead guard (cabin) ⇳	h_6 (mm)	2150	2150	2150
	4.8	Seat height	h_7 (mm)	☎	☎	☎
	4.12	Coupling height	h_{10} (mm)	☎	☎	☎
	4.19	Overall length (inc. standard forks)	l_1 (mm)	3870	3870	3870
	4.2	Length to face of forks	l_2 (mm)	2800	2800	2800
	4.21	Overall width, standard	b_1/b_2(mm)	1225	1225	1225
	4.22	Fork dimensions	s/e/l (mm)	50x122x1070	50x122x1070	50x122x1070
	4.23	Fork carriage DIN 15173, class/type A,B		3A	3A	3A
	4.24	Fork carriage width ⇔	b_3 (mm)	☎	☎	☎
	4.31	Ground clearance, laden, below mast	m_1 (mm)	130	130	130
	4.32	Ground clearance, centre of wheelbase	m_2 (mm)	165	165	165
	4.33	Aisle width for pallets 1000x1200 crossways	Ast (mm)	☎	☎	☎
	4.34	Aisle width for pallets 800x1200 crossways	Ast (mm)	☎	☎	☎
	4.35	Outer turning radius	W_a (mm)	2415	2415	2415
	4.36	Inner turning radius	b_{13} (mm)	☎	☎	☎
PERFORMANCE	5.1	Travel speed, unload	km/h	17.9	18.4	18.3
	5.2	Lift speed, laden	mm/sec	385	385	385
	5.3	Lowering speed, laden	mm/sec	500	500	500
	5.5	Drawbar pull, laden/unladen 💻	N	☎	☎	☎
	5.6	Max. drawbar pull, laden	KN	19800	19300	18700
	5.7	Gradeability, laden/unladen 💻	%	☎	☎	☎
	5.8	Max. gradeability, laden	%	22	22	21
	5.1	Service brake		Hydraulic	Hydraulic	Hydraulic
ENGINE	7.1	Engine manufacturer/type		GCT GK25	GCT GK25	GCT K25
	7.2	Engine power acc. to ISO 1585 / DIN 6271	kW	40	40	38
	7.3	Rated speed	rpm	2700	2700	2400
	7.4	Number of cylinders/displacement	cm^3	4/2065	4/2065	4/2488
OTHER	8.1	Type of drive control		Automatic	Okamura	Automatic
	8.2	Operating pressure for attachments	bar	175	175	175
	8.3	Oil volume for attachments	l/min	☎	☎	☎
	8.4	Average noise level at operator's ear (Lpaz)	dB (A)	☎	☎	☎
		Guaranteed sound power 2001/14/EC (Lwaz))	dB	☎	☎	☎
	8.5	Towing coupling, type DIN		☎	☎	☎

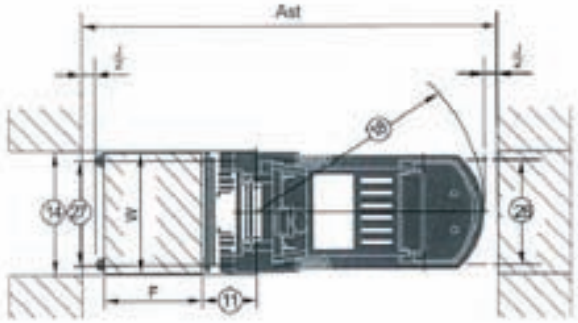
SPECIFICATION DATA ACCORDING TO VDI 2198

MAST SPECIFICATIONS

Type	Max Fork Height	Overall height						Free lift				Front Overhang		Tilt range		Capacity			
		Lowered (mm)		Extended				Without backrest (mm)		With backrest (mm)		(mm)		FWD	BWD	load capacity at 500mm			
				Without backrest (mm)		With backrest (mm)										Single tire(kg)		Dual tire(kg)	
	mm	3.0t	3.5t	3.0t	3.5t	3.0t	3.5t	3.0t	3.5t	3.0t	3.5t	3.0t	3.5t	Deg	Deg	3.0t	3.5t	3.0t	3.5t
Wide view mast	2000	1550	1665	2735	2815	3145	3145	145	145	145	145	480	465	6	12	3000	3500	3000	3500
	2500	1800	1915	3235	3315	3645	3645	145	145	145	145	480	465	6	12	3000	3500	3000	3500
	2700	1900	2015	3435	3515	3845	3845	145	145	145	145	480	465	6	12	3000	3500	3000	3500
	3000	2050	2165	3735	3815	4145	4145	145	145	145	145	480	465	6	12	3000	3500	3000	3500
	3300	2200	2315	4035	4115	4445	4445	145	145	145	145	480	465	6	12	3000	3500	3000	3500
	3500	2300	2415	4235	4315	4645	4645	145	145	145	145	480	465	6	12	3000	3500	3000	3500
	3700	2450	2565	4435	4515	4845	4845	145	145	145	145	480	465	6	12	3000	3500	3000	3500
	4000	2650	2715	4735	4815	5145	5145	145	145	145	145	480	465	6	12	3000	3450	3000	3450
	4300	2800	2865	5035	5115	5445	5445	145	145	145	145	480	465	6	6	2850	3300	3000	3300
	4500	2900	2965	5235	5315	5645	5645	145	145	145	145	480	465	6	6	2700	3150	2850	3150
	4700	3000	3065	5435	5515	5845	5845	145	145	145	145	480	465	6	6	2550	3000	2700	3000
	5000	3135	3215	5735	5815	6145	6145	145	145	145	145	480	465	6	6	2400	2850	2550	2850
	5500	3400	3465	6235	6315	6645	6645	145	145	145	145	480	465	3	6	/	/	2400	2650
	6000	3650	3715	6735	6815	7145	7145	145	145	145	145	480	465	3	6	/	/	2200	2400
Wide view full free duplex mast	2000	1620	1720	2755	2830	3145	3145	865	890	475	575	480	465	6	12	3000	3500	3000	3500
	2500	1870	1970	3255	3330	3645	3645	1115	1140	725	825	480	465	6	12	3000	3500	3000	3500
	2700	1970	2070	3455	3530	3845	3845	1215	1240	825	925	480	465	6	12	3000	3500	3000	3500
	3000	2080	2180	3755	3830	4145	4145	1325	1350	935	1035	480	465	6	12	3000	3500	3000	3500
	3300	2230	2330	4055	4130	4445	4445	1475	1500	1085	1285	480	465	6	12	3000	3500	3000	3500
	3500	2330	2430	4255	4330	4645	4645	1575	1600	1185	1385	480	465	6	12	3000	3500	3000	3500
	3700	2430	2530	4455	4530	4845	4845	1675	1700	1285	1385	480	465	6	12	3000	3500	3000	3500
	4000	2580	2680	4755	4830	5145	5145	1825	1850	1435	1535	480	465	6	12	3000	3450	3000	3450
Wide view full free triplex mast	4000	2015	212	4755	4830	5145	5145	1260	1285	870	970	495	480	6	6	2900	3350	3000	3350
	4300	2115	2215	5055	5130	5445	5445	1360	1385	970	1070	495	480	6	6	2750	3200	2900	3200
	4500	2165	2265	5305	5380	5695	5695	1410	1435	1020	1120	495	480	6	6	2600	3050	2750	3050
	4700	2215	2315	5455	5530	5895	5895	1460	1485	1070	1170	495	480	6	6	2450	2900	2600	2900
	5000	2315	2415	5755	5830	6145	6145	1560	1585	1170	1270	495	480	6	6	2300	2750	2600	2900
	5500	2515	2565	6255	6330	6645	6645	1760	1735	1370	1420	495	480	3	6	1850	2200	2400	2650
	6000	2765	2815	6805	6880	7195	7195	2010	1985	1620	1670	495	480	3	6	1400	1650	2200	2400
	6500	2915	2965	7255	7330	7645	7645	2160	2135	1770	1820	495	480	3	6	/	/	1700	1850
	7000	3065	3115	7755	7830	8145	8145	2310	2285	1920	1970	495	480	3	6	/	/	1200	1300







J = 200 mm safety clearance

AST = J + F + (11) + (13)

Notes:

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