



CLASS 2

# X SERIES NARROW AISLE REACH TRUCK



**EFFICIENT  
DURABLE  
ERGONOMICAL**



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CAPACITY 3,000 TO 4,500 LBS



# EFFICIENT TRUCKS

The 3,000-4,500 lbs electric forklift with a pantograph is suitable for operations in narrow aisles and limited spaces. Featuring a high lift, big load capacity and small turning radius, as well as advanced performance, easy operations, high safety and reliability, etc., it is an ideal tool for materials handling in warehouses, supermarkets or workshops.

## Appearance

Streamlined surface modelling, a smooth profile of the beautiful and generous truck.

## Stability

- With the battery placed at the bottom of the chassis, the truck has good stability.
- With four-pivot structure, the truck has good stability when performing a high lift.

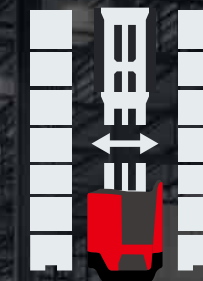


3000  
4500  
lbs

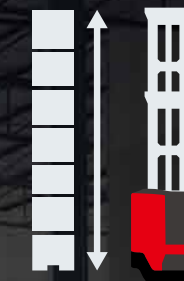
load capacities



reliability & safety



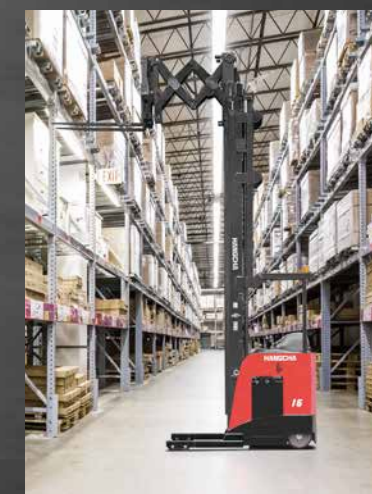
**103.2"**  
Aisle width



**421"**  
Max. Lift height

## High Efficiency

- Thanks to the small turning radius, the truck can operate in narrow aisles.
- A high-power pump motor is used. The silent gear pump (CONCENTRIC) improve the lifting and lowering speed, as well as its operating efficiency.
- With several power modes, the truck is adapted to different operating conditions.
- The brake energy regeneration system provides long working time.





## Comfort

The hanging pedal greatly improves the ride comfort and alleviates the operator's fatigue due to long-time driving.



The low pedal enable the operator to get on and off the truck more conveniently and comfortably.



The ergonomically arranged handle, backrest, instruments and switches make operations more comfortable and flexible.



A new optimized lifting system enables the operator's wider view through the mast and excellent line of sight.



The lateral removal of the battery provides easier maintenance and is applicable to continuous operating conditions.

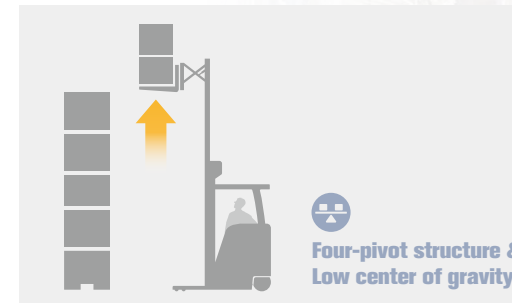
The control handle and backrest can be adjusted according to the operator's habits.

## Reliability and Safety

- The four-pivot structure, low center of gravity and high strength of the main force-bearing components of the frame are appropriate to heavy load conditions.
- The main electrical components such as the controller, contactor, power plug and emergency cut-off switch are all products of well-known brands.
- ZF transmission\ SCHABMULLER drive motor and the efficient AC power system can greatly improved reliability and service life.
- The interlocked control of the steering angle, lifting height and travelling speed enables safer operations.



The multifunction control handle's unique shape and angle design helps minimize hand movements and muscle fatigue.



The safety pedal can effectively reduce the risk from the maloperation.



The optimized design of the wide-view mast enables the operator to get a better view, and improves the operation safety.





# Maintenance

- The brushless AC motor is maintenance-free and significantly reduces the maintenance cost.
- The fully open door enables easy repair, maintenance and tuning.
- The battery removed from side of the truck enables easy repair and maintenance.
- The controller and electrical components are placed together and highly integrated.



# Advancement

- Instead of a traditional handbrake, EPB (Electric Parking Brake) is used to realize the intelligent braking.
- The high lifting and lowering speeds provides high efficiency.
- The suspension system and hanging pedals improve operating comfort.
- The integrated mechanical, electrical and hydraulic control realizes the step less speed regulation of the truck travelling and the fork movement, more precisely and stably.
- With efficient and precise adjustment performance, the newly equipped AC control system supports longer working time.

High Efficiency



The large-screen LCD display with fault self-diagnosis functions can accurately display information in harsh environments.

## Standard specification

- / AC motor and controller
- / Multi-function instrument
- / EPS ( Electric Power Steering) system
- / 198" (5.03m) wide-view triplex mast
- / Fork tilting
- / Load backrest
- / Overhead guard
- / Soft landing system
- / Safe operating system
- / Automatic decelerate speed at the corner
- / Speed automatic limit when mast high lifting
- / Damper pedal
- / Adjustable backrest and armrest
- / Battery side roll out
- / Multi-task control handle
- / Electro-hydraulic proportional valve system
- / Polyurethane tire
- / Headlights
- / Folder
- / Emergency cut-off switch
- / Electric horn
- / Static strap
- / EPB ( Electric Parking Brake)

## Options

- / Charger
- / Big capacity battery
- / Other length forks
- / Shield of mast
- / Widened or heightened load backrest
- / Sideshifter
- / Strobe light
- / Blue light
- / Rear working light
- / Cabin ceiling light
- / Overhead fan
- / Camera system
- / 12V power plug
- / Freezer
- / Fire extinguisher

## Mast Specification

	Lift	Height, mast lowered	Height, mast extended		Free lift	Load capacity @610mm/24inch			
			With backrest	Without backrest		CQD14	CQD16	CQD18	CQD20
			in(mm)	in(mm)		lb/kg	lb/kg	lb/kg	lb/kg
Triplex full free mast	198(5030)	95(2415)	239(6063)	239(6063)	53(1342)	3000(1360)	3500(1588)	4000(1814)	4500(2041)
	210(5330)	99(2515)	251(6363)	251(6363)	57(1442)	3000(1360)	3500(1588)	4000(1814)	4500(2041)
	240(6100)	107(2718)	281(7133)	281(7133)	65(1645)	3000(1360)	3500(1588)	4000(1814)	4000(1814)
	270(6860)	119(3025)	311(7893)	311(7893)	77(1952)	3000(1360)	3500(1588)	3500(1588)	3500(1588)
	299(7600)	133(3380)	340(8633)	340(8633)	91(2307)	3000(1360)	3000(1360)	3000(1360)	3000(1360)

## Mast Specification (HEAVY DUTY)

	Lift	Height, mast lowered	Height, mast extended		Free lift	Load capacity @610mm/24inch			
			With backrest	Without backrest		CQD14	CQD16	CQD18	CQD20
			in(mm)	in(mm)		lb/kg	lb/kg	lb/kg	lb/kg
Triplex full free mast	270(6860)	119(3025)	311(7893)	311(7893)	77(1952)	3000(1361)	3500(1588)	4000(1814)	4500(2041)
	299(7600)	133(3380)	340(8633)	340(8633)	91(2307)	3000(1361)	3500(1588)	3835(1750)	4000(1814)
	321(8150)	140(3560)	362(9183)	362(9183)	98(2487)	3000(1361)	3500(1588)	3748(1700)	3835(1750)
	341(8660)	149(3785)	382(9693)	382(9693)	107(2712)	3000(1361)	3500(1588)	3527(1600)	3638(1650)
	366(9300)	160(4060)	407(10333)	407(10333)	118(2987)	3000(1361)	3307(1500)	3307(1500)	3417(1550)
	400(10160)	172(4365)	441(11193)	441(11193)	130(3292)	3000(1361)	3086(1400)	3086(1400)	3197(1450)
	421(10700)	179(4545)	462(11733)	462(11733)	137(3472)	2866(1300)	2866(1300)	2866(1300)	2976(1350)

# X Series Narrow Aisle Single Reach Truck

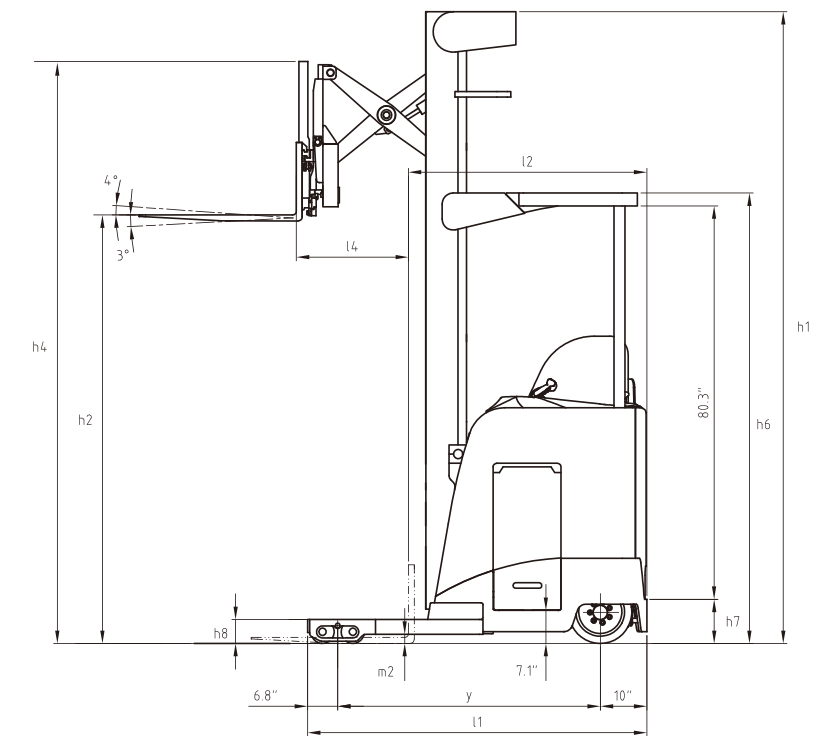
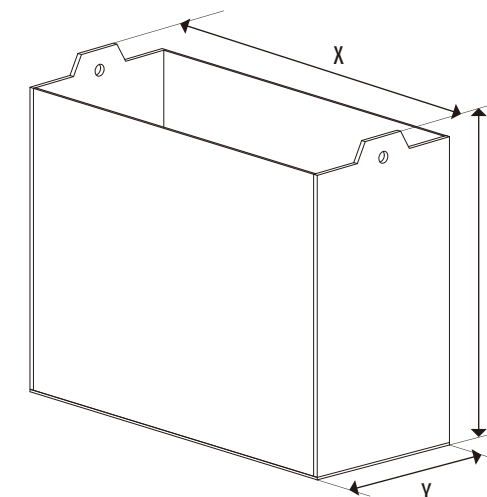
Distinguishing mark	HANGCHA GROUP CO.,LTD.				
	SR14	SR16	SR18	SR20	
1.1	Manufacturer				
1.2	HCFA Model				
1.3	Manufacturer's type designation				
1.4	Drive: electric (battery or mains), diesel, petrol, fuel gas				
1.5	Operator type: hand, pedestrian, standing, seated, order-picker				
1.6	Rated capacity/rated load				
1.7	Load centre distance				
1.8	Load distance, centre of drive axle to fork				
1.9	Wheelbase				
2.1	Service Weight, without Battery				
2.2	Axle loading, laden front/rear with assemble retracted				
2.3	Axle loading, unladen front/rear with assemble retracted				
3.1	Tyres: solid rubber, superelastic, pneumatic, polyurethane				
3.2	Wheels size, load				
3.3	Wheels size, drive				
3.4	Wheels size, caster				
4.1	Tilt of mast/fork carriage forward/backward				
4.2	Height, mast lowered				
4.3	Free lift				
4.4	Lift				
4.5	Height, mast extended				
4.7	Height of overhead guard				
4.8	Stand height				
4.10	Height of wheel arms				
4.19	Overall length				
4.20	Length to face of forks				
4.21	Overall width				
4.22	Fork dimensions, Std.				
4.23	Fork dimensions, Opt.				
4.24	Fork-carriage width				
4.25	Distance between fork-arms				
4.26	Distance between wheel arms/loading surfaces				
4.28	Reach distance				
4.31	Ground clearance, laden, below mast				
4.32	Ground clearance, centre of wheelbase				
4.34	Aisle width for pallets (clearance 7.9")				
4.35	Turning radius				
5.1	Travel speed, laden/unladen				
5.2	Lift speed, laden/unladen				
5.3	Lowering speed, laden/unladen				
5.4	Reach speed, laden/unladen				
5.7	Gradeability, laden/unladen				
	Parking brake				
6.1	Drive motor rating S2 60 min				
6.2	Lift motor rating at S3 15%				
6.4	Battery voltage, nominal capacity 14.5"				
	Battery voltage, nominal capacity 16.5"				
	Battery voltage, nominal capacity 18.5"				
	Battery voltage, nominal capacity 21.5"				
6.5	Max. battery weight				
	Min. battery weight				
	Battery Compartment Size, l/b/h				
10.7	Sound pressure level at the driver's seat				

Note: ① With min. battery

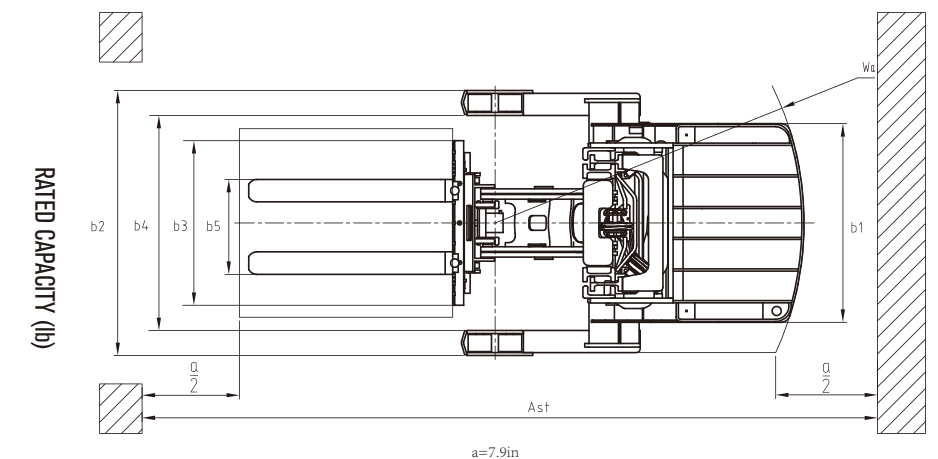
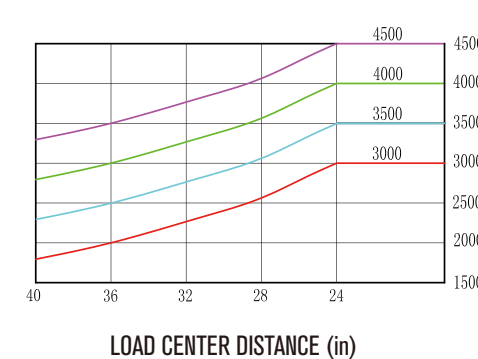
## Table 1

Battery and compartment size			14.5"	16.5"	18.5"	21.5"
6.4	Battery Voltage	V	36	36	36	36
	Battery capacity maximum 5 Hr Rate	Ah	660	770	880	1100
Battery Compartment	"X" Max.	in(mm)	38.8(985)	38.8(985)	38.8(985)	38.8(985)
	"Y" Max.	in(mm)	14.25(362)	16.25(413)	18.25(464)	21.25(540)
	"Z" Max.	in(mm)	30.7(780)	30.7(780)	30.7(780)	30.7(780)
6.5	Minimum Batt.Wt.	lb(kg)	1687(765)	1909(865)	2116(960)	2546(1155)
	Maximum Batt.Wt.	lb(kg)	1797(815)	2083(935)	2304(1045)	2789(1265)
1.9	Wheelbase	y (in\mm)	55.79(1417)	57.79(1469)	59.79(1519)	62.79(1595)
4.19	Overall length	l (in\mm)	72.7(1846)	74.7(1898)	76.7(1948)	79.7(2024)
4.20	Length to face of forks	l <sub>2</sub> (in\mm)	55(1398) ②	57(1450) ②	59(1500) ②	62(1576) ②
4.35	Turning Radius	Wa (in\mm)	65.7(1670)	67.7(1722)	69.7(1772)	72.7(1848)
4.34	Ast 40"L(1026mm) × 48"W(1220mm) clearance 7.9"	Ast in(mm)	103.23(2622) ②	105.24(2673) ②	107.24(2724) ②	109.25(2775) ②
	Ast 48"L(1220mm) × 40"W(1026mm) clearance 7.9"	Ast in(mm)	110.87(2816) ②	112.87(2867) ②	114.88(2918) ②	116.88(2969) ②
	Ast 48"L(1220mm) × 32"W(813mm) clearance 7.9"	Ast in(mm)	110.87(2816) ②	112.87(2867) ②	114.88(2918) ②	116.88(2969) ②

Note: ② Add 1" (50mm) with sideshift



### RATED CAPACITY AND LOAD DIAGRAM



## X Series Narrow Aisle Double Reach Truck

Distinguishing mark		HANGCHA GROUP CO.,LTD.				
		DR14	DR16			
1.1	Manufacturer	HANGCHA GROUP CO.,LTD.				
	HCFA Model	DR14	DR16			
1.2	Manufacturer's type designation	CQD14-XD2-JD	CQD16-XD2-JD			
1.3	Drive: electric (battery or mains), diesel, petrol, fuel gas	Electric				
1.4	Operator type: hand, pedestrian, standing, seated, order-picker	Stand up				
1.5	Rated capacity/rated load	Q (lb/kg) 3000 (1361)	3500 (1588)			
1.6	Load centre distance	c (in/mm) 24 (610)				
1.8	Load distance, centre of drive axle to fork	x (in/mm) 14.2 (360)				
1.9	Wheelbase	y (in/mm) See table 2				
Weight		2.1	Service Weight, without Battery	lb (kg) 5952(2700)	6062(2750)	
		2.2	Axle loading, laden front/rear with assemble retracted	lb (kg) 6702(3040)/4068(1845) ①	7121(3230)/3891(1765) ①	
2.3	Axle loading, unladen front/rear with assemble retracted	lb (kg) 3009(1365)/4674(2120) ①	3120(1415)/4806(2180) ①			
Tyres, chassis		3.1	Tyres: solid rubber, superelastic, pneumatic, polyurethane	Polyurethane		
		3.2	Wheels size, load	in(mm) 5×3.9(D127×99)		
		3.3	Wheels size, drive	in(mm) 13.5×5.5(D343×135)		
		3.4	Wheels size, caster	in(mm) 7.8×2.2(D200×56)		
Dimensions		4.1	Tilt of mast/fork carriage forward/backward	α / β (°) 3/4		
		4.2	Height, mast lowered	h <sub>1</sub> (in/mm) 95(2415)		
		4.3	Free lift	h <sub>2</sub> (in/mm) 53(1342)		
		4.4	Lift	h <sub>3</sub> (in/mm) 198(5030)		
		4.5	Height, mast extended	h <sub>4</sub> (in/mm) 239(6063)		
		4.7	Height of overhead guard	h <sub>5</sub> (in/mm) 92.5(2350)		
		4.8	Stand height	h <sub>6</sub> (in/mm) 9.5(240)		
		4.10	Height of wheel arms	h <sub>7</sub> (in/mm) 5.1(130)		
		4.19	Overall length	l <sub>1</sub> (in/mm) See table 2		
		4.20	Length to face of forks	l <sub>2</sub> (in/mm) See table 2		
		4.21	Overall width	b <sub>1</sub> (in/mm) 42.5(1080)		
		4.22	Fork dimensions, Std.	s/e/l (in/mm) 1.6×4.8×42(40×122×1070)		
			Fork dimensions, Opt.	s/e/l (in/mm) 1.8×4.8×L(45×122×L),L>2000		
		4.24	Fork-carriage width	b <sub>2</sub> (in/mm) 37(942)		
		4.25	Distance between fork-arms	b <sub>3</sub> (in/mm) 7.9-29.9(200-760)		
4.26	Distance between wheel arms/loading surfaces	b <sub>4</sub> (in/mm) 34-50(864-1270) (1" increments)				
4.28	Reach distance	l <sub>3</sub> (in/mm) 42(1067)				
4.31	Ground clearance, laden, below mast	m (in/mm) 2(50)				
4.32	Ground clearance, centre of wheelbase	m <sub>2</sub> (in/mm) 2(50)				
4.34	Aisle width for pallets (clearance 7.9")	A <sub>st</sub> (in/mm) See table 2				
4.35	Turning radius	W <sub>a</sub> (in/mm) See table 2				
Performance Data		5.1	Travel speed, laden/unladen	mph 6.5/7.5		
				km/h 10.5/12		
		5.2	Lift speed, laden/unladen	fpm 78/105		
				mm/s 395/535		
		5.3	Lowering speed, laden/unladen	fpm 105/105		
				mm/s 535/535		
		5.4	Reach speed,laden/unladen	fpm 31/35		
		mm/s 160/180				
5.7	Gradeability, laden/unladen	%				
		10/12				
	Parking brake	Electromagnetic				
Electric-engine		6.1	Drive motor rating S2 60 min	hp/kW 8.6(6.4)		
		6.2	Lift motor rating at S3 15%	hp/kW 17.4(13)		
		6.4	Battery voltage, nominal capacity 14.5"	V/Ah	36/660	/
			Battery voltage, nominal capacity 16.5"	V/Ah	36/770	36/770
			Battery voltage, nominal capacity 18.5"	V/Ah	/	36/880
			Battery voltage, nominal capacity 21.5"	V/Ah	/	36/1100
		6.5	Max. battery weight	lb (kg)	See table 2	
	Min. battery weight	lb (kg)	See table 2			
	Battery Compartment Size, Vb/h	in(mm)	See table 2			
Addition data		10.7	Sound pressure level at the driver's seat	dB (A) 62		

Note: ① With min. battery

## Mast Specification

Triplex full free mast	Lift	Height, mast lowered	Height, mast extended		Free lift	Load capacity @1067mm/42inch	
			With backrest	Without backrest		CQD14	CQD16
	in(mm)	in(mm)	in(mm)	in(mm)	in(mm)	lb/kg	lb/kg
198(5030)	95(2415)	239(6063)	239(6063)	53(1342)	3000(1361)	3500(1588)	
210(5330)	99(2515)	251(6363)	251(6363)	57(1442)	3000(1361)	3330(1510)	
240(6100)	107(2718)	281(7133)	281(7133)	65(1645)	2888(1310)	3000(1360)	
270(6860)	119(3025)	311(7893)	311(7893)	77(1952)	2490(1130)	2600(1180)	
299(7600)	133(3380)	340(8633)	340(8633)	91(2307)	2116(960)	2227(1010)	

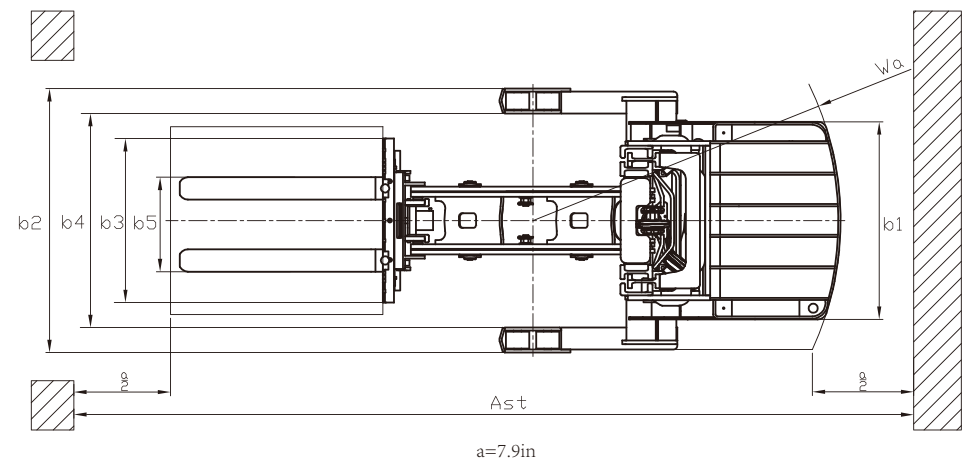
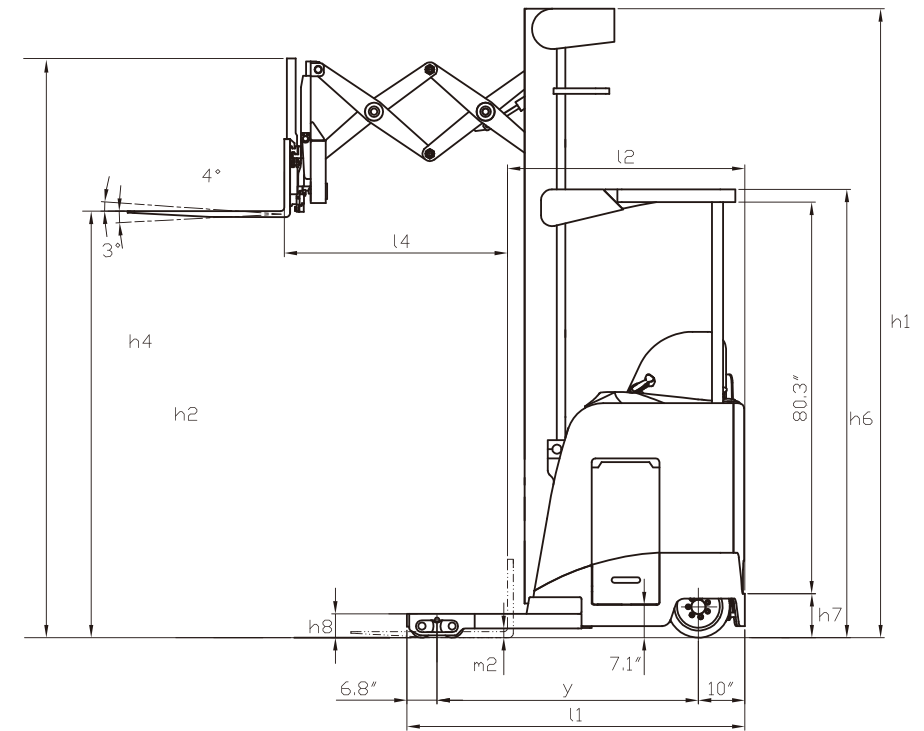
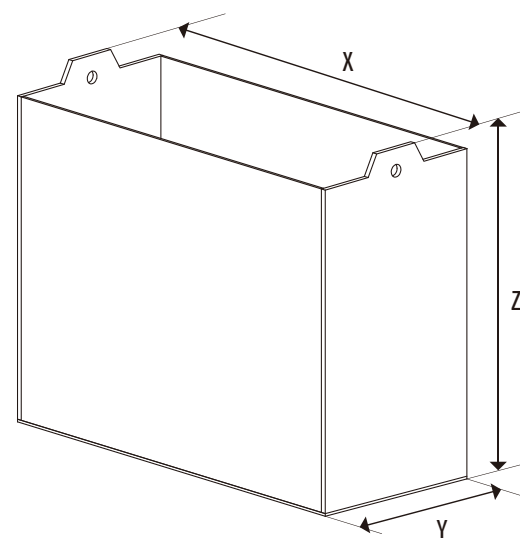
## Mast Specification (HEAVY DUTY)

Triplex full free mast	Lift	Height, mast lowered	Height, mast extended		Free lift	Load capacity @1067mm/42inch	
			With backrest	Without backrest		CQD14	CQD16
	in(mm)	in(mm)	in(mm)	in(mm)	in(mm)	lb/kg	lb/kg
270(6860)	119(3025)	311(7893)	311(7893)	77(1952)	3000(1361)	3500(1588)	
299(7600)	133(3380)	340(8633)	340(8633)	91(2307)	3000(1361)	3417(1550)	
321(8150)	140(3560)	362(9183)	362(9183)	98(2487)	3000(1361)	3307(1500)	
341(8660)	149(3785)	382(9693)	382(9693)	107(2712)	3000(1361)	3197(1450)	
366(9300)	160(4060)	407(10333)	407(10333)	118(2987)	2866(1300)	2976(1350)	
400(10160)	172(4365)	441(11193)	441(11193)	130(3282)	2646(1200)	2756(1250)	
421(10700)	179(4545)	462(11733)	462(11733)	137(3472)	2315(1050)	2425(1100)	

## Table 2

Battery and compartment size			14.5"	16.5"	18.5"	21.5"
6.4	Battery Voltage	V	36	36	36	36
	Battery capacity maximum 5 Hr Rate	Ah	660	770	880	1100
Battery Compartment	"X" Max.	in(mm)	38.8(985)	38.8(985)	38.8(985)	38.8(985)
	"Y" Max.	in(mm)	14.25(362)	16.25(413)	18.25(464)	21.25(540)
	"Z" Max.	in(mm)	30.7(780)	30.7(780)	30.7(780)	30.7(780)
6.5	Minimum Batt.Wt.	lb(kg)	1687(765)	1909(855)	2116(960)	2546(1155)
	Maximum Batt.Wt.	lb(kg)	1797(815)	2083(935)	2304(1045)	2789(1265)
1.9	Wheelbase	y (in/mm)	60.79(1544)	62.79(1596)	64.79(1646)	67.79(1722)
4.19	Overall length	l <sub>1</sub> (in/mm)	75.7(1973)	77.7(2025)	78.7(2075)	82.7(2101)
4.20	Length to face of forks	l <sub>2</sub> (in/mm)	62.6(1589) ②	64.6(1641) ②	67.6(1691) ②	67.6(1717) ②
4.35	Turning Radius	W <sub>a</sub> (in/mm)	70.7(1797)	72.7(1849)	74.7(1899)	77.7(2025)
4.34	Ast 40"L(1026mm)×48"W(1220mm) clearance 7.9"	Ast in(mm)	104.8(2662) ②	106.81(2713) ②	108.82(2764) ②	110.83(2815) ②
	Ast 48"L(1220mm)×40"W(1026mm) clearance 7.9"	Ast in(mm)	112.44(2856) ②	114.45(2907) ②	116.46(2958) ②	118.46(3009) ②
	Ast 48"L(1220mm)×32"W(813mm) clearance 7.9"	Ast in(mm)	112.44(2856) ②	114.45(2907) ②	116.46(2958) ②	118.46(3009) ②

Note: ② Add 1" (50mm) with sideshift



## RATED CAPACITY AND LOAD DIAGRAM

