

HELI

**Electric Forklift
Cushion Tire**

AC

CPD25D-GA1
CPD20D-GA1
CPD25D-GA2
CPD20D-GA2



HELI ANHUI HELI CO., LTD.

DUAL-MOTOR DRIVE SYSTEM

Integrated drive unit is composed of two independent AC drive motors of 4.9kw and compact drive axle in construction, having industry leading acceleration and gradeability capabilities. With electronic differential control, the travel speed changes with the steering angle automatically.

BRAKE SYSTEM

Spring actuated parking brake, hydraulically released. When the operator leaves the truck or the drive motor does not rotate for more than 2 second, negative parking brake engages the brake. Both the service braking and the negative parking brake acted upon the oil-bathed multiple disc brake. Oil-bathed Multiple Disc Brake helpful to prolong its life and reduce the maintenance expense for it. Service and parking brake are applied to the first stage of the drive unit, which is reinforced with a double tapered roller bearing. This gives more stability to the motor shaft preventing rotor and torque oscillations.

AC TRANSISTOR CONTROL

The two drive transistor controller and a pump transistor controller control the two drive motors and the pump motor respectively. The use of innovative three-phase AC technology opens up new possibilities and provides numerous advantages for electric forklift trucks:

Excellent performance values for acceleration, travel and lift speeds allow for maximum productivity.

Less motor heat, faster radiation of heat, low energy consumption and low cost of operation;

Simple structure with no high maintenance parts like carbon-brushes and contactor, providing high reliability and low maintenance cost;

USER-FRIENDLY LCD DISPLAY

The dash display includes an hour meter, large format LCD display for status codes and description, warning lights for brake fluid, seat belt indicator, steering angle indicator, battery discharge indicator with lift interrupt, turtle and rabbit speed indicator. All the running states of the truck and trouble shooting messages can be displayed in the LCD. This display format allows the operator to receive relevant messages more easily and dramatically.

The display also permits access for service technicians to adjust performance control settings, allowing the truck to be customized to meet customer applications.

VOLTAGE

36 or 48 volt systems are available in a series of different battery compartment sizes to meet a variety of application requirements.

ACTIVE SAFETY

Excellent drive dynamics and performance also demand a high degree of safety: Curve Control automatically reduces travel speed when cornering. Smooth Rollback function ensures controlled operation on ramps and slopes. The forks can not be lifted or lowered when the unit is shutdown.

The spring applied parking brakes engages the brake automatically when the truck stopped.

Electronic and hydraulic overload protection guard. Reliable data transfer between electronic components through CAN-Bus technology.

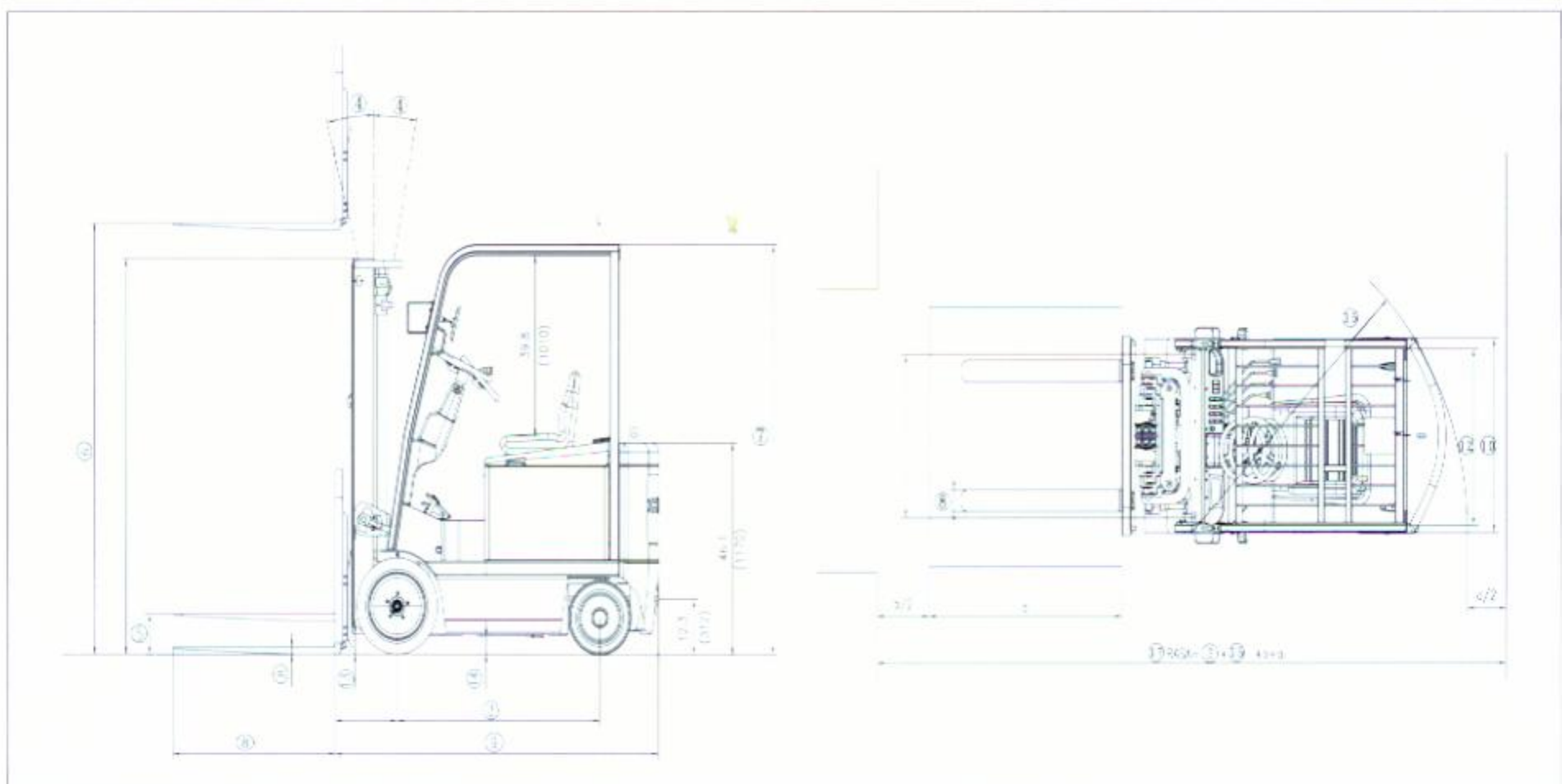
The oil filter gives an alarm when it requires service.

With the operator in the seat the truck will not start forward or rearward until the direction selector lever has been moved through neutral. This return-to-neutral feature reduces the po



Specification

1	Manufacture's Name	HELI		HELI	
		CPD20D-GA1	CPD20D-GA2	CPD25D-GA1	CPD25D-GA2
2	Model				
3	Wheelbase	in(mm)	52.7(1340)	52.7(1340)	
4	Mast Tilt Angle, forwards/backwards	deg	5 / 7	5 / 7	
5	Free Lift	in(mm)	5.5(140)	5.5(140)	
6	Standard Lift Height	in(mm)	118(3000)	118(3000)	
7	Overhead Guard Height	in(mm)	88(2240)	88(2240)	
8	Fork Size TxWxL	in(mm)	157x393x42.1(40x100x1070)	157x4.92x42.1(40x125x1070)	
9	Length to fork face	in(mm)	70.7(1796)	70.7(1796)	
10	Overall Width	in(mm)	42.0(1068)	42.0(1068)	
11	Tread(front)	in(mm)	35.0(890)	35.0(890)	
12	Tread(rear)	in(mm)	36.2(920)	36.2(920)	
13	Ground Clearance at mast, Loaded	in(mm)	3.54(90)	3.54(90)	
14	Ground Clearance at centre of wheelbase, Loaded	in(mm)	3.93(100)	3.93(100)	
15	Outside Turning Radius	in(mm)	73.0(1855)	73.0(1855)	
16	Right Stack Aisle width (Pallet size 39.4 x39.4in, clearance:7.87in)	in(mm)	136(3465)	136(3465)	
17	Right Stack Aisle width (Pallet size 47.2 x47.2in, clearance:7.87in)	in(mm)	144(3665)	144(3665)	



Manufacture's Name		HELI		HELI	
Mode		CPD20D-GA1	CPD20D-GA2	CPD25D-GA1	CPD25D-GA2
Load Capacity	lbs(kg)	4000(1814)		5000(2268)	
Load Center	in(mm)	24(610)		24(610)	
Power Type		Battery		Battery	
Operator Type		Seated		Seated	
Travel Speed,with/without Load	Voltage	36V	48V	36V	48V
	mph(km/h)	8.7/9.3(14/15)	9.3/9.9(15/16)	8.4/9.0(13.5/14.5)	8.8/9.6(14.2/15.5)
Lifting Speed,with/without Load	ft/min(m/s)	59/89(0.30/0.45)	78/102(0.40/0.52)	53/89(0.27/0.45)	71/102(0.36/0.52)
Lowering Speed	ft/min(m/s)	59/118(0.30/0.60)		59/118(0.30/0.60)	
Gradient Performance with Load	%	15		15	
Max. Draw Bar Pull with Load	kN	16.2		16.2	
Total Approximate Weight(W/Obattery)	lbs(kg)	7040(3200)		7370(3350)	
Axle Loading*: Unloaded,Front/Rear	lbs(kg)	4556/5568(2070/2530)		4575/5940(2080/2700)	
Axle Loading*: Loaded,Front/Rear	lbs(kg)	11930/2298(5420/1044)		13180/2420(5990/1100)	
Tire Type		CUSHION		CUSHION	
Tires Number(Front/Rear)		2/2		2/2	
Front Tire Size		21x7x15		21x7x15	
Rear Tire Size		16.25x6x11.25		16.25x6x11.25	
Battery Voltage/rated capacity(6h)	V/Ah	36/1320	48/990	36/1320	48/990
Battery Weight	lbs(kg)	2860-3080(1300-1400)		2860-3080(1300-1400)	
Compartment for Battery Size	in(mm)	38.97x30.71x24.41(990x780x620)		38.97x30.71x24.41(990x780x620)	
Drive Motor-60Min.Rating	hp.(kW)	2x6.6(2x4.9)		2x6.6(2x4.9)	
Pump Motor-15Min.Rating	hp.(kW)	16.8(12.6)		16.8(12.6)	
Drive Motor Control Method		Transistor		Transistor	
Pump Motor Control Method		Transistor		Transistor	
Service Brake		Hydraulic		Hydraulic	
Parking Brake		Hydraulic(NEG)		Hydraulic(NEG)	
Relief Pressure	MPa	21		21	

*Based on triplex mast with maximum battery weight.

HELI **FORK LIFT TRUCK**

WIDE VIEW MAST

Max. lift height	Capacity at 24in load center. (Lbs (kg))		Height with mast lowered	Tilting Angle
	in(mm)	CPD20D-GA		
78(2000)	4000(1814)	5000(2268)	67(1705)	5/7
80(2040)	4000(1814)	5000(2268)	59(1500))	6/8 or 10/5
98(2500)	4000(1814)	5000(2268)	77(1955)	5/7
118(3000)	4000(1814)	5000(2268)	86.8(2205)	5/7
130(3300)	4000(1814)	5000(2268)	92.7(2355)	5/7
137(3500)	4000(1814)	5000(2268)	96.6(2455)	5/7
145(3700)	4000(1814)	5000(2268)	100.6(2555)	5/7
157(4000)	4000(1814)	5000(2268)	108.5(2755)	5/7
167(4250)	4000(1814)	5000(2268)	113.4(2880)	5/7
177(4500)	4000(1814)	5000(2268)	118.3(3005)	5/7
196(5000)	3850(1750)	4360(1980)	128(3255)	5/7
216(5500)	2750(1250)	3060(1390)	140(3555)	3/5
236(6000)	1710(780)	2050(930)	150(3805)	3/5

WIDE VIEW FULL FREE 3-STAGE MAST

Max. lift height	Capacity at 24in load center. (Lbs (kg))		Height with mast lowered	Free lift	Tilting Angle
	in(mm)	CPD20D-GA			
142(3600)	4000(1814)	5000(2268)	72.2(1835)	31.5(802)	3/5
157(4000)	4000(1814)	5000(2268)	77.2(1960)	36.5(929)	3/5
171(4350)	4000(1814)	5000(2268)	82.1(2085)	41.4(1052)	3/5
177(4500)	4000(1814)	4950(2250)	84.1(2135)	43.4(1102)	3/5
185(4700)	4000(1814)	4800(2180)	86.6(2200)	45.9(1167)	3/5
189(4800)	4000(1814)	4710(2140)	88.0(2235)	47.3(1202)	3/5
196(5000)	3740(1700)	4290(1950)	91.9(2335)	51.2(1302)	3/5
212(5400)	2750(1250)	3080(1400)	96.8(2460)	56.2(1427)	3/5
236(6000)	1650(750)	1980(900)	105.7(2685)	65.0(1652)	3/5

Notice: Load capacity is fit for mast equipping the Integral side shifter.
Details of specifications and equipment are based on information available at the time of printing and may be changed without notice.



EXTERIORITY PATENT
 No.01334387.4
 No.01334745.4

Standard Equipment

- Drive unit includes Gearbox, AC-motor and oil-cooled disc brake.
- CURTIS or ZAPI Mosfet electronic travel controllers and lifting controller
- Engage IV/ Smart display
- DC-DC converter
- AC pump motor
- 118" STD 2-Stage mast
- Load backrest
- Carriage
- 42" Standard forks
- Warning lights (Flicker)
- Standard tilt cylinder 5 fwd/ 7 back)
- 2-Section Control Valve
- Cushion tires
- Head lights
- High-mounted rear combination lights (back up,brake, turn signal)
- Front lights, turn signal
- Side view mirror

Optional Equipment

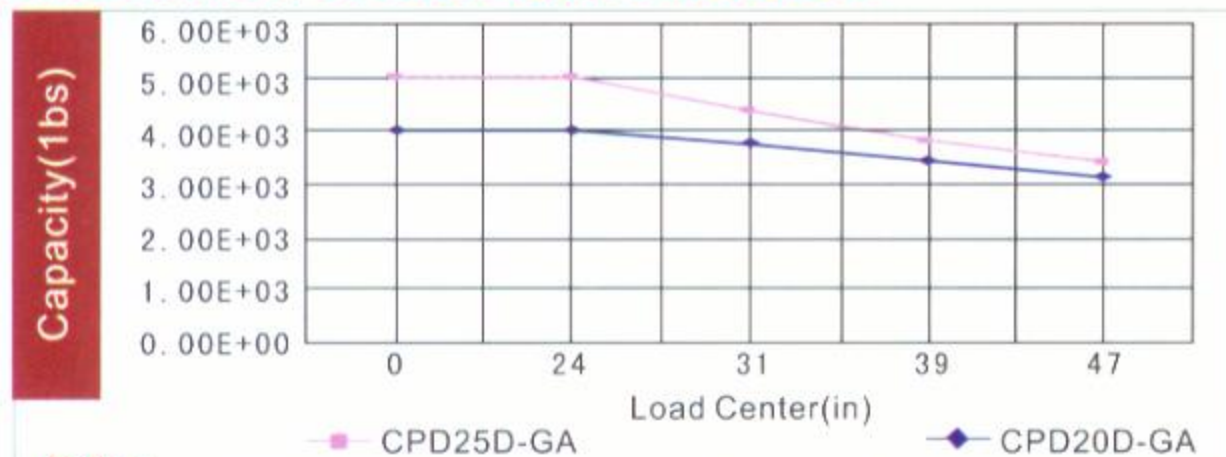
- 10° /5° (forward/rear) tilt for special mast
- 6° /8° (forward/rear) tilt for special mast
- Full free 3-stage mast
- Integral side shifter
- Cascade Hang-on side shifter
- Nonstandard forks in length
- Other attachments
- Warning lights (Buzzer)
- 48 volts
- Rear work light
- Various type tires
- DC-DC for display

Battery and Compartment Specifications

Model		Compartment size WDxLGxHT(in)	Batory Specifications			
			Size(Max.) DimX DimY DimZ (in)			Electrial Volts Plates Capacity(Ah)
CPD20-25D-GA	Std	38.97x30.71x24.41	38.70x30.23x24.29	36	25	1320
				48	19	990
CPD20-25D-GA	Opt	38.97x30.71x24.41	38.70x27.20x24.29	36	23	1210
				48	17	880

36-volt battery uses Anderson SB-350 Gray connector with manual release, lead position "B"-30" long.
 48-volt battery uses Anderson SB-350 Blue connector with manual release, lead position "B"-30" long.
 The minimum weight of the battery is about 2860-3080 lbs. Smaller batteries require capacity reduction.

Load Curve of CPD20D-GA,CPD25D-GA



Notice:

Vertical axle stands for load capacity while horizontal axle stands for load center. Loadcenter is the distance counted from the front of the fork. The base point of the standardload is the center point of the cubic with the same 47.24in dimension in length, widthand height. The load capacity should be down, if mask tilts forward, using non-standardforks or loading goods with extra width. Please notice the different load capacitybetween different load centers according to load chart.

