

HELI

9000-11000 lbs (4-5 t)

G3 series Internal Combustion
Counterbalanced Forklift Truck



NEW GENERATION SUPERIOR QUALITY

www.heliforkliftamerica.com

9000-11000 lbs (4-5 t)

A design model of perfect combination of aesthetics and functional design

new generation of products with intelligent, safe, high efficient and energy saving and environmental friendly characteristics

More reliable

- > The truck is assembled with dual guide-wheel transmission box which offers large ratio (more than 5) and thus truck acceleration and gradeability are improved largely.
- > Donaldson air cleaner ensures enough clean air for engine.
- > Operation safety is largely improved with maintenance-free wet type drive axle and normally closed parking brake.
- > Smart instrument monitors truck status overall and thus the truck is safe and reliable.
- > Enlarged aluminum fin-type radiator improves cooling performance.

Safer

- > The counter weight without tail structure reduces truck center of gravity and improves lateral stability.
- > Integral type welded overhead guard with high strength improves operation safety.
- > Auxiliary control system of parking improves the safety and service life of parking brake.
- > OPS system improves operation safety.
- > Safe starting on neutral and anti restarting of engine improves operation safety.
- > Automatic alarm when over speed (optional)

More comfortable

- > Synchronized steering of steering wheel and tyres reduces operation fatigue.
- > With thumb switch, driving fatigue is reduced.(optional)
- > Switch type electronic parking brake is easy for operation.
- > Lowering of tilting cylinder enlarges leg space.
- > Suspension seat, backward handle with horn and wide view mast improve driving experience.
- > Buffering structure of drive axle improves driving comfort.
- > Optimized design of counter weight improves backward view.

More energy saving

- > Variable pump with load sensing system makes the truck more energy saving. (optional)
- > Optimized design of hydraulic system effectively reduces truck fuel consumption.
- > LED lights make truck more energy saving.



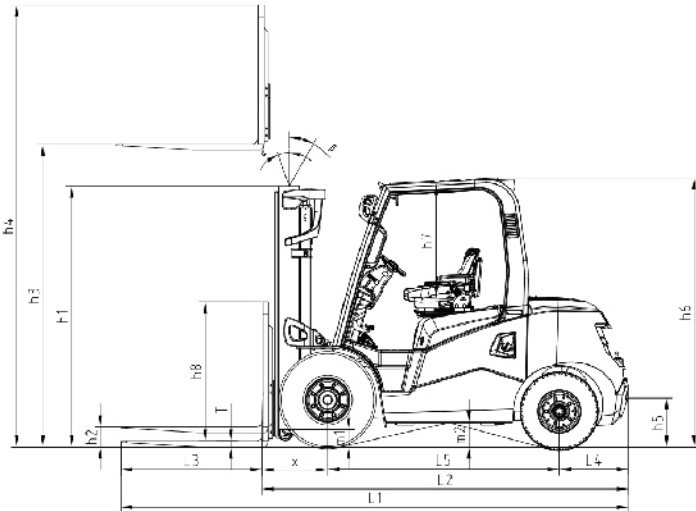
Easier maintenance

- > 80° opening angle of hood makes maintenance easier.
- > Removable wind gathering cover and filter screen make maintenance easy.

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Manufacturer and technical parameters										
Characteristics										
1.01	Manufacturer			HELI						
1.02	Model			CP(Q)YD40/CPCD40		CP(Q)YD45/CPCD45		CP(Q)YD50/CPCD50		
1.03	Load center	in.	mm	24(20)	600(500)	24(20)	600(500)	24(20)	600(500)	
1.04	Rated capacity	lbs	kg	9000(10000)	4000(4500)	10000(11000)	4500(5000)	11000(12000)	5000(5500)	
1.05	Power type			Gas/LPG/Diesel						
1.06	Driving mode			Sit-on type						
Dimensions										
2.01	Max.fork lifting height(With backrest)	h4	in. mm	166.7	4235	166.7	4235	173	4395	
2.02	Max.lifting height	h3	in. mm	118	3000	118	3000	118	3000	
2.03	Mast overall height (Fork to the ground and mast be vertical)	h1	in. mm	88.6	2250	88.6	2250	88.6	2250	
2.04	Backrest height (Calculated from the surface of the fork)	h8	in. mm	47.6	1210	47.6	1210	54.9	1395	
2.05	Free lift height	h2	in. mm	5.9	150	5.9	150	5.9	150	
2.06	Fork thickness	T	in. mm	2	50	2	50	2.2	55	
2.07	Fork length	L3	in. mm	48	1220	48	1220	48	1220	
2.08	Fork width	W	in. mm	5.9	150	5.9	150	5.9	150	
2.09	Min.ground clearance(At the mast)	m1	in. mm	5.9	150	5.9	150	5.9	150	
2.10	Overall length(With fork)	L1	in. mm	171	4340	171	4385	171	4455	
2.11	Overall length(Without fork)	L2	in. mm	123	3120	123	3165	123	3235	
2.12	Front overhang	X	in. mm	22.2	565	22.2	565	22.4	570	
2.13	Wheel base	L5	in. mm	78.7	2000	78.7	2000	78.7	2000	
2.14	Rear overhang	L4	in. mm	21.8	555	23.6	600	26	660	
2.15	Traction pin height	h5	in. mm	16.5	420	16.5	420	16.5	420	
2.16	Distance from the surface of the seat to the overhead guard	h7	in. mm	40	1020	40	1020	40	1020	
2.17	Overall height(Overhead guard)	h6	in. mm	91.3	2320	91.3	2320	91.3	2320	
2.18	Overall width	B	in. mm	60.6	1450	60.6	1450	60.6	1450	
2.19	Fork adjustable range (the external of the fork)	S	in. mm	11.8~54	300/1374	11.8~54	300/1374	11.8~54	300/1374	
2.20	Front tread	R	in. mm	45.3	1150	45.3	1150	45.3	1150	
2.21	Rear tread	P	in. mm	46.8	1190	46.8	1190	46.8	1190	
2.22	Turning radius(Interior)	V	in. mm	9.8	250	9.8	250	9.8	250	
2.23	Min.turning radius	Wa	in. mm	111.6	2835	113.4	2880	115.7	2940	
2.24	Min.right angle aisle width	Ra	in. mm	106.9	2715	108.7	2760	111	2820	
2.25	Mast tilting angle	α/β	deg.	6°~12°		6°~ 12°		6°~12°		
Weight										
3.01	Total weight	lbs	kg	14224	6452	14951	6782	16296	7392	
Wheel and tyre										
4.01	Wheel number x = drive wheel (Front/Rear)			2X/2						
4.02	Tyre type(Front/Rear)			Pneumatic tyre						
4.03	Tyre size(Front/Rear)			2-300-15-18PR / 2-7.00-12-14PR						
4.04	Wheels load (loaded)front/rear			20128/3042		21650/3351		23942/3505		
4.05	Wheels load (unloaded) front/rear			6173/8180		5952/9128		6481/9943		
4.06	Service brake			Hydraulic assisted-pedal type-wet type brake						
4.07	Parking brake			Electronic rocker switch-wet type brake						

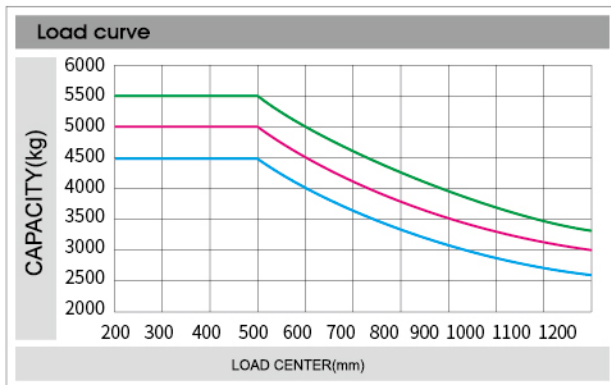
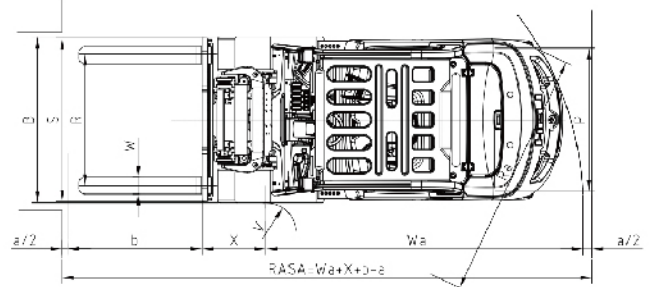
9000-11000 lbs (4-5 t)



RASA: Right-Angle Stack Asile

a: Clearance

b: Length of Loading



CPCD40

CPCD45

CPCD50

NOTE:

Vertical axle stands for load capacity while horizontal axle stands for load center. Load center is the distance counted from the front of the fork. The base point of the standard load is the center point of the cubic with the same 1200mm dimension in length, width and height. The load capacity should be down, if mask tilts forward, using non-standard forks or loading goods with extra width. Please notice the different load capacity between different load centers according to load chart.

Engine Model and Main Specification for Option 1

Performance

Model			CPCD40-CU9G3		CPCD45-CU9G3		CPCD50-CU9G3	
Lifting speed (loaded/unloaded)	fpm	mm/s	104/110	530/560	98/102	500/520	98/102	500/520
Lowering speed (loaded/unloaded)	fpm	mm/s	98/102	500/520	98/102	500/520	98/102	500/520
Max. Operation speed (loaded/unloaded)	mph	km/h	14.3/15.5	23/25	14.3/15.5	23/25	14.3/15.5	23/25
Max. Gradeability (loaded/unloaded)		%	46/28		41/28		36/28	
Max. Drawbar (loaded)		N	43000					

Drive and transmission devices

Battery voltage/capacity	v/kWh	V/Ah	2×12/1.92	2×12/80	2×12/1.92	2×12/80	2×12/1.92	2×12/80
Engine model			Cummins QSF3.8 diesel engine					
Engine rated power	HP/rpm	kW/rpm	74/2200	55.4/2200	74/2200	55.4/2200	74/2200	55.4/2200
Engine rated torque	(lb-ft)/rpm	Nm/rpm	295/1300	400/1300	295/1300	400/1300	295/1300	400/1300
Engine cylinder number			4					
Engine displacement	cu.in.	L	229	3.8	229	3.8	229	3.8
Capacity of engine fuel tank	gal	L	26.4	100	26.4	100	26.4	100
Transmission gears (front/rear)			1-1Power Shift					

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Engine Model and Main Specification for Option 2

Performance								
Model			CPQYD40-KUTG3		CPQYD45-KUTG3		CPQYD50-KUTG3	
Lifting speed (loaded/unloaded)	fpm	mm/s	107.4/114	545/575	107.4/114	545/575	107.4/114	545/575
Lowering speed (loaded/unloaded)	fpm	mm/s	94.2/75.6	480/383	94.2/75.6	480/383	94.2/75.6	480/383
Max. Operation speed (loaded/unloaded)	mph	km/h	15.9/16.5	25.6/26.5	15.9/16.5	25.6/26.5	15.9/16.5	25.6/26.5
Max. Gradeability (loaded/unloaded)		%	46/28		38/28		38/28	
Max. Drawbar(loaded)		N	8880/5171	39.5/23	8880/5171	39.5/23	8880/5171	39.5/23
Drive and transmission devices								
Battery voltage/capacity	v/kwh	v/Ah	12/1.92	12/80	12/1.92	12/80	12/1.92	12/80
Engine model			Kubota WG3800 Certificated engine					
Engine rated power	HP/rpm	kW/rpm	GAS:73.2/2400 LPG:73.2/2400	GAS:54.6/2400 LPG:54.6/2400	GAS:73.2/2400 LPG:73.2/2400	GAS:54.6/2400 LPG:54.6/2400	GAS:73.2/2400 LPG:73.2/2400	GAS:54.6/2400 LPG:54.6/2400
Engine rated torque	(lb-ft)/rpm	Nm/rpm	GAS:182/1400 LPG:200.1/1400	GAS:246.8/1400 LPG:271.4/1400	GAS:182/1400 LPG:200.1/1400	GAS:246.8/1400 LPG:271.4/1400	GAS:182/1400 LPG:200.1/1400	GAS:246.8/1400 LPG:271.4/1400
Engine cylinder number			4					
Engine displacement	cu.in.	L	230	3.769	230	3.769	230	3.769
Capacity of engine fuel tank	gal	L	26.4	100	26.4	100	26.4	100
Transmission gears (front/rear)			1-1Power Shift					

Engine Model and Main Specification for Option 3

Performance								
Model			CPYD40		CPYD45		CPYD50	
Lifting speed (loaded/unloaded)	fpm	mm/s	107.4/114	545/575	107.4/114	545/575	1107.4/114	545/575
Lowering speed (loaded/unloaded)	fpm	mm/s	94.2/75.6	480/383	94.2/75.6	480/383	94.2/75.6	480/383
Max. Operation speed (loaded/unloaded)	mph	km/h	15.9/16.5	25.6/26.5	15.9/16.5	25.6/26.5	15.9/16.5	25.6/26.5
Max. Gradeability (loaded/unloaded)		%	38/28		38/28		38/28	
Max. Drawbar(loaded)		N	8880/5171	39.5/23	8880/5171	39.5/23	8880/5171	39.5/23
Drive and transmission devices								
Battery voltage/capacity	v/kwh	v/Ah	12/1.92	12/80	12/1.92	12/80	12/1.92	12/80
Engine model			Kubota WG3800 Certificated engine					
Engine rated power	HP/rpm	kW/rpm	LPG:84.8/2400	LPG:63.2/2400	LPG:84.8/2400	LPG:63.2/2400	LPG:84.8/2400	LPG:63.2/2400
Engine rated torque	(lb-ft)/rpm	Nm/rpm	LPG:208.3/1200	LPG:282.4/1200	LPG:208.3/1200	LPG:282.4/1200	LPG:208.3/1200	LPG:282.4/1200
Engine cylinder number			4					
Engine displacement	cu.in.	L	230	3.769	230	3.769	230	3.769
Capacity of engine fuel tank	gal	L	26.4	100	26.4	100	26.4	100
Transmission gears (front/rear)			1-1Power Shift					

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Engine Model and Main Specification for Option 4

Performance

Model			CPCD40		CPCD45		CPCD50	
Lifting speed (loaded/unloaded)	fpm	mm/s	104/110	530/560	98/102	500/520	98/102	500/520
Lowering speed (loaded/unloaded)	fpm	mm/s	108/102	550/520	108/102	550/520	108/102	550/520
Max. Operation speed (loaded/unloaded)	mph	km/h	14.3/15.5	23/25	14.3/15.5	23/25	14.3/15.5	23/25
Max. Gradeability (loaded/unloaded)		%	46/28		41/28		36/28	
Max. Drawbar(loaded)		N	43000					

Drive and transmission devices

Battery voltage/capacity	v/kWh	v/Ah	2x12/1.92	2x12/80	2x12/1.92	2x12/80	2x12/1.92	2x12/80
Engine model			Deutz TCD 3.6 diesel engine					
Engine rated power	HP/rpm	kW/rpm	74/2200	55.4/2200	74/2200	55.4/2200	74/2200	55.4/2200
Engine rated torque	(lb-ft)/rpm	Nm/rpm	288/1300	390/1300	288/1300	390/1300	288/1300	390/1300
Engine cylinder number			4					
Engine displacement	cu.in.	L	219.7	3.6	219.7	3.6	219.7	3.6
Capacity of engine fuel tank	gal	L	26.4	100	26.4	100	26.4	100
Transmission gears (front/rear)			1/1- POWER SHIFT					

WIDE VIEW MAST

Mast model	Max. lifting height in/mm	Load capacity (load center 24in./600mm)(kg)			Mast overall height (fork to the ground) in/mm	Free lifting height in/mm	Service Weight(unload)			Mast tilting angle (°) α / β
		CPCD40	CPCD45	CPCD50			4t	4.5t	5t	
		lbs/kg	lbs/kg	lbs/kg			Kg	Kg	Kg	
M250	98/2500	9000/4000	10000/4500	11000/5000	79/2000	6/150	7402	6792	6462	6°/12°
M300	118/3000	9000/4000	10000/4500	11000/5000	89/2250	6/150	7467	6857	6527	6°/12°
M330	130/3300	9000/4000	10000/4500	11000/5000	94/2400	6/150	7502	6892	6562	6°/12°
M350	138/3500	9000/4000	10000/4500	11000/5000	98/2500	6/150	7532	6922	6592	6°/12°
M370	146/3700	9000/4000	10000/4500	11000/5000	102/2600	6/150	7557	6947	6617	6°/12°
M400	157/4000	9000/4000	10000/4500	11000/5000	110/2800	6/150	7647	7037	6707	6°/12°
M425	167/4250	9000/4000	10000/4500	11000/5000	115/2925	6/150	7677	7067	6737	6°/6°
M450	177/4500	8400/3800 *9000/4100	9500/4300 *10000/4500	10400/4700 *11000/5000	120/3050	6/150	7712	7102	6772	6°/6°
M475	187/4750	8200/3700 *9000/4000	9250/4200 *10000/4500	10000/4500 *11000/5000	125/3175	6/150	7747	7137	6807	6°/6°
M500	197/5000	7700/3500 *8200/3700	8800/4000 *9250/4200	9350/4250 *10150/4600	130/3300	6/150	7777	7167	6837	6°/6°
M550	217/5500	7050/3200 *7500/3400	7950/3600 *8800/4000	8800/4000 *9250/4200	142/3600	6/150	7887	7277	6947	6°/6°
M600	236/6000	*7050/3200	*7950/3600	*8400/3800	152/3850	6/150	7947	7337	7007	6°/6°

9000-11000 lbs (4-5 t)

WIDE VIEW FULL FREE 2-STAGE MAST

Mast model	Max. lifting height in/mm	Load capacity (load center 24in./600mm)(kg)			Mast overall height (fork to the ground) in/mm	Free lifting height(in./mm)		Service Weight(unload)			Mast tilting angle (°) α/β
		CPCD40	CPCD45	CPCD50		CPCD40/CPCD45	CPCD50	4t	4.5t	5t	
		lbs/kg	lbs/kg	lbs/kg		in/mm	in/mm	Kg	Kg	Kg	
ZM250	98/2500	9000/4000	10000/4500	11000/5000	79/2000	31/790	25/640	7402	6792	6462	6°/12°
ZM300	118/3000	9000/4000	10000/4500	11000/5000	89/2250	41/1040	35/890	7467	6857	6527	6°/12°
ZM330	130/3300	9000/4000	10000/4500	11000/5000	94/2400	47/1190	41/1040	7502	6892	6562	6°/12°
ZM350	138/3500	9000/4000	10000/4500	11000/5000	98/2500	51/1290	45/1140	7532	6922	6592	6°/12°
ZM370	146/3700	9000/4000	10000/4500	11000/5000	102/2600	55/1390	49/1240	7557	6947	6617	6°/12°
ZM400	157/4000	9000/4000	10000/4500	11000/5000	110/2800	63/1590	57/1440	7647	7037	6707	6°/12°
ZM425	167/4250	9000/4000	10000/4500	11000/5000	115/2925	68/1715	62/1565	7677	7067	6737	6°/6°
ZM450	177/4500	8400/3800 *9000/4100	9500/4300 *10000/4500	10400/4700 *11000/5000	120/3050	72/1840	67/1690	7712	7102	6772	6°/6°
ZM475	187/4750	8200/3700 *9000/4000	9250/4200 *10000/4500	10000/4500 *11000/5000	125/3175	77/1965	72/1815	7747	7137	6807	6°/6°
ZM500	197/5000	7700/3500 *8200/3700	8800/4000 *9250/4200	9350/4250 *10150/4600	130/3300	82/2090	76/1940	7777	7167	6837	6°/6°
ZM550	217/5500	7050/3200 *7500/3400	7950/3600 *8800/4000	8800/4000 *9250/4200	142/3600	94/2390	88/2240	7887	7277	6947	6°/6°
ZM600	236/6000	*7050/3200	*7950/3600	*8400/3800	152/3850	104/2640	98/2490	7947	7337	7007	6°/6°

Note: Free lift for 4-4.5t (without backrest):+290mm/11.4in.
Free lift for 5t (without backrest):+410mm/16.1in.

WIDE VIEW FULL FREE 3-STAGE MAST

Mast model	Max. lifting height in/mm	Load capacity (load center 600mm)(kg)			Mast overall height (fork to the ground) in/mm	Free lifting height(in./mm)		Service Weight(unload)			Mast tilting angle (°) α/β	
		CPCD40	CPCD45	CPCD50		CPCD40/CPCD45	CPCD50	4t	4.5t	5t		
		lbs/kg	lbs/kg	lbs/kg		in/mm	in/mm	Kg	Kg	Kg		
ZSM360	142/3600	8600/3900 *9000/4000	9600/4350 *10000/4500	10600/4800 *11000/5000	77/1950	82/2070	29/740	25/640	7662	7052	6722	6°/6°
ZSM400	157/4000	8600/3900 *9000/4000	9600/4350 *10000/4500	10600/4800 *11000/5000	82/2090	87/2210	35/880	31/780	7707	7097	6767	6°/6°
ZSM435	171/4350	8600/3900 *9000/4000	9600/4350 *10000/4500	10600/4800 *11000/5000	87/2200	91/2320	39/990	35/890	7747	7137	6807	6°/6°
ZSM450	177/4500	8600/3900 *9000/4000	9600/4350 *10000/4500	10600/4800 *11000/5000	89/2250	93/2370	41/1040	37/940	7762	7152	6822	6°/6°
ZSM470	185/4700	8600/3900 *9000/4000	8800/4000 *9250/4200	10000/4500 *10600/4800	93/2365	96/2435	45/1155	40/1005	7787	7177	6847	6°/6°
ZSM500	197/5000	7400/3350 *7700/3500	8400/3800 *8800/4000	9250/4200 *10000/4500	98/2500	101/2570	51/1290	45/1140	7832	7222	6892	6°/6°
ZSM540	213/5400	7150/3250 *7500/3400	7500/3400 *8200/3700	8400/3800 *9250/4200	104/2635	107/2705	56/1425	50/1275	7937	7327	6997	6°/6°
ZSM600	236/6000	*7050/3200	*7500/3400	*8400/3800	113/2870	116/2940	65/1660	59/1510	8017	7407	7077	6°/6°

Note: Free lift for 4-4.5t (without backrest):+290mm/11.4in.
Free lift for 5t (without backrest):+410mm/16.1in.

Reliable special designed instrument



1. Colorful LCD display screen with high resolution; adjustable backlight brightness;
2. CAN bus meter to read the fault code directly;
3. Front and rear protection degree: IP 66;
4. Working temperature: -30°C~+75°C; temperature for storage: -40°C~+85°C;
5. Multi-level programmable menu;
6. More than 20 alarm indicators and 6 simulation indicators can monitor engine and trucks at the same time to protect operator and truck safety;
7. Alarm according to different grade: there are two alarm grade: the indicator will flicker for the first grade alarm and the buzzer will sound up for the second grade alarm;
8. Chinese and English are optional;
9. Point check;
10. Identity recognition;
11. GPS (optional) .

	engine coolant temperature
	fuel level
	temperature of torque converter oil
	Pressure of torque converter oil
	LPG pressure

	charging indication
	block of air cleaner
	hand brake
	seat switch
	neutral indicator
	safety belt switch
	low brake pressure
	engine alarm
	engine warning

	left turning
	right turning
	start waiting
	engine stop
	alarm of low fuel
	alarm of engine oil pressure
	preheating indication
	hourmeter

	oil and water separator
	high temperature of exhaust
	DPF cleaning
	forcible no generation of DPF
	low level of DEF
	fault of fingertip control

Optional

warning light
cab
dual tyre of front wheel
solid tyre (optional)
thread
synchronized steering system
coarse filter
rear lamp
protection sleeve

full suspension seat
heater
travelling OPS
fire extinguisher
over speed alarm
automatic weight system, overload alarm
rear view system
truck networking
start with card
start with password

HELI AMERICA INC

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* Details of specifications and equipment are based on information available at time of printing and may change without notice.