

**HELI**  
LIFTING THE FUTURE

**9000-11000 lbs (4-5 t)**

**G3 series Internal Combustion  
Counterbalanced Forklift Truck**



**NEW GENERATION SUPERIOR QUALITY**



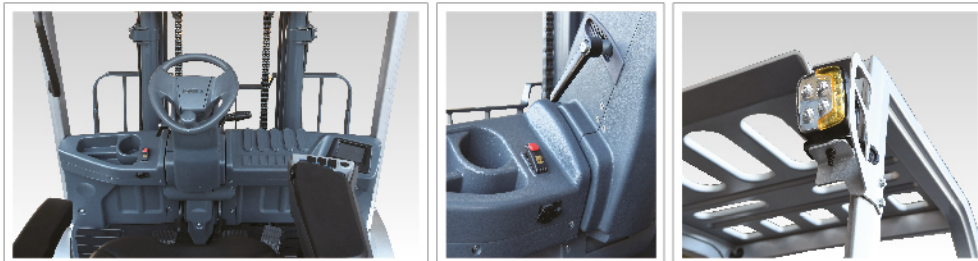
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# 9000-11000 lbs (4-5 t)

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 and the total efficiency reaches to 99.8%.
- 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)





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## 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.

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## 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.

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## Easier maintenance

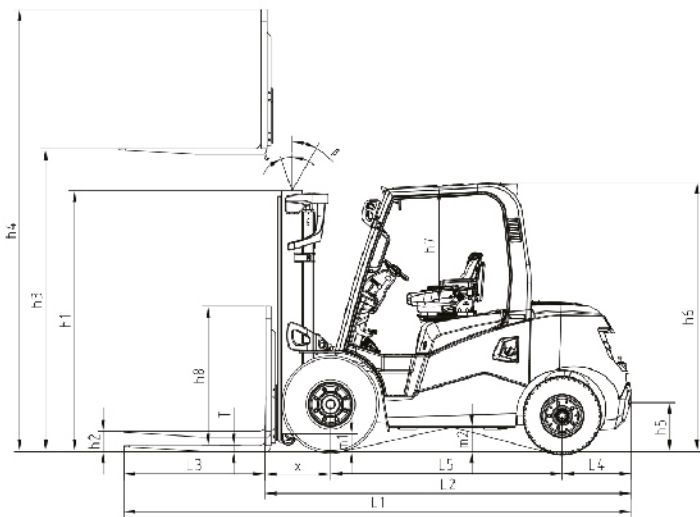
- > 80° opening angle of hood makes maintenance easier.
- > Removable wind gathering cover and filter screen make maintenance easy.



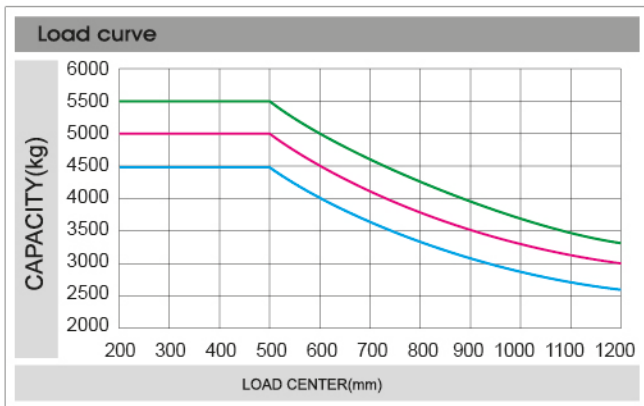
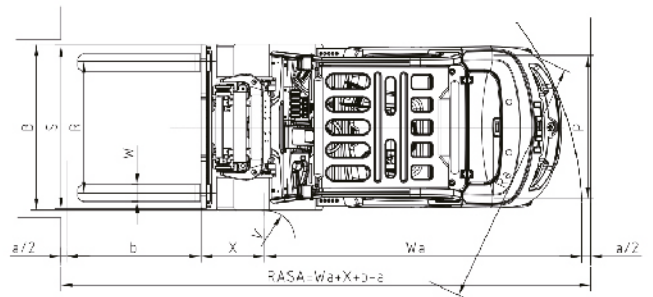
# 9000-11000 lbs (4-5 t)

## Manufacturer and technical parameters

Characteristics										
1.01	Manufacturer				<b>HELI</b>					
1.02	Model				CPCD40/CP(Q)YD40	CPCD45/CP(Q)YD45	CPCD50/CP(Q)YD50			
1.03	Load center		in.	mm		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				Diesel/(Dual/LPG)					
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	m1	in.	mm	48	1220	48	1220	48	1220
2.08	Fork width	L1	in.	mm	5.9	150	5.9	150	5.9	150
2.09	Min.groung clearance(At the mast)	L2	in.	mm	5.9	150	5.9	150	5.9	150
2.10	Overall length(With fork)	L3	in.	mm	171	4340	171	4385	171	4455
2.11	Overall length(Without fork)	X	in.	mm	123	3120	123	3165	123	3235
2.12	Front overhang	L5	in.	mm	22.2	565	22.2	565	22.4	570
2.13	Wheel base	L4	in.	mm	78.7	2000	78.7	2000	78.7	2000
2.14	Rear overhang	h5	in.	mm	21.8	555	23.6	600	26	660
2.15	Traction pin height	h7	in.	mm	16.5	420	16.5	420	16.5	420
2.16	Distance from the surface of the seat to the overhead guard	h6	in.	mm	40	1020	40	1020	40	1020
2.17	Overall height(Overhead guard)	B	in.	mm	91.3	2320	91.3	2320	91.3	2320
2.18	Overall width	R	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	P	in.	mm	45.3	1150	45.3	1150	45.3	1150
2.21	Rear tread	W	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	$\alpha / \beta$		deg.	6° ~ 12°		6° ~ 12°		6° ~ 12°	
Weight										
3.01	Total weight		lbs	kg	14352	6510	15080	6840	16424	7450
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					



RASA: Right-Angle Stack Asile  
 a: Clearance  
 b: Length of Loading



CPCD40/CP(Q)YD40 CPCD45/CP(Q)YD40 CPCD50/CP(Q)YD40

**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 mast 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.

**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)	mast tilting angle (°) α/β
		CPCD40/CP(Q)YD40 lbs/kg	CPCD45/CP(Q)YD45 lbs/kg	CPCD50/CP(Q)YD50 lbs/kg			
M250	98/2500	9000/4100	10000/4500	11000/5000	79/2000	6/150	6°/12°
M300	118/3000	9000/4100	10000/4500	11000/5000	89/2250	6/150	6°/12°
M330	130/3300	9000/4100	10000/4500	11000/5000	94/2400	6/150	6°/12°
M350	138/3500	9000/4100	10000/4500	11000/5000	98/2500	6/150	6°/12°
M370	146/3700	9000/4100	10000/4500	11000/5000	102/2600	6/150	6°/12°
M400	157/4000	9000/4100	10000/4500	11000/5000	110/2800	6/150	6°/12°
M425	167/4250	8400/3800	9500/4300	10400/4700	115/2925	6/150	6°/6°
M450	177/4500	*9000/4100	*10000/4500	*11000/5000	120/3050	6/150	6°/6°
		8200/3700	9250/4200	10000/4500			
M475	187/4750	*9000/4000	*10000/4500	*11000/5000	125/3175	6/150	6°/6°
		7700/3500	8800/4000	9350/4250			
M500	197/5000	*8200/3700	*9250/4200	*10150/4600	130/3300	6/150	6°/6°
		7050/3200	7950/3600	8800/4000			
M550	217/5500	*7500/3400	*8800/4000	*9250/4200	142/3600	6/150	3°/6°
		*7050/3200	*7950/3600	*8400/3800			
M600	236/6000	*6400/2900	*7050/3200	*7950/3600	152/3850	6/150	3°/6°

Performance														
Model			CPCD40		CPCD45		CPCD50		CP(Q)YD40		CP(Q)YD45		CP(Q)YD50	
Lifting speed (loaded/unloaded)	fpm	mm/s	104/110	530/560	98/102	500/520	98/102	500/520	108/115	550/585	104/108	530/551	104/108	530/551
lowering speed (loaded/unloaded)	fpm	mm/s			108/102	550/520					108/102	550/520		
max. Operation speed (loaded/unloaded)	mph	km/h			14.3/15.5	23/25					15.5/16.1	25/26		
max. Gradeability (loaded/unloaded)		%	46/28		41/28		36/28		44/25		39/25		34/25	
max. Drawbar(loaded)		N			43000						38000			
drive and transmission devices														
Battery voltage/capacity	V/kWh	V/Ah			2x12/1.92	2x12/80					12/1.92	12/80		
Engine model					Deutz TCD 3.6 diesel engine				PSI 4.3L Dual/LPG (Certified)					
Engine rated power	HP/rpm	kW/rpm			74/2200	55.4/2200			LPG:103.18/2300 GAS:101.84/2300		LPG:77/2300 GAS:76/2300			
Engine rated torque	(lb-ft)/rpm	Nm/rpm			288/1300	390/1300			LPG:245.80/1400 GAS:234.83/2300		LPG:332.85/1400 GAS:318/2300			
Engine cylinder number					4						6			
Engine displacement	cu.in.	L			219.7	3.6					262.4	4.3		
Capacity of engine fuel tank	gal	L			26.4	100					26.4	100		
Transmission gears (front/rear)					1/1-POWER SHIFT				1/1-POWER SHIFT					

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)		mast tilting angle (°) α/β
		CPCD40/CP(Q)YD40	CPCD45/CP(Q)YD45	CPCD50/CP(Q)YD50		CPCD40/CP(Q)YD40 CPCD45/CP(Q)YD45	CPCD50/CP(Q)YD50	
ZM250	98/2500	9000/4100	10000/4500	11000/5000	79/2000	31/790	25/640	6°/12°
ZM300	118/3000	9000/4100	10000/4500	11000/5000	89/2250	41/1040	35/890	6°/12°
ZM330	130/3300	9000/4100	10000/4500	11000/5000	94/2400	47/1190	41/1040	6°/12°
ZM350	138/3500	9000/4100	10000/4500	11000/5000	98/2500	51/1290	45/1140	6°/12°
ZM370	146/3700	9000/4100	10000/4500	11000/5000	102/2600	55/1390	49/1240	6°/12°
ZM400	157/4000	9000/4100	10000/4500	11000/5000	110/2800	63/1590	57/1440	6°/12°
ZM425	167/4250	8400/3800 *9000/4100	9500/4300 *10000/4500	10400/4700 *11000/5000	115/2925	68/1715	62/1565	6°/6°
ZM450	177/4500	8200/3700 *9000/4100	9250/4200 *10000/4500	10000/4500 *11000/5000	120/3050	72/1840	67/1690	6°/6°
ZM475	187/4750	7700/3500 *8200/3700	8800/4000 *9250/4200	9350/4250 *10150/4600	125/3175	77/1965	72/1815	6°/6°
ZM500	197/5000	7050/3200 *7500/3400	7950/3600 *8800/4000	8800/4000 *9250/4200	130/3300	82/2090	76/1940	6°/6°
ZM550	217/5500	*7050/3200	*7950/3600	*8400/3800	142/3600	94/2390	88/2240	3°/6°
ZM600	236/6000	*6400/2900	*7050/3200	*7950/3600	152/3850	104/2640	98/2490	3°/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)		mast tilting angle (°) α/β	
		CPCD40/CP(Q)YD40	CPCD45/CP(Q)YD45	CPCD50/CP(Q)YD50	CPCD40/CP(Q)YD40 CPCD45/CP(Q)YD45	CPCD50/CP(Q)YD50	CPCD40/CP(Q)YD40 CPCD45/CP(Q)YD45	CPCD50/CP(Q)YD50		
		lbs/kg	lbs/kg	lbs/kg						
ZSM360	142/3600	8400/3800 *8800/4000	9600/4350 *10000/4500	10600/4800 *11000/5000	77/1950	79/2000	29/740	25/640	6°/6°	
ZSM400	157/4000	8400/3800 *8800/4000	9600/4350 *10000/4500	10600/4800 *11000/5000	82/2090	84/2140	35/880	31/780	6°/6°	
ZSM435	171/4350	7700/3500 *8200/3700	9000/4100 *9500/4300	9700/4400 *10600/4800	87/2200	89/2250	39/990	35/890	6°/6°	
ZSM450	177/4500	7400/3350 *7700/3500	8800/4000 *9250/4200	9500/4300 *10150/4600	89/2250	91/2300	41/1040	37/940	6°/6°	
ZSM470	185/4700	7150/3250 *7500/3400	8400/3800 *8800/4000	8950/4050 *9250/4200	93/2365	93/2365	45/1155	40/1005	6°/6°	
ZSM500	197/5000	6700/3050 *7050/3200	7500/3400 *8200/3700	8400/3800 *8800/4000	98/2500	98/2500	51/1290	45/1140	6°/6°	
ZSM540	213/5400	6050/2750 *6600/3000	6600/3000 *7500/3400	7700/3500 *7950/3600	104/2635	104/2635	56/1425	50/1275	3°/6°	
ZSM600	236/6000	*5500/2500	*6600/3000	*7500/3400	113/2870	113/2870	65/1660	59/1510	3°/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  
buffer of mast accumulator  
dual tyre of front wheel  
solid tyre (optional)  
thread  
synchronized steering system  
high exhaust  
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



**THUBAS TUNGGAL PERKASA**  
Make it Better | Your Solutions | Customer Is Our Goal

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