

**G3** Intelligent · Safe · High efficient  
Energy saving and environmental friendly



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		left turning		oil and water separator
	fuel level		right turning		high temperature of exhaust
	temperature of torque converter oil		start waiting		DPF cleaning
	Pressure of torque converter oil		engine stop		forcible no generation of DPF
	LPG pressure		alarm of low fuel		low level of DEF
	charging indication		alarm of engine oil pressure		fault of fingertip control
	block of air cleaner		preheating indication		
	hand brake		hourmeter		
	seat switch				
	neutral indicator				
	safety belt switch				
	low brake pressure				
	engine alarm				
	engine warning				

**Optional**

warning light  
cab  
buffer of mast accumulator  
two stage free lift mast and three stage free lift mast  
dual tyre of front wheel  
solid tyre (optional)  
thread  
synchronized steering system  
high exhaust  
coarse filter  
rear lamp  
protection sleeve

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



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AUTHORIZED DEALER

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

**4-5 t G3 series**  
Internal Combustion  
Counterbalanced Forklift Truck



NEW GENERATION SUPERIOR QUALITY



# 4-5 t G3 series Internal Combustion Counterbalanced Forklift Truck

**G3** | Intelligent · Safe · High efficient  
Energy saving and environmental friendly

## 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)



### More energy saving

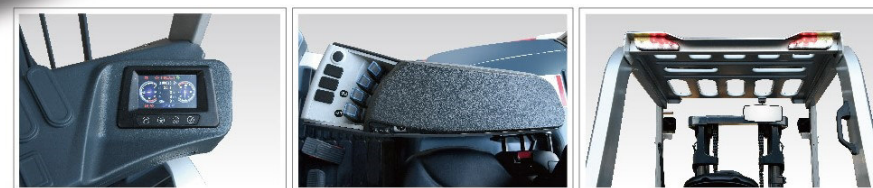
- > Variable pump with load sensing system makes the truck more energy saving. (optional)
- > Optimized design of hydraulic system effectively reduces truck fuel consumption.
- > LED lights make truck more energy saving.

### 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.

### Easier maintenance

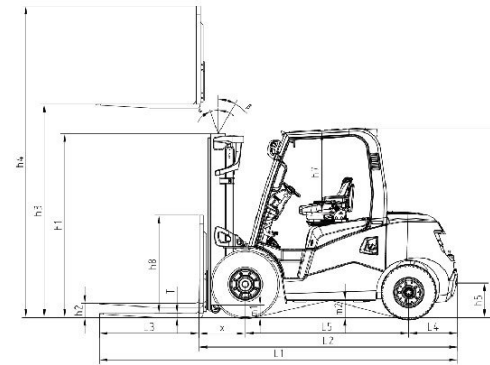
- > 80° opening angle of hood makes maintenance easier.
- > Removable wind gathering cover and filter screen make maintenance easy.



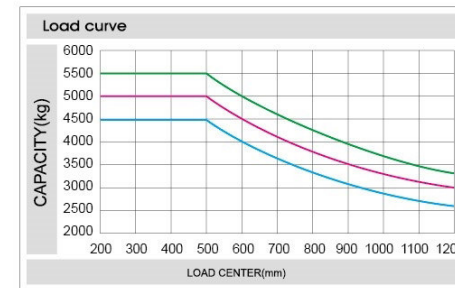
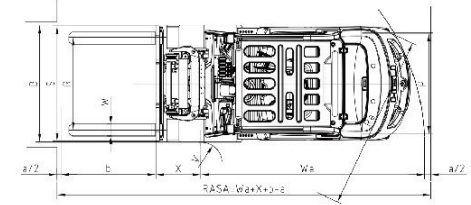
# 4-5t G3 Series Internal Combustion Counterbalanced Forklift Truck

## Manufacturer and technical parameters

Characteristics		HELI		
1.01	Manufacturer	HELI		
1.02	Model	CPCD 40	CPCD 45	CPCD 50
1.03	Load center	mm	600(500)	
1.04	Rated capacity	kg	4000(4500)	5000(5500)
1.05	Power type	Diesel		
1.06	Driving mode	Sit-on type		
Dimensions				
2.01	Max.fork lifting height(With backrest)	h4 mm	4235	4395
2.02	Max.lifting height	h3 mm	3000	3000
2.03	Mast overall height (Fork to the ground and mast be vertical)	h1 mm	2250	2250
2.04	Backrest height (Calculated from the surface of the fork)	h8 mm	1210	1395
2.05	Free lift height	h2 mm	150	150
2.06	Fork thickness	T mm	50	55
2.07	Fork length	m1 mm	1220	1220
2.08	Fork width	L1 mm	150	150
2.09	Min.groung clearance(At the mast)	L2 mm	150	150
2.10	Overall length(With fork)	L3 mm	4340	4455
2.11	Overall length(Without fork)	X mm	3120	3235
2.12	Front overhang	L5 mm	565	570
2.13	Wheel base	L4 mm	2000	2000
2.14	Rear overhang	h5 mm	555	660
2.15	Traction pin height	h7 mm	420	420
2.16	Distance from the surface of the seat to the overhead guard	h6 mm	1020	1020
2.17	Overall height(Overhead guard)	B mm	2320	2320
2.18	Overall width	R mm	1450	1450
2.19	Fork adjustable range(the external of the fork)	S mm	300/1374	300/1374
2.20	Front tread	P mm	1150	1150
2.21	Rear tread	W mm	1190	1190
2.22	Turning radius(Interior)	V mm	250	250
2.23	Min.turning radius	Wa mm	2835	2940
2.24	Min.right angle aisle width	Ra mm	2715	2820
2.25	Mast tilting angle	$\alpha / \beta$ deg.	6° -12°	6° -12°
Weight				
3.01	Total weight	kg	6510	6840
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	9130/1380	9820/1520	10860/1590
4.05	Wheels load (unloaded) front/rear	2800/3710	2700/4140	2940/4510
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 Aisle  
a: Clearance  
b: Length of Loading



CPCD 40 CPCD 45 CPCD 50

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 (mm)	load capacity (load center 600mm)(kg)			mast overall height (fork to the ground) (mm)	free lifting height (mm)	mast tilting angle (°) $\alpha / \beta$
		4t	4.5t	5t			
M250	2500	4000	4500	5000	2000	150	6°/12°
M300	3000	4000	4500	5000	2250	150	6°/12°
M330	3300	4000	4500	5000	2400	150	6°/12°
M350	3500	4000	4500	5000	2500	150	6°/12°
M370	3700	4000	4500	5000	2600	150	6°/12°
M400	4000	4000	4500	5000	2800	150	6°/12°
M425	4250	*3800 *4000*	*4300 *4500*	*4700 *5000*	2925	150	6°/6°
M450	4500	*3700 *4000*	*4200 *4500*	*4500 *5000*	3050	150	6°/6°
M475	4750	*3500 *3700*	*4000 *4200*	*4250 *4600*	3175	150	6°/6°
M500	5000	*3200 *3400*	*3600 *4000*	*4000 *4200*	3300	150	6°/6°
M550	5500	*3200	*3600	*3800	3600	150	3°/6°
M600	6000	*2900	*3200	*3600	3850	150	3°/6°



Performance				
Model		CPCD40	CPCD45	CPCD50
Lifting speed (loaded/unloaded)	mm/s	530/560	500/520	500/520
lowering speed (loaded/unloaded)	mm/s		550/520	
max. Operation speed (loaded/unloaded)	km/h		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/Ah		2x12/80	
Engine model			Deutz TCD 3.6 diesel engine	
Engine rated power	kW/rpm		55.4/2200	
Engine rated torque	Nm/rpm		390/1300	
Engine cylinder number			4	
Engine displacement	L		3.6	
Capacity of engine fuel tank	L		100	
Transmission gears (front/rear)			1/1-POWER SHIFT	

WIDE VIEW FULL FREE 2-STAGE MAST									
mast model	Max. lifting height (mm)	load capacity (load center 600mm)(kg)			mast overall height (fork to the ground)(mm)	free lifting height (mm)		mast tilting angle (°) α / β	
		4t	4.5t	5t		4t/4.5t	5t		
ZM250	2500	4000	4500	5000	2000	790	640	6°/12°	
ZM300	3000	4000	4500	5000	2250	1040	890	6°/12°	
ZM330	3300	4000	4500	5000	2400	1190	1040	6°/12°	
ZM350	3500	4000	4500	5000	2500	1290	1140	6°/12°	
ZM370	3700	4000	4500	5000	2600	1390	1240	6°/12°	
ZM400	4000	4000	4500	5000	2800	1590	1440	6°/12°	
ZM425	4250	*3800 *4000*	*4300 *4500*	*4700 *5000*	2925	1715	1565	6°/6°	
ZM450	4500	*3700 *4000*	*4200 *4500*	*4500 *5000*	3050	1840	1690	6°/6°	
ZM475	4750	*3500 *3700*	*4000 *4200*	*4250 *4600*	3175	1965	1815	6°/6°	
ZM500	5000	*3200 *3400*	*3600 *4000*	*4000 *4200*	3300	2090	1940	6°/6°	
ZM550	5500	*3200	*3600	*3800	3600	2390	2240	3°/6°	
ZM600	6000	*2900	*3200	*3600	3850	2640	2490	3°/6°	

Note: Free lift for 4-4.5t (without backrest):+290mm;  
Free lift for 5t (without backrest):+410mm

WIDE VIEW FULL FREE 3-STAGE MAST									
mast model	Max. lifting height (mm)	load capacity (load center 600mm)(kg)			mast overall height (fork to the ground)(mm)		free lifting height (mm)		mast tilting angle (°) α / β
		4t	4.5t	5t	4t/4.5t	5t	4t/4.5t	5t	
ZSM360	3600	*3800 *4000*	*4350 *4500*	*4800 *5000*	1950	2000	740	640	6°/6°
ZSM400	4000	*3800 *4000*	*4350 *4500*	*4800 *5000*	2090	2140	880	780	6°/6°
ZSM435	4350	*3500 *3800*	*4100 *4300*	*4400 *4800*	2200	2250	990	890	6°/6°
ZSM450	4500	*3350 *3500*	*4000 *4200*	*4300 *4600*	2250	2300	1040	940	6°/6°
ZSM470	4700	*3250 *3400*	*3800 *4000*	*4050 *4200*	2365	2365	1155	1005	6°/6°
ZSM500	5000	*3050 *3200*	*3400 *3700*	*3800 *4000*	2500	2500	1290	1140	6°/6°
ZSM540	5400	*2750 *3000*	*3000 *3400*	*3500 *3600*	2635	2635	1425	1275	3°/6°
ZSM600	6000	*2500	*3000	*3400	2870	2870	1660	1510	3°/6°

Note: Free lift for 4-4.5t (without backrest):+290mm;  
Free lift for 5t (without backrest):+410mm