

HELI
LIFTING THE FUTURE

CPCD 120-160

G series

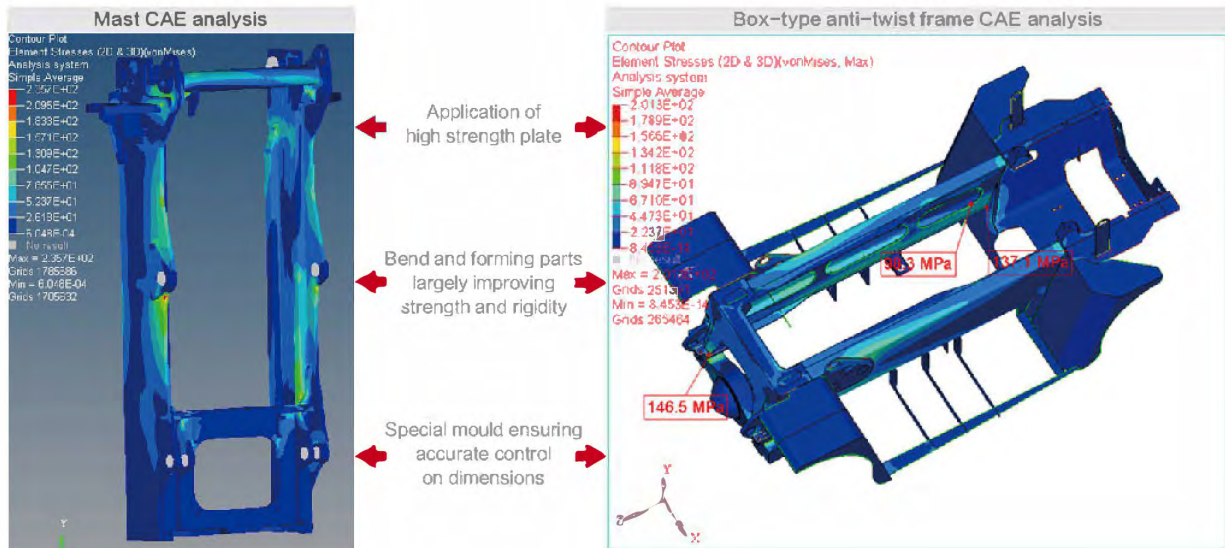
Balance Weight Type Forklift



heliforklift.ca

A. Enduring and durable

A.1 Durable structure design



A.2 Easy and high efficient daily inspection

► Cab electric tilting system

Automatic tilting system facilitates interior maintenance; Hydraulic drives tilting cylinder with electric assistance making cab tilt 60° right ward which makes maintenance easy.

► Engine hood with large opening angle

Open type engine hood which can be open through two self-lock spring ensures easy and high efficient maintenance.



► Easy liquid adding and check

Cooling liquid adding and check, fuel adding, level check, oil-water separator replacement, engine oil adding and check and hydraulic oil level check become easier.



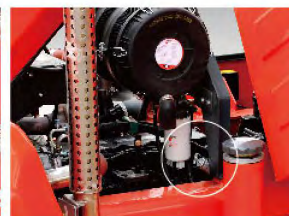
• Easy cooling liquid adding and check



• Easy fuel adding and check



• Easy hydraulic oil level and quality (hydraulic oil level gauge)



• Easy oil-water separator replacement and maintenance
• Easy engine oil adding and check

A3 Improved protection performance

- Oil cylinder protection sleeve
- Electric tilting button with high dust-proof and water-proof degree
- Improved harness protection degree
- Dust-proof and water-proof plug and sockets
- Dust-proof vent
- High strength aluminum plate fin type radiator
- Improved fuel pipe safety degree



- Oil cylinder protection sleeve(optional): it is used to protect cylinder damaged from foreign matters



- Electric tilting button with high dust-proof and water-proof degree: protecting degree:IP67



- Front axle dust proof vent



- Transmission box dust proof vent



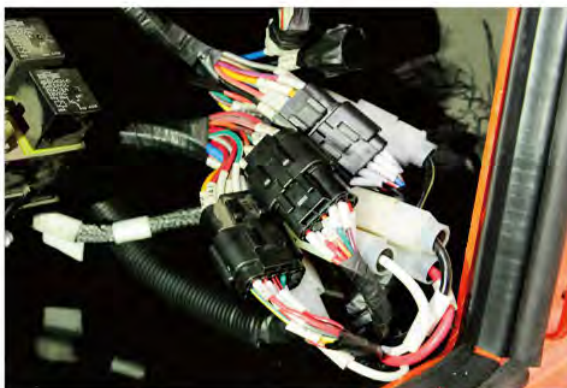
- high strength fin type structure will not deform or crack easily.
Exterior injection molding treatment---anti-corrosion and oxidation resistance.



Dust-proof sleeve for electric cabinet



Molding steel pipe is used for oil suction pipe improving safety degree largely.



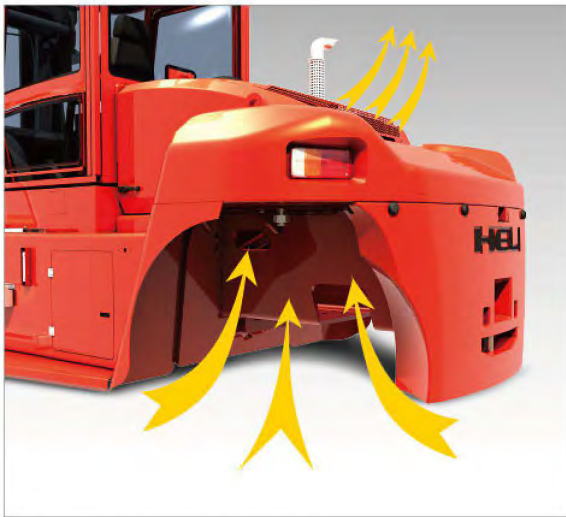
Dust proof and water proof sockets and plugs: protection degree IP65



Harness meets German standard and its temperature resistance ability is largely improved (-40℃-105℃) .

A4 Improved cooling efficiency

- Optimal designed channel
- Reasonable layout of radiator's fins
- Optimal designed fan



- **Optimal designed channel**
Optimal designed radiator and channel makes cooling system has small resistance, avoid air flowing back effectively and improves cooling efficiency.
- **Optimal designed fan**
Axial fan with multiple blade, enough blast capacity and pressure and consume power is special for G series based on a large number of comparative tests.



B. Energy saving and environment friendly

B.1 high efficient matching, forceful power

► Cummins QSB6.7 engine

Six cylinder four stroke turbocharged engine which is powerful, reliable, economic and meets Tier IV for final regulation is assembled on the truck.



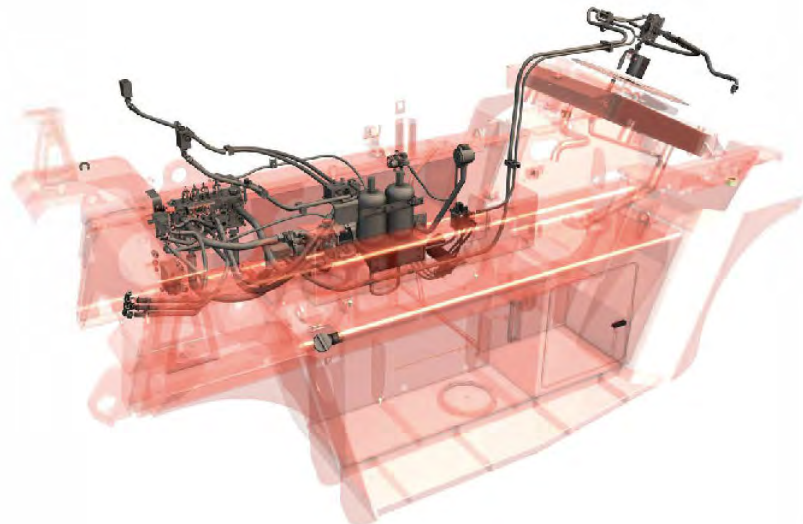
► ZF transmission box

Smooth gear shifting without shock.
Intelligent gear shifting mode is easier.
High efficient power match is more energy saving.



B.2 Hydraulic dynamic load variable control system

- It can adjust oil pump displacement automatically according to operator habit and load condition to achieve high precision flow control and energy saving.



B.3 Intelligent sensitive thermal management system

- Four in one compound radiator effectively integrates resource and saves space.
- Real time thermal managing system monitors cooling medium temperature curve of the completed truck and fan multilevel speed changing is achieved.
- The truck is heated quickly in winter and in summer, the system power consumption is more reasonable.
- The system saves 10% of the energy and consumption in low temperature area is 15% reduced.
- Better matching design; multilevel fan speed; outstanding noise reducing effect.



Intelligent sensitive thermal management system

- Electric control system
Real time thermal managing system monitors cooling medium temperature curve of the completed truck to control fan speed.
- Hydraulic system
Fan is powered by separated power which is different from traditional direct connection fan to achieve fan multilevel speed changing.
- Cooling system
Four in one compound radiator, optimized air channel and fan the air duct and the fan.

B.4 Light type design

- ▶ Rear counter weight has no air channel and counter weight use ratio is 5% increased and thus truck service weight is reduced.
- ▶ Light type design optimizes structure and the truck is lighter and more stable.



- Counter weight no air channel design
Special cooling system layout and temperature control system are adopted on G series truck. rear counter weight has no air channel and counter weight use ratio is increased and thus truck service weight is reduced.



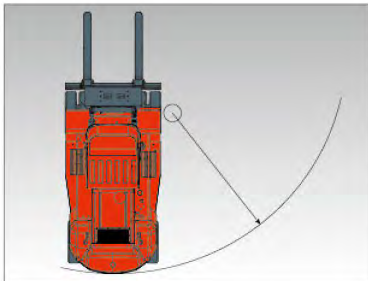
- Light type design
 - Application of high strength material.
 - Years of data accumulation and accurate CAE analysis.
 - Constant structure optimization.

C. Comfort and convenient



C.1 Easy get on-off

- Large getting on off pedal and handrail
Open type steps make easy and safe get on-off.
- Anti-skid pedal
Anti-skid aluminous pedal has good anti-skid performance.
- Auxiliary handrail
Solid and durable



C.2 Smaller turning radius

- Smaller turning radius
Compact frame design
Optimized steering angle



C.3 Mast lower buffering

- Mast lower buffering
Reduce the shock when lowering

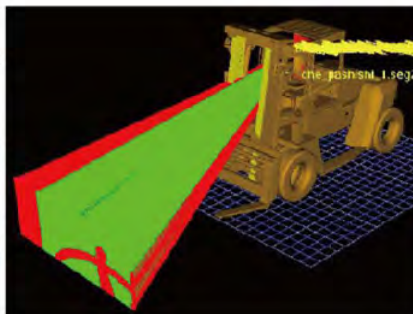


C.4 Superior view

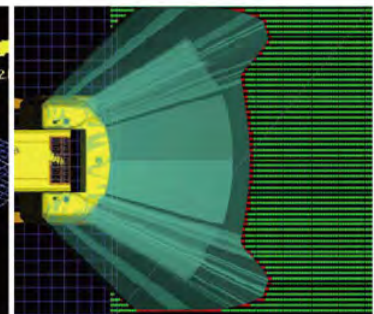
- **Superior front view**
Front glass with large arc is used and front view field angle is 10° increased.
- **Superior top view**
Large glass is used on the top of cab.
- **Superior rear view**
1200mmx900mm glass is used at the rear end of cab.
- **Glass for left and right side window**
4 pieces of glass is used on left and right door to ensure 360° view.
- **Professional ergonomics view analysis**



- **Rear vision system (optional)**
truck real time rear view can be displayed when backward.



- **Front view check**

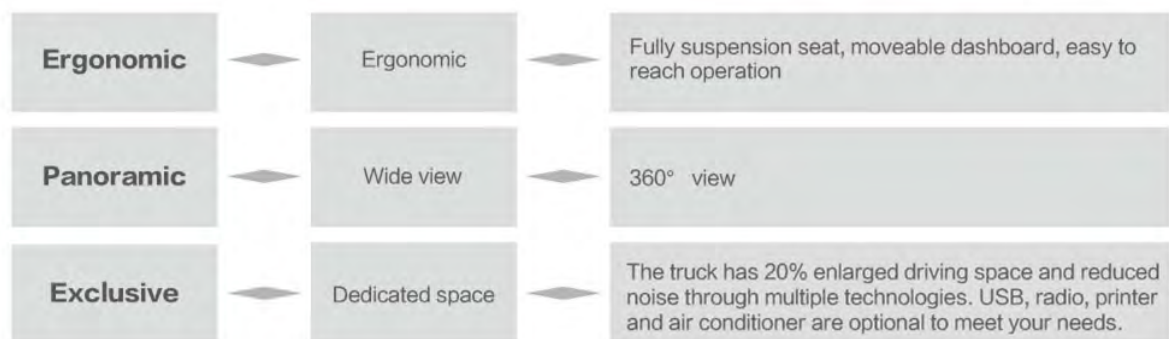


- **Rear view check**



C.5 More comfort driving experience

special cab with 360° view





- **Moveable dashboard**
Most reasonable relative position is set between dashboard and seat SIP point through optimized ergonomic and multiple test. Dashboard and seat can be moved together to meet different driving needs.



- **Weighting system(optional)**
Weight can be measured accurately through checking hydraulic pressure.



- **Backward radar(optional)**
Monitor is achieved through reasonable distributed 6 points. Larger monitoring range



- **Fully suspension seat**
Adjustable damping shock reducing design not only bears your weight but also provides steady driving experience.



- **Adjustable steering wheel**
Steering wheel can be adjusted according to operator habit and easy and flexible steering largely reduces your work.



- **Pedal optimized layout**
Optimized pedal reduces fatigue during long time working.



- **Temperature control system through multiple channel**
Fully sealed cab controls temperature in the cab high efficiently and multiple channels cross ventilation keep the temperature in the cab stable. winter.



- **Flexible control knob**
Accurate, safe and effective control can be achieved through small operation force.

D. Safe and high efficient



D.1 Better stability

- **Smaller front overhang**
More compact mast structure
- **Retroposition of center of gravity**
 - Retroposition of power system
 - Retroposition of cooling system
 - No air channel on the balance weight

D.2 OPS (optional)

- OPS for the whole truck (optional)
Truck power will be cut automatically and the truck can not be operated when operator is away from seat.

- OPS system for mast (optional)
The mast is locked and can not be operated when operator is away from seat.



D.3 Wet type drive axle



- **Maintenance free**
Specially designed structure and brake principle provides anti-dust and anti-water function and saves your
- maintenance cost.
Safe and reliable brake
Working requirements such as Long time, high duty, short distance or frequent brake can be satisfied.

D.4 high efficient working



- **High efficient operation**
 - Hydraulic pilot long distance control provide high operation accuracy and quick response.
 - Integrated dashboard makes operation easy.
 - Reasonable ergonomics layout provides you human-machine friendly operating experience.

- High efficient performance

Faster working speed

Better gradeability

Forceful power output provides truck better acceleration performance and gradeability.

Mast lifting and lowering speed is 5% increased.



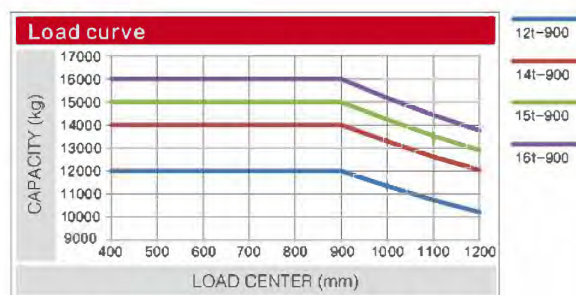
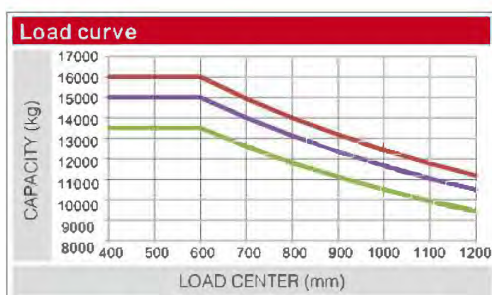
E. Technical parameters

Technical parameters

Q1	Model	Unit	CPCD120-CZ-09IVG	CPCD135-CZ-06IVG	CPCD150-CZ-06IVG
Q2	Rated load	t	12	13.5	15
Q3	Themass	kg	17800	17800	18400
Q4	Maximum lifting speed (loaded/unloaded)	mm/s	360/400	360/400	350/400
Q5	Maximum speed (loaded/unloaded)	km/h	25/27	25/27	26/28
Q6	Climbing ability (loaded/unloaded)	%	36.4%/40%	36.4%/40%	36.4%/40%
Q7	The cab noise	dB(A)	≤73.8	≤73.8	≤73.8

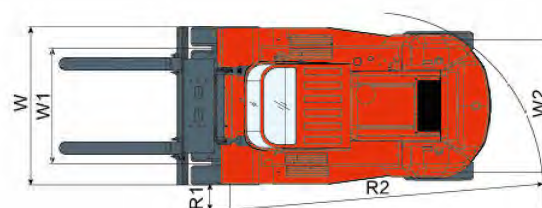
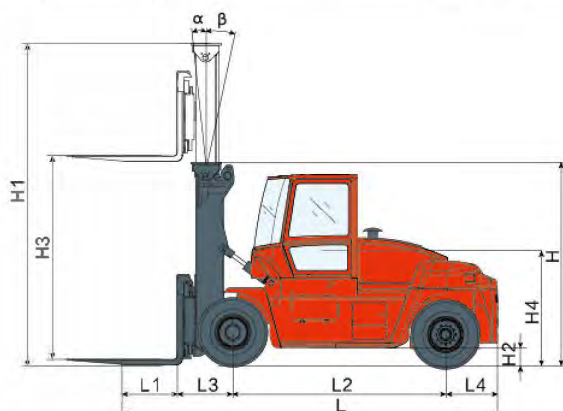
Size parameters

Q1	Model	Unit	CPCD120-CZ-09IIIG	CPCD135-CZ-06IIIG	CPCD150-CZ-06IIIG
Q2	L The total length		6705	6255	6265
Q3	W The total width	mm	2560	2560	2560
Q4	H Total height	mm	3365	3365	3380
Q5	L1 Load center distance	mm	900	600	600
Q6	L2 The wheelbase	mm	3250	3250	3250
Q7	L3 Before hanging from	mm	785	785	795
Q8	L4 Suspension from	mm	850	850	850
Q9	H2 The minimum clearance from the ground	mm	260	260	250
Q10	H4 Seat height	mm	1970	1970	1985
Q11	R1 The turning radius	mm	220	220	220
Q12	R2 The turning radius	mm	4450	4450	4500
Q13	W1 Before the wheel track	mm	1888	1888	1888
Q14	W2 After the wheel track	mm	2120	2120	2120
Q15	H1 The door frame height (contraction/out)	mm	3365/4865	3365/4865	3380/4880
Q16	H3 Door set up distance	mm	3000	3000	3000
Q17	Door frame Angle (forward/backward)	deg	6/12	6/12	6/12
Q18	Pallet fork size (length * width * thickness)	mm	1820 × 200 × 85	1370 × 200 × 85	1370 × 200 × 85
Q19	Goods fork adjusting range	mm	500-2370	500-2370	500-2370



01	CPCD160-CZ-06III G	CPCD140-CZ-09III G	CPCD150-CZ-09III G	CPCD160-CZ-09III G
02	16	14	15	16
03	18800	20500	21000	21500
04	350/400	370/400	370/400	370/400
05	26/28	26.2/27.3	26.2/27.3	26.2/27.3
06	36.4%/40%	36.4%/40%	36.4%/40%	36.4%/40%
07	≤73.8	≤73.8	≤73.8	≤73.8

01	CPCD160-CZ-06III G	CPCD140-CZ-09III G	CPCD150-CZ-09III G	CPCD160-CZ-09III G
02	6265	7105	7105	7105
03	2560	2560	2560	2560
04	3380	3340	3340	3340
05	600	900	900	900
06	3250	3500	3500	3500
07	795	935	935	935
08	850	850	850	850
09	250	275	275	275
10	1985	1985	1985	1985
11	220	220	220	220
12	4500	4750	4750	4750
13	1888	1895	1895	1895
14	2120	2120	2120	2120
15	3380/4880	3340/4840	3340/4840	3340/4840
16	3000	3000	3000	3000
17	6/12	6/12	6/12	6/12
18	1370×200×85	1820×200×95	1820×200×95	1820×200×95
19	500-2370	610-2150	610-2150	610-2150



F. Configurations

The vehicle configuration					
01	Truck model		CPCD120-CZ-09IVG	CPCD135-CZ-06IVG	CPCD150-CZ-06IVG
02	The Engine	Brand	CUMMINS	CUMMINS	CUMMINS
		Model	QSB6.7	QSB6.7	QSB6.7
		Rated power (kw/rpm)	116/2200	116/2200	116/2200
		Rated torque (nm/rpm)	672/1500	672/1500	672/1500
		Emission standard	T4F/StageIV	T4F/StageIV	T4F/StageIV
03	Transmission	Model	ZF131	ZF131	ZF131
04	Drive axle	Model	Meritor drive axle	Meritor drive axle	Meritor drive axle
05	Tire	Size	11.00-20	11.00-20	12.00-20
06	Auxiliary configuration	Backward radar	○	○	○
		Backward image	○	○	○
		Weighting system	○	○	○
		Ops for the whole truck	○	○	○
		Ops for mast	○	○	○
07	Hydraulic system	Consistent rate system	●	●	●
		Variable system	/	/	/
08	Air conditioner	Air conditioner	●	●	●
		Cooler	○	○	○
09	Tyre	Pneumatic tyre	●	●	●
		Solid tyre	○	○	○
		Solid tyre for front one and pneumatic tyre for rear one	○	○	○
		Pneumatic tyre for front one and solid tyre for rear one	○	○	○
10	Cab	Tilting cab	●	●	●

●-Standard ○-Optional /-/-

01	CPCD160-CZ-06IVG	CPCD140-CZ-09IVG	CPCD150-CZ-09IVG	CPCD160-CZ-09IVG
02	CUMMINS	CUMMINS	CUMMINS	CUMMINS
	QSB6.7	QSB6.7	QSB6.7	QSB6.7
	116/2200	145/2300	145/2300	145/2300
	672/1500	800/1500	800/1500	800/1500
	T4F/StagelV	T4F/StagelV	T4F/StagelV	T4F/StagelV
03	ZF131	ZF171	ZF171	ZF171
04	Meritor drive axle	Kessler	Kessler	Kessler
05	12.00-20	12.00-20	12.00-20	12.00-20
06	○	●	●	●
	○	●	●	●
	○	○	○	○
	○	○	○	○
	○	○	○	○
07	●	/	/	/
	/	●	●	●
08	●	●	●	●
	○	/	/	/
09	●	●	●	●
	○	○	○	○
	○	○	○	○
	○	○	○	○
10	●	●	●	●

- Our products are subject to the improvements and changes without notice.
- The picture in the brochure may not be the standard model of this type. The configuration and color of the product in the picture may be different from the actual machine. Please adhere to the actual machine.



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