

| Configuration | | |
|--|---|----------------------|
| Parts | | High configuration |
| Smart safety parts | Intelligent shifting transmission box | ● |
| | Wet type brake drive axle | ○ |
| | Hydraulic service brake | ● |
| | OPS | ● |
| | Self lock valve of tilting cylinder | ● |
| | FICS | ○ |
| | 9 inches cyclone air filter with dual cores (with pressure alarm) | ● |
| | Power switch | ● |
| | Oil tank with lock | ● |
| | Comfortable parts | Full suspension seat |
| Lowering buffering for rear lifting cylinder, upper buffering for front lifting cylinder | | ● |
| Adjustable steering column | | ● |
| Reversing handle with integrated horn | | ● |
| USB interface | | ● |
| Instrument identification (card swipe or password for start) | | ○ |
| Fan | | ○ |
| Environment friendly parts | Reversing speaker | ○ |
| | Meet the latest emission requirements(EUV) | ● |
| | Load sensing steering | ● |
| | LCD instrument | ● |

Note: "●" standard; "○" optional

| Configuration | | |
|------------------------------|---|--------------------|
| Parts | | High configuration |
| Cab | Front windshield (with wiper) | ○ |
| | Rear windshield | ○ |
| | Panel mounted cab | ○ |
| | Panel mounted cab (with heater) | ○ |
| | Panel mounted cab (with heater and air conditioner for cooling) | ○ |
| | Panel mounted cab (with air conditioner for cooling) | ○ |
| Lights | LED lights for whole truck | ● |
| | LED rear working lights (2) | ○ |
| | Warning light (rotating) | ○ |
| | Warning light (rotating and buzzer) | ○ |
| | Blue light | ○ |
| Lifting system | Normal mast | ● |
| | Full free mast (two stage or three stage) | ○ |
| | Non-standard attachment | ○ |
| | Mast height | ○ |
| | Hydraulic fork positioner (8.5-10t) | ● |
| | Fork carrier (5-7t) | ● |
| | Backrest (5-7t) | ● |
| | Sharp type fork | ○ |
| | Winder fork carrier | ○ |
| | Others | Metric thread |
| American thread | | ○ |
| Solid tyre | | ○ |
| Traceless solid tyre | | ○ |
| Sleeve for tilting cylinder | | ● |
| Sleeve for steering cylinder | | ● |
| Universal key | | ○ |
| Customer made color | | ○ |

Note: "●" standard; "○" optional

CPCD 50/60/70 /85/100 CU1ZG3/CU1G3



11000-22000lbs
G3 series Internal Combustion
Counterbalanced Forklift Truck

HELI AMERICA INC

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* Our products are subject to improvements and changes without notice.

Catalog No.221109 Fokeli Print

HELI

**Our power and confidence are from
reliable high quality products.**

Elegance in appearance, excellent in performance



Ecology and saving

The Euro V power engine is equipped with DOC+DPF+SCR post-treatment technology meeting the most stringent emission standards.



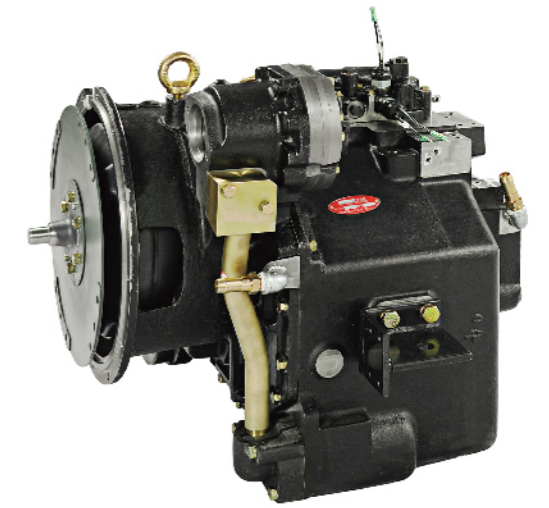
CUMMINS QSF3.8 Euro V/ T4F



YUCHAI YCA05115-S500 (optional)

A reliable drive system

The transmission box designed and manufactured by HELI specially for the model is equipped on the truck. As reliable transmission system produced by HELI, it has been validated by over twenty years experience in the world market. Meanwhile, various ancillary devices of the power system ensure the reliability effectively.



Through LCD instrument and good human-computer interaction, the operator can monitor the truck status in real time.



LED lighting system
Low energy consumption,
high brightness and long life.

Variable piston hydraulic pump



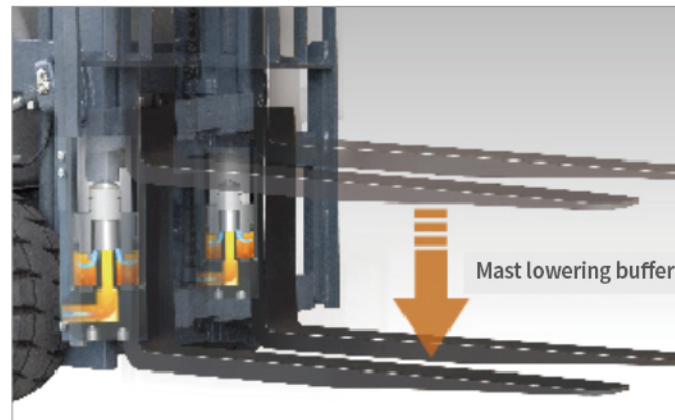
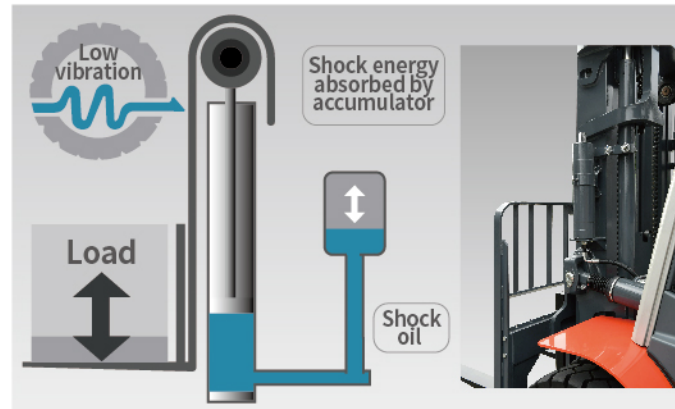
HELI smart fleet management system (optional)

- | | |
|----------------------|---------------------------------------|
| Vehicle positioning | Vehicle management |
| Remote diagnosis | Identification recognition (optional) |
| Remote monitoring | Weight management (optional) |
| Maintenance reminder | Collision management (optional) |
| Statistical form | |



Option configuration of intelligent safety buffer system cushion operator from effects of riding over uneven surface and it is more comfortable.

- Vibration shock reduction**
 When driving under load conditions, the impact caused by uneven surface is greatly absorbed, and the vibration is effectively reduced.
- Vibration and noise reduction**
 When driving under load condition, the impact noise caused by uneven surface is greatly reduced.
- Reduced driving fatigue**
 During the emergency stop operation during the load lowering process, the vibration and driving fatigue caused by inertia impact can be effectively reduced, and the driving safety can be improved.

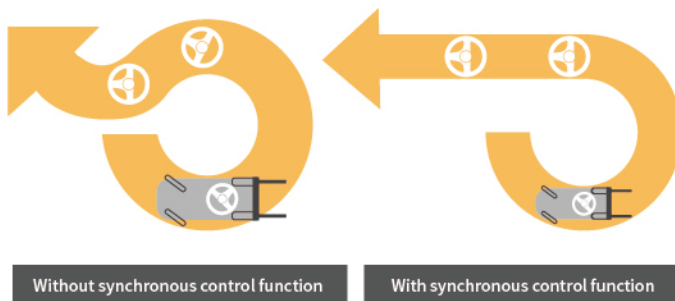


Standard configuration of oil cylinder lower buffer, comfortable operation

Multi system joint optimization design (active noise reduction of engine, transmission box, axle and hydraulic oil pump, application of sealing sound insulation materials of the whole truck) reduces truck noise.



Hydraulic synchronous steering system can adjust steering wheel and wheel angle offset smartly and offers accurate steering and comfortable driving; (optional)



Ratchet type parking brake



It contains semi-enclosed normal seat, and adopts the techniques which are weight stepless adjustment and shock absorption, and vacuum cold foam molding. Seat armrest and backrest is a whole. Contact switch is optional.



High efficient and safe

Smart protection on gearbox and engine ensure the safety of the whole truck.



Smart protection on high engine water temperature, low oil pressure, intake pressure and temperature

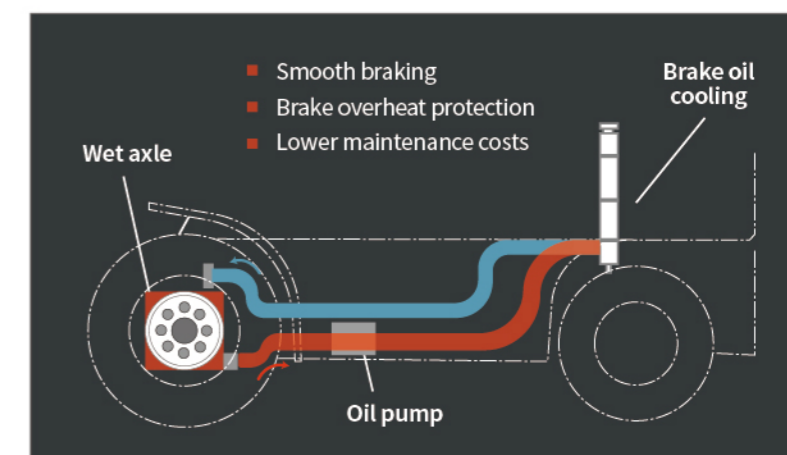
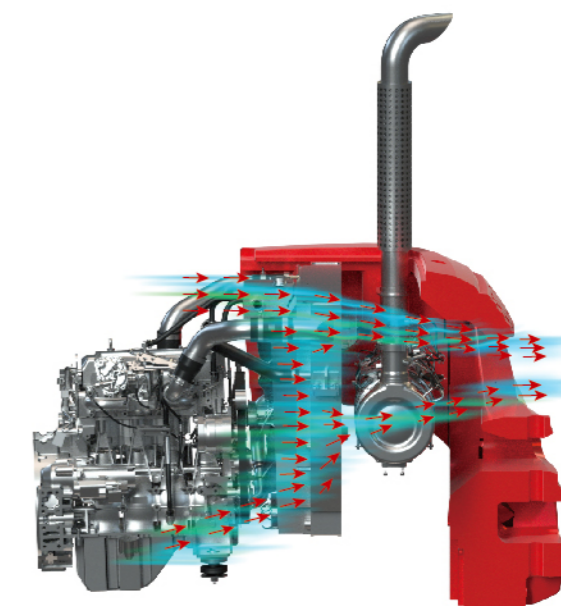
- Operator present system (after the driver leaves the seat accidentally, walking and lifting function of the whole truck is terminated) prevents the potential safety hazards caused by misoperation.
- When parking brake works, truck travel function is prohibited and thus the safety of driving operation is improved;
- Start protection function, fingertip operation system and anti-restart protection function from non-neutral gear ensure operation safety;
- The truck is equipped with large capacity air filter with safety filter element and pressure alarm function;
- The optimal design of power suspension increases the limit of limit impact to protect the power assembly from accidental impact;
- Truck safety warning: reverse image system, warning light, etc. (optional)


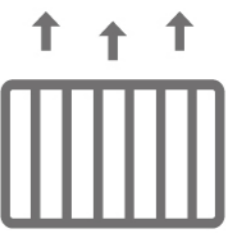


Reliable quality

HELI has been committed to the research of truck reliability for many years, and the core parts have been verified by the market for a long time. The truck goes through high standard reliability test before marketing, long-time quality tracking and verification after marketing, and strict control of various performance indicators.

- The CAE forward design improves the strength of structural parts;
- Wet braking with forced oil cooling radiator ensures the stability and reliability of braking performance under extreme conditions;
- High performance cooling system ensures the heat dissipation performance of the whole truck.



| | | |
|--|-----------------------------|------------|
|  <p>Fan</p> | Air volume | 18% ↑ |
| | Static pressure | 40% ↑ |
| | Efficiency | 35.7% ↑ |
| | Noise | 1.5dB(A) ↓ |
| | Axial deformation | 35.7% ↓ |
|  <p>Radiator</p> | Water | 15% ↑ |
| | Transmission oil | 50% ↑ |
| | New drive axle oil radiator | |

Note: the above data are from the comparison with G series 7t intenal combustion forklift truck

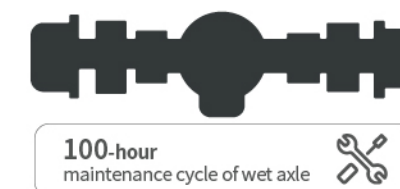
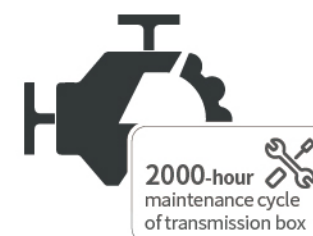
Harsh truck key parts endurance reliability test ensures the long-term reliability of core parts.



Higher standard endurance reliability test and high-intensity industrial verification of the whole truck ensures the reliability of long-term use of the whole truck;

Efficient and convenient maintenance

Super long maintenance cycle of core parts



Integrated electrical cabinet and embedded instrument make disassembly and maintenance easy;

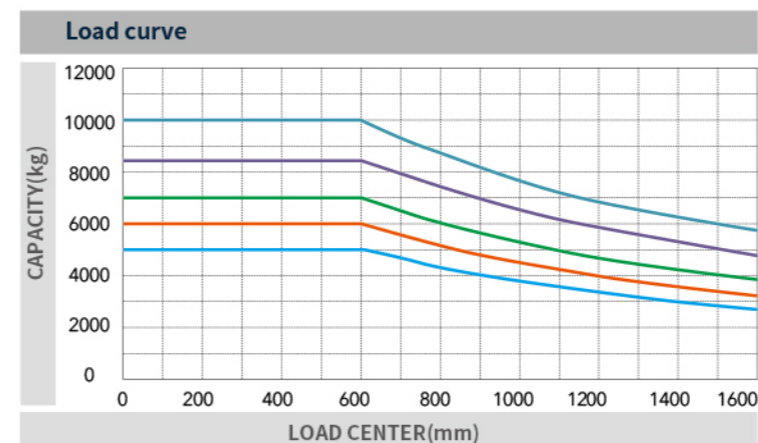
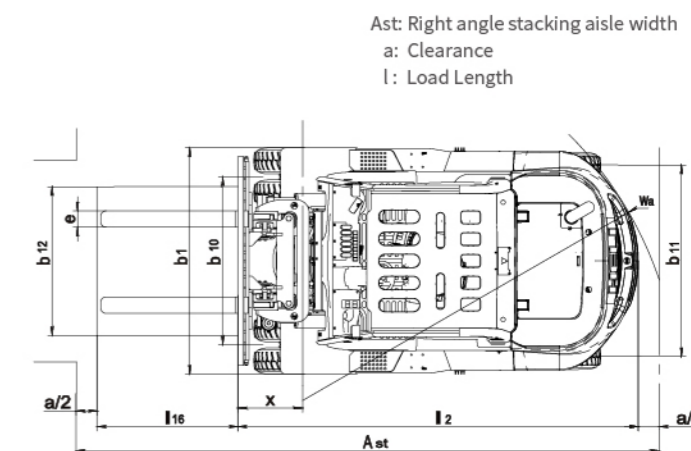
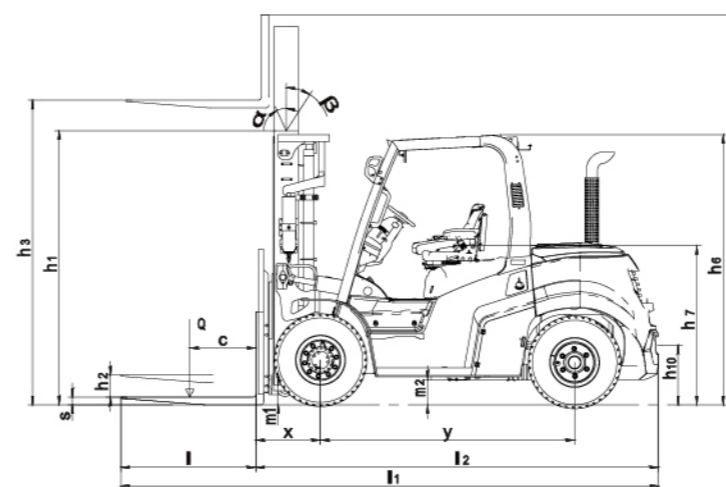


Timely remind maintenance information is given through instrument;

Large opening angle hood and detachable front and rear floor make check and repair easier;



| Manufacturer and Technical Data(Tabulation1) | | | | | | | | |
|--|--|----------------|--------------|---------------------------------------|-------------|------------|--------------|-------------|
| Characteristics | | | | | | | | |
| 1.01 | Manufacturer | | | | HELI | | | |
| 1.02 | Model | | CPCD50 | CPCD60 | CPCD70 | CPCD85 | CPCD100 | |
| 1.03 | Configuration number | | CU1ZG3/CU1G3 | | | | | |
| 1.04 | Rated capacity | Q | lb | 11000 | 13000 | 15500 | 18500 | 22000 |
| 1.05 | Load center distance | c | in | 24 | | | | |
| 1.06 | Power mode | | | Diesel | | | | |
| 1.07 | Driving mode | | | Seat-type | | | | |
| 1.08 | Front overhang | x | in | 22.6 | 22.8 | 23 | 27 | 27.6 |
| 1.09 | Wheelbase | y | in | 90.5 | | | 98.4 | 109.3 |
| Weight | | | | | | | | |
| 2.01 | Total weight | | lb | 18673 | 19841 | 21164 | 25573 | 28219 |
| 2.02 | Axle load (laden,front/rear) | | lb | 26455/3240 | 29519/3549 | 32606/3990 | 39022/5291 | 45636/4630 |
| 2.03 | Axle load (unladen,front/rear) | | lb | 9766/8907 | 9414/10428 | 9193/11971 | 10472/15102 | 13051/15168 |
| Tyres | | | | | | | | |
| 3.01 | Tyre type | | | Pneumatic type | | | | |
| 3.02 | Tyre size,front | | | 8.25-15-14PR | | | 9.00-20-14PR | |
| 3.03 | Tyre size,rear | | | 8.25-15-14PR | | | 9.00-20-14PR | |
| 3.04 | Wheels,number front/rear (x=driven wheels) | | | 4X/2 | | | | |
| 3.05 | Tread, front | b10 | in | 60 | | | 63 | |
| 3.06 | Tread, rear | b11 | in | 67 | | | | |
| Dimensions | | | | | | | | |
| 4.01 | Mast tilt angle (forward/backward) | α/β | ° | 6/12 | | | | |
| 4.02 | Height (mast lowered) | h1 | in | 98 | | | 106 | 112 |
| 4.03 | Free lifting height | h2 | in | 6 | 6.3 | | 7.5 | 7.9 |
| 4.04 | Lifting height (standard) | h3 | in | 118 | | | | |
| 4.05 | Max. height,extended (with backrest) | h4 | in | 173 | | | 167 | 174 |
| 4.06 | Height of overhead guard | h6 | in | 88 | | | 101 | |
| 4.07 | Seat height relating to SIP (to ground) | h7 | in | 56.5 | | | 60.6 | |
| 4.08 | Towing coupling height | h10 | in | 21 | | | 23.6 | |
| 4.09 | Overall length (with fork) | l1 | in | 185 | 189 | 192 | 204 | 213 |
| 4.10 | Overall length (without fork) | l2 | in | 137 | 141 | 144 | 156 | 165 |
| 4.11 | Overall width | b1 | in | 81 | | | | |
| 4.12 | Fork size:thickness x width x length | s/e/l | in | 2.2/5.9/48 | 2.4/5.9/48 | 2.6/5.9/48 | 2.8/6.9/48 | 3.1/6.9/48 |
| 4.13 | Fork carriage,according to ISO2328 | | | 4A | | | / | |
| 4.14 | Distance across fork-arms, Max./Min. | b5 | in | 11.8-72.6 | | | 18.5-78.3 | 18.5-82.7 |
| 4.15 | Ground clearance (laden,between mast) | m1 | in | 7.1 | | | 9.8 | |
| 4.16 | Ground clearance (center of wheelbase) | m2 | in | 9.1 | | | 12.8 | |
| 4.17 | Right angle stacking aisle width for pallet 39.4" x47.2" crossways | Ast | in | 196.8 | 199 | 202.2 | 217.2 | 229.8 |
| 4.18 | Right angle stacking aisle width for pallet 31.5"x47.2" lengthways | Ast | in | 204.7 | 206.9 | 210.1 | 225.1 | 237.7 |
| 4.19 | Min. outside turning radius | Wa | in | 127 | 129 | 132 | 143 | 155 |
| Performance Data | | | | | | | | |
| 5.01 | Travel speed (laden/unladen) | | mph | 18/19.3 | | | 16.8/18.6 | 16.8/18.6 |
| 5.02 | Lift speed (laden/unladen) | | ft/min | 97.4/102.4 | 96.4/102.4 | 95.5/102.4 | 76.8/82.7 | 65/68.9 |
| 5.03 | Lowering speed (laden/unladen) | | ft/min | 100/90.5 | | | 90.5/70.9 | |
| 5.04 | Max.drawbar pull (laden/unladen) | | lbf | 17085 | 16860 | 16635 | 17085 | 17085 |
| 5.05 | Max.gradeability (laden/unladen) | | % | 66/19 | 57/19 | 50/19 | 39/19 | 35/19 |
| Combustion-engine | | | | | | | | |
| 6.01 | Engine manufacturer/Moel | | | CUMMINS QSF3.8 T4F | | | | |
| 6.02 | Rated power/Speed | | hp/rpm | 122/2200 | | | | |
| 6.03 | Max. torque/Speed | | lb.ft/rpm | 678/1500 | | | | |
| 6.04 | Cylinder number-bore x stroke | | | 4-102*115 | | | | |
| 6.05 | Engine displacement | | L | 3.8 | | | | |
| 6.06 | Emission | | | T4F | | | | |
| 6.07 | Transmission gears (front/rear) | | | Front2/Rear 2, Hydraulic transmission | | | | |
| 6.08 | Fuel tank capacity | | L | 160 | | | | |
| Addition data | | | | | | | | |
| 7.01 | Service brake/Parking brake | | | Power braking / Mechanical | | | | |
| 7.02 | Operating pressure for attachments | | psi | / | | | | |



Note:The vertical axis stands for load capacity and the horizontal axis stands for load center which is calculated from the front surface of the forks to the gravity of the standard load. the standard load means a cubic with 1000mm edge length. When mast is tilted forward, using non-standard forks or loading large goods, the load capacity will be reduced. The load capacity of standard mast at different load center can be known from this load chart.

Wide View Standard Mast(11000-15400LB)

| Mast model | Max.lifting height (in) | Load capacity (lode center 24 in)(lb) | | | Height (mast lowered) (in) | Service weight (lb) | | | Mast tilt angle α/β (deg) |
|------------|-------------------------|---------------------------------------|--------|--------|----------------------------|---------------------|--------|--------|---------------------------|
| | | CPCD50 | CPCD60 | CPCD70 | | CPCD50/60/70 | CPCD50 | CPCD60 | |
| M200 | 79 | 11000 | 13200 | 15400 | 81.9 | 18315 | 19481 | 21492 | 6/12 |
| M250 | 98 | 11000 | 13200 | 15400 | 87.8 | 18456 | 19622 | 21540 | 6/12 |
| M270 | 106 | 11000 | 13200 | 15400 | 91.7 | 18526 | 19692 | 21584 | 6/12 |
| M300 | 118 | 11000 | 13200 | 15400 | 97.6 | 18634 | 19800 | 21692 | 6/12 |
| M330 | 130 | 11000 | 13200 | 15400 | 103.5 | 18742 | 19908 | 21800 | 6/12 |
| M350 | 138 | 11000 | 13200 | 15400 | 107.5 | 18812 | 19978 | 21870 | 6/12 |
| M375 | 148 | 11000 | 13200 | 15400 | 112.4 | 18902 | 20068 | 21960 | 6/12 |
| M400 | 157 | 11000 | 13200 | 15400 | 119.3 | 19268 | 20434 | 22326 | 6/12 |
| M425 | 167 | 11000 | 13200 | 15400 | 124.2 | 19356 | 20522 | 22414 | 6/12 |
| M450 | 177 | 11000 | 13200 | 15400 | 129.1 | 19446 | 20612 | 22504 | 6/12 |
| M475 | 187 | 11000 | 13200 | 15400 | 134.1 | 19536 | 20702 | 22594 | 6/6 |
| M500 | 197 | 11000 | 13200 | 15400 | 139 | 19624 | 20790 | 22682 | 6/6 |
| M550 | 217 | 10450 | 12540 | 14520 | 150.8 | 20051 | 21217 | 23109 | 6/6 |
| M600 | 236 | 9680 | 11880 | 14080 | 160.6 | 20231 | 21397 | 23289 | 6/6 |

Wide View Standard Mast(18500-22000LB)

| Mast model | Max.lifting height (in) | Load capacity (lode center 24 in)(lb) | | Height (mast lowered)(in) | | Service weight (lb) | | Mast tilt angle α/β (deg) |
|------------|-------------------------|---------------------------------------|---------|---------------------------|---------|---------------------|---------|---------------------------|
| | | CPCD85 | CPCD100 | CPCD85 | CPCD100 | CPCD85 | CPCD100 | |
| M250 | 98 | 18500 | 22000 | 96.5 | 102.4 | 24026 | 27894 | 6/12 |
| M270 | 106 | 18500 | 22000 | 100.4 | 106.3 | 24145 | 27982 | 6/12 |
| M300 | 118 | 18500 | 22000 | 106.3 | 112.2 | 25520 | 28160 | 6/12 |
| M330 | 130 | 18500 | 22000 | 112.2 | 118.1 | 25742 | 28266 | 6/12 |
| M350 | 138 | 18500 | 22000 | 116.1 | 122 | 26061 | 28365 | 6/12 |
| M375 | 148 | 18260 | 22000 | 121.1 | 127 | 26237 | 28475 | 6/12 |
| M400 | 157 | 18260 | 22000 | 128 | 133.9 | 26622 | 28783 | 6/12 |
| M425 | 167 | 17600 | 22000 | 132.9 | 138.8 | 26963 | 28904 | 6/12 |
| M450 | 177 | 17600 | 19800 | 137.8 | 143.7 | 27227 | 29014 | 6/12 |
| M475 | 187 | 17600 | 19800 | 142.7 | 147.6 | 27546 | 29139 | 6/6 |
| M500 | 197 | 17160 | 19800 | 147.6 | 153.5 | 27799 | 29260 | 6/6 |
| M550 | 217 | 16500 | 17600 | 159.4 | 165.4 | 28508 | 29922 | 6/6 |
| M600 | 236 | 15840 | 16500 | 169.3 | 175.2 | 28954 | 30032 | 6/6 |

Wide View Full Free 2-Stage Mast(11000-15400lb)

| Mast model | Max.lifting height (in) | Load capacity (lode center 24 in)(lb) | | | Height (mast lowered) (in) | Free lift (with backrest) (in) | Service weight (lb) | | | Mast tilt angle α/β (deg) |
|------------|-------------------------|---------------------------------------|--------|--------|----------------------------|--------------------------------|---------------------|--------|--------|---------------------------|
| | | CPCD50 | CPCD60 | CPCD70 | | | CPCD50/60/70 | CPCD50 | CPCD60 | |
| ZM250 | 98 | 11000 | 13200 | 15400 | 87 | 33.1 | 18720 | 19886 | 21778 | 6/12 |
| ZM270 | 106 | 11000 | 13200 | 15400 | 90.9 | 37 | 18801 | 19967 | 21859 | 6/12 |
| ZM300 | 118 | 11000 | 13200 | 15400 | 96.9 | 42.9 | 18929 | 20093 | 21985 | 6/12 |
| ZM330 | 130 | 11000 | 13200 | 15400 | 102.8 | 48.8 | 19052 | 20218 | 22110 | 6/12 |
| ZM350 | 138 | 11000 | 13200 | 15400 | 106.7 | 52.8 | 19133 | 20299 | 22191 | 6/12 |
| ZM375 | 148 | 11000 | 13200 | 15400 | 111.6 | 57.7 | 19239 | 20405 | 22297 | 6/12 |
| ZM400 | 157 | 11000 | 13200 | 15400 | 118.5 | 64.6 | 19624 | 20790 | 22682 | 6/12 |
| ZM425 | 167 | 11000 | 13200 | 15400 | 123.4 | 69.5 | 19738 | 20904 | 22796 | 6/12 |
| ZM450 | 177 | 11000 | 13200 | 15400 | 128.3 | 74.4 | 19833 | 20999 | 22891 | 6/12 |
| ZM475 | 187 | 11000 | 13200 | 15400 | 133.3 | 79.3 | 19936 | 21080 | 22994 | 6/6 |
| ZM500 | 197 | 11000 | 13200 | 15400 | 138.2 | 84.3 | 20018 | 21184 | 23076 | 6/6 |
| ZM550 | 217 | 10450 | 12540 | 14520 | 150 | 96.1 | 20502 | 21668 | 23560 | 6/6 |
| ZM600 | 236 | 9680 | 11880 | 14080 | 159.8 | 105.9 | 20711 | 21877 | 23769 | 6/6 |

Note: (1) 11000-13200lb: the free lift without backrest 10.2" increased, (2) 15400lb: the free lift without backrest 7" increased.

Wide View Full Free 3-Stage Mast(18500-22000LB)

| Mast model | Max.lifting height (in) | Load capacity (lode center 24 in)(lb) | | Height (mast lowered)(in) | | Free lift (with backrest)(in) | | Service weight (lb) | | Mast tilt angle α/β (deg) |
|------------|-------------------------|---------------------------------------|---------|---------------------------|---------|-------------------------------|---------|---------------------|---------|---------------------------|
| | | CPCD85 | CPCD100 | CPCD85 | CPCD100 | CPCD85 | CPCD100 | CPCD85 | CPCD100 | |
| ZSM360 | 142 | 16500 | 17600 | 96.5 | 182.5 | 47.2 | 45.3 | 26930 | 29779 | 6/12 |
| ZSM400 | 157 | 16500 | 17600 | 101.4 | 173.6 | 52.4 | 50.4 | 27086 | 29982 | 6/12 |
| ZSM435 | 171 | 16280 | 17160 | 106.3 | 161.4 | 57.1 | 55.1 | 27249 | 30158 | 6/12 |
| ZSM450 | 177 | 16060 | 17160 | 108.3 | 158.5 | 59.1 | 57.1 | 27309 | 30246 | 6/6 |
| ZSM480 | 189 | 15400 | 16060 | 112.2 | 143.1 | 63 | 61 | 27443 | 30395 | 6/6 |
| ZSM500 | 197 | 15400 | 16060 | 116.1 | 138.3 | 67 | 63.6 | 27566 | 30496 | 6/6 |
| ZSM540 | 213 | 14520 | 14960 | 121.1 | 123.6 | 72 | 71.1 | 27729 | 30791 | 6/6 |
| ZSM600 | 236 | 12760 | 13200 | 132.9 | 99.3 | 84 | 78.9 | 28105 | 31099 | 6/6 |
| ZSM650 | 256 | 11660 | 12100 | 141.7 | 85.4 | 92.5 | 85.4 | 28391 | 31359 | 6/6 |
| ZSM700 | 276 | 9900 | 10120 | 147.6 | 68.5 | 98.4 | 95.9 | 28585 | 31750 | 6/6 |

Wide View Full Free 3-Stage Mast(11000-15400lb)

| Mast model | Max.lifting height (in) | Load capacity (lode center 24 in)(lb) | | | Height (mast lowered) (in) | Free lift (with backrest) (in) | Service weight (lb) | | | Mast tilt angle α/β (deg) |
|------------|-------------------------|---------------------------------------|--------|--------|----------------------------|--------------------------------|---------------------|--------|--------|---------------------------|
| | | CPCD50 | CPCD60 | CPCD70 | | | CPCD50/60/70 | CPCD50 | CPCD60 | |
| ZSM360 | 142 | 9900 | 12320 | 13640 | 92 | 35.8 | 20137 | 21303 | 22975 | 6/6 |
| ZSM400 | 157 | 9900 | 12320 | 13640 | 97 | 40.9 | 20269 | 21435 | 23107 | 6/6 |
| ZSM435 | 171 | 9900 | 12320 | 13640 | 101.8 | 45.5 | 20396 | 21562 | 23234 | 6/6 |
| ZSM480 | 189 | 9900 | 12320 | 13640 | 108 | 51.6 | 20830 | 21996 | 23668 | 6/6 |
| ZSM500 | 197 | 9900 | 12320 | 13640 | 110.4 | 54.3 | 20898 | 22064 | 23736 | 6/6 |
| ZSM540 | 213 | 9240 | 11660 | 13200 | 115.7 | 59.4 | 21050 | 22216 | 23888 | 6/6 |
| ZSM600 | 236 | 8800 | 11000 | 12320 | 123.4 | 67.3 | 21245 | 22411 | 24083 | 6/6 |
| ZSM650 | 256 | 7700 | 9900 | 11000 | 134.1 | 77.8 | 21441 | 22607 | 24279 | 6/6 |
| ZSM700 | 276 | 7040 | 8800 | 9900 | 138.2 | 82.1 | 21558 | 22724 | 24396 | 6/6 |

Note: (1) 11000-13200lb: the free lift without backrest 10.2" increased, (2) 15400lb: the free lift without backrest 7" increased.