

HELI
CANADA

1.6-1.8t
G SERIES AC ELECTRIC
NARROW AISLE REACH TRUCK



Manufacturer's Data and Design Characteristics

| Characteristics | | | | | | | | |
|----------------------|---|-------|-----|------|--------------|-------------|--------------|-------------|
| 1.01 | Manufacturer | | | | HELI | | | |
| 1.02 | Model | | | | CQD16X1 | | CQD18X1 | |
| 1.03 | Configuration number | | | | GB2R | | GB2R | |
| 1.04 | Load Capacity | Q | lb | kg | 3527 | 1600 | 4000 | 1800 |
| 1.05 | Load center | C | in | mm | 24 | 600 | 24 | 600 |
| 1.06 | Power model | | | | Electric | | | |
| 1.07 | Driving model | | | | Stand | | | |
| 1.08 | Wheel Base | L2 | in | mm | 55 | 1407 | 57 | 1457 |
| 1.09 | Votage | | v | v | 36/48 | 36/48 | 36/48 | 36/48 |
| Tyre | | | | | | | | |
| 2.01 | Tyre type | | | | PU | PU | PU | PU |
| 2.02 | wheel nubner,drive/load/caster(X=drive wheel) | | | | 1×/4/2 | 1×/4/2 | 1×/4/2 | 1×/4/2 |
| 2.03 | Wheel size,load | | in | mm | Φ5×3.7 | Φ127×95 | Φ5×3.7 | Φ127×95 |
| 2.04 | Wheel size,drive | | in | mm | Φ13×5.5 | Φ330×140 | Φ13×5.5 | Φ330×140 |
| 2.05 | Wheel size,caster | | in | mm | Φ7.4×3 | Φ178×76 | Φ7.4×3 | Φ178×76 |
| Dimensions | | | | | | | | |
| 3.01 | Lift height | H | in | mm | 218 | 5530 | 218 | 5530 |
| 3.02 | Mast height,lowered | H1 | in | mm | 99 | 2526 | 99 | 2526 |
| 3.03 | Free lift | H8 | in | mm | 59 | 1490 | 59 | 1490 |
| 3.04 | Fork size,htickness/width/length | s/e/l | in | mm | 1.4×3.9×36.2 | 35×100×920 | 1.4×3.9×36.2 | 35×100×920 |
| 3.05 | Fork adjusting width | W4 | in | mm | 9.6~28.5 | 244~724 | 9.6~28.5 | 244~724 |
| 3.06 | Tilt(forward/backward) | | deg | deg | 3°/4° | 3°/4° | 3°/4° | 3°/4° |
| 3.07 | Fork sideshifting | | in | mm | ±2 | ±50 | ±2 | ±50 |
| 3.08 | Truck body length(fork excluded) | L | in | mm | 71 | 1815 | 73 | 1865 |
| 3.09 | Truck body width | W | in | mm | 43 | 1090 | 43 | 1090 |
| 3.10 | Straddle leg, inside width | W2 | in | mm | 33~51 | 845~1300 | 33~51 | 845~1300 |
| 3.11 | Straddle leg, outside width | W1 | in | mm | 47~59 | 1192~1492 | 47~59 | 1192~1492 |
| 3.12 | Fork carriage width | W3 | in | mm | 33 | 842 | 33 | 842 |
| 3.13 | Reach distance | S | in | mm | 24 | 600 | 24 | 600 |
| 3.14 | Height of overhead guard | H7 | in | mm | 91 | 2320 | 91 | 2320 |
| 3.15 | Battery bottom clearance | H4 | in | mm | 7 | 180 | 7 | 180 |
| 3.16 | Straddle clearance | H5 | in | mm | 2 | 50 | 2 | 50 |
| 3.17 | Straddle height | H9 | in | mm | 5 | 130 | 5 | 130 |
| 3.18 | Step height | H6 | in | mm | 10 | 250 | 10 | 250 |
| 3.19 | Minimum turning radius | Wa | in | mm | 67 | 1695 | 69 | 1745 |
| 3.20 | Drive wheel center to truck body rear distance | L1 | in | mm | 10 | 252 | 10 | 252 |
| 3.21 | Fork front to truck body rear distance | L4 | in | mm | 55 | 1396 | 55 | 1396 |
| 3.22 | Aisle width with pallet 1200Lx1200w | Ast | in | mm | 109 | 2771 | 111 | 2812 |
| 3.23 | Aisle width with pallet 1000Lx1000w | Ast | in | mm | 100 | 2550 | 102 | 2591 |
| Performance | | | | | | | | |
| 4.01 | Travel speed loaded/unloaded | | mph | km/h | 6.5/7.3 | 10.5/11.8 | 6.5/7.3 | 10.5/11.8 |
| 4.02 | Lift speed loaded/unloaded | | fpm | mm/s | 65/100 | 330/510 | 65/100 | 330/510 |
| 4.03 | Lowering speed loaded/unloaded | | fpm | mm/s | 98/98 | 500/500 | 98/98 | 500/500 |
| 4.04 | Reach speed loaded/unloaded | | fpm | mm/s | 22/30 | 110/150 | 22/30 | 110/150 |
| 4.05 | Max.gadeability loaded/unloaded - 5 minute rating | | % | % | 10/15 | 10/15 | 10/15 | 10/15 |
| Weight | | | | | | | | |
| 5.01 | Total weight(with battery) | | lb | kg | 7165 | 3250 | 7716 | 3500 |
| 5.02 | Axle loading, no load (fomrt/rear) | | lb | kg | 4321/2844 | 1960/1290 | 4762/2954 | 2160/1340 |
| 5.03 | Axle loading, loaded (fomrt/rear) | | lb | kg | 3527/7165 | 1600/3250 | 3968/7606 | 1800/3450 |
| Battery | | | | | | | | |
| 6.01 | Battery voltage/capacity k5 | | kwh | Ah | 28 | 775 | 28 | 775 |
| 6.02 | Battery voltage/capacity k5 | | kwh | Ah | 18 | 500 | 18 | 500 |
| 6.03 | Minimum battery weight | | lb | kg | 1764 | 800 | 2072 | 940 |
| 6.04 | Battery box dimension | | in | mm | 39×14×31 | 985×365×788 | 39×16×31 | 985×415×788 |
| Motor and controller | | | | | | | | |
| 7.01 | Driving motor power | | HP | kw | 9.4 | 7 | 9.4 | 7 |
| 7.02 | Lifting motor power | | HP | kw | 20.1 | 15 | 20.1 | 15 |
| 7.03 | Steering motor power | | HP | kw | 0.8 | 0.6 | 0.8 | 0.6 |
| 7.04 | Type of driving control | | | | MOSFET/AC | | | |
| 7.05 | Type of lifting control | | | | MOSFET/AC | | | |
| 7.06 | Type of steering control | | | | MOSFET/AC | | | |
| 7.07 | Transmission box | | | | HELI special | | | |
| 7.08 | Service brake | | | | Electric | | | |
| 7.09 | Hydraulic system working pressure | | PSI | Mpa | 3050 | | | |

NOTE: For detailed information about battery,please contact your authorized HELI dealer.

These are "Zero Clearance" aisles in the table and require an additional 150mm or more to be added to provide for easier maneuvering.

1.6-1.8t *G SERIES*

AC ELECTRIC NARROW AISLE REACH TRUCK

» FEATURES OF THE COMPLETED TRUCK

Comfortable

- › Side battery extraction and battery rollers come standard making for easier battery replacement
- › Integrated, Intelligent control handle is convenient and comfortable to use
- › With proportional hydraulic control, working is more stable and more precise
- › Electronic power steering offer easy, flexible, high efficient and quite operation
- › Steering is centers itself automatically on startup for a safer operation

Safety

- › HELI's Intelligent control system automatic decelerates in sharp turns for safer operation
- › Warning light and drive OPS system come standard to ensure complete truck safety
- › Parking brake is automatically applied on a slope or flat surface via a magnetic brake on the drive axle
- › Five independent braking systems provide maximum, safe braking
- › Regenerative braking provides extra power back to the electrical system releasing when the control handles is released
- › Emergency brake is activated by releasing foot pedal
- › Parking brake can also be activated by pressing button on the panel
- › Parking brake automatically activated when operator leave truck
- › Emergency stop switch disengages power and applies brake automatically

Working efficiency

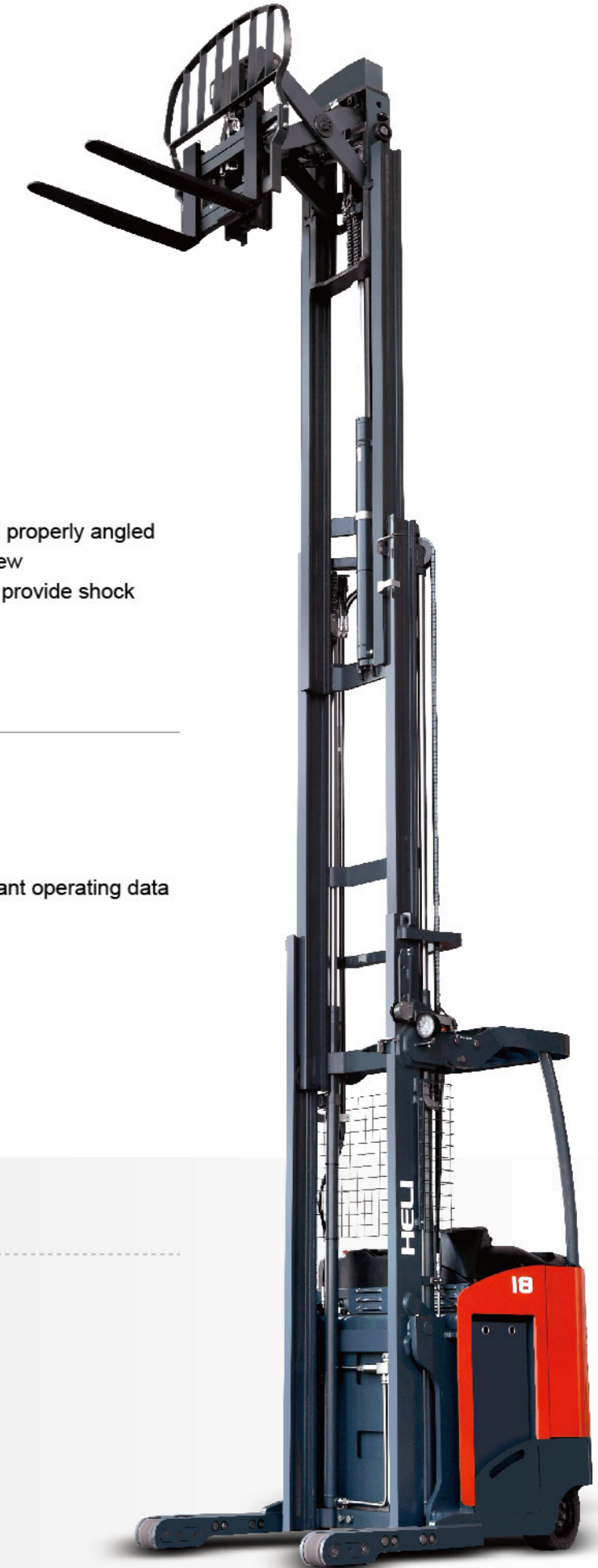
- Small turning radius makes steering flexible and easy
- Smaller load wheels easier to maneuver into the bottom of the shelf
- With optimal driving and lifting speeds, better working efficiency can be achieved
- With HELI's three speed modes, higher performance can be achieved
- Larger battery capacity for longer single shift time
- Bettering loading capacity and stability at higher lift heights

Energy efficiency

- With proportional controls, the truck is more energy efficient and has lower energy consumption
- All LED lights reduce lighting energy consumption by 80%
- Drive motor regenerative braking recycles more electric energy
- Electronic steering is more efficient saving energy

Maintainability

- Door, top cover and front all can be removed easily to allow great access to all chassis components for quick and easy maintenance
- With bolt type load wheel box installation, outrigger&load wheel maintenance are convenient and less costly



Wide view mast and pantograph

- > Comes standard with shift, tilt and reach functions
- > Newly designed wide-view mast and pantograph maximize operator's view effectively when forks are retracted and extended
- > Lift cylinder has end stroke cushions, while the controller provides in transit buffers to ensure smooth lifting and lowering functions
- > The controller also provides in transit and end stroke buffers for smooth the fork retract function

Overhead guard

- > The large arc shape of the overhead guard and properly angled grid slats greatly increase operator's upward view
- > Rear leg connected to the chassis suspension, provide shock buffering from falling loads
- > Without front legs, work view is improved



Comfortable operator's compartment

- > Optimal step height provides ease of access to operator's compartment while providing safety from the risk of pallet truck forks tip intrusion
- > Padded waist and arm supports for operator's comfort
- > Cushioned floorboard helps reduce operator for fatigue
- > The operator's body is fully protected within the truck contours

Operator display panel

- > High quality meter displaying clearly the important operating data
- > 180°steering angle position display
- > Display of battery power and fault code
- > Working mode selection
- > Hour meter
- > Labor hour display

Standard Configuration

- | | |
|---|-------------------------------------|
| AC travelling motor | integral pantograph |
| AC lifting motor | Standard fork |
| AC steering motor | Overhead guard |
| ZAPI travelling motor controller | Load backrest |
| ZAPI lifting motor controller | Polyurethane tire |
| ZAPI steering motor controller | LED combined display |
| Electromagnetic brake | Front work light |
| DC/DC converter | LED warning light |
| Low noise gear pump | Automatic steering slow down device |
| Electromagnetic proportional valve | Automatic Packing brake |
| 5330mm(218 in.) three stage full free lift mast | Operator's tool kit |

Optional Configuration

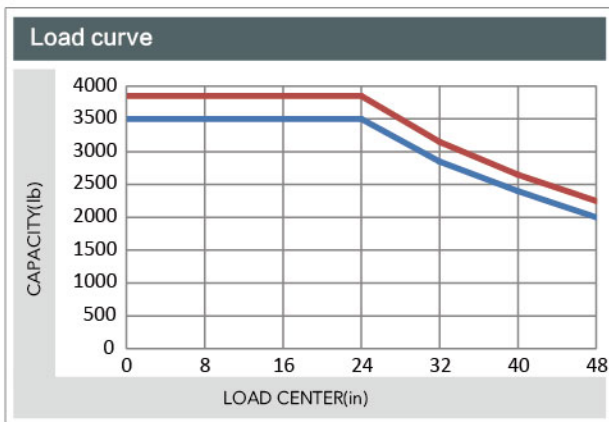
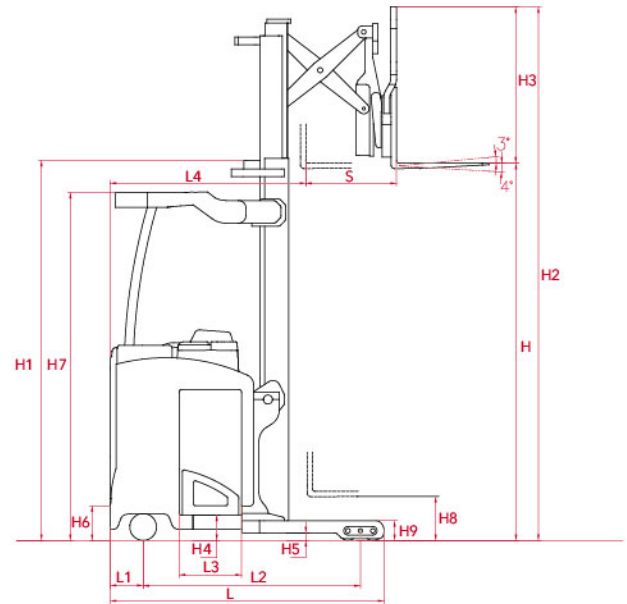
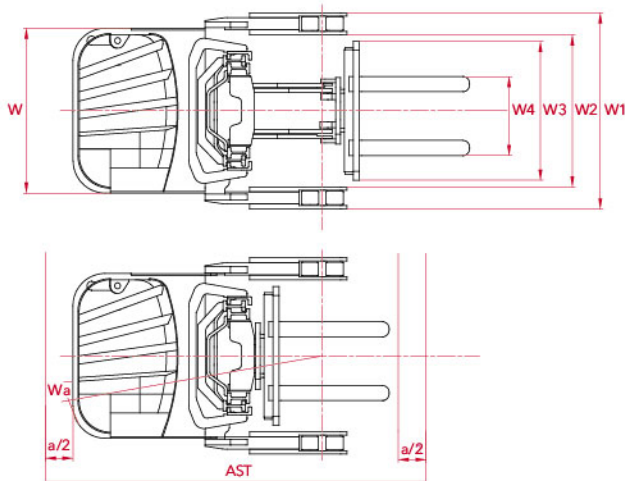
- Three-stage full free lift mast(other lifting height)
- Fork extension
- Lifting height pre-selector
- Monitoring system
- Other battery
- Germany HOPPECKER battery
- Italy FAAM battery
- Battery charger
- Custom paint
- Operator protection guard



WIDE VIEW FULL FREE 3-STAGE MAST

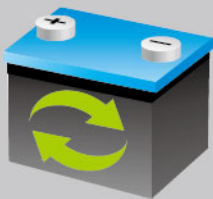
| Mast model | Fork Height h3 (in)(mm) | | | | Free lifting height h3 (in)(mm) | | | | Mast height h1 (in)(mm) | | | | Load Capacity at 24" Load Center (lb) (kg) | | | | Service Weight (lb) (kg) | | | |
|------------|-------------------------|------|---------|------|---------------------------------|------|---------|------|-------------------------|------|---------|------|--|------|---------|------|--------------------------|------|---------|------|
| | CQD16X1 | | CQD18X1 | | CQD16X1 | | CQD18X1 | | CQD16X1 | | CQD18X1 | | CQD16X1 | | CQD18X1 | | CQD16X1 | | CQD18X1 | |
| ZSM502 | 198 | 5025 | 198 | 5025 | 55 | 1390 | 55 | 1390 | 95 | 2413 | 95 | 2413 | 3527 | 1600 | 3968 | 1800 | 7374 | 3345 | 7672 | 3480 |
| ZSM533 | 210 | 5330 | 210 | 5330 | 59 | 1490 | 59 | 1490 | 99 | 2526 | 99 | 2526 | 3527 | 1600 | 3858 | 1750 | 7419 | 3365 | 7716 | 3500 |
| ZSM610 | 240 | 6095 | 240 | 6095 | 69 | 1745 | 69 | 1745 | 109 | 2781 | 109 | 2781 | 3527 | 1600 | 3858 | 1750 | 7573 | 3435 | 7871 | 3570 |
| ZSM685 | 270 | 6855 | 270 | 6855 | 79 | 2000 | 79 | 2000 | 120 | 3036 | 120 | 3036 | 2425 | 1100 | 2866 | 1300 | 7683 | 3485 | 7981 | 3620 |
| ZSM762 | 300 | 7620 | 300 | 7620 | 90 | 2285 | 90 | 2285 | 131 | 3321 | 131 | 3321 | 2094 | 950 | 2425 | 1100 | 7837 | 3555 | 8135 | 3690 |

AST: Right angle stacking aisle width
a: Clearance a=150mm



— CQD16X1
— CQD18X1

NOTE: The vertical axis is the load capacity, and the horizontal axis is the load center which is calculated from the front face of the forks to the load center of gravity. Capacity curves shown are for a standard mast at zero degree tilt with standard forks. Changing mast tilt, using non-standard forks or loading large goods can affect load capacity. This chart can be used to estimate load capacity at various load centers for standard masts. Contact HELI for specific load ratings for your situation.



THE PERFORMANCE OF BATTERY INCREASES

Renewable energy technologies

↑ 15%

With the use of AC controlling renewable energy technologies, the forklift is more energy-saving and the working hour of the battery is extended by 15%.

Certifications: These HELI models are CE&CQC certified and also meet all requirements of ANSI B56.1-2012 and OSHA Regulation 29CFR1910.178.All dimensional and performance specifications shown are for reference and subject to change without notice.

The reliable special instrument gives a complete display of the vital information, like operation status, fault detection, etc. It ensures the operator predominate the vehicle status more intuitive and convenient.



ZAPI high level meter (for GB2R truck model)



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CONCESSIONNAIRE AUTORISÉ

