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*Let's grow together*

# CPD15/18/20TVL

Li-Ion Three-Wheel Counterbalance  
Forklift 1.5/1.8/2.0T **LI-ION**  
TECHNOLOGY

- 80 Volt System Offering Powerful Performance
- Compact Truck Size
- EP Lithium-ion Technology
- Enhanced Mast with Optimal Visibility and Stability

**EP EQUIPMENT CO.,LTD**  
[www.ep-ep.com](http://www.ep-ep.com)



## FEATURE

### ■ 80 Volt System Offering Powerful Performance

The 80 voltage 2\*5.0 kW dual drive motors offer higher power efficiency than regular 48 voltage, thus The TVL series has greatly enhanced its productivity of 6 working hours per charge.



### ■ Compact Truck Size

The TVL series features a small turning radius, 1450mm of CPD15TVL, 1550mm of CPD18TVL and 1585mm of CPD20TVL, which makes it a perfect workhorse for small warehouses with narrow aisles within 3.5m.



### ■ Large Workspace

Due to the compact size of EP lithium battery and the ergonomic configuration of the control levers and the foot brake pedal, the small truck offers spacious legroom of 394mm and delivers the best in operation comfort.



### ■ EP Lithium-ion Technology

The TVL series comes with a EP in-house Li-ion battery and a 35A single phase integrated charger with 16amp plug allowing the truck to be charged at any power outlets. The Li-ion battery and the advantage of onboard charging make it ideal for forklift rental business.



### ■ Enhanced Mast with Optimal Visibility and Stability

The TVL series adopts the same high-strengthened mast of CPD20L2, offering the best all-around visibility and great stability with less wobbling even fully loaded.

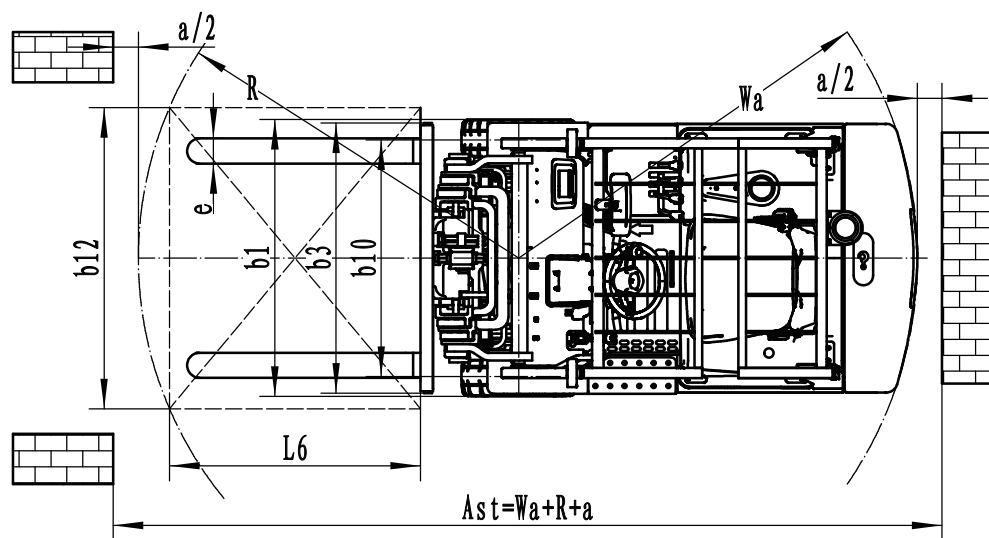
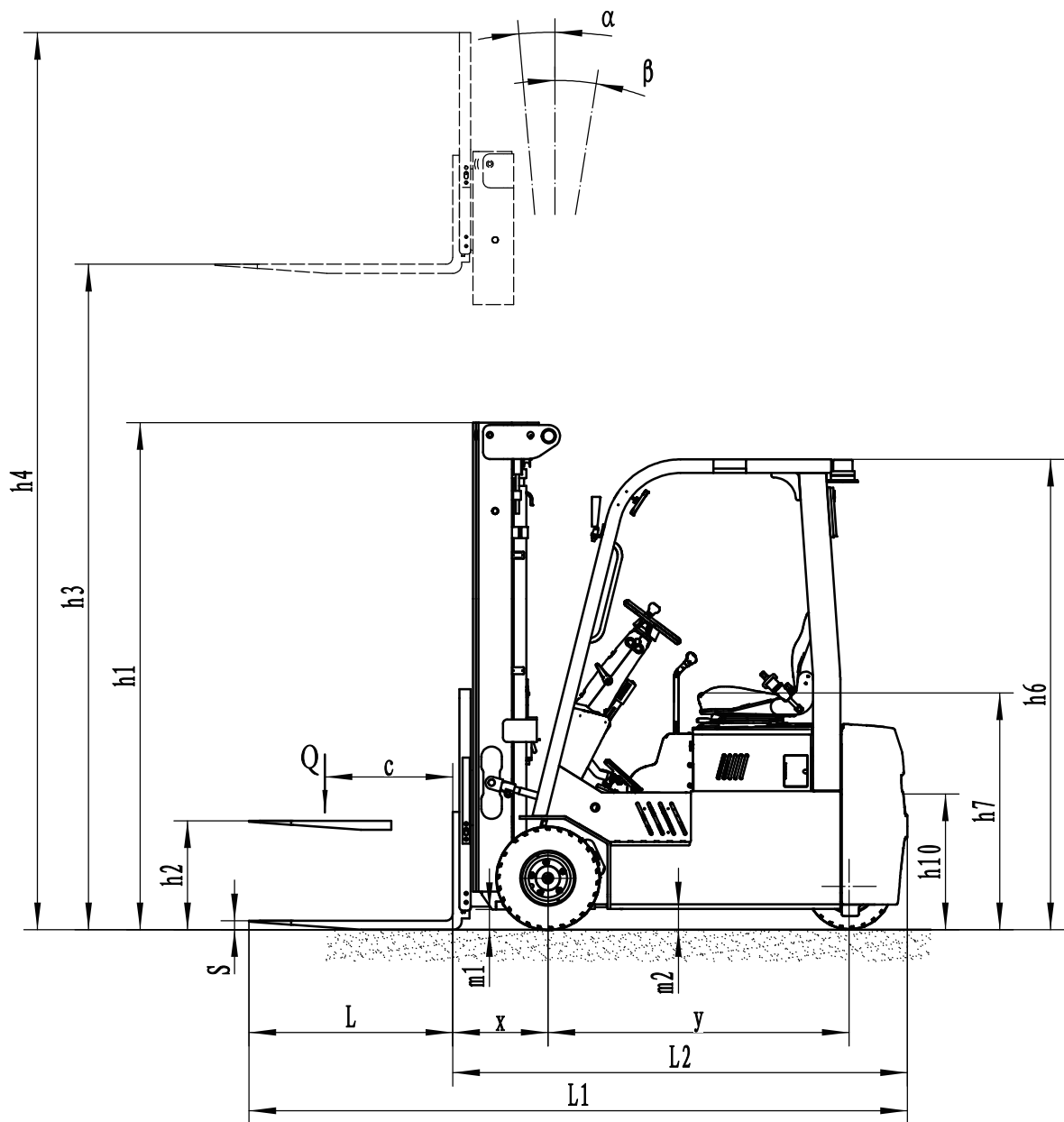


# Li-Ion Three-Wheel Counterbalance Forklift 1.5/1.8/2.0T

## CPD15/18/20TVL

| Distinguishing mark | 1.1    | Manufacturer                                |       |       | EP         | EP         | EP          |
|---------------------|--------|---------------------------------------------|-------|-------|------------|------------|-------------|
|                     | 1.2    | Model designation                           |       |       | CPD15TVL   | CPD18TVL   | CPD20TVL    |
|                     | 1.3    | Drive                                       |       |       | Electric   | Electric   | Electric    |
|                     | 1.4    | Operator type                               |       |       | Seated     | Seated     | Seated      |
|                     | 1.5    | Load capacity                               | Q     | kg    | 1500       | 1800       | 2000        |
|                     | 1.6    | Load center distance                        | c     | mm    | 500        | 500        | 500         |
|                     | 1.8    | Load distance, centre of drive axle to fork | x     | mm    | 420        | 420        | 420         |
|                     | 1.9    | Wheelbase                                   | y     | mm    | 1230       | 1330       | 1330        |
| Service weight      | 2.1    | Service weight                              |       |       | 2950       | 3269       | 3429        |
|                     | 2.2    | Axle loading, laden front/rear              |       | kg    | 3928/522   | 4415/654   | 4745/684    |
|                     | 2.3    | Axle loading, unladen front/rear            |       | kg    | 1305/1645  | 1368/1901  | 1359/2070   |
| Tyres/chassis       | 3.1    | Tyre type                                   |       |       | Solid      | Solid      | Solid       |
|                     | 3.2    | Tyre size, front                            |       |       | 18X7-8     | 18X7-8     | 200/50-10   |
|                     | 3.3    | Tyre size, rear                             |       |       | 15X4.5-8   | 15X4.5-8   | 15X4.5-8    |
|                     | 3.5    | Wheels, number front/rear (x=drive wheels)  |       | mm    | 2X/2       | 2X/2       | 2X/2        |
|                     | 3.6    | Tread width, front                          | b10   | mm    | 943        | 943        | 969         |
|                     | 3.7    | Tread width, rear                           | b11   | mm    | 175        | 175        | 175         |
|                     | 3.8    | Tread width, steering axle                  |       |       | 175        | 175        | 175         |
| Dimensions          | 4.1    | Tilt of mast/fork carriage forward/backward | α/β   | °     | 6/7        | 6/7        | 6/7         |
|                     | 4.2    | Retracted mast height                       | h1    | mm    | 2075       | 2075       | 2075        |
|                     | 4.3    | Free lift                                   | h2    | mm    | 100        | 100        | 100         |
|                     | 4.4    | Lift height                                 | h3    | mm    | 3000       | 3000       | 3000        |
|                     | 4.5    | Height, mast extended                       | h4    | mm    | 4055       | 4055       | 4055        |
|                     | 4.7    | Height of overhead guard (cabin)            | h6    | mm    | 2078       | 2078       | 2078        |
|                     | 4.8    | Seat height/standing height                 | h7    | mm    | 1050       | 1050       | 1050        |
|                     | 4.12   | Tow coupling height                         | h10   | mm    | 600        | 600        | 600         |
|                     | 4.19   | Overall length                              | l1    | mm    | 2733       | 2833       | 3020        |
|                     | 4.20   | Length to face of forks                     | l2    | mm    | 1813       | 1913       | 1950        |
|                     | 4.21   | Overall width                               | b1/b2 | mm    | 1070       | 1070       | 1170        |
|                     | 4.22   | Fork dimensions                             | s/e/l | mm    | 100X40X920 | 100X40X920 | 122X40X1070 |
|                     | 4.23   | A,B Fork carriage class/type A, B           |       |       | 2A         | 2A         | 2A          |
|                     | 4.24   | Fork carriage width                         | b3    | mm    | 1040       | 1040       | 1040        |
|                     | 4.31   | Ground clearance, laden, below mast         | m1    | mm    | 89         | 89         | 89          |
|                     | 4.32   | Ground clearance, center of wheelbase       | m2    | mm    | 92         | 92         | 92          |
|                     | 4.34.1 | Aisle width for pallets 1000×1200 crossways | Ast   | mm    | 3175       | 3275       | 3315        |
|                     | 4.34.2 | Aisle width for pallets 800×1200 lengthways | Ast   | mm    | 3300       | 3400       | 3435        |
|                     | 4.35   | Turning radius                              | Wa    | mm    | 1450       | 1550       | 1585        |
| Performance data    | 5.1    | Travel speed, laden/unladen                 |       | km/h  | 13/14      | 13/14      | 13/14       |
|                     | 5.2    | Lifting speed, laden/unladen                |       | m/s   | 0.33/0.5   | 0.4/0.5    | 0.38/0.48   |
|                     | 5.3    | Lowering speed, laden/unladen               |       | m/s   | 0.55/0.55  | 0.55/0.55  | 0.53/0.53   |
|                     | 5.5    | Drawbar pull, laden/unladen                 |       | N     | —          | —          | —           |
|                     | 5.6    | Max. drawbar pull, laden/unladen            |       | N     | —          | —          | —           |
|                     | 5.8    | Max. gradeability, laden/unladen            |       | %     | 10/15      | 10/15      | 10/15       |
|                     | 5.10   | Service brake                               |       |       | Hydraulic  | Hydraulic  | Hydraulic   |
|                     | 5.11   | Parking brake                               |       |       | Mechanical | Mechanical | Mechanical  |
|                     | 6.1    | Drive motor rating S2 60 min                |       | kW    | 5.0X2      | 5.0X2      | 5.0X2       |
|                     | 6.2    | Lift motor rating at S3 15%                 |       | kW    | 11         | 11         | 11          |
| Electric-engine     | 6.4    | Battery voltage/nominal capacity            |       | V/Ah  | 80V/150AH  | 80V/205AH  | 80V/205AH   |
|                     | 6.5    | Battery weight                              |       | kg    | 220        | 220        | 220         |
|                     | 6.6    | Battery charging time                       |       | h     | 10         | 10         | 10          |
| Addition data       | 8.1    | Type of drive control                       |       |       | AC         | AC         | AC          |
|                     | 10.5   | Steering design                             |       |       | Hydraulic  | Hydraulic  | Hydraulic   |
|                     | 10.7   | Sound pressure level at the driver's ear    |       | dB(A) | 68         | 70         | 74          |

If there are improvements of technical parameters or configurations, no further notice will be given.  
The diagram shown may contain non-standard configurations.



# Mast Option

## CPD15TVL

| Mast types      | Lift height<br>( h3 ) | Height, Mast                |                           |               | Height,Free lift(h2) |               |
|-----------------|-----------------------|-----------------------------|---------------------------|---------------|----------------------|---------------|
|                 |                       | Height, mast<br>lowered(h1) | Height, mast extended(h4) |               | No<br>backrest       | With backrest |
|                 |                       |                             | No backrest               | With backrest |                      |               |
|                 | mm                    | mm                          | mm                        | mm            | mm                   | mm            |
| 2-Standard Mast | 3000                  | 2075                        | 3740                      | 4055          | 100                  | 100           |
|                 | 3600                  | 2375                        | 4340                      | 4655          | 100                  | 100           |
|                 | 4000                  | 2455                        | 4740                      | 5055          | 100                  | 100           |
| 3-Free Mast     | 4500                  | 2140                        | 5240                      | 5555          | 1430                 | 1115          |
|                 | 4800                  | 2240                        | 5540                      | 5855          | 1530                 | 1215          |
|                 | 5000                  | 2305                        | 5740                      | 6055          | 1595                 | 1280          |

## CPD18/20TVL

| Mast types      | Lift height<br>( h3 ) | Height, Mast                |                           |               | Height,Free lift(h2) |               |
|-----------------|-----------------------|-----------------------------|---------------------------|---------------|----------------------|---------------|
|                 |                       | Height, mast<br>lowered(h1) | Height, mast extended(h4) |               | No<br>backrest       | With backrest |
|                 |                       |                             | No backrest               | With backrest |                      |               |
|                 | mm                    | mm                          | mm                        | mm            | mm                   | mm            |
| 2-Standard Mast | 3000                  | 2075                        | 3740                      | 4055          | 100                  | 100           |
|                 | 3600                  | 2375                        | 4340                      | 4655          | 100                  | 100           |
|                 | 4000                  | 2455                        | 4740                      | 5055          | 100                  | 100           |
| 3-Free Mast     | 4500                  | 2140                        | 5240                      | 5555          | 1430                 | 1115          |
|                 | 4800                  | 2240                        | 5540                      | 5855          | 1530                 | 1215          |
|                 | 5000*                 | 2305                        | 5740                      | 6055          | 1595                 | 1280          |
|                 | 5500*                 | 2475                        | 6240                      | 6555          | 1765                 | 1450          |
|                 | 6000*                 | 2690                        | 6740                      | 7055          | 1980                 | 1665          |
|                 |                       |                             |                           |               |                      |               |

## Note\*

| CPD18TVL                                                                                                                             | Lift height (h3)mm | Tyre size, front | Overall width (b1/b2)mm |
|--------------------------------------------------------------------------------------------------------------------------------------|--------------------|------------------|-------------------------|
| 3-Free Mast                                                                                                                          | 5000               | 200/50-10        | 1170                    |
|                                                                                                                                      | 5500               |                  |                         |
|                                                                                                                                      | 6000               |                  |                         |
| *The parameters of CPD18TVL will be altered in tyre size and overall width, when choosing triplex mast with lift height over 5000mm. |                    |                  |                         |

# Option

| No.                                       | Optional items       | CPD15TVL                                                                                                                       | CPD18TVL                                                                                                                                                     | CPD20TVL                                                                                                                                                            |
|-------------------------------------------|----------------------|--------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1.1                                       | Fork dimension       | ●100*40*920○100*40*1070○100*40*1100○100*40*1150<br>○100*40*1220○100*40*1370○100*40*1520○100*40*1800                            |                                                                                                                                                              | ●122*40*1070○122*40*920<br>○122*40*1150○122*40*1220<br>○122*40*1370○122*40*1500<br>○122*40*1600○122*40*1700<br>○122*40*1820○122*40*1900<br>○122*40*2000○122*40*2200 |
| 1.4                                       | Fork carriage width  | ●1040mm○Yes and can be customized                                                                                              |                                                                                                                                                              |                                                                                                                                                                     |
| 1.5                                       | Fork carriage height | ●1067mm (42in) ○1220mm (48in) ○1520mm (60in) ○Yes and can be customized                                                        |                                                                                                                                                              |                                                                                                                                                                     |
| 2.5                                       | Front wheel material | ●Solid○Non-marking solid                                                                                                       |                                                                                                                                                              |                                                                                                                                                                     |
| 2.6                                       | Rear wheel material  | ●Solid○Non-marking solid                                                                                                       |                                                                                                                                                              |                                                                                                                                                                     |
| 2.7                                       | Battery capacity     | ●150Ah                                                                                                                         | ●205Ah                                                                                                                                                       |                                                                                                                                                                     |
| 2.8                                       | Charger              | ●80V-35A single-phase integrated<br>○80V-60A 3-phase integrated<br>○80V-35A single-phase external<br>○80V-65A 3-phase external | ●80V-35A single-phase integrated<br>○80V-60A 3-phase integrated<br>○80V-35A single-phase external<br>○80V-65A 3-phase external<br>○80V-100A 3-phase external | ●80V-35A single-phase integrated<br>○80V-60A 3-phase integrated<br>○80V-35A single-phase external<br>○80V-65A 3-phase external<br>○80V-100A 3-phase external        |
| 2.9                                       | Battery indicator    | ●With time                                                                                                                     |                                                                                                                                                              |                                                                                                                                                                     |
| 2.10                                      | Seat type            | ●Regular<br>○Premium<br>○Suspension<br>○Suspension+seatbelt logic switch                                                       | ●Regular<br>○Premium<br>○Suspension<br>○Suspension+seatbelt logic switch                                                                                     | ●Regular<br>○Premium<br>○Suspension<br>○Suspension+seatbelt logic switch                                                                                            |
| 2.11                                      | Attachments          | ●No○Built-in sideshifter○External shifter○Adjustable fork                                                                      |                                                                                                                                                              |                                                                                                                                                                     |
| 2.13                                      | Traction pin         | ●Yes                                                                                                                           |                                                                                                                                                              |                                                                                                                                                                     |
| 3.5                                       | Front lamp           | ●LED                                                                                                                           |                                                                                                                                                              |                                                                                                                                                                     |
| 3.6                                       | Rear lamp            | ●No○LED                                                                                                                        |                                                                                                                                                              |                                                                                                                                                                     |
| 3.7                                       | Warning lamp         | ●Yes                                                                                                                           |                                                                                                                                                              |                                                                                                                                                                     |
| 3.8                                       | Steering lamp        | ●Yes                                                                                                                           |                                                                                                                                                              |                                                                                                                                                                     |
| 3.9                                       | Blue lamp            | ●No○2 front○1 rear○2 front + 1 rear                                                                                            |                                                                                                                                                              |                                                                                                                                                                     |
| 3.10                                      | Area warning lamp    | ●No○1 left + 1 right (Red)                                                                                                     |                                                                                                                                                              |                                                                                                                                                                     |
| 3.11                                      | Rearview mirror      | ●1 in the middle○Add 1 rearview mirror on both sides                                                                           |                                                                                                                                                              |                                                                                                                                                                     |
| 3.12                                      | Buzzer               | ●Yes                                                                                                                           |                                                                                                                                                              |                                                                                                                                                                     |
| 3.17                                      | OPS system           | ●Yes                                                                                                                           |                                                                                                                                                              |                                                                                                                                                                     |
| 3.23                                      | Telematics           | ●No○Yes and not customized                                                                                                     |                                                                                                                                                              |                                                                                                                                                                     |
| 4.3                                       | Cabin                | ●No                                                                                                                            |                                                                                                                                                              |                                                                                                                                                                     |
| 4.9                                       | Heater               | ●No                                                                                                                            |                                                                                                                                                              |                                                                                                                                                                     |
| Note: ●Standard ○ Optional - Inconformity |                      |                                                                                                                                |                                                                                                                                                              |                                                                                                                                                                     |

## Dimension



**CPD15TVL**    Length to face of forks: 1813mm(L2)    overall width: 1070mm(b1/b2)



**CPD18TVL**    Length to face of forks: 1913mm(L2)    overall width: 1070mm(b1/b2)



**CPD20TVL**    Length to face of forks: 1950mm(L2)    overall width: 1170mm(b1/b2)