



 Headquarter



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**Li-ion**  
5.0-10.0 TON

**NL SERIES LITHIUM BATTERY  
COUNTERBALANCE FORKLIFT**

[www.unforklift.com](http://www.unforklift.com)

**EFFICIENT / POWERFUL**  
**THE UN FORKLIFT TRUCK**



**UN FORKLIFT**

# NL Series Lithium Battery Counterbalance Forklift

Capacity 5,000 to 10,000kg



Based on the success of NL series of 2.0-3.5Ton, UN Forklift developed this 5.0-10.0Ton lithium battery forklift. This NL series 5.0-10.0Ton Li-ion forklift adopts UN internal combustion forklift's design with the strong chassis, frame, counterweight and mast.

- The power structure is designed to adopt UN electric forklift's concept, which use full AC system, Italy imported ZAPI controller, BMS control system and high quality lithium battery.
- This unrivalled combination of IC forklift and electric forklift brings an ideal solution to reach customers' satisfaction on cost saving and environmental conservation.
- With many options of batteries, it extends the working hours, enhance the working power and greatly improves the working performance and efficiency.

## MORE RELIABLE MORE SUSTAINABLE

### Strong and Durable Chassis

Adopting the durable and reliable IC truck structure, mast, axles and tyres, which have been tested by the market for more than 20 years.



### Comfort and Ergonomics



More spacious legroom than standard Li-ion forklifts. The strong IC Forklift structure offers better stability, which brings comfortable driving experience for operators, especially during turning.



ZAPI controller equipped with large LED screen brings excellent visibility and more clear reading; The Can-bus helps operators monitor the forklift all the time.

### Long Term Performance

The battery can be charged and discharged about 4000 times. Long life cycle plus 5 years guarantee on lithium battery ease customers' worry about the battery.



# WORK MAX. WORTH MAX

## Multiple-site application

Adopting the IC forklift structures with higher ground clearance, enable it to operate indoor and outdoor, with great waterproof and dustproof performance.



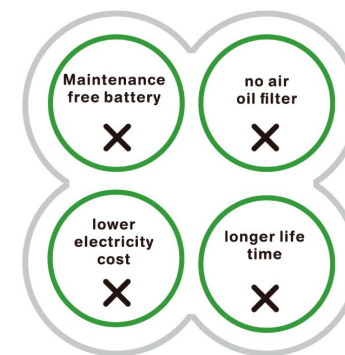
## Fast Charging

With two charging sockets, a fully charge only needs about 2-2.5 hours, and it can be charged at any time during the day to ensure multiple shifts.



## Lower Total Ownership Cost(TOC)

The purchase cost is higher than stage 3 engine IC forklift but lower than stage 5 engine IC forklift. And there are no fuel consumption cost, no maintenance fee for air filter, oil filter or engine oil changes compare to a regular IC forklift. So in the long run, it has a lower TOC.



## ADVANTAGES OF LITHIUM BATTERY TECHNOLOGY



Fully charged in about two hours, and can be charged to 80% in 1.5 hours



Longer service life and lower maintenance compared with lead-acid batteries



Maintenance-free with no odour from gases or battery acidification



Charging can be interrupted at anytime



5-year battery warranty, about 4000 times long life cycle



# SAFETY AND CONVENIENCE

Anti-slip function on hill, accumulator and optional OPS will make the operation much safer. Accumulator will ensure the brake works for several times even if the battery is dead.



The special hydraulic station ensures the steering is working when you are applying the brake. CAN-bus and BMS system monitor and protect the truck all the time. The big open angle allows you to reach all the parts easily.



## NL SERIES LITHIUM BATTERY COUNTERBALANCE FORKLIFT SPECIFICATIONS

| General |                                            |         | UN                        |                           |                           |
|---------|--------------------------------------------|---------|---------------------------|---------------------------|---------------------------|
|         |                                            |         | FB50                      | FB70                      | FB100                     |
| 2       | Model                                      |         | Electric                  | Electric                  | Electric                  |
| 3       | Power Type                                 |         | Electric                  | Electric                  | Electric                  |
| 4       | Rated Load Capacity                        | Q(kg)   | 5000                      | 7000                      | 10000                     |
| 5       | Load Centre                                | C(mm)   | 600                       | 600                       | 600                       |
| 6       | Rated Lift Height                          | H3(mm)  | 3000                      | 3000                      | 3000                      |
| 7       | Free Lift Height                           | H2(mm)  | 212                       | 1220×150×65               | 220                       |
| 8       | Fork Size (L×W×T)                          | mm      | 1220×150×60               | 1220×150×65               | 1220×175×80               |
| 9       | Mast Tilt Angle (F/R, °/8°)                | deg     | 6°/12°                    | 6°/12°                    | 6°/12°                    |
| 10      | Fork Overhang (Wheel Center to Fork Face)  | X1(mm)  | 587                       | 592                       | 721                       |
| 11      | Rear Overhang                              | X2(mm)  | 640                       | 705                       | 760                       |
| 12      | Ground Clearance (Bottom of Mast)          | H7(mm)  | 200                       | 200                       | 245                       |
| 13      | Length to Face of Fork (Without Fork)      | L1(mm)  | 3477                      | 3547                      | 4281                      |
| 14      | Overall Width                              | B1(mm)  | 1995                      | 1995                      | 2165                      |
| 15      | Mast Lowered Height                        | H1(mm)  | 2515                      | 2615                      | 2845                      |
| 16      | Mast Extended Height (With Backrest)       | H4(mm)  | 4437                      | 4437                      | 4260                      |
| 17      | Overhead Guard Height                      | H5(mm)  | 2450                      | 2450                      | 2540                      |
| 18      | Turning Radius (Outside)                   | Wa(mm)  | 3280                      | 3360                      | 3900                      |
| 19      | Min.Aisle width for pallets                | As1(mm) | 5285                      | 5365                      | 6045                      |
| 20      | Travel Speed (No Load)                     | km/h    | 14/15                     | 14/15                     | 15/13                     |
| 21      | Lifting Speed (Full Load)                  | mm/sec  | 400/350                   | 400/350                   | 320/270                   |
| 22      | Lowering Speed(Full Load/No Load)          | mm/sec  | No Load≥300 Full Load≤600 | No Load≥300 Full Load≤600 | No Load≥300 Full Load≤600 |
| 23      | Max.Drawbar Pull (Full Load)               | N       | 3500                      | 3500                      | 3800                      |
| 24      | Max.Gradeability (Full Load)               | %       | 15                        | 14                        | 12/13                     |
| 25      | Tyre (Front x 4)                           | mm      | 8.25-15-14PR              | 8.25-15-14PR              | 9.00-20-16PR              |
| 26      | Tyre (Rear x 2)                            | mm      | 8.25-15-14PR              | 8.25-15-14PR              | 9.00-20-16PR              |
| 27      | Front Tread                                | mm      | 1470                      | 1470                      | 1600                      |
| 28      | Rear Tread                                 | mm      | 1700                      | 1700                      | 1700                      |
| 29      | Wheelbase                                  | Y(mm)   | 2250                      | 2250                      | 2800                      |
| 30      | Total Weight                               | kg      | 8260                      | 9760                      | 12900                     |
| 31      | Front Axle Weight Distribution (Full Load) | kg      | 11840                     | 14870                     | 20610                     |
| 32      | Rear Axle Weight Distribution (Full Load)  | kg      | 1400                      | 1890                      | 2290                      |
| 33      | Front Axle Weight Distribution (No Load)   | kg      | 4250                      | 4170                      | 5660                      |
| 34      | Rear Axle Weight Distribution (No Load)    | kg      | 4010                      | 5590                      | 8240                      |
| 35      | Battery                                    | V/Ah    | 76.8V/560AH               | 76.8V/700AH               | 76.8V/840AH               |
| 36      | Drive Motor                                | KW      | 25                        | 25                        | 35                        |
| 37      | Lift Motor                                 | KW      | 21x2                      | 21x2                      | 25.4x2                    |
| 38      | Operating Pressure (For Attachments)       | Mpa     | 19.5                      | 19.5                      | 19.5                      |

## 5.0-10t MAST SPECIFICATIONS & RATED CAPACITIES

| Mast Type                              | Mast Name |        | Max. Fork Height (mm) |      | Load Capacity (kg) |      |       |      | Overall Height (mm) |                  |               |         |                  |               | Free Lift (mm) |          |                  |               | Free Lift (mm) | Tilt Angle |      |                  |               |
|----------------------------------------|-----------|--------|-----------------------|------|--------------------|------|-------|------|---------------------|------------------|---------------|---------|------------------|---------------|----------------|----------|------------------|---------------|----------------|------------|------|------------------|---------------|
|                                        |           |        |                       |      |                    |      |       |      | Lowered             | Extended         |               | Lowered | Extended         |               | Lowered        | Extended | Without Backrest | With Backrest |                |            |      | Without Backrest | With Backrest |
|                                        |           |        |                       |      |                    |      |       |      |                     | Without Backrest | With Backrest |         | Without Backrest | With Backrest |                |          |                  |               |                |            |      |                  |               |
|                                        | 5.0t/7.0t | 10t    | 5.0t/7.0t             | 10t  | 5.0t               | 7.0t | 10t   | 5.0t |                     |                  | 7.0t          |         |                  | 10t           |                | 5.0t     |                  |               | 7.0t           |            | 10t  | 5.0t/7.0t        | 10t           |
| 2-Stage<br>Wide View Mast              | M300      | M250   | 3000                  | 2500 | 5000               | 7000 | 10000 | 2515 | 3967                | 4437             | 2615          | 4067    | 4437             | 2595          | 3770           | 212      | 212              | 217           | 217            | 220        | 6-12 | 6-12             |               |
|                                        | M330      | M300   | 3300                  | 3000 | 5000               | 7000 | 10000 | 2665 | 4267                | 4737             | 2765          | 4367    | 4737             | 2845          | 4270           | 212      | 212              | 217           | 217            | 220        | 6-12 | 6-12             |               |
|                                        | M350      | M350   | 3500                  | 3500 | 5000               | 7000 | 10000 | 2765 | 4467                | 4937             | 2865          | 4567    | 4937             | 3095          | 4770           | 212      | 212              | 217           | 217            | 220        | 6-12 | 6-12             |               |
|                                        | M375      | M400   | 3750                  | 4000 | 5000               | 7000 | 10000 | 2890 | 4717                | 5187             | 2990          | 4817    | 5187             | 3395          | 5320           | 212      | 212              | 217           | 217            | 220        | 6-12 | 6-12             |               |
|                                        | M400      | M450   | 4000                  | 4500 | 5000               | 7000 | 10000 | 3065 | 4967                | 5437             | 3165          | 5067    | 5437             | 3645          | 5820           | 212      | 212              | 217           | 217            | 220        | 6-12 | 6-12             |               |
|                                        | M430      | M475   | 4300                  | 4750 | 5000               | 7000 | 10000 | 3265 | 5267                | 5737             | 3365          | 5367    | 5637             | 3770          | 6065           | 212      | 212              | 217           | 217            | 220        | 6-6  | 6-6              |               |
|                                        | M450      | M500   | 4500                  | 5000 | 5000               | 7000 | 10000 | 3315 | 5467                | 5937             | 3415          | 5567    | 5937             | 3895          | 6320           | 212      | 212              | 217           | 217            | 220        | 6-12 | 6-6              |               |
|                                        | M475      | M550   | 4750                  | 5500 | 5000               | 7000 | 9000  | 3440 | 5717                | 6187             | 3540          | 5817    | 6187             | 4195          | 7115           | 212      | 212              | 217           | 217            | 220        | 6-6  | 3-6              |               |
|                                        | M500      | M600   | 5000                  | 6000 | 5000               | 7000 | 8000  | 3565 | 5967                | 6437             | 3665          | 6067    | 6437             | 4445          | 7615           | 212      | 212              | 217           | 217            | 220        | 6-6  | 3-6              |               |
|                                        | M550      |        | 5500                  |      | 4750               | 6600 |       | 3865 | 6467                | 6937             | 3965          | 6567    | 6937             |               |                | 212      | 212              | 217           | 217            |            | 3-6  |                  |               |
| M600                                   |           | 6000   |                       | 4400 | 6400               |      | 4115  | 6967 | 7437                | 4215             | 7067          | 7437    |                  |               | 212            | 212      | 217              | 217           |                | 3-6        |      |                  |               |
| 3-Stage<br>Full Free<br>Wide View Mast | TFM400    | TFM360 | 4000                  | 3600 | 5000               | 7000 | 8000  | 2510 | 5112                | 5437             | 2610          | 5112    | 5437             | 2565          | 4940           | 1378     | 1065             | 1478          | 1165           | 1200       | 6-6  | 6-12             |               |
|                                        | TFM435    | TFM400 | 4350                  | 4000 | 4500               | 6500 | 8000  | 2625 | 5462                | 5787             | 2725          | 5462    | 5787             | 2695          | 5330           | 1494     | 1180             | 1594          | 1280           | 1330       | 6-6  | 6-12             |               |
|                                        | TFM450    | TFM435 | 4500                  | 4350 | 4500               | 6000 | 8000  | 2675 | 5612                | 5937             | 2775          | 5612    | 5937             | 2815          | 5690           | 1544     | 1230             | 1644          | 1330           | 1450       | 6-6  | 6-12             |               |
|                                        | TFM480    | TFM450 | 4800                  | 4500 | 4500               | 6000 | 7800  | 2775 | 5912                | 6237             | 2875          | 5912    | 6237             | 2865          | 5840           | 1644     | 1330             | 1744          | 1430           | 1500       | 6-6  | 6-12             |               |
|                                        | TFM500    | TFM480 | 5000                  | 4800 | 4500               | 6000 | 7500  | 2840 | 6112                | 6437             | 2940          | 6112    | 6437             | 2965          | 6140           | 1708     | 1395             | 1808          | 1495           | 1600       | 3-6  | 6-6              |               |
|                                        | TFM550    | TFM500 | 5500                  | 5000 | 4200               | 5700 | 7500  | 3005 | 6612                | 6937             | 3105          | 6612    | 6937             | 3030          | 6335           | 1874     | 1560             | 1974          | 1660           | 1665       | 3-6  | 6-6              |               |
|                                        | TFM600    | TFM540 | 6000                  | 5400 | 4000               | 5400 | 7000  | 3220 | 7112                | 7437             | 3320          | 7112    | 7437             | 3220          | 6755           | 2044     | 1775             | 2144          | 1875           | 1855       | 3-6  | 3-6              |               |
|                                        |           |        |                       | 6000 |                    | 6000 |       |      |                     |                  |               |         | 3420             | 7355          |                |          |                  |               | 2055           |            | 3-6  |                  |               |

Note: 1. With side shifter, load capacity subtract 500Kg. 2. Double front wheels are standard.

