MOVE THE WORLD FORWARD MITSUBISHI HEAVY INDUSTRIES GROUP

ESSENTiAL

## PBP15-20Q(B)(L) & PBV20QL Series

# PEDESTRIAN POWER PALLET TRUCK

1.5-2.0 tonnes

## DESIGNED TO DELIVER BUILT TO ENDURE

An economical price for the ESSENTiAL range doesn't mean that there should be any need to compromise on quality or performance. The tough construction of PBP15-20Q(B)(L)(E) & PBV20QL Series models mean they're built to last for years with minimal servicing requirements, but can make a big difference to productivity and efficiency in the warehouse.

**SPECIFICATIONS**

PBP15QBL
PBP18QL
PBP20QBL
PBP20QL
PBV20QL

**WHEN RELIABILITY IS EVERYTHING...**

MITSUBISHI FORKLIFT TRUCKS

# ESSENTIAL

## PBP15-20Q(B)(L) & PBV20QL Series

# PEDESTRIAN POWER PALLET TRUCK

1.5-2.0 tonnes

### BRAKES

- **Electromagnetic braking system** [1) 2) 6)]
  Smooth, steady deceleration and prolonged life of brakes.
- **Parking brake**
  Automatically stops on gradients and ramps
- **High-efficiency regenerative braking** [6)]
  This gives more effective control and reduces brake wear. Kinetic energy from braking charges the battery.

### DRIVE

- **Powerful AC drive motor**
  Excellent traction, smooth, quiet, controlled operation, extended shift length and lower maintenance requirements.
- **TractionPlus** [2)]
  Suspension system works to continuously increase pressure of the drive wheel. This ensures optimum traction on wet surfaces for better productivity and minimal risk of accidents.

### ELECTRICAL AND CONTROL SYSTEMS

- **High performance Curtis motor drive controller** [1) 2)]
  This delivers excellent traction control.
- **Battery Discharge Indicator with hour meter** [1) 2) 4)]
  Fitted as standard for battery protection and preventing deep discharge
- **Li-ion battery**
  Fast opportune charging removes the need for extra batteries and allows 24/7 operation. (Option)
- **External charger**
  It's possible to charge the battery onboard.
- **Sideways battery exchange** [1) 2) 3)]
  Battery can be changed out in 10 seconds without the need for additional tools

### FORKS AND MAST

- **Easy-to-adjust fork leverage** [1)]
  Forks can be adjusted via conveniently located bolts.
- **High-strength tapered forks** [1) 2)]
  Constructed from 6mm manganese steel, tapering makes access to pallets in racks or block stacks is easier, quicker, and safer.
- **Skid runner welded to the forks** [1) 2)]
  Maintenance-free and provides easy entry and exit to a pallet (Option)
- **Pallet entry and exit rollers** [1) 2) 6)]
  Provides extra easy entry and exit to a pallet (Option))

### FRAME AND BODY

- **Tough construction**
  Truck has been designed and rigorously tested to ensure high stability, rigidity, and protection.
- **Compact design and tight turning radius** [2) 3)]
  Works well in small aisles and narrow spaces.
- **Large diameter plunger cylinder** [3)]
  Low hydraulic system pressure, provides low failure rate and long service life.

### OPERATOR COMPARTMENT AND CONTROLS

- **Easy-to-operate long tiller arm** [1) 2) 3)]
  Features an ergonomic tiller head with simple controls. Long arm helps to keep the load at a safe distance from the operator to reduce accidents.
- **Creep speed function and tiller-up drive** [1) 2) 3)]
  Both help to maximise safety and control in confined spaces.
- **Emergency reverse safety switch** [1) 2) 4)]
  Button on the end of the tiller head immediately reverses the truck a short way to prevent the operator getting trapped.
- **Multi-function control tiller head**
  Combines the functions of lifting, lowering, forward, backwards, emergency reverse, electric lock, and an information display.
- **PIN code access** [1) 2) 5)]
  Stops unauthorised truck use and keeps you aware of who's operating at all times.

**For more information on PBP15-20Q(B)(L) & PBV20QL Series please visit our website**

mft2.eu/esspbppbvq

FOOTNOTES:
1) PBP18-20QL, 2) PBV20QL, 3) PBP15QBL, 4) PBP15-12QBL (Option only on 2.0-tonne models), 5) PBP15-12QBL (Option), 6) PBP15-20QBL

# ESSENTIAL

## PBP15-20Q(B)(L) & PBV20QL Series

## PEDESTRIAN POWER PALLET TRUCK

1.5-2.0 tonnes

### OTHER FEATURES

- **Battery heating system** [1) 2)]
  Used in cold environments down as low as 1°.
- **Side castor wheels** [1) 2) 5)]
  Improves stability.
- **Load check scale** [3)]
  Helps driver to identify overweight loads.
- **Electrical cut off of lifting at max height** [3)]
  Protects hydraulic system, cylinder, and electrical components.
- **Printer on scale** [4)]
  This documents individual weighings so operators don't have to do this by hand.
- **Li-ion battery trolley (twin battery station)** [2)]
  This helps with battery exchange

FOOTNOTES:
1) PBP18-20QL, 2) PBV20QL, 3) PBP15-QBL, PBP15QBE, 4) PBP15-12QBL (Option only on 2.0-tonne models), 5) PBP15-12QBL (Option)

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# ESSENTIAL
## LI-ION BATTERY SYSTEMS

## MAKE YOUR FORKLIFT GO EVEN FURTHER

**Tried, tested and proven in the field, lead-acid batteries have been the long-standing choice for companies employing electric lift trucks. However, with long charging times, demanding maintenance requirements, the need for extra batteries, and high risk of operator misuse, day-to-day use can be a challenge.**

Fortunately, there's a new battery system on the block: Li-ion from Mitsubishi Forklift Trucks.

Designed to meet your business' demands — including multi-shift (24/7) operations — without the need for spare batteries, our high-performance Li-ion battery system is up to 30% more efficient than lead-acid counterparts. Plus, it's virtually error-proof, thanks to its ultra-low-maintenance design which prevents cell damage.

- **Gas-emission free**
  No need for air ventilation.
- **Exceptional high battery and charger efficiency**
  State-of-the-art technology delivers up to 30% more power efficiency than lead-acid batteries.
- **Maintenance-free design**
  No need for daily checks and water re-fills. This reduces the risk of operators damaging cells and reducing their lifetime. Needs a full charge each week to activate cell balancing.
- **No need for spare batteries or charging room**
  You can saves both space and costs in multi-shift applications, maximising profitability.
- **Quick charge capabilities**
  Just 15 minutes is all your battery needs to keep your truck going for a few more hours. It only takes 1 to 2 hours to fully charge a completely discharged battery.
- **Higher sustained voltage**
  This gives more consistent lifting and driving performance — particularly noticeable towards the end of a shift.
- **Multiple safety features**
  This includes circuit protection, deep-discharge and overcharge protection, and individual cell temperature and voltage monitoring.
- **On-the-go performance and monitoring**
  The system's integrated monitoring system has an easy-to-read display unit.
- **Wide choice of battery and charger capacities**
  The most suitable power supply can be matched to the exact requirements of a specific application.

**Clean Li-ion batteries are ideal for sensitive environments such as those in the food or packaging industries.**

### Fully integrated Li-ion battery

Features a sophisticated CANbus communication and an automatic ON/OFF synchronization between battery and truck. Battery level, notifications and alarms are integrated into the truck display, to secure clear and easy overview for the truck operator.

### For more information on Li-ion please visit our website

mft2.eu/lion

Li-ion battery option is available in selected regions.
Continuing improvement may lead to changes in these specifications

# VDI - PERFORMANCE & DIMENSIONS

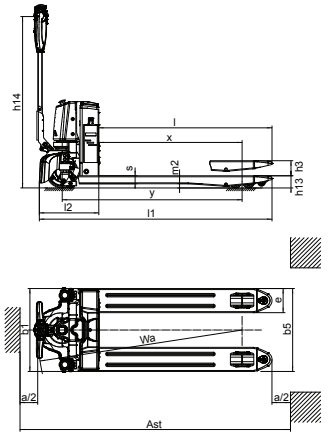
| | CHARACTERISTICS | | | | |
|---|---|---|---|---|---|
| 1.1 | Manufacturer | | | Mitsubishi Forklift Trucks | Mitsubishi Forklift Trucks |
| 1.2 | Manufacturer's model designation | | | PBP15QBL | PBP20QBL |
| 1.3 | Power source | | | Battery | Battery |
| 1.4 | Operator type | | | Pedestrian | Pedestrian |
| 1.5 | Load capacity | Q | kg | 1500 | 2000 |
| 1.6 | Load center distance | c | mm | 600 | 600 |
| 1.8 | Load wheel axle to fork face (forks lowered) | x | mm | 950/1020 | 950/1020 |
| 1.9 | Wheelbase | y | mm | 1195/1265 | 1195/1265 |
| | **WEIGHT** | | | | |
| 2.1b | Truck weight without load, with maximum battery weight | | kg | 135 | 140 |
| 2.2 | Axle loadings with nominal load & maximum battery weight, drive / load side | | kg | 665 / 970 | 870 / 1270 |
| 2.3 | Axle loadings without load & with maximum battery weight, drive / load side | | kg | 95 / 40 | 98 / 42 |
| | **WHEELS, DRIVE TRAIN** | | | | |
| 3.1 | Tyres: PT = Power Thane, Vul = Vulkollan, P = Polyurethane, N = Nylon, R = Rubber drive / load side | | | P | P |
| 3.2 | Tyre dimensions, drive side | | mm | 210 x 70 | 210 x 70 |
| 3.3 | Tyre dimensions, load side | | mm | 80x70 (Tandem)<br>80x93 (Single) | 80x70 (Tandem)<br>80x93 (Single) |
| 3.4 | Castor wheel dimensions (diameter x width) | | mm | 60x35 (Option) | 60x35 (Option) |
| 3.5 | Number of wheels, load / drive side (x = driven) | | | 1x2( | 1x2( |
| 3.6 | Track width (center of tyres), drive side | b10 | mm | 460 | 460 |
| 3.7 | Track width (center of tyres), load side | b11 | mm | 390/520 | 390/520 |
| | **DIMENSIONS** | | | | |
| 4.4 | Lift height | h3 | mm | 110 | 110 |
| 4.9 | Height of tiller arm / steering console (min./max.) | h7 | mm | 650/1135 | 650/1135 |
| 4.15 | Fork height, fully lowered | h13 | mm | 80 | 80 |
| 4.19 | Overall length | l1 | mm | 1545 | 1545 |
| 4.20 | Length to fork face | l2 | mm | 395 | 395 |
| 4.21 | Overall width | b1/b2 | mm | 550 | 550 |
| 4.22 | Fork dimensions (thickness, width, length) | s/e/l | mm | 70/160/1150 | 70/160/1150 |
| 4.25 | Outside width over forks (minimum / maximum) | b5 | mm | 550 | 550 |
| 4.32 | Ground clearance at center of wheelbase, (forks lowered) | m2 | mm | 27 | 27 |
| 4.33a | Working aisle width (Ast) with 1000 x 1200 mm pallets, load crosswise | Ast | mm | 2150 | 2150 |
| 4.33b | Working aisle width (Ast3) with 1000 x 1200 mm pallets, load crosswise | Ast3 | mm | | |
| 4.33c | Working aisle width (Ast) with 1000 x 1200 mm pallets, load crosswise, platform up/down | Ast | mm | | |
| 4.34a | Working aisle width (Ast) with 800 x 1200 mm pallets, load lengthwise | Ast | mm | 2015 | 2015 |
| 4.34b | Working aisle width (Ast3) with 800 x 1200 mm pallets, load lengthwise | Ast3 | mm | | |
| 4.35c | Working aisle width (Ast) with 800 x 1200 mm pallets, load lengthwise, platform up/down | Ast | mm | | |
| 4.35 | Turning radius | Wa | mm | 1345 | 1345 |
| | **PERFORMANCE** | | | | |
| 5.1 | Travel speed, with / without load | | km/h | 4.3/4.5 | 4.6/4.8 |
| 5.2 | Lifting speed, with / without load | | m/s | 0.025/0.030 | 0.020/0.025 |
| 5.3 | Lowering speed, with / without load | | % | 0.035/0.025 | 0.035/0.025 |
| 5.8 | Maximum gradeability with / without load | | s | 5 / 20 | 6 / 20 |
| 5.10 | Service brakes (mechanical / hydraulic / electric / pneumatic) | | | | Electric |
| | **ELECTRIC MOTORS** | | | | |
| 6.1 | Drive motor capacity (60 min. short duty) | | kW | 0.75 | 1 |
| 6.2 | Lift motor output at 15% duty factor | | kW | 0.8 | 0.8 |
| 6.4 | Battery voltage/capacity at 5-hour discharge | | V/Ah | 24 / 25 | 48 / 20 |
| 6.5 | Battery weight | | kg | 9 | 10 |
| 6.6b | Energy consumption according to VDI 60 cycle | | kWh / h | | |
| | **MISCELLANEOUS** | | | | |
| 8.1 | Type of drive control | | | Stepless | Stepless |
| 10.7 | Level of noise at the ear level of the driver according to EN 12 053:2001 and EN ISO 4871 in work LpAZ | | dB (A) | | |
| 10.7.1 | Level of noise at the ear level of the driver according to EN 12 053:2001 and EN ISO 4871, drive/lift/idle LpAZ | | dB (A) | 70 | 70 |
| 10.7.3 | Hand-arm vibration (EN 13 059:2002) | | | | |

ESSENTIAL

## PBP15 - 20QBL

# PEDESTRIAN POWER PALLET TRUCK

1.5 - 2.0 tonnes




Continuing improvement may lead to changes in these specifications

# VDI - PERFORMANCE & DIMENSIONS

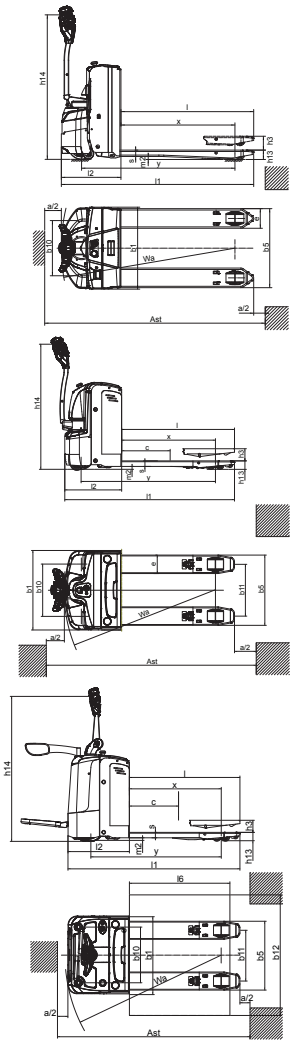
| | | | | | | |
|---|---|---|---|---|---|---|
| | **CHARACTERISTICS** | | | | | |
| 1.1 | Manufacturer | | | Mitsubishi Forklift Trucks | Mitsubishi Forklift Trucks | Mitsubishi Forklift Trucks |
| 1.2 | Manufacturer's model designation | | | PBP18QL | PBP20QL | PBV20QL |
| 1.3 | Power source | | | Battery | Battery | Battery |
| 1.4 | Operator type | | | Pedestrian | Pedestrian | Pedestrian / stand on |
| 1.5 | Load capacity | Q | kg | 1800 | 2000 | 2000 |
| 1.6 | Load center distance | c | mm | 600 | 600 | 600 |
| 1.8 | Load wheel axle to fork face (forks lowered) | x | mm | 987 | 964 | 964 |
| 1.9 | Wheelbase | y | mm | 1330 | 1359 | 1261 |
| | **WEIGHT** | | | | | |
| 2.1b | Truck weight without load, with maximum battery weight | | kg | 420 | 620 | |
| 2.2 | Axle loadings with nominal load & maximum battery weight, drive / load side | | kg | 992 / 1228 | 1170 / 1450 | 1300 / 1410 |
| 2.3 | Axle loadings without load & with maximum battery weight, drive / load side | | kg | 324 / 496 | 470 / 150 | 600 / 110 |
| | **WHEELS, DRIVE TRAIN** | | | | | |
| 3.1 | Tyres: PT = Power Thane, Vul = Vulkollan, P = Polyurethane, N = Nylon, R = Rubber drive / load side | | | P | P | P / P |
| 3.2 | Tyre dimensions, drive side | | mm | 230 x 100 | 250 x 70 | 250 x 80 |
| 3.3 | Tyre dimensions, load side | | mm | 82 x 98 / 82 x 70 | 82X126 (Single)<br>82x98 (Tandem) | 82 x 126(Single)<br>82 x 988Tandem) |
| 3.4 | Castor wheel dimensions (diameter x width) | | mm | 90 x 40 | 127 x 57 | 127 x 57 |
| 3.5 | Number of wheels, load / drive side (x = driven) | | | 1x + 2/2 ( | 1x + 2/2 ( | 1x + 2/2 ( |
| 3.6 | Track width (center of tyres), drive side | b10 | mm | 478 | 510 | 537 |
| 3.7 | Track width (center of tyres), load side | b11 | mm | 375 | 370 | 340 / 370 / 470 / 505 |
| | **DIMENSIONS** | | | | | |
| 4.4 | Lift height | h3 | mm | 120 | 120 | 120 |
| 4.9 | Height of tiller arm / steering console (min./max.) | h7 | mm | 750 / 1250 | 530 / 1230 | 1050 / 1450 |
| 4.15 | Fork height, fully lowered | h13 | mm | 82 | 82 | 82 |
| 4.19 | Overall length | l1 | mm | 1666 | 1705 | 1760 |
| 4.20 | Length to fork face | l2 | mm | 516 | 555 | 610 / 1072 |
| 4.21 | Overall width | b1/b2 | mm | 710 | 775 | 775 |
| 4.22 | Fork dimensions (thickness, width, length) | s/e/l | mm | 55 / 160 / 1150 | 54 x 180 x 1150 | 54 / 180 / 1150 |
| 4.25 | Outside width over forks (minimum / maximum) | b5 | mm | 550 / 685 | 520 / 550 / 685 | 520 / 550 / 650 / 685 |
| 4.32 | Ground clearance at center of wheelbase, (forks lowered) | m2 | mm | 27 | 28 | 28 |
| 4.33a | Working aisle width (Ast) with 1000 x 1200 mm pallets, load crosswise | Ast | mm | 2302 | 2320 | |
| 4.33b | Working aisle width (Ast3) with 1000 x 1200 mm pallets, load crosswise | Ast3 | mm | | | |
| 4.33c | Working aisle width (Ast) with 1000 x 1200 mm pallets, load crosswise, platform up/down | Ast | mm | | | 1960 / 2422 |
| 4.34a | Working aisle width (Ast) with 800 x 1200 mm pallets, load lengthwise | Ast | mm | 2156 | 2180 | |
| 4.34b | Working aisle width (Ast3) with 800 x 1200 mm pallets, load lengthwise | Ast3 | mm | | | |
| 4.35c | Working aisle width (Ast) with 800 x 1200 mm pallets, load lengthwise, platform up/down | Ast | mm | | | 2010 / 2472 |
| 4.35 | Turning radius | Wa | mm | 1504 | 1520 | 1600 |
| | **PERFORMANCE** | | | | | |
| 5.1 | Travel speed, with / without load | | km/h | 5.8 / 6 | 5.5 / 5.6 | 7 / 7.1 |
| 5.2 | Lifting speed, with / without load | | m/s | 0.03 / 0.038 | 0.025 / 0.035 | 0.025 / 0.035 |
| 5.3 | Lowering speed, with / without load | | % | 0.04 / 0.036 | 0.035 / 0.030 | 0.035 / 0.030 |
| 5.8 | Maximum gradeability with / without load | | s | 8 / 20 | 8 / 20 | 8 / 20 |
| 5.10 | Service brakes (mechanical / hydraulic / electric / pneumatic) | | | Electric | Electric | Electric |
| | **ELECTRIC MOTORS** | | | | | |
| 6.1 | Drive motor capacity (60 min. short duty) | | kW | 1.2 | 1.2 | 1.5 |
| 6.2 | Lift motor output at 15% duty factor | | kW | 0.8 | 1.2 | 1.2 |
| 6.4 | Battery voltage/capacity at 5-hour discharge | | V/Ah | 24 / 100 | 24 / 125 | 24 / 125 |
| 6.5 | Battery weight | | kg | 55 | 60 | 60 |
| 6.6b | Energy consumption according to VDI 60 cycle | | kWh / h | | | |
| | **MISCELLANEOUS** | | | | | |
| 8.1 | Type of drive control | | | Stepless | Stepless | Stepless |
| 10.7 | Level of noise at the ear level of the driver according to EN 12 053:2001 and EN ISO 4871 in work LpAZ | | dB (A) | | | |
| 10.7.1 | Level of noise at the ear level of the driver according to EN 12 053:2001 and EN ISO 4871, drive/lift/idle LpAZ | | dB (A) | 70 | 70 | 70 |
| 10.7.3 | Hand-arm vibration (EN 13 059:2002) | | | <2.5 | | <2.5 |

ESSENTIAL

## PBP18QL - 20QL & PBV20QL

## PEDESTRIAN POWER PALLET TRUCK

1.8 - 2.0 tonnes



Continuing improvement may lead to changes in these specifications

# WHEN RELIABILITY IS EVERYTHING...

**Like any product bearing the Mitsubishi Forklift Trucks name, our materials handling equipment benefits from the tremendous heritage, huge resources and cutting-edge technology of one of the world's largest corporations – Mitsubishi Heavy Industries Group.**

Engineering spacecraft, jet planes, power plants and more, MHI specialises in those technologies where performance, dependability and superiority decide your success or failure...

So when we promise you quality, reliability and value for money, you know it's a guarantee we have the power to deliver.

That's why every model in our award-winning and comprehensive range of lift trucks and warehouse equipment is built to a high specification – to ensure it keeps working for you. Day after day. Year after year. Whatever the job. Whatever the conditions.

## YOU'LL NEVER WORK ALONE

As your local authorised dealer, we are here to keep your trucks working – through our extensive experience, our technical excellence and our commitment to customer care.

We are your local experts, backed by efficient channels to the entire organisation of Mitsubishi Forklift Trucks.

No matter where you are, we are close by – with the capability to meet your needs.

Discover how Mitsubishi Forklift Trucks give you more from your local authorised distributor or when you visit our website www.mitforklift.com

**ESSENTiAL**
**SIMPLE. RELIABLE. ECONOMICAL.**

**High quality, low cost.**

**The ESSENTiAL range of warehouse products is ideal for low- to medium-intensity operations in a huge number of different applications. The tough, low-maintenance designs offer excellent value for money.**

Performance specifications may vary depending on standard manufacturing tolerances, vehicle condition, types of tyres, floor or surface conditions, applications or operating environment. Trucks may be shown with non-standard options. Specific performance requirements and locally available configurations should be discussed with your distributor of Mitsubishi forklift trucks. We follow a policy of continual product improvement. For this reason, some materials, options and specifications could change without notice.

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MITSUBISHI FORKLIFT TRUCKS