

Like any product bearing the "MITSUBISHI" 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 dealer or when you visit our website [www.mitforklift.com.sg](http://www.mitforklift.com.sg)

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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FMIT0189(11/2022)



MOVE THE WORLD FORWARD **MITSUBISHI  
HEAVY  
INDUSTRIES  
GROUP**

**PREMIA ES** (1.6 - 2.0 TONS)



PBP16 - 20N3(R)(E) Series



WHEN  
**RELIABILITY IS  
EVERYTHING...**



# PREMIA ES POWER PALLET TRUCK

## PBP16-20N3(R)(E) Series

Developed for non-stop performance in the most challenging environments, **PREMIA ES** pedestrian power pallet trucks help you go the distance. Thanks to its sealed protective chassis and waterproof components (rated to IP54), **PREMIA ES** is unaffected by dirt, debris, dust, and water, working dependably indoors or out with minimal maintenance.

### DRIVE

- **Sealed transmission**  
Shock-resistant, quiet and requires little maintenance.
- **Powerful AC drive motor**  
Excellent traction and ramp performance, smooth, quiet, controlled operation, extended shift length and lower maintenance requirements.
- **Sensitive Drive System (SDS)**  
An intuitive driver-assist system for increased safety. Performance is managed according to steer angle and the velocity of foot and finger controls.

### ELECTRICAL & CONTROL SYSTEMS

- **Programmable controller**  
Speed up servicing and help prevent damage.
- **On-board diagnostics and fault memory folder**  
Both help to maximise safety and control in confined spaces.
- **Combi controller lift system**  
Speed-regulated lift motor and regulated electrical valve for lifting and lowering.

### FRAME & BODY

- **Sealed chassis**  
Internal components are protected against water, dirt, dust and debris, reducing downtime and servicing.
- **Water-resistant design**  
Water is kept away from key electrical parts for safety and longer part life.
- **Two linked castor wheels**  
In addition to the load wheels for added stability. Increases comfort for the driver and safety for the load.
- **Low centre of gravity**  
Operation is safer and more stable.
- **Operate in low temperatures**  
Can be used for cold storage applications in temperatures as low as -10°C with sealed components impervious to condensation.

### DESIGNED TO EXCEL

- **Parking brake**  
Automatically activated when necessary for extra safety on ramps.
- **Regenerative braking**  
Extends shift life and gives effective control without brake wear.

### BRAKES

### FORKS & MAST

- **Robust forks**  
Strong welded construction with rounded tips for effortless pallet entry.
- **Market-leading lift height of 220mm**  
Ideal for handling on steep ramps, loading docks and uneven surfaces, even when using recycled pallets.
- **Tapered forks**  
Access to pallets in racks or block stacks is easier, quicker and safer.



# PREMIA ES POWER PALLET TRUCK

PBP16-20N3(R)(E)

## OPERATOR COMPARTMENT & CONTROLS

- **Choice of two pre-set operating modes (ECO and PRO)**  
Enabled via key switch to enhance safety, energy efficiency and productivity.
- **Creep speed function and tiller arm lock bypass**  
Both help to maximise safety and control in confined spaces.
- **Unique crossbar design**  
Tiller arm and operator's hand are protected.
- **Ergonomic rubber hand grips**  
Handles are comfortable and easy to hold.
- **Battery discharge indicator**  
Fitted as standard for battery protection and preventing deep discharge.
- **Low to the ground**  
Ground clearance is only 35mm so there is very low risk of foot trapping.
- **Spacious platform**  
Suspended foldable platform allows operator to ride in safety and comfort with centre steering. (PBP20N3R)
- **Left-handed or right-handed controls**  
The tiller arm's versatile design allows for operation from either side.

- **Ergonomic ErgoSteer tiller head**  
Best-in-class, weather-protected and impact-resistant tiller head with large, easy-to-reach buttons placed at a patented ergonomic distance for reduced fatigue and safer operation. IP65 rated.
- **Small turning circle**  
Combine this with the compact chassis and operation is possible in tight areas allowing for optimised use of warehouse space.

## STEERING SYSTEM



- **Easy-to-operate tiller arm**  
Its large buttons mean operators can focus on the task in hand and minimise mistakes.
- **Multi-function display**  
Shows truck mode, status and drive speeds using easy to read icons, as well as error codes.
- **Emergency stop**  
Easy and fast stop to power in an emergency.

## BUILT TO LAST



## OTHER FEATURES

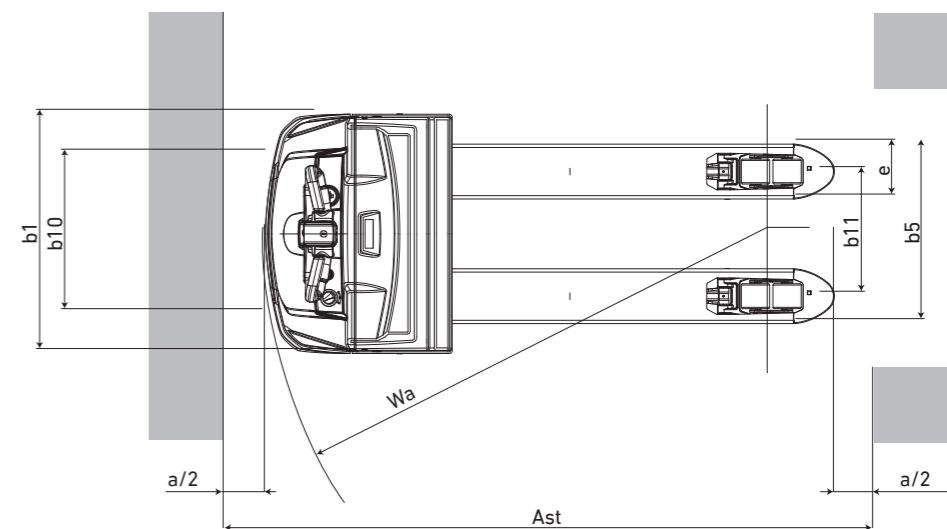
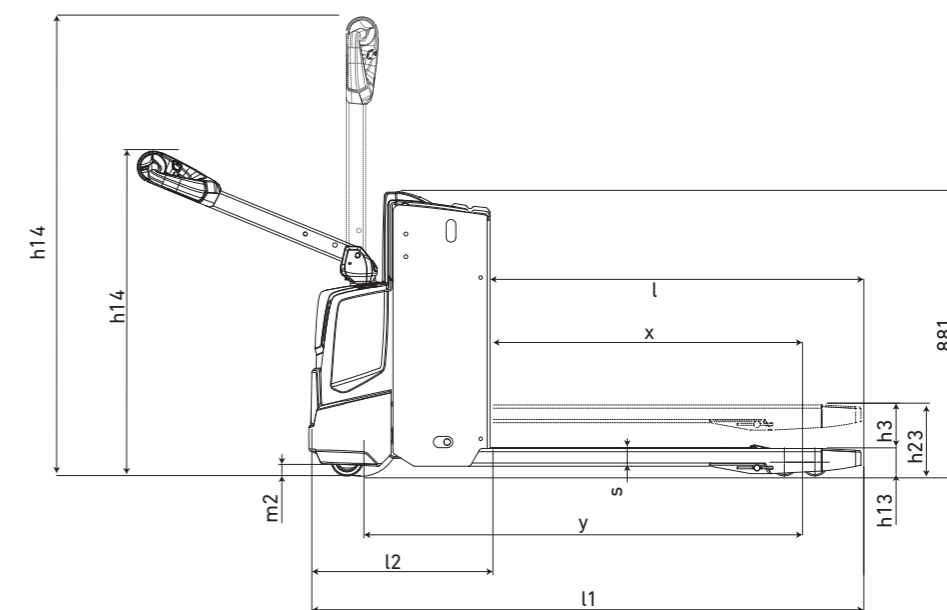
- **RapidAccess features**  
These allow quick and easy entry to all areas for checks and maintenance
- **PIN-code access**  
Stops unauthorised truck use and keeps you aware of who's operating at all times. (Option)



# SPECIFICATION

CHARACTERISTICS						
1	Manufacturer		MITSUBISHI FORKLIFT TRUCKS			
2	Manufacturer's model designation		PBP16N3	PBP18N3	PBP20N3	
3	Power source		Battery	Battery	Battery	
4	Operator type		Pedestrian	Pedestrian	Pedestrian	
5	Load capacity	Q	kg	1600	1800	2000
6	Load center distance	c	mm	600	600	600
7	Load wheel axle to fork face (forks lowered)	x	mm	960	960	960
8	Wheelbase	y	mm	1360	1425	1425
WEIGHT						
9	Truck weight without load, with maximum battery weight		kg	430	500	500
10	Axle loadings with nominal load & maximum battery weight, drive / load side		kg	745 / 1290	805 / 1495	840 / 1660
11	Axle loadings without load & with maximum battery weight, drive / load side		kg	340 / 90	380 / 120	380 / 120
WHEELS, DRIVE TRAIN						
12	Tyres: PT = Power Thane, Vul = Vulkollan, P = Polyurethane, N = Nylon, R = Rubber drive / load side			Vul / Vul	Vul / Vul	Vul / Vul
13	Tyre dimensions, drive side		mm	230 x 70	230 x 70	230 x 70
14	Tyre dimensions, load side		mm	85 x 90	85 x 75	85 x 75
15	Castor wheel dimensions (diameter x width)		mm	100 x 40	100 x 40	100 x 40
16	Number of wheels, load / drive side (x = driven)			2 + 1 x / 2	2 + 1 x / 4	2 + 1 x / 4
17	Track width (center of tyres), drive side	b10	mm	480	480	480
18	Track width (center of tyres), load side	b11	mm	375	375	375
DIMENSIONS						
19	Height with mast lowered	h1	mm	-	-	-
20	Lift height	h3	mm	135	135	135
21	Height with mast extended	h4	mm	-	-	-
22	Initial lift	h5	mm	-	-	-
23	Seat- or stand height	h7	mm	-	-	-
24	Height of tiller arm / steering console (min./max.)	h14	mm	865 / 1420	865 / 1420	865 / 1420
25	Fork height, fully lowered	h13	mm	85	85	85
26	Overall length	l1	mm	1650	1710	1710
27	Length to fork face	l2	mm	500	560	560
28	Overall width	b1/b2	mm	720	720	720
29	Fork dimensions (thickness, width, length)	s/e/l	mm	55 / 165 / 1150	55 / 165 / 1150	55 / 165 / 1150
30	Outside width over forks (minimum / maximum)	b5	mm	540	540	540
31	Ground clearance at center of wheelbase, (forks lowered)	m2	mm	30	30	30
32	Working aisle width (Ast) with 1000 x 1200 mm pallets, load crosswise, platform up/down	Ast	mm	2339	2475	2472
33	Working aisle width (Ast) with 800 x 1200 mm pallets, load lengthwise	Ast	mm	-	-	-
34	Working aisle width (Ast3) with 800 x 1200 mm pallets, load lengthwise	Ast3	mm	-	-	-
35	Working aisle width (Ast) with 800 x 1200 mm pallets, load lengthwise, platform up/down	Ast	mm	2176	2281	2281
36	Turning radius	Wa	mm	1510	1551	1551
PERFORMANCE						
37	Travel speed, with / without load		km/h	6.0 / 6.0	6.0 / 6.0	6.0 / 6.0
38	Lifting speed, with / without load		m/s	0.035 / 0.045	0.030 / 0.035	0.04 / 0.05
39	Lowering speed, with / without load		m/s	0.05 / 0.05	0.06 / 0.042	0.05 / 0.06
40	Gradeability, with / without load		%	10.0 / 20.0	10.0 / 20.0	10.0 / 20.0
41	Acceleration time (10 metres) with / without load		s	-	-	-
42	Service brakes (mechanical / hydraulic / electric / pneumatic)			Electric	Electric	Electric
ELECTRIC MOTORS						
43	Drive motor capacity (60 min. short duty)		kW	1.0	1.0	1.0
44	Lift motor output at 15% duty factor		kW	0.8	0.8	1.2
45	Battery voltage/capacity at 5-hour discharge		V/Ah	24 / 150	24 / 250	24 / 250 - 375 <sup>1)</sup>
46	Battery weight		kg	150	210	210
MISCELLANEOUS						
47	Type of drive control			Stepless	Stepless	Stepless
48	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)	64	64	64
49	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)	66 / 70	66 / 70	66 / 70
50	Whole-body vibration (EN 13 059:2002)			-	-	-
51	Hand-arm vibration (EN 13 059:2002)			< 2.5	< 2.5	< 2.5

1) With 375Ah battery the l2 dimension increases 72 mm



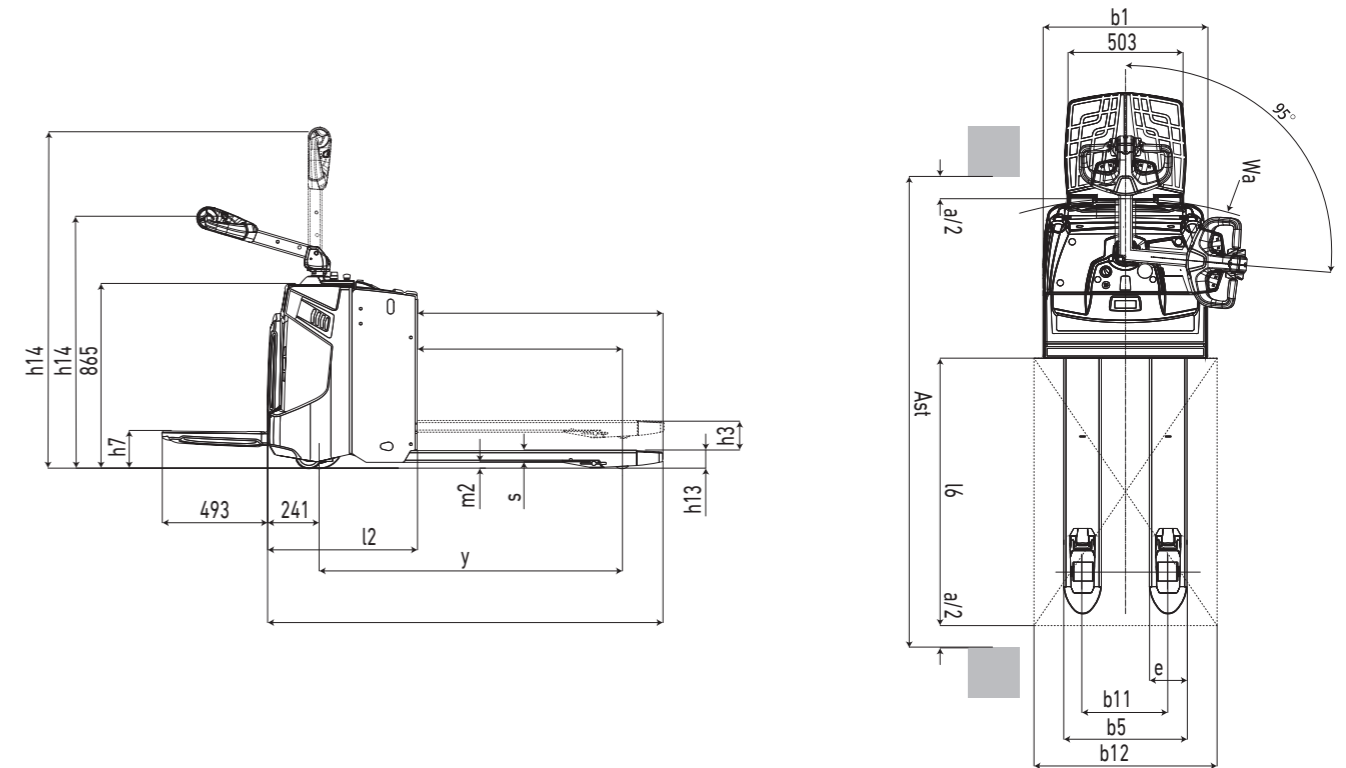
Ast = Wa-x+l6+a  
Ast = Working aisle width  
Wa = Turning radius  
a = Safety clearance (200 mm)  
l6 = Pallet length

# SPECIFICATION

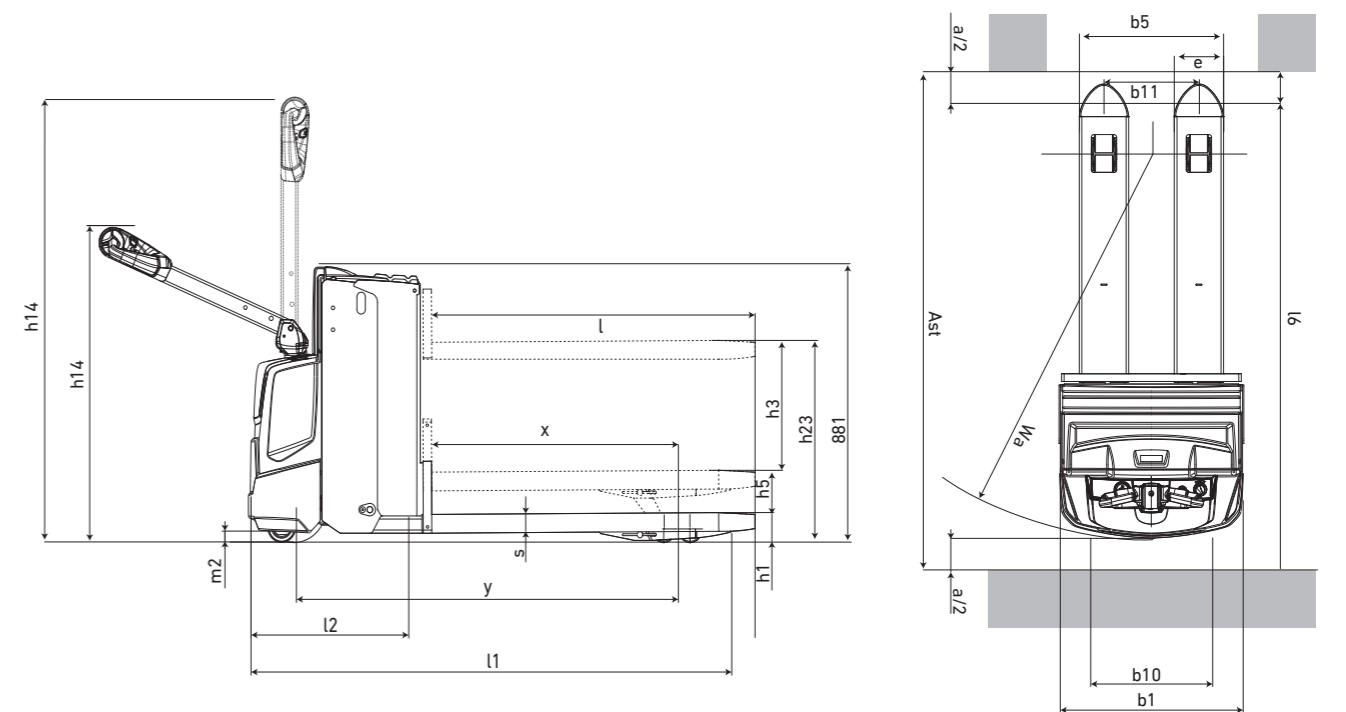
CHARACTERISTICS					
1	Manufacturer		MITSUBISHI FORKLIFT TRUCKS		
2	Manufacturer's model designation		PBP20N3R	PBP20N3E	
3	Power source		Battery	Battery	
4	Operator type		Pedestrian	Pedestrian	
5	Load capacity	Q	kg	2000	2000 / 700
6	Load center distance	c	mm	600	600
7	Load wheel axle to fork face (forks lowered)	x	mm	960	890
8	Wheelbase	y	mm	1420	1425
WEIGHT					
9	Truck weight without load, with maximum battery weight		kg	640	585
10	Axle loadings with nominal load & maximum battery weight, drive / load side		kg	950 / 1710	435 / 150
11	Axle loadings without load & with maximum battery weight, drive / load side		kg	505 / 135	420 / 160
WHEELS, DRIVE TRAIN					
12	Tyres: PT = Power Thane, Vul = Vulkollan, P = Polyurethane, N = Nylon, R = Rubber drive / load side			Vul / Vul	Vul / Vul
13	Tyre dimensions, drive side		mm	230 x 70	230 x 70
14	Tyre dimensions, load side		mm	85 x 75	85 x 75
15	Castor wheel dimensions (diameter x width)		mm	125 x 55	100 x 40
16	Number of wheels, load / drive side (x = driven)			2 + 1 x / 4	2 + 1 x / 4
17	Track width (center of tyres), drive side	b10	mm	480	480
18	Track width (center of tyres), load side	b11	mm	375	375
DIMENSIONS					
19	Height with mast lowered	h1	mm	-	-
20	Lift height	h3	mm	135	135 / 645
21	Height with mast extended	h4	mm	-	-
22	Initial lift	h5	mm	-	-
23	Seat- or stand height	h7	mm	170	-
24	Height of tiller arm / steering console (min./max.)	h14	mm	135	135 / 645
25	Fork height, fully lowered	h13	mm	85	85
26	Overall length	l1	mm	1850 / 2345	1780
27	Length to fork face	l2	mm	700 / 1195	630
28	Overall width	b1/b2	mm	720	720
29	Fork dimensions (thickness, width, length)	s/e/l	mm	50 / 165 / 1150	59 / 184 / 1150
30	Outside width over forks (minimum / maximum)	b5	mm	540	570
31	Ground clearance at center of wheelbase, (forks lowered)	m2	mm	30	30
32	Working aisle width (Ast) with 1000 x 1200 mm pallets, load crosswise, platform up/down	Ast	mm	2504 / 2984	2365
33	Working aisle width (Ast) with 800 x 1200 mm pallets, load lengthwise	Ast	mm	-	-
34	Working aisle width (Ast3) with 800 x 1200 mm pallets, load lengthwise	Ast3	mm	-	-
35	Working aisle width (Ast) with 800 x 1200 mm pallets, load lengthwise, platform up/down	Ast	mm	2416 / 2896	2275
36	Turning radius	Wa	mm	1680 / 2160	1560
PERFORMANCE					
37	Travel speed, with / without load		km/h	6.0 / 6.0	6.0 / 6.0
38	Lifting speed, with / without load		m/s	0.04 / 0.04	0.11 / 0.14
39	Lowering speed, with / without load		m/s	0.05 / 0.06	0.13 / 0.12
40	Gradeability, with / without load		%	9.0 / 20.0	9.0 / 20.0
41	Acceleration time (10 metres) with / without load		s	-	-
42	Service brakes (mechanical / hydraulic / electric / pneumatic)			Electric	Electric
ELECTRIC MOTORS					
43	Drive motor capacity (60 min. short duty)		kW	1.0	1.0
44	Lift motor output at 15% duty factor		kW	1.2	1.2
45	Battery voltage/capacity at 5-hour discharge		V/Ah	24 / 250 - 375 <sup>1)</sup>	24 / 150
46	Battery weight		kg	212-294	151
MISCELLANEOUS					
47	Type of drive control			Stepless	Stepless
48	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)	60	64
49	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)	63 / 65	66 / 70
50	Whole-body vibration (EN 13 059:2002)			0.9	-
51	Hand-arm vibration (EN 13 059:2002)			< 2.5	< 2.5

1) With 375Ah battery the l2 dimension increases 72 mm

**PBP20N3R  
WITH FOLDING PLATFORM**



**PBP20N3E  
WITH RISING FORKS**



Ast =  $Wa - x + l6 + a$   
 Ast = Working aisle width  
 Wa = Turning radius  
 a = Safety clearance (200 mm)  
 l6 = Pallet length

# STANDARD EQUIPMENT & OPTIONS

● = Standard    ○ = Option	PBP16N3	PBP18N3	PBP20N3	PBP20N3R	PBP20N3E
<b>GENERAL</b>					
LED discharge indicator, no hour meter	●	●	●	●	●
Micro-computer incl. hour meter and battery indicator with cut out	-	-	-	-	-
PIN code login 99 codes	-	-	-	-	-
PIN code login 4 codes	○	○	○	○	○
Offset tiller arm	-	-	-	-	-
Chill store design, down to -10°C, with rust-protected axles	-	-	-	-	-
Speed regulated lifting and proportional valve for lowering, controlled by rocker switch on tiller head.	-	-	-	-	-
Electric on/off valve for lifting and lowering, controlled by rocker switch on tiller head	●	●	●	●	●
Polyurethane drive wheel or rubber	-	-	-	-	-
Initial lift	-	-	-	-	●
Single or tandem load wheels polyurethan	●	●	●	●	●
<b>ENVIRONMENT</b>					
Cold store design, 0°C to -35°C	○	○	○	○	○
Hot operating condition modification, >30°C	○	○	○	○	○
<b>DRIVE AND LIFT CONTROLS</b>					
Tiller up drive	○	○	○	○	○
<b>WHEEL OPTIONS</b>					
Polyurethane traction and load wheels	●	●	●	●	●
Power friction traction wheel	○	○	○	○	○
Tandem Polyurethan load wheels	○	●	●	●	●
Single Polyurethan load wheels	○	●	●	●	●
Non-marking drive wheeel	-	-	-	-	-
Anti-static drive wheel	-	-	-	-	-
<b>OTHER OPTIONS</b>					
Rubber foot protection	-	-	-	-	-
Diselectric band	-	-	-	-	-
Key switch	●	●	●	●	●
Capacity 2000kg on straddles	-	-	-	-	-
Piezo buzzer instead of standard horn	-	-	-	-	-
Load backrest	○	○	○	○	○
Pallet entry and exit rollers	○	○	○	○	○
Special RAL colour	○	○	○	○	○
Inbuilt charger 30A	○	○	○	○	○
Sideways battery change, 250Ah and 375Ah battery only	-	○	○	○	-
Battery changing device	-	○	○	○	-
Accessory rack	○	○	○	○	○
Working light	○	○	○	○	○
Multi function display	-	-	-	-	-
Battery creep	-	-	-	-	-
Battery level audible warning	-	-	-	-	-
Service alarm	-	-	-	-	-
Automatic log off	-	-	-	-	-
Revert to low speed at log off	-	-	-	-	-

