





WHEN RELIABILITY IS EVERYTHING...



## EMPOWER YOUR OPERATOR... TRANSFORM YOUR OPERATIONS



#### STEERING SYSTEM

- Small turning circle together with responsive steering and compact chassis allows exceptional manoeuvrability.
- Advanced electric steering allows precise control at speed, with automatic speed reduction in curves and automatic drive wheel centering.
- 100° steering angle ensures exceptional manoeuvrability

   even in tight spaces.

#### BRAKES

- Regenerative braking with no drive wheel jamming or brake wear gives effective control and excellent energy efficiency.
- Anti-lock brakes ensure safe stopping even on slippery surfaces for ultimate safety.

### Energy Efficiency at the top of its class

It is 14% more efficient than its closest competitor – meaning you can work as leanly as possible.

#### DRIVE

PORI

- Class-leading energy efficiency (14% lower than nearest competitor) ensures running costs are kept to a minimum.
- **Powerful drive motor** provides excellent traction and adjustable acceleration, deceleration and brake force, for smooth, quiet, controlled operation, extended shift length and lower maintenance requirements.
- Sensitive Drive System (SDS) senses faster or slower operator control movements and adjusts truck performance accordingly, contributing to safety and driver performance.
- Adaptive steering system ensures truck performance matches operator needs – whether travelling in reverse or at speed – for calm, smooth and precise operations.

#### ELECTRICAL AND CONTROL SYSTEMS

• Full electronic steering with no steering wheel kickback gives precise control for optimum productivity, efficiency and safety.

### WORK WITH GREATER PRODUCTIVITY



#### FORKS

- Bevelled easy-entry forks offer effortless pallet entry: reducing time and risk of pallet damage for increased efficiency.
- Choice of long forks ensures scissor lift models can carry up to four rollcages at once for increased efficiency (X models only).

#### FRAME AND BODY

- Robust design benefits from extensive testing including safety certification – for lower service costs and enhanced safety.
- Class-leading lift height up to 220 mm offers high ground clearance for easy and safe handling on loading docks and ramps (Standard models).

### Operator Environment and Controls

Flying start technology shortens acceleration time for ultimate picking productivity.

**Next generation Maxius steering wheel** absorbs vibrations and shocks to ensure class-leading ergonomics.

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**Optional clear colour display** alerts operators and service engineers to potential problems: avoiding damage, while enhancing safety and encouraging good maintenance.

**Easy-access platform** features low step height and chamfered edges – minimising trip hazards for easy on/off access.

**Rising operator platform** lifts to 855 mm for picking heights of up to 2.5 m – minimising stretching and straining for operators (P models only).

**Perfectly-angled footrest** ensures optimal positioning of foot and ankle for drivers of all heights. **Super-grip floor** is non-slip ensuring operators are safe, for confident operations.

**Triple-suspension floating floor** with sideways dampening and advanced cushioning, reduces microvibrations for exceptional operator comfort.

# **SPECIFICATIONS**

	CHARACTERISTICS					
1	Manufacturer			Mitsubishi Forklift Trucks	Mitsubishi Forklift Trucks	Mitsubishi Forklift Trucks
2	Manufacturer's model designation			OPB20N2	OPB25N2	OPB20N2P
3	Power source			Battery	Battery	Battery
4	Operator type			Stand-on	Stand-on	Stand-on
5	Load capacity	Q	kg	2000	2500	2000
6			-	600	600	600
7	Load center distance		mm	960	960	960
8	Load wheel axle to fork face (forks lowered)	x y	mm mm	2054 <sup>5)</sup>	2054 <sup>5)</sup>	2054 <sup>5)</sup>
0	Wheelbase T			2034 %	2054 %	2004 %
9			ka	1079 <sup>1)</sup>	1079 <sup>1)</sup>	1215 <sup>1)</sup>
9 10	Truck weight without load, with maximum battery weight Axle loadings with nominal load & maximum battery weight, drive / load side		kg	1082 /1997	1178 / 2401	1130 / 2085
11	Axie loadings without load & with maximum battery weight, drive / load side		kg	829 / 250	829 / 250	913 / 302
11	WHEELS, DRIVE TRAIN		kg	029/200	0297230	9137 302
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	ø250	ø250	ø250
14	Tyre dimensions, load side		mm	ø85	ø85	ø85
15	Castor wheel dimensions (diameter x width)		mm	ø180 × 65	ø180 × 65	ø180 × 65
16	Number of wheels, load / drive side $(x = driven)$			4 / 1x1	4 / 1x1	4 / 1x1
17	Track width (center of tyres), drive side	b10	mm	494	494	494
18	Track width (center of tyres), load side	b11	mm	365	365	365
	DIMENSIONS					
19	Height with mast lowered	h1	mm	1173	1173	1394 / 2244
20	Lift height	h3	mm	135	135	135
21	Height with mast extended	h4	mm	-	-	-
22	Seat- or stand height	h7	mm	123	123	150
23	Platform height, raised	h12	mm	-	-	1000
24	Fork height, fully lowered	h13	mm	85	85	85
25	Overall length	11	mm	2421 <sup>5)</sup>	2421 <sup>5)</sup>	2421 <sup>5)</sup>
26	Length to fork face	12	mm	1271 <sup>5)</sup>	1271 <sup>5)</sup>	1271 <sup>5)</sup>
27	Overall width	b1/b2	mm	800	800	800
28	Fork dimensions (thickness, width, length)	s/e/l	mm	60 / 175 / 900-3600	60 / 175 / 900-3600	60 / 175 / 900-3600
29	Outside width over forks (minimum / maximum)	b5	mm	480 / 660	480 / 660	480 / 660
30	Ground clearance at center of wheelbase, (forks lowered)	m2	mm	25	25	25
31	Working aisle width (Ast) with 800 x 1200 mm pallets, load lengthwise	Ast	mm	2898 <sup>5)</sup>	2898 <sup>5)</sup>	2898 <sup>5)</sup>
32	Turning radius	Wa	mm	2231 <sup>5)</sup>	2231 <sup>5)</sup>	2231 <sup>5)</sup>
	PERFORMANCE					
33	Travel speed, with / without load		km/h	9.0 / 9.0 (opt 9 / 13)	9.0 / 13.0	9.0 / 9.0 (opt 9 / 13)
34	Lifting speed, with / without load		m/s	0.04 / 0.05	0.03 / 0.05	0.04 / 0.05
35	Lowering speed, with / without load		m/s	0.05 / 0.03	0.05 / 0.03	0.05 / 0.03
36	Gradeability, with / without load		%	7 / 15	7 / 15	7 / 15
37	Service brake			Electric	Electric	Electric
	ELECTRIC MOTORS					
38	Drive motor capacity (60 min. short duty)		kW	2.6	2.6	2.6
39	Lift motor output at 15% duty factor		kW	1.2	1.2	2.2
40	Battery voltage/capacity at 5-hour discharge		V/Ah	24 / 465-620	24 / 465-620	24 / 465-620
41	Battery weight		kg	366-493	366-493	366-493
42	Energy consumption according to EN 16796	k	Wh/h	0.37	0.4	0.37
	MISCELLANEOUS					
43	Type of drive control			Stepless	Stepless	Stepless
44	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)	62 <sup>3)</sup>	62 <sup>3)</sup>	62 <sup>3)</sup>
45	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)	73 / 62 / - <sup>3)</sup>	73 / 62 / - <sup>3)</sup>	73 / 62 / - <sup>3)</sup>
46	Whole-body vibration (EN 13 059:2002)			0.6	0.6	0.6
47	Hand-arm vibration (EN 13 059:2002)			<2.5	<2.5	<2.5
L		1				

Continuing improvement may lead to changes in these specifications.

1) Forks 540  $\times$  1150, battery 620 Ah

2) Forks 540  $\times$  1150/ lift 1200mm, battery 620 Ah

3) Inaccuracy of 4 dB(A)

4) Fork carriage length 2375 mm

5) With 620Ah battery + 100mm

Ast = Wa - x + 16 + 200Ast = Working aisle width

Wa = Turning radius

a = Safety clearance = 2 ×100 mm R =  $\sqrt{(16 + x)^2 + (b12/2)^2}$ I6 = Pallet length (800 or 1000 mm)

b12 = Pallet width (1200 mm)



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h3 h13

0.05 / 0.03 7/15 Electric

2.6 2.2 24 / 465-620 366-493

0.4

Stepless 62 <sup>3)</sup>

73 / 62 / - 3) 0.6 <2.5

h7/h12

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STANDARD MODEL

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\_a/2

b11 b5



# **SPECIFICATIONS**

	CHARACTERISTICS					
1	Manufacturer			Mitsubishi Forklift Trucks	Mitsubishi Forklift Trucks	Mitsubishi Forklift Trucks
2	Manufacturer's model designation			OPB20N2X	OPB20N2XP	OPB12N2F
3	Power source			Battery	Battery	Battery
4	Operator type			Stand-on	Stand-on	Stand-on
5	Load capacity	Q	ka	2000	2000	1200
6			kg	1200	1200	600
	Load center distance		mm			785
7	Load wheel axle to fork face (forks lowered)	X	mm	1480	1480	
0	Wheelbase	у	mm	2640 <sup>5)</sup>	2640 <sup>5)</sup>	<b>1929</b> <sup>5)</sup>
0		1	ka	1333 <sup>1)</sup>	1469 <sup>1)</sup>	1220 <sup>2)</sup>
9	Truck weight without load, with maximum battery weight		kg			-
10	Axle loadings with nominal load & maximum battery weight, drive / load side		kg	1135 /2220 929 / 404	1230 / 2261 1024 / 445	972 / 1448 853 / 367
11	Axle loadings without load & with maximum battery weight, drive / load side WHEELS, DRIVE TRAIN		kg	929 / 404	1024 / 443	003/307
		1				
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	ø250	ø250	ø250
14	Tyre dimensions, load side		mm	ø85	ø85	ø85
15	Castor wheel dimensions (diameter x width)		mm	ø180 × 65	ø180 × 65	ø180 × 65
16	Number of wheels, load / drive side $(x = driven)$			4 / 1x1	4 / 1x1	4 / 1x1
17	Track width (center of tyres), drive side	b10	mm	494	494	494
18	Track width (center of tyres), load side	b11	mm	326 / 356	326 / 356	355
	DIMENSIONS					
19	Height with mast lowered	h1	mm	1173	1394 / 2244	1173
20	Lift height	h3	mm	765	765	765 / 1115
21	Height with mast extended	h4	mm	1305	1305	1275 / 1625
22	Seat- or stand height	h7	mm	123	150	123
23	Platform height, raised	h12	mm	-	1000	-
24	Fork height, fully lowered	h13	mm	90	90	85
25	Overall length	11	mm	3728 <sup>4) 5)</sup>	3728 <sup>4) 5)</sup>	2471 <sup>5)</sup>
26	Length to fork face	12	mm	1353 <sup>4) 5)</sup>	1353 <sup>4) 5)</sup>	1321 <sup>5)</sup>
27	Overall width	b1/b2	mm	800	800	800
28	Fork dimensions (thickness, width, length)	s/e/l	mm	70 / 194 / 2375, 2850	70 / 194 / 2375, 2850	56 / 186 / 950-1450
29	Outside width over forks (minimum / maximum)	b5	mm	520 / 550	520 / 550	540 / 570
30	Ground clearance at center of wheelbase, (forks lowered)	m2	mm	20	20	25
31	Working aisle width (Ast) with 800 x 1200 mm pallets, load lengthwise	Ast	mm	4074 <sup>4) 5)</sup>	4074 <sup>4) 5)</sup>	2881 <sup>5)</sup>
32	Turning radius	Wa	mm	2833 <sup>5)</sup>	2833 <sup>5)</sup>	2106 <sup>5)</sup>
	PERFORMANCE					
33	Travel speed, with / without load		km/h	9.0 / 13.0	9.0 / 13.0	9.0 / 9.0 (opt 9 / 13)
34	Lifting speed, with / without load		m/s	0.10 / 0.23	0.10 / 0.23	0.20 / 0.41
35	Lowering speed, with / without load		m/s	0.17 / 0.23	0.17 / 0.23	0.30 / 0.36
36	Gradeability, with / without load		%	7 / 15	7 / 15	7 / 15
37	Service brake			Electric	Electric	Electric
	ELECTRIC MOTORS					
38	Drive motor capacity (60 min. short duty)		kW	2.6	2.6	2.6
39	Lift motor output at 15% duty factor		kW	2.2	2.2	2.2
40	Battery voltage/capacity at 5-hour discharge		V/Ah	24 / 465-620	24 / 465-620	24 / 465-620
41	Battery weight		kg	366-493	366-493	366-493
42	Energy consumption according to EN 16796	k	(Wh/h	0.44	0.44	0.37
	MISCELLANEOUS				·	
43				Stepless	Stepless	Stepless
44	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)	62 <sup>3)</sup>	62 <sup>3)</sup>	62 <sup>3)</sup>
45	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)	73 / 62 / - <sup>3)</sup>	73 / 62 / - <sup>3)</sup>	73 / 62 / - <sup>3)</sup>
46	Whole-body vibration (EN 13 059:2002)			0.7	0.7	0.6
47	Hand-arm vibration (EN 13 059:2002)			0.1	0.1	<2.5
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Continuing improvement may lead to changes in these specifications.

1) Forks 540  $\times$  1150, battery 620 Ah

2) Forks 540  $\times$  1150/ lift 1200mm, battery 620 Ah

3) Inaccuracy of 4 dB(A)

4) Fork carriage length 2375 mm

5) With 620Ah battery + 100mm

Ast = Wa - x + I6 + 200 Ast = Working aisle width

Wa = Turning radius

a = Safety clearance = 2 ×100 mm R =  $\sqrt{(16 + x)^2 + (b12/2)^2}$ I6 = Pallet length (800 or 1000 mm)

b12 = Pallet width (1200 mm)

**OPB20N2XP OPB20N2X** SCISSOR LIFT FORKS AND SCISSOR LIFT FORKS MODEL Mitsubishi Forklift Trucks **RISING PLATFORM MODEL** OPB12N2FP Battery Stand-on 1200 600 785 1929 <sup>5)</sup> 1356<sup>2)</sup> 1059 / 1497 940 / 416 Vul / Vul ø250 12 ø85 Wa ø180 × 65 Ξ 4 / 1x1 TTEEE Ę # b1/b2 b10 494 33 355 h12 1394 / 2244 h13 Ľ4 765 / 1115 a/2 1275 / 1625 Ast3 (Ast) 150 1000 85 2471 5) 1321 5) 800 **OPB12N2F OPB12N2FP** 56 / 186 / 950-1450 **RISING FORKS MODEL RISING FORKS AND** 540 / 570 **RISING PLATFORM MODEL** 25 2881 5) 2106 5) 9.0 / 9.0 (opt 9 / 13) 0.20 / 0.41 0.30 / 0.36 7/15 Electric 2.6 2.2 24 / 465-620 366-493 0.37 Stepless L2 62<sup>3)</sup> Ξ 73 / 62 / - 3) 0.6 4 h7/ h12 b1/ b2 b11 b5 <2.5 ц b10 50 잍 h13 <u>a/</u>2 a/2

## **STANDARD EQUIPMENT & OPTIONS**



Multifunctional steering wheel with optional color display.



Optional walk beside drive button and buttons for lift or lower in backrest.



Fire extinguisher.



Optional blue point safety light.

 $\bigcirc$  = Standard  $\triangle$  = Option

	OPB20N2
GENERAL	
Multifunctional steering wheel (electric 200°)	•
Power ON/OFF by Key switch	•
Hourmeter & BDI	
ECO/PRO mode Drive speed reduction in curves	
Maximum drive speed adjusted according to load weight	
Floor mat acting as dead man's pedal	ě
Crane battery change	ŏ
Polyurethane wheels	•
Tandem load wheels polyurethane	•
Suspended operator's platform	•
Simultaneously driving and lifting the forks	•
Hill hold	•
Automatic parking brake	
Lifting driver's platform, h=1000 mm (0PB20N2/25N2P, 20N2XP, 12N2FP)	-
Lift height (h3 + h13) 220 mm (OPB20N2/25N2, OPB12N2FP)	•
Lift height (h3 + h13) 850 mm (OPB12N2F, OPB12N2FP)	-
Lift height (h3 + h13) 855 mm (OPB20N2X/25N2XP)	-
Simultaneous driving and lifting the driver's platform	-
Drive speed reduction when platform raised (4 km/h) Drive speed reduction when forks raised (lift height > 300 mm)	_
ENVIRONMENT	_
Cold store design, 0°C to -35°C	
DRIVE AND LIFT CONTROLS	
Walk beside drive button in backrest, FWD/BWD	
Buttons for lift / lower on sides of backrest	
SAFETY	
Blue point safety light towards driving direction (forks trailing)	<b>A</b>
Driving light towards driving direction (forks trailing)	<b>A</b>
Warning strobe, yellow	
Drive alarm (programmable)	<b>A</b>
Fire extinguisher	
WHEEL OPTIONS	0
Polyurethane traction and load wheels Power friction traction wheel	
OUTLOOK	
Special RAL color on front machinery steel cover	
OTHER OPTIONS	
High drive speed 13 km/h (without load)	
PIN code access with BDI display	<b>A</b>
PIN code access with color display	
Color display without PIN code access	<b>A</b>
Walk beside drive button in backrest, FWD / BWD	
Buttons for lift/lower on sides of backrest	
Accessory rail in front	<b>A</b>
Picking tray, for OPB20/25N2P, OPBN2XP & OPB12N2FP models only. Max 50kg Scanner holder	-
Equipment holder (RAM mountings)	
Wrapping holder	
Load backrest	
Rear grab handle on backrest	
Foot switch for lowering the driver's platform	_
Sideways battery change	
Clipboard, A4	
Front storage boxes	
Storage folder on bottom of the platform	
Entry and exit rollers for crosswise pallet handling	<b>A</b>
Back cushion, tiltable to seat position for back & feet rest. Adjustable in height.	
Power supply, 12 V	
Power supply, USB 5 V	<b>A</b>
Heavy duty front nylon strip covered bumper	
Raised front guard plate	

#### OPB12-25N2(X)(F)(P) Series LOW LEVEL ORDER PICKERS



Equipment holder (RAM mountings).



Foot switch for lowering the driver's platform.



Rear grab handle on backrest.



Back cushion, tiltable to seat position. Adjustable in height.

OPB25N2	OPB20N2P	OPB25N2P	OPB20N2X	OPB20N2XP	OPB12N2F	OPB12N2FP
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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

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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