MOVE THE WORLD FORWARD MITSUBISHI HEAVY INDUSTRIES GROUP

PREMiA ES

PBP16 - 20N3(R)(E) Series

POWER PALLET TRUCK

1.6 - 2.0 tonnes

DESIGNED TO EXCEL
BUILT TO LAST

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, PREMiA ES is unaffected by dirt, debris, dust, and water, working dependably indoors or out with minimal maintenance.

SPECIFICATIONS

PBP16N3
PBP18N3
PBP20N3
PBP20N3R
PBP20N3E

WHEN RELIABILITY IS EVERYTHING...

MITSUBISHI FORKLIFT TRUCKS

PREMiA ES

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POWER PALLET TRUCK

1.6 – 2.0 tonnes

BRAKES

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

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 finger controls.

ELECTRICAL AND CONTROL SYSTEMS

- **Programmable controller**
  Acceleration, speed and braking can be adjusted to suit the application and operator's preferences.
- **On-board diagnostics and fault memory folder**
  Speed up servicing and help prevent damage.

FORKS AND 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.

FRAME AND 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 down to -10˚C non-condensing (+1˚C condensing) and with an optional cold store modification down to -35˚C operating.

For more information on PREMiA ES please visit our website

mft2.eu/premiaes

PREMiA ES

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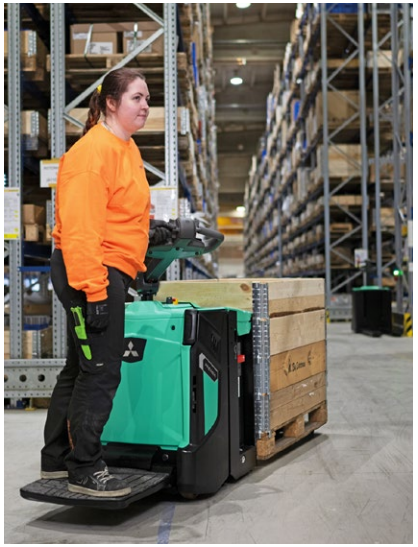
POWER PALLET TRUCK

1.6 – 2.0 tonnes



OPERATOR COMPARTMENT AND 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-up drive**
  Operators can easily manoeuvre in confined areas, with speed limited for added safety and control.
- **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.
- **Easy-to-operate tiller arm**
  Its large buttons mean operators can focus on the task in hand and minimise mistakes.
- **Emergency stop**
  Easy and fast stop to power in an emergency.

STEERING SYSTEM

- **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.

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)

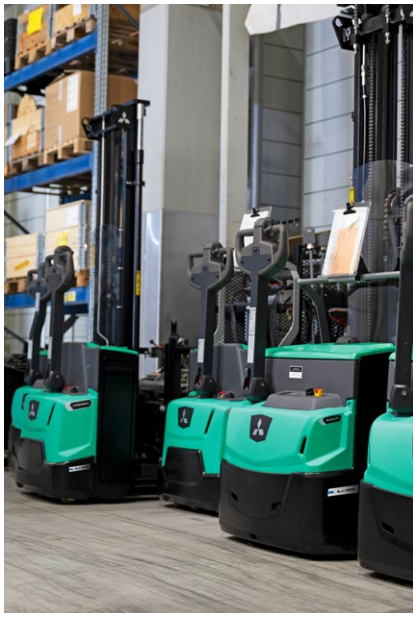
For more information on PREMiA ES please visit our website

mft2.eu/premiaes

PREMÍA ES

OPTIONAL 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 save 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			Mitsubishi Forklift Trucks	Mitsubishi Forklift Trucks	Mitsubishi Forklift Trucks
1.1	Manufacturer			Mitsubishi Forklift Trucks	Mitsubishi Forklift Trucks	Mitsubishi Forklift Trucks
1.2	Manufacturer's model designation			PBP16N3	PBP18N3	PBP20N3
1.3	Power source			Battery	Battery	Battery
1.4	Operator type			Pedestrian	Pedestrian	Pedestrian
1.5	Load capacity	Q	kg	1600	1800	2000
1.6	Load center distance	c	mm	600	600	600
1.8	Load wheel axle to fork face (forks lowered)	x	mm	960	960	960
1.9	Wheelbase	y	mm	1360 [1)]	1425	1425 [2)]
	WEIGHT					
2.1b	Truck weight without load, with maximum battery weight		kg	430	500	500
2.2	Axle loadings with nominal load & maximum battery weight, drive / load side		kg	745 / 1290	805 / 1495	840 / 1660
2.3	Axle loadings without load & with maximum battery weight, drive / load side		kg	340 / 90	380 / 120	380 / 120
	WHEELS, DRIVE TRAIN					
3.1	Tyres: PT = Power Thane, Vul = Vulkollan, P = Polyurethane, N = Nylon, R = Rubber drive / load side			Vul / Vul	Vul / Vul	Vul / Vul
3.2	Tyre dimensions, drive side		mm	230 x 70	230 x 70	230 x 70
3.3	Tyre dimensions, load side		mm	85 x 90	85 x 75	85 x 75
3.4	Castor wheel dimensions (diameter x width)		mm	100 x 40	100 x 40	100 x 40
3.5	Number of wheels, load / drive side (x = driven)			2 / 1x + 2	4 / 1x + 2	4 / 1x + 2
3.6	Track width (center of tyres), drive side	b10	mm	480	480	480
3.7	Track width (center of tyres), load side	b11	mm	375	375	375
	DIMENSIONS					
4.4	Lift height	h3	mm	135	135	135
4.8	Seat- or stand height	h7	mm			
4.9	Height of tiller arm / steering console (min./max.)	h14	mm	865 / 1420	865 / 1420	865 / 1420
4.15	Fork height, fully lowered	h13	mm	85	85	85
4.19	Overall length	l1	mm	1650 [3)]	1710	1710 [2)]
4.20	Length to fork face	l2	mm	500 [3)]	560	560 [2)]
4.21	Overall width	b1/b2	mm	720	720	720
4.22	Fork dimensions (thickness, width, length)	s/e/l	mm	55 / 165 / 1150	55 / 165 / 1150	55 / 165 / 1150
4.25	Outside width over forks (minimum / maximum)	b5	mm	540	540	540
4.32	Ground clearance at center of wheelbase, (forks lowered)	m2	mm	30	30	30
4.33c	Working aisle width (Ast) with 1000 x 1200 mm pallets, load crosswise, platform up / down	Ast	mm	2311 [5)]	2352	2352 [2)]
4.34c	Working aisle width (Ast) with 800 x 1200 mm pallets, load lengthwise, platform up / down	Ast	mm	2176 [5)]	2217	2217 [2)]
4.35	Turning radius	Wa	mm	1510 [5)]	1551	1551 [2)]
	PERFORMANCE					
5.1	Travel speed, with / without load		km/h	6.0 / 6.0	6.0 / 6.0	6.0 / 6.0
5.2	Lifting speed, with / without load		m/s	0.035 / 0.045	0.030 / 0.035	0.040 / 0.050
5.3	Lowering speed, with / without load		m/s	0.050 / 0.050	0.060 / 0.042	0.050 / 0.060
5.7	Gradeability, with / without load		%	10.0 / 20.0	10.0 / 20.0	10.0 / 20.0
5.10	Service brakes (mechanical / hydraulic / electric / pneumatic)			Electric	Electric	Electric
	ELECTRIC MOTORS					
6.1	Drive motor capacity (60 min. short duty)		kW	1.0	1.0	1.0
6.2	Lift motor output at 15% duty factor		kW	0.8	0.8	1.2
6.4	Battery voltage/capacity at 5-hour discharge		V/Ah	24 / 150-250 [6)]	24 / 250	24 / 250-375 [6)]
6.5	Battery weight		kg	151-212	212	212-288
6.6a	Energy consumption according to EN16796		kWh / h	0.23 [7)]	0.26	0.26
	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)	64.5	64.5	64.5
10.7.2	Whole-body vibration (EN 13 059:2002)					
10.7.3	Hand-arm vibration (EN 13 059:2002)			< 2.5	< 2.5	< 2.5

1) With the 250 Ah battery this dimension increase by 65 mm
2) With the 375 Ah battery this dimension increase by 72 mm
3) With the 250 Ah battery this dimension increase by 60 mm
5) With the 250 Ah battery this dimension increase by 41 mm
6) With the larger batteries several dimensions increase (see notes #1-5)
7) Measured with the 250 Ah battery

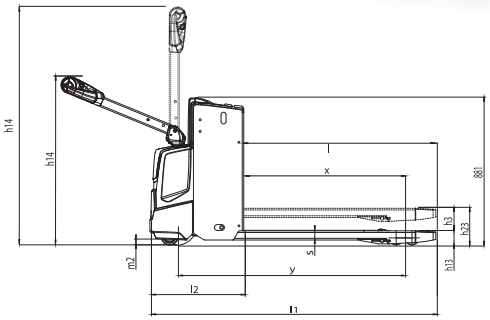
Ast = Wa-x+l6+a
Ast = Working aisle width
Wa = Turning radius
a = Safety clearance (200 mm)
l6 = Pallet length

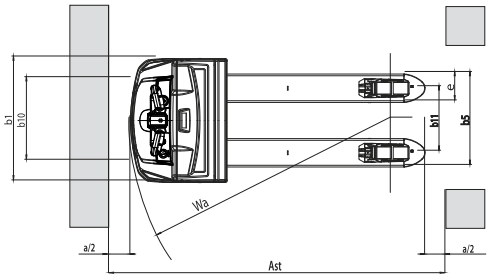
PREMIA ES

PEDESTRIAN POWER PALLET TRUCK

PBP16/18/20N3

1.6 – 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
1.2	Manufacturer's model designation			PBP20N3R	PBP20N3E
1.3	Power source			Battery	Battery
1.4	Operator type			Pedestrian	Pedestrian
1.5	Load capacity	Q	kg	2000	2000 / 700
1.6	Load center distance	c	mm	600	600
1.8	Load wheel axle to fork face (forks lowered)	x	mm	960	890
1.9	Wheelbase	y	mm	1420 [2)]	1425
	WEIGHT				
2.1b	Truck weight without load, with maximum battery weight		kg	640	585
2.2	Axle loadings with nominal load & maximum battery weight, drive / load side		kg	950 / 1710	815 / 1785
2.3	Axle loadings without load & with maximum battery weight, drive / load side		kg	505 / 135	435 / 150
	WHEELS, DRIVE TRAIN				
3.1	Tyres: PT = Power Thane, Vul = Vulkollan, P = Polyurethane, N = Nylon, R = Rubber drive / load side			Vul / Vul	Vul / Vul
3.2	Tyre dimensions, drive side		mm	230 x 70	230 x 70
3.3	Tyre dimensions, load side		mm	85 x 75	85 x 75
3.4	Castor wheel dimensions (diameter x width)		mm	125 x 55	100 x 40
3.5	Number of wheels, load / drive side (x = driven)			4 / 1x + 2	4 / 1x + 2
3.6	Track width (center of tyres), drive side	b10	mm	480	480
3.7	Track width (center of tyres), load side	b11	mm	375	375
	DIMENSIONS				
4.4	Lift height	h3	mm	135	135 / 645
4.8	Seat- or stand height	h7	mm	170	
4.9	Height of tiller arm / steering console (min./max.)	h14	mm	1155 / 1550	865 / 1420
4.15	Fork height, fully lowered	h13	mm	85	90
4.19	Overall length	l1	mm	1850 / 2345 [2)]	1780
4.20	Length to fork face	l2	mm	700 / 1195 [2)]	630
4.21	Overall width	b1/b2	mm	720	720
4.22	Fork dimensions (thickness, width, length)	s/e/l	mm	55 / 165 / 1150	59 / 184 / 1150
4.25	Outside width over forks (minimum / maximum)	b5	mm	540	570
4.32	Ground clearance at center of wheelbase, (forks lowered)	m2	mm	30	30
4.33c	Working aisle width (Ast) with 1000 x 1200 mm pallets, load crosswise, platform up / down	Ast	mm	2481 / 2961 [2)]	2370
4.34c	Working aisle width (Ast) with 800 x 1200 mm pallets, load lengthwise, platform up / down	Ast	mm	2346 / 2826 [2)]	2266
4.35	Turning radius	Wa	mm	1680 / 2160 [2)]	1560
	PERFORMANCE				
5.1	Travel speed, with / without load		km/h	6.0 / 6.0	6.0 / 6.0
5.2	Lifting speed, with / without load		m/s	0.040 / 0.040	0.110 / 0.140
5.3	Lowering speed, with / without load		m/s	0.050 / 0.060	0.130 / 0.120
5.7	Gradeability, with / without load		%	9.0 / 20.0	9.0 / 20.0
5.10	Service brakes (mechanical / hydraulic / electric / pneumatic)			Electric	Electric
	ELECTRIC MOTORS				
6.1	Drive motor capacity (60 min. short duty)		kW	1.0	1.0
6.2	Lift motor output at 15% duty factor		kW	1.2	1.2
6.4	Battery voltage/capacity at 5-hour discharge		V/Ah	24 / 250-375 [6)]	24 / 150
6.5	Battery weight		kg	212-288	151
6.6a	Energy consumption according to EN16796		kWh / h	0.26	0.26
	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)	60.2	64.5
10.7.2	Whole-body vibration (EN 13 059:2002)			1.1	
10.7.3	Hand-arm vibration (EN 13 059:2002)			< 2.5	< 2.5

1) With the 250 Ah battery this dimension increase by 65 mm
2) With the 375 Ah battery this dimension increase by 72 mm
3) With the 250 Ah battery this dimension increase by 60 mm
5) With the 250 Ah battery this dimension increase by 41 mm
6) With the larger batteries several dimensions increase (see notes #1-5)
7) Measured with the 250 Ah battery

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

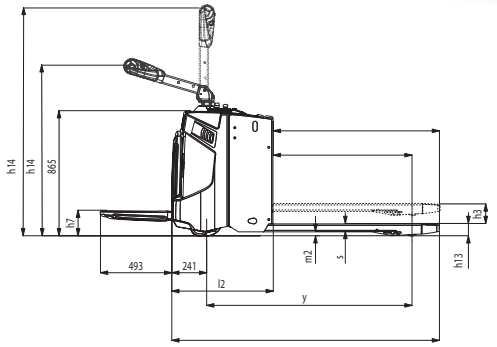
PREMIA ES

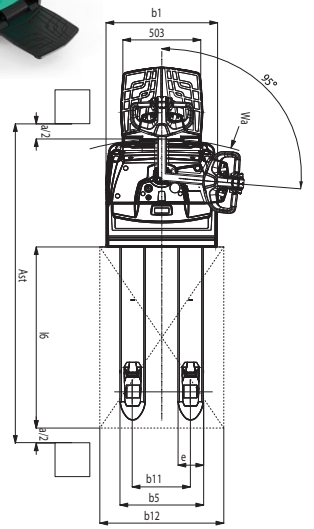
PEDESTRIAN POWER PALLET TRUCK

PBP20N3R

WITH FOLDING PLATFORM

2.0 tonnes

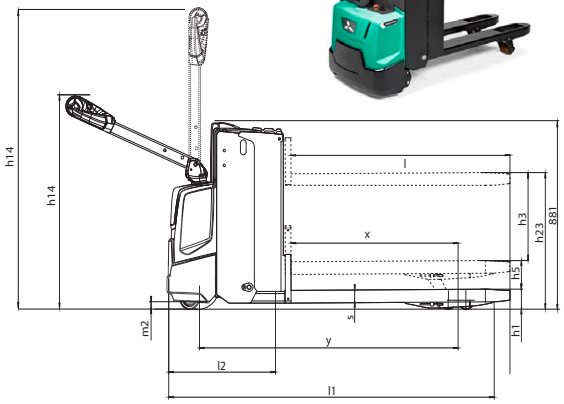


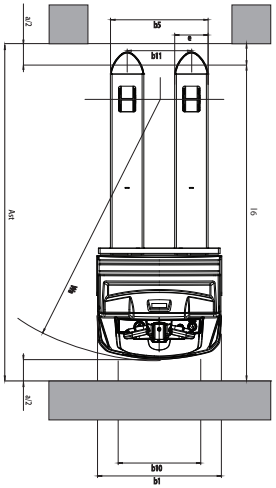


PBP20N3E

WITH RISING FORKS

2.0 tonnes





Continuing improvement may lead to changes in these specifications

STANDARD EQUIPMENT & OPTIONS

● = Standard
● = Option

	PBP16N3	PBP18N3	PBP20N3	PBP20N3R	PBP20N3E
GENERAL					
Multifunctional display, including hour meter and BDI	●	●	●	●	●
Key switch entry	●	●	●	●	●
PIN code device log in, 5 codes	●	●	●	●	●
Centered long pipe tiller arm (short pipe arm in R model)	●	●	●	●	●
Electric on/off valve for lifting and lowering, controlled by rocker switch on tiller head	●	●	●	●	●
Ergo initial lift, to 735 mm for picking applications etc.	–	–	–	–	●
Sideways battery change on rollers, with 250 Ah and 375 Ah battery only (lead-acid)	–	●	●	●	–
Battery changing trolley, for 2 batteries (lead-acid)	–	●	●	●	–
Li-ion batteries	●	●	●	●	●
ENVIRONMENT					
Continuous use, +5°C to +25°C	●	●	●	●	●
Cold store design, 0°C to -35°C	●	●	●	●	●
Hot operating condition modification, up to +45°C	●	●	●	–	●
DRIVE AND LIFT CONTROLS					
Tiller up drive	●	●	●	●	●
Increased ground clearance +70 mm, incl. rubber strip foot protection	●	●	●	–	●
WHEEL OPTIONS					
Vulkollan® drive wheel	●	●	●	●	●
Power friction drive wheel	●	●	●	●	●
Single load wheels Vulkollan®	●	●	●	●	●
Tandem load wheels Vulkollan®	●	●	●	●	●
OTHER OPTIONS					
Load backrest, height 1300 mm (600 mm in E model)	●	●	●	●	●
Closed pallet entry and exit rollers	●	●	●	●	●
Special RAL colour	●	●	●	●	●
Built-in charger 30 A, for lead-acid batteries	●	●	●	●	●
Accessory rack	●	●	●	●	●
List bracket/writing desk, A4 size	●	●	●	●	●
Computer rack, 10-16" size	●	●	●	●	●
Working lights (LED)	●	●	●	●	●

PREMIA ES

PBP16 - 20N3(R)(E) Series

POWER PALLET TRUCK

1.6 – 2.0 tonnes

PIN code log in

Load backrest

WHEN RELIABILITY IS EVERYTHING...

PREMIA

THE NUMBER ONE

Number one for reliability... number one for productivity... whatever the conditions.

Compact, efficient and resilient, PREMIA powered pallet trucks meet every need.

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 distributor, 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

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.

We follow a policy of continual product improvement. For this reason, some materials, options and specifications could change without notice.

QUALITY | RELIABILITY | VALUE FOR MONEY

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WESM2542 (02/25)

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MITSUBISHI FORKLIFT BRIEFING

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MITSUBISHI FORKLIFT TRUCKS