

TREXiA EX

Diesel Counterbalance
6 Wheel Pneumatic Tyres • 10.0 – 16.0 tonnes

FD100N
FD120N
FD135N
FD150N
FD160N

Engineered to perform... built to last

Demanding applications can take a toll on your forklift trucks... and your budgets. That's why TREXiA EX 10.0 to 16.0 tonne diesel counterbalance trucks have been specially developed to deliver outstanding lifting performance and non-stop reliability.

The secret to TREXiA EX's powerful performance is its twin-turbocharged, Stage IIIB compliant four-cylinder Perkins engine. It offers exceptional efficiency during acceleration – without reducing the truck's top speed of up to 32 km/h.

A forklift, however, is only as productive as its operator, so TREXiA EX is highly intuitive to drive – giving operators the precise, predictable and effortless performance they need to maximise their potential – whatever the environment.

In short, it's everything you'd expect from a Mitsubishi forklift... and then some.

Frame and body

- **Optimal counterweight design** delivers ideal weight positioning, allowing for a shorter turning radius with maximum residual capacity.
- **Full-floating drive axle** increases load capacity for heavy-duty applications.
- **Robust steer axle** is all-in-one, ensuring exceptional strength and rigidity.
- **Heavy-duty steel frame** optimised by finite element modelling offers superior durability.
- **Low centre of gravity** and rugged design result in higher residual capacity.
- **Low counterweight design** provides optimum visibility during reverse operations.
- **Fully enclosed wheel arches** protect vital components from dust – minimising the risk of premature failure and reducing noise.

Mast and fork assembly

- **High visibility mast** utilises narrow mast channels and slim lift cylinders to provide exceptional operator visibility.
- **Six-roller mast with side rollers** – as standard – ensures load stability, while keeping fork lift tips and load in full view.
- **Easy-to-reach lubrication points** allow for easy maintenance.



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| Characteristics | | | | | | |
|---------------------|---|------------------|-----------------------|-----------------------|-----------------------|--|
| 1.1 | Manufacturer (abbreviation) | | Mitsubishi | Mitsubishi | Mitsubishi | |
| 1.2 | Manufacturer's model designation | | FD100N | FD120N | FD135N | |
| 1.3 | Power source: (battery, diesel, LP gas, petrol) | | Diesel | Diesel | Diesel | |
| 1.4 | Operator type: pedestrian, (operator)-standing, -seated | | Seated | Seated | Seated | |
| 1.5 | Load capacity | Q (kg) | 10000 | 12000 | 13500 | |
| 1.6 | Load center distance | c (mm) | 600 | 600 | 600 | |
| 1.8 | Load distance, axle to fork face | x (mm) | 770 | 780 | 800 | |
| 1.9 | Wheelbase | y (mm) | 2800 | 2800 | 2800 | |
| Weight | | | | | | |
| 2.1 | Truck weight, without load / including battery (simplex mast, lowest lift height) | kg | 14610 | 15860 | 17480 | |
| 2.2 | Axle loading with maximum load, front/rear (simplex mast, lowest lift height) | kg | 22150 / 2460 | 25130 / 2730 | 27940 / 3040 | |
| 2.3 | Axle loading without load, front/rear (simplex mast, lowest lift height) | kg | 7260 / 7350 | 7230 / 8630 | 7700 / 9780 | |
| Wheels, Drive Train | | | | | | |
| 3.1 | Tyres: V=solid, L=pneumatic, SE=solid pneumatic - front/rear | | L / L | L / L | L / L | |
| 3.2 | Tyre dimensions, front | | 10.00 × 20 - 14 PR | 10.00 × 20 - 16 PR | 12.00 × 20 - 18 PR | |
| 3.3 | Tyre dimensions, rear | | 10.00 × 20 - 14 PR | 10.00 × 20 - 16 PR | 12.00 × 20 - 18 PR | |
| 3.5 | Number of wheels, front/rear (x=driven) | | 4x / 2 | 4x / 2 | 4x / 2 | |
| 3.6 | Track width (center of tyres), front | b10 (mm) | 1905 | 1905 | 1905 | |
| 3.7 | Track width (center of tyres), rear | b11 (mm) | 1965 | 1965 | 1925 | |
| Dimensions | | | | | | |
| 4.1 | Mast tilt, forwards/backwards | α/β ° | 15 / 12 | 15 / 12 | 15 / 12 | |
| 4.2 | Height with mast lowered (see tables) | h1 (mm) | 3087 | 3087 | 3332 | |
| 4.3 | Free lift (see tables) | h2 (mm) | 72 | 72 | 88 | |
| 4.4 | Lift height (see tables) | h3 (mm) | 3072 | 3072 | 3088 | |
| 4.5 | Overall height with mast raised | h4 (mm) | 4486 | 4486 | 4927 | |
| 4.7 | Height to top of overhead guard | h6 (mm) | 3015 | 3020 | 3060 | |
| 4.8 | Seat height | h7 (mm) | 1915 | 1915 | 1960 | |
| 4.12 | Tow coupling height | h10 (mm) | 695 | 695 | 740 | |
| 4.19 | Overall length | l1 (mm) | 5530 | 5610 | 5755 | |
| 4.20 | Length to fork face (includes fork thickness) | l2 (mm) | 4310 | 4390 | 4535 | |
| 4.21 | Overall width | b1 (mm) | 2515 | 2515 | 2605 | |
| 4.22 | Fork dimensions (thickness, width, length) | s / e / l (mm) | 72 × 180 × 1220 | 79 × 180 × 1220 | 88 × 180 × 1220 | |
| 4.23 | Fork carriage to DIN 15 173 A/B/no | | no | no | no | |
| 4.24 | Fork carriage width | b3 (mm) | 2010 | 2010 | 2260 | |
| 4.31 | Ground clearance under mast, with load | m1 (mm) | 260 | 260 | 305 | |
| 4.32 | Ground clearance at center of wheelbase, with load (forks lowered) | m2 (mm) | 310 | 310 | 355 | |
| 4.33 | Working aisle width with 1000 x1200 mm pallets, crosswise | Ast (mm) | 5970 | 6040 | 6160 | |
| 4.34a | Working aisle width with 800 x1200 mm pallets, lengthwise | Ast (mm) | 6170 | 6240 | 6360 | |
| 4.35 | Turning circle radius | Wa (mm) | 4000 | 4060 | 4160 | |
| 4.36 | Minimum distance between centers of rotation | b13 (mm) | 1565 | 1565 | 1565 | |
| Performance | | | | | | |
| 5.1 | Travel speed, with/without load | (mm) | 26.5 / 31.0 | 25.0 / 31.0 | 25.5 / 32.0 | |
| 5.2 | Lifting speed, with/without load | m/s | 0.41 / 0.44 | 0.41 / 0.44 | 0.34 / 0.37 | |
| 5.3 | Lowering speed, with/without load | m/s | 0.45 / 0.47 | 0.45 / 0.47 | 0.45 / 0.48 | |
| 5.5 | Rated drawbar pull, with/without load | N | 107000 / 34000 | 121000 / 33000 | 11000 / 35000 | |
| 5.7 | Gradeability, with/without load | % | 42.1 / 21.7 | 42.2 / 19.7 | 38.9 / 18.8 | |
| 5.10 | Service brakes (mechanical/hydraulic/electric/pneumatic) | | Pneumatic / Hydraulic | Pneumatic / Hydraulic | Pneumatic / Hydraulic | |
| IC Engine | | | | | | |
| 7.1 | Manufacturer / Type | | Perkins 1204E | Perkins 1204E | Perkins 1204E | |
| 7.2 | Rated / Nominal output to ISO 1585** | kW | 129 | 129 | 129 | |
| 7.3 | Rated speed to DIN 70 020 | rpm | 2200 | 2200 | 2200 | |
| 7.4 | Number of cylinders / cubic capacity | cm ³ | 4 / 4400 | 4 / 4400 | 4 / 4400 | |
| Miscellaneous | | | | | | |
| 8.1 | Type of drive control | | Powershift / 3 | Powershift / 3 | Powershift / 3 | |
| 8.2 | Maximum operating pressure for attachments | bar | 206 | 206 | 206 | |
| 8.3 | Oil flow for attachments | l/min | - | - | - | |
| 8.4 | Noise level, value at operator's ear (EN 12053) | dB(A) | 85 | 85 | 85 | |
| 8.5 | Towing coupling design / DIN type, ref. | | Pin | Pin | Pin | |

FD100N/FD120N Model

Mast Performance and Capacity

| | | FD100N, FD120N | | | | FD100N | FD120N |
|-----------|---------|----------------|------|------|-------|-----------|-----------------|
| Mast type | | h3 | h1 | h4 | h2/h5 | Tilt | Q @ |
| | | mm | mm | mm | mm | deg | c = 600mm kg |
| Simplex | V120A30 | 3072 | 3087 | 4486 | 72 | 15°F/12°B | 10000 |
| | V120A35 | 3572 | 3337 | 4986 | 72 | 15°F/12°B | 10000 |
| | V120A37 | 3772 | 3437 | 5186 | 72 | 15°F/12°B | 10000 |
| | V120A40 | 4072 | 3587 | 5486 | 72 | 15°F/12°B | 10000 |
| | V120A45 | 4572 | 3837 | 5986 | 72 | 15°F/12°B | 10000 |
| | V120A50 | 5072 | 4087 | 6486 | 72 | 15°F/12°B | 10000 |
| | V120A55 | 5572 | 4337 | 6986 | 72 | 15°F/12°B | 10000 |
| | V120A60 | 6072 | 4637 | 7486 | 72 | 6°F/6°B | 9800 |

FD135N/FD150N Model

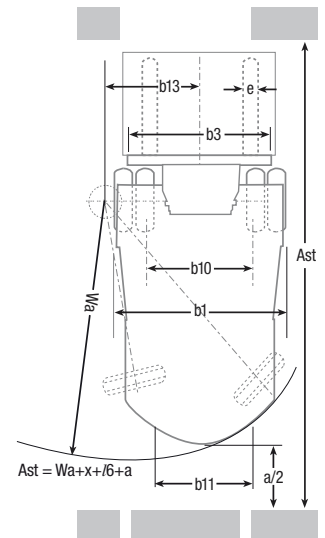
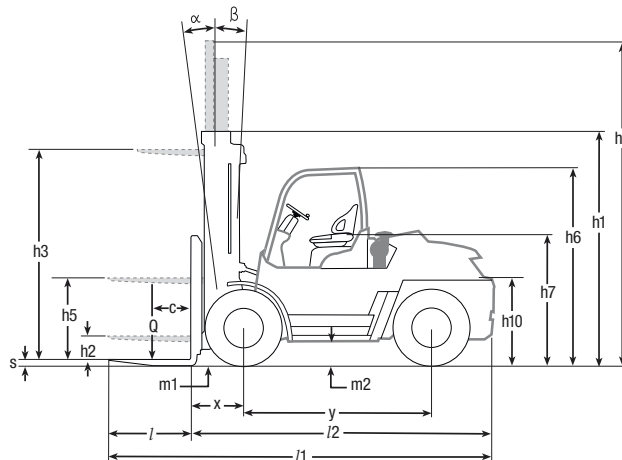
Mast Performance and Capacity

| | | FD135N, FD150N | | | | FD135N | FD150N |
|-----------|----------|----------------|------|------|-------|-----------|-----------------|
| Mast type | | h3 | h1 | h4 | h2/h5 | Tilt | Q @ |
| | | mm | mm | mm | mm | deg | c = 600mm kg |
| Simplex | 4V135A30 | 3088 | 3332 | 4927 | 88 | 15°F/12°B | 13500 |
| | 4V135A35 | 3588 | 3632 | 5427 | 88 | 15°F/12°B | 13500 |
| | 4V135A37 | 3788 | 3732 | 5627 | 88 | 15°F/12°B | 13500 |
| | 4V135A40 | 4088 | 3882 | 5927 | 88 | 15°F/12°B | 13500 |
| | 4V135A45 | 4588 | 4132 | 6427 | 88 | 15°F/12°B | 13500 |
| | 4V135A50 | 5088 | 4382 | 6927 | 88 | 15°F/12°B | 13500 |
| | 4V135A55 | 5588 | 4682 | 7427 | 88 | 15°F/12°B | 13500 |
| | 4V135A60 | 6088 | 4932 | 7927 | 88 | 6°F/6°B | 13300 |

FD160N Model

Mast Performance and Capacity

| | | FD160N | | | | FD160N | |
|-----------|---------|--------|------|------|-------|-----------|-----------------|
| Mast type | | h3 | h1 | h4 | h2/h5 | Tilt | Q @ |
| | | mm | mm | mm | mm | deg | c = 600mm kg |
| Simplex | V160A30 | 3092 | 3530 | 4927 | 92 | 15°F/12°B | 16000 |
| | V160A35 | 3592 | 3780 | 5427 | 92 | 15°F/12°B | 16000 |
| | V160A37 | 3792 | 3880 | 5627 | 92 | 15°F/12°B | 16000 |
| | V160A40 | 4092 | 4030 | 5927 | 92 | 15°F/12°B | 16000 |
| | V160A45 | 4592 | 4280 | 6427 | 92 | 15°F/12°B | 16000 |
| | V160A50 | 5092 | 4530 | 6927 | 92 | 15°F/12°B | 16000 |
| | V160A55 | 5592 | 4830 | 7427 | 92 | 15°F/12°B | 16000 |
| | V160A60 | 6092 | 5080 | 7927 | 92 | 6°F/6°B | 15800 |



- Ast = Working aisle width
- Wa = Turning radius
- a = Safety clearance = 2 × 100 mm
- l6 = Pallet length (800 or 1000 mm)
- b12 = Pallet width (1200 mm)



| | Mitsubishi FD150N | Mitsubishi FD160N |
|--|----------------------|----------------------|
| | Diesel | Diesel |
| | Seated | Seated |
| | 15000 | 16000 |
| | 600 | 600 |
| | 805 | 820 |
| | 3100 | 3300 |
| | 18050 | 18940 |
| | 30055 / 2995 | 31895 / 3045 |
| | 8260 / 9790 | 9025 / 9915 |

| | L / L | L / L |
|--|--------------------|--------------------|
| | 12.00 × 20 - 18 PR | 12.00 × 20 - 18 PR |
| | 12.00 × 20 - 18 PR | 12.00 × 20 - 18 PR |
| | 4x / 2 | 4x / 2 |
| | 1905 | 1905 |
| | 1925 | 1890 |

| | 15 / 12 | 15 / 12 |
|--|-----------------|-----------------|
| | 3332 | 3530 |
| | 88 | 92 |
| | 3088 | 3092 |
| | 4927 | 4927 |
| | 3060 | 3060 |
| | 1960 | 1960 |
| | 735 | 735 |
| | 6060 | 6275 |
| | 4840 | 5055 |
| | 2605 | 2635 |
| | 88 × 180 × 1220 | 92 × 180 × 1220 |
| | no | no |
| | 2280 | 2280 |
| | 300 | 300 |
| | 355 | 355 |
| | 6555 | 6835 |
| | 6755 | 7035 |
| | 4550 | 4550 |
| | 1815 | 2000 |

| | 25.0 / 32.0 | 24.5 / 31.5 |
|--|-----------------------|-----------------------|
| | 0.34 / 0.37 | 0.32 / 0.34 |
| | 0.45 / 0.48 | 0.41 / 0.44 |
| | 110000 / 38000 | 109000 / 42000 |
| | 36.2 / 20.0 | 33.4 / 21.1 |
| | Pneumatic / Hydraulic | Pneumatic / Hydraulic |

| | Perkins 1204E | Perkins 1204E |
|--|---------------|---------------|
| | 129 | 129 |
| | 2200 | 2200 |
| | 4 / 4400 | 4 / 4400 |

| | Powershift / 3 | Powershift / 3 |
|--|----------------|----------------|
| | 206 | 206 |
| | - | - |
| | 85 | 85 |
| | Pin | Pin |



Premium LED/LCD information panel



Spacious operator compartment



Easy access step and grab handle

Drive

- **Powerful four-cylinder Perkins engine** delivers 13% more fuel efficiency, compared with previous models.
- **Twin turbochargers** offer rapid response for maximise operator performance.
- **Low-maintenance diesel particulate filter** with passive regeneration features through-flow ceramic filter for efficient burning of particulate matter.

Hydraulics

- **Large, easy-to-reach levers** give operators precise control of hydraulics – with minimum effort.
- **Intuitive fingertip controls** available as an option offers the ultimate in driver ergonomics and, if needed, can even be operated using heavy, protective gloves.

Electrical and control systems

- **EngineProtect as standard** continuously monitors and regulates RPM levels – reducing power output when vital fluids are low to reduce the risk of damage.

- **Integrated Presence System (IPS)** provides parking brake alarm, seat belt, warning light and hydraulic and interlock system for added safety.

Operator compartment and controls

- **Small-diameter steering wheel**, with full hydrostatic steering assistance, ensures precise and rapid steering response – with very little effort.
- **Premium information display** keeps operators aware of issues affecting performance – from fuel levels to fluid temperatures – encouraging good maintenance.
- **Wide steps with grab handles** offer easy on/off access to the spacious operator's compartment – reducing operator fatigue and risk of slips, trips and falls.
- **Generous leg room** with tiltable steering column and adjustable full-suspension seat ensures a relaxed driving position for all operators.

Other features

- **RapidAccess features** include quick release floor and side panels – no tools required – for faster daily inspections.
- **Low-noise design** features rubber-mounted components, fully insulated steel engine hood, helical gears and enclosed wheel arches for maximum operator comfort.
- **500-hour service interval** and long component life reduces downtimes and associated costs.

Options

- **Intuitive fingertip controls**
- **Cabin options, with heater and air conditioner**
- **Engine shut down system**
- **Fork positioners and sidesifters**



when
reliability
is **everything**

Like any product bearing the Mitsubishi name, our materials handling equipment benefits from the huge resources and cutting-edge technology of one of the world's largest corporations. So when we promise you **quality, reliability** and **value for money**, you know it's a guarantee we have the power to deliver.

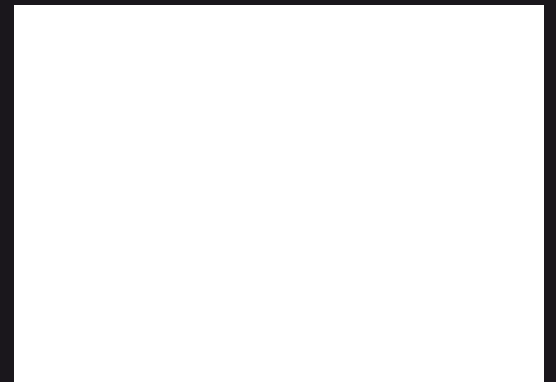
Every model in our comprehensive, award-winning range of forklift trucks and warehouse equipment is built to a high specification and is designed to keep on working for you... day after day... year after year... whatever the job... whatever the conditions.

To ensure your truck stays in constant productive action, we have a network of local dealers – hand-picked for their commitment to customer care... and backed up by the Mitsubishi Forklift Trucks organisation. No matter where you are, we have a dealer close by – ready and willing to meet your needs.

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NOTE: 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. Mitsubishi follows a policy of continual product improvement. For this reason, some materials, options and specifications could change without notice.