

# **PNEUMATIC TIRE FORKLIFT**

22,000–40,000 LB CAPACITY DIESEL PNEUMATIC TIRE MODELS

THE BIG TRUCK TO HANDLE BIG JOBS.



# DESIGNED TO EXCEED EXPECTATIONS.

BUILT FROM THE GROUND UP TO RAISE THE GAME.

**The new Mitsubishi Forklift Trucks FD100L6PM - FD180L6PM lineup of large, diesel pneumatic forklifts provide versatile and reliable solutions for the toughest applications the market has to offer.**

Spanning 7 different capacities, 4 different wheelbases and 3 load center options, these new forklifts are customizable and equipped to lift your operations. Enhanced reliability, ergonomics and serviceability features will help to increase uptime, improve the operator experience and ultimately lower your total cost of ownership, providing the return on investment that you have come to expect from Mitsubishi Forklift Trucks.

## **Dynamic Stability:**

The design of the counterweight and its low profile are intended to provide several benefits to your operation after extensive, thorough testing. Additionally, advantages in increased residual capacity allow for more confident operation of the truck, ultimately leading to more work getting done.

## **Performance You Can Count On:**

From the reliability of the rugged, robust mast and chassis to the hydraulic system to the trusted Cummins QSB4.5L Tier 3 diesel engine, these forklifts bring all the tools to the jobsite. Performance isn't defined by engine output alone (and it certainly isn't lacking here), so this truck has been built with heavy duty, thicker components for greater strength and reliability.

## **Full Access Serviceability:**

The best trucks in the world deserve the best care in the world. The one-piece engine hood allows complete and simple access from ground level for daily inspections so that the operator can ensure everything is ready before climbing into their office and firing up the engine to get to work. Additionally, all major powertrain components can be fully accessed after opening the side-tilting cab with the standard, easy-to-use manual pump tilt or optional power tilt.



### **Key applications:**

- Lumber
- Concrete and stone
- Fabricated metals
- Industrial machinery
- Building materials
- Steel and pipe

## STANDARD EQUIPMENT

### Mast and Carriage

- Durable, threaded stub shaft design
- Robust, spherical roller bearings
- Maintenance free sliding pads
- Double sealed hydraulic cylinders

### Chassis

- Modular design for commonality across models
- Easier maintenance of quality and manufacturing tolerances
- Cold rolled frame rails with tall rib and wide flanges
- Pre-welded and machine bored front end
- Low profile counterweight
- Bolt-on components for easy repair and service in the field (tanks, steps, fenders and counterweight)
- Fully side-tilting cab

### Drive Train

- Engine: Cummins QSB4.5L
- Transmission: ZF 3WG161 (3 Forward/3 Reverse)
- Drive Axle: Kessler D61/D81

### Operator Compartment

- Easy to read 4.3" color display
- 3 available cabin options
- Enhanced visibility in all directions
- Adjustable steering wheel and seat

### Hydraulics

- Robust, economical gear pump
- O-ring Face Seal (ORFS) couplings
- Double sealed cylinders
- Standard 10/14 tilt angles

### Electrical System

- 24 volt system
- LED worklights
- LED rear brakelights
- Easily accessible electrical panel
- Advanced 2-way CAN-bus communication



CHARACTERISTICS				FD100L6PM		FD120L6PM		FD127L6PM	
1	Rated capacity / rated load		lbs. kg	22000	10000	26000	12000	28000	12700
2	Load center distance	L4	in mm	24	600	24	600	24	600
3	Tire type, front / rear			Pneumatic		Pneumatic		Pneumatic	
4	Number of wheels, front / rear (x = driven wheels)			4x / 2		4x / 2		4x / 2	
<b>DIMENSIONS</b>									
5	Height of mast lowered	H3	in mm	165.2	4195	165.2	4195	165.2	4195
6	Lift height	H4	in mm	196.9	5000	196.9	5000	196.9	5000
7	Height of mast extended	H5	in mm	263.6	6695	263.6	6695	263.6	6695
8	Truck height – cabin roof	H6	in mm	117.5	2985	117.5	2985	117.5	2985
9	Seat height	H8	in mm	69.7	1770	69.7	1770	69.7	1770
10	Height when tilting cab	T1	in mm	126.8	3220	126.8	3220	126.8	3220
11	Width when tilting cab	T2	in mm	137.8	3500	137.8	3500	137.8	3500
12	Truck length (to face of forks)	L	in mm	187	4795	187	4795	187	4795
13	Truck width	B	in mm	100	2540	100	2540	100	2540
14	Mast tilt, $\alpha$ = forward / $\beta$ = backward	$\alpha$ / $\beta$	degrees	14 / 10		14 / 10		14 / 10	
15	Fork dimensions, width / thickness / length	b	in mm	7.9 x 2.7 x 48	200 x 70 x 1,220	7.9 x 2.7 x 48	200 x 70 x 1,220	7.9 x 2.7 x 48	200 x 70 x 1,220
16	Fork carriage width	b3	in mm	98.4	2500	98.4	2500	98.4	2500
17	Width over fork arms, minimum / maximum	V	in mm	93 / 23.6	2360 / 600	93 / 23.6	2360 / 600	93 / 23.6	2360 / 600
18	Turning radius	R1	in mm	164.6	4180	164.6	4180	164.6	4180
19	Minimum aisle width for 90° stacking with forks	A1	in mm	258.5	6565	258.5	6565	258.5	6565
<b>PERFORMANCE</b>									
20	Lifting speed – unloaded / 70%		fpm m/s	69 / 59	0.35 / 0.30	69 / 59	0.35 / 0.30	69 / 59	0.35 / 0.30
21	Lowering speed – unloaded / at rated load		fpm m/s	79 / 79	0.40 / 0.40 /	7979	0.40 / 0.40	79 / 79	0.40 / 0.40
22	Travel speed – unloaded / at rated load		mph km/h	18.6 / 16.8	30 / 27	18.6 / 16.8	30 / 27	18.6 / 16.84	30 / 27
23	Maximum gradeability – at 1.2 mph, unloaded / at rated load		%	64 / 36		62 / 33		59 / 32	
24	Gradeability – at 1.2 mph, unloaded / at rated load		%	51 / 30		50 / 28		48 / 26	
25	Drawbar pull (max)		lbs. kN	21,132	94	21132	94	21132	94
26	Noise level, inside LpAZ*, Essential cabin / outside		(dB(A))	-		-		-	
<b>ENGINE</b>									
27	Manufacturer's designation			Cummins QSB4.5 (Turbo-Intercooler)		Cummins QSB4.5 (Turbo-Intercooler)		Cummins QSB4.5 (Turbo-Intercooler)	
28	Fuel, type of engine			Diesel, 4-stroke		Diesel, 4-stroke		Diesel, 4-stroke	
29	Rating ISO 3046 / at revs		HP kW/rpm	160	119 / 2200	160	119 / 2200	160	119 / 2200
30	Peak torque ISO 3046 / at revs		lb-ft Nm/rpm	461	624 / 1500	461	624 / 1500	461	624 / 1500
31	Number of cylinders / displacement		cu in cm <sup>3</sup>	272	4 / 4457	272	4 / 4457	272	4 / 4457
32	Fuel consumption, normal driving		l/h	7-9		7-9		7-9	
33	Emission standard			EU Stage IIIA		EU Stage IIIA		EU Stage IIIA	
<b>WEIGHT</b>									
34	Service weight		lbs kg	39022	17700	39904	18100	41227	18700
35	Axle loading, front – unloaded / loaded		lbs kg	22267 / 36156	10100 / 16400	22267 / 62170	10100 / 28200	22267 / 65036	10100 / 29500
36	Axle loading, rear – unloaded / loaded		lbs kg	16535 / 4850	7500 / 2200	17858 / 3968	8100 / 1800	18740 / 3968	8500 / 1800
<b>CHASSIS</b>									
37	Tire size, front / rear		inch	12,00x20/20PR		12,00x20/20PR		12,00x20/20PR	
38	Track width, front / rear	S	in mm	73 / 77	1855 / 1960	73 / 77	1855 / 1960	73 / 77	1855 / 1960
39	Tyre pressure		psi MPa	130	0.9	130	0.9	130	0.9
40	Sideshift $\pm$ @ width over forks	V1 / V	in mm	17.3 / 58.3	440 / 1480	17.3 / 58.3	440 / 1480	17.3 / 58.3	440 / 1480
41	Wheelbase	L3	in mm	118	3000	118	3000	118	3000
42	Ground clearance, laden, below mast		in mm	9.8	250	9.8	250	9.8	250
43	Ground clearance, machine		in mm	13.7	350	13.7	350	13.7	350
<b>OTHER</b>									
44	Operating pressure for hydraulics		psi MPa	1740	12.0	1960	13.5	2030	14.0
45	Hydraulic oil tank, capacity		gal l	58	220	58	220	58	220
46	Fuel tank, capacity		gal l	45	170	45	170	45	170
47	AdBlue tank, capacity		gal l	4	15	4	15	4	15

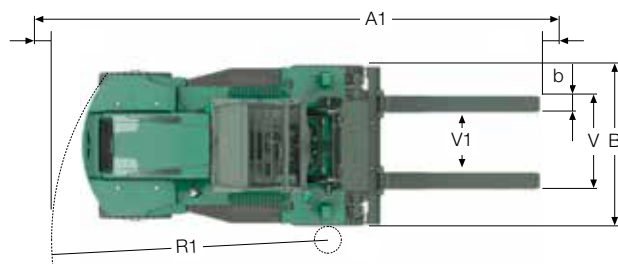
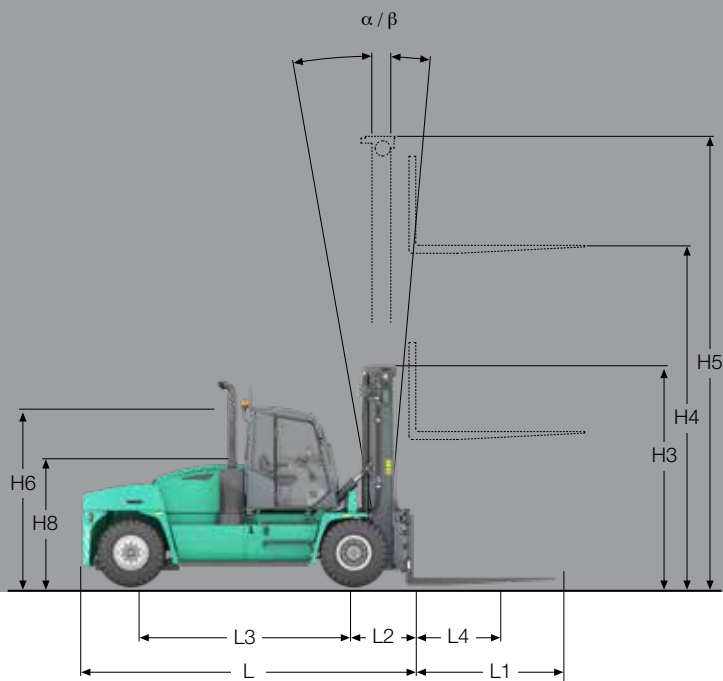
	FD140L6PM		FD150L6PM		FD100L12PM		FD120L12PM		FD150L12PM	
1	31000	14000	33000	15000	22000	10000	26,000	12000		15000
2	24	600	24	600	48	1200	48	1200	48	1200
3	Pneumatic		Pneumatic		Pneumatic		Pneumatic		Pneumatic	
4	4x / 2		4x / 2		4x / 2		4x / 2		4x / 2	
5	165.2	4195	165.2	4195	165.2	4195	165.2	4195	165.2	4195
6	196.9	5000	196.9	5000	196.9	5000	196.9	5000	196.9	5000
7	263.6	6695	263.6	6695	263.6	6695	263.6	6695	263.6	6695
8	117.5	2985	117.5	2985	117.5	2985	117.5	2985	117.5	2985
9	69.7	1770	69.7	1770	69.7	1770	69.7	1770	69.7	1770
10	126.8	3220	126.8	3220	126.8	3220	126.8	3220	126.8	3220
11	137.8	3500	137.8	3500	137.8	3500	137.8	3500	137.8	3500
12	199.80	5075	199.80	5075	199.80	5075	209.6	5325	219.5	5575
13	100	2540	100	2540	100	2540	100	2540	100	2540
14	14 / 10		14 / 10		14 / 10		14 / 10		14 / 10	
15	7.9 x 3.9 x 48	200 x 100 x 1,220	7.9 x 3.9 x 48	200 x 100 x 1,220	9.8 x 3.9 x 96	250 x 100 x 2,440	9.8 x 3.9 x 96	250 x 100 x 2,440	9.8 x 3.9 x 96	250 x 100 x 2,440
16	98.4	2500	98.4	2500	98.4	2500	98.4	2500	98.4	2500
17	93 / 23.6	2360 / 600	93 / 23.6	2360 / 600	93 / 23.6	2360 / 700	93 / 23.6	2360 / 700	93 / 23.6	2360 / 700
18	171.7	4360	171.7	4360	171.7	4360	188.4	4785	203.7	5175
19	266.7	6775	266.7	6775	314.8	7995	330	8380	347	8810
20	69 / 59	0.35 / 0.30	69 / 59	0.35 / 0.30	69 / 59	0.35 / 0.30	69 / 59	0.35 / 0.30	69 / 59	0.35 / 0.30
21	79 / 79	0.40 / 0.40	79 / 79	0.40 / 0.40	79 / 79	0.40 / 0.40	79 / 79	0.40 / 0.40	79 / 79	0.40 / 0.40
22	18.6 / 16.8	30 / 27	18.6 / 16.2	30 / 26	18.6 / 16.8	30 / 27	18.6 / 16.8	30 / 27	18.6 / 16.2	30 / 26
23	57 / 30		55 / 28		57 / 34		53 / 31		48 / 26	
24	47 / 25		45 / 24		47 / 29		43 / 26		39 / 22	
25	21132	94	21132	94	21132	94	21132	94	21132	94
26	-		-		-		-		-	
27	Cummins QSB4.5 (Turbo-Intercooler)		Cummins QSB4.5 (Turbo-Intercooler)		Cummins QSB4.5 (Turbo-Intercooler)		Cummins QSB4.5 (Turbo-Intercooler)		Cummins QSB4.5 (Turbo-Intercooler)	
28	Diesel, 4-stroke		Diesel, 4-stroke		Diesel, 4-stroke		Diesel, 4-stroke		Diesel, 4-stroke	
29	160	119 / 2200	160	119 / 2200	160	119 / 2200	160	119 / 2200	160	119 / 2200
30	461	624 / 1500	461	624 / 1500	461	624 / 1500	461	624 / 1500	461	624 / 1500
31	272	4 / 4457	272	4 / 4457	272	4 / 4457	272	4 / 4457	272	4 / 4457
32	7-9		7-9		7-9		7-9		7-9	
33	EU Stage IIIA		EU Stage IIIA		EU Stage IIIA		EU Stage IIIA		EU Stage IIIA	
34	42109	19100	43652	19800	42109	19100	44754	20300	48722	22100
35	22708 / 68784	10300 / 31200	22708 / 71871	10300 / 32600	23149 / 59966	10500 / 27200	23590 / 66580	10700 / 30200	24031 / 76500	10900 / 11200
36	19400 / 4189	8800 / 1900	20944 / 4850	9500 / 2200	18960 / 4189	8600 / 1900	21164 / 4630	9600 / 2100	24692 / 5291	11200 / 2400
37	12,00x20/20PR		12,00x20/20PR		12,00x20/20PR		12,00x20/20PR		12,00x20/20PR	
38	73 / 77	1855 / 1960	73 / 77	1855 / 1960	73 / 77	1855 / 1960	73 / 77	1855 / 1960	73 / 77	1855 / 1960
39	130	0.9	130	0.9	130	0.9	130	0.9	130	0.9
40	17.3 / 58.3	440 / 1480	17.3 / 58.3	440 / 1480	16.3 / 60.2	415 / 1530	16.3 / 60.2	415 / 1530	16.3 / 60.2	415 / 1530
41	128	3250	128	3250	128	3250	138	3500	148	3750
42	9.8	250	9.8	250	9.8	250	9.8	250	9.8	250
43	13.7	350	13.7	350	13.7	350	13.7	350	13.7	350
44	2250	15.5	2395	16.5	1815	12.5	2175	15.0	2465	17.0
45	58	220	58	220	58	220	58	220	58	220
46	45	170	45	170	45	170	45	170	45	170
47	4	15	4	15	4	15	4	15	4	15

CHARACTERISTICS			FD160L6PM		FD160L9PM		FD160L12PM			
1	Rated capacity / rated load		lbs.	kg	36000	16000	36000	16000	36000	16000
2	Load center distance	L4	in	mm	24	600	36	900	48	1200
3	Tire type, front / rear				Pneumatic		Pneumatic		Pneumatic	
4	Number of wheels, front / rear (x = driven wheels)				4x / 2		4x / 2		4x / 2	
<b>DIMENSIONS</b>										
5	Height of mast lowered	H3	in	mm	165.2	4195	165.2	4195	165.2	4195
6	Lift height	H4	in	mm	196.9	5000	196.9	5000	196.9	5000
7	Height of mast extended	H5	in	mm	263.6	6695	263.6	6695	263.6	6695
8	Truck height – cabin roof	H6	in	mm	117.5	2985	117.5	2985	117.5	2985
9	Seat height	H8	in	mm	69.7	1770	69.7	1770	69.7	1770
10	Height when tilting cab		in	mm	126.8	3220	126.8	3220	126.8	3220
11	Width when tilting cab		in	mm	137.8	3500	137.8	3500	137.8	3500
12	Truck length (to face of forks)	L	in	mm	209.6	5325	209.6	5325	219.5	5575
13	Truck width	B	in	mm	100	2540	100	2540	100	2540
14	Mast tilt, α = forward / β = backward	α / β	degrees		14 / 10		14 / 10		14 / 10	
15	Fork dimensions, width / thickness / length	b	in	mm	9.8 x 3.9 x 96	200 x 100 x 2440	9.8 x 3.9 x 72	250 x 100 x 1830	9.8 x 3.9 x 96	250 x 100 x 2440
16	Fork carriage width		in	mm	98.4	2500	98.4	2500	98.4	2500
17	Width over fork arms, minimum / maximum	V	in	mm	93 / 23.6	2360 / 600	93 / 23.6	2360 / 700	93 / 23.6	2360 / 700
18	Turning radius	R1	in	mm	188.4	4785	188.4	4785	203.7	5175
19	Minimum aisle width for 90° stacking with forks	A1	in	mm	282	7160	305.5	7760	347	8810
<b>PERFORMANCE</b>										
20	Lifting speed – unloaded / 70%		fpm	m/s	69 / 59	0.35 / 0.30	69 / 59	0.35 / 0.30	69 / 59	0.35 / 0.30
21	Lowering speed – unloaded / at rated load		fpm	m/s	79 / 79	0.40 / 0.40	79 / 79	0.40 / 0.40	79 / 79	0.40 / 0.40
22	Travel speed – unloaded / at rated load		mph	km/h	18.6 / 16.2	30 / 26	18.6 / 16.2	30 / 26	18.6 / 16.2	30 / 26
23	Maximum gradeability – at 1.2 mph, unloaded / at rated load		%		56 / 27		49 / 26		45 / 25	
24	Gradeability – at 1.2 mph, unloaded / at rated load		%		45 / 23		40 / 22		37 / 21	
25	Drawbar pull (max)		lbs.	kN	21132	94	21132	94	21132	94
26	Noise level, inside LpAZ*, Essential cabin / outside		(dB(A))		-		-		-	
<b>ENGINE</b>										
27	Manufacturer's designation				Cummins QSB4,5 (Turbo-Intercooler)		Cummins QSB4,5 (Turbo-Intercooler)		Cummins QSB4,5 (Turbo-Intercooler)	
28	Fuel, type of engine				Diesel, 4-stroke		Diesel, 4-stroke		Diesel, 4-stroke	
29	Rating ISO 3046 / at revs		HP	kW/rpm	160	119 / 2200	160	119 / 2200	160	119 / 2200
30	Peak torque ISO 3046 / at revs		lb-ft	Nm/rpm	461	624 / 1500	461	624 / 1500	461	624 / 1500
31	Number of cylinders / displacement		cu in	cm³	272	4 / 4457	272	4 / 4457	272	4 / 4457
32	Fuel consumption, normal driving		l/h		7-9		7-9		7-9	
33	Emission standard				EU Stage IIIA		EU Stage IIIA		EU Stage IIIA	
<b>WEIGHT</b>										
34	Service weight		lbs	kg	43211	19600	47620	21600	50927	23100
35	Axle loading, front – unloaded / loaded		lbs	kg	22929 / 74075	10400 / 33600	23369 / 77603	10600 / 35200	24692 / 80690	11200 / 36600
36	Axle loading, rear – unloaded / loaded		lbs	kg	20283 / 4410	9200 / 2000	24251 / 5291	11000 / 2400	26235 / 5512	11900 / 2500
<b>CHASSIS</b>										
37	Tire size, front, rear		inch		12,00x20/20PR		12,00x20/20PR		12,00x20/20PR	
38	Track width, front / rear		in	mm	73 / 77	1855 / 1960	73 / 77	1855 / 1960	73 / 77	1855 / 1960
39	Tyre pressure		psi	MPa	130	0.9	145	1.0	145	1.0
40	Sideshift ± @ width over forks	V1 / V	in	mm	17.3 / 58.3	440 / 1480	16.3 / 60.2	415 / 1530	16.3 / 60.2	415 / 1530
41	Wheelbase	L3	in	mm	138	3500	138	3500	148	3750
42	Ground clearance, laden, below mast		in	mm	9.8	250	9.8	250	9.8	250
43	Ground clearance, machine		in	mm	13.7	350	13.7	350	13.7	350
<b>OTHER</b>										
44	Operating pressure for hydraulics		psi	MPa	2465	17.0	2540	17.5	2610	18.0
45	Hydraulic oil tank, capacity		gal	l	58	220	58	220	58	220
46	Fuel tank, capacity		gal	l	45	170	45	170	45	170
47	AdBlue tank, capacity		gal	l	4	15	4	15	4	15

FD180L6PM		
1	40000	18000
2	24	600
3	Pneumatic	
4	4x / 2	
5	165.2	4195
6	196.9	5000
7	263.6	6695
8	117.5	2985
9	69.7	1770
10	126.8	3220
11	137.8	3500
12	209.6	5325
13	100	2540
14	14 / 10	
15	9.8 x 3.9 x 96	250 x 100 x 1,220
16	98.4	2500
17	93 / 23.6	2360 / 700
18	188.4	4785
19	282	7160
20	69 / 59	0.35 / 0.30
21	79 / 79	0.40 / 0.40
22	18.6 / 16.2	30 / 26
23	51 / 25	
24	42 / 21	
25	21132	94
26	-	
27	Cummins QSB4,5 (Turbo-Intercooler)	
28	Diesel, 4-stroke	
29	160	119 / 2200
30	461	624 / 1500
31	272	4 / 4457
32	7-9	
33	EU Stage IIIA	
34	45857	20800
35	22929 / 80690	10400 / 36600
36	22928 / 4850	10400 / 2200
37	12,00x20/20PR HD	
38	73 / 77	1855 / 1960
39	145	1.0
40	16.3 / 60.2	415 / 1530
41	138	3500
42	9.8	250
43	13.7	350
44	2755	19.0
45	58	220
46	45	170
47	4	15

Call-out numbers shown in the diagram below correspond to the first column of the specifications chart.

# FD100L6PM- FD180L6PM



## SAFETY STANDARDS

These trucks meet American National Standards Institute/Industrial Truck Standards Development Foundation, ANSI/ITSDF B56.1. Users should be aware of, and adhere to, applicable codes and regulations regarding operator training, use, operation and maintenance of powered industrial trucks, including:

- ANSI/ITSDF B56.1.
- NFPA 505, fire safety standard for powered industrial trucks -type designations, areas of use, maintenance and operation.
- Occupational Safety and Health Administration (OSHA) regulations that may apply.

Specifications, equipment, technical data, photos and illustrations based on information at time of printing and subject to change without notice. Some products may be shown with optional equipment.

# FD100L6PM- FD180L6PM

22,000-40,000 LB CAPACITY PNEUMATIC TIRE FORKLIFT

## Delivering Exceptional Value

### More Than 296,000 Parts To Keep You Running

Mitsubishi Forklift Trucks offers several parts programs, all designed to bring you top performance and convenience for your material handling needs.

### Support To Fit Your Operation

Find out why more companies are relying on Mitsubishi forklift truck dealers to keep their fleet operating at top performance. Our efficiency provides customers with a better return on investment, and qualified service technicians, diverse parts inventory and unparalleled selection of service options can help reduce your total cost of ownership.

### Extensive Dealer Network

The Mitsubishi forklift truck dealer network is dedicated to finding the right forklift solution for your business. With more than 300 dealer locations, you can rely on your local dealer to provide the service you need when you need it most.



Manufactured with superior quality and exceptional value, Mitsubishi forklift trucks are supported by an extensive dealer and field support network located throughout North and South America. Don't forget to ask your local Mitsubishi forklift truck dealer about details on factory retail programs, financing plans and additional options and dealer services like planned maintenance and operator training.