

# **PNEUMATIC TIRE FORKLIFT**

22,000–40,000 LB CAPACITY TIER 4 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 FD100L6P - FD180L6P 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.

## **Built For 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 B4.5 Tier 4 Final 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 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
- Heavy duty 6 x 6 lift chain
- Maintenance free sliding pads
- Double sealed hydraulic cylinders

### Chassis

- Modular design for commonality across models
- 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 B4.5 Tier 4 Final Diesel
- 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
- Excellent 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				FD100L6P		FD120L6P		FD127L6P	
1	Rated capacity / rated load		lbs. kg	22,000	10,000	26,000	12,000	28,000	12,700
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	4,195	165.2	4,195	165.2	4,195
6	Lift height	H4	in mm	196.9	5,000	196.9	5,000	196.9	5,000
7	Height of mast extended	H5	in mm	263.6	6,695	263.6	6,695	263.6	6,695
8	Truck height – cabin roof	H6	in mm	117.5	2,985	117.5	2,985	117.5	2,985
9	Seat height	H8	in mm	69.7	1,770	69.7	1,770	69.7	1,770
10	Height when tilting cab	T1	in mm	126.8	3,220	126.8	3,220	126.8	3,220
11	Width when tilting cab	T2	in mm	137.8	3,500	137.8	3,500	137.8	3,500
12	Truck length (to face of forks)	L	in mm	188.9	4,800	188.9	4,800	188.9	4,800
13	Truck width	B	in mm	100	2,540	100	2,540	100	2,540
14	Mast tilt, = forward / = backward	/	degrees	14 / 10		14 / 10		14 / 10	
15	Fork dimensions, width / thickness / length	b	in mm	7.9 / 2.7 / 48	200 / 70 / 1,220	7.9 / 2.7 / 48	200 / 70 / 1,220	7.9 / 2.7 / 48	200 / 70 / 1,220
16	Fork carriage width	b3	in mm	98.4	2,500	98.4	2,500	98.4	2,500
17	Width over fork arms, minimum / maximum	V	in mm	93 / 23.6	2,360 / 600	93 / 23.6	2,360 / 600	93 / 23.6	2,360 / 600
18	Turning radius	R1	in mm	164.6	4,180	164.6	4,180	164.6	4,180
19	Minimum aisle width for 90° stacking with forks	A1	in mm	258.5	6,565	258.5	6,565	258.5	6,565
<b>PERFORMANCE</b>									
20	Lifting speed – unloaded / 70%		fpm m/s	69 / 59	0.35 / .030	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 / 17.4	30 / 28	18.6 / 17.4	30 / 28	18.6 / 17.4	30 / 28
23	Maximum gradeability – at 1.2 mph, unloaded / at rated load		%	75 / 41		73 / 38		69 / 36	
24	Gradeability – at 1.2 mph, unloaded / at rated load		%	56 / 32		54 / 30		52 / 28	
25	Drawbar pull (max)		lbs. kN	23,605	105	23,605	105	23,605	105
26	Noise level, inside LpAZ*, Essential cabin / outside		(dB(A))	76 / 107		76 / 107		76 / 107	
<b>ENGINE</b>									
27	Manufacturer's designation			Cummins B4.5 (Turbo-Intercooler)		Cummins B4.5 (Turbo-Intercooler)		Cummins B4.5 (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	165	123 / 2,200	165	123 / 2,200	165	123 / 2,200
30	Peak torque ISO 3046 / at revs		lb-ft Nm/rpm	563	763 / 1,200	563	763 / 1,200	563	763 / 1,200
31	Number of cylinders / displacement		cu in cm³	275	4 / 4,506	275	4 / 4,506	275	4 / 4,506
32	Fuel consumption, normal driving		l/h	7-9		7-9		7-9	
33	Emission standard			EU Stage V / USA Tier 4 Final		EU Stage V / USA Tier 4 Final		EU Stage V / USA Tier 4 Final	
<b>WEIGHT</b>									
34	Service weight		lbs kg	39,022	17,700	39,904	18,100	41,227	18,700
35	Axle loading, front – unloaded / loaded		lbs kg	22,267 / 36,156	10,100 / 16,400	22,267 / 62,170	10,100 / 28,200	22,267 / 65,036	10,100 / 29,500
36	Axle loading, rear – unloaded / loaded		lbs kg	16,535 / 4,850	7,500 / 2,200	17,858 / 3,968	8,100 / 1,800	18,740 / 3,968	8,500 / 1,800
<b>CHASSIS</b>									
37	Tire size, front / rear		inch	12,00×20/20PR		12,00×20/20PR		12,00×20/20PR	
38	Track width, front / rear	S	in mm	73 / 77	1,855 / 1,960	73 / 77	1,855 / 1,960	73 / 77	1,855 / 1,960
39	Tire pressure		psi MPa	130	0.9	130	0.9	130	0.9
40	Sideshift ± @ width over forks	V1 / V	in mm	17.3 / 58.3	440 / 1,480	17.3 / 58.3	440 / 1,480	17.3 / 58.3	440 / 1,480
41	Wheelbase	L3	in mm	118	3,000	118	3,000	118	3,000
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	1,740	12	1,960	13.5	2,030	14
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

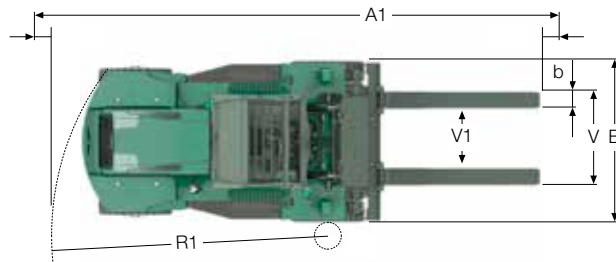
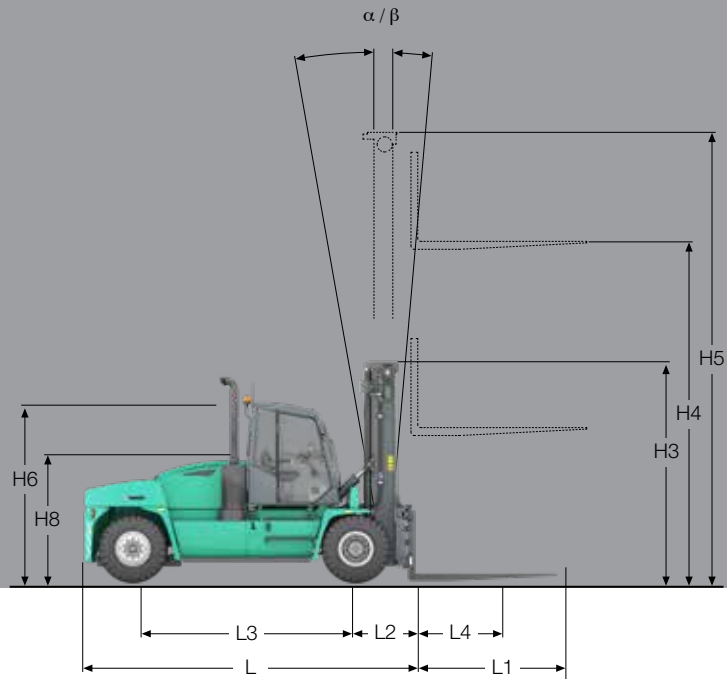
	FD140L6P		FD150L6P		FD100L12P		FD120L12P		FD150L12P	
1	31,000	14,000	33,000	15,000	22,000	10,000	26000	12,000	33,000	15,000
2	24	600	24	600	48	1,200	48	1,200	48	1,200
3	Pneumatic		Pneumatic		Pneumatic		Pneumatic		Pneumatic	
4	4x / 2		4x / 2		4x / 2		4x / 2		4x / 2	
5	165.2	4,195	165.2	4,195	165.2	4,195	165.2	4,195	165.2	4,195
6	196.9	5,000	196.9	5,000	196.9	5,000	196.9	5,000	196.9	5,000
7	263.6	6,695	263.6	6,695	263.6	6,695	263.6	6,695	263.6	6,695
8	117.5	2,985	117.5	2,985	117.5	2,985	117.5	2,985	117.5	2,985
9	69.7	1,770	69.7	1,770	69.7	1,770	69.7	1,770	69.7	1,770
10	126.8	3,220	126.8	3,220	126.8	3,220	126.8	3,220	126.8	3,220
11	137.8	3,500	137.8	3,500	137.8	3,500	137.8	3,500	137.8	3,500
12	199.8	5,075	199.8	5,075	199.8	5,075	209.6	5,325	219.5	5,575
13	100	2,540	100	2,540	100	2,540	100	2,540	100	2,540
14	14 / 10		14 / 10		14 / 10		14 / 10		14 / 10	
15	7.9 / 3.9 / 48	200 / 100 / 1,220	7.9 / 3.9 / 48	200 / 100 / 1,220	9.8 / 3.9 / 96	250 / 100 / 2,440	9.8 / 3.9 / 96 /	250 / 100 / 2,440	9.8 / 3.9 / 96	250 / 100 / 2,440
16	98.4	2,500	98.4	2,500	98.4	2,500	98.4	2,500	98.4	2,500
17	93 / 23.6	2,360 / 600	93 / 23.6	2,360 / 600	93 / 23.6	2,360 / 700	93 / 23.6	2,360 / 700	93 / 23.6	2,360 / 700
18	171.7	4,360	171.7	4,360	171.7	4,360	188.4	4,785	203.7	5,175
19	266.7	6,775	266.7	6,775	314.8	7,995	330	8,380	347	8,810
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 / 17.4	30 / 28	18.6 / 16.8	30 / 27	18.6 / 17.4	30 / 28	18.6 / 17.4	30 / 28	18.6 / 16.8	30 / 27
23	67 / 34		64 / 32		67 / 39		62 / 35		55 / 30	
24	50 / 27		48 / 25		50 / 31		47 / 27		42 / 24	
25	23,605	105	23,605	105	23,605	105	23,605	105	23,605	105
26	76 / 107		76 / 107		76 / 107		76 / 107		76 / 107	
27	Cummins B4.5 (Turbo-Intercooler)		Cummins B4.5 (Turbo-Intercooler)		Cummins B4.5 (Turbo-Intercooler)		Cummins B4.5 (Turbo-Intercooler)		Cummins B4.5 (Turbo-Intercooler)	
28	Diesel, 4-stroke		Diesel, 4-stroke		Diesel, 4-stroke		Diesel, 4-stroke		Diesel, 4-stroke	
29	165	123 / 2,200	165	123 / 2,200	165	123 / 2,200	165	123 / 2,200	165	123 / 2,200
30	563	763 / 1,200	563	763 / 1,200	563	763 / 1,200	563	763 / 1,200	563	763 / 1,200
31	275	4 / 4,506	275	4 / 4,506	275	4 / 4,506	275	4 / 4,506	275	4 / 4,506
32	7-9		7-9		7-9		7-9		7-9	
33	EU Stage V / USA Tier 4 Final		EU Stage V / USA Tier 4 Final		EU Stage V / USA Tier 4 Final		EU Stage V / USA Tier 4 Final		EU Stage V / USA Tier 4 Final	
34	42,109	19,100	43,652	19,800	42,109	19,100	44,754	20,300	48,722	22,100
35	22,708 / 68,784	10,300 / 31,200	22,708 / 71,871	10,300 / 32,600	23,149 / 59,966	10,500 / 27,200	23,590 / 66,580	10,700 / 30,200	24,031 / 76,500	10,900 / 34,700
36	19,400 / 4,189	8,800 / 1,900	20,944 / 4,850	9,500 / 2,200	18,960 / 4,189	8,600 / 1,900	21,164 / 4,630	9,600 / 2,100	24,692 / 5,291	11,200 / 2,400
37	12,00x20/20PR		12,00x20/20PR		12,00x20/20PR		12,00x20/20PR		12,00x20/20PR	
38	73 / 77	1,855 / 1,960	73 / 77	1,855 / 1,960	73 / 77	1,855 / 1,960	73 / 77	1,855 / 1,960	73 / 77	1,855 / 1,960
39	130	0.9	130	0.9	130	0.9	130	0.9	130	0.9
40	17.3 / 58.3	440 / 1,480	17.3 / 58.3	440 / 1,480	16.3 / 60.2	415 / 1,530	16.3 / 60.2	415 / 1,530	16.3 / 60.2	415 / 1,530
41	128	3,250	128	3,250	128	3,250	138	3,500	148	3,750
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	2,250	15.5	2,395	16.5	1,815	12.5	2,175	15.0	2,465	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			FD160L6P		FD160L9P		FD160L12P			
1	Rated capacity / rated load		lbs.	kg	36,000	16,000	36,000	16,000	36,000	16,000
2	Load center distance	L4	in	mm	24	600	36	900	48	1,200
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	4,195	165.2	4,195	165.2	4,195
6	Lift height	H4	in	mm	196.9	5,000	196.9	5,000	196.9	5,000
7	Height of mast extended	H5	in	mm	263.6	6,695	263.6	6,695	263.6	6,695
8	Truck height – cabin roof	H6	in	mm	117.5	2,985	117.5	2,985	117.5	2,985
9	Seat height	H8	in	mm	69.7	1,770	69.7	1,770	69.7	1,770
10	Height when tilting cab		in	mm	126.8	3,220	126.8	3,220	126.8	3,220
11	Width when tilting cab		in	mm	137.8	3,500	137.8	3,500	137.8	3,500
12	Truck length (to face of forks)	L	in	mm	209.6	5,325	209.6	5,325	219.5	5,575
13	Truck width	B	in	mm	100	2,540	100	2,540	100	2,540
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 / 3.9 / 96	200 / 100 / 1,220	9.8 / 3.9 / 72	250 / 100 / 1,830	9.8 / 3.9 / 96	250 / 100 / 2,440
16	Fork carriage width		in	mm	98.4	2,500	98.4	2,500	98.4	2,500
17	Width over fork arms, minimum / maximum	V	in	mm	93 / 23.6	2,360 / 600	93 / 23.6	2,360 / 700	93 / 23.6	2,360 / 700
18	Turning radius	R1	in	mm	188.4	4,785	188.4	4,785	203.7	5,175
19	Minimum aisle width for 90° stacking with forks	A1	in	mm	282	7,160	305.5	7,760	347	8,810
<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 / 16.8	30 / 27	18.6 / 16.8	30 / 27	18.6 / 16.8	30 / 27
23	Maximum gradeability – at 1.2 mph, unloaded / at rated load		%		65 / 31		57 / 29		52 / 28	
24	Gradeability – at 1.2 mph, unloaded / at rated load		%		49 / 24		43 / 23		40 / 22	
25	Drawbar pull (max)		lbs.	kN	23,605	105	23,605	105	23,605	105
26	Noise level, inside LpAZ*, Essential cabin / outside		(dB(A))		76 / 107		76 / 107		76 / 107	
<b>ENGINE</b>										
27	Manufacturer's designation				Cummins B4.5 (Turbo-Intercooler)		Cummins B4.5 (Turbo-Intercooler)		Cummins B4.5 (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	165	123 / 2,200	165	123 / 2,200	165	123 / 2,200
30	Peak torque ISO 3046 / at revs		lb-ft	Nm/rpm	563	763 / 1,200	563	763 / 1,200	563	763 / 1,200
31	Number of cylinders / displacement		cu in	cm³	275	4 / 4,506	275	4 / 4,506	275	4 / 4,506
32	Fuel consumption, normal driving		l/h		7-9		7-9		7-9	
33	Emission standard				EU Stage V / USA Tier 4 Final		EU Stage V / USA Tier 4 Final		EU Stage V / USA Tier 4 Final	
<b>WEIGHT</b>										
34	Service weight		lbs	kg	43,211	19,600	47,620	21,600	50,927	23,100
35	Axle loading, front – unloaded / loaded		lbs	kg	22,929 / 74,075	10,400 / 33,600	23,369 / 77,603	10,600 / 35,200	24,692 / 80,690	11,200 / 36,600
36	Axle loading, rear – unloaded / loaded		lbs	kg	20,283 / 4,410	9,200 / 2,000	24,251 / 5,291	11,000 / 2,400	26,235 / 5,512	11,900 / 2,500
<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	1,855 / 1,960	73 / 77	1,855 / 1,960	73 / 77	1,855 / 1,960
39	Tire 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 / 1,480	16.3 / 60.2	415 / 1,530	16.3 / 60.2	415 / 1,530
41	Wheelbase	L3	in	mm	138	3,500	138	3,500	148	3,750
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	2,465	17.0	2,540	17.5	2,610	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

FD180L6P		
1	40,000	18,000
2	24	600
3	Pneumatic	
4	4x / 2	
5	165.2	4,195
6	196.9	5,000
7	263.6	6,695
8	117.5	2,985
9	69.7	1,770
10	126.8	3,220
11	137.8	3,500
12	209.6	5,325
13	100	2,540
14	14 / 10	
15	9.8 / 3.9 / 48	250 / 100 / 1,220
16	98.4	2,500
17	93 / 23.6	2,360 / 700
18	188.4	4,785
19	282	7,160
20	69 / 59	0.35 / 0.30
21	79 / 79	0.40 / 0.40
22	18.6 / 16.8	30 / 27
23	60 / 28	
24	45 / 22	
25	23,605	105
26	76 / 107	
27	Cummins B4.5 (Turbo-Intercooler)	
28	Diesel, 4-stroke	
29	165	123 / 2,200
30	563	763 / 1,200
31	275	4 / 4,506
32	7-9	
33	EU Stage V / USA Tier 4 Final	
34	45,857	20,800
35	22,929 / 80,690	10,400 / 36,600
36	22,928 / 4,850	10,400 / 2,200
37	12,00x20/20PR HD	
38	73 / 77	1,855 / 1,960
39	145	1.0
40	16.3 / 60.2	415 / 1,530
41	138	3,500
42	9.8	250
43	13.7	350
44	2,755	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.

# FD100L6P- FD180L6P



## 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.

# FD100L6P-FD180L6P

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.