

# **Heavy-Duty FORKLIFT TRUCKS**

# 10-16 ton

FD100-3H FD115-3 FD120-3 FD135-3

FD150S-3 FD160S-3

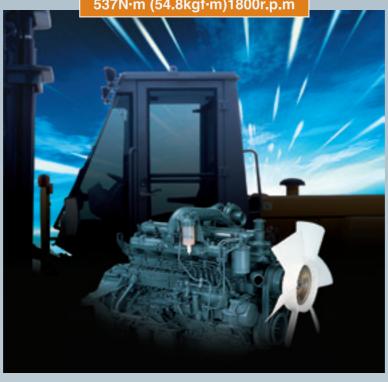


# **Innovated Engine**

6BG1T diesel engine has the peformance to meet the emission levels required in Stage II / Tier 2 emission contol standards in the U.S. (EPA), Europe and Japan.

# **Powerful Engine**

114kW(155PS)/2000r.p.m <u>53</u>7N·m (54.8kgf·m)1800r.p.m



# Improved Drawbar Pull and Gradeability!

Max. Drawbar Pull

122kN (12,500kgf) (27,560lbf)

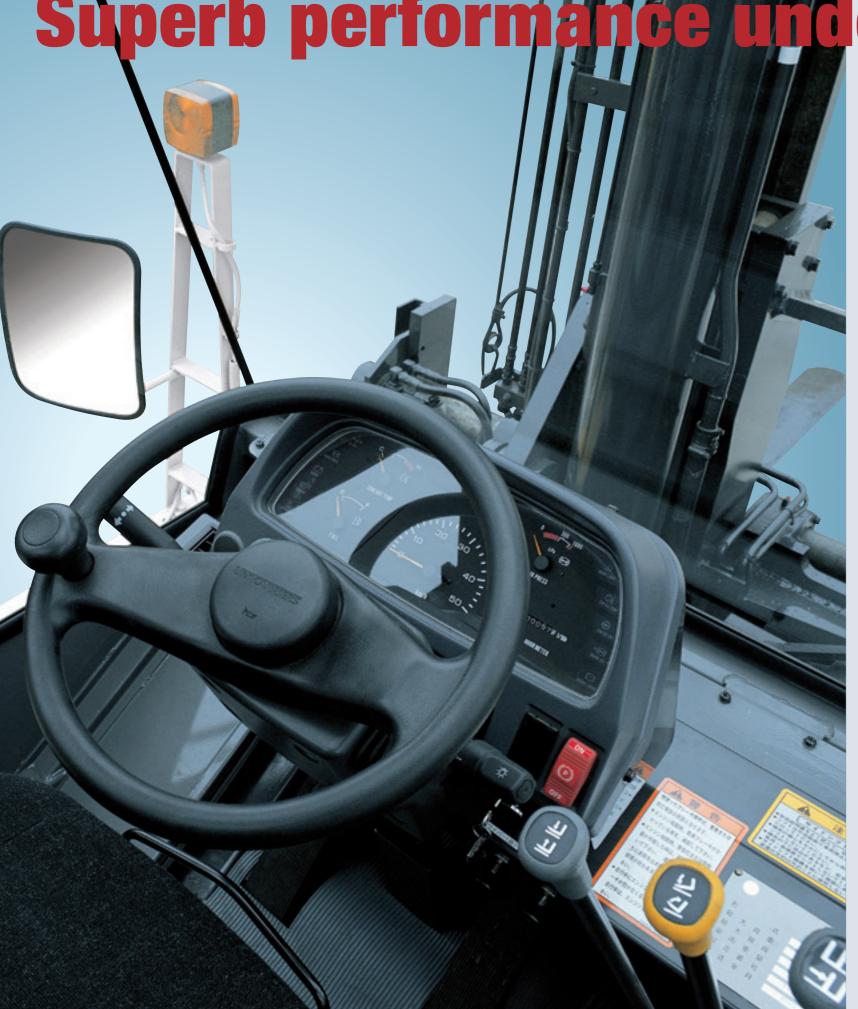
(FD100-3H with load)

Gradeability at 1.6km/h (1mph)

47%(25.2°slope)

(FD100-3H with load)

# Reliable maneuverability & safety. Superb performance under hard working conditions.





## Three Speed **Automatic Transmissions**

By automated speed control, you can comfortably drive the truck just same as passenger cars.

# (A) Finger Touch Shift Lever

Soft touch lever changes, achieved by magnetic

# **B** Easy Drive Mode Selections

Interchangeable by simple switch operations between power mode (1st → 2nd → 3rd gear) and economy mode (2nd → 3rd gear)

# © Constant Travel Speed

By a dial switch, able to get the most suitable speed you require. (1st, 2nd, and automatic changing speeds)

# (D) Combined Type Switch Lever

(Lighting and Turn Signal)
Turn-signal with self-cancelling mechanism

# **(E)** Electric Parking Brake System

Brake to be easily on by soft-touch electric switch

# **Improved Visibility** by Pillar-less Cabin (Option)

No front nor rear pillars secure wider visibility. Front visibility improved by 10 percent. (compared to conventional models)

No pillar cabin substantially contributes to increasing safety cargo handlings as well as travelling.









# **Deluxe Multi-Functional Driver Seat** with Suspension (Option)

Forward and backward slidings, up and down as well as



# **Small Steering Wheel Diameter**

Improved steering wheel contribute to much comfortable physical feeling.

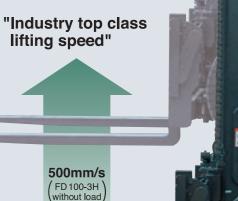


# Large Capacity Air Conditioner (Option)

Cooling capacity:4000kcal/h

# **Dependable Wet-Disc Parking Brake**

No pad adjustments substantially contribute to saving of maintenance cost.





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  These products and specifications are subject to change without notice.
  Photos and illustrations may slightly differ from the actual trucks.
  Photos and illustrations may or may not include optional equipment and accessories
  Produced in ISO certified factory.

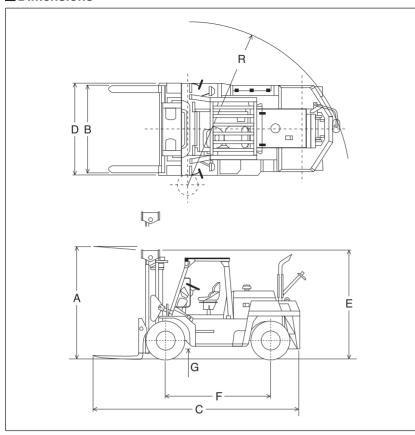




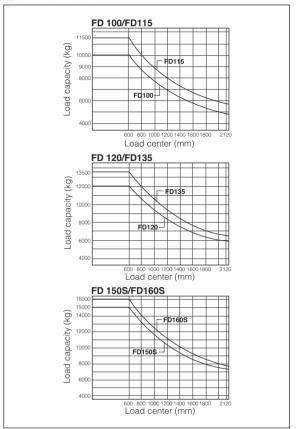
# **Heavy-Duty FORKLIFT TRUCKS / 10-16 ton**



### **■** Dimensions



# **■**Load Charts



# **■**Standard Specifications

Mod	lel				FD100-3H	FD115-3	FD120-3	FD135-3	FD150S-3	FD160S-3						
	Load capacity		kg (lbs)		10000 (22000)	11500 (25500)	12000 (26500)	13500 (30000)	15000 (33000)	16000 (35000)						
	Load center		mm (in)		600 (24)	600 (24)	600 (24)	600 (24)	600 (24)	600 (24)						
	Maximum fork heig	ght	mm (in)	А	3000 (118.1)	3000 (118.1)	3000 (118.1)	3000 (118.1)	3000 (118.1)	3000 (118.1)						
၂ ခို	Lifting speed	: with load	mm/s (fpm)		460 (90.5)	450 (88.6)	450 (88.6)	350 (68.9)	340 (66.9)	340 (66.9)						
шa	Mast tilt angle	: forward / backward	deg		6 / 12	6 / 12	6 / 12	6 / 12	6 / 12	6 / 12						
Performance	Max. Travel speed	km/h (mph)		34 (21.1)	34 (21.1)	34 (21.1)	34 (21.1)	34 (21.1)	34 (21.1)							
Per	Lateral fork adjustr	mm (in)	В	400 ~ 2140 (15.7~84.3)	400 ~ 2140 (15.7~84.3)	400 ~ 2140 (15.7~84.3)	470 ~ 2210 (18.5~87.0)	470 ~ 2210 (18.5~87.0)	470 ~ 2210 (18.5~87.0)							
	Turning radius (ou	tside)	mm (in)	R	4000 (157.5)	4000 (157.5)	4000 (157.5)	4300 (169.3)	4300 (169.3)	4450 (175.2)						
	Gradeability	: with load (1.6km/h)	%		47	39	38	33	30	29						
	Overall length	: with fork	mm (in)	С	5490 (216.1)	5505 (216.7)	5505 (216.7)	5775 (227.4)	5775 (227.4)	5920 (233.1)						
Ħ		: without fork	mm (in)		4285 (168.7)	4285 (168.7)	4285 (168.7)	4545 (178.9)	4545 (178.9)	4685 (184.4)						
Weight	Fork size	rk size : L x W x T			1220 x 180 x 75 (48.0 x 7.1 x 3.0)	1220 x 180 x90 (48.0 x 7.1 x 3.5)	1220 x 180 x90 (48.0 x 7.1 x 3.5)	1220 x 200 x 85 (48.0 x 7.9 x 3.3)	1220 x 200 x 85 (48.0 x 7.9 x 3.3)	1220 x 200 x 90 (48.0 x 7.9 x 3.5)						
که س	Overall width		mm (in)	D	2240 (88.2)	2280 (89.8)	2280 (89.8)	2360 (92.9)	2360 (92.9)	2360 (92.9)						
Ö	Overall height	: mast	mm (in)	Ε	2895 (114.0)	2915 (114.8)	2915 (114.8)	3150 (124.0)	3150 (124.0)	3150 (124.0)						
ens	Overall neight	: overhead guard	mm (in)		2740 (107.9)	2755 (108.5)	2755 (108.5)	2775 (109.3)	2775 (109.3)	2775 (109.3)						
Dimensions	Wheelbase	mm (in)	F	2800 (110.2)	2800 (110.2)	2800 (110.2)	3100 (122.0)	3100 (122.0)	3100 (122.0)							
	Ground clearance		mm (in)	G	255 (10.0)	275 (10.8)	270 (10.6)	255 (10.0)	255 (10.0)	255 (10.0)						
	Total weight		kg (lbs)		13250 (29211)	14370 (31680)	14680 (32364)	15900 (35060)	16750 (36927)	17110 (37721)						
				ISUZU 6BG1T Diesel Engine												
6	Internal : piston displacement		lit. (in³)		6.494 (396.3)											
Engine & Transmission	combustion : rated output / engine engine		speed		114kW (155PS) / 2000r.p.m. (SAE GROSS 117kW (157HP) / 2000r.p.m.)											
E E		: maximum torque / engine	speed		537N·m (54.8kgf·m) / 1800r.p.m.											
=	Transmission	: type			Automatic power-shift transmission											
	: number of speeds					3 - 3 (Fwd / Rvs)										
	Tire size				9.00-20-14PR   10.00-20-16PR   10.00-20-16PR   11.00-20-16PR   11.00-20-16PR   11.00-20-18PR											
Tire & Brake	Brake : <u>service</u>			Air-over-hydraulic internal expansion												
μ̈́g				Built in transmission, wet multiple disc brake												
	Steering system						Full hydrostatic	power steering								

#### ■ Wide View Mast

		Capacity												Max Fork Overall Mast Height (lowered)						47	
Mast		Load center 600mm(24in)												Fork ght	Overall Mast Height (lowered)						
Model	FD100-3H		FD115-3		FD120-3		FD135-3		FD150S-3		FD160S-3		l		FD100-3H		FD115~FD120-3		FD135~FD160S-0		
	kg	lbs	kg	lbs	kg	lbs	kg	lbs	kg	lbs	kg	lbs	mm	in	mm	in	mm	in	mm	in	
VM300	10000	22000	11500	25500	12000	26500	13500	30000	15000	33000	16000	35000	3000	118.1	2895	114.0	2915	114.8	3150	124.0	
VM350	10000	22000	11500	25500	12000	26500	13500	30000	15000	33000	16000	35000	3500	137.8	3145	1243.8	3165	124.6	3400	133.9	
VM400	10000	22000	11500	25500	12000	26500	13500	30000	15000	33000	16000	35000	4000	157.5	3395	133.7	3415	134.4	3650	143.7	
VM450	10000	22000	11500	25500	12000	26500	13500	30000	15000	33000	16000	35000	4500	177.2	3645	143.5	3665	144.3	3900	153.5	
VM500	10000	22000	11500	25500	12000	26500	13500	30000	15000	33000	16000	35000	5000	196.9	3895	153.3	3915	154.1	4150	163.4	
VM550	9000	19800	10350	22800	10800	23800	12150	26700	13500	30000	14400	31700	5500	216.5	4145	163.2	4165	164.0	4400	173.2	
VM600	8000	17600	9200	20200	9600	21100	10800	23800	12000	26500	12800	28200	6000	236.2	4395	173.0	4415	173.8	4650	183.1	

	Ov	erall N	⁄last ⊢	Height	(raise	ed)	Tilt Angle	Service Weight											
Mast Model	FD100-3H		FD115~FD120-3		FD135~FD160S-3		Fwd/Bwd	FD100-3		FD115-3		FD120-3		FD153-3		FD150S-3		FD160S-3	
	mm	in	mm	in	mm	in	degree	kg	lbs	kg	lbs	kg	Ibs	kg	lbs	kg	lbs	kg	lbs
VM300	4395	173.0	4415	173.8	4650	183.1	6/12	13250	29220	14370	31690	14680	32370	15900	35060	16750	36930	17010	37510
VM350	4895	192.7	4915	193.5	5150	202.8	6/12	13350	29440	14470	31900	14780	32590	16020	35320	16870	37190	17130	37770
VM400	5395	212.4	5415	213.2	5650	222.4	6/12	13450	29660	14570	32130	14880	32810	16250	35830	17100	37700	17360	38280
VM450	5895	232.1	5915	232.9	6150	242.1	6/12	13700	30210	14820	32680	15130	33360	16390	36140	17240	38010	17500	38580
VM500	6395	251.8	6415	252.6	6650	261.8	6/12	13800	30430	14920	32890	15230	33580	16490	36360	17340	38230	17600	38810
VM550	6895	271.5	6915	272.2	7150	281.5	6/12	13900	30650	15020	33120	15330	33800	16600	36600	17450	38470	17710	39050
VM600	7395	291.1	7415	291.9	7650	301.2	6/12	14000	30870	15120	33340	15430	34020	16710	36840	17560	38720	17820	39290

#### ■ STANDARD EQUIPMENT AND ACCESSORIES

#### [Equipment]

- Adjustable suspension seat with seat belt
- Air-dryer for brake line
- Cartridge type air, fuel, engine oil, converter oil and hydraulic filters
- Coolant recovery system
- Cyclopack type double element air cleaner
- Cylinder type bonnet latch
- Drawbar hook
- Durable overhead guard
- Electrically-controlled parking brake
- Engine after glow system
- Engine auto glow system
- Engine oil dipstick
- Front dual drive wheels
- Full hydrostatic power steering
- Hydraulic oil gauge (view level)
- ISUZU diesel engine with turbo-charger
- Lift circuit flow control valve
- Load check valve
- Overhead exhaust system
- Pneumatic tires
- Power brake booster
- TCM automatic 3-speed powershift transmission
- Tilt adjustable steering post
- Tilt lock valve
- Torque converter oil dipstick
- Wide view mast
- 1220mm forks

#### [Accessories]

- Back-up buzzer
- Electric horn
- Head lights
- Operator tool kit
- Rear combination lights
  - (turn signal, tail, stop, back-up and side lights) Converter oil temperature warning indicator
- Rear reflectors
- Rear under-view mirror
- Rear view mirrors
- Seat adjust lever
- Turn signal lights (front)

#### [Switch & Controls]

- Automatic transmission mode select switch (power mode / economy mode)
- Electrically-controlled direction change lever (inc. Neutral safety lock device)
- Electrically-controlled parking bkake switch
- Lift lever
- Light switch
- Preheater switch (inc. starter, main switch)
- Speed change hold switch
- (1st fixed / 2nd fixed / Automatic speed shift)
- Tilt lever
- Turn signal lever (inc.dimmer and head light switch)

#### [Instruments]

- Air cleaner clogging warning indicator
- Brake air pressure meter
- Brake air pressure warning indicator
- Brake oil level warning indicator
- Charge indicator
- Engine oil pressure warning indicator (inc. engine oil filter clogging warning)
- Engine water temperature meter
- Fuel meter
- Hourmeter
- Parking brake indicator
- Speedometer
- Turn signal indicator

#### **■ OPTIONAL EQUIPMENT AND ACCESSORIES**

# [Equipment]

- CFC free air-conditioner
- Exhaust purifying muffler
- Fork extension sleeves
- Fork positioner (hydraulic motor type)
- Fork positioner (manual type)
- Heater & defroster
- High mast
- Long forks
- Side shifting device
- Steel cabin

#### [Accessories]

- Central greasing system (manual pump type)
- Fire extinguisher
- Rotating worning light
- Working light (front, rear)