

**TCM**

*Innovative Machine*  
**INOMA**



**Engine-Powered Forklift Trucks**

**1.5-1.8 ton**

(Counter-Balanced Type)

**SPECIFICATIONS**

**STANDARD SPECIFICATIONS**

Characteristics	1		UNICARRIERS			
	2		FG15C13	FG15T13		
3	Load Capacity	kg	1500			
4	Load Center	mm	500			
5	Power Type		Gasoline			
6	Operator Position		Seated			
7	Tire Type	Front / Rear	Pneumatic			
8	Wheels (x = driven)	Front / Rear	2X / 2			
Dimensions	9	Maximum Fork Height	mm	3000		
	10	Free Lift	mm	155		
	13	Fork Size	L X W X T	920 X 100 X 35		
		Fork Spread (Outside)	Max. / Min.	920 / 200		
	14	Tilt Angle	Fwd. / Bwd.	6 / 12		
	15	Length to Fork Face	mm	2245		
	16	Overall Width	mm	1070		
	17	Mast Height Fork Lowered	mm	1995		
	18	Mast Height Fork Raised	mm	4030		
	19	Overhead Guard Height(EXB,EXC,EXK)	mm	2070		
		Overhead Guard Height(EXE,EXN)	mm	2130		
	20	Operator's Seat Height	mm	1015		
	21	Turning Radius (Outside)	mm	1980		
	Performance	22	Load Distance (Centerline of front axle to front face of forks)	mm	395	
		Rear Overhang	mm	425		
23		Basic Right Angle Stacking Aisle Width	mm	3495		
24		Travel, Max. (Fwd. / Rvs.)	Full Load	km/h	14.0 / 14.0	
			No Load	km/h	14.5 / 14.5	
25		Speeds	Lifting	Full Load	mm/sec	590
				No Load	mm/sec	670
			Lowering	Full Load	mm/sec	450
				No Load	mm/sec	550
28		Max. Drawbar Pull	Full Load	kN	9.3	
	No Load		kN	6.9		
30	Max. Gradeability*	Full Load	%	24		
		No Load	%	18		
Weight	32	Total Weight	kg	2510		
	33	Weight Distribution	Full Load	Front	kg	3510
			Rear	kg	500	
	34	No Load	Front	kg	1070	
Rear			kg	1440		
Chassis & Wheels	35	Tires	Number	Front / Rear	2 / 2	
			Size	Front	6.50-10-10PR	
	36	Size	Rear	5.00-8-8PR		
			Wheelbase	mm	1425	
	39	Tread	Front	mm	890	
			Rear	mm	920	
	Backrest Height	mm	1000			
	Overhead Guard Clearance	mm	1035			
	Counterweight Height	mm	1110			
	Drawbar Pin Center Height	mm	495			
	Step Height / Floor Height	mm	420 / 650			
40	Underclearance	Min. with Load	mm	105		
		Center of Wheelbase	mm	105		
42	Brake	Service (Foot)		Hydraulic-Foot pedal		
		Parking		Mechanical-Hand lever		
Engine & Transmission	45	Battery	Voltage / Capacity (5HR)	V/AH	12 / 28	
	49	Internal Combustion Engine	Make / Model		GCT / K15	
	50		Rated Horsepower / r.p.m.	kW	25.0 / 2400	
	51		Rated Torque / r.p.m.	N-m	110.2 / 1600	
			Number of Cylinder		4	
	52		Piston Displacement	cc	1486	
			Alternator output	kW/Amp	0.60 / 50	
			Fuel Tank Capacity Type	liter	50	
55	Transmission		Type		Manual	
		Stage	Fwd.-Rvs.	2-2		
57	Operating Pressure	For Attachments	MPa	17.7		

NOTE : \* Computed values.

		UNICARRIERS					
		FG18C13	FG18T13	FHG15C3	FHG15T3	FHG18C3	FHG18T3
		1750		1500		1750	
		500		500		500	
		Gasoline		Gasoline		Gasoline	
		Seated		Seated		Seated	
		Pneumatic		Pneumatic		Pneumatic	
		2X / 2		2X / 2		2X / 2	
		3000		3000		3000	
		155		155		155	
		920 X 100 X 35		920 X 100 X 35		920 X 100 X 35	
		920 / 200		920 / 200		920 / 200	
		6 / 12		6 / 12		6 / 12	
		2275		2275		2275	
		1100		1070		1100	
		1995		1995		1995	
		4030		4030		4030	
		2070		2070		2070	
		2130		2130		2130	
		1015		1045		1045	
		2010		1980		2010	
		395		395		395	
		455		425		455	
		3525		3495		3525	
		14.0 / 14.0		18.5 / 18.5		19.0 / 19.0	
		14.5 / 14.5		19.0 / 19.0		19.5 / 19.5	
		590		600		600	
		670		680		680	
		450		450		450	
		550		550		550	
		9.3	14.5	12.7	15.7	12.7	15.7
		6.9		6.9		6.9	
		20	24	25	33	22	31
		18	17	18		18	17
		2670		2510		2670	
		3880		3510		3880	
		540		500		540	
		1030		1070		1030	
		1640		1440		1640	
		2 / 2		2 / 2		2 / 2	
		6.50-10-10PR		6.50-10-10PR		6.50-10-10PR	
		5.00-8-8PR		5.00-8-8PR		5.00-8-8PR	
		1425		1425		1425	
		890		890		890	
		920		920		920	
		1000		1000		1000	
		1035		1005		1035	
		1110		1110		1110	
		495		495		495	
		420 / 650		420 / 650		420 / 650	
		105		105		105	
		105		105		105	
		Hydraulic-Foot pedal		Hydraulic-Foot pedal		Hydraulic-Foot pedal	
		Mechanical-Hand lever		Mechanical-Hand lever		Mechanical-Hand lever	
		12 / 28		12 / 28		12 / 28	
		GCT / K15		GCT / K21		GCT / K21	
		25.0 / 2400		34.6 / 2250		34.6 / 2250	
		110.2 / 1600		153.5 / 1600		153.5 / 1600	
		4		4		4	
		1486		2065		2065	
		0.60 / 50		0.60 / 50		0.60 / 50	
		50		50		50	
		Manual	Power-shift	Manual	Power-shift	Manual	Power-shift
		2-2	1-1	2-2	1-1	2-2	1-1
		17.7		17.7		17.7	

**STANDARD SPECIFICATIONS**

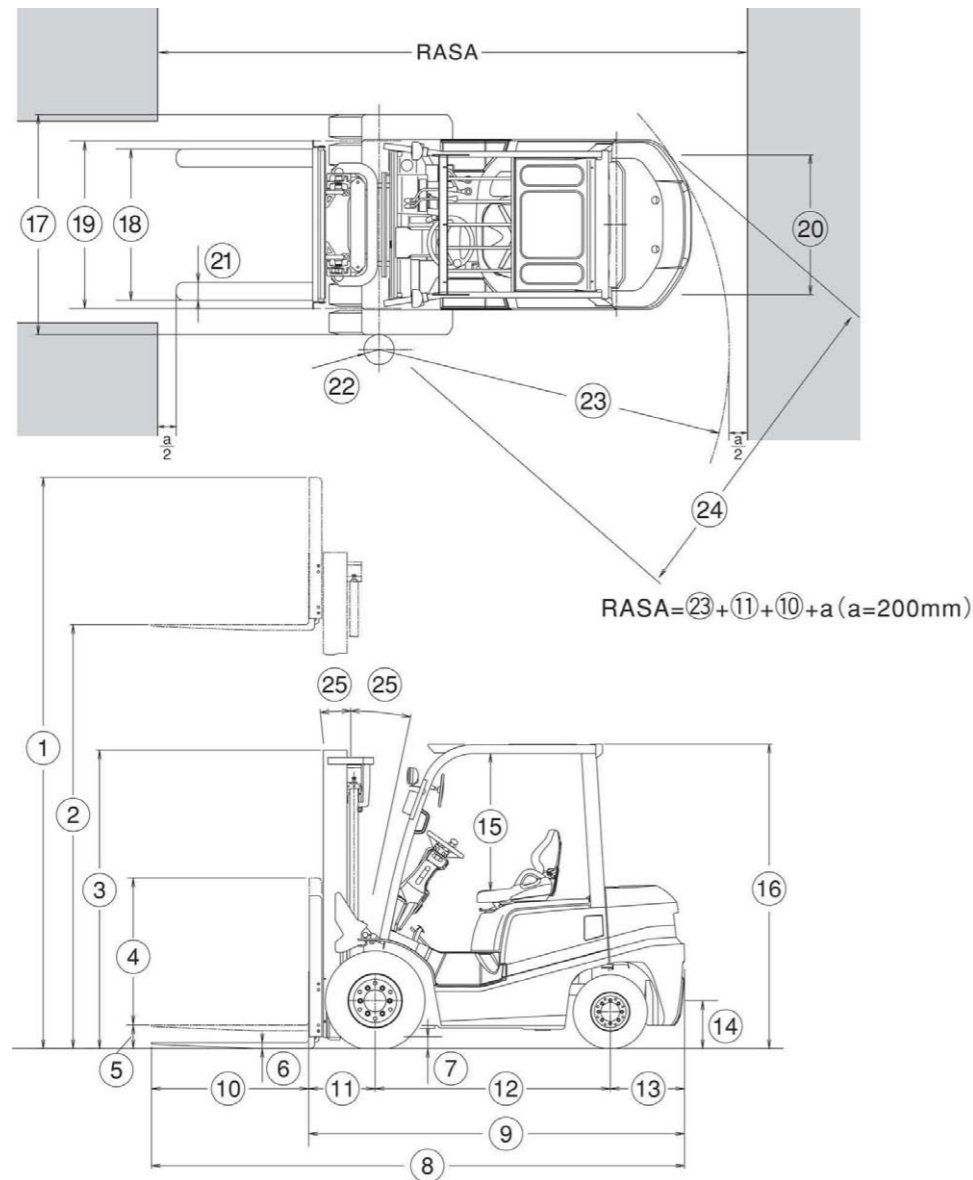
Characteristics	1		UNICARRIERS			
	2		FD15C13	FD15T13		
3	Load Capacity	kg	1500			
4	Load Center	mm	500			
5	Power Type		Diesel			
6	Operator Position		Seated			
7	Tire Type	Front / Rear	Pneumatic			
8	Wheels (x = driven)	Front / Rear	2X / 2			
Dimensions	9	Maximum Fork Height	mm	3000		
	10	Free Lift	mm	155		
	13	Fork Size	L X W X T	920 X 100 X 35		
		Fork Spread (Outside)	Max. / Min.	920 / 200		
	14	Tilt Angle	Fwd. / Bwd.	6 / 12		
	15	Length to Fork Face	mm	2245		
	16	Overall Width	mm	1070		
	17	Mast Height Fork Lowered	mm	1995		
	18	Mast Height Fork Raised	mm	4030		
	19	Overhead Guard Height(EXB,EXC,EXK)	mm	2070		
		Overhead Guard Height(EXE,EXN)	mm	2130		
	20	Operator's Seat Height	mm	1015		
	21	Turning Radius (Outside)	mm	1980		
Performance	22	Load Distance (Centerline of front axle to front face of forks)	mm	395		
		Rear Overhang	mm	425		
	23	Basic Right Angle Stacking Aisle Width	mm	3495		
	24	Travel, Max. (Fwd. / Rvs.)	Full Load	km/h	13.5 / 13.5	
			No Load	km/h	14.0 / 14.0	
	25	Speeds	Lifting	Full Load	mm/sec	530
				No Load	mm/sec	600
			Lowering	Full Load	mm/sec	450
				No Load	mm/sec	550
	28	Max. Drawbar Pull	Full Load	kN	8.8	
No Load			kN	6.9		
30	Max. Gradeability*	Full Load	%	22		
		No Load	%	19		
Weight	32	Total Weight	kg	2540		
	33	Weight Distribution	Full Load	Front	kg	3530
			Rear	kg	510	
	34	No Load	Front	kg	1090	
Rear			kg	1450		
Chassis & Wheels	35	Tires	Number	Front / Rear	2 / 2	
			Size	Front	6.50-10-10PR	
	36	Size	Rear	6.50-10-10PR		
			Rear	5.00-8-8PR		
38	Wheelbase	mm	1425			
39	Tread	Front	mm	890		
		Rear	mm	920		
	Backrest Height	mm	1000			
	Overhead Guard Clearance	mm	1035			
	Counterweight Height	mm	1110			
	Drawbar Pin Center Height	mm	495			
	Step Height / Floor Height	mm	420 / 650			
40	Underclearance	Min. with Load	mm	105		
		Center of Wheelbase	mm	105		
42	Brake	Service (Foot)		Hydraulic-Foot pedal		
		Parking		Mechanical-Hand lever		
Engine & Transmission	45	Battery	Voltage / Capacity (5HR)	V/AH	12 / 52	
	49	Internal Combustion Engine	Make / Model		KUBOTA / D1503	
			Rated Horsepower / r.p.m.	kW	21.3 / 2500	
	51	Rated Torque / r.p.m.		N-m	98 / 1600	
			Number of Cylinder		3	
	52	Piston Displacement		cc	1499	
			Alternator output	kW/Amp	0.54 / 45	
		Fuel Tank Capacity Type	liter		50	
	55	Transmission	Type		Manual	
			Stage	Fwd.-Rvs.	2-2	
57	Operating Pressure	For Attachments	MPa	17.7		

NOTE : \* Computed values.

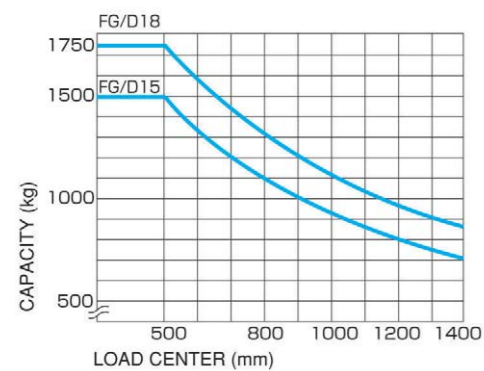
Characteristics	UNICARRIERS						
	FD18C13	FD18T13	FHD15C3Z	FHD15T3Z	FHD18C3Z	FHD18T3Z	
3	Load Capacity	kg	1500		1750		
4	Load Center	mm	500		500		
5	Power Type		Diesel		Diesel		
6	Operator Position		Seated		Seated		
7	Tire Type	Front / Rear	Pneumatic		Pneumatic		
8	Wheels (x = driven)	Front / Rear	2X / 2		2X / 2		
Dimensions	9	Maximum Fork Height	mm	3000	3000		
	10	Free Lift	mm	155	155		
	13	Fork Size	L X W X T	920 X 100 X 35		920 X 100 X 35	
		Fork Spread (Outside)	Max. / Min.	920 / 200		920 / 200	
	14	Tilt Angle	Fwd. / Bwd.	6 / 12		6 / 12	
	15	Length to Fork Face	mm	2245		2245	
	16	Overall Width	mm	1100		1070	
	17	Mast Height Fork Lowered	mm	1995		1995	
	18	Mast Height Fork Raised	mm	4030		4030	
	19	Overhead Guard Height(EXB,EXC,EXK)	mm	2070		2070	
		Overhead Guard Height(EXE,EXN)	mm	2130		2130	
	20	Operator's Seat Height	mm	1015		1045	
	21	Turning Radius (Outside)	mm	1980		2010	
Performance	22	Load Distance (Centerline of front axle to front face of forks)	mm	395	395		
		Rear Overhang	mm	455	425		
	23	Basic Right Angle Stacking Aisle Width	mm	3525	3495		
	24	Travel, Max. (Fwd. / Rvs.)	Full Load	km/h	13.5 / 13.5	18.5 / 18.5	19.0 / 19.0
			No Load	km/h	14.0 / 14.0	19.0 / 19.0	19.5 / 19.5
	25	Speeds	Lifting	Full Load	mm/sec	530	620
				No Load	mm/sec	600	660
			Lowering	Full Load	mm/sec	450	450
				No Load	mm/sec	550	550
	28	Max. Drawbar Pull	Full Load	kN	8.8	13.7	
No Load			kN	6.9	6.9		
30	Max. Gradeability*	Full Load	%	20	21		
		No Load	%	16	17		
Weight	32	Total Weight	kg	2700	2610	2770	
	33	Weight Distribution	Full Load	Front	kg	3900	
			Rear	kg	550		
	34	No Load	Front	kg	1050	1110	
Rear			kg	1650	1500		
Chassis & Wheels	35	Tires	Number	Front / Rear	2 / 2	2 / 2	
			Size	Front	6.50-10-10PR	6.50-10-10PR	
	36	Size	Rear	6.50-10-10PR	6.50-10-10PR		
			Rear	5.00-8-8PR	5.00-8-8PR		
38	Wheelbase	mm	1425	1425	1425		
39	Tread	Front	mm	920	890		
		Rear	mm	920	920		
	Backrest Height	mm	1000	1000			
	Overhead Guard Clearance	mm	1035	1005			
	Counterweight Height	mm	1110	1110			
	Drawbar Pin Center Height	mm	495	495			
	Step Height / Floor Height	mm	420 / 650	420 / 650			
40	Underclearance	Min. with Load	mm	105	105		
		Center of Wheelbase	mm	105	105		
42	Brake	Service (Foot)		Hydraulic-Foot pedal	Hydraulic-Foot pedal		
		Parking		Mechanical-Hand lever	Mechanical-Hand lever		
Engine & Transmission	45	Battery	Voltage / Capacity (5HR)	V/AH	12 / 52		
	49	Internal Combustion Engine	Make / Model		KUBOTA / D1503		
			Rated Horsepower / r.p.m.	kW	21.3 / 2500		
	51	Rated Torque / r.p.m.		N-m	98 / 1600		
			Number of Cylinder		3		
	52	Piston Displacement		cc	1499		
			Alternator output	kW/Amp	0.54 / 45		
		Fuel Tank Capacity Type	liter		50		
	55	Transmission	Type		Manual		
			Stage	Fwd.-Rvs.	2-2		
57	Operating Pressure	For Attachments	MPa	17.7			



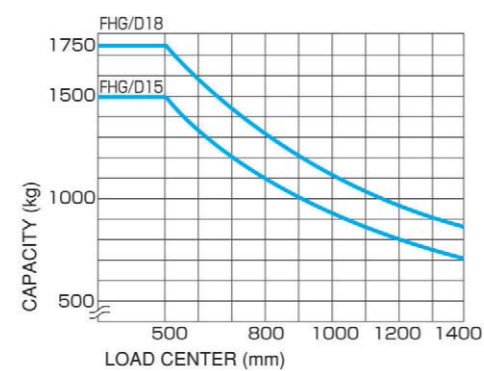
GROUND CLEARANCE	FD / FG15	FHD / FHG15
	FD / FG18	FHD / FHG18
	mm	mm
Mast	110	110
Frame	105	105
Front axle	125	125
Rear axle	125	125
Counter weight	135	135



LOAD CHART 1.5-1.8t (Standard)



LOAD CHART 1.5-1.8t (High Power)



STANDARD DIMENSIONS

STANDARD DIMENSIONS

Model	FD / FG15	FD / FG18
	FHD / FHG15	FHD / FHG18
	mm	mm
① Overall height, fork raised(with backrest)	4030	4030
② Maximum fork height	3000	3000
③ Mast height, fork lowered	1995	1995
④ Backrest height	1000	1000
⑤ Free lift	155	155
⑥ Fork thickness	35	35
⑦ Ground clearance(front axle)	125	125
⑧ Overall length(with forks)	3165	3195
⑨ Length to fork face	2245	2275
⑩ Fork length	920	920
⑪ Load distance(centerline of front axle to front face of forks)	395	395
⑫ Wheelbase	1425	1425
⑬ Rear overhang	425	455
⑭ Drawbar Pin Center Height	495	495
⑮ Overhead guard clearance(from face of seat)*	FD / FG15•18=1035	FHD / FHG15•18=1005
⑯ Overall height(overhead guard)*	2070	2070
⑰ Overall width	1070	1100
⑱ Fork spread(outside)	200 - 920	200 - 920
⑲ Tread (front)	890	920
⑳ Tread (rear)	920	920
㉑ Fork width	100	100
㉒ Inside turning radius	110	95
㉓ Outside turning radius	1980	2010
㉔ Minimum intersecting aisle	1780	1800
㉕ Tilt angles(forward-backward)	6° - 12°	6° - 12°

NOTE : \*European(EXE) export trucks: +60mm

DIMENSIONS WITH FRONT DUAL DRIVE WHEELS (option)

Model	FD / FG15	FD / FG18
	FHD / FHG15	FHD / FHG18
Tire size (front dual Type: DD)	4 x 4.50-12-8PR JL	
	mm	mm
⑰ Overall width	1255	1255
⑲ Tread (front)	980	980
㉒ Inside turning radius	90	90
㉓ Outside turning radius	2020	2050
㉔ Minimum intersecting aisle	1840	1860

Tire size (front dual Type: SDD)	4 x 6.50 -10-10PR JL	
	mm	mm
⑰ Overall width	1512	1512
⑲ Tread (front)	1110	1110
㉒ Inside turning radius	90	90
㉓ Outside turning radius	2095	2120
㉔ Minimum intersecting aisle	1940	1960



# MEMO

## STANDARD EQUIPMENT AND ACCESSORIES

### [Equipment]

- Adjustable ORS seat with belt
- Asbestos-free brake shoe materials
- Cylinder type bonnet latch with locking function
- Donaldson dry type cyclopac air-cleaner
- Drawbar device
- Durable overhead guard with resin screen
- Engine auto glow system (Diesel)
- Engine idle-up device (Gasoline)
- Flow control valve
- Fuel water sedimenter (Diesel)
- Full hydrostatic power steering
- Full transistorized ignition (Gasoline)
- Hydraulic oil dipstick
- Interlock system<sup>1)</sup>
- ITA Class II carriage
- J-lug pneumatic industrial tires
- Lift circuit cut-off valve
- Load backrest
- Radiator coolant reservoir
- Return hydraulic filter
- Suction hydraulic strainer
- Tilt lock valve
- Transmission oil dipstick (power shift T/M)
- Transmission oil filter (power shift T/M)
- Wide view two stage mast(VM300)
- 2-spool control valve with pressure relief
- 920mm forks

### [Controls]

- Electric shift control lever (direction change)
- Lift and tilt levers
- Multi-function switch lever with self-cancelling mechanism (Lighting & turn-signal)
- Neutral safety mechanism
- Parking brake lever with inter-lock
- Tilt adjustable steering post

### [Accessories]

- Access-assisted hand grip
- Back-up buzzer
- Back-up lights
- Deluxe floor mat
- Detachable and portable glove box
- Electric horn
- Front combination lights (turn signal, clearance)
- Head lights - traffic purpose
- High-mounted rear combination lights
- Operator tool kit
- Pen/ Cup holder
- Side view mirrors

### [Instruments and Switch]

- Charge indicator
- Engine oil pressure warning indicator
- Fuel gauge
- Fuel water sedimenter indicator (Diesel)
- Glow indicator (Diesel)
- Hourmeter
- Ignition key engine stop (Diesel)
- Neutral safety switch
- Water temperature gauge

## OPTIONAL LOADING ATTACHMENT

- Alternative fork lengths
- Alternative lengths fork extension sleeve
- Bale clamp (LG)
- Carton clamp (CLG)
- Crane arm (CA)
- Drum clamp (DLG)
- Fork clamp (FLG)
- Fork positioner hydraulic type (Hook-on/ Integral)(FS)
- High, wide type load backrest
- Hinged forks/ scoop (HFS)
- Load push-pull (PPC)
- Load stabilizer (STA)
- Ram attachment (RA)
- Rotating forks (Hook-on/ Integral type)(RF)
- Rotating paper roll clamp (Hook-on/ Integral type)(PR)
- Side-shifter (Hook-on/ Integral)(SS)
- Sleeve-in hook
- Wide type fork carriage
- Wide view full free 2-stage (VFM) mast
- Wide view full free 3-stage (VFHM) mast

NOTE : 1) STD for EXE specification

## OPTIONAL EQUIPMENT AND ACCESSORIES

### [Equipment]

- Air Boss tires (TRA)
- Auxiliary hydraulic valve modules (max. 5spool)
- Central greasing system (CL)
- Color tire (white, green)
- Dual element aircleaner (ADE)
- Exhaust purify catalytic muffler (EPM) (Diesel)
- Fishery industry package (FC)
- Front dual drive wheels (DD/ SDD)
- Full open cabine (AW 061)
- Head light guard (HLG)
- Heater (HR)
- Interlock system<sup>1)</sup> (SIL)
- Lift lock mechanism (VLL)
- LPG exclusive/ Dual fuel (LPG - Gasoline) package
- Overhead exhaust system (TUE)
- Overhead guard/ High profile (HGH060)
- Overhead guard/ Low profile(HGL)
- Plate fin type radiator (RAD PF)
- Pre-cleaner engine air intake (CAK B) (Gasoline)
- Radiator dust screen (fine, medium mesh)(DSR)
- Smoke reduction/spark arrester muffler (Diesel)(CBM)
- Synchronised steering mechanism(SRS)
- Unique cushion tires (SE)

### [Accessories]

- Custom paint-work
- Fire extinguisher(FE)
- Rear working light(RWL)
- Rotating warning light(RLY/RLR)
- Tilt cylinder boots(TLB)

### [Instruments and Switch]

- Ammeter (AM)
- O.K. monitor (fuel level, battery electrolyte level, coolant level, parking brake, air-cleaner, seat-belt)
- Speedometer (SM)
- Torque converter oil pressure gauge (TPM)
- Torque converter oil temperature gauge (power shift T/M)

Others on request

## NOTE :

- Meets following major standards and code:
  - ISO22915-2 Counter Balanced Lift Trucks, Stability & Safety Test(Int'l)
  - ISO 3691 Powered industrial trucks - safety code
  - JIS D6001 Industrial Lift Trucks (Japan)
  - ISO D6011 Stability & Safety Test (Japan)
- Overhead guard meets ISO 6055, JIS D6021
- Specifications are subject to change without notice and its may vary depending on markets.  
Please consult your TCM representative for details.

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- UniCarriers Corporation retains the right to change these products and specifications without incurring any obligation relating to such changes.
- 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.
- Features and specifications may vary depending on markets.
- Performance data and dimensions are nominal and subject to tolerances.
- Produced in ISO certified factory.