

R Series

1.0 / 1.5 / 1.8 / 2.0 / 2.5
3.0 / 3.5 / 4.0 / 4.5 / 5.0 T
Gasoline / LPG

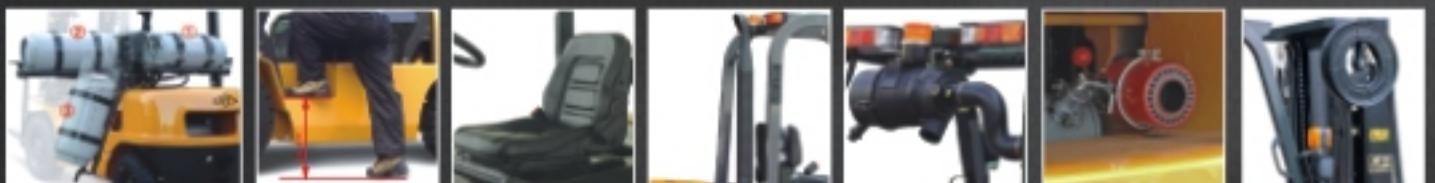


OKAMURA
New floating type

OKAMURA 2-3t T / M is Floating Types, The only one in China. Floating types are designed to reduce the transmission of vibrations to the chassis in small and midsized (1 to 5 tons) forklift trucks, thereby reducing operator fatigue and improving riding comfort . Specially-shortened design is ideal for this floating-type Installation. Compact design offers same dimensions as conventional integrated models. May be coupled to the differential axles. Making installation, removal, and maintenance easy.

Options

- 2.0-5.0m duplex mast
- 2.5-4.0m full free duplex mast
- 4.3-6.5m triplex mast
- Special carriage and backrest
- Other dimension forks
- Dual drive wheel with fender
- Solid tyre
- Colored tyre(white、green)
- Cabin
- Heater and air condition
- Fire extinguisher
- Semi-suspension seat or full-suspension seat
- Dual air cleaner or special air cleaner
- Rear working light
- Customer painting
- Auxiliary hydraulic valve modules
- High-mounted exhaust system
- Middle-mounted exhaust system
- Anti-fire spark exhaust device
- 3-way catalytic muffler
- LPG swing-down bracket
- Radiator screen
- Sideshifter
- Integrated sideshifter
- Other attachment
- LPG fuel system(single、dual)



ZHEJIANG HANGCHA ENGINEERING MACHINERY CO.,LTD.
(ZHEJIANG HANGCHA IMP.& EXP. CO.,LTD.)

www.hcforklift.com

Add: 398 Shi Qiao Road, Hangzhou 310022, P.R.China
Tel: +86-571-88135110 88126376 88135220 88125527 88130499(Ext. 8116, 8206, 8200)
Fax: +86-571-88132890 88126379
E-mail: sales@hcforklift.com



CE CERTIFICATE



ISO14001: 2004



1.0 / 1.5 / 1.8 / 2.0 / 2.5
3.0 / 3.5 / 4.0 / 4.5 / 5.0 T
Gasoline / LPG



ISO9001: 2000



ZHEJIANG HANGCHA IMP. & EXP. CO., LTD

HCIE is authorized to deal with
the whole import& export business
of ZHEJIANG HANGCHA
ENGINEERING MACHINERY
CO.,LTD.

浙江杭叉工程机械股份有限公司
ZHEJIANG HANGCHA ENGINEERING MACHINERY CO.,LTD.

durable: **HYDRAULICS**
 clean, reliable: **ENGINES**
 progressive: **BRAKES**
 cool, smooth: **TRANSMISSION**

INTRODUCTION

The new generation R series forklift is combined with durability and ergonomics, providing productivity unmatched by other forklifts and the comfort for hours of tireless operation. Add friendliness to the environment, simple servicing, efficiency on the job, high standards of safety—it's the perfect tool for the most demanding applications.

TRANSMISSION & ENGINE

The transmission can be chosen among OKAMURA、NISSAN and HC(made in china with the Japanese technique), with advanced structure and dependable function. Among them, the OKAMURA transmission adopts advanced float type structure, which can achieve a flexible connection between engine and frame, the vibrations of transmission to the frame is reduced. The engine can be chosen among the TD27、C240、4JG2、4TNV94L diesel engine and H20、H25 gasoline engine, with great power, economical fuel consumption and dependable functions.

OPERATION

Adopted advanced ergonomic technology optimizes the design of control system, improves the comfortable of operation much more.

Adopted advanced vibration-reduction technology designs each part's vibration reduction, reduces the whole truck vibration. Among them, the hood is designed to full floating type, and vibration reduction device for steering axle enables the operation more comfortable.



The torque converter models adopt electronic-hydraulic forward-reverse control technology, meaning less effort and less total time used during this often-performed function.

Adopted recently developed redirector decreases the steering wheel force to 6~8N only ,that reduce 50% compared with former truck.

The grease fittings and bushes added around the shaft of control mechanism decreases the force of pedal, that are reduced 30% compared with former truck.

HEAT DISSIPATION

Newly adopted combined type aluminum radiator improves the radiator cooling performance greatly.

Advanced heat dissipation technology improves heat dissipation channel, that enhances the truck heat dissipation capability further, the water temperature is reduced 15% compared with former truck.

CYLINDER

Oil seal rings used for tilting cylinder, lifting cylinder and turning cylinder all adopt the first class international product, the sealing performance has been proven through ten of thousands fatigue test.

The soft landing system for lifting cylinder decreases the level of noise and shock when the mast lowered to termination phase.

BRAKES

The 1-5.0t forklifts all adopt the new type drum brake. waterproof slot on the brake drum and framework oil seal on the axle tube avoid water or oil entering the brake drum, enable the dependability of brake to raise consumedly.



simple. Easy: **SERVICE**
 simple, comprehensive: **PANEL**
 strong, wide view: **MASTS**
 so much footroom: **DRIVER ROOM**

APPEARANCE

The latest appearance design method was used to create the R series fluent and aesthetic outline, that matches the latest appearance trend.

The large engineering plastic covering enables the whole truck looks friendly and natural.

EFFICIENCY

Thanks to the long wheelbase design, the longitudinal stability of whole truck is much better, the hoisting capacity at same lift height are enhanced by an average of 100kg compared with former truck. At the same time, it prolongs work time of rear wheel as the reduced rear axle's load.

The travel speed of truck has been raised, for example, the 2-2.5t type comes to 20km/h.

Increasing the hard proportion of hydraulic pipe, adopting right angle connector or straight through connector, that reduce the pressure loss of pipeline, and raise the lifting speed of mast, the speed is increased by an average of 10% compared with former truck.

Turning radius and width of right angle stacking aisle are decreased through reducing the dimensions of whole truck, that raise the efficiency of storehouse.



For more than 30 years, Zhejiang Hangcha Engineering Machinery CO., LTD. Has played a leading role in the manufacture and production of Chinese forklift industry. We constantly strive to develop and incorporate the latest advances in forklift design and technology to ensure that our products provide an optimum level of performance, all the time. Our new generation R series of forklifts truly exemplifies this commitment to excellence.

- The clearance between the steering axle and support rod can be adjusted, to improve the adaptability for ground.
- The pin of the tilt cylinder adopts a build-in grease fitting, which enables the greas fitting more dependable.
- The high performance specific tires for forklift trucks increase the work life of tires much more.

SERVICING

Dual air spring supporting hood and one-touch removal of the floorboard get you right to service operations ,and reduces down-time.

The reasonable arrangement of fuse and installation of instrument, enable the replacing for fuse and maintenance for instrument more easy.

CLEAN

The environment friendly engines all meet EU stage-II emission control regulation. The noise emission also comes up to EU standard.

The Metal hood and molding sound insulation matches environmental protection demands.

SAFE

A throttling device is set in pipe system, the mast won't result in failing control of mast even some pipes broke.

By using a built-in hood lock device, the safe level of the truck has been raised.



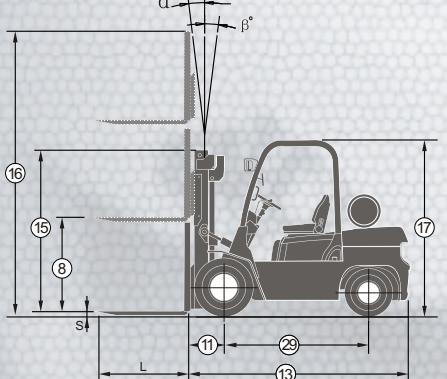
R series 1.0 / 1.5 / 1.8 / 2.0 / 2.5 / 3.0t Gasoline forklift specification:

General		CPQD10N						CPQD15N						CPQD18N						CPQD20N						CPQD25N					
1	Manufacture			RW7	RW21	RW7	RW21	RW7	RW21	RW7	RW21	RW7	RW22	RW22A	RW22B	RW20	RW7	RW22	RW22A	RW22B	RW21	RW7	RW22	RW22A	RW22B	RW21					
2	Basic model																														
3	Type																														
4	Power type																														
5	Rated capacity	Kg																													
6	Load center	mm																													
7	Lift height	mm																													
8	Free lift height	mm																													
9	Fork size	L × W × T	mm																												
10	Mast tilt range	F / R	deg																												
11	Fork overhang(Wheel center to fork face)	mm																													
12	Rear overhang	mm																													
13	Overall dimensions	Length to face of fork	mm																												
14		Overall width	mm																												
15		Mast lowered height	mm																												
16		Mast extended height	mm																												
17		Overhead guard height	mm																												
18	Turning radius(outside)	mm																													
19	Min. right angle stacking aisle width (Add load length and clearance)	mm																													
Performance	20	Speed	Travel (No load)	Km / h			15				15				15			22.5	22	19.5	21	23	22.5	21.5	19.5	21	23				
	21		Lifting (Full load)	mm/sec	460	500		510	500		510	500								560					560						
	22		Lowering (Full load)	mm/sec		450			450			450								500					500						
	23	Max.Drawbar Pull (Full load)	N	23600	20500		23600	20500		23600	20500							19600	16500	24100	17500	21600	19600	16500	24100	17500	21600				
Chassis	24	Max.Gradeability (Full load)	%		20			20			20								20						20						
	25	Tyres	Front	mm	6.50 -10 -10PR			6.50 -10 -10PR			6.50 -10 -10PR									7.00 -12 -12PR						7.00 -12 -12PR					
	26		Rear	mm	5.00 - 8 - 10PR			5.00 - 8 - 10PR			5.00 - 8 - 10PR									6.00 - 9 - 10PR						6.00 - 9 - 10PR					
	27	Tread	Front	mm		890			890			890								965						965					
	28		Rear	mm	900			900			900									970.5						970.5					
Weight	29	Wheelbase	mm		1400			1400			1400								1650						1650						
	30	Ground clearance	Lowest			115			115			115							105						105						
	31	Wheelbase center			145			145			145								150						150						
	32	Self weight	Kg		2420			2690			2880								3440						3765						
Power & transmission	33	Weight	Full load	Front / Rear		2940 / 510			3690 / 550			4075 / 605							4815 / 625						5530 / 735						
	34	Distribution	No load	Front / Rear		1290 / 1160			1220 / 1520			1190 / 1740							1640 / 1800						1560 / 2205						
	35	Battery	Voltage/Capacity(20HR)			12 / 60			12 / 60			12 / 60								12 / 60						12 / 60					
	36	Engine	Model		491GP	K21		491GP	K21		491GP	K21							491GP	K25	K25	K25	K21		491GP	K25	K25	K21			
37	Manufacture	V / AH	WANFENG	NISSAN		WANFENG	NISSAN		WANFENG	NISSAN								WANFENG	NISSAN	NISSAN	NISSAN	NISSAN		WANFENG	NISSAN	NISSAN	NISSAN				
38	Rated output / r.p.m.	kw	41 / 2800	31.2 / 2250		41 / 2800	31.2 / 2250		41 / 2800	31.2 / 2250							41 / 2800	37.4 / 2300	37.4 / 2300	37.4 / 2300	31.2 / 2250		41 / 2800	37.4 / 2300	37.4 / 2300	31.2 / 2250					
39	Rated torque / r.p.m.	N · m	161 / 2000	143.7 / 1600		161 / 2000	143.7 / 1600		161 / 2000	143.7 / 1600							161 / 2000	176.5 / 1600	176.5 / 1600	176.5 / 1600	143.7 / 1600		161 / 2000	176.5 / 1600	176.5 / 1600	143.7 / 1600					
40	No. of cylinder			4			4			4								4						4							
41	Transmissions	Bore x Stroke	mm	91 × 86	89 × 83		91 × 86	89 × 83		91 × 86	89 × 83								89 × 100		89 × 100				89 × 100		89 × 100				
42		Displacement	cc	2237	2065		2237	2065		2237	2065								2237	2488	2488	2488	2065		2237	2488	2488	2065			
43		Fuel tank capacity	L	50	50		50	50		50	50								60		60				60		60				
44		Manufacture			CHINA			CHINA			CHINA								CHINA	CHINA	JAPAN	OKAMURA	CHINA		CHINA	CHINA	JAPAN	OKAMURA	CHINA		
45	Transmissions	Type			Powershift			Powershift			Powershift							Powershift		Powershift				Powershift		Powershift					
46		Stage	FWD / RVS			1 / 1			1 / 1			1 / 1							1 / 1		1 / 1				1 / 1		1 / 1				
47	Operating pressure	For attachments	Mpa		14.5			14.5			14.5							17.5		17.5				17.5		17.5					

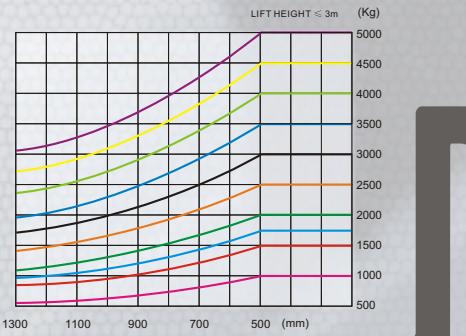
1. Special lifting height available (2-stage mast: 2.5m, 2.7m, 3.0m, 3.3m, 3.6m, 4m, 4.5m. 3-stage mast: 4.3m, 4.5m, 4.8m, 5m, 5.5m, 6m) 2. Attachment available.

3. The specification in the table are for standard models only. For further information please contact us.

DIMENSIONS



LOAD CHART



$$AST = a + (11) + (18) + \sqrt{W^2 + (B/2)^2}$$

1.0 ~ 1.8t R series mast: (pneumatic)

Type	Model	Max. fork height	Overall height			Free lift		Front Overhang		Tilt range		Capacity					
			Extended		Without backrest	With backrest	FWD	BWD				Load capacity at 500 mm					
			Lowered	Without backrest				1.15t	1.75t	Single tire	Double tire	1t	1.5t	1.75t	1t	1.5t	1.75t
			mm	mm	mm	mm	mm	mm	mm	Deg	Deg	kg	kg	kg	kg	kg	kg
Wide view mast	R15 / 18M200	2000	1495	2585	2955	155	155	405	408	6	12	1000	1500	1750	1000	1500	1750
	R15 / 18M250	2500	1745	3085	3455	155	155	405	408	6	12	1000	1500	1750	1000	1500	1750
	R15 / 18M270	2700	1845	3285	3655	155	155	405	408	6	12	1000	1500	1750	1000	1500	1750
	R15 / 18M300	3000	1995	3585	3955	155	155	405	408	6	12	1000	1500	1750	1000	1500	1750
	R15 / 18M330	3300	2145	3885	4255	155	155	405	408	6	12	1000	1500	1750	1000	1500	1750
	R15 / 18M350	3500	2245	4085	4455	155	155	405	408	6	12	1000	1500	1750	1000	1500	1750
	R15 / 18M360	3600	2345	4185	4555	155	155	405	408	6	12	1000	1500	1750	1000	1500	1750
	R15 / 18M400	4000	2595	4585	4955	155	155	405	408	6	12	950	1400	1650	1000	1500	1750
	R15 / 18M430	4300	2745	4885	5255	155	155	405	408	6	6	900	1300	1550	950	1400	1650
Wide view full free 2-stage mast	R15 / 18M450	4500	2845	5085	5455	155	155	405	408	6	6	850	1250	1450	900	1350	1550
	N15 / 18U250	2500	1760	3105	3455	1095	815	428	431	6	12	1000	1500	1750	1000	1500	1750
	N15 / 18U270	2700	1860	3305	3655	1195	915	428	431	6	12	1000	1500	1750	1000	1500	1750
	N15 / 18U300	3000	2010	3605	3955	1395	1055	428	431	6	12	1000	1500	1750	1000	1500	1750
	N15 / 18U330	3300	2160	3905	4255	1545	1215	428	431	6	12	1000	1500	1750	1000	1500	1750
	N15 / 18U360	3600	2310	4205	4555	1695	1365	428	431	6	12	1000	1500	1750	1000	1500	1750
Wide view full free 3-stage mast	N15 / 18U400	4000	2560	4605	4955	1865	1615	428	431	6	12	950	1400	1650	1000	1500	1750
	N15 / 18N430	4300	2110	5070	5255	1350	1165	445	448	6	6	850	1250	1450	900	1350	1550
	N15 / 18N450	4500	2120	5130	5465	1510	1175	445	448	6	6	800	1200	1350	850	1300	1450
	N15 / 18N480	4800	2235	5445	5755	1600	1290	445	448	6	6	750	1100	1250	800	1200	1350
	N15 / 18N500	5000	2285	5605	5955	1690	1340	445	448	6	6	700	1050	1150	750	1150	1250
	N15 / 18N550	5500	2460	6120	6455	1850	1515	445	448	3	6	/	/	/	600	950	1050
Wide view full free 3-stage mast	N15 / 18N600	6000	2685	6695	6955	2000	1740	445	448	3	6	/	/	/	450	750	850

With sideshifter minus 150Kg, with integral sideshifter minus 100Kg.

R series 3.5 / 4.0 / 4.5 / 5.0t Gasoline forklift specification:

1. Special lifting height available (2-stage mast: 2.5m, 2.7m, 3.0m, 3.3m, 3.6m, 4m, 4.5m. 3-stage mast: 4.3m, 4.5m, 4.8m, 5m, 5.5m, 6m) 2. Attachment available.
 3. The specification in the table are for standard models only. For further information please contact us. 4. Specification are subject to change without notice.



NISSAN K25

Displacement
2488 cc
Rated output:
37.4 Kw/2300rpm
Rated torque:
176.5 N·m/1600rpm



R series 1.5 / 1.8 t Gasoline / LPG forklift specification:

General	1	Manufacture			CPQD15N	CPQD18N
	2	Basic model		RG7-Y	RW21-Y	
	3	Type			RG7-Y	RW21-Y
	4	Power type		Gasoline / LPG		Gasoline / LPG
	5	Rated capacity	Kg	1500		1750
	6	Load center	mm	500		500
Characteristics & Dimensions	7	Lift height	mm	3000		3000
	8	Free lift height	mm	155		155
	9	Fork size	L×W×T	mm	920×100×35	920×100×38
	10	Mast tilt range	F / R	deg	6 / 12	6 / 12
	11	Fork overhang(Wheel center to fork face)	mm	405		408
	12	Rear overhang	mm	460		495
	13	Overall dimensions	Length to face of fork	mm	2265	2300
	14		Overall width	mm	1080	1080
	15		Mast lowered height	mm	1995	1995
	16		Mast extended height	mm	3960	3960
	17		Overhead guard height	mm	2110	2110
	18	Turning radius(outside)	mm	1970		2005
	19	Min. right angle stacking aisle width (Add load length and clearance)	mm	2375		2410
Performance	20	Speed	Travel (No load)	Km / h	15	15
	21		Lifting (Full load)	mm/sec	510	500
	22		Lowering (Full load)	mm/sec	450	450
	23	Max.Drawbar Pull (Full load)	N	23600	20500	23600
	24	Max.Gradeability (Full load)	%	20		20
Chassis	25	Tyres	Front	mm	6.50 -10 -10PR	6.50 -10 -10PR
	26		Rear	mm	5.00 - 8 - 10PR	5.00 - 8 - 10PR
	27	Tread	Front	mm	890	900
	28		Rear	mm	900	900
	29	Wheelbase	mm	1400		1400
Weight	30	Ground clearance	Lowest		115	115
	31		Wheelbase center		145	145
	32	Self weight	Kg	2690		2880
	33	Weight Distribution	Full load	Front / Rear	3690 / 550	4075 / 605
	34		No load	Front / Rear	1220 / 1520	1190 / 1740
Power & transmission	35	Battery	Voltage/Capacity(20HR)		12 / 60	12 / 60
	36	Engine	Model	491GP	K21	491GP
	37		Manufacture	WANFENG	NISSAN	NISSAN
	38		Rated output / r.p.m.	kw	31.2 / 2250	41 / 2800
	39		Rated torque / r.p.m.	N · m	161 / 2000	143.7 / 1600
	40		No. of cylinder		4	4
	41		Bore × Stroke	mm	91 × 86	89 × 83
	42	Transmissions	Displacement	cc	2065	2237
	43		Fuel tank capacity	L	50	50
	44		Manufacture		CHINA	CHINA
	45		Type		Powershift	Powershift
	46		Stage	FWD / RVS	1 / 1	1 / 1
	47	Operating pressure	For attachments	Mpa	14.5	14.5

1. Special lifting height available (2-stage mast: 2.5m, 2.7m, 3.0m, 3.3m, 3.6m, 4m, 4.5m. 3-stage mast: 4.3m, 4.5m, 4.8m, 5m, 5.5m, 6m) 2. Attachment available.
3. The specification in the table are for standard models only. For further information please contact us. 4. Specification are subject to change without notice.

2.0 / 2.5t R series mast: (pneumatic)

Type	Model	Max. fork height	Overall height		Free lift		Front Overhang	Tilt range		Capacity				
			Extended		Without backrest	With backrest		FWD	BWD	Load capacity at 500 mm				
			Lowered	Without backrest						Single tire	Double tire	2t	2.5t	
			mm	mm	mm	mm	mm	Deg	Deg	kg	kg	kg	kg	
Wide view mast	R25M250	2500	1735	3125	3545	150	150	475	6	12	2000	2500	2000	
	R25M270	2700	1835	3325	3745	150	150	475	6	12	2000	2500	2000	
	R25M300	3000	1985	3625	4045	150	150	475	6	12	2000	2500	2000	
	R25M330	3300	2135	3925	4345	150	150	475	6	12	2000	2500	2000	
	R25M350	3500	2235	4125	4545	150	150	475	6	12	2000	2500	2000	
	R25M360	3600	2335	4225	4645	150	150	475	6	12	2000	2500	2000	
	R25M400	4000	2585	4625	5045	150	150	475	6	12	1900	2300	2000	
	R25M430	4300	2735	4925	5345	150	150	475	6	6	1800	2100	1950	
	R25M450	4500	2835	5125	5545	150	150	475	6	6	1700	2000	1900	
	R25M480	4800	2985	5425	5845	150	150	475	6	6	1500	1700	1700	
Wide view full free 2-stage mast	R25M500	5000	3085	5625	6045	150	150	475	6	6	1400	1600	1600	
	N25U250	2500	1795	3152	3545	1143	750	470	6	12	2000	2500	2000	
	N25U270	2700	1895	3352	3745	1243	850	470	6	12	2000	2500	2000	
	N25U300	3000	1995	3652	4045	1343	950	470	6	12	2000	2500	2000	
	N25U330	3300	2145	3952	4345	1493	1100	470	6	12	2000	2500	2000	
	N25U360	3600	2295	4252	4645	1643	1250	470	6	12	2000	2500	2000	
Wide view full free 3-stage mast	N25U400	4000	2545	4652	5045	1893	1500	470	6	12	1900	2300	2000	
	N25N430	4300	2040	4992	5355	1358	995	485	6	6	1700	2000	1900	
	N25N450	4500	2110	5242	5605	1428	1065	485	6	6	1600	1900	1800	
	N25N480	4800	2210	5492	5855	1528	1165	485	6	6	1500	1700	1700	
	N25N500	5000	2275	5692	6055	1593	1230	485	6	6	1400	1600	1600	
	N25N550	5500	2440	6192	6555	1758	1395	485	3	6	1050	1200	1500	
Wide view full free 4-stage mast	N25N600	6000	2655	6692	7055	1973	1610	485	3	6	700	800	1400	
	N25N650	6500	2825	7042	7405	2173	1780	485	3	6	500	600	1600	

With sideshifter minus 200Kg, with integral sideshifter minus 100Kg.

R series 2.0 / 2.5 / 3.0 / 3.5 / 4.0 / 4.5 / 5.0 t Gasoline / LPG forklift specification:

General	1	Manufacture	SAC							SAC							SAC							SAC										
	2	Basic model	CPQD20N							CPQD25N							CPQD30N							CPQD35N							CPQD40	CPQD45	CPQD50	
Characteristics & Dimensions	3	Type	RW7-Y	RW22-Y	RW22A-Y	RW22B-Y	RW21-Y	RW26-Y	Gasoline / LPG							Gasoline / LPG							Gasoline / LPG							RW17-Y	RW22-Y	RW22A-Y	RW22B-Y	RW26-Y
	4	Power type	Gasoline / LPG							Gasoline / LPG							Gasoline / LPG							Gasoline / LPG							LPG	LPG	LPG	
	5	Rated capacity	Kg	2000							2500							3000							3500							4000	4500	5000
	6	Load center	mm	500							500							500							500							500	500	500
	7	Lift height	mm	3000							3000							3000							3000							3000	3000	3000
	8	Free lift height	mm	150							150							155							155							155	155	155
	9	Fork size	mm	1070 × 122 × 40							1070 × 122 × 45							1070 × 130 × 45							1070 × 130 × 45							1070 × 150 × 50	1070 × 150 × 50	1070 × 150 × 55
	10	Mast tilt range	F / R	deg							6 / 12							6 / 12							6 / 12							6 / 12	6 / 12	6 / 12
	11	Fork overhang(Wheel center to fork face)	mm	475							475							480							485							550	550	555
	12	Rear overhang	mm	480							480							510							555							520	560	560
	13	Length to face of fork	mm	2530							1155							1225							1225							1395	1395	1490
	14	Overall width	mm	1155							1985							2010							2160							2245	2245	2395
	15	Overall dimensions	mm	1985							4045							4140							4140							4175	4175	4320
	16	Mast lowered height	mm	2120							2120							2150							2150							2250	2250	2250
	17	Mast extended height	mm	2175							2235							2375							2415							2690	2690	2810
	18	Turning radius(outside)	mm	2175							2235							2855							2900							3240	3240	3365
	19	Min. right angle stacking aisle width (Add load length and clearance)	mm	2650							2710							2855							2855							20	20	20
Performance	20	Speed	Km / h	22.5	22	19.5	21	23	20.5	22.5	21.5	19.5	21	23	20.5	22.5	21.5	19.5	20	19	20	19.5	19.5	19.5	20	19	19	0 ~ 26	0 ~ 26	0 ~ 26				
	21	Lifting (Full load)	mm/sec	500							570							450							350							460	460	400
	22	Lowering (Full load)	mm/sec	500							500																							