

**HANGCHA**

**R Series**

2.0 / 2.5 T  
Diesel



**浙江杭叉工程机械集团股份有限公司**  
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 1-3.5t 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.



**F**or 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.

## 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.



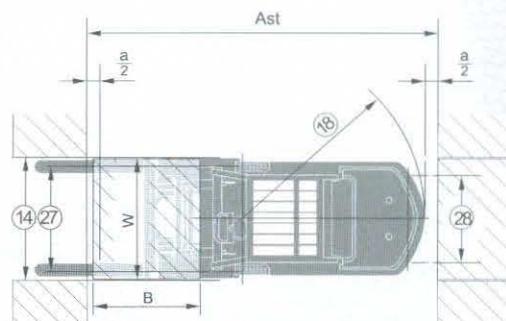
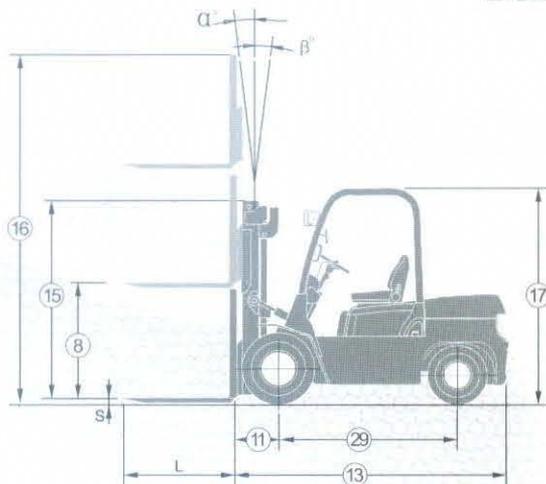
- The clearance between the steering axle and support rod can be adjusted, to improve the adaptability for ground.
- The pin of the tilt cylinder adopts a build-in grease fitting, which enables the greas fitting more dependable.
- The high performance specific tires for forklift trucks increase the work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

## R series 2.0-2.5t Diesel forklift specification:

General			CPCD20N									
Basic model			RW1	RW1B	RW3	RW6	RW6B	RW9	RW9B	RW10	RW10B	
1	Manufacture											
2	Basic model											
3	Type		Diesel	Diesel	Diesel	Diesel	Diesel	Diesel	Diesel	Diesel	Diesel	
4	Power type											
5	Rated capacity		2000	2000	2000	2000	2000	2000	2000	2000	2000	
6	Load center		500	500	500	500	500	500	500	500	500	
7	Lift height		3000	3000	3000	3000	3000	3000	3000	3000	3000	
8	Free lift height		150	150	150	150	150	150	150	150	150	
9	Fork size	L×W×T	1070×122×40		1070×122×40		1070×122×40		1070×122×40		1070×122×40	
10	Mast tilt range	F / R	6 / 12		6 / 12		6 / 12		6 / 12		6 / 12	
11	Fork overhang(Wheel center to fork face)		475	475	475	475	475	475	475	475	475	
12	Rear overhang		405	405	405	405	405	405	405	405	405	
13	Overall dimensions	Length to face of fork	2530	2530	2530	2530	2530	2530	2530	2530	2530	
14		Overall width	1155	1155	1155	1155	1155	1155	1155	1155	1155	
15		Mast lowered height	1985	1985	1985	1985	1985	1985	1985	1985	1985	
16		Mast extended height	4045	4045	4045	4045	4045	4045	4045	4045	4045	
17		Overhead guard height	2120	2120	2120	2120	2120	2120	2120	2120	2120	
18	Turning radius(outside)		2175	2175	2175	2175	2175	2175	2175	2175	2175	
19	Min. right angle stacking aisle width (Add load length and clearance)		2650	2650	2650	2650	2650	2650	2650	2650	2650	
20	Speed	Travel (No load)	21		21		20.5		20.5		20.5	
21		Lifting (Full load)	510		410		510		410		410	
22		Lowering (Full load)	500		500		500		500		500	
23	Max. Drawbar Pull (Full load)		26100		18300		25000		17000		17000	
24	Max. Gradeability (Full load)		25		25		25		20		25	
25	Tyres	Front	7.00-12-12PR		7.00-12-12PR		7.00-12-12PR		7.00-12-12PR		7.00-12-12PR	
26		Rear	6.00-9-10PR		6.00-9-10PR		6.00-9-10PR		6.00-9-10PR		6.00-9-10PR	
27	Tread	Front	965		965		965		965		965	
28		Rear	970.5		970.5		970.5		970.5		970.5	
29	Wheelbase		1650		1650		1650		1650		1650	
30	Ground clearance	Lowest	105		105		105		105		105	
31		Wheelbase center	150		150		150		150		150	
32	Self weight		3440		3440		3440		3440		3440	
33	Weight	Full load	4815 / 625		4815 / 625		4815 / 625		4815 / 625		4815 / 625	
34		Distribution	No load	1640 / 1800		1640 / 1800		1640 / 1800		1640 / 1800		1640 / 1800
35	Battery	Voltage/Capacity(20HR)	12 / 100		12 / 100		12 / 100		12 / 100		12 / 100	
36		Model	B3.3		A2300		4TNV94L		C240PKJ - 20		C240PKJ - 30	
37	Manufacture		CUMMINS		CUMMINS		YANMAR		ISUZU		ISUZU	
38	Rated output / r.p.m.		48 / 2600		35 / 2600		43 / 2500		34.5 / 2500		34.5 / 2500	
39	Rated torque / r.p.m.		214 / 1600		150 / 1600		205 / 1000		139 / 1800		137.7 / 1800	
40	No. of cylinder		4		4		4		4		4	
41	Bore × Stroke		95 × 115		88 × 94		94 × 110		86 × 102		86 × 102	
42	Emission STD.		Stage II / Tier 2		Stage IIIA / Tier 4 Interim		Stage II / Tier 2		Stage II		Stage IIIA	
43	Displacement		3300		2300		3054		2369		2369	
44	Fuel tank capacity		60	60	50	60	60	60	60	60	60	60
45	Manufacture		CHINA	OKAMURA	CHINA	CHINA	OKAMURA	CHINA	OKAMURA	CHINA	OKAMURA	OKAMURA
46	Type		Powershift	Powershift	Powershift	Powershift	Powershift	Powershift	Powershift	Powershift	Powershift	Powershift
47	Stage		FWD / RVS	1 / 1	1 / 1	1 / 1	1 / 1	1 / 1	1 / 1	1 / 1	1 / 1	1 / 1
48	Operating pressure		17.5		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. 4. Specification are subject to change without notice.

## DIMENSIONS



a = 200 mm safety clearance

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

RW13	RW15A	RW27	RW30	RW32	RW33	RW33B	RG5
Diesel				Diesel		Diesel	
2000				2000		2000	
500				500		500	
3000				3000		3000	
150				150		150	
1070×122×40				1070×122×40		1070×122×40	
6 / 12				6 / 12		6 / 12	
475				475		475	
405				480		405	
2530				2530		2530	
1155				1155		1155	
1985				1985		1985	
4045				4045		4045	
2120				2120		2120	
2175				2175		2175	
2650				2650		2650	
20	18	19.5	20.5	20		20.5	
510	500	450	470	500		470	
500				500		500	
22700	23100	22600	23500	14500	18500	19700	18000
25				25		25	
7.00-12-12PR				7.00-12-12PR		7.00-12-12PR	
6.00-9-10PR				6.00-9-10PR		6.00-9-10PR	
965				965		965	
970.5				970.5		970.5	
1650				1650		1650	
105				105		105	
150				150		150	
3440				3440		3440	
4815 / 625				4815 / 625		4815 / 625	
1640 / 1800				1640 / 1800		1640 / 1800	
12 / 100				12 / 100		12 / 100	
4JG2 PE-01	TD27	A498BT1	A498BPG	4TNE92-HRJ	4TNE98-BQFLC	4TNE98-BQFLC	A490BPG
ISUZU	NISSAN	XINCHAI	XINCHAI	YANMAR	YANMAR	YANMAR	XINCHAI
44.9 / 2450	44 / 2500	36.8 / 2400	45 / 2500	32.8 / 2450	44.3 / 2300	44.3 / 2300	37 / 2650
186.3 / 1700	172 / 1600	186 / 1700	193 / 1800	149.4 / 1600	206 / 1700	206 / 1700	148 / 1900
4	4	4	4	4	4	4	4
95.4 × 107	96 × 92	98 × 105	98 × 105	92 × 100	98 × 110	98 × 110	90 × 100
Stage II		E-MARK III	Tier 2	Stage IIIA Tier 4 Interim	Stage IIIA / Tier 3	Stage IIIA / Tier 3	
3059	2663	3168	3168	2659	3319	3319	2540
60	60	60	60	60	60	60	60
CHINA	NISSAN	CHINA	CHINA	CHINA	CHINA	OKAMURA	CHINA
Powershift	Powershift	Powershift	Powershift	Powershift	Powershift	Powershift	Powershift
1 / 1	1 / 1	1 / 1	1 / 1	1 / 1	1 / 1	1 / 1	1 / 1
17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5

RW1	RW1B	RW3	RW6	RW
Diesel		Diesel		Diesel
2500		2500		2500
500		500		500
3000		3000		3000
150		150		150
1070×122×40		1070×122×40		1070×122×40
6 / 12		6 / 12		6 / 12
475		475		475
480		480		480
2605		2605		2605
1155		1155		1155
1985		1985		1985
4045		4045		4045
2120		2120		2120
2235		2235		2235
2710		2710		2710
21		21		20.5
580		460		580
500		500		500
26100		18300		25000
25		25		25
7.00-12-12PR		7.00-12-12PR		7.00-12-12PR
6.00-9-10PR		6.00-9-10PR		6.00-9-10PR
965		965		965
970.5		970.5		970.5
1650		1650		1650
105		105		105
150		150		150
3765		3765		3765
5530 / 735		5530 / 735		5530 / 735
1560 / 2205		1560 / 2205		1560 / 2205
12 / 100		12 / 100		12 / 100
B3.3		A2300		4TNV94L
CUMMINS		CUMMINS		YANMAR
48 / 2600		35 / 2600		43 / 2500
214 / 1600		150 / 1600		205 / 1000
4		4		4
95 × 115		88 × 94		94 × 110
Stage II / Tier 2		Stage IIIA / Tier 4 Interim		Stage II / Tier 2
3300		2300		3054
60	60	50	60	60
CHINA	OKAMURA	CHINA	CHINA	OKAMURA
Powershift	Powershift	Powershift	Powershift	Powershift
1 / 1	1 / 1	1 / 1	1 / 1	1 / 1
17.5	17.5	14.5	17.5	17

### YANMAR 4TNV94L

Displacement  
3054 cc  
Rated output:  
43 Kw/2500rpm  
Rated torque:  
205 N·m/1000rpm



### NISSAN

Displacement  
2663 cc  
Rated output:  
44 Kw/2500  
Rated torque:  
172 N·m/16



### ISUZU 4JG2 PE-01

Displacement  
3059 cc  
Rated output:  
44.9 Kw/2450rpm  
Rated torque:  
186.3 N·m/1700rpm



### ISUZU C240

Displacement  
2369 cc  
Rated output:  
34.5 Kw/2500rpm  
Rated torque:  
139 N·m/1800rpm

CPCD25N

RW9	RW9B	RW10	RW10B	RW13	RW15A	RW27	RW30	RW32	RW33	RW33B	RG5
Diesel		Diesel			Diesel				Diesel		Diesel
2500		2500			2500				2500		2500
500		500			500				500		500
3000		3000			3000				3000		3000
150		150			150				150		150
1070 × 122 × 40		1070 × 122 × 40			1070 × 122 × 40				1070 × 122 × 45		1070 × 122 × 40
6 / 12		6 / 12			6 / 12				6 / 12		6 / 12
475		475			475				475		475
480		480			480				480		480
2605		2605			2605				2605		2605
1155		1155			1155				1155		1155
1985		1985			1985				1985		1985
4045		4045			4045				4045		4045
2120		2120			2120				2120		2120
2235		2235			2235				2175		2235
2710		2710			2710				2650		2710
20.5		20.5		20	18	19.5	20.5		20		20.5
480		480		580	570	520	540		580		540
500		500			500				500		500
17000		17000		22700	23100	22600	23500	14500	18500	19700	18000
20		25			25				20		25
7.00-12-12PR		7.00-12-12PR			7.00-12-12PR				7.00-12-12PR		7.00-12-12PR
6.00-9-10PR		6.00-9-10PR			6.00-9-10PR				6.00-9-10PR		6.00-9-10PR
965		965			965				965		965
970.5		970.5			970.5				970.5		970.5
1650		1650			1650				1650		1650
105		105			105				105		105
150		150			150				150		150
3765		3765			3765				3440		3765
5530 / 735		5530 / 735			5530 / 735				4815 / 625		5530 / 735
1560 / 2205		1560 / 2205			1560 / 2205				1640 / 1800		1560 / 2205
12 / 100		12 / 100			12 / 100				12 / 100		12 / 100
C240PKJ - 20		C240PKJ - 30		4JG2 PE-01	TD27	A498BT1	A498BPG	4TNE92-HRJ	4TNE98-BQFLC	4TNE98-BQFLC	A490BPG
ISUZU		ISUZU		ISUZU	NISSAN	XINCHAI	XINCHAI	YANMAR	YANMAR	YANMAR	XINCHAI
34.5 / 2500		34.5 / 2500		44.9 / 2450	44 / 2500	36.8 / 2400	45 / 2500	32.8 / 2450	44.3 / 2300	44.3 / 2300	37 / 2650
139 / 1800		137.7 / 1800		186.3 / 1700	172 / 1600	186 / 1700	193 / 1800	149.4 / 1600	206 / 1700	206 / 1700	148 / 1900
4		4		4	4	4	4	4	4	4	4
86 × 102		86 × 102		95.4 × 107	96 × 92	98 × 105	98 × 105	92 × 100	98 × 110	98 × 110	90 × 100
Stage II		Stage IIIA		Stage II		E-MARK III	Tier 2	Stage IIIA Tier 4 Interim	Stage IIIA / Tier 3	Stage IIIA / Tier 3	
2369		2369		3059	2663	3168	3168	2659	3319	3319	2540
60	60	60	60	60	60	60	60	60	60	60	60
CHINA	OKAMURA	CHINA	OKAMURA	CHINA	NISSAN	CHINA	CHINA	CHINA	CHINA	OKAMURA	CHINA
Powershift	Powershift	Powershift	Powershift	Powershift	Powershift	Powershift	Powershift	Powershift	Powershift	Powershift	Powershift
1 / 1	1 / 1	1 / 1	1 / 1	1 / 1	1 / 1	1 / 1	1 / 1	1 / 1	1 / 1	1 / 1	1 / 1
17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5

027

**CUMMINS B3.3**

Displacement  
**6494** cc  
Rated output:  
**48** Kw/2600rpm  
Rated torque:  
**214** N·m/1600rpm



**XINCHAI A498BT1**

Displacement  
**3168** cc  
Rated output:  
**36.8** Kw/2400rpm  
Rated torque:  
**186** N·m/1700rpm



## 2.0 / 2.5t R series mast: ( pneumatic )

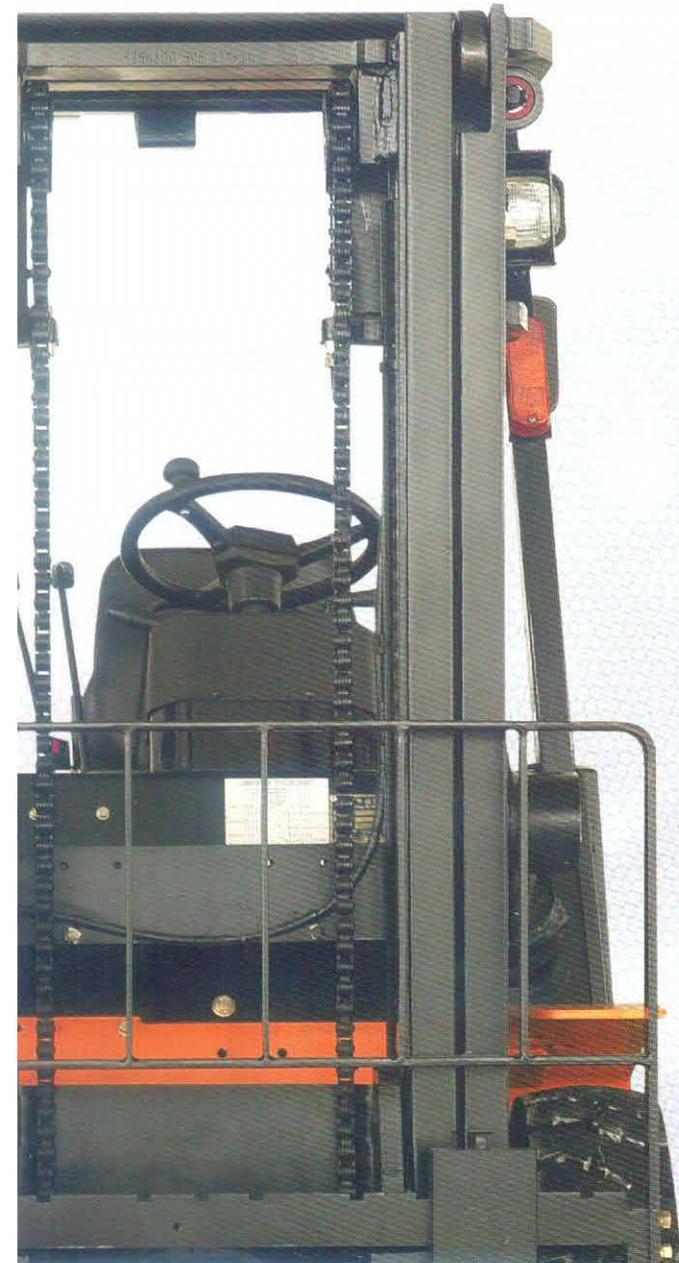
Type	Model	Max. fork height	Overall height				Free lift		Front Overhang	Tilt range		Capacity			
			Lowered	Extended		Without backrest	With backrest	FWD		BWD	Load capacity at 500 mm				
				Without backrest	With backrest						Single tire		Double tire		
											2t	2.5t	2t	2.5t	
		mm	mm	mm	mm	mm	mm	mm	Deg	Deg	kg	kg	kg	kg	
Wide view mast	R25M250	2500	1735	3125	3545	150	150	475	6	12	2000	2500	2000	2500	
	R25M270	2700	1835	3325	3745	150	150	475	6	12	2000	2500	2000	2500	
	R25M300	3000	1985	3625	4045	150	150	475	6	12	2000	2500	2000	2500	
	R25M330	3300	2135	3925	4345	150	150	475	6	12	2000	2500	2000	2500	
	R25M350	3500	2235	4125	4545	150	150	475	6	12	2000	2500	2000	2500	
	R25M360	3600	2335	4225	4645	150	150	475	6	12	2000	2500	2000	2500	
	R25M400	4000	2585	4625	5045	150	150	475	6	12	1900	2300	2000	2500	
	R25M430	4300	2735	4925	5345	150	150	475	6	6	1800	2100	1950	2450	
	R25M450	4500	2835	5125	5545	150	150	475	6	6	1700	2000	1900	2400	
R25M480	4800	2985	5425	5845	150	150	475	6	6	1500	1700	1700	2100		
R25M500	5000	3085	5625	6045	150	150	475	6	6	1400	1600	1600	2000		
Wide view full free 2-stage mast	N25U250	2500	1795	3152	3545	1143	750	470	6	12	2000	2500	2000	2500	
	N25U270	2700	1895	3352	3745	1243	850	470	6	12	2000	2500	2000	2500	
	N25U300	3000	1995	3652	4045	1343	950	470	6	12	2000	2500	2000	2500	
	N25U330	3300	2145	3952	4345	1493	1100	470	6	12	2000	2500	2000	2500	
	N25U360	3600	2295	4252	4645	1643	1250	470	6	12	2000	2500	2000	2500	
N25U400	4000	2545	4652	5045	1893	1500	470	6	12	1900	2300	2000	2500		
Wide view full free 3-stage mast	N25N430	4300	2040	4992	5355	1358	995	485	6	6	1700	2000	1900	2400	
	N25N450	4500	2110	5242	5605	1428	1065	485	6	6	1600	1900	1800	2300	
	N25N480	4800	2210	5492	5855	1528	1165	485	6	6	1500	1700	1700	2100	
	N25N500	5000	2275	5692	6055	1593	1230	485	6	6	1400	1600	1600	2000	
	N25N550	5500	2440	6192	6555	1758	1395	485	3	6	1050	1200	1500	1800	
	N25N600	6000	2655	6692	7055	1973	1610	485	3	6	700	800	1400	1600	

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

## LOAD CHART



**OKAMURA**  
transmission



# R Series

2.0 / 2.5 T  
Diesel



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) forlift 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.



CE CERTIFICATE



ISO14001: 2004



ISO9001: 2000

## 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
- Diesel exhaust das purifier
- Radiator screen
- Sideshifter
- Integrated sideshifter
- Other attachment



**HANGCHA**

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