



HANGCHA
FORKLIFT TRUCK

R Series

3.0 / 3.5 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.



XINCHAI A498BT1

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

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.

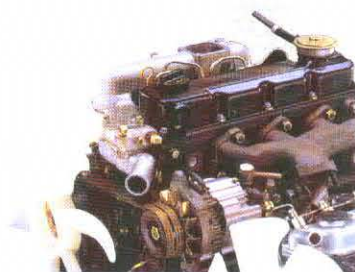
The soft landing system for lifting cylinder decreases the level of noise and shock when the mast lowered to termination phase.

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.

NISSAN TD27

Displacement
2663 cc
Rated output:
44 Kw/2500rpm
Rated torque:
172 N·m/1600rpm



ISUZU C240

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



YANMAR 4TNV94L

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



CUMMINS B3.3

Displacement
3300 cc
Rated output:
48 Kw/2600rpm
Rated torque:
214 N·m/1600rpm



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.



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.



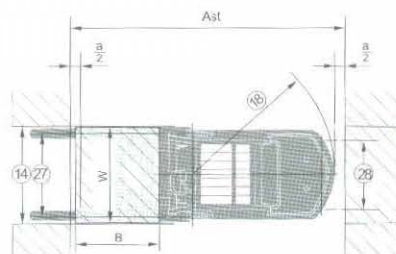
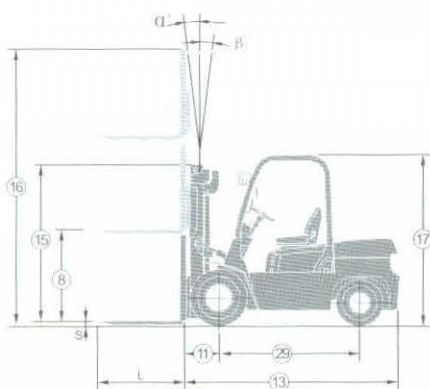
- The clearance between the steering axle and support rod can be adjusted, to improve the adaptability for ground.
- The pin of the tilt cylinder adopts a build-in grease fitting, which enables the greas fitting more dependable.
- The high performance specific tires for forklift trucks increase the work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

R series 3.0-3.5t Diesel forklift specification:

General	1 Manufacture			CPCD30N															
	2 Basic model																		
	3 Type			RW1		RW1B	RW3		RW6		RW6B	RW9		RW9B	RW10	RW10B	RW13	RW15A	
	4 Power type			Diesel		Diesel		Diesel		Diesel		Diesel							
	5 Rated capacity			Kg		3000		3000		3000		3000		3000					
	6 Load center			mm		500		500		500		500		500					
Characteristics & Dimensions	7 Lift height			mm		3000		3000		3000		3000		3000					
	8 Free lift height			mm		155		155		155		155		155					
	9 Fork size		L × W × T	mm	1070 × 130 × 45		1070 × 130 × 45		1070 × 130 × 45		1070 × 130 × 45		1070 × 130 × 45						
	10 Mast tilt range		F / R	deg	6 / 12		6 / 12		6 / 12		6 / 12		6 / 12						
	11 Fork overhang(Wheel center to fork face)			mm		480		480		480		480		480					
	12 Rear overhang			mm		510		510		510		510		510					
	Overall dimensions	13 Length to face of fork		mm	2750		2750		2750		2750		2750						
		14 Overall width		mm	1225		1225		1225		1225		1225						
		15 Mast lowered height		mm	2010		2010		2010		2010		2010						
		16 Mast extended height		mm	4140		4140		4140		4140		4140						
		17 Overhead guard height		mm	2150		2150		2150		2150		2150		2150				
		18 Turning radius(outside)			mm		2375		2375		2375		2375		2375				
		19 Min. right angle stacking aisle width (Add load length and clearance)			mm		2855		2855		2855		2855		2855				
Performance	Speed	20 Travel (No load)		Km / h	19.5		19.5		19		19		19		18.5		18		
		21 Lifting (Full load)		mm/sec	460		460		460		380		380		460		460		
		22 Lowering (Full load)		mm/sec	500		500		500		500		500						
	23 Max Drawbar Pull (Full load)			N	28200		18300		27000		18400		18400		24600		23100		
	24 Max Gradeability (Full load)			%	25		25		25		18		18		25		25		
Chassis	Tyres	25 Front		mm	28 × 9-15-12PR		28 × 9-15-12PR		28 × 9-15-12PR		28 × 9-15-12PR		28 × 9-15-12PR						
		26 Rear		mm	6.50-10-10PR		6.50-10-10PR		6.50-10-10PR		6.50-10-10PR		6.50-10-10PR						
	Tread	27 Front		mm	1005		1005		1005		1005		1005						
		28 Rear		mm	973.5		973.5		973.5		973.5		973.5						
	29 Wheelbase			mm		1760		1760		1760		1760		1760					
	30 Ground clearance		Lowest		mm		130		130		130		130						
Weight	31 Wheelbase center		mm		175		175		175		175		175						
	32 Self weight			Kg	4255		4255		4255		4255		4255						
	33 Weight		Full load	Front / Rear	6480 / 775		6480 / 775		6480 / 775		6480 / 775		6480 / 775						
	34 Distribution		No load	Front / Rear	1765 / 2490		1765 / 2490		1765 / 2490		1765 / 2490		1765 / 2490						
	35 Battery			Voltage/Capacity(20HR)		12 / 100		12 / 100		12 / 100		12 / 100							
	Engine	36 Model		B3.3		A2300		4TNV94L		C240PKJ - 20		C240PKJ - 30		4JG2 PE-01		TD27			
		37 Manufacture		V / AH	CUMMINS		CUMMINS		YANMAR		ISUZU		ISUZU		ISUZU		NISSAN		
		38 Rated output / r.p.m.		kw	48 / 2600		35 / 2600		43 / 2500		34.5 / 2500		34.5 / 2500		44.9 / 2450		44 / 250		
		39 Rated torque / r.p.m.		N · m	214 / 1600		150 / 1600		205 / 1000		139 / 1800		137.7 / 1800		183.6 / 1700		172 / 160		
		40 No. of cylinder		4		4		4		4		4		4		4			
41 Bore × Stroke		mm	95 × 115		88 × 94		94 × 110		86 × 102		86 × 102		95.4 × 107		96 × 94				
42 Emission STD.		Stage II / Tier 2		Stage IIIA / Tier 4 Interim		Stage II / Tier 2		Stage II		Stage IIIA		Stage IIIA		Stage II					
43 Displacement		cc	3300		2300		3054		2369		2369		3059		2663				
Power & transmission	44 Fuel tank capacity			L	70		70		70		70		70		70		70		
	45 Manufacture			CHINA		OKAMURA		CHINA		CHINA		OKAMURA		CHINA		OKAMURA			
	46 Type			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			
48 Operating pressure			For attachments	Mpa	17.5		17.5		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. 4. Specification are subject to change without notice.

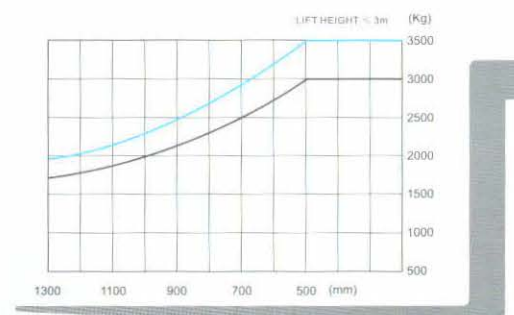
DIMENSIONS



a = 200 mm safety clearance

$$AST = a + (11) + (16) + \sqrt{W^2 + (B/2)^2}$$

LOAD CHART



						CPCD35N										
RW27	RW30	RW32	RW33	RW33B	RG5	RW1	RW1B	RW6	RW6B	RW13	RW15A	RW27	RW30	RW33	RW33B	RG5
Diesel						Diesel										
3000						3500										
500						500										
3000						3000										
155						155										
1070×130×45						1070×140×45										
6 / 12						6 / 12										
480						485										
510						555										
2750						2800										
1225						1225										
2010						2160										
4140						4140										
2150						2150										
2375						2415										
2855						2900										
18	19	18	18	20	19	19	19	18.5	18	18	19	18	20	19		
410	430	430	500	460	430	360	360	360	360	360	340	460	360	340		
500						500										
24500	25400	17600	23600	20700	19500	28200	27000	24600	23100	24500	25400	23600	20700	19500		
25	25	15	15	20	18	25	25	20	25	20	20	15	20	20		
28×9-15-12PR						28×9-15-12PR										
6.50-10-10PR						6.50-10-10PR										
1005						1005										
973.5						973.5										
1760						1760										
130						130										
175						175										
4255						4555										
6480 / 775						7195 / 860										
1765 / 2490						1890 / 2665										
12 / 100						12 / 100										
A498BT1	A498BPG	4TNE92-HRJ	4TNE98-BQFLC	A490BPG		B3.3	4TNV94L	4JG2 PE-01	TD27	A498BT1	A498BPG	4TNE98-BQFLC	A490BPG			
XINCHAI	XINCHAI	YANMAR	YANMAR	XINCHAI		CUMMINS	YANMAR	ISUZU	NISSAN	XINCHAI	XINCHAI	YANMAR	XINCHAI			
48 / 2400	45 / 2500	32.8 / 2450	44.3 / 2300	37 / 2650		48 / 2600	43 / 2500	44.9 / 2450	44 / 2500	36.8 / 2400	45 / 2650	44.3 / 2300	37 / 2650			
16 / 1700	193 / 1800	149.4 / 1600	206 / 1700	148 / 1900		205 / 1000	205 / 1000	184.7 / 1800	172 / 1600	186 / 1700	193 / 1800	206 / 1700	148 / 1900			
4	4	4	4	4		4	4	4	4	4	4	4	4			
8×105	98×105	92×100	98×110	98×105		95×115	94×110	95.4×107	96×92	98×105	98×105	98×110	90×100			
MARK III	Tier 2	Stage IIIA Tier 4 Interim	Stage IIIA / Tier 3			Stage II / Tier 2	Stage II / Tier 2	Stage II		E-MARK III	Tier 2	Stage IIIA / Tier 3				
3168	3168	2659	3319	3168		3300	3054	3059	2663	3168	3168	3319	2540			
70	70	60	60	70		70	70	70	70	70	70	60	70			
CHINA	CHINA	CHINA	CHINA	OKAMUA	CHINA	CHINA	OKAMURA	CHINA	NISSAN	CHINA	CHINA	CHINA	OKAMUA	CHINA		
Powershift	Powershift	Powershift	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	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	17.5	17.5	17.5		

3.0 ~ 3.5t R series mast: (pneumatic)

Type	Model	Max. Fork height	Overall height								Free lift				Front Overhang		Tilt range		Capacity				
			Lowered	Extended				Without backrest		With backrest		Without backrest		With backrest					Load capacity at 500 mm				
				Without backrest		With backrest													Single tire		Double tire		
				3t	3.5t	3t	3.5t	3t	3.5t	3t	3.5t	3t	3.5t	3t	3.5t	Deg	Deg	3t	3.5t	3t	3.5t		
			mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm			kg	kg	kg	kg	
Wide view mast	R30 / 35M250	2500	1760	1910	3165	3310	3630	3630	155	155	155	155	480	485	6	12	3000	3500	3000	3500			
	R30 / 35M270	2700	1860	2010	3365	3510	3830	3830	155	155	155	155	480	485	6	12	3000	3500	3000	3500			
	R30 / 35M300	3000	2010	2160	3665	3810	4130	4130	155	155	155	155	480	485	6	12	3000	3500	3000	3500			
	R30 / 35M330	3300	2160	2310	3965	4110	4430	4430	155	155	155	155	480	485	6	12	3000	3500	3000	3500			
	R30 / 35M350	3500	2260	2410	4165	4310	4630	4630	155	155	155	155	480	485	6	12	3000	3500	3000	3500			
	R30 / 35M360	3600	2370	2460	4265	4410	4730	4730	155	155	155	155	480	485	6	12	3000	3500	3000	3500			
	R30 / 35M400	4000	2620	2710	4665	4810	5130	5130	155	155	155	155	480	485	6	12	2850	3250	3000	3500			
	R30 / 35M430	4300	2770	2860	4965	5110	5430	5430	155	155	155	155	480	485	6	6	2700	3000	2900	3400			
	R30 / 35M450	4500	2870	2960	5165	5310	5630	5630	155	155	155	155	480	485	6	6	2550	2850	2850	3350			
Wide view full free 2-stage mast	R30 / 35M480	4800	3020	3110	5465	5610	5930	5930	155	155	155	155	480	485	6	6	2250	2450	2550	2950			
	R30 / 35M500	5000	3120	3210	5665	5810	6130	6130	155	155	155	155	480	485	6	6	2100	2300	2400	2800			
	N30 / 35U250	2500	1865	1975	3235	3370	3635	3640	1130	1115	730	845	475	475	6	12	3000	3500	3000	3500			
	N30 / 35U270	2700	1965	2075	3435	3570	3835	3840	1230	1215	830	945	475	475	6	12	3000	3500	3000	3500			
	N30 / 35U300	3000	2190	2190	3760	3860	4140	4130	1435	1330	1060	1060	475	475	6	12	3000	3500	3000	3500			
	N30 / 35U330	3300	2225	2375	4045	4170	4445	4440	1490	1515	1090	1245	475	475	6	12	3000	3500	3000	3500			
	N30 / 35U360	3600	2375	2540	4345	4470	4745	4740	1640	1670	1240	1400	475	475	6	12	3000	3500	3000	3500			
	N30 / 35U400	4000	2575	2740	4745	4870	5145	5140	1840	1870	1440	1600	475	475	6	12	2850	3250	3000	3500			
	N30 / 35N430	4300	2090	2205	5050	5105	5445	5440	1355	1395	960	1060	490	498	6	6	2550	2850	2850	3350			
Wide view full free 3-stage mast	N30 / 35N450	4500	2160	2260	5300	5305	5695	5640	1425	1465	1030	1130	490	498	6	6	2400	2700	2700	3200			
	N30 / 35N480	4800	2260	2354	5550	5605	5945	5940	1525	1565	1130	1230	490	498	6	6	2250	2450	2550	2950			
	N30 / 35N500	5000	2326	2420	5750	5805	6145	6140	1590	1630	1196	1295	490	498	6	6	2100	2300	2400	2800			
	N30 / 35N550	5500	2490	2605	6250	6305	6645	6640	1755	1795	1360	1460	490	498	3	6	1650	1800	2250	2550			
	N30 / 35N600	6000	2656	2770	6750	6805	7145	7140	1920	1960	1525	1625	490	498	3	6	1200	1300	2100	2300			

R Series

**3.0 / 3.5 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 midsize (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



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



ZHEJIANG HANGCHA IMP. & EXP. CO., LTD.
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