

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) 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.



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



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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

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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 1-3.5t 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

XINCHAI A498BT1

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

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.

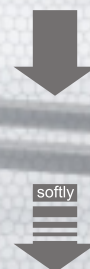
EFFICIENCY

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.



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

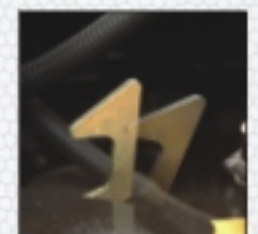
The environment friendly engines all meet EU stage-II emission control regulation. The noise emission also comes up to EU standard.

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.



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.

R series 3.0-3.5t Diesel forklift specification:

General	1 Manufacture			CPCD30N															CPCD35N															
	2 Basic model																																	
	3 Type			RW1	RW1B	RW3		RW6	RW6B	RW9	RW9B		RW10	RW10B	RW13	RW15A	RW27	RW30	RW32	RW33	RW33B	RG5	RW1	RW1B	RW6	RW6B	RW13	RW15A	RW27	RW30	RW33	RW33B	RG5	
	4 Power type			Diesel		Diesel		Diesel		Diesel		Diesel		Diesel		Diesel		Diesel		Diesel		Diesel		Diesel		Diesel		Diesel		Diesel		Diesel		
	5 Rated capacity			Kg	3000		3000		3000		3000		3000		3000		3000		3000		3000		3000		3000		3000		3000		3000			
	6 Load center			mm	500		500		500		500		500		500		500		500		500		500		500		500		500		500			
Characteristics & Dimensions	7 Lift height			mm	3000		3000		3000		3000		3000		3000		3000		3000		3000		3000		3000		3000		3000		3000			
	8 Free lift height			mm	155		155		155		155		155		155		155		155		155		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		1070×130×45		1070×130×45		1070×130×45		1070×130×45		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		6 / 12		6 / 12		6 / 12		6 / 12		6 / 12		6 / 12		6 / 12		6 / 12		6 / 12			
	11 Fork overhang(Wheel center to fork face)			mm	480		480		480		480		480		480		480		480		480		480		480		480		480		480			
	12 Rear overhang			mm	510		510		510		510		510		510		510		510		510		510		510		510		510		510			
	Overall dimensions	13 Length to face of fork		mm	2750		2750		2750		2750		2750		2750		2750		2750		2750		2750		2750		2750		2750		2750		2750	
		14 Overall width		mm	1225		1225		1225		1225		1225		1225		1225		1225		1225		1225		1225		1225		1225		1225		1225	
		15 Mast lowered height		mm	2010		2010		2010		2010		2010		2010		2010		2010		2010		2010		2010		2010		2010		2010		2010	
		16 Mast extended height		mm	4140		4140		4140		4140		4140		4140		4140		4140		4140		4140		4140		4140		4140		4140		4140	
		17 Overhead guard height		mm	2150		2150		2150		2150		2150		2150		2150		2150		2150		2150		2150		2150		2150		2150		2150	
	18 Turning radius(outside)			mm	2375		2375		2375		2375		2375		2375		2375		2375		2375		2375		2375		2375		2375		2375		2375	
	19 Min. right angle stacking aisle width (Add load length and clearance)			mm	2855		2855		2855		2855		2855		2855		2855		2855		2855		2855		2855		2855		2855		2855		2855	
Performance	Speed	Travel (No load)		Km / h	19.5		19.5		19		19		19		18.5		18		18		19		18		18		20		19		19			
		Lifting (Full load)		mm/sec	460		460		460		380		380		460		460		410		430		430		500		460		430		340			
		Lowering (Full load)		mm/sec	500		500		500		500		500		500		500		500		500		500		500		500		500		500			
	23 Max.Drawbar Pull (Full load)			N	28200		18300		27000		18400		18400		24600		23100		24500		25400		17600		23600		20700		19500		19500			
24 Max.Gradeability (Full load)			%	25		25		25		18		18		25		25		25		25		15		15		20		18		18		20		
Chassis	Tyres	Front	mm	28×9-15-12PR		28×9-15-12PR		28×9-15-12PR		28×9-15-12PR		28×9-15-12PR		28×9-15-12PR		28×9-15-12PR		28×9-15-12PR		28×9-15-12PR		28×9-15-12PR		28×9-15-12PR		28×9-15-12PR		28×9-15-12PR		28×9-15-12PR		28×9-15-12PR		
		Rear	mm	6.50-10-10PR		6.50-10-10PR		6.50-10-10PR		6.50-10-10PR		6.50-10-10PR		6.50-10-10PR		6.50-10-10PR		6.50-10-10PR		6.50-10-10PR		6.50-10-10PR		6.50-10-10PR		6.50-10-10PR		6.50-10-10PR		6.50-10-10PR				
	Tread	Front	mm	1005		1005		1005		1005		1005		1005		1005		1005		1005		1005		1005		1005		1005		1005		1005		
		Rear	mm	973.5		973.5		973.5		973.5		973.5		973.5		973.5		973.5		973.5		973.5		973.5		973.5		973.5		973.5		973.5		
	29 Wheelbase			mm	1760		1760		1760		1760		1760		1760		1760		1760		1760		1760		1760		1760		1760		1760		1760	
	Ground clearance	Lowest		130		130		130		130		130		130		130		130		130		130		130		130		130		130		130		
		Wheelbase center		175		175		175		175		175		175		175		175		175		175		175		175		175		175		175		
	Weight	32 Self weight			Kg	4255		4255		4255		4255		4255		4255		4255		4255		4255		4255		4255		4255		4255		4255		
Weight Distribution		Full load	Front / Rear		6480 / 775		6480 / 775		6480 / 775		6480 / 775		6480 / 775		6480 / 775		6480 / 775		6480 / 775		6480 / 775		6480 / 775		6480 / 775		6480 / 775		6480 / 775		6480 / 775			
		No load	Front / Rear		1765 / 2490		1765 / 2490		1765 / 2490		1765 / 2490		1765 / 2490		1765 / 2490		1765 / 2490		1765 / 2490		1765 / 2490		1765 / 2490		1765 / 2490		1765 / 2490		1765 / 2490		1765 / 2490			
Battery	Voltage/Capacity(20HR)			12 / 100		12 / 100		12 / 100		12 / 100		12 / 100		12 / 100		12 / 100		12 / 100		12 / 100		12 / 100		12 / 100		12 / 100		12 / 100		12 / 100		12 / 100		
Power & transmission	Engine	Model		B3.3		A2300		4TNNV94L		C240PKJ - 20		C240PKJ - 30		4JG2 PE-01	TD27	A498BT1	A498BPG	4TNE92-HRJ	4TNE92-BQFLC	A490BPG	B3.3		4TNNV94L		4JG2 PE-01	TD27	A498BT1	A498BPG	4TNE92-BQFLC	A490BPG				
		Manufacture	V / AH	CUMMINS		CUMMINS		YANMAR		ISUZU		ISUZU		ISUZU	NISSAN	XINCHAI	XINCHAI	YANMAR	YANMAR	XINCHAI	CUMMINS		YANMAR		ISUZU	NISSAN	XINCHAI	XINCHAI	YANMAR	XINCHAI				
		Rated output / r.p.m.	kw	48 / 2600		35 / 2600		43 / 2500		34.5 / 2500		34.5 / 2500		44.9 / 2450	44 / 2500	36.8 / 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				
		Rated torque / r.p.m.	N·m	214 / 1600		150 / 1600		205 / 1000		139 / 1800		137.7 / 1800		183.6 / 1700	172 / 1600	186 / 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				
		No. of cylinder		4		4		4		4		4		4	4	4	4	4	4	4	4		4		4	4	4	4	4	4	4			
		Bore×Stroke	mm	95×115		88×94		94×110		86×102		86×102		95.4×107	96×92	98×105	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				
		Emission STD.		Stage II / Tier 2		Stage IIIA / Tier 4 Interim		Stage II / Tier 2		Stage II		Stage IIIA		Stage II		E-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					
		Displacement	cc	3300		2300		3054		2369		2369		3059	2663	3168	3168	2659	3319	3168	3300		3054		3059	2663	3168	3168	3319	2540				
	Fuel tank capacity	L	70		70		70		70		70		70	70	70	70	60	60	70	70		70		70	70	70	60	70	70					
	Transmissions	45 Manufacture			CHINA	OKAMURA	CHINA	OKAMURA	CHINA	OKAMURA	CHINA	OKAMURA	CHINA	NISSAN	CHINA	CHINA	CHINA	CHINA	OKAMUA	CHINA	CHINA	CHINA	OKAMURA	CHINA	NISSAN	CHINA	CHINA	CHINA	OKAMUA	CHINA	CHINA			
Type			Powershift		Powershift		Powershift		Powershift		Powershift		Powershift		Powershift		Powershift		Powershift		Powershift		Powershift		Powershift		Powershift		Powershift					
Stage		FWD / RVS		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				
48 Operating pressure			For attachments	Mpa	17.5	17.5	14.5	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	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5			