



CPQD15/18N-RW21-Y

CPQD20/25/30/35N-RW22-Y

CPQD20/25/30/35N-RW22A-Y

CPQD20/25/30/35N-RW22B-Y

1.5-3.5t R Series of LPG Forklift

(USA IMPCO Combustion System)

(ITALY BRC Combustion System)

SERVICE MANUAL & PARTS LIST



Original Instruction

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ZHEJIANG HANGCHA ENGINEERING MACHINERY CO., LTD.



FOREWORD

Thanks for your purchasing Hangzhou forklift.

1.5-3.5T R Series LPG trucks use Japan Nissan gasoline engine. There are 4 types of combustion system, respectively, BRC dual-fuel (Italy), BRC single-fuel (Italy), IMPCO dual-fuel(USA), and IMPCO single-fuel(USA), in this manual, they are distinguished by Y0, Y1,Y2,Y3. Details are shown in table below.

1.5-1.8T R Series LPG forklift

Product Code	Configuration	Manuals Code
CPQD15/18N-RW21-Y	BRC dual-fuel(Italy)	CPQD15/18N-RW21-Y0
	BRC single-fuel(Italy)	CPQD15/18N-RW21-Y1
	IMPCO dual-fuel (USA)	CPQD15/18N-RW21-Y2
	IMPCO single-fuel(USA)	CPQD15/18N-RW21-Y3

2-3.5T R Series LPG forklift

Product Code	Configuration	Manuals Code
CPQD20/25/30/35N-RW22-Y	BRC dual-fuel(Italy)	CPQD20/25/30/35N-RW22-Y0
	BRC single-fuel(Italy)	CPQD20/25/30/35N-RW22-Y1
	IMPCO dual-fuel (USA)	CPQD20/25/30/35N-RW22-Y2
	IMPCO single-fuel(USA)	CPQD20/25/30/35N-RW22-Y3

This series of LPG forklift is an advanced model of R series forklift. A set of LPG fuel system has been adopted, which makes it possible to take both petrol and LPG as fuel.

This service manual is about structure, principle, performance and characteristic of LPG forklift and its fuel system, as well as its operation and maintenance, OPERATION AND MAINTENANCE MANUAL and SERVICE MANUAL of 1-3.5t R series are also concerned. All the personnel in charge of operation, maintenance and management should read all these three manuals completely.

Owing to continuous update and improvement, there is maybe something different between the explanations in this manual and the forklift in your hand.

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I Parameter

1.5~1.8t R series LPG forklift specification

Model		CPQD15N-RW21-Y		CPQD18N-RW21-Y	
Combustion system configuration	USA IMPCO Combustion system	Dual-Fuel (Y2)	Single-Fuel (Y3)	Dual-Fuel (Y2)	Single-Fuel (Y3)
	ITALY BRC Combustion system	Dual-Fuel (Y0)	Single-Fuel (Y1)	Dual-Fuel (Y0)	Single-Fuel (Y1)
Rated capacity Kg		1500		1800	
Load center mm		500		500	
Max lift height mm		3000		3000	
Free lift height mm		155		155	
Max lift speed mm/s		500		500	
Mast tilt range (F/R)		6°/12°		6°/12°	
Max speed(Unload) Km/h		15		15	
Min ground clearance mm		115		115	
Turning radius (Out side) mm		1970		2000	
Max gradeability %		20		20	
Wheel base mm		1400		1400	
Track (F/R) mm		890/900		890/900	
Self weight Kg		2690		2880	
Dimension (L×W×T) (include forks)		3185×1080×1995		3222×1080×1995	
Tires (F/R)		6.5-10-10PR/2 5.00-8-8PR/2		6.5-10-10PR/2 5.00-8-8PR/2	
Voltage V/Capacity Ah		12/60/20h		12/60/20h	
Gasoline Engine	Model	NISSAN K21			
	Rated power/rpm	31.2 KW /2250rpm			
	Max torque/rpm	143.7Nm/1600 rpm			
	displacement cc	1980			



2~3.5t R series LPG forklift specification

Model		CPQD20N –RW22-Y		CPQD25N- RW22-Y		CPQD30N –RW22-Y		CPQD35N –RW22-Y	
Combustion system configuration	USA IMPCO Combustion system	Dual-Fuel (Y2)	Single-Fuel (Y3)	Dual-Fuel (Y2)	Single-Fuel (Y3)	Dual-Fuel (Y2)	Single-Fuel (Y3)	Dual-Fuel (Y2)	Single-Fuel (Y3)
	ITALY BRC Combustion system	Dual-Fuel (Y0)	Single-Fuel (Y1)	Dual-Fuel (Y0)	Single-Fuel (Y1)	Dual-Fuel (Y0)	Single-Fuel (Y1)	Dual-Fuel (Y0)	Single-Fuel (Y1)
Rated capacity Kg		2000		2500		3000		3500	
Load center mm		500		500		500		500	
Max lift height mm		3000		3000		3000		3000	
Free lift height mm		140		140		155		155	
Max lift speed mm/s		570		570		450		450	
Mast tilt range F/R		6°/12°		6°/12°		6°/12°		6°/12°	
Max speed(Unload) Km/h		20		20		18.5		18.5	
Min ground clearance mm		105		105		130		130	
Min Turning radius (Out side) mm		2175		2255		2375		2430	
Gradeability (full load) %		20		20		20		15	
Wheel base mm		1650		1650		1760		1760	
trace (F/R) mm		965/970		965/970		1005/975		1005/975	
Self weight Kg		3440		3765		4255		4755	
dimension (L×W×H) (include forks)		3600×1155×2120		3675×1155×2120		3820×1225×2150		3870×1225×2150	
tires (F/R)		7.00-12-12PR 6.00-9-10PR		7.00-12-12PR 6.00-9-10PR		28×9-15-12PR/2 6.50-10-10PR/2		28×9-15-12PR/2 6.50-10-10PR/2	
Battery	Voltage V/Capacity Ah	12/60/20h							
Gasoline engine	Model	K25							
	Rated power/rpm	37.4KW /2300rpm							
	Max torque/rpm	176.5Nm/1600 rpm							
	Displacement cc	2472							

Model		CPQD20N-RW22A-Y		CPQD25N-RW22A-Y		CPQD30N-RW22A-Y		CPQD35N-RW22A-Y	
Combustion system configuration	USA IMPCO Combustion system	Dual-Fuel (Y2)	Single-Fuel (Y3)	Dual-Fuel (Y2)	Single-Fuel (Y3)	Dual-Fuel (Y2)	Single-Fuel (Y3)	Dual-Fuel (Y2)	Single-Fuel (Y3)
	ITALY BRC Combustion system	Dual-Fuel (Y0)	Single-Fuel (Y1)	Dual-Fuel (Y0)	Single-Fuel (Y1)	Dual-Fuel (Y0)	Single-Fuel (Y1)	Dual-Fuel (Y0)	Single-Fuel (Y1)
Rated capacity Kg		2000		2500		3000		3500	
Load center mm		500		500		500		500	
Max lift height mm		3000		3000		3000		3000	
Free lift height mm		150		150		155		155	
Max lift speed mm/s		560		560		450		350	
Mast tilt range F/R		6°/12°		6°/12°		6°/12°		6°/12°	
Max speed(Unload) Km/h		19.5		19.5		19.5		19.5	
Min ground clearance mm		105		105		130		130	
Min turning radius(outside) mm		2175		2235		2375		2415	
Gradeability (Full load) %		20		20		20		15	
Wheel base mm		1650		1650		1760		1760	
Trace (F/R) mm		965/970		965/970		1005/975		1005/975	
Self weight Kg		3440		3765		4255		4555	
Dimension (L×W×H) (include forks)		3600×1155×2120		3675×1155×2120		3820×1225×2150		3870×1225×2150	
Tires (F/R)		7.00-12-12PR 6.00-9-10PR		7.00-12-12PR 6.00-9-10PR		28×9-15-12PR/2 6.50-10-10PR/2		28×9-15-12PR/2 6.50-10-10PR/2	
Battery		Voltage V/capacity Ah		12/60/20h					
Gasoline engine		Model		K25					
		Rated power/rpm		37.4KW /2300rpm					
		Max torque/rpm		176.5Nm/1600 rpm					
		Displacement		2472					



Model	CPQD20N-RW22B-Y		CPQD25N-RW22B-Y		CPQD30N-RW22B-Y		CPQD35N-RW22B-Y	
	Dual-Fuel (Y2)	Single-Fuel (Y3)	Dual-Fuel (Y2)	Single-Fuel (Y3)	Dual-Fuel (Y2)	Single-Fuel (Y3)	Dual-Fuel (Y2)	Single-Fuel (Y3)
Rated capacity Kg	2000		2500		3000		3500	
Load center mm	500		500		500		500	
Max lift height mm	3000		3000		3000		3000	
Free lift height mm	150		150		155		155	
Max lift speed mm/s	560		560		450		350	
Mast tilt range F/R	6°/12°		6°/12°		6°/12°		6°/12°	
Max speed(Unload) Km/h	21		21		20		20	
Ground clearance mm	105		105		130		130	
Min turning radium (outside) mm	2175		2235		2375		2430	
Gradeability (full load)%	20		20		20		15	
Wheel base mm	1650		1650		1760		1760	
Trace (F/R) mm	965/970		965/970		1005/975		1005/975	
Self weight Kg	3440		3765		4255		4755	
dimension (L×W×H) (include forks)	3600×1155×2120		3675×1155×2120		3820×1225×2150		3870×1225×2150	
tires (F/R)	7.00-12-12PR 6.00-9-10PR		7.00-12-12PR 6.00-9-10PR		28×9-15-12PR/2 6.50-10-10PR/2		28×9-15-12PR/2 6.50-10-10PR/2	
battery	Voltage V/Capacity Ah		12/60/20h					
Gasoline engine	Model		K25					
	Rated power/rpm		37.4KW /2300rpm					
	Max torque/rpm		176.5Nm/1600 rpm					
	Displacement cc		2472					