

RY LIFT
TRUCKS

R Series **Electric Forklift**

Capacity 1.5-3.5t



Royal Forklift (Suzhou) Co., Ltd

ROYAL Development History



2010

Anhui Royal Forklift Co., Ltd was officially established as manufacturer center



2011

ROYAL started the forklift business since sales center in Suzhou was established.



2013

ROYAL Phase II project of new factory was finished, with total floor area 100,000m², yearly production capacity 10,000 units



2016

The 10000th forklift was shipped to Malaysia



2018

Full range of ROYAL products departure for showing in CeMAT 2018



Multiple Models & Solutions



4-Wheel Electric Forklift

Environmental-Friendly
Efficient Energy Consumption



3-Wheel Electric Forklift

Excellent Tight-Turn Performance
Smooth Trafficability



High Performance 4-Wheel Electric Forklift

Better Work Efficiency
Outstanding Operability

Standard 4-Wheel Electric Forklift



Capacity

1500/1800/2000/2500/3000/3500kgs



Motors

Driven: KDS x 1
Pump: KDS x 1



Controller

ZAPI Full AC



Battery

48/80V Chinese brand/Germany Hawker

Comfort and Ergonomics



Upward Visibility

Press forming overhead guard provides stronger protection and good upward visibility

Forward Visibility

Optimal mast width and hose lay-behind ensure a clear view through the mast.

Fork-tip Visibility

Small-diameter steering wheel, optimally positioned display and right-position lever for excellent visibility of the fork tips.

Easy Entry and Exit

The large assist grip, low step, and foot-activated parking brake make getting on and off more smooth. This can help reduce the operator's fatigue.



Large Assist Grip



Low and Wide Step



Easy Maintenance

Easy opened counter balance cover, to protect controller to avoid the damage when reversing. It makes the electrical system arrangement optimized.



Energy Savings, Long Life LED Lights offer long life and low energy consumption.



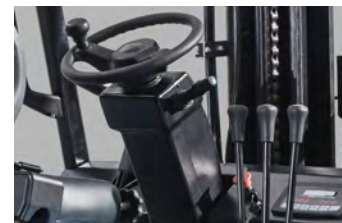
High-visibility display with Indicators and warning lights keeps the operator informed of the forklift's status at a glance.



The battery can be taken out from the right side of the truck by using a forklift or pallet truck.



The seat can be adjusted forward and backward and supports a comfortable operating posture by means of side wings and a seat belt.



The small-diameter steering wheel with the full hydraulic power steering system provides excellent maneuverability.



The foot operation space be enlarged by 20% to provide operator with comfortable feeling.

Standard 3-Wheel Electric Forklift



Capacity

1600/1800/2000kgs



Motors

Driven: KDS x 2
Pump: KDS x 1



Controller

ZAPI Full AC



Battery

48V Chinese brand/Germany Hawker

Intelligent Display

The Multifunction Display offers useful information for operators and managers.



Dual Driven Motors

Pivot turning by the dual AC motors makes for easier operations in narrow aisles.



Finger Tips **OPT**

The Finger tips allows smooth operation. The design featuring an armrest also helps to reduce the operator's fatigue.

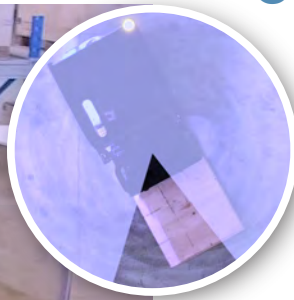


Rear Handle Horn

This assist grip with horn button enhances reverse travel comfort and offers easy horn operation while travelling in reverse.



Compact Body & Turning Performance

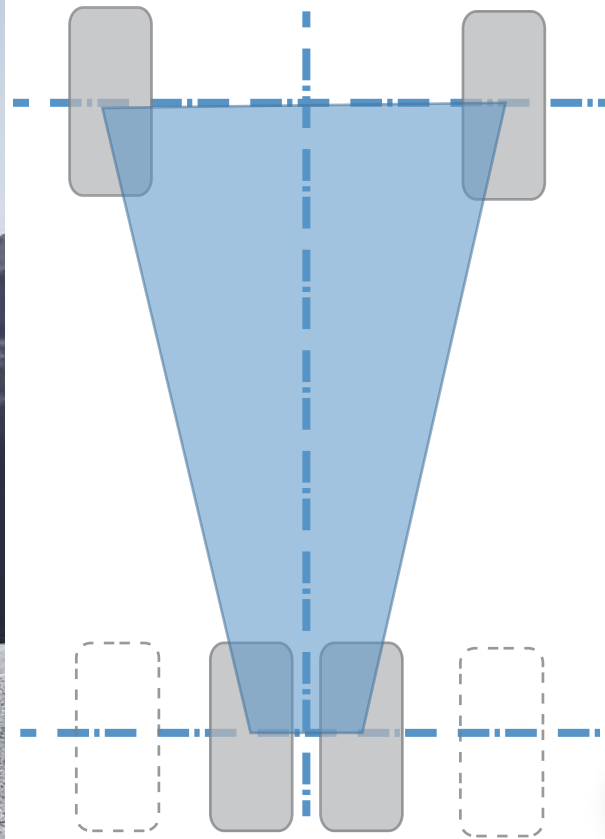


The dual AC motor front wheel drive allows compact turns. Outstanding tight-turn performance for effective warehouse operations.



Double Rear Tires

Double rear tires achieve stability during travel and turning as well as greater rated load capacity at high mast heights. With the same lateral stability as 4-wheel forklifts.





Easy Battery Exchanging

Battery Side-out system is standard for all Royal's electric models. With this design, the battery can be easily taken out from side by using a pallet truck, stacker or forklift. Compare to conventional forklifts which needs to take battery from top overhead guard, ROYAL electric forklift's battery change is faster, easier and safer.





High Performance 4-Wheel Electric Forklift



Capacity

2000kgs



Motors

Driven: KDS x 2
Pump: KDS x 1



Controller

ZAPI Full AC



Battery

48V Chinese brand/Germany Hawker



High Performance

Newly developed high performance 4-wheel electric forklift greatly reduces energy consumption. This increases the working efficiency by 20%.

The battery open structural design combined with the location of different system of forklifts, Royal forklift engineers design this forklift with an idea to assemble & disassemble from different ways. This design dramatically improves the service ability and lowers the service labor cost.



Depending on steering angle, the system controls the motor output and motor rotating direction, enabling smooth pivot turning.



The small turning radius achieved through the compact body and the configuration makes possible an effective use of working space.

Main Components & Configuration Comparison



Components/Model	Std. 4-Wheel	Std. 3-Wheel	HP 4-Wheel
Capacity	1.5-3.5ton	1.6-2.0ton	2.0ton
Controller	Italy ZAPI AC	Italy ZAPI AC	Italy ZAPI AC
Transmission	China Zhongnan	Germany ZF	Germany ZF
Driven Motor	USA KDS x 1	USA KDS x 2	USA KDS x 2
Pump Motor	USA KDS x 1	USA KDS x 1	USA KDS x 1
Battery	China / German Hawker (OPT)	China / German Hawker (OPT)	China / German Hawker (OPT)
Battery Side-out	STD.	STD.	STD.
*Auto Parking	No	STD.	STD.
Finger tips	No	OPT	OPT



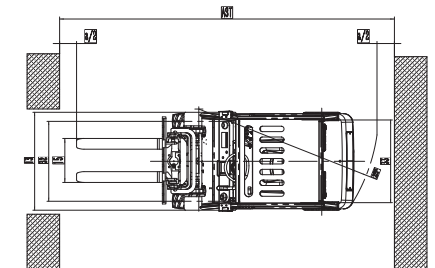
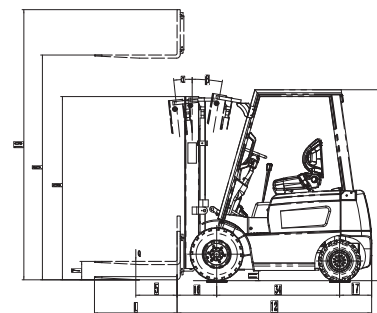
- Auto Parking: Electromagnetic parking. It means when the truck stopped without operation for 2-3 secs., the truck be automatically in parking brake situation.
- Features and equipment may vary depending on market.

R Series 4-Wheel Electric Forklift

MAIN SPECIFICATIONS										
Specification	1	Manufacturer	RY							
	2	Model	E15	E18	E20	E25	E30	E35		
	3	Power Type	Electric							
	4	Rated Load Capacity	kg	1500	1800	2000	2500	3000	3500	
Dimensions	5	Load Centre	mm	500						
	6	Rated Lift Height	mm	3000						
	7	Free Lift Height	mm	140		140		145		
	8	Tilting Angle (F/R, $\alpha^{\circ}/\beta^{\circ}$)	Deg	6°/10°		6°/12°				
	9	Height when Mast Lowered	mm	2040		2045		2060		
	10	Height to Safeguard	mm	2150		2150		2150		
	11	Min. Ground Clearance	mm	110		120		130		
	12	Length (to Fork Face)	mm	2160		2380		2518	2578	
	13	Width	mm	1090		1150		1225		
	14	Fork Size (LxWxT)	mm	920x100x35		1070x100x35		1070x120x40		
	15	Fork Spread (Min./Max.)	mm	200/970		200/1040		200/1100		
	16	Overhang Front	mm	421		478		483		
	17	Overhang Rear	mm	352		410		435	495	
	18	Min. Turning Radius	mm	1956		2080		2260	2320	
	19	Height when Mast Lifted	mm	3984		4145		4160		
	20	Working Aisle Width with Pallet (Ast)*, 1000x1200 Crossways	mm	3593		3925		4080	4140	
	21	Working Aisle Width with Pallet (Ast)*, 800x1200 Lengthways	mm	3793		4025		4180	4240	
	Performance	22	Travel Speed (Full Load)	km/h	12		11		11	
		23	Travel Speed (No Load)	km/h	13		12		12	
24		Lifting Speed (Full Load)	mm/s	290		280		280		
25		Lifting Speed (No Load)	mm/s	400		400		400		
26		Gradeability (Full Load)	%	15		15		15	15	
27		Gradeability (No Load)	%	15		15		15	15	
28		Service Brake (Operation/Control)		Foot/Powershift						
Drive	29	Parking Brake (Operation/Control)		Hand/Mechanical						
	30	Tyre (FrontX2)		6.5-10-10PR		7.00-12-12PR		28x9-15-12PR		
	31	Tyre (RearX2)		5.00F-10		18x7-8-14PR		18x7-8-14PR		
	32	Tread (Front)	mm	890		970		1000		
	33	Tread (Rear)	mm	920		950		970		
	34	Wheelbase	mm	1370		1500		1600		
	Weight	35	Total Weight (Include Battery Box)	kg	3060	3260	4060	4260	5150	5570
36		Front Axle Weight Distribution (Full Load)	kg	3880	4260	5180	5823	7210	8070	
37		Rear Axle Weight Distribution (Full Load)	kg	680	750	880	937	940	1000	
38		Front Axle Weight Distribution (No Load)	kg	1260	1340	1675	1665	2318	2520	
39		Rear Axle Weight Distribution (No Load)	kg	1800	1920	2385	2595	2832	3050	
40		Drive Motor	kw	8.2		9		12		
Drive	41	Pump Motor	kw	10		11		12		
	42	Standard Battery	V/Ah	48/420		48/560		80/500		
	43	Controller Type		AC						
	44	Controller Manufacturer		ZAPI						
	45	Operating Pressure for Attachment	Mpa	17.5						



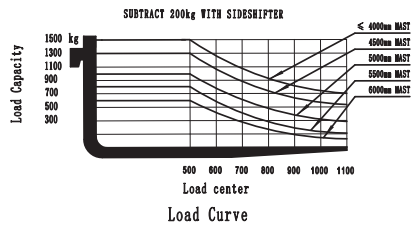
4-Wheel Electric Forklift



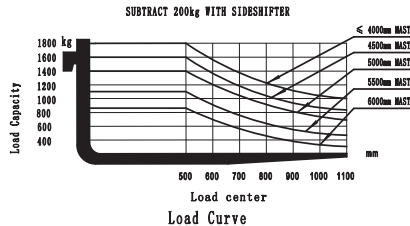
R Series Mast information 4-Wheel Electric Forklift

Type	Model	Mast Fork Height	Lowered			Overall Height						Free Lift						Tilt range		Capacity					
						With backrest			Without backrest			With backrest			Without backrest			F/R		Load Capacity at 500mm					
			1.5-1.8t	2.0-2.5t	3.0-3.5t	1.5-1.8t	2.0-2.5t	3.0-3.5t	1.5-1.8t	2.0-2.5t	3.0-3.5t	1.5-1.8t	2.0-2.5t	3.0-3.5t	1.5-1.8t	2.0-2.5t	3.0-3.5t	deg	deg	1.5t	1.8t	2.0t	2.5t	3.0t	3.5t
			mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	kg	kg	kg	kg	kg	kg
wide view mast	2S-3.0M	3000	2020	2060	2060	3890	4060	4160	3567	3535	3648	80	100	100	80	100	100	6	12	1500	1800	2000	2500	3000	3500
	2S-3.3M	3300	2170	2210	2210	4190	4360	4460	3867	3835	3948	80	100	100	80	100	100	6	12	1500	1800	2000	2500	3000	3500
	2S-3.5M	3500	2270	2310	2310	4390	4560	4660	4067	4035	4148	80	100	100	80	100	100	6	12	1500	1800	2000	2500	3000	3500
	2S-3.7M	3700	2370	2410	2410	4590	4760	4860	4267	4235	4348	80	100	100	80	100	100	6	6	1500	1800	2000	2500	2900	3300
	2S-4.0M	4000	2620	2660	2660	4890	5060	5160	4567	4535	4648	80	100	100	80	100	100	6	6	1500	1800	2000	2500	2800	3100
	2S-4.5M	4500	2870	2910	2910	5390	5560	5660	5067	5035	5148	80	100	100	80	100	100	6	6	1400	1600	1750	2150	2650	2850
	2S-5.0M	5000	3120	3160	3160	5890	6060	6160	5567	5535	5648	80	100	100	80	100	100	6	6	1200	1400	1500	1950	2100	2250
wide view full free 2-stage mast	2S-3.0M	3000	2020	2060	2060	3890	4060	4160	3567	3535	3648	1150	995	900	1500	1510	1410	6	12	1500	1800	2000	2500	3000	3500
	2S-3.3M	3300	2170	2210	2210	4190	4360	4460	3867	3835	3948	1300	1145	1050	1650	1660	1560	6	12	1500	1800	2000	2500	3000	3500
	2S-3.5M	3500	2270	2310	2310	4390	4560	4660	4067	4035	4148	1400	1245	1150	1750	1760	1660	6	12	1500	1800	2000	2500	3000	3500
	2S-3.7M	3700	2370	2410	2410	4590	4760	4860	4267	4235	4348	1500	1345	1250	1850	1860	1760	6	6	1500	1800	2000	2500	2900	3300
	2S-4.0M	4000	2620	2660	2660	4890	5060	5160	4567	4535	4648	1650	1495	1400	2000	2010	1910	6	6	1500	1800	2000	2500	2800	3100
wide view full free 3-stage mast	3S-4.3M	4300	2060	2070	2070	5190	5360	5460	4867	4834	4948	1120	1010	905	1470	1535	1415	6	6	1400	1700	1750	2300	2650	2900
	3S-4.5M	4500	2110	2120	2120	5390	5560	5660	5067	5034	5148	1170	1060	955	1520	1585	1465	6	6	1300	1600	1700	2000	2400	2650
	3S-4.7M	4700	2160	2170	2170	5590	5760	5860	5267	5234	5348	1220	1110	1005	1570	1635	1515	6	6	1200	1500	1650	1850	2200	2400
	3S-5.0M	5000	2260	2270	2270	5890	6060	6160	5567	5534	5648	1320	1210	1105	1670	1735	1615	6	6	1100	1300	1400	1700	1950	2100
	3S-5.5M	5500	2460	2470	2470	6390	6560	6660	6067	6034	6148	1520	1410	1305	1870	1935	1815	3	6	850	950	1150	1250	1400	1500
	3S-6.0M	6000	2660	2670	2670	6890	7060	7160	6567	6534	6648	1720	1610	1505	2070	2135	2015	3	6	650	750	850	950	1200	1300
	3S-6.5M	6500	2910	2920	2920	7390	7560	7660	7067	7034	7148	1970	1860	1755	2320	2385	2265	3	6	500	600	700	800	900	1050

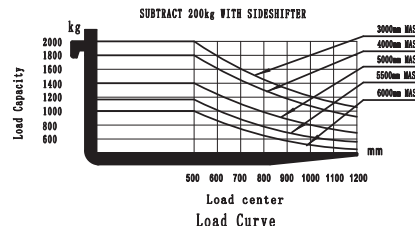
E15



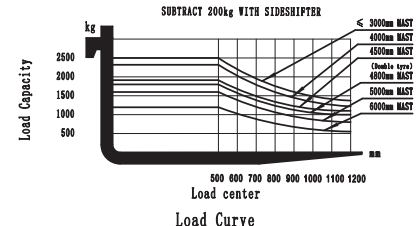
E18



E20



E25



R Series Dual Driven Motors Electric Forklift

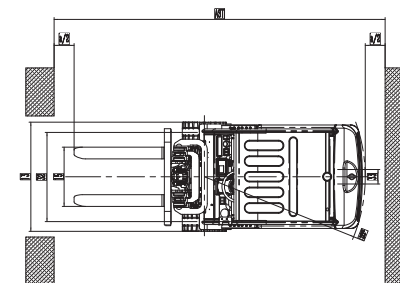
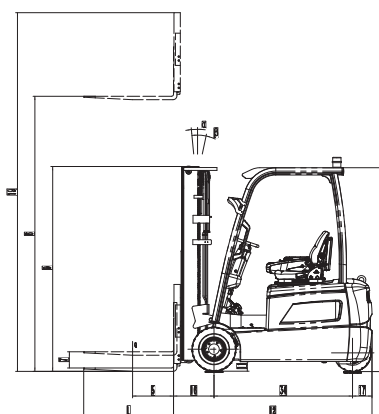
MAIN SPECIFICATIONS							
General	1	Manufacturer	RY				
	2	Model	E16e	E18e	E20e E20D		
	3	Power Type	Electric				
Characteristic & Dimension	4	Rated Load Capacity	kg	1600	1800	2000	
	5	Load Centre	mm	500			
	6	Rated Lift Height	mm	3000			
	7	Free Lift Height	mm	150			
	8	Tilting Angle (F/R, α°/β°)	Deg	5°/7°			
	9	Height when Mast Lowered	mm	2015			
	10	Height to Safeguard	mm	2080			
	11	Min. Ground Clearance	mm	90			
	12	Length (to Fork Face)	mm	2030	2030	2100	2245
	13	Width	mm	1066	1066	1140	1132
	14	Fork Size (LxWxT)	mm	920x100x35		1070x100x35	
	15	Fork Spread (Min./Max.)	mm	200/970			
	16	Overhang Front	mm	415			
	17	Overhang Rear	mm	200		330	
	Performance	18	Min. Turning Radius	mm	1650	1650	1735
19		Height when Mast Lifted	mm	3945			
20		Working Aisle Width with Pallet (Ast)*, 1000x1200 Crossways	mm	3300	3300	3438	-
21		Working Aisle Width with Pallet (Ast)*, 800x1200 Lengthways	mm	3400	3400	3563	-
22		Travel Speed (Full Load)	km/h	12			
23		Travel Speed (No Load)	km/h	13			
24		Lifting Speed (Full Load)	mm/s	300	290	280	
25		Lifting Speed (No Load)	mm/s	400			
26		Gradeability (Full Load)	%	15			
27		Gradeability (No Load)	%	15			
Chassis	28	Service Brake (Operation/Control)	Foot/Powershift				
	29	Parking Brake (Operation/Control)	Electric				
	30	Tyre (FrontX2)	18*7-8		200/50-10	200/50-10	
	31	Tyre (RearX2)	15*4.5-8		15*4.5-8	15*4-8	
Weight	32	Tread (Front)	mm	912	912	940	912
	33	Tread (Rear)	mm	185			
	34	Wheelbase	mm	1420	1420	1535	1500
	35	Total Weight (Include Battery Box)	kg	3100	3250	3400	-
Drive	36	Front Axle Weight Distribution (Full Load)	kg	4025	4370	4692	-
	37	Rear Axle Weight Distribution (Full Load)	kg	575	530	558	-
	38	Front Axle Weight Distribution (No Load)	kg	1410	1425	1520	-
	39	Rear Axle Weight Distribution (No Load)	kg	1590	1675	1730	-
Drive	40	Drive Motor	kw				4.5*2
	41	Pump Motor	kw				13
	42	Standard Battery	V/Ah	48/500	48/500	48/625	48/500
	43	Controller Type	AC				
	44	Controller Manufacturer	ZAPI				
45	Operating Pressure for Attachment	Mpa	15		16.5		



3-Wheel Electric Forklift



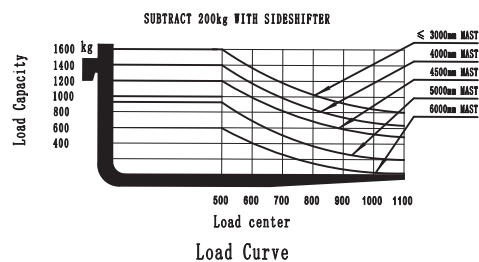
High Performance 4-Wheel Electric Forklift



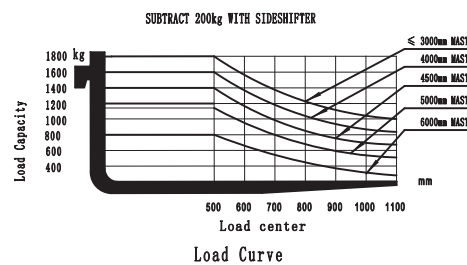
R Series Mast information 3-Wheel Electric Forklift

Type	Model	Mast Fork Height	Lowered	Overall Height		Free Lift		Tilt range		Capacity			
				mm	With backrest	Without backrest	With backrest	Without backrest	FED	RWD	Load Capacity at 500mm		
					mm	mm	mm	mm	deg	deg	1.6t	1.8t	2.0t
wide view mast	2S-2.5M	2500	1780	3390	3040	80	80	6	6	1600	1800	2000	
	2S-2.7M	2700	1880	3590	3240	80	80	6	6	1600	1800	2000	
	2S-3.0M	3000	2030	3890	3540	80	80	6	6	1600	1800	2000	
	2S-3.3M	3300	2180	4190	3840	80	80	6	6	1600	1800	2000	
	2S-3.5M	3500	2280	4390	4040	80	80	6	6	1600	1800	2000	
	2S-3.7M	3700	2380	4590	4240	80	80	6	6	1600	1800	2000	
	2S-4.0M	4000	2630	4890	4540	80	80	6	6	1600	1800	2000	
	2S-4.3M	4300	2780	5190	4840	80	80	6	6	1500	1700	1900	
	2S-4.5M	4500	2880	5390	5040	80	80	6	6	1400	1600	1800	
2S-5.0M	5000	3130	5890	5540	80	80	6	6	1200	1400	1500		
wide view full free 2-stage mast	2S-2.5M	2500	1780	3390	3040	770	1120	6	6	1600	1800	2000	
	2S-2.7M	2700	1880	3590	3240	870	1220	6	6	1600	1800	2000	
	2S-3.0M	3000	2030	3890	3540	1030	1370	6	6	1600	1800	2000	
	2S-3.3M	3300	2180	4190	3840	1180	1520	6	6	1600	1800	2000	
	2S-3.5M	3500	2280	4390	4040	1280	1620	6	6	1600	1800	2000	
	2S-3.7M	3700	2380	4590	4240	1380	1720	6	6	1600	1800	2000	
wide view full free 3-stage mast	3S-3.7M	3700	1850	4590	4239	959	1310	6	6	1600	1800	2000	
	3S-4.0M	4000	1950	4890	4539	1059	1410	3	5	1600	1800	1950	
	3S-4.3M	4300	2050	5190	4839	1159	1510	3	5	1500	1700	1900	
	3S-4.5M	4500	2100	5390	5039	1209	1560	3	5	1400	1600	1800	
	3S-4.7M	4700	2150	5590	5239	1259	1610	3	5	1300	1500	1650	
	3S-5.0M	5000	2250	5890	5539	1359	1710	3	5	1200	1400	1500	
	3S-5.25M	5250	2350	6140	5789	1459	1810	3	5	1150	1300	1400	
	3S-5.5M	5500	2450	6390	6039	1559	1910	3	5	1050	1150	1300	
	3S-6.0M	6000	2650	6890	6539	1759	2110	3	5	1000	1050	1150	
	3S-6.5M	6500	2900	7390	7039	2009	2360	3	5	900	950	1050	

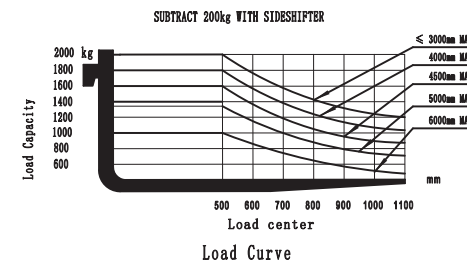
E16e



E18e



E20D



RY LIFT TRUCKS

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