

## Specification

Identification					
1.1	Manufacturer	HYUNDAI			
1.2	Manufacturer's type designation	10BTR-9	13BTR-9	15BTR-9	
1.3	Drive: electric/battery or mains/diesel/petrol/Li-ion gas, manual	Electric	Electric	Electric	
1.4	Type of operation: hand, pedestrian, standing, seated, order-picker	Seated	Seated	Seated	
1.5	Load capacity/rated load	Q kg	1,000	1,250	1,500
1.6	Load center distance	c mm	500	500	500
1.8	Load distance, center of drive axle to fork	x mm	330	330	330
1.9	Wheelbase	y mm	1,065	1,165	1,220

Weights					
2.1	Service weight	kg	2,405	2,630	2,840
2.2	Axle loading, loaded front/rear	kg	2,895/510	3,340/540	3,775/565
2.3	Axle loading, unloaded front/rear	kg	1,116/1,289	1,200/1,430	1,254/1,586

Wheels, Chassis					
3.1	Tires: solid rubber(V), superelastic(SE), pneumatic(P), polyurethane(PE)		SE	SE	SE
3.2	Tires size, front(∅ x width)		18 x 7-8	18 x 7-8	18 x 7-8
3.3	Tires size, rear(∅ x width)		18 x 7-8	18 x 7-8	18 x 7-8
3.5	Wheels, number front/rear(x = driven wheels)		2 / 1x	2 / 1x	2 / 1x
3.6	Track width, front	mm	835	835	835
3.7	Track width, rear	mm	-	-	-

Basic Dimensions					
4.1	Mast / fork carriage tilt forward / backward	degrees	5 / 6	5 / 6	5 / 6
4.2	Lowered mast height	h1 mm	1,970	1,970	1,970
4.3	Free lift height	h2 mm	35	35	35
4.4	Lift height	h3 mm	3,025	3,025	3,025
4.5	Extended mast height	h4 mm	4,024	4,024	4,024
4.7	Overhead guard (cab) height	h5 mm	2,020	2,020	2,020
4.8	Seat height / Standing height	h7 mm	927	927	927
4.12	Coupling height	h10 mm	325	325	325
4.19	Overall length	l1 mm	2,565	2,655	2,710
4.20	Length to face of forks	l2 mm	1,655	1,750	1,810
4.21	Overall width	b1 mm	990	990	990
4.22	Fork dimensions	s / e / l mm	35 x 80 x 800	35 x 80 x 800	35 x 80 x 800
4.23	Fork carriage ISO 2328, class/type A, B	ll	ll	ll	ll
4.24	Fork - carriage width	b3 mm	950	950	950
4.31	Ground clearance, loaded, under mast	m1 mm	85	85	85
4.32	Ground clearance, centre of wheelbase	m2 mm	90	90	90
4.33	Aisle width for pallets 1,000 x 1,200 crossways	Ast mm	2,994	3,084	3,139
4.34	Aisle width for pallets 800 x 1,200 lengthways	Ast mm	3,116	3,206	3,261
4.35	Turning radius	Wa mm	1,335	1,425	1,480
4.36	Smallest pivot point distance	mm	-	-	-

Performance Data					
5.1	Travel speed, loaded / unloaded (24V)	km/h	12.5 / 13	12.5 / 13	12.5 / 13
5.2	Lift speed, loaded / unloaded (24V)	mm/s	310 / 530	300 / 530	290 / 530
5.3	Lowering speed, loaded / unloaded	mm/s	500 / 450	500 / 450	500 / 450
5.6	Max. drawbar pull, loaded / unloaded S2 5 min	N	642 / 690	631 / 685	620 / 683
5.8	Max. gradient performance, loaded / unloaded S2 5 min	%	18 / 25	15 / 24	13 / 23
5.9	Acceleration time, loaded / unloaded	S	-	-	-
5.10	Service brake		Hydraulic	Hydraulic	Hydraulic

E - Motor					
6.1	Drive motor rating S2 60 min (24V)	kW	4.3	4.3	4.3
6.2	Pump motor rating at S3 - 15 % (24V)	kW	9.0	9.0	9.0
6.4	Battery voltage, nominal capacity K3 (24V)	V/Ah	24 / 625	24 / 750	24 / 750
6.5	Battery weight	kg	450	600	690
	Battery compartment dimensions L / W / H	mm	830 / 328 / 627	830 / 436 / 627	830 / 490 / 627

Other Details					
8.1	Type of drive control		AC	AC	AC

# 10/13/15BTR-9

Electric Counterbalance Trucks

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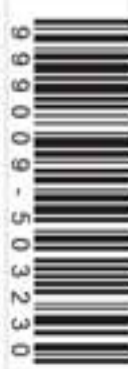
## HYUNDAI FORKLIFT

HEAVY INDUSTRIES CO.,LTD.

Head Office (Sales Office)  
14th FL., HYUNDAI BLDG. 140-2, KYE-DONG, JONGNO-GU, SEOUL, KOREA 110-793  
TEL (82) (2) 746-4526, 4529 FAX (82) (2) 746-7444-7445

Americas Operation : Hyundai Construction Equipment Americas, Inc.  
6100 ATLANTIC BOULEVARD NORCROSS GA 30071 U.S.A TEL (1) 847-678-823-7802 FAX (1) 847-678-823-7778

Europe Operation : Hyundai Heavy Industries Europe N.V.  
VOSSENDAAL 11, 2440 GEEL, BELGIUM TEL (32) 14-56-2200 FAX (32) 14-59-3405



PLEASE CONTACT

www.hyundai-ce.com

2013. 07 Rev. 0

**HYUNDAI**  
HEAVY INDUSTRIES CO.,LTD.



reddot design award  
honourable mention 2012

# Your satisfaction is our priority!

## Compact forklift with proven AC technology

- Maximum performance
- Spacious operator's cab
- Fingertip controlled mini levers available (optional)
- Weight indicator (optional)
- Safety system that prevents over loading (optional)
- Battery side loading system available
- Wet brakes standard

Hyundai introduces a new line of 9-series battery forklift trucks.

The newly designed 3 wheel counterbalance trucks with rear wheel drive provide every operator comfortable driving, increased productivity and easy maintenance.



■ Some of the photos may include optional equipment.

# High Efficiency & Optimal Performance



Efficient, smooth running and compact design provide you with enhanced performance and highest productivity.

**10/13/15BTR-9**

## More efficient operating control levers

Electronic directional control and secondary horn are mounted to the hydraulic lift lever for quick and precise maneuvering.



■ Some of the photos may include optional equipment.

## Curve control

Curve Control limits travel speed based on turning radius, reducing speed for a smooth, precise turning operation for the driver.



Limit the speed

## Designed for compact aisle width and turning radius

The combination of 3-wheel design and rear wheel drive offers central pivot turning. This allows the driver to work in very confined spaces.



■ Some of the photos may include optional equipment.

### Travel Speed (MAX)

Model	Km / h
10BTR-9	13
13BTR-9	13
15BTR-9	13

### Gradeability (MAX)

Model	%
10BTR-9	18
13BTR-9	15
15BTR-9	13

## Anti roll back system, travel speed and gradeability

Anti Roll-back system offers protection against the machine rolling back on a ramp in combination with exceptional ramp start capabilities.



## Advanced drive and lift performance with proven durability and low maintenance

The enclosed drive and pump motor with AC technology combine power, high maintenance intervals and excellent durability. The ZF transmission converts the drive engine's power to any direction the driver requires.

# Advanced Safety



The safely designed driver's space makes your operating more comfortable.

**10/13/15BTR-9**



■ Some of the photos may include optional equipment.

## Excellent visibility for safe operation

Optimized lift cylinder arrangement provides operator with wider visibility. The panoramic mirror expands the driver's view when backing up.



## Fork safety features

When the forks are being lowered, a down-control valve maintains the controlled speed. The down-safety valve prevents forks from dropping down in case of sudden damage of hydraulic line.

## OPSS (Operator Presence Sensing System)

When the operator is not in the seat all mast and drive movements are impossible.

**Lift Lock** **Tilt Lock** **Drive Lock**

■ Some of the photos may include optional equipment.



## Strong overhead guard

Exceeding CEE and ANSI regulations, the overhead guard offers great protection combined with excellent all round visibility



## Safety lamps & rear reflectors

Halogen headlights and rear LED combination lights offer the driver visibility in all circumstances. Rear reflectors mounted on the counterweight enhance safety for the driver and the application.

# Optimised Ergonomics & Fast and Easy Maintenance



An ideal arrangement of components ensures easy access and convenience for maintenance.

**10/13/15BTR-9**



■ Some of the photos may include optional equipment.

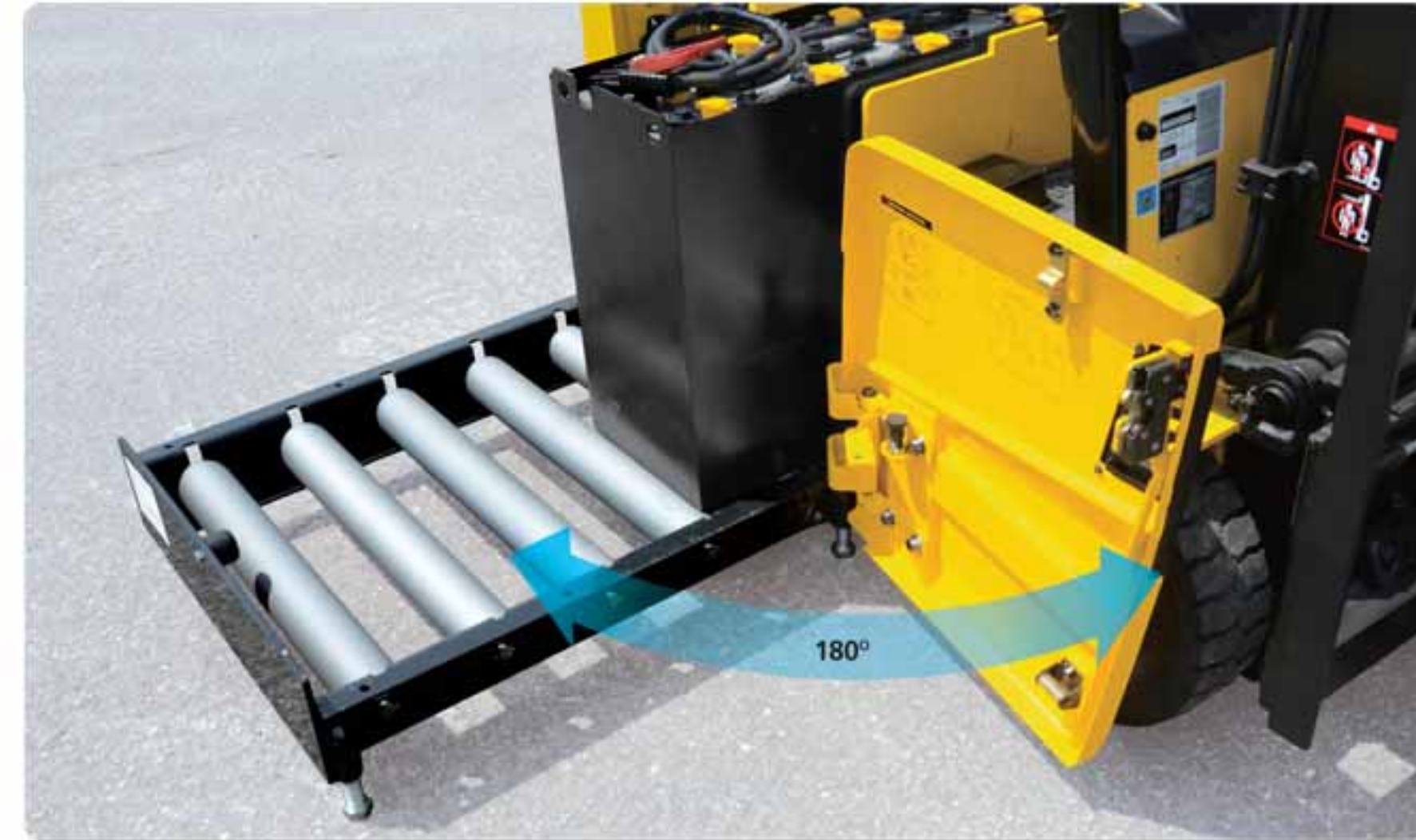
### Grammer seat (Option)

An easily adjustable suspension seat, based on a human engineering design, provides greater comfort reducing operator fatigue.



### Spacious operator cabin

The BTR is designed as a small, compact design, yet the operator compartment has ample room for virtually any operator.



■ Some of the photos may include optional equipment.

### Easy battery replacement

The battery compartment is equipped with a side battery removal assembly for easy removal and replacement.



### Low entrance height

In order to get in and out of the cabine in an easy and safe way the height of the entrance step is only 400mm high.



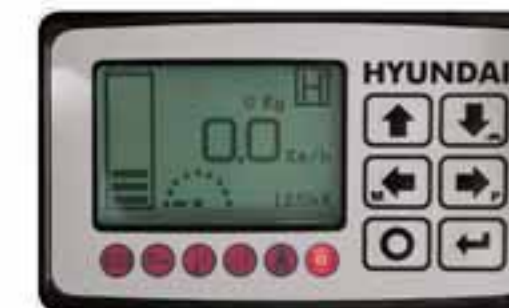
### Adjustable steering wheel

To achieve a comfortable drive position, the angle of the steering column can easily be adjusted through a lever on the right-hand side of the steering column.



### Optimized pedal position and floor mat

The position of accelerator and throttle have been optimized through human engineering.



### Advanced LCD Monitor

The LCD monitor with 3.2 inch graphic smart display allows the operator to easily and efficiently control the machine. The monitor provides information about speed & accelerator level, steer angle & travel direction, battery discharge indicator, hour meter & working mode. The optional load indicator displays the load weight in the monitor. The operator can select various performance modes to meet all working conditions.

**H** (High) mode

**N** (Normal) mode

**E** (Economic) mode

**Turtle mode** (maintain 7 km/h travel speed when lifting)



### Brake oil reservoir with level sensor

The enhanced brake oil reservoir, located in the upper left dash, is equipped with an electronic level sensor and easily visible through the monitor.

# New 9 Series

# 10/13/15BTR-9

## Mast Specification (10/13BTR-9)

Mast Type	Maximum Fork Height (mm)	Overall Height (Lowered) (mm)	Free Lift Height (mm)		Tilt Angle (deg) Fwd / Bwd	Load Capacity without side shift at (500mm LC)(kg)		Load Capacity with side shift at (500mm LC)(kg)		Truck Weight (Unloaded) (kg)		
			With Load Backrest	Without Load Backrest		10BTR-9	13BTR-9	10BTR-9	13BTR-9	10BTR-9	13BTR-9	
												10/13BTR-9
2-Stage Limited free lift	* V300	3025	1970	35	35	5 / 6	1000	1250	900	1150	2413	2632
	V330	3325	2120	35	35	5 / 6	1000	1250	900	1150	2432	2651
	V350	3525	2220	35	35	5 / 6	1000	1250	900	1150	2445	2664
	V370	3725	2320	35	35	5 / 6	1000	1250	900	1150	2458	2677
	V400	4025	2470	35	35	5 / 6	1000	1250	900	1150	2481	2700
	V500	5025	3070	35	35	5 / 6	975	1200	875	1100	2588	2807
2-Stage full free lift	VF300	3025	1970	972	1460	5 / 5	1000	1250	900	1150	2437	2656
	VF330	3325	2120	1122	1610	5 / 5	1000	1250	900	1150	2458	2677
	VF350	3525	2220	1222	1710	5 / 5	1000	1250	900	1150	2473	2692
3-Stage full free lift	TF400/TS400	4035	1870	863	1364	5 / 5	1000	1250	900	1150	2532	2751
	TF430/TS430	4335	1970	963	1464	5 / 5	1000	1225	900	1125	2551	2770
	TF450/TS450	4535	2070	1063	1564	5 / 5	975	1200	875	1100	2570	2789
	TF470/TS470	4735	2120	1113	1614	5 / 5	950	1175	875	1075	2580	2799
	TF500/TS500	5035	2220	1216	1714	5 / 5	925	1150	850	1050	2599	2818
	TF550/TS550	5535	2420	1416	1914	5 / 5	900	1100	825	1025	2637	2856
TF600/TS600	6035	2620	1613	2114	5 / 5	850	1050	775	975	2693	2912	

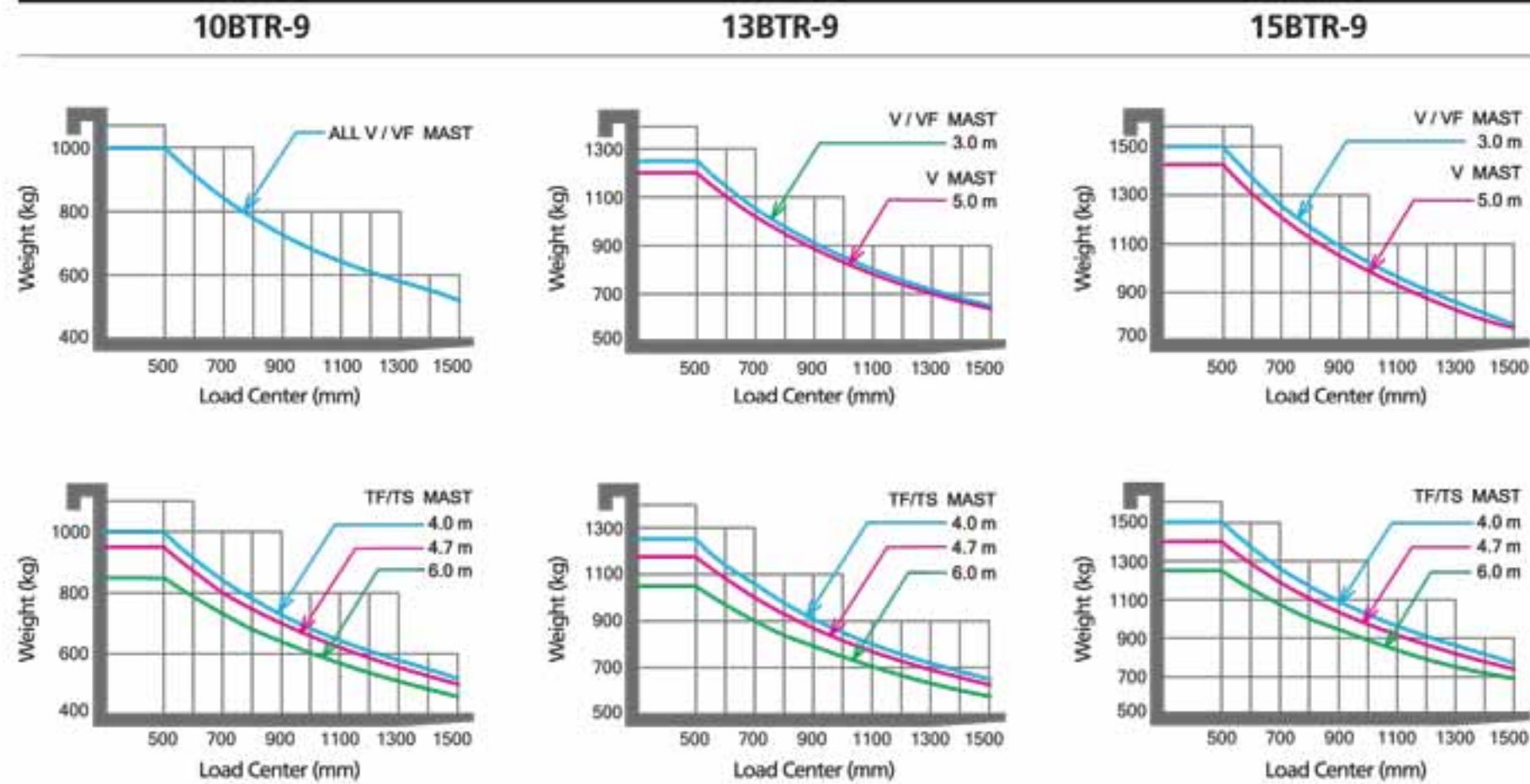
## Mast Specification (15BTR-9)

Mast Type	Maximum Fork Height (mm)	Overall Height (Lowered) (mm)	Free Lift Height (mm)		Tilt Angle (deg) Fwd / Bwd	Load Capacity without side shift at (500mm LC)(kg)		Load Capacity with side shift at (500mm LC)(kg)		Truck Weight (Unloaded) (kg)	
			With Load Backrest	Without Load Backrest		15BTR-9	15BTR-9	15BTR-9	15BTR-9	15BTR-9	15BTR-9
2-Stage Limited free lift	* V300	3025	1970	35	35	5 / 6	1500	1375	1375	2841	
	V330	3325	2120	35	35	5 / 6	1500	1375	1375	2860	
	V350	3525	2220	35	35	5 / 6	1500	1375	1375	2873	
	V370	3725	2320	35	35	5 / 6	1500	1375	1375	2886	
	V400	4025	2470	35	35	5 / 6	1500	1375	1375	2909	
	V500	5025	3070	35	35	5 / 6	1425	1300	1300	3016	
2-Stage full free lift	VF300	3025	1970	972	1460	5 / 5	1500	1375	1375	2865	
	VF330	3325	2120	1122	1610	5 / 5	1500	1375	1375	2886	
	VF350	3525	2220	1222	1710	5 / 5	1500	1375	1375	2901	
3-Stage full free lift	TF400/TS400	4035	1870	863	1364	5 / 5	1500	1375	1375	2960	
	TF430/TS430	4335	1970	963	1464	5 / 5	1450	1325	1325	2979	
	TF450/TS450	4535	2070	1063	1564	5 / 5	1425	1300	1300	2998	
	TF470/TS470	4735	2120	1113	1614	5 / 5	1400	1275	1275	3008	
	TF500/TS500	5035	2220	1216	1714	5 / 5	1375	1250	1250	3027	
	TF550/TS550	5535	2420	1416	1914	5 / 5	1325	1200	1200	3065	
TF600/TS600	6035	2620	1613	2114	5 / 5	1250	1150	1150	3121		

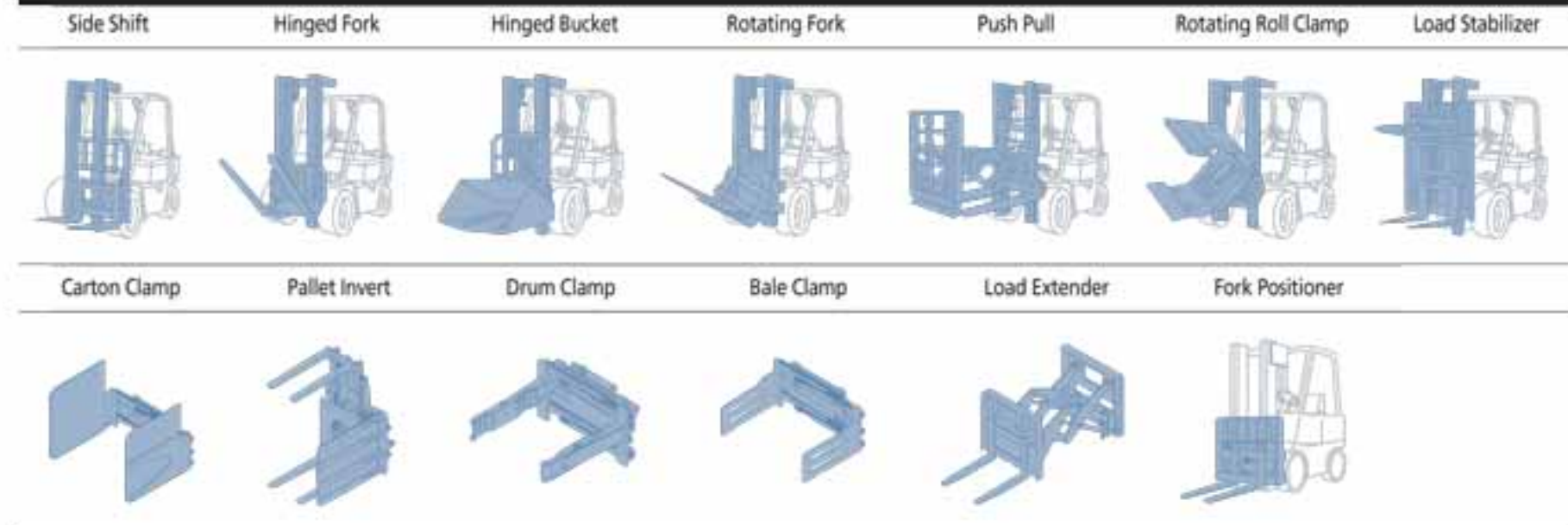
※ TS-Mast : Wide Visible 3-Stage Full Free Lift Mast with 2 Free Lift Cylinders.

\* Standard

## Load Capacity



## Various Attachments



## Optional Items

- Mast  
V330, V350, V370, V400, V500, VF300, VF330, VF350  
TF/TS400, TF/TS430, TF/TS450, TF/TS470, TF/TS500, TF/TS550, TF/TS600
- Fork(mm)  
800 / 900 / 1,050 / 1,200 / 1,350 / 1,500
- Overshoe(mm)  
1,300 / 1,500 / 1,700
- Sideshift
- Integral Sideshift
- Tilting : 5° / 6°, 5° / 5°
- Tire : Non-marking
- Seat : Pocket, Arm Rest, Hip Rest(Grammer), Heating
- Finger Tip Control
- Cold Storage
- M.C.V : 4-Spool
- Attach Piping : 3 Spool-piping, 4 Spool-piping
- Beacon Lamp
- Load Indicator
- Work Lamp
- OPSS : Travel + Mast
- Side Loading Battery