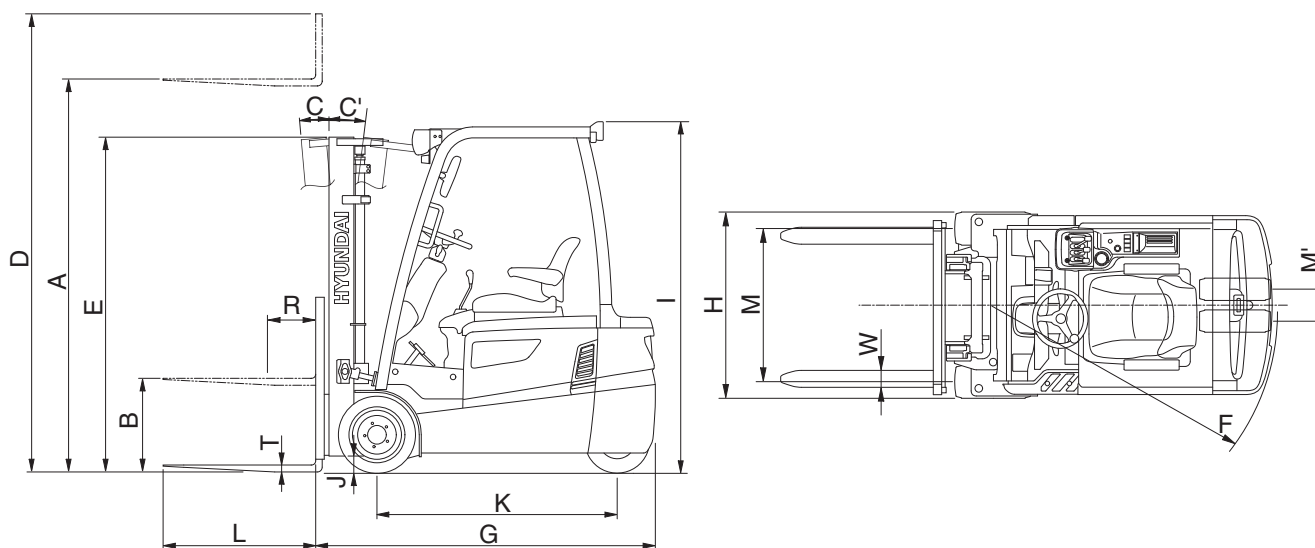


8. SPECIFICATIONS

1. SPECIFICATION



15BT9UOM0801

Model			Unit	15BT-9U	18BT-9U	20BT-9U
Capacity			kg (lb)	1500 (3000)	1800 (3500)	2000 (4000)
Load center		R	mm (in)	500 (24")	←	←
Weight			kg (lb)	3143 (6929)	3427(7555)	3561 (7850)
Fork	Lifting height	A	mm (ft-in)	3330 (10' 11")	←	←
	Free lift	B	mm (in)	40 (1.6")	←	←
	Lifting speed [Load/Unload]		mm/sec	400/550	←	←
	Lowering speed [Load/Unload]		mm/sec	550/450	←	←
	L×W×T	L,W,T	mm (in)	900×100×40 (35.4×4×1.6)	←	←
Mast	Tilt angle forward/backward	C/C'	degree	5/7	←	←
	Max height	D	mm (ft-in)	4320 (14' 2")	←	←
	Min height	E	mm (ft-in)	2120 (6' 11")	←	←
Body	Travel speed [Unload]		km/h	16	←	←
	Gradeability [1.6kph]		%	29.5	27.5	24.5
	Min turning radius [Outside]	F	mm (ft-in)	1540 (5' 1")	1630 (5' 4")	1660 (5' 5")
ETC	Max hydraulic pressure(sys/attach)		kgf/cm ²	190/130	←	←
	Hydraulic oil tank		l (usgal)	20(5.28)	←	←
Length to face of Forks		G	mm (ft-in)	1900 (6' 3")	1990 (6' 6")	2025 (6' 8")
Overall width		H	mm (ft-in)	1074 (3' 6")	1105 (3' 8")	←
Overhead guard height		I	mm (ft-in)	2065 (6' 9")	←	←
Ground clearance (Mast)		J	mm (in)	87 (3.4")	89(3.5")	←
Wheel base		K	mm (ft-in)	1345 (4' 5")	1430 (4' 8")	←
Wheel tread front/Rear		M	mm (ft-in)	895/184 (2' 11"/0' 7")	905/184 (3' 0"/0' 7")	←

2. SPECIFICATION FOR MAJOR COMPONENTS

1) CONTROLLER

Item	Unit	Traction motor controller	Pump motor controller
Model	-	ACE2	ACE2
Control Type	-	AC Zapi patented control	←
Dimension	mm	200×150×120	200×200×120
Max. Output Current	Arms / min	350 / 3	450 / 3
Communication	-	CAN	←

2) MOTOR

Item	Unit	Traction	Pump
Model	—	TSA200-100-269	TSA170-210-063
Type	—	AC	AC
Rated voltage	Vac	32	32
Output	kW	5.4	14.9
IP Grade	—	54	43

3) BATTERY

Item	Unit	15BT-9U	18/20BT-9
Rated voltage	V	48	←
Rack Dimension (W×L×H)	mm	983×553×650	983×638×650
Battery weight(STD)	kg	820	1000
Connector (CE spec)	—	SB 350 or SR350 (SBE 320)	

4) CHARGER

Item	Unit	15BT-9U	18/20BT-9U
Type	-	Constant current, constant voltage	
Battery capacity for charge	V-AH	48-440~520	48-530~600
AC input	V	Triple phase 410	
		Single phase 220	
		Triple phase 220/380	
		Triple phase 440	
DC output	V	64±1	
Charge time	hr	6±2	
Connector (CE spec)	-	SB 350 or SR350 (SBE 320)	

5) GEAR PUMP

Item	Unit	Specification
Type	—	Gear type hydraulic pump
Capacity	cc/rev	18.4
Rated Pressure	MPa	21.0
Speed (max/min)	rpm	3500/500

6) MAIN CONTROL VALVE

Item	Unit	Specification
Type	—	2, 3, 4 Spool
Operating Force	kgf	Max 27
Main relief valve pressure	bar	190
Rated Flow	ℓ /min	65

7) DRIVE UNIT

Item	Unit	Specification
Max. axle load	kg/lb	3850/8818
Max. input speed	rpm	5000
Max. output torque (wheel)	N · m	1320
Gear ratio	—	26.75
Weight without fluid	kg/lb	31/ 68
Oil quantity	ℓ /U.S · qt	0.35/0.37

8) WHEELS

Item	15BT-9U	18BT-9U	20BT-9U
Type (STD/OPT)	SOLID/Non-marking		
Quantity (front/rear)	2/2		
Front-drive	18×7 - 8	200 / 50 -10	←
Rear-steering	15×4.5 - 8	←	←

9) BRAKES & STEERING

Item		Specification
Brakes	Travel	Front wheel, wet disc brake
	Parking	Electric Auto parking (2EA)
Steering	Type	Electric power steering
	Steering angle	90° to both right and left angle, respectively

3. TIGHTENING TORQUE

NO	Items		Size	kgf · m	lbf · ft
1	Electric system	Hyd pump motor mounting bolt	M 8 × 1.25	2.5 ± 0.5	18.1 ± 3.6
2		Traction motor mounting bolt	M 8 × 1.25	2.5 ± 0.5	18.1 ± 3.6
3	Hydraulic system	Hydraulic pump mounting bolt	M 8 × 1.25	2.5 ± 0.5	18.1 ± 3.6
4		MCV mounting bolt, nut	M 8 × 1.25	2.5 ± 0.5	18.1 ± 3.6
5		Steering unit mounting bolt	M10 × 1.5	5 ± 1	36 ± 7.2
6		Brake cylinder mounting bolt	M10 × 1.5	5 ± 1	36 ± 7.2
7		Hydraulic oil tank mounting bolt	M 8 × 1.25	2.5 ± 0.5	18.1 ± 3.6
8	Power train system	Drive axle mounting bolt, nut	M14 × 2.0	13.8 ± 1.2	99.8 ± 8.7
9		Steering axle mounting bolt, nut	M16 × 2.0	35.6 ± 5.3	257.4 ± 38.3
10		Front wheel mounting nut	M14 × 1.5	14 ± 1.5	101 ± 10.8
11		Rear wheel mounting nut	M14 × 1.5	14 ± 1.5	101 ± 10.8
12	ETC	Counterweight mounting bolt	M30 × 3.5	199 ± 15	1439 ± 108
13		Seat mounting bolt	M 8 × 1.25	2.5 ± 0.5	18.1 ± 3.6
14		Head guard mounting bolt	M12 × 1.75	12.8 ± 3.0	93 ± 22