

# STAND-UP RIDER



INDUSTRIAL EQUIPMENT

REACH NEW HEIGHTS

3000 - 4000 LBS.

SPECIFICATIONS



8BNCU15-20

CLASS

1

ELECTRIC MOTOR RIDERS

[ToyotaForklift.com](https://www.toyotaforklift.com)

## STAND-UP RIDER

CAPACITY  
**3000 - 4000 LBS.**

MAXIMUM FORK HEIGHT  
**277 IN.**

LOAD CENTER  
**24 IN.**

### INDUSTRIES



Beverage



Cold Storage



Factory



Food Processing



Food Storage



General  
Manufacturing



General  
Warehousing



Retail

## STANDARD FEATURES

### PERFORMANCE

- 36-Volt electrical system
- AC induction drive motor
- AC transistor control system with MOSFET
- AC induction lift motor
- Independent lift, steer & auxiliary motors
- Dual rubber steer tires (8BNCU15 only)
- Dual polyurethane steer tires (8BNCU18-20 only)
- Low durometer smooth rubber drive tires
- Programmable performance parameters
- Multifunction digital display
- Power hookup for onboard terminal (10 amp)
- UL-approved model type "E"
- Mast tilt (3° forward/5° backward)

### OPERABILITY

- Multifunction control handle (single-axis, simultaneous function)
- Hydrostatic power steering
- Auto-off system
- Cornering speed control
- Ventilated tractor compartment
- Auto position hold (drive motor/brake hold)
- Anti-stall protection
- Two-post overhead guard
- High-visibility mast & overhead guard
- Dual electric disc brakes (self-adjusting)
- Regenerative braking
- Proportional plugging
- 48" load backrest extension
- Hydraulic mast cushioning

### ERGONOMICS

- Shock-dampened, isolated operator compartment floor
- Spacious operator compartment
- Flexible side stance operator compartment
- 7/8"-thick bubble-cushioned floor mat
- Ergonomically sloped floorboard
- Cushioned padded backrest & armrest
- Low-effort brake pedal
- Low step height
- Integrated clipboard, amenity tray & cup holder

### SERVICEABILITY

- One-piece top cover
- Self-diagnostics (with instructional messages)
- Built-in analyzer
- Fault code memory
- Programmable maintenance indicator
- Battery compartment rollers (corrosion resistant)
- Battery retaining gates
- Vertically mounted motors
- Anti-static ground strap
- Reverse polarity protection
- Flashware enabled software
- SB 350 battery connector (gray)
- No directional contactors
- Multifunction hour meter
- Battery discharge indicator (with lift interrupt)
- Maintenance indicator
- Temperature indicator

## OPTIONAL EQUIPMENT

### LOAD HANDLING

- Full free-lift 2-stage mast (FV)
- Full free-lift 3-stage mast (FSV)
- Full free-lift 4-stage mast (QFV)
- Integral sideshift (Lift-Tek)<sup>2,15</sup>
- Mast tilt centering (two-way)<sup>15</sup>
- Hydraulic quick disconnects (single<sup>15</sup> & dual<sup>15</sup>)

### LOAD HANDLING (HOSE & VALVE ASSEMBLY) WITH SIDESHIFT

- Integral sideshift (Lift-Tek) with one auxiliary function (internal reeving)<sup>2,15</sup>

### WITHOUT SIDESHIFT

- One auxiliary function (fixed carriage only) (internal reeving)<sup>15</sup>
- Two auxiliary functions (fixed carriage only) (internal reeving)<sup>15</sup>

### LIGHTS & INDICATORS

- Travel alarm (back up only or forward only)
- Travel alarm (forward & back up)
- Fire extinguisher 2.5 lb. dry chemical
- Warning strobe light, top or bottom mounted (amber or red)
- LED work lights (mast mounted)
- LED rear work light
- LED operator compartment light
- Operator compartment fan
- 12-Volt power supply (9 amp)
- Multi-position pillar-mounted clipboard
- Electronic key (operator pin code entry)
- Capacity plate for field-installed attachments<sup>1</sup>

### BODY

- Load backrest, optional height (30," 36," 42")
- Load backrest, optional height (54," 60" requires downrating)<sup>3</sup>
- Factory pre-programmed maximum travel speed (5 mph)
- Travel speed reduction above free-lift<sup>4</sup>
- Digital load weight display<sup>4</sup>
- Lift limit switch with bypass<sup>5-6</sup>
- Keyless on/off switch (in lieu of key switch)
- OHG: intermediate height 83"
- OHG: intermediate height 84" – 93"
- Mast tilt (5° forward/3° backward)<sup>7</sup>
- Bottler's mast tilt (10° forward/3° backward)<sup>6,7,15</sup>
- Extended operator compartment backrest
- Compartment sensor system (CSS)
- Hinged rear operator guard (full length)<sup>15</sup>
- Battery side gate interlock switches (travel cut-out)
- Battery compartment spacer – 16.5" wide (non-weighted) (8BNCU15-18 only)<sup>3,8-9</sup>
- Battery compartment spacer – 16.5" wide (weighted: 340 lbs.) (8BNCU15-18 only)<sup>9-10</sup>
- Battery compartment spacer – 13.75" wide (non-weighted) (8BNCU15-18 only)<sup>3,8-9,15</sup>
- Battery compartment spacer – 13.75" wide (weighted: 700 lbs.) (8BNCU15-18 only)<sup>9-10</sup>
- Dual battery connector configuration for fast charge system (without cabling & connectors)<sup>11</sup>
- Battery connector (red, blue or yellow)

### FORK STANDARD TAPERED

- Fork lengths (4" wide x 1.5" thickness) – 30," 36," 42," 48," 54," 60"
- Forks – delete from truck

### FULLY TAPERED & POLISHED

- Fork lengths (4" wide x 1.5" thickness) – 30," 36," 42," 48," 54," 60"

### WHEELS & TIRES

- Polyurethane drive (black), 83 durometer (16.25" x 11.25" x 6")
- Polyurethane drive (black), 83 durometer (16.25" x 11.25" x 7")
- Non-marking rubber drive (white), 65 durometer (16.25" x 11.25" x 6")
- Non-marking rubber drive (white), 65 durometer (16.25" x 11.25" x 7")
- Traction rubber drive (black), 64 durometer (16.25" x 11.25" x 6")
- Traction rubber drive (black), 64 durometer (16.25" x 11.25" x 7")
- Razor siped polyurethane drive (red), 83 durometer (16.25" x 11.25" x 6")
- Razor siped polyurethane drive (red), 83 durometer (16.25" x 11.25" x 7")
- Dual rubber steer (black), 72 durometer
- Dual polyurethane steer (tan), 95 durometer
- Dual polyurethane steer (red), 85 durometer

### SPECIAL MODEL

- Cold storage conditioning<sup>12-13,15</sup>
- UL-approved model type "EE"<sup>14,15</sup>
- Reverse steering

1 Must provide complete make & model number of attachment via the TSDR process.

2 When ordered with an FV mast, a hang-on sideshifter will be supplied instead of an integral sideshifter.

3 Will affect rated capacity.

4 Only available with FSV & QFV mast.

5 Reference "Lift Limit with Bypass" chart on page I-E-9 of the FL Manual for lift limit ranges.

6 Only available with FSV mast.

7 Requires 18.5" battery compartment on 8BNCU15-18. Requires 21.25" battery compartment on 8BNCU20.

8 Only available with FV & FSV mast.

9 Requires 18.5" battery compartment.

10 Combined weight of the battery & spacer must meet the minimum battery weight requirements in order to maintain the published rated capacities.

11 Not available with 16.5" battery compartment.

12 Includes heater & cone-shaped 4-way auxiliary button.

13 This option code voids the standard UL rating.

14 "EE" option includes battery side covers & negates the requirement for an "EE"-rated battery.

15 Refer to FL Manual for option conflicts.

# TRUCK SPECIFICATIONS

MODEL NUMBERS

GENERAL DATA				8BNCU15		8BNCU18	
Load Capacity	lb (kg)		3000 (1360)		3500 (1580)		
Battery Compartment Size	in		16.5	18.5	16.5	18.5	
Power Type	in		Battery		Battery		
Operator Position			Stand-Up Rider		Stand-Up Rider		
Tire Type	Front / Rear		Solid Rubber / Solid Rubber		Solid Rubber / Polyurethane		
Wheels (x = driven)	Front / Rear		2x / 2 (dual steer)		2x / 2 (dual steer)		
EXTERIOR DIMENSIONS				8BNCU15		8BNCU18	
				16.5"	18.5"	16.5"	18.5"
<b>A</b> Maximum Fork Height (top of forks)	in (mm)		188 (4775)		188 (4775)		
<b>B</b> Free-Lift (top of forks)	in (mm)		35 (889)		35 (889)		
<b>C</b> Fork Size (T x W x L)	in (mm)		42 x 1.5 x 4 (1065 x 38 x 100)		42 x 1.5 x 4 (1065 x 38 x 100)		
<b>D</b> Tilt Range (forward / backward)	deg		3 / 5		3 / 5		
<b>E</b> Length to Fork Face <sup>3</sup>	in (mm)		68.5 (1741)	70.5 (1791)	68.5 (1741)	70.5 (1791)	
<b>F</b> Mast Lowered Height	in (mm)		83 (2108)		83 (2108)		
<b>G</b> Mast Extended Height (top of load backrest)	in (mm)		236 (5994)		236 (5994)		
<b>H</b> Overhead Guard Height <sup>4</sup>	in (mm)		88 (2235)		88 (2235)		
<b>I</b> Turning Radius (inside / outside)	in (mm)		56.1 (1425)	58.1 (1476)	56.1 (1425)	58.1 (1476)	
<b>J</b> Load Distance <sup>3</sup>	in (mm)		12.7 (323)		12.7 (323)		
<b>K</b> Basic Right-Angle Stacking Aisle Width <sup>2,3</sup>	in (mm)		68.8 (1748)	70.8 (1798)	68.8 (1748)	70.8 (1798)	
PERFORMANCE DATA				8BNCU15		8BNCU18	
Speeds	Maximum Travel (fwd. / rev.)	Full Load	mph (km/h)	7.5 (12.1)	7.5 (12.1)	7.5 (12.1)	
		No Load	mph (km/h)	7.5 (12.1)	7.5 (12.1)	7.5 (12.1)	
	Lifting	Full Load	fpm (mm/sec)	70 (356)	70 (356)	65 (330)	
		No Load	fpm (mm/sec)	110 (559)	110 (559)	110 (559)	
	Lowering	Full Load	fpm (mm/sec)	100 (508)	100 (508)	100 (508)	
		No Load	fpm (mm/sec)	85 (432)	85 (432)	85 (432)	
Gradeability	Full Load	%	15		15		
TRUCK WEIGHTS				8BNCU15		8BNCU18	
				16.5"	18.5"	16.5"	18.5"
Total Weight (without battery)	lb (kg)		6625 (3005)	6865 (3114)	6625 (3005)	6865 (3114)	
TIRES				8BNCU15		8BNCU18	
				16.5"	18.5"	16.5"	18.5"
Tires	Number (front / rear)		2 / 2 (dual steer)		2 / 2 (dual steer)		
	Size (OD x W x ID)	Front (drive)	in (mm)	16.25 x 6 x 11.25 (413 x 152 x 286)		16.25 x 6 x 11.25 (413 x 152 x 286)	
		Rear (steer)	in (mm)	10 x 5 x 6.5 (254 x 127 x 165) (dual)		10 x 5 x 6.5 (254 x 127 x 165) (dual)	
Wheelbase	in (mm)		48.4 (1230)	50.4 (1280)	48.4 (1230)	50.4 (1280)	
Underclearance	in (mm)		4 (102)		4 (102)		
Brake Pedal			Plugging / Electric Disc Brake		Plugging / Electric Disc Brake		
POWER SYSTEM				8BNCU15		8BNCU18	
				16.5"	18.5"	16.5"	18.5"
Battery (max. size)	Compartment Size (L x W x H)	in (mm)	38.5 x 16.5 x 32.3 (978 x 419 x 820)	38.5 x 18.5 x 32.3 (978 x 470 x 820)	38.5 x 16.5 x 32.3 (978 x 419 x 820)	38.5 x 18.5 x 32.3 (978 x 470 x 820)	
	Voltage / Capacity (6-hour rating)	V / Ah	36 / 930	36 / 1085	36 / 930	36 / 1085	
	Battery Size (L x W x H)	in (mm)	38.5 x 16.25 x 32.3 (978 x 413 x 820)	38.5 x 18.25 x 32.3 (978 x 464 x 820)	38.5 x 16.25 x 32.3 (978 x 413 x 820)	38.5 x 18.25 x 32.3 (978 x 464 x 820)	
	Weight (minimum)	lb (kg)	1980 (898)	2300 (1043)	1980 (898)	2300 (1043)	
Motors	Drive	6.70" dia.	4 Pole Induction AC 3-Phase		4 Pole Induction AC 3-Phase		
		hp (kW)	7.0 (5.2)		7.0 (5.2)		
	Load Handling (hydraulic)	6.63" dia.	4 Pole Induction AC 3-Phase		4 Pole Induction AC 3-Phase		
		hp (kW)	14.1 (10.5)		14.1 (10.5)		
Hydrostatic Power Steering	5.63" dia.	Permanent Magnet DC		Permanent Magnet DC			
Control Type	Drive	Transistor - MOSFET		Transistor - MOSFET			
	Load Handling	Transistor - MOSFET		Transistor - MOSFET			
	Power Steering	Contactor		Contactor			
Operating Pressure (for attachments)	psi (kg/cm <sup>2</sup> )		2200		2200		
Auxiliary Flow Rate (4th function)	gpm		3 - 10		3 - 10		

1 At centerline of front axle to front face of forks.  
 2 Add load length & clearance.  
 3 If truck is equipped with an integral shifter, add (+0.9" if equipped with FSV) (+1.4" if equipped with QFV).  
 4 Overhead guard height tolerance is 0.5."

GENERAL DATA		8BNCU20	
Load Capacity	lb (kg)	4000 (1810)	
Battery Compartment Size	in	18.5	21.25
Power Type	in	Battery	
Operator Position		Stand-Up Rider	
Tire Type	Front / Rear	Solid Rubber / Polyurethane	
Wheels (x = driven)	Front / Rear	2x / 2 (dual steer)	

EXTERIOR DIMENSIONS		8BNCU20	
		18.5"	21.25"
<b>A</b> Maximum Fork Height (top of forks)	in (mm)	188 (4775)	
<b>B</b> Free-Lift (top of forks)	in (mm)	35 (889)	
<b>C</b> Fork Size (T x W x L)	in (mm)	42 x 1.5 x 4 (1065 x 38 x 100)	
<b>D</b> Tilt Range (forward / backward)	deg	3 / 5	
<b>E</b> Length to Fork Face <sup>3</sup>	in (mm)	70.5 (1791)	73.3 (1861)
<b>F</b> Mast Lowered Height	in (mm)	83 (2108)	
<b>G</b> Mast Extended Height (top of load backrest)	in (mm)	236 (5994)	
<b>H</b> Overhead Guard Height <sup>4</sup>	in (mm)	88 (2235)	
<b>I</b> Turning Radius (inside / outside)	in (mm)	58.1 (1476)	60.8 (1544)
<b>J</b> Load Distance <sup>3</sup>	in (mm)	12.7 (323)	
<b>K</b> Basic Right-Angle Stacking Aisle Width <sup>2,3</sup>	in (mm)	70.8 (1798)	73.5 (1867)

PERFORMANCE DATA		8BNCU20		
Speeds	Maximum Travel (fwd. / rev.)	Full Load	mph (km/h)	7.5 (12.1)
		No Load	mph (km/h)	7.5 (12.1)
	Lifting	Full Load	fpm (mm/sec)	60 (305)
		No Load	fpm (mm/sec)	110 (559)
	Lowering	Full Load	fpm (mm/sec)	100 (508)
		No Load	fpm (mm/sec)	85 (432)
Gradeability	Full Load	%	15	

TRUCK WEIGHTS		8BNCU20	
		18.5"	21.25"
Total Weight (without battery)	lb (kg)	6865 (3114)	6965 (3159)

TIRES		8BNCU20		
		18.5"	21.25"	
Tires	Number (front / rear)	2 / 2 (dual steer)		
	Size (OD x W x ID)	Front (drive)	in (mm)	16.25 x 6 x 11.25 (413 x 152 x 286)
		Rear (steer)	in (mm)	10 x 5 x 6.5 (254 x 127 x 165) (dual)
Wheelbase	in (mm)	50.4 (1280)	53.1 (1349)	
Underclearance	in (mm)	4 (102)		
Brake Pedal		Plugging / Electric Disc Brake		

POWER SYSTEM		8BNCU20		
		18.5"	21.25"	
Battery (max. size)	Compartment Size (L x W x H)	in (mm)	38.5 x 18.5 x 32.3 (978 x 470 x 820)	38.5 x 21.25 x 32.3 (978 x 540 x 820)
	Voltage / Capacity (6-hour rating)	V / Ah	36 / 1085	36 / 1240
	Battery Size (L x W x H)	in (mm)	38.5 x 18.25 x 32.3 (978 x 464 x 820)	38.5 x 21 x 32.3 (978 x 533 x 820)
	Weight (minimum)	lb (kg)	2300 (1043)	2593 (1176)
Motors	Drive	6.70" dia.	4 Pole Induction AC 3-Phase	
		hp (kW)	7.0 (5.2)	
	Load Handling (hydraulic)	6.63" dia.	4 Pole Induction AC 3-Phase	
		hp (kW)	14.1 (10.5)	
Hydrostatic Power Steering	5.63" dia.	Permanent Magnet DC		
Control Type	Drive	Transistor - MOSFET		
	Load Handling	Transistor - MOSFET		
	Power Steering	Contactor		
Operating Pressure (for attachments)	psi (kg/cm <sup>2</sup> )	2200		
Auxiliary Flow Rate (4th function)	gpm	3 - 10		

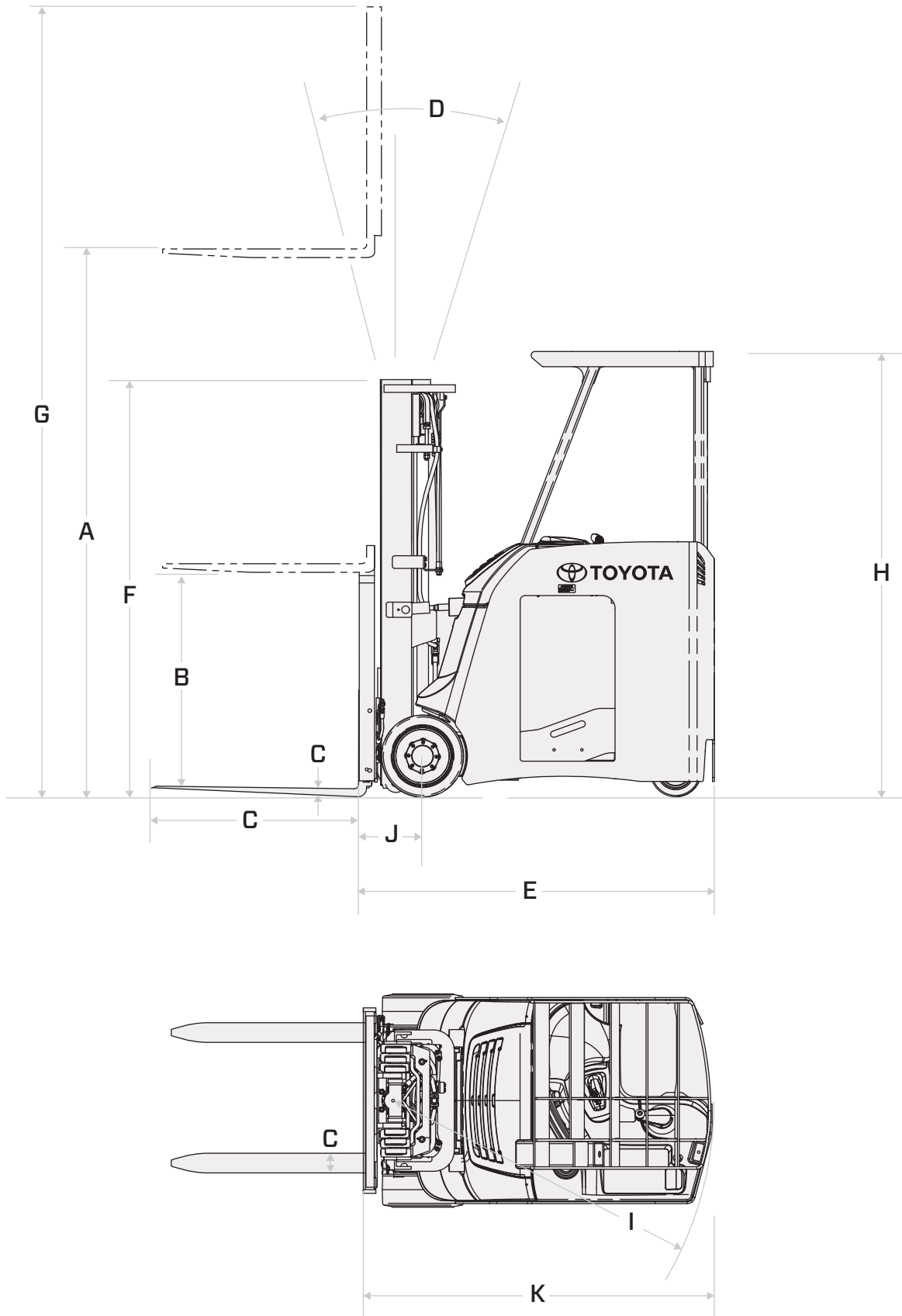
1 At centerline of front axle to front face of forks.

2 Add load length & clearance.

3 If truck is equipped with an integral shifter, add (+0.9" if equipped with FSV) (+1.4" if equipped with QFV).

4 Overhead guard height tolerance is 0.5."

EXTERIOR DIMENSIONS





## MAST SPECIFICATIONS

MAST TYPE	MAXIMUM FORK HEIGHT (TOP OF FORKS)	OVERALL HEIGHT				FREE-LIFT		TILT RANGE		LOAD CAPACITY AT 24 IN. (610 MM) LOAD CENTER	
		LOWERED	EXTENDED		WITHOUT LOAD BACKREST <sup>1</sup>	WITH STANDARD LOAD BACKREST <sup>2</sup>	FWD	BWD	FIXED CARRIAGE	4" INTEGRAL SS	
			WITHOUT LOAD BACKREST <sup>1</sup>	WITH STANDARD LOAD BACKREST <sup>2</sup>							deg
8BNCU15: 16.5" BATTERY COMPARTMENT											
Full Free-Lift 2-Stage (FV) <sup>3</sup>	128 (3251)	83 (2108)	152 (3861)	176 (4470)	59 (1499)	35 (889)	3	5	3000 (1360)	3000 (1360)	
	140 (3556)	89 (2261)	164 (4166)	188 (4775)	64 (1626)	40 (1016)	3	5	3000 (1360)	3000 (1360)	
	152 (3860)	95 (2413)	176 (4470)	200 (5080)	71 (1803)	47 (1194)	3	5	3000 (1360)	3000 (1360)	
Full Free-Lift 3-Stage (FSV) <sup>3</sup>	188 (4775)	83 (2108)	212 (5385)	236 (5994)	59 (1499)	35 (889)	3	5	2900 (1317)	2700 (1225)	
	203 (5156)	88 (2235)	227 (5766)	251 (6375)	64 (1626)	40 (1016)	3	5	2800 (1270)	2600 (1180)	
	224 (5690) <sup>6</sup>	95 (2413)	248 (6299)	272 (6909)	71 (1803)	47 (1194)	3	5	2600 (1180)	—	
	227 (5765)	99 (2514)	251 (6375)	275 (6985)	75 (1905)	51 (1295)	3	5	2600 (1180)	2450 (1112)	

MAST TYPE	MAXIMUM FORK HEIGHT (TOP OF FORKS)	OVERALL HEIGHT				FREE-LIFT		TILT RANGE		LOAD CAPACITY AT 24 IN. (610 MM) LOAD CENTER	
		LOWERED	EXTENDED		WITHOUT LOAD BACKREST <sup>1</sup>	WITH STANDARD LOAD BACKREST <sup>2</sup>	FWD	BWD	FIXED CARRIAGE	4" INTEGRAL SS	
			WITHOUT LOAD BACKREST <sup>1</sup>	WITH STANDARD LOAD BACKREST <sup>2</sup>							deg
8BNCU15: 18.5" BATTERY COMPARTMENT											
Full Free-Lift 2-Stage (FV) <sup>3</sup>	128 (3251)	83 (2108)	152 (3861)	176 (4470)	59 (1499)	35 (889)	3	5	3000 (1360)	3000 (1360)	
	140 (3556)	89 (2261)	164 (4166)	188 (4775)	64 (1626)	40 (1016)	3	5	3000 (1360)	3000 (1360)	
	152 (3860)	95 (2413)	176 (4470)	200 (5080)	71 (1803)	47 (1194)	3	5	3000 (1360)	3000 (1360)	
Full Free-Lift 3-Stage (FSV) <sup>3</sup>	188 (4775)	83 (2108)	212 (5385)	236 (5994)	59 (1499)	35 (889)	3	5	3000 (1360)	3000 (1360)	
	203 (5156)	88 (2235)	227 (5766)	251 (6375)	64 (1626)	40 (1016)	3	5	3000 (1360)	3000 (1360)	
	224 (5690) <sup>6</sup>	95 (2413)	248 (6299)	272 (6909)	71 (1803)	47 (1194)	3	5	3000 (1360)	—	
	227 (5765)	99 (2514)	251 (6375)	275 (6985)	75 (1905)	51 (1295)	3	5	3000 (1360)	3000 (1360)	
	251 (6375)	107 (2717)	275 (6985)	299 (7595)	83 (2108)	59 (1499)	3	5	2950 (1338)	2700 (1225)	
Full Free-Lift 4-Stage (QFV) <sup>4</sup>	222.5 (5652) <sup>5</sup>	78.5 (1994)	246.5 (6261)	270.5 (6871)	54.5 (1384)	30.5 (775)	3	5	3000 (1360)	3000 (1360)	
	240.5 (6109)	83 (2108)	265 (6731)	289 (7341)	59 (1499)	35 (889)	3	5	3000 (1360)	2700 (1225)	
	258.5 (6566)	89 (2260)	283 (7188)	307 (7798)	65 (1651)	41 (1041)	3	5	2500 (1133)	2350 (1066)	
	270.5 (6871) <sup>6</sup>	93.5 (2375)	295 (7493)	319 (8103)	69 (1753)	45 (1143)	3	5	1950 (885)	—	

1 Dimension is approximate & will need to be adjusted if any hoses or quick disconnects extend above the carriage.  
 2 Height of standard load backrest is 48" (1220 mm).  
 3 Tread DAW is 41".  
 4 Tread DAW is 46".  
 5 Requires option 9816.  
 6 Must be ordered as a TSDR.



MAST TYPE	MAXIMUM FORK HEIGHT (TOP OF FORKS)	OVERALL HEIGHT			FREE-LIFT		TILT RANGE		LOAD CAPACITY AT 24 IN. (610 MM) LOAD CENTER	
		LOWERED	EXTENDED		WITHOUT LOAD BACKREST <sup>1</sup>	WITH STANDARD LOAD BACKREST <sup>2</sup>	FWD	BWD	FIXED CARRIAGE	4" INTEGRAL SS
			WITHOUT LOAD BACKREST <sup>1</sup>	WITH STANDARD LOAD BACKREST <sup>2</sup>						
	in (mm)	in (mm)	in (mm)	in (mm)	in (mm)	in (mm)	deg	deg	lb (kg)	lb (kg)
<b>8BNCU18: 16.5" BATTERY COMPARTMENT</b>										
Full Free-Lift 2-Stage (FV) <sup>3</sup>	128 (3251)	83 (2108)	152 (3861)	176 (4470)	59 (1499)	35 (889)	3	5	3000 (1360)	3000 (1360)
	140 (3556)	89 (2261)	164 (4166)	188 (4775)	64 (1626)	40 (1016)	3	5	3000 (1360)	3000 (1360)
	152 (3860)	95 (2413)	176 (4470)	200 (5080)	71 (1803)	47 (1194)	3	5	3000 (1360)	3000 (1360)
Full Free-Lift 3-Stage (FSV) <sup>3</sup>	188 (4775)	83 (2108)	212 (5385)	236 (5994)	59 (1499)	35 (889)	3	5	2900 (1317)	2700 (1225)
	203 (5156)	88 (2235)	227 (5766)	251 (6375)	64 (1626)	40 (1016)	3	5	2800 (1270)	2600 (1180)
	224 (5690) <sup>6</sup>	95 (2413)	248 (6299)	272 (6909)	71 (1803)	47 (1194)	3	5	2600 (1180)	—
	227 (5765)	99 (2514)	251 (6375)	275 (6985)	75 (1905)	51 (1295)	3	5	2600 (1180)	2450 (1112)

MAST TYPE	MAXIMUM FORK HEIGHT (TOP OF FORKS)	OVERALL HEIGHT			FREE-LIFT		TILT RANGE		LOAD CAPACITY AT 24 IN. (610 MM) LOAD CENTER	
		LOWERED	EXTENDED		WITHOUT LOAD BACKREST <sup>1</sup>	WITH STANDARD LOAD BACKREST <sup>2</sup>	FWD	BWD	FIXED CARRIAGE	4" INTEGRAL SS
			WITHOUT LOAD BACKREST <sup>1</sup>	WITH STANDARD LOAD BACKREST <sup>2</sup>						
	in (mm)	in (mm)	in (mm)	in (mm)	in (mm)	in (mm)	deg	deg	lb (kg)	lb (kg)
<b>8BNCU18: 18.5" BATTERY COMPARTMENT</b>										
Full Free-Lift 2-Stage (FV) <sup>3</sup>	128 (3251)	83 (2108)	152 (3861)	176 (4470)	59 (1499)	35 (889)	3	5	3500 (1587)	3500 (1587)
	140 (3556)	89 (2261)	164 (4166)	188 (4775)	64 (1626)	40 (1016)	3	5	3500 (1587)	3500 (1587)
	152 (3860)	95 (2413)	176 (4470)	200 (5080)	71 (1803)	47 (1194)	3	5	3500 (1587)	3500 (1587)
Full Free-Lift 3-Stage (FSV) <sup>3</sup>	188 (4775)	83 (2108)	212 (5385)	236 (5994)	59 (1499)	35 (889)	3	5	3500 (1587)	3500 (1587)
	203 (5156)	88 (2235)	227 (5766)	251 (6375)	64 (1626)	40 (1016)	3	5	3500 (1587)	3350 (1523)
	224 (5690) <sup>6</sup>	95 (2413)	248 (6299)	272 (6909)	71 (1803)	47 (1194)	3	5	3400 (1542)	—
	227 (5765)	99 (2514)	251 (6375)	275 (6985)	75 (1905)	51 (1295)	3	5	3400 (1542)	3050 (1383)
	251 (6375)	107 (2717)	275 (6985)	299 (7595)	83 (2108)	59 (1499)	3	5	2950 (1338)	2700 (1225)
Full Free-Lift 4-Stage (QFV) <sup>4</sup>	222.5 (5652) <sup>5</sup>	78.5 (1994)	246.5 (6261)	270.5 (6871)	54.5 (1384)	30.5 (775)	3	5	3500 (1587)	3175 (1440)
	240.5 (6109)	83 (2108)	265 (6731)	289 (7341)	59 (1499)	35 (889)	3	5	3300 (1496)	2975 (1349)
	258.5 (6566)	89 (2260)	283 (7188)	307 (7798)	65 (1651)	41 (1041)	3	5	2500 (1133)	2350 (1066)
	270.5 (6871) <sup>6</sup>	93.5 (2375)	295 (7493)	319 (8103)	69 (1753)	45 (1143)	3	5	2350 (1066)	—
	277 (7036) <sup>6</sup>	95 (2413)	300 (7620)	324 (8230)	70 (1778)	46 (1168)	3	5	2300 (1043)	—

1 Dimension is approximate & will need to be adjusted if any hoses or quick disconnects extend above the carriage.  
2 Height of standard load backrest is 48" (1220 mm).  
3 Tread DAW is 41".  
4 Tread DAW is 46".  
5 Requires option 9816.  
6 Must be ordered as a TSDR.

MAST SPECIFICATIONS

MAST TYPE	MAXIMUM FORK HEIGHT (TOP OF FORKS)	OVERALL HEIGHT				FREE-LIFT		TILT RANGE		LOAD CAPACITY AT 24 IN. (610 MM) LOAD CENTER	
		LOWERED	EXTENDED		WITHOUT LOAD BACKREST <sup>1</sup>	WITH STANDARD LOAD BACKREST <sup>2</sup>	FWD	BWD	FIXED CARRIAGE	4" INTEGRAL SS	
			WITHOUT LOAD BACKREST <sup>1</sup>	WITH STANDARD LOAD BACKREST <sup>2</sup>							deg
8BNCU20: 18.5" BATTERY COMPARTMENT											
Full Free-Lift 2-Stage (FV) <sup>3</sup>	128 (3251)	83 (2108)	152 (3861)	176 (4470)	59 (1499)	35 (889)	3	5	4000 (1814)	3675 (1666)	
	140 (3556)	89 (2261)	164 (4166)	188 (4775)	64 (1626)	40 (1016)	3	5	4000 (1814)	3675 (1666)	
	152 (3860)	95 (2413)	176 (4470)	200 (5080)	71 (1803)	47 (1194)	3	5	4000 (1814)	3675 (1666)	
Full Free-Lift 3-Stage (FSV) <sup>3</sup>	188 (4775)	83 (2108)	212 (5385)	236 (5994)	59 (1499)	35 (889)	3	5	3500 (1587)	3500 (1587)	
	203 (5156)	88 (2235)	227 (5766)	251 (6375)	64 (1626)	40 (1016)	3	5	3500 (1587)	3350 (1523)	
	224 (5690) <sup>6</sup>	95 (2413)	248 (6299)	272 (6909)	71 (1803)	47 (1194)	3	5	3400 (1542)	—	
	227 (5765)	99 (2514)	251 (6375)	275 (6985)	75 (1905)	51 (1295)	3	5	3400 (1542)	3050 (1383)	
Full Free-Lift 4-Stage (QFV) <sup>4</sup>	222.5 (5652) <sup>5</sup>	78.5 (1994)	246.5 (6261)	270.5 (6871)	54.5 (1384)	30.5 (775)	3	5	3500 (1587)	3175 (1440)	
	240.5 (6109)	83 (2108)	265 (6731)	289 (7341)	59 (1499)	35 (889)	3	5	3300 (1496)	2975 (1349)	
	258.5 (6566)	89 (2260)	283 (7188)	307 (7798)	65 (1651)	41 (1041)	3	5	2500 (1133)	2350 (1066)	
	270.5 (6871) <sup>6</sup>	93.5 (2375)	295 (7493)	319 (8103)	69 (1753)	45 (1143)	3	5	2350 (1066)	—	
	277 (7036) <sup>6</sup>	95 (2413)	300 (7620)	324 (8230)	70 (1778)	46 (1168)	3	5	2300 (1043)	—	

MAST TYPE	MAXIMUM FORK HEIGHT (TOP OF FORKS)	OVERALL HEIGHT				FREE-LIFT		TILT RANGE		LOAD CAPACITY AT 24 IN. (610 MM) LOAD CENTER	
		LOWERED	EXTENDED		WITHOUT LOAD BACKREST <sup>1</sup>	WITH STANDARD LOAD BACKREST <sup>2</sup>	FWD	BWD	FIXED CARRIAGE	4" INTEGRAL SS	
			WITHOUT LOAD BACKREST <sup>1</sup>	WITH STANDARD LOAD BACKREST <sup>2</sup>							deg
8BNCU20: 21.25" BATTERY COMPARTMENT											
Full Free-Lift 2-Stage (FV) <sup>3</sup>	128 (3251)	83 (2108)	152 (3861)	176 (4470)	59 (1499)	35 (889)	3	5	4000 (1814)	3675 (1666)	
	140 (3556)	89 (2261)	164 (4166)	188 (4775)	64 (1626)	40 (1016)	3	5	4000 (1814)	3675 (1666)	
	152 (3860)	95 (2413)	176 (4470)	200 (5080)	71 (1803)	47 (1194)	3	5	4000 (1814)	3675 (1666)	
Full Free-Lift 3-Stage (FSV) <sup>3</sup>	188 (4775)	83 (2108)	212 (5385)	236 (5994)	59 (1499)	35 (889)	3	5	4000 (1814)	4000 (1814)	
	203 (5156)	88 (2235)	227 (5766)	251 (6375)	64 (1626)	40 (1016)	3	5	4000 (1814)	4000 (1814)	
	224 (5690) <sup>6</sup>	95 (2413)	248 (6299)	272 (6909)	71 (1803)	47 (1194)	3	5	3800 (1723)	—	
	227 (5765)	99 (2514)	251 (6375)	275 (6985)	75 (1905)	51 (1295)	3	5	3800 (1723)	3450 (1565)	
Full Free-Lift 4-Stage (QFV) <sup>4</sup>	222.5 (5652) <sup>5</sup>	78.5 (1994)	246.5 (6261)	270.5 (6871)	54.5 (1384)	30.5 (775)	3	5	3500 (1587)	3175 (1440)	
	240.5 (6109)	83 (2108)	265 (6731)	289 (7341)	59 (1499)	35 (889)	3	5	3300 (1496)	2975 (1349)	
	258.5 (6566)	89 (2260)	283 (7188)	307 (7798)	65 (1651)	41 (1041)	3	5	3110 (1410)	2800 (1270)	
	270.5 (6871) <sup>6</sup>	93.5 (2375)	295 (7493)	319 (8103)	69 (1753)	45 (1143)	3	5	2500 (1133)	—	
	277 (7036) <sup>6</sup>	95 (2413)	300 (7620)	324 (8230)	70 (1778)	46 (1168)	3	5	2450 (1110)	—	

1 Dimension is approximate & will need to be adjusted if any hoses or quick disconnects extend above the carriage.  
 2 Height of standard load backrest is 48" (1220 mm).  
 3 Tread DAW is 41".  
 4 Tread DAW is 46".  
 5 Requires option 9816.  
 6 Must be ordered as a TSDR.



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