# ERC080-120VH

# **ELECTRIC POWERED CUSHION TIRE TRUCKS**

The Yale® ERC-VH cushion tire, electric sit-down rider lift truck is available in 8,000 – 12,000 pound capacities and is designed for demanding applications that require clean, quiet-running, heavy-duty capability. These trucks offer plenty of power and high stacking ability, while also offering excellent ergonomics, reliability and maintenance ease. There are 4 models available in two wheelbases, a short (ERC080VH & ERC100VHS) and a long (ERC100VH & ERC120VH). The ERC100VH (long wheelbase) allows the use of a larger, higher capacity battery in the 10,000 pound capacity truck.

# **AC TRANSISTOR TRACTION CONTROL**

AC technology offers smooth acceleration and directional changes, proportional regenerative braking and the Auto Deceleration System. The controller converts battery power to three phase AC power, and adjusts frequency and current to meet performance demands. Performance control settings and extensive diagnostics are accessible by technicians through the dash display or a PC. A Vehicle Systems Manager utilizing CANbus technology monitors and controls key truck components and systems. The advanced thermal management system monitors component temperature and gradually adjusts performance to prevent damage to key components.



# CONTROLLER AREA NETWORK (CANBUS)

CANbus technology streamlines communications between truck systems through one main master controller, the Vehicle System Manager (VSM). Dash display, traction controller and pump controller are all controlled via the CANbus network. A connection point is provided for interface with a service PC. Intellix VSM acts as a master truck controller. providing extensive monitoring and control of truck functions and systems. CANbus technology reduces wiring complexity and enables comprehensive communications between truck systems. The ergonomically positioned dash display transmits continual feedback to the operator and allows for communication of service codes.

## **ELECTRICAL SYSTEM**

The ERC-VH utilizes AC motor technology designed for exceptional performance. It uses a brushless induction motor for high starting torque and smooth rapid acceleration. An external speed sensor provides feedback to the control system, allowing motor speed and direction to be continuously monitored.

### **POWER ASSISTED BRAKING**

Power Assisted Braking is accomplished via the VSM. The VSM monitors brake-line pressure. When this pressure exceeds a set threshold the VSM sends a signal to the traction controller to decelerate the traction motor proportionally to the brake pressure. The higher the brake pedal pressure being applied, the more quickly the truck will decelerate. The wet disc brakes in conjunction with the Power Assist Braking system, reduce brake pedal effort and provides increased stopping power. These brakes offer 4,000 hr. service intervals (oil change) with no adjustments

required and simplified brake line plumbing for durability. The master cylinder is sealed and has an external fluid level sensor connected to a warning icon on the instrument module. The ERC-VH features an Automatic Park Brake that is applied by a spring when the truck is stationary. Upon sensing a demand at the accelerator pedal, the brake is released. A manual override (located underneath the floor plate) is provided to disengage the brake if the truck has to be moved during service conditions in the absence of power on the truck. The standard Auto Deceleration System automatically slows the truck when the operator's foot is removed from the accelerator pedal, extending brake life.

### **VOLTAGE**

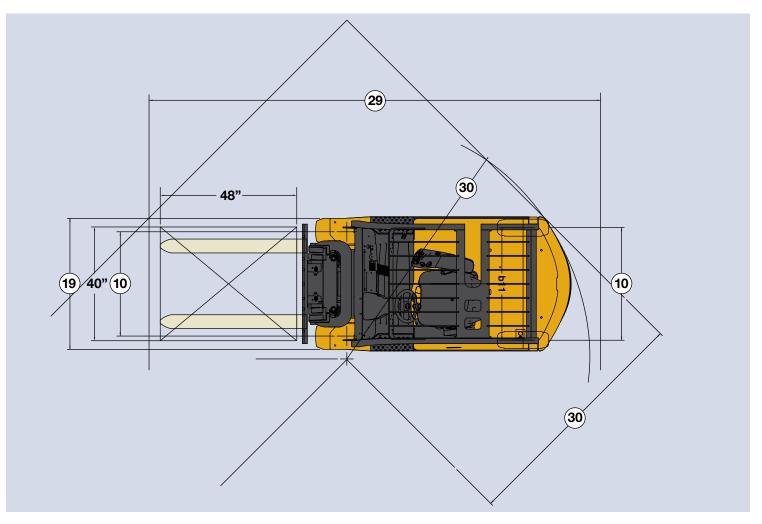
36, 48, and 80 volt systems are available in two battery compartment sizes to meet a variety of application requirements.

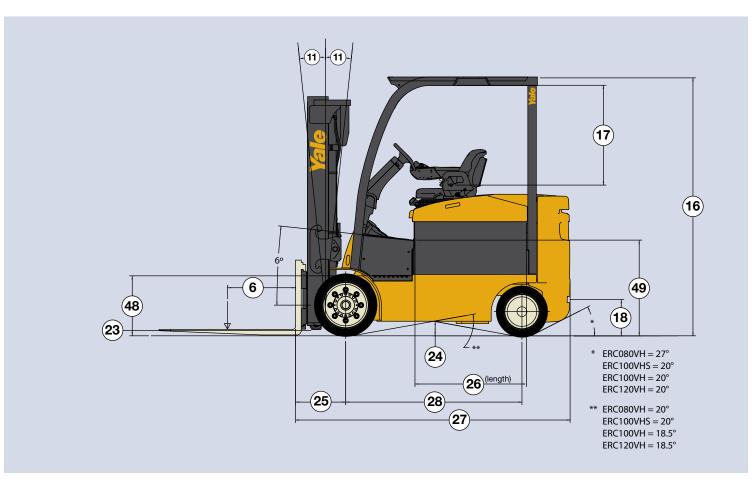
### **OPERATOR INTERFACE DISPLAY**

The repositioned display is conveniently located in the upper right area of the operator's compartment. The display includes an hour meter, LCD display for status codes and descriptions, battery discharge indicator with lift interrupt. warning icons for brake fluid, seat belt indicator, performance mode indicator, and parking brake indicator. The display also permits access for service technicians to adjust performance control settings. allowing the truck to be customized to meet customer applications. Additionally, extensive diagnostics allow service technicians to quickly troubleshoot problems. Operator selectable performance modes are standard. Available options include: Operator Password, Pre-shift Operator Checklist, Impact Monitor, System Monitor and Maintenance Reminder.

(continued on back)







	1	Manufacturer					Yale				
¥	2	Model Designation				ERC080VH  Electric					
GENERAL	3	Power				Sit					
쁑	<b>4 5</b>	Operation Rated Capacity			lb. (kg)						
	6	Load Center			in. (kg)	8000 (3629)					
Ś	7	Tire Type - Cushion, Solid,	Dnaumatic atc	Drive / Steer	III. (IIIII)		24 (610) Cushion / Cushion				
單	8	Tire Size	r neumane, etc.	Drive / Steer	in.		22 x 9 x 16 / 18 x 6 x 12.1				
IM/S	9	Wheels - Number	X=Driven	Drive / Steer			2X / 2				
TIRES/WHEELS	10	Tread	Center of Tires	Narr Dr / Wide Dr / Steer	in. (mm)		37 / 41 / 39.5 (941 / 1041 / 100	13)			
_	11	Mast Tilt	001101011100	Std Opt	degrees		5F/5B 8F/5B				
	12	Mast - Lowered Height		Std Mast	in. (mm)		84.1 (2134)				
	13	Free Lift - Top of Fork	Std 2 Stg Limited Free Lift M		in. (mm)		5 (150)				
		Opt 2 Stg Full Free Lift Mast w			in. (mm)		35 / 53 (900 / 1352)				
	14	Lift Height - Top of Fork	Std 2 Stg Limited Free Lift M	ast	in. (mm)		120 (3050)				
	15	Mast - Extended Height	Std Mast with / without LBR		in. (mm)		169 / 149 (4284 / 3783)				
	16	Overhead Guard Height	Std / Opt / Opt Flat Plate		in. (mm)	9	4 / 91 / 87.1 (2388 / 2311 / 22	12)			
	17	SIP to Bottom Std OHG	Seat Depressed	Std / Susp / Swivel	in. (mm)	38	3.7 / 38.9 / 38.9 (984 / 989 / 9	89)			
	18	Tow Pin Height	Vertical Center of Pin		in. (mm)		12.7 (324)				
	19	Overall Width	Standard Tread / Wide Tread		in. (mm)		47.2 / 50 (1200 / 1270)				
S	20	Forks	Thickness x Width x Length	I a	in. (mm)		2 x 4.9 x 42 (50 x 125 x 1067	)			
DIMENSIONS	21	Standard Carriage Width		Class III	in. (mm)		42 (1067)				
	22	Floor to Top of Battery Roll Ground Clearance		ML / DL	in. (mm)		20 (509)				
	23 24	Ground Clearance	Lowest Point Center of Truck	NL/RL NL/RL	in. (mm)		3.8 / 3.5 (96 / 90)				
	25	Load Distance	Center of Wheel to Face of Fo	· · · · · · · · · · · · · · · · · · ·	in. (mm) in. (mm)		5.3 / 5.1 (134 / 130) 17.6 (447)				
	26	Battery Compartment	Height	Without / With Battery Rollers	in. (mm)		24.4 / 24 (620 / 609)				
	20	Dattery Compartment	Width	Without / With Battery Honers	in. (mm)		45.4 (1152)				
			Witti	Nominal	SIZE		39				
			Length	Actual	in. (mm)		39.2 (996)				
	27	Length to Face of Forks	1 3	Chassis Length	in. (mm)		96.5 (2451)				
	28			in. (mm)	62 (1574)						
	29	Right Angle Stack			in. (mm)	150.8 (3831)					
	30	Equal Aisle	Aisle 90° Intersecting Aisle			79.4 (2017)					
	31	Outside Turning Radius			in. (mm)	85.2 (2165)					
불	32	Truck Weight	Without Battery	NL	lb. (kg)		11070 (5021)				
WEIGHT	33	Axle Loading - Drive	Static with Max. Wt. Battery	NL / RL	lb. (kg)		6728 / 20098 (3052 / 9116)				
_	34	Axle Loading - Steer	Static with Max. Wt. Battery	NL / RL	lb. (kg)	9141 / 3771 (4146 / 1710)					
					VOLTS	36	Standard Performance 48	80			
	36	Travel Speed	Extended Shift OFF	NL/RL	mph (km/h)	11.4 / 9.7 (18.3 / 15.6)	12.7 / 12.2 (20.4 / 19.6)	12.7/12.2 (20.4/19.6)			
	30	пачет ороси	Extended Shift ON	NL/RL	mph (km/h)	9.8 / 8.4 (15.8 / 13.5)	12.5 / 10.8 (20.1 / 17.4)	12.5/10.8 (20.1/17.4)			
	37	Lift Speed	Std 2 Stg LFL Mast	NL/RL	ft/min (m/sec)	94 / 58 (0.48 / 0.296)	118 / 73 (0.6 / 0.37)	118/73 (0.6/0.37)			
	<u> </u>		Opt 2 Stg FFL Mast	NL/RL	ft/min (m/sec)	85 / 53 (0.4336 / 0.267)	107 / 66 (0.542 / 0.334)	107/66 (0.542/0.334)			
띟			Opt 3 Stg FFL Mast	NL/RL	ft/min (m/sec)	88 / 54 (0.448 / 0.276)	110 / 68 (0.56 / 0.345)	110/68 (0.56/0.345)			
M	38	Lower Speed	Std 2 Stg LFL Mast	NL/RL	ft/min (m/sec)		94 / 104 (0.48 / 0.53)				
쯢			Opt 2 Stg FFL Mast	NL / RL	ft/min (m/sec)		75 / 91 (0.38 / 0.46)				
PERFORMANCE			Opt 3 Stg FFL Mast	NL / RL	ft/min (m/sec)		77 / 98 (0.39 / 0.5)				
	39	Gradability	5 Minute Rating	NL/RL	%	23 / 14.1	29.3 / 17.8	30.1 / 18.3			
			60 Minute Rating	NL / RL	%	8.4 / 5.4	10.6 / 6.8	10.9 / 7			
	40	Drawbar Pull	5 Minute Rating	NL / RL	lbf	3327 / 3193	4023 / 3864	4104 / 3941			
	Ad	Duelle	60 Minute Rating	NL / RL	lbf	1246 / 1232	1511 / 1497	1541 / 1526			
	41	Brake	Method of Control	Service / Parking			Hydraulic / Spring Applied				
	42	Rattery	Method of Operation	Service / Parking Type			Foot / Automatic Lead Acid				
	42	Battery		iàhe							
					VOLTS	Standard Performance 36 48 80					
ELECTRIC	43	Traction Motor		60 Minute Rating	hp (kW)	28.8 (21.5)	28.8 (21.5)	28.2 (21)			
<b>E</b>	44	Pump Motor		15 % Rating	hp (kW)	35.5 (26.5)	48.3 (36)	48.3 (36)			
ᇳ	45	Traction Motor		Type / Control Method	,	, ,	AC / Transistor	. ,			
	46	Pump Motor		Type / Control Method			AC / Transistor				
	47	Number of Speeds		Traction / Pump		Inf	initely Variable / Infinitely Var	able			
	48	Step Height			in. (mm)		21.1 (536)				
<b>65</b>	49	Floor Height				33.7 (855)					
ртнев	50	Attachment Relief Pressure			psi (bar)	2248 (155)					
OTHER			3rd and 4th Function Measured per ANSI B56.11.5				2248 (155) 16 (60) 69/66				

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		Manufacturer					Yale				
4	2	Model Designation					ERC100VHS  Electric				
GENERAL	3	Power				Sit					
<u> </u>	5 5	Operation Rated Capacity			lb. (kg)						
	6	Load Center			in. (kg)	10000 (4536)					
U		Tire Type - Cushion, Solid,	Desimatic atc	Drive / Steer	III. (IIIII)		24 (610) Cushion / Cushion				
ı.	8	Tire Size	r neumane, etc.	Drive / Steer	in.		22 x 12 x 16 / 18 x 7 x 12.1				
	9	Wheels - Number	X=Driven	Drive / Steer			2X / 2				
TIRES/WHEELS	10		Center of Tires	Narr Dr / Wide Dr / Steer	in. (mm)	41	0 / 43.9 / 38.3 (1015 / 1115 / 9	72)			
	11				degrees	.,	5F / 5B 8F / 5B	· <b>-</b>			
	12			Std Mast	in. (mm)		84.2 (2138)				
	13	Free Lift - Top of Fork Std 2 Stg Limited Free Lift M			in. (mm)		5 (150)				
		· ·	Opt 2 Stg Full Free Lift Mast	-	in. (mm)		35 / 48 (897 / 1222)				
	14	Lift Height - Top of Fork	Std 2 Stg Limited Free Lift N	ast	in. (mm)		109 (2790)				
	15	Mast - Extended Height	Std Mast with / without LBR		in. (mm)		159 / 144 (4031 / 3657)				
	16	Overhead Guard Height	Std / Opt / Opt Flat Plate		in. (mm)	9	4 / 91 / 87.1 (2388 / 2311 / 22	12)			
	17	SIP to Bottom Std OHG	Seat Depressed	Std / Susp / Swivel	in. (mm)	38	3.7 / 38.9 / 38.9 (984 / 989 / 9	89)			
	18	Tow Pin Height	Vertical Center of Pin		in. (mm)		12.7 (324)				
	19	Overall Width	Standard Tread / Wide Tread		in. (mm)		52 / 55.9 (1320 / 1420)				
U	20	Forks	Thickness x Width x Length	I a	in. (mm)		2 x 5.9 x 42 (50 x 150 x 1067				
DIMENSIONS	21	Standard Carriage Width		Class III	in. (mm)		42 (1067)				
ij	22	Floor to Top of Battery Roll Ground Clearance		NI /DI	in. (mm)		20 (509)				
<b>E</b>	23 24	Ground Clearance	Lowest Point Center of Truck	NL/RL NL/RL	in. (mm)		3.6 / 3.4 (92 / 87)				
	25	Load Distance	Center of Wheel to Face of F	· ·	in. (mm) in. (mm)		5.3 / 5.1 (134 / 130) 17.8 (452)				
	26		Height	Without / With Battery Rollers	in. (mm)		24.4 / 24 (620 / 609)				
		Dattery Compartment	Width	without / with battery fronters	in. (mm)		45.4 (1152)				
			Witti	Nominal	SIZE		39"				
			Length	Actual	in. (mm)		39.2 (996)				
	27	Length to Face of Forks	<u> </u>	Chassis Length	in. (mm)		100.3 (2548)				
	28	Wheelbase		•	in. (mm)	62 (1574) 154 (3911)					
	29				in. (mm)						
	30	Equal Aisle	ual Aisle 90° Intersecting Aisle			83 (2107)					
	31	Outside Turning Radius			in. (mm)	88.2 (2240)					
늘	32		Without Battery	NL	lb. (kg)		13070 (5928)				
WEIGHT	33		Static with Max. Wt. Battery	NL / RL	lb. (kg)	6798 / 23542 (3084 / 10678) 11069 / 4325 (5021 / 1962)					
=	34	Axle Loading - Steer	Static with Max. Wt. Battery	NL/RL	lb. (kg)						
						Standard Performance					
			I	T	VOLTS	36	48	80			
	36	Travel Speed	Extended Shift OFF	NL/RL	mph (km/h)	10.3 / 8.8 (16.6 / 14.2)	11.4 / 11 (18.3 / 17.7)	11.4 / 11 (18.3 / 17.7)			
	27	Lift Cnood	Extended Shift ON Std 2 Stg LFL Mast	NL/RL	mph (km/h)	9.1 / 7.7 (14.6 / 12.4)	11.4 / 9.9 (18.3 / 15.9)	11.4 / 9.9 (18.3 / 15.9)			
	31	Lift Speed	Opt 2 Stg FFL Mast	NL/RL NL/RL	ft/min (m/sec) ft/min (m/sec)	71 / 46 (0.36 / 0.232) 67 / 43 (0.34 / 0.219)	89 / 57 (0.45 / 0.29) 84 / 54 (0.425 / 0.274)	89 / 57 (0.45 / 0.29) 84 / 54 (0.425 / 0.274)			
	; <del> </del>		Opt 3 Stg FFL Mast	NL/RL	ft/min (m/sec)	68 / 44 (0.346 / 0.223)	85 / 55 (0.433 / 0.279)	85 / 55 (0.433 / 0.279)			
	38	Lower Speed	Std 2 Stg LFL Mast	NL/RL	ft/min (m/sec)	007 11 (0.0107 0.220)	73 / 89 (0.37 / 0.45)	007 00 (0.1007 0.270)			
ă	, ""		Opt 2 Stg FFL Mast	NL/RL	ft/min (m/sec)		57 / 81 (0.29 / 0.41)				
PERFORMANCE			Opt 3 Stg FFL Mast	NL/RL	ft/min (m/sec)		63 / 87 (0.32 / 0.44)				
Δ	39	Gradability	5 Minute Rating	NL/RL	%	19.4 / 11.8	24.6 / 14.7	25.2 / 15.1			
			60 Minute Rating	NL/RL	%	7.1 / 4.5	9.1 / 5.6	9.2 / 5.8			
	40	Drawbar Pull	5 Minute Rating	NL/RL	lbf	3323 / 3185	3994 / 3832	4074 / 3909			
			60 Minute Rating	NL/RL	lbf	1242 / 1224	1497 / 1479	1527 / 1509			
	41	Brake	Method of Control	Service / Parking			Hydraulic / Spring Applied				
				Service / Parking			Foot / Automatic				
	41		Method of Control	· · ·			Foot / Automatic Lead Acid				
	42		Method of Control	Service / Parking	WOLTE	20	Foot / Automatic Lead Acid Standard Performance				
SIG	42	Battery	Method of Control	Service / Parking Type	VOLTS	<b>36</b>	Foot / Automatic Lead Acid Standard Performance 48	80			
ECTRIC	42	Battery Traction Motor	Method of Control	Service / Parking Type 60 Minute Rating	hp (kW)	28.8 (21.5)	Foot / Automatic Lead Acid Standard Performance 48 28.8 (21.5)	<b>80</b> 28.2 (21)			
FIECTRIC	42 43 44	Battery  Traction Motor Pump Motor	Method of Control	Service / Parking Type  60 Minute Rating 15 % Rating			Foot / Automatic Lead Acid Standard Performance 48 28.8 (21.5) 48.3 (36)	80			
FIECTRIC	42 43 44 45	Battery  Traction Motor  Pump Motor  Traction Motor	Method of Control	Service / Parking Type  60 Minute Rating 15 % Rating Type / Control Method	hp (kW)	28.8 (21.5)	Foot / Automatic Lead Acid Standard Performance 48 28.8 (21.5) 48.3 (36) AC / Transistor	<b>80</b> 28.2 (21)			
FIECTRIC	42 43 44	Battery  Traction Motor  Pump Motor  Traction Motor	Method of Control	Service / Parking Type  60 Minute Rating 15 % Rating	hp (kW)	28.8 (21.5) 35.5 (26.5)	Foot / Automatic Lead Acid Standard Performance 48 28.8 (21.5) 48.3 (36) AC / Transistor AC / Transistor	<b>80</b> 28.2 (21) 48.3 (36)			
ELECTRIC	42 43 44 45 46	Battery  Traction Motor Pump Motor Traction Motor Pump Motor Pump Motor Number of Speeds	Method of Control	Service / Parking Type  60 Minute Rating 15 % Rating Type / Control Method Type / Control Method	hp (kW)	28.8 (21.5) 35.5 (26.5)	Foot / Automatic Lead Acid Standard Performance 48 28.8 (21.5) 48.3 (36) AC / Transistor	<b>80</b> 28.2 (21) 48.3 (36)			
	42 43 44 45 46 47 48	Battery  Traction Motor Pump Motor Traction Motor Pump Motor Number of Speeds Step Height	Method of Control	Service / Parking Type  60 Minute Rating 15 % Rating Type / Control Method Type / Control Method	hp (kW) hp (kW)	28.8 (21.5) 35.5 (26.5)	Foot / Automatic Lead Acid Standard Performance 48 28.8 (21.5) 48.3 (36) AC / Transistor AC / Transistor nitely Variable / Infinitely Var	<b>80</b> 28.2 (21) 48.3 (36)			
	42 43 44 45 46 47 48 49 50	Battery  Traction Motor Pump Motor Traction Motor Pump Motor Number of Speeds Step Height Floor Height	Method of Control  Method of Operation	Service / Parking Type  60 Minute Rating 15 % Rating Type / Control Method Type / Control Method Traction / Pump	hp (kW) hp (kW) in. (mm)	28.8 (21.5) 35.5 (26.5)	Foot / Automatic Lead Acid Standard Performance 48 28.8 (21.5) 48.3 (36) AC / Transistor AC / Transistor nitely Variable / Infinitely Variable / 156)	<b>80</b> 28.2 (21) 48.3 (36)			
OTHER   ELECTRIC	42 43 44 45 46 47 48 49 50 51	Battery  Traction Motor Pump Motor Traction Motor Pump Motor Number of Speeds Step Height Floor Height Attachment Relief Pressur Auxiliary Oil Flow	Method of Control  Method of Operation	Service / Parking Type  60 Minute Rating 15 % Rating Type / Control Method Type / Control Method Traction / Pump	hp (kW) hp (kW) in. (mm) in. (mm)	28.8 (21.5) 35.5 (26.5)	Foot / Automatic Lead Acid Standard Performance 48 28.8 (21.5) 48.3 (36) AC / Transistor AC / Transistor nitely Variable / Infinitely Variable / 33.7 (855)	<b>80</b> 28.2 (21) 48.3 (36)			
	42 43 44 45 46 47 48 49 50	Battery  Traction Motor Pump Motor Traction Motor Pump Motor Number of Speeds Step Height Floor Height Attachment Relief Pressur Auxiliary Oil Flow	Method of Control  Method of Operation	Service / Parking Type  60 Minute Rating 15 % Rating Type / Control Method Type / Control Method Traction / Pump  Lowest Point	hp (kW) hp (kW)  in. (mm) in. (mm) psi (bar)	28.8 (21.5) 35.5 (26.5)	Foot / Automatic Lead Acid Standard Performance 48 28.8 (21.5) 48.3 (36) AC / Transistor AC / Transistor nitely Variable / Infinitely Variable / 33.7 (855) 2248 (155)	<b>80</b> 28.2 (21) 48.3 (36)			

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	1	Manufacturer					Yale				
_	2	Model Designation				ERC100VH					
GENERAL	3	Power					Electric				
	4	Operation				Sit					
65	5	Rated Capacity			lb. (kg)	10000 (4536)					
	6	Load Center			in. (mm)		24 (610)				
S	7	Tire Type - Cushion, Solid,	Pneumatic, etc.	Drive / Steer	ì		Cushion / Cushion				
翼	8	Tire Size	· · · · · · · · · · · · · · · · · · ·	Drive / Steer	in.		22 x 12 x 16 / 18 x 7 x 12.1				
TIRES/WHEELS	9	Wheels - Number	X=Driven	Drive / Steer			2X / 2				
뿚	10	Tread	Center of Tires	Narr Dr / Wide Dr / Steer	in. (mm)	40	0 / 43.9 / 38.3 (1015 / 1115 / 9	72)			
	11	Mast Tilt	Contor or Tirou	Std Opt	degrees	1	5F / 5B 8F / 5B	· <b>-</b> /			
	12	Mast - Lowered Height		Std Mast	in. (mm)		84.2 (2138)				
	13		Ctd 2 Cta Limited Erec Lift Me		in. (mm)		5 (150)				
	10	Free Lift - Top of Fork Std 2 Stg Limited Free Lift Mast Opt 2 Stg Full Free Lift Mast with / without LBR			in. (mm)		35 / 48 (897 / 1222)				
	14	Lift Height - Top of Fork	Std 2 Stg Limited Free Lift Ma		in. (mm)						
		<u> </u>		451	` '		109 (2790) 159 / 144 (4031 / 3657)				
	15	Mast - Extended Height	Std Mast with / without LBR		in. (mm)	0	4/91/87.1 (2388/2311/22	10)			
	16	Overhead Guard Height	Std / Opt / Opt Flat Plate	044 / 0 / 0	in. (mm)		· · · · · · · · · · · · · · · · · · ·				
	17	SIP to Bottom Std OHG	Seat Depressed	Std / Susp / Swivel	in. (mm)	38	3.7 / 38.9 / 38.9 (984 / 989 / 98	89)			
	18	Tow Pin Height	Vertical Center of Pin		in. (mm)		12.7 (324)				
	19	Overall Width	Standard Tread / Wide Tread		in. (mm)		52 / 55.9 (1320 / 1420)				
S.	20	Forks	Thickness x Width x Length	T =	in. (mm)		2 x 5.9 x 42 (50 x 150 x 1067)				
	21	Standard Carriage Width		Class III	in. (mm)		42 (1067)				
DIMENSIONS	22	Floor to Top of Battery Roll		T	in. (mm)		20 (509)				
	23	Ground Clearance	Lowest Point	NL/RL	in. (mm)		3.6 / 3.4 (92 / 87)				
	24	Ground Clearance	Center of Truck	NL/RL	in. (mm)		5.3 / 5.1 (134 / 130)				
	25	Load Distance	Center of Wheel to Face of Fo	rks	in. (mm)		17.8 (452)				
	26	Battery Compartment Height		Without / With Battery Rollers	in. (mm)	24.4 / 24 (620 / 609)					
			Width		in. (mm)		45.4 (1152)				
				Nominal	SIZE		45"				
			Length	Actual	in. (mm)		45.7 (1161)				
	27	Length to Face of Forks		Chassis Length	in. (mm)		103.1 (2621)				
	28	Wheelbase			in. (mm)	68.5 (1739)					
	29	Right Angle Stack			in. (mm)		158 (4012)				
	30	Equal Aisle	90° Intersecting Aisle	in. (mm)	84.3 (2141)						
	31	Outside Turning Radius			in. (mm)	92.2 (2341)					
					111. (111111)		92.2 (2341)				
토	32	Truck Weight	Without Battery	NL	lb. (kg)		92.2 (2341) 12300 (5579)				
EIGHT		•	Without Battery Static with Max. Wt. Battery	NL NL / RL	· ` '		, ,				
WEIGHT	32	Truck Weight	· ·		lb. (kg)		12300 (5579)				
WEIGHT	32 33	Truck Weight  Axle Loading - Drive	Static with Max. Wt. Battery	NL / RL	lb. (kg)		12300 (5579) 7708 / 23813 (3496 / 10801)				
WEIGHT	32 33	Truck Weight  Axle Loading - Drive	Static with Max. Wt. Battery	NL / RL	lb. (kg)	36	12300 (5579) 7708 / 23813 (3496 / 10801) 10139 / 4035 (4599 / 1830)	80			
WEIGHT	32 33	Truck Weight  Axle Loading - Drive	Static with Max. Wt. Battery	NL / RL	Ib. (kg) Ib. (kg) Ib. (kg)	<b>36</b> 10.3 / 8.8 (16.6 / 14.2)	12300 (5579) 7708 / 23813 (3496 / 10801) 10139 / 4035 (4599 / 1830) <b>Standard Performance</b>				
WEIGHT	32 33 34	Truck Weight Axle Loading - Drive Axle Loading - Steer	Static with Max. Wt. Battery Static with Max. Wt. Battery	NL/RL NL/RL	lb. (kg) lb. (kg) lb. (kg)  VOLTS		12300 (5579) 7708 / 23813 (3496 / 10801) 10139 / 4035 (4599 / 1830) Standard Performance 48	80			
WEIGHT	32 33 34	Truck Weight Axle Loading - Drive Axle Loading - Steer	Static with Max. Wt. Battery Static with Max. Wt. Battery  Extended Shift OFF	NL/RL NL/RL	lb. (kg)	10.3 / 8.8 (16.6 / 14.2)	12300 (5579) 7708 / 23813 (3496 / 10801) 10139 / 4035 (4599 / 1830) <b>Standard Performance</b> <b>48</b> 11.4 / 11 (18.3 / 17.7)	<b>80</b> 11.4 / 11 (18.3 / 17.7)			
	32 33 34 36	Truck Weight  Axle Loading - Drive  Axle Loading - Steer  Travel Speed	Static with Max. Wt. Battery Static with Max. Wt. Battery  Extended Shift OFF Extended Shift ON	NL/RL NL/RL NL/RL	lb. (kg) lb. (kg) lb. (kg)  VOLTS mph (km/h) mph (km/h)	10.3 / 8.8 (16.6 / 14.2) 9.1 / 7.7 (14.6 / 12.4)	12300 (5579) 7708 / 23813 (3496 / 10801) 10139 / 4035 (4599 / 1830) <b>Standard Performance</b> 48 11.4 / 11 (18.3 / 17.7) 11.4 / 9.9 (18.3 / 15.9)	<b>80</b> 11.4 / 11 (18.3 / 17.7) 11.4 / 9.9 (18.3 / 15.9)			
	32 33 34 36	Truck Weight  Axle Loading - Drive  Axle Loading - Steer  Travel Speed	Static with Max. Wt. Battery Static with Max. Wt. Battery  Extended Shift OFF Extended Shift ON Std 2 Stg LFL Mast	NL/RL NL/RL NL/RL NL/RL NL/RL	lb. (kg) lb. (kg) lb. (kg)  VOLTS  mph (km/h) mph (km/h) ft/min (m/sec)	10.3 / 8.8 (16.6 / 14.2) 9.1 / 7.7 (14.6 / 12.4) 71 / 46 (0.36 / 0.232)	12300 (5579) 7708 / 23813 (3496 / 10801) 10139 / 4035 (4599 / 1830) Standard Performance 48 11.4 / 11 (18.3 / 17.7) 11.4 / 9.9 (18.3 / 15.9) 89 / 57 (0.45 / 0.29)	80 11.4 / 11 (18.3 / 17.7) 11.4 / 9.9 (18.3 / 15.9) 89 / 57 (0.45 / 0.29)			
	32 33 34 36	Truck Weight  Axle Loading - Drive  Axle Loading - Steer  Travel Speed	Static with Max. Wt. Battery Static with Max. Wt. Battery  Extended Shift OFF Extended Shift ON Std 2 Stg LFL Mast Opt 2 Stg FFL Mast	NL/RL NL/RL NL/RL NL/RL NL/RL NL/RL NL/RL	lb. (kg) lb. (kg) lb. (kg)  VOLTS mph (km/h) mph (km/h) ft/min (m/sec) ft/min (m/sec)	10.3 / 8.8 (16.6 / 14.2) 9.1 / 7.7 (14.6 / 12.4) 71 / 46 (0.36 / 0.232) 67 / 43 (0.34 / 0.219)	12300 (5579) 7708 / 23813 (3496 / 10801) 10139 / 4035 (4599 / 1830) Standard Performance 48 11.4 / 11 (18.3 / 17.7) 11.4 / 9.9 (18.3 / 15.9) 89 / 57 (0.45 / 0.29) 84 / 54 (0.425 / 0.274)	80 11.4 / 11 (18.3 / 17.7) 11.4 / 9.9 (18.3 / 15.9) 89 / 57 (0.45 / 0.29) 84 / 54 (0.425 / 0.274)			
	32 33 34 36 37	Truck Weight  Axle Loading - Drive  Axle Loading - Steer  Travel Speed  Lift Speed	Static with Max. Wt. Battery Static with Max. Wt. Battery  Extended Shift OFF Extended Shift ON Std 2 Stg LFL Mast Opt 2 Stg FFL Mast Opt 3 Stg FFL Mast	NL/RL NL/RL NL/RL NL/RL NL/RL NL/RL NL/RL NL/RL	lb. (kg) lb. (kg) lb. (kg)  VOLTS mph (km/h) mph (km/h) ft/min (m/sec) ft/min (m/sec)	10.3 / 8.8 (16.6 / 14.2) 9.1 / 7.7 (14.6 / 12.4) 71 / 46 (0.36 / 0.232) 67 / 43 (0.34 / 0.219)	12300 (5579) 7708 / 23813 (3496 / 10801) 10139 / 4035 (4599 / 1830) Standard Performance 48 11.4 / 11 (18.3 / 17.7) 11.4 / 9.9 (18.3 / 15.9) 89 / 57 (0.45 / 0.29) 84 / 54 (0.425 / 0.274) 85 / 55 (0.433 / 0.279)	80 11.4 / 11 (18.3 / 17.7) 11.4 / 9.9 (18.3 / 15.9) 89 / 57 (0.45 / 0.29) 84 / 54 (0.425 / 0.274)			
	32 33 34 36 37	Truck Weight  Axle Loading - Drive  Axle Loading - Steer  Travel Speed  Lift Speed	Static with Max. Wt. Battery Static with Max. Wt. Battery  Extended Shift OFF Extended Shift ON Std 2 Stg LFL Mast Opt 2 Stg FFL Mast Opt 3 Stg FFL Mast Std 2 Stg LFL Mast	NL/RL  NL/RL  NL/RL  NL/RL  NL/RL  NL/RL  NL/RL  NL/RL  NL/RL	lb. (kg) lb. (kg) lb. (kg)  VOLTS mph (km/h) mph (km/h) ft/min (m/sec) ft/min (m/sec) ft/min (m/sec)	10.3 / 8.8 (16.6 / 14.2) 9.1 / 7.7 (14.6 / 12.4) 71 / 46 (0.36 / 0.232) 67 / 43 (0.34 / 0.219)	12300 (5579) 7708 / 23813 (3496 / 10801) 10139 / 4035 (4599 / 1830) Standard Performance 48 11.4 / 11 (18.3 / 17.7) 11.4 / 9.9 (18.3 / 15.9) 89 / 57 (0.45 / 0.29) 84 / 54 (0.425 / 0.274) 85 / 55 (0.433 / 0.279) 73 / 89 (0.37 / 0.45)	80 11.4 / 11 (18.3 / 17.7) 11.4 / 9.9 (18.3 / 15.9) 89 / 57 (0.45 / 0.29) 84 / 54 (0.425 / 0.274)			
PERFORMANCE WEIGHT	32 33 34 36 37	Truck Weight  Axle Loading - Drive  Axle Loading - Steer  Travel Speed  Lift Speed	Static with Max. Wt. Battery Static with Max. Wt. Battery  Extended Shift OFF Extended Shift ON Std 2 Stg LFL Mast Opt 2 Stg FFL Mast Std 2 Stg LFL Mast Opt 3 Stg FFL Mast	NL/RL  NL/RL  NL/RL  NL/RL  NL/RL  NL/RL  NL/RL  NL/RL  NL/RL	lb. (kg) lb. (kg) lb. (kg)  VOLTS mph (km/h) mph (km/h) ft/min (m/sec) ft/min (m/sec) ft/min (m/sec) ft/min (m/sec)	10.3 / 8.8 (16.6 / 14.2) 9.1 / 7.7 (14.6 / 12.4) 71 / 46 (0.36 / 0.232) 67 / 43 (0.34 / 0.219)	12300 (5579) 7708 / 23813 (3496 / 10801) 10139 / 4035 (4599 / 1830) Standard Performance 48 11.4 / 11 (18.3 / 17.7) 11.4 / 9.9 (18.3 / 15.9) 89 / 57 (0.45 / 0.29) 84 / 54 (0.425 / 0.274) 85 / 55 (0.433 / 0.279) 73 / 89 (0.37 / 0.45) 57 / 81 (0.29 / 0.41)	80 11.4 / 11 (18.3 / 17.7) 11.4 / 9.9 (18.3 / 15.9) 89 / 57 (0.45 / 0.29) 84 / 54 (0.425 / 0.274)			
	32 33 34 36 37	Truck Weight  Axle Loading - Drive  Axle Loading - Steer  Travel Speed  Lift Speed  Lower Speed	Static with Max. Wt. Battery Static with Max. Wt. Battery  Extended Shift OFF Extended Shift ON Std 2 Stg LFL Mast Opt 2 Stg FFL Mast Std 2 Stg LFL Mast Opt 2 Stg FFL Mast Opt 3 Stg FFL Mast	NL/RL	lb. (kg) lb. (kg) lb. (kg)  VOLTS mph (km/h) mph (km/h) ft/min (m/sec) ft/min (m/sec) ft/min (m/sec) ft/min (m/sec) ft/min (m/sec) ft/min (m/sec)	10.3 / 8.8 (16.6 / 14.2) 9.1 / 7.7 (14.6 / 12.4) 71 / 46 (0.36 / 0.232) 67 / 43 (0.34 / 0.219) 68 / 44 (0.346 / 0.223)	12300 (5579) 7708 / 23813 (3496 / 10801) 10139 / 4035 (4599 / 1830) Standard Performance 48 11.4 / 11 (18.3 / 17.7) 11.4 / 9.9 (18.3 / 15.9) 89 / 57 (0.45 / 0.29) 84 / 54 (0.425 / 0.274) 85 / 55 (0.433 / 0.279) 73 / 89 (0.37 / 0.45) 57 / 81 (0.29 / 0.41) 63 / 87 (0.32 / 0.44)	80 11.4 / 11 (18.3 / 17.7) 11.4 / 9.9 (18.3 / 15.9) 89 / 57 (0.45 / 0.29) 84 / 54 (0.425 / 0.274) 85 / 55 (0.433 / 0.279)			
	32 33 34 36 37	Truck Weight  Axle Loading - Drive  Axle Loading - Steer  Travel Speed  Lift Speed  Lower Speed	Static with Max. Wt. Battery Static with Max. Wt. Battery  Extended Shift OFF Extended Shift ON Std 2 Stg LFL Mast Opt 2 Stg FFL Mast Opt 3 Stg FFL Mast Opt 2 Stg FFL Mast Opt 3 Stg FFL Mast Opt 3 Stg FFL Mast Opt 3 Stg FFL Mast	NL/RL	Ib. (kg) Ib. (kg) Ib. (kg) VOLTS mph (km/h) mph (km/h) ft/min (m/sec) ft/min (m/sec) ft/min (m/sec) ft/min (m/sec) ft/min (m/sec)	10.3 / 8.8 (16.6 / 14.2) 9.1 / 7.7 (14.6 / 12.4) 71 / 46 (0.36 / 0.232) 67 / 43 (0.34 / 0.219) 68 / 44 (0.346 / 0.223) 19.9 / 11.9	12300 (5579) 7708 / 23813 (3496 / 10801) 10139 / 4035 (4599 / 1830) Standard Performance 48 11.4 / 11 (18.3 / 17.7) 11.4 / 9.9 (18.3 / 15.9) 89 / 57 (0.45 / 0.29) 84 / 54 (0.425 / 0.274) 85 / 55 (0.433 / 0.279) 73 / 89 (0.37 / 0.45) 57 / 81 (0.29 / 0.41) 63 / 87 (0.32 / 0.44) 25.2 / 15	80 11.4 / 11 (18.3 / 17.7) 11.4 / 9.9 (18.3 / 15.9) 89 / 57 (0.45 / 0.29) 84 / 54 (0.425 / 0.274) 85 / 55 (0.433 / 0.279) 25.8 / 15.3			
	32 33 34 36 37 38 38	Truck Weight Axle Loading - Drive Axle Loading - Steer  Travel Speed  Lift Speed  Lower Speed  Gradability	Static with Max. Wt. Battery Static with Max. Wt. Battery Extended Shift OFF Extended Shift ON Std 2 Stg LFL Mast Opt 2 Stg FFL Mast Std 2 Stg LFL Mast Opt 3 Stg FFL Mast	NL/RL	Ib. (kg) Ib. (kg) Ib. (kg) VOLTS mph (km/h) mph (km/h) ft/min (m/sec)	10.3 / 8.8 (16.6 / 14.2) 9.1 / 7.7 (14.6 / 12.4) 71 / 46 (0.36 / 0.232) 67 / 43 (0.34 / 0.219) 68 / 44 (0.346 / 0.223) 19.9 / 11.9 7.3 / 4.5	12300 (5579) 7708 / 23813 (3496 / 10801) 10139 / 4035 (4599 / 1830) Standard Performance 48 11.4 / 11 (18.3 / 17.7) 11.4 / 9.9 (18.3 / 15.9) 89 / 57 (0.45 / 0.29) 84 / 54 (0.425 / 0.274) 85 / 55 (0.433 / 0.279) 73 / 89 (0.37 / 0.45) 57 / 81 (0.29 / 0.41) 63 / 87 (0.32 / 0.44) 25.2 / 15 9.2 / 5.7	80 11.4 / 11 (18.3 / 17.7) 11.4 / 9.9 (18.3 / 15.9) 89 / 57 (0.45 / 0.29) 84 / 54 (0.425 / 0.274) 85 / 55 (0.433 / 0.279) 25.8 / 15.3 9.4 / 5.9			
	32 33 34 36 37 38 38	Truck Weight Axle Loading - Drive Axle Loading - Steer  Travel Speed  Lift Speed  Lower Speed  Gradability	Static with Max. Wt. Battery Static with Max. Wt. Battery  Extended Shift OFF Extended Shift ON Std 2 Stg LFL Mast Opt 2 Stg FFL Mast Opt 3 Stg FFL Mast Opt 2 Stg LFL Mast Opt 3 Stg FFL Mast Std Di 3 Stg FFL Mast Opt 3 Stg FFL Mast Sminute Rating 60 Minute Rating 5 Minute Rating	NL/RL	Ib. (kg) Ib. (kg) Ib. (kg) Ib. (kg)  VOLTS  mph (km/h) mph (km/h) ft/min (m/sec) ft/min (m/sec) ft/min (m/sec) ft/min (m/sec) ft/min (m/sec) ft/min (m/sec) % Ibf	10.3 / 8.8 (16.6 / 14.2) 9.1 / 7.7 (14.6 / 12.4) 71 / 46 (0.36 / 0.232) 67 / 43 (0.34 / 0.219) 68 / 44 (0.346 / 0.223) 19.9 / 11.9 7.3 / 4.5 3322 / 3185	12300 (5579) 7708 / 23813 (3496 / 10801) 10139 / 4035 (4599 / 1830)  Standard Performance  48  11.4 / 11 (18.3 / 17.7) 11.4 / 9.9 (18.3 / 15.9) 89 / 57 (0.45 / 0.29) 84 / 54 (0.425 / 0.274) 85 / 55 (0.433 / 0.279) 73 / 89 (0.37 / 0.45) 57 / 81 (0.29 / 0.41) 63 / 87 (0.32 / 0.44) 25.2 / 15 9.2 / 5.7 3970 / 3809	80 11.4/11 (18.3/17.7) 11.4/9.9 (18.3/15.9) 89/57 (0.45/0.29) 84/54 (0.425/0.274) 85/55 (0.433/0.279) 25.8/15.3 9.4/5.9 4049/3885			
	32 33 34 36 37 38 38 40	Truck Weight Axle Loading - Drive Axle Loading - Steer  Travel Speed  Lift Speed  Lower Speed  Gradability  Drawbar Pull	Static with Max. Wt. Battery Static with Max. Wt. Battery  Extended Shift OFF Extended Shift ON Std 2 Stg LFL Mast Opt 2 Stg FFL Mast Std 2 Stg LFL Mast Opt 3 Stg FFL Mast Std 2 Stg LFL Mast Opt 3 Stg FFL Mast Opt 3 Stg FFL Mast Sminute Rating 60 Minute Rating 60 Minute Rating	NL/RL	Ib. (kg) Ib. (kg) Ib. (kg) Ib. (kg)  VOLTS  mph (km/h) mph (km/h) ft/min (m/sec) ft/min (m/sec) ft/min (m/sec) ft/min (m/sec) ft/min (m/sec) ft/min (m/sec) % Ibf	10.3 / 8.8 (16.6 / 14.2) 9.1 / 7.7 (14.6 / 12.4) 71 / 46 (0.36 / 0.232) 67 / 43 (0.34 / 0.219) 68 / 44 (0.346 / 0.223) 19.9 / 11.9 7.3 / 4.5 3322 / 3185	12300 (5579) 7708 / 23813 (3496 / 10801) 10139 / 4035 (4599 / 1830)  Standard Performance  48  11.4 / 11 (18.3 / 17.7) 11.4 / 9.9 (18.3 / 15.9) 89 / 57 (0.45 / 0.29) 84 / 54 (0.425 / 0.274) 85 / 55 (0.433 / 0.279) 73 / 89 (0.37 / 0.45) 57 / 81 (0.29 / 0.41) 63 / 87 (0.32 / 0.44) 25.2 / 15 9.2 / 5.7 3970 / 3809 1488 / 1470	80 11.4/11 (18.3/17.7) 11.4/9.9 (18.3/15.9) 89/57 (0.45/0.29) 84/54 (0.425/0.274) 85/55 (0.433/0.279) 25.8/15.3 9.4/5.9 4049/3885			
	32 33 34 36 37 38 38 40	Truck Weight Axle Loading - Drive Axle Loading - Steer  Travel Speed  Lift Speed  Lower Speed  Gradability  Drawbar Pull	Static with Max. Wt. Battery Static with Max. Wt. Battery Static with Max. Wt. Battery Extended Shift OFF Extended Shift ON Std 2 Stg LFL Mast Opt 2 Stg FFL Mast Opt 3 Stg FFL Mast 5 Minute Rating 60 Minute Rating 60 Minute Rating Method of Control	NL/RL	Ib. (kg) Ib. (kg) Ib. (kg) Ib. (kg)  VOLTS  mph (km/h) mph (km/h) ft/min (m/sec) ft/min (m/sec) ft/min (m/sec) ft/min (m/sec) ft/min (m/sec) ft/min (m/sec) % Ibf	10.3 / 8.8 (16.6 / 14.2) 9.1 / 7.7 (14.6 / 12.4) 71 / 46 (0.36 / 0.232) 67 / 43 (0.34 / 0.219) 68 / 44 (0.346 / 0.223) 19.9 / 11.9 7.3 / 4.5 3322 / 3185	12300 (5579) 7708 / 23813 (3496 / 10801) 10139 / 4035 (4599 / 1830)  Standard Performance  48  11.4 / 11 (18.3 / 17.7) 11.4 / 9.9 (18.3 / 15.9) 89 / 57 (0.45 / 0.29) 84 / 54 (0.425 / 0.274) 85 / 55 (0.433 / 0.279) 73 / 89 (0.37 / 0.45) 57 / 81 (0.29 / 0.41) 63 / 87 (0.32 / 0.44) 25.2 / 15 9.2 / 5.7 3970 / 3809 1488 / 1470 Hydraulic / Spring Applied	80 11.4/11 (18.3/17.7) 11.4/9.9 (18.3/15.9) 89/57 (0.45/0.29) 84/54 (0.425/0.274) 85/55 (0.433/0.279) 25.8/15.3 9.4/5.9 4049/3885			
	32 33 34 36 37 38 38 40 41	Truck Weight Axle Loading - Drive Axle Loading - Steer  Travel Speed  Lift Speed  Lower Speed  Gradability  Drawbar Pull  Brake	Static with Max. Wt. Battery Static with Max. Wt. Battery Static with Max. Wt. Battery Extended Shift OFF Extended Shift ON Std 2 Stg LFL Mast Opt 2 Stg FFL Mast Opt 3 Stg FFL Mast 5 Minute Rating 60 Minute Rating 60 Minute Rating Method of Control	NL/RL  Service / Parking	Ib. (kg) Ib. (kg) Ib. (kg) Ib. (kg)  VOLTS  mph (km/h) mph (km/h) ft/min (m/sec) ft/min (m/sec) ft/min (m/sec) ft/min (m/sec) ft/min (m/sec) ft/min (m/sec) % Ibf	10.3 / 8.8 (16.6 / 14.2) 9.1 / 7.7 (14.6 / 12.4) 71 / 46 (0.36 / 0.232) 67 / 43 (0.34 / 0.219) 68 / 44 (0.346 / 0.223) 19.9 / 11.9 7.3 / 4.5 3322 / 3185	12300 (5579) 7708 / 23813 (3496 / 10801) 10139 / 4035 (4599 / 1830)  Standard Performance  48  11.4 / 11 (18.3 / 17.7) 11.4 / 9.9 (18.3 / 15.9) 89 / 57 (0.45 / 0.29) 84 / 54 (0.425 / 0.274) 85 / 55 (0.433 / 0.279) 73 / 89 (0.37 / 0.45) 57 / 81 (0.29 / 0.41) 63 / 87 (0.32 / 0.44) 25.2 / 15 9.2 / 5.7 3970 / 3809 1488 / 1470  Hydraulic / Spring Applied Foot / Automatic Lead Acid	80 11.4/11 (18.3/17.7) 11.4/9.9 (18.3/15.9) 89/57 (0.45/0.29) 84/54 (0.425/0.274) 85/55 (0.433/0.279) 25.8/15.3 9.4/5.9 4049/3885			
PERFORMANCE	32 33 34 36 37 38 38 40 41	Truck Weight Axle Loading - Drive Axle Loading - Steer  Travel Speed  Lift Speed  Lower Speed  Gradability  Drawbar Pull  Brake	Static with Max. Wt. Battery Static with Max. Wt. Battery Static with Max. Wt. Battery Extended Shift OFF Extended Shift ON Std 2 Stg LFL Mast Opt 2 Stg FFL Mast Opt 3 Stg FFL Mast 5 Minute Rating 60 Minute Rating 60 Minute Rating Method of Control	NL/RL  Service / Parking	Ib. (kg) Ib. (kg) Ib. (kg) Ib. (kg)  VOLTS  mph (km/h) mph (km/h) ft/min (m/sec) ft/min (m/sec) ft/min (m/sec) ft/min (m/sec) ft/min (m/sec) ft/min (m/sec) % Ibf	10.3 / 8.8 (16.6 / 14.2) 9.1 / 7.7 (14.6 / 12.4) 71 / 46 (0.36 / 0.232) 67 / 43 (0.34 / 0.219) 68 / 44 (0.346 / 0.223) 19.9 / 11.9 7.3 / 4.5 3322 / 3185	12300 (5579) 7708 / 23813 (3496 / 10801) 10139 / 4035 (4599 / 1830)  Standard Performance  48  11.4 / 11 (18.3 / 17.7) 11.4 / 9.9 (18.3 / 15.9) 89 / 57 (0.45 / 0.29) 84 / 54 (0.425 / 0.274) 85 / 55 (0.433 / 0.279) 73 / 89 (0.37 / 0.45) 57 / 81 (0.29 / 0.41) 63 / 87 (0.32 / 0.44) 25.2 / 15 9.2 / 5.7 3970 / 3809 1488 / 1470  Hydraulic / Spring Applied Foot / Automatic	80 11.4/11 (18.3/17.7) 11.4/9.9 (18.3/15.9) 89/57 (0.45/0.29) 84/54 (0.425/0.274) 85/55 (0.433/0.279) 25.8/15.3 9.4/5.9 4049/3885			
PERFORMANCE	32 33 34 36 37 38 39 40 41	Truck Weight Axle Loading - Drive Axle Loading - Steer  Travel Speed  Lift Speed  Lower Speed  Gradability  Drawbar Pull  Brake	Static with Max. Wt. Battery Static with Max. Wt. Battery Static with Max. Wt. Battery Extended Shift OFF Extended Shift ON Std 2 Stg LFL Mast Opt 2 Stg FFL Mast Opt 3 Stg FFL Mast 5 Minute Rating 60 Minute Rating 60 Minute Rating Method of Control	NL/RL  Service / Parking	Ib. (kg) Ib. (kg) Ib. (kg) Ib. (kg)  VOLTS  mph (km/h) mph (km/h) ft/min (m/sec) % Ibf Ibf	10.3 / 8.8 (16.6 / 14.2) 9.1 / 7.7 (14.6 / 12.4) 71 / 46 (0.36 / 0.232) 67 / 43 (0.34 / 0.219) 68 / 44 (0.346 / 0.223) 19.9 / 11.9 7.3 / 4.5 3322 / 3185 1241 / 1224	12300 (5579) 7708 / 23813 (3496 / 10801) 10139 / 4035 (4599 / 1830)  Standard Performance  48  11.4 / 11 (18.3 / 17.7) 11.4 / 9.9 (18.3 / 15.9) 89 / 57 (0.45 / 0.29) 84 / 54 (0.425 / 0.274) 85 / 55 (0.433 / 0.279) 73 / 89 (0.37 / 0.45) 57 / 81 (0.29 / 0.41) 63 / 87 (0.32 / 0.44) 25.2 / 15 9.2 / 5.7 3970 / 3809 1488 / 1470 Hydraulic / Spring Applied Foot / Automatic Lead Acid Standard Performance	80 11.4/11 (18.3/17.7) 11.4/9.9 (18.3/15.9) 89/57 (0.45/0.29) 84/54 (0.425/0.274) 85/55 (0.433/0.279) 25.8/15.3 9.4/5.9 4049/3885 1518/1500			
PERFORMANCE	32 33 34 36 37 38 38 40 41 42	Truck Weight Axle Loading - Drive Axle Loading - Steer  Travel Speed  Lift Speed  Lower Speed  Gradability  Drawbar Pull  Brake  Battery	Static with Max. Wt. Battery Static with Max. Wt. Battery Static with Max. Wt. Battery Extended Shift OFF Extended Shift ON Std 2 Stg LFL Mast Opt 2 Stg FFL Mast Opt 3 Stg FFL Mast 5 Minute Rating 60 Minute Rating 60 Minute Rating Method of Control	NL/RL Service / Parking Type	Ib. (kg) Ib. (kg) Ib. (kg) Ib. (kg)  VOLTS  mph (km/h) mph (km/h) ft/min (m/sec) % Ibf Ibf	10.3 / 8.8 (16.6 / 14.2) 9.1 / 7.7 (14.6 / 12.4) 71 / 46 (0.36 / 0.232) 67 / 43 (0.34 / 0.219) 68 / 44 (0.346 / 0.223) 19.9 / 11.9 7.3 / 4.5 3322 / 3185 1241 / 1224	12300 (5579) 7708 / 23813 (3496 / 10801) 10139 / 4035 (4599 / 1830)  Standard Performance  48  11.4 / 11 (18.3 / 17.7) 11.4 / 9.9 (18.3 / 15.9) 89 / 57 (0.45 / 0.29) 84 / 54 (0.425 / 0.274) 85 / 55 (0.433 / 0.279) 73 / 89 (0.37 / 0.45) 57 / 81 (0.29 / 0.41) 63 / 87 (0.32 / 0.44) 25.2 / 15 9.2 / 5.7 3970 / 3809 1488 / 1470 Hydraulic / Spring Applied Foot / Automatic Lead Acid Standard Performance 48	80 11.4/11 (18.3/17.7) 11.4/9.9 (18.3/15.9) 89/57 (0.45/0.29) 84/54 (0.425/0.274) 85/55 (0.433/0.279) 25.8/15.3 9.4/5.9 4049/3885 1518/1500			
	32 33 34 36 37 38 39 40 41 42 42 43	Truck Weight Axle Loading - Drive Axle Loading - Steer  Travel Speed  Lift Speed  Lower Speed  Gradability  Drawbar Pull  Brake  Battery	Static with Max. Wt. Battery Static with Max. Wt. Battery Static with Max. Wt. Battery Extended Shift OFF Extended Shift ON Std 2 Stg LFL Mast Opt 2 Stg FFL Mast Opt 3 Stg FFL Mast 5 Minute Rating 60 Minute Rating 60 Minute Rating Method of Control	NL/RL  Service / Parking  Type	Ib. (kg) Ib. (kg) Ib. (kg) Ib. (kg)  VOLTS  mph (km/h) mph (km/h) ft/min (m/sec) ft/min (m/sec) ft/min (m/sec) ft/min (m/sec) ft/min (m/sec) ft/min (m/sec)  VOLTS hp (kW)	10.3 / 8.8 (16.6 / 14.2) 9.1 / 7.7 (14.6 / 12.4) 71 / 46 (0.36 / 0.232) 67 / 43 (0.34 / 0.219) 68 / 44 (0.346 / 0.223) 19.9 / 11.9 7.3 / 4.5 3322 / 3185 1241 / 1224	12300 (5579) 7708 / 23813 (3496 / 10801) 10139 / 4035 (4599 / 1830)  Standard Performance  48  11.4 / 11 (18.3 / 17.7) 11.4 / 9.9 (18.3 / 15.9) 89 / 57 (0.45 / 0.29) 84 / 54 (0.425 / 0.274) 85 / 55 (0.433 / 0.279) 73 / 89 (0.37 / 0.45) 57 / 81 (0.29 / 0.41) 63 / 87 (0.32 / 0.44) 25.2 / 15 9.2 / 5.7 3970 / 3809 1488 / 1470 Hydraulic / Spring Applied Foot / Automatic Lead Acid Standard Performance 48 28.8 (21.5)	80 11.4/11 (18.3/17.7) 11.4/9.9 (18.3/15.9) 89/57 (0.45/0.29) 84/54 (0.425/0.274) 85/55 (0.433/0.279) 25.8/15.3 9.4/5.9 4049/3885 1518/1500 80 28.2 (21)			
PERFORMANCE	32 33 34 36 37 38 38 40 41 42	Truck Weight Axle Loading - Drive Axle Loading - Steer  Travel Speed  Lift Speed  Lower Speed  Gradability  Drawbar Pull  Brake  Battery  Traction Motor  Pump Motor	Static with Max. Wt. Battery Static with Max. Wt. Battery Static with Max. Wt. Battery Extended Shift OFF Extended Shift ON Std 2 Stg LFL Mast Opt 2 Stg FFL Mast Opt 3 Stg FFL Mast 5 Minute Rating 60 Minute Rating 60 Minute Rating Method of Control	NL/RL OB Service / Parking Type  60 Minute Rating	Ib. (kg) Ib. (kg) Ib. (kg) Ib. (kg)  VOLTS  mph (km/h) mph (km/h) ft/min (m/sec) ft/min (m/sec) ft/min (m/sec) ft/min (m/sec) ft/min (m/sec) ft/min (m/sec)  VOLTS hp (kW)	10.3 / 8.8 (16.6 / 14.2) 9.1 / 7.7 (14.6 / 12.4) 71 / 46 (0.36 / 0.232) 67 / 43 (0.34 / 0.219) 68 / 44 (0.346 / 0.223) 19.9 / 11.9 7.3 / 4.5 3322 / 3185 1241 / 1224	12300 (5579) 7708 / 23813 (3496 / 10801) 10139 / 4035 (4599 / 1830)  Standard Performance  48  11.4 / 11 (18.3 / 17.7) 11.4 / 9.9 (18.3 / 15.9) 89 / 57 (0.45 / 0.29) 84 / 54 (0.425 / 0.274) 85 / 55 (0.433 / 0.279) 73 / 89 (0.37 / 0.45) 57 / 81 (0.29 / 0.41) 63 / 87 (0.32 / 0.44) 25.2 / 15 9.2 / 5.7 3970 / 3809 1488 / 1470 Hydraulic / Spring Applied Foot / Automatic Lead Acid Standard Performance 48 28.8 (21.5) 48.3 (36)	80 11.4/11 (18.3/17.7) 11.4/9.9 (18.3/15.9) 89/57 (0.45/0.29) 84/54 (0.425/0.274) 85/55 (0.433/0.279) 25.8/15.3 9.4/5.9 4049/3885 1518/1500 80 28.2 (21)			
PERFORMANCE	33 34 36 37 38 39 40 41 42 43 44 45 46	Truck Weight Axle Loading - Drive Axle Loading - Steer  Travel Speed  Lift Speed  Lower Speed  Gradability  Drawbar Pull  Brake  Battery  Traction Motor Pump Motor Traction Motor Pump Motor	Static with Max. Wt. Battery Static with Max. Wt. Battery Static with Max. Wt. Battery Extended Shift OFF Extended Shift ON Std 2 Stg LFL Mast Opt 2 Stg FFL Mast Opt 3 Stg FFL Mast 5 Minute Rating 60 Minute Rating 60 Minute Rating Method of Control	NL/RL Service / Parking Type  60 Minute Rating 15 % Rating Type / Control Method Type / Control Method	Ib. (kg) Ib. (kg) Ib. (kg) Ib. (kg)  VOLTS  mph (km/h) mph (km/h) ft/min (m/sec) ft/min (m/sec) ft/min (m/sec) ft/min (m/sec) ft/min (m/sec) ft/min (m/sec)  VOLTS hp (kW)	10.3 / 8.8 (16.6 / 14.2) 9.1 / 7.7 (14.6 / 12.4) 71 / 46 (0.36 / 0.232) 67 / 43 (0.34 / 0.219) 68 / 44 (0.346 / 0.223) 19.9 / 11.9 7.3 / 4.5 3322 / 3185 1241 / 1224 36 28.8 (21.5) 35.5 (26.5)	12300 (5579) 7708 / 23813 (3496 / 10801) 10139 / 4035 (4599 / 1830)  Standard Performance  48  11.4 / 11 (18.3 / 17.7) 11.4 / 9.9 (18.3 / 15.9) 89 / 57 (0.45 / 0.29) 84 / 54 (0.425 / 0.274) 85 / 55 (0.433 / 0.279) 73 / 89 (0.37 / 0.45) 57 / 81 (0.29 / 0.41) 63 / 87 (0.32 / 0.44) 25.2 / 15 9.2 / 5.7 3970 / 3809 1488 / 1470 Hydraulic / Spring Applied Foot / Automatic Lead Acid Standard Performance 48 28.8 (21.5) 48.3 (36) AC / Transistor AC / Transistor	80 11.4/11 (18.3/17.7) 11.4/9.9 (18.3/15.9) 89/57 (0.45/0.29) 84/54 (0.425/0.274) 85/55 (0.433/0.279) 25.8/15.3 9.4/5.9 4049/3885 1518/1500 80 28.2 (21) 48.3 (36)			
PERFORMANCE	33 34 36 37 38 39 40 41 42 43 44 45 46 47	Truck Weight Axle Loading - Drive Axle Loading - Steer  Travel Speed  Lift Speed  Lower Speed  Gradability  Drawbar Pull  Brake  Battery  Traction Motor Pump Motor Traction Motor Pump Motor Number of Speeds	Static with Max. Wt. Battery Static with Max. Wt. Battery Static with Max. Wt. Battery Extended Shift OFF Extended Shift ON Std 2 Stg LFL Mast Opt 2 Stg FFL Mast Opt 3 Stg FFL Mast 5 Minute Rating 60 Minute Rating 60 Minute Rating Method of Control	NL/RL Service / Parking Type  60 Minute Rating 15 % Rating Type / Control Method	Ib. (kg) Ib. (kg) Ib. (kg) Ib. (kg) Ib. (kg)  VOLTS  mph (km/h) mph (km/h) ft/min (m/sec) ft/min (m/sec) ft/min (m/sec) ft/min (m/sec) ft/min (m/sec) % Ibf Ibf VOLTS hp (kW) hp (kW)	10.3 / 8.8 (16.6 / 14.2) 9.1 / 7.7 (14.6 / 12.4) 71 / 46 (0.36 / 0.232) 67 / 43 (0.34 / 0.219) 68 / 44 (0.346 / 0.223) 19.9 / 11.9 7.3 / 4.5 3322 / 3185 1241 / 1224 36 28.8 (21.5) 35.5 (26.5)	12300 (5579) 7708 / 23813 (3496 / 10801) 10139 / 4035 (4599 / 1830)  Standard Performance  48  11.4 / 11 (18.3 / 17.7) 11.4 / 9.9 (18.3 / 15.9) 89 / 57 (0.45 / 0.29) 84 / 54 (0.425 / 0.274) 85 / 55 (0.433 / 0.279) 73 / 89 (0.37 / 0.45) 57 / 81 (0.29 / 0.41) 63 / 87 (0.32 / 0.44) 25.2 / 15 9.2 / 5.7 3970 / 3809 1488 / 1470 Hydraulic / Spring Applied Foot / Automatic Lead Acid Standard Performance 48 28.8 (21.5) 48.3 (36) AC / Transistor nitely Variable / Infinitely Variable / Infi	80 11.4/11 (18.3/17.7) 11.4/9.9 (18.3/15.9) 89/57 (0.45/0.29) 84/54 (0.425/0.274) 85/55 (0.433/0.279) 25.8/15.3 9.4/5.9 4049/3885 1518/1500 80 28.2 (21) 48.3 (36)			
ELECTRIC PERFORMANCE	32 33 34 36 37 38 38 40 41 42 42 43 44 45 46 47 48	Truck Weight Axle Loading - Drive Axle Loading - Steer  Travel Speed  Lift Speed  Lower Speed  Gradability  Drawbar Pull  Brake  Battery  Traction Motor Pump Motor Traction Motor Pump Motor Number of Speeds Step Height	Static with Max. Wt. Battery Static with Max. Wt. Battery Static with Max. Wt. Battery Extended Shift OFF Extended Shift ON Std 2 Stg LFL Mast Opt 2 Stg FFL Mast Opt 3 Stg FFL Mast 5 Minute Rating 60 Minute Rating 60 Minute Rating Method of Control	NL/RL  Service / Parking  Type  60 Minute Rating  15 % Rating  Type / Control Method  Traction / Pump	Ib. (kg) Ib. (kg) Ib. (kg) Ib. (kg) Ib. (kg)  VOLTS  mph (km/h) mph (km/h) ft/min (m/sec) ft/min (m/sec) ft/min (m/sec) ft/min (m/sec) ft/min (m/sec) ft/min (m/sec) % UDLTS hp (kW) hp (kW) in. (mm)	10.3 / 8.8 (16.6 / 14.2) 9.1 / 7.7 (14.6 / 12.4) 71 / 46 (0.36 / 0.232) 67 / 43 (0.34 / 0.219) 68 / 44 (0.346 / 0.223) 19.9 / 11.9 7.3 / 4.5 3322 / 3185 1241 / 1224 36 28.8 (21.5) 35.5 (26.5)	12300 (5579) 7708 / 23813 (3496 / 10801) 10139 / 4035 (4599 / 1830)  Standard Performance  48  11.4 / 11 (18.3 / 17.7) 11.4 / 9.9 (18.3 / 15.9) 89 / 57 (0.45 / 0.29) 84 / 54 (0.425 / 0.274) 85 / 55 (0.433 / 0.279) 73 / 89 (0.37 / 0.45) 57 / 81 (0.29 / 0.41) 63 / 87 (0.32 / 0.44) 25.2 / 15 9.2 / 5.7 3970 / 3809 1488 / 1470 Hydraulic / Spring Applied Foot / Automatic Lead Acid Standard Performance 48 28.8 (21.5) 48.3 (36) AC / Transistor AC / Transistor nitely Variable / Infinitely	80 11.4/11 (18.3/17.7) 11.4/9.9 (18.3/15.9) 89/57 (0.45/0.29) 84/54 (0.425/0.274) 85/55 (0.433/0.279) 25.8/15.3 9.4/5.9 4049/3885 1518/1500 80 28.2 (21) 48.3 (36)			
ELECTRIC PERFORMANCE	32 33 34 36 37 38 38 40 41 42 42 43 44 45 46 47 48 49	Truck Weight Axle Loading - Drive Axle Loading - Steer  Travel Speed  Lift Speed  Lower Speed  Gradability  Drawbar Pull  Brake  Battery  Traction Motor Pump Motor Traction Motor Pump Motor Number of Speeds Step Height Floor Height	Static with Max. Wt. Battery Static with Max. Wt. Battery Static with Max. Wt. Battery Extended Shift OFF Extended Shift ON Std 2 Stg LFL Mast Opt 2 Stg FFL Mast Opt 3 Stg FFL Mast 5 Minute Rating 60 Minute Rating Method of Control Method of Operation	NL/RL Service / Parking Type  60 Minute Rating 15 % Rating Type / Control Method Type / Control Method	Ib. (kg) Ib. (kg) Ib. (kg) Ib. (kg) Ib. (kg)  VOLTS  mph (km/h) mph (km/h) ft/min (m/sec) ft/min (m/sec) ft/min (m/sec) ft/min (m/sec) ft/min (m/sec) % Ibf Ibf VOLTS hp (kW) hp (kW) in. (mm) in. (mm)	10.3 / 8.8 (16.6 / 14.2) 9.1 / 7.7 (14.6 / 12.4) 71 / 46 (0.36 / 0.232) 67 / 43 (0.34 / 0.219) 68 / 44 (0.346 / 0.223) 19.9 / 11.9 7.3 / 4.5 3322 / 3185 1241 / 1224 36 28.8 (21.5) 35.5 (26.5)	12300 (5579) 7708 / 23813 (3496 / 10801) 10139 / 4035 (4599 / 1830)  Standard Performance  48  11.4 / 11 (18.3 / 17.7) 11.4 / 9.9 (18.3 / 15.9) 89 / 57 (0.45 / 0.29) 84 / 54 (0.425 / 0.274) 85 / 55 (0.433 / 0.279) 73 / 89 (0.37 / 0.45) 57 / 81 (0.29 / 0.41) 63 / 87 (0.32 / 0.44) 25.2 / 15 9.2 / 5.7 3970 / 3809 1488 / 1470 Hydraulic / Spring Applied Foot / Automatic Lead Acid Standard Performance 48 28.8 (21.5) 48.3 (36) AC / Transistor AC / Transistor nitely Variable / Infinitely	80 11.4/11 (18.3/17.7) 11.4/9.9 (18.3/15.9) 89/57 (0.45/0.29) 84/54 (0.425/0.274) 85/55 (0.433/0.279) 25.8/15.3 9.4/5.9 4049/3885 1518/1500 80 28.2 (21) 48.3 (36)			
PERFORMANCE	32 33 34 36 37 38 39 40 41 42 42 43 44 45 46 47 48 49 50	Truck Weight Axle Loading - Drive Axle Loading - Steer  Travel Speed  Lift Speed  Lower Speed  Gradability  Drawbar Pull  Brake  Battery  Traction Motor Pump Motor Traction Motor Pump Motor Number of Speeds Step Height Floor Height Attachment Relief Pressure	Static with Max. Wt. Battery Static with Max. Wt. Battery Static with Max. Wt. Battery Extended Shift OFF Extended Shift ON Std 2 Stg LFL Mast Opt 2 Stg FFL Mast Opt 3 Stg FFL Mast 5 Minute Rating 60 Minute Rating Method of Control Method of Operation	NL/RL  Service / Parking  Type  60 Minute Rating  15 % Rating  Type / Control Method  Traction / Pump	Ib. (kg) Ib. (kg) Ib. (kg) Ib. (kg) Ib. (kg)  VOLTS  mph (km/h) mph (km/h) ft/min (m/sec) ft/min (m/sec) ft/min (m/sec) ft/min (m/sec) ft/min (m/sec) % Ibf Ibf VOLTS hp (kW) hp (kW) in. (mm) psi (bar)	10.3 / 8.8 (16.6 / 14.2) 9.1 / 7.7 (14.6 / 12.4) 71 / 46 (0.36 / 0.232) 67 / 43 (0.34 / 0.219) 68 / 44 (0.346 / 0.223) 19.9 / 11.9 7.3 / 4.5 3322 / 3185 1241 / 1224 36 28.8 (21.5) 35.5 (26.5)	12300 (5579) 7708 / 23813 (3496 / 10801) 10139 / 4035 (4599 / 1830)  Standard Performance  48  11.4 / 11 (18.3 / 17.7) 11.4 / 9.9 (18.3 / 15.9) 89 / 57 (0.45 / 0.29) 84 / 54 (0.425 / 0.274) 85 / 55 (0.433 / 0.279) 73 / 89 (0.37 / 0.45) 57 / 81 (0.29 / 0.41) 63 / 87 (0.32 / 0.44) 25.2 / 15 9.2 / 5.7 3970 / 3809 1488 / 1470 Hydraulic / Spring Applied Foot / Automatic Lead Acid Standard Performance 48 28.8 (21.5) 48.3 (36) AC / Transistor AC / Transistor nitely Variable / Infinitely Variable / Infinitely Variable / Infinitely Variable / Infinitely Variable / 155) 2248 (155)	80 11.4/11 (18.3/17.7) 11.4/9.9 (18.3/15.9) 89/57 (0.45/0.29) 84/54 (0.425/0.274) 85/55 (0.433/0.279) 25.8/15.3 9.4/5.9 4049/3885 1518/1500 80 28.2 (21) 48.3 (36)			
ELECTRIC PERFORMANCE	32 33 34 36 37 38 38 40 41 42 42 43 44 45 46 47 48 49	Truck Weight Axle Loading - Drive Axle Loading - Steer  Travel Speed  Lift Speed  Lower Speed  Gradability  Drawbar Pull  Brake  Battery  Traction Motor Pump Motor Traction Motor Pump Motor Number of Speeds Step Height Floor Height	Static with Max. Wt. Battery Static with Max. Wt. Battery Static with Max. Wt. Battery Extended Shift OFF Extended Shift ON Std 2 Stg LFL Mast Opt 2 Stg FFL Mast Opt 3 Stg FFL Mast 5 Minute Rating 60 Minute Rating Method of Control Method of Operation	NL / RL  Service / Parking  Service / Parking  Type  60 Minute Rating  15 % Rating  Type / Control Method  Traction / Pump  Lowest Point	Ib. (kg) Ib. (kg) Ib. (kg) Ib. (kg) Ib. (kg)  VOLTS  mph (km/h) mph (km/h) ft/min (m/sec) ft/min (m/sec) ft/min (m/sec) ft/min (m/sec) ft/min (m/sec) % Ibf Ibf VOLTS hp (kW) hp (kW) in. (mm) in. (mm)	10.3 / 8.8 (16.6 / 14.2) 9.1 / 7.7 (14.6 / 12.4) 71 / 46 (0.36 / 0.232) 67 / 43 (0.34 / 0.219) 68 / 44 (0.346 / 0.223) 19.9 / 11.9 7.3 / 4.5 3322 / 3185 1241 / 1224 36 28.8 (21.5) 35.5 (26.5)	12300 (5579) 7708 / 23813 (3496 / 10801) 10139 / 4035 (4599 / 1830)  Standard Performance  48  11.4 / 11 (18.3 / 17.7) 11.4 / 9.9 (18.3 / 15.9) 89 / 57 (0.45 / 0.29) 84 / 54 (0.425 / 0.274) 85 / 55 (0.433 / 0.279) 73 / 89 (0.37 / 0.45) 57 / 81 (0.29 / 0.41) 63 / 87 (0.32 / 0.44) 25.2 / 15 9.2 / 5.7 3970 / 3809 1488 / 1470 Hydraulic / Spring Applied Foot / Automatic Lead Acid Standard Performance 48 28.8 (21.5) 48.3 (36) AC / Transistor AC / Transistor nitely Variable / Infinitely	80 11.4/11 (18.3/17.7) 11.4/9.9 (18.3/15.9) 89/57 (0.45/0.29) 84/54 (0.425/0.274) 85/55 (0.433/0.279) 25.8/15.3 9.4/5.9 4049/3885 1518/1500 80 28.2 (21) 48.3 (36)			

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Parent   Department   Departm												
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10   1.00   1.	쁔	3	_									
Common	Ä	4 5				Ib (kg)						
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Tex Size   Drow Stater   Dro	· ·			Dnoumatic atc	Drive / Steer	iii. (iiiiii)						
11   Mart Till   20   Mart   Mart Till   20   Mart   Mart Till   21   Mart   Cheered Height   Mart   Mart	Ę.		•	r neumane, etc.	· ·	in						
11   Mart Till   20   Mart   Mart Till   20   Mart   Mart Till   21   Mart   Cheered Height   Mart   Mart		0	_	Y_Driven								
11   Mart Till   20   Mart   Mart Till   20   Mart   Mart Till   21   Mart   Cheered Height   Mart   Mart	ĕ	11		-		in (mm)	4		72)			
13   Free II rope forch   20 2 Sty Fail Free Life Ass with a visional English   16, pem)   5/150   11   11   11   11   12   12   13   17   12   13   17   12   13   17   12   13   13   13   13   13   13   13				- Contor or Tiroc		` ′	,		· <b>-</b> )			
The first   The part   First   Miller   The part   Th		-			<u> </u>	-						
14   LILHHeight - Top of Forks   15   LilHeight - Top of For		-				` '						
15					-	` ′						
15   10   10   10   10   10   10   10		14	Lift Height - Top of Fork	Std 2 Stg Limited Free Lift M	ast	in. (mm)		109 (2790)				
17   18   To Brottom Std Long   Seat Depressed   Std / Susp / S		1	Mast - Extended Height	Std Mast with / without LBR		in. (mm)		159 / 144 (4031 / 3657)				
10		1	Overhead Guard Height	Std / Opt / Opt Flat Plate		in. (mm)	9	4 / 91 / 87.1 (2388 / 2311 / 22	12)			
10		1	SIP to Bottom Std OHG	Seat Depressed	Std / Susp / Swivel	in. (mm)	38	8.7 / 38.9 / 38.9 (984 / 989 / 9	89)			
Park		1	Tow Pin Height	Vertical Center of Pin		in. (mm)		12.7 (324)				
				Standard Tread / Wide Tread		in. (mm)		52 / 55.9 (1320 / 1420)				
22   London Colerance   Center of Wines   Face of Forks   Michael   Without / With Battery Rollers   In. (mm)   18.2 (462)	v	2		Thickness x Width x Length	I a	` '		· · · · · · · · · · · · · · · · · · ·	7)			
22   London Colerance   Center of Wines   Face of Forks   Michael   Without / With Battery Rollers   In. (mm)   18.2 (462)	Č .	2			Class III	` '						
22   London Colerance   Center of Wines   Face of Forks   Michael   Without / With Battery Rollers   In. (mm)   18.2 (462)	Ĕ	2			NI /DI	· , ,						
Part   Compartment   Reight   Without   Wish   Sattery Compartment   Reight   Without / Wish Battery Rollers   In. (mm)   24.4 / 24 (app) 6.093		Z				` '						
Part   Compartment   Height   Without / With Battery Rollers   N. (mm)   24.472 (800.699)		_			· ·	` '						
Vidith   Nominal   SizE						` ′		` '				
			Dattery Compartment		without / with battery noners	` '						
Part		$\vdash$		Witti	Nominal	· , ,		. , ,				
Part   Company   Company				Lenath								
Part		2	Length to Face of Forks	<b></b>		, ,						
Part		· -	Wheelbase			` '	68.5 (1739)					
1		- ⊢				in. (mm)						
Truck Weight   Without Battery   N. / R.   Ib. (kg)   13860 (6287)		3	Equal Aisle	I Aisle 90° Intersecting Aisle			85.7 (2178)					
March   Marc						in. (mm)						
Standard Performance   10   10   10   10   10   10   10   1	토	3				lb. (kg)	13860 (6287)					
Standard Performance   10   10   10   10   10   10   10   1		3			· '							
Tarvel Speed	=	3	Axle Loading - Steer	Static with Max. Wt. Battery	NL/RL	lb. (kg)	,					
Table   Second   Extended Shift OFF   NL / RL   mph (km/h)   9.4 / 8 (15.1 / 12.9)   10.4 / 10 (16.7 / 16.1)   10.4 / 10.4 / 10.3 (0.6 / 10.2)   10.4 / 10.4 / 10.3 (0.6 / 10.2)   10.4 / 10.4 / 10.3 (0.6 / 10.2)   10.4 / 10.4 / 10.3 (0.6 / 10.2)   10.4 / 10.4 / 10.3 (0.6 / 10.2)   10.4 / 10.4 / 10.3 (0.6 / 10.2)   10.4 / 10.		┝				VOLTO						
Table   Find		20	Traval Chand	Extended Chift OFF	MI /DI	-		-				
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Table		3.	Lift Sneed			1 1	` ′	,				
Section   Sect				-		` '						
33   Gradability   5   Minute Rating   NL / RL   %   6.6 / 4   8.3 / 5.1   8.5 / 5.1	Ę					` ′	` ′	, ,	·			
33   Gradability   5   Minute Rating   NL / RL   %   6.6 / 4   8.3 / 5.1   8.5 / 5.1	3	3	Lower Speed		1	` '	,		,			
33   Gradability   5   Minute Rating   NL / RL   %   6.6 / 4   8.3 / 5.1   8.5 / 5.1	EDR			1	1							
33   Gradability   5   Minute Rating   NL / RL   %   6.6 / 4   8.3 / 5.1   8.5 / 5.1	E C			Opt 3 Stg FFL Mast	NL/RL	ft/min (m/sec)		63 / 87 (0.32 / 0.44)				
Mode	ů	3	Gradability	5 Minute Rating				22.8 / 13.1				
Method of Control   Service / Parking   Hydraulic / Spring Applied   Hydraulic / Hydraulic / Spring Applied   Hydraulic / Spring Applied   Hydraulic / Spring Applied   Hydraulic / Spring Applied   Hydraulic / Hydr					<u> </u>							
Method of Control   Service / Parking   Hydraulic / Spring Applied		4	Drawbar Pull	•								
Method of Operation   Service / Parking   Foot / Automatic					1	lbf	1239 / 1218		1495 / 1474			
March   Fig.		4	Brake		· · ·							
Fig.		-	Pattory	METHOD OF Uperation	-							
VOLTS   36   48   80		4	Battery		туре							
March   Motor   Moto						VOLTS	36		RU			
1	5	1	Traction Motor		60 Minute Rating							
1	24		Pump Motor 15 % Rating		t							
Marcol   Found   Fo	FLTR	4				F \/						
47   Number of Speeds   Traction / Pump   Infinitely Variable /	FIFCTR	4			Type / Control Method							
48   Step Height   In. (mm)   21.1 (536)	FIECTR	4	Traction Motor		ļ ··							
50   Attachment Relief Pressure   psi (bar)   2248 (155)     51   Auxiliary Oil Flow   3rd and 4th Function   gal/min (l/min)   16 (60)	FIECTR	4	Traction Motor Pump Motor		Type / Control Method		Inf	AC / Transistor	able			
50   Attachment Relief Pressure   psi (bar)   2248 (155)	FIECTR	4:	Traction Motor Pump Motor Number of Speeds		Type / Control Method	in. (mm)	Inf	AC / Transistor initely Variable / Infinitely Vari	able			
Auxiliary on Flow Site and 4th Function gaining (1/min)		4:	Traction Motor Pump Motor Number of Speeds Step Height Floor Height		Type / Control Method Traction / Pump	` '	Inf	AC / Transistor initely Variable / Infinitely Vari 21.1 (536)	able			
52 Sound Level Measured per ANSI B56.11.5 dB (A) 69/66		4: 4: 4: 4: 4: 5:	Traction Motor Pump Motor Number of Speeds Step Height Floor Height Attachment Relief Pressur	6	Type / Control Method Traction / Pump	in. (mm) psi (bar)	Inf	AC / Transistor initely Variable / Infinitely Vari 21.1 (536) 33.7 (855) 2248 (155)	able			
		4: 4: 4: 4: 5: 5: 5:	Traction Motor Pump Motor Number of Speeds Step Height Floor Height Attachment Relief Pressur Auxiliary Oil Flow		Type / Control Method Traction / Pump	in. (mm) psi (bar)	Inf	AC / Transistor initely Variable / Infinitely Vari 21.1 (536) 33.7 (855) 2248 (155)	able			

ERC80VH MAST DIMENSIONS										
Maximum Fork Height (TOF) +	Overall Lowered Ht.	Overall Extended Height w/Load Backrest w/o Load Backre		Free-Lift (TOF) w/ Load Backrest	Free-Lift (TOF) w/o Load Backrest					
in. (mm)	in. (mm) in. (mm) in. (mm)		in. (mm)	in. (mm)	in. (mm)					
2-STAGE LIMITED FREE-LIFT (LFL) MAST										
120 (3050)	84 (2134)	176 (4455)	149 (3783)	5 (150)	5 (150)					
143 (3650) 96 (2434)		193 (4884)	173 (4383)	5 (150)	5 (150)					
2-STAGE FULL FREE-LIFT	(FFL) MAST									
121 (3075)	84 (2134)	170 (4309)	152 (3857)	35 (900)	53 (1352)					
144 (3675)	96 (2434)	194 (4909)	176 (4457)	47 (1200)	65 (1652)					
3-STAGE FULL FREE-LIFT	(FFL) MAST									
173 (4415)	84 (2134)	223 (5649)	205 (5197)	35 (900)	53 (1352)					
185 (4715)	88 (2234)	235 (5949)	217 (5497)	39 (1000)	57 (1452)					
194 (4950)	92 (2334)	244 (6184)	226 (5732)	43 (1100)	61 (1552)					
218 (5550)	100 (2534)	268 (6784)	250 (6332)	51 (1300)	69 (1752)					

ERC100–120VH MAST DIMENSIONS											
Maximum Fork Height (TOF) +	Overall Lowered Ht.	Overall Extended Height w/Load Backrest	Overall Extended Height w/o Load Backrest	Free-Lift (TOF) w/ Load Backrest	Free-Lift (TOF) w/o Load Backrest						
in. (mm)	in. (mm) in. (mm) in. (mm)		in. (mm)	in. (mm)	in. (mm)						
2-STAGE LIMITED FREE-LIFT (LFL) MAST											
109 (2790)	85 (2138)	159 (4031)	144 (3657)	5 (150)	5 (150)						
133 (3390) 96 (2438)		183 (4631)	168 (4257)	5 (150)	5 (150)						
157 (3990) 108 (2738)		206 (5231)	192 (4857)	5 (150)	5 (150)						
2-STAGE FULL FREE-LIFT	(FFL) MAST										
110 (2815)	85 (2138)	160 (4056)	147 (3731)	35 (897)	48 (1222)						
134 (3415)	96 (2438)	184 (4656)	171 (4331)	47 (1197)	59 (1522)						
3-STAGE FULL FREE-LIFT (FFL) MAST											
162 (4137)	85 (2138)	212 (5378)	200 (5058)	35 (897)	47 (1217)						
184 (4690)	92 (2338)	234 (5931)	221 (5611)	43 (1097)	55 (1417)						
208 (5290)	100 (2538)	258 (6531)	245 (6211)	51 (1297)	63 (1617)						

	BATTERY AND COMPARTMENT SPECIFICATIONS											
	Compartment Dim			Battery Dim - Max						Max Capacity	Weight	
Truck Model	Width	Length	Height	"Х"	"Υ"	"Z"	Volts	No. of Cells	Plates per Cell	S   6 Hour Rate	Min	Max
		in (mm)			in (mm)		061	00110	pen cen	amp hr (kwh)	lb (kg)	
ERC080VH							36	18	33	2300 (80.3)		
ERC100VHS	45.4 (1152)	39.2 (996)	24.5 (622)	45 (1143)	39 (990)	23.9 (608)	48	24	29	1800 (83.8)	3400 (1542)	4800 (2177)
39" Compartment							80	40	15	1000 (77.6)		
ERC100VH							36	36	19	2300 (160.6)		
ERC120VH	45.4 (1152)	4 (1152) 45.7 (1161) 24.5	24.5 (622)	1.5 (622) 45 (1143)	45.3 (1150)	23.9 (608)	48	24	33	1800 (83.8)	4000 (1814)	5500 (2517)
45" Compartment							80	40	17	1000 (77.6)		

Battery Type: "EO" (Without Cover)

Battery amp hr (kwh) capacity is max allowable per UL

Commercially available lead acid batteries may not necessarily reach these max limits

Battery Roller option reduces battery compartment height to 24.0" (609mm) & max battery height to 23.4" (595mm) Battery Compartment Length is measured front to rear. Battery Compartment Width is measured across the truck

Battery Notes - Conventional Charging (Opt G26201)

Battery Connector: 36 volt - Grey SB\*350 (Anderson Power Products® P/N 632062 or equivalent)
48 volt - Blue SB\*350 (Anderson Power Products® P/N 632162 or equivalent)
80 volt - Black SBE\*320 (Anderson Power Products® P/N E635963 or equivalent)

Handle (not required): SB\*350 and SBE\*320 (Anderson Power Products®: "A" TYPE (Grey) P/N 99562 or equivalent)

Battery Lead: Length 20" (508 mm), Position "B", 4/0 AWG

Battery Notes - Rapid / Fast Charging (Opt G26202)
Battery Connector: Requires Dual Positive / Negative Cabling terminating in (2) Female EBC-320 DIN Connectors (Anderson Power Products® P/N E32504-00X9 or equivalent)

Each individual DIN connector to include 1 Red Conductor to (+) and 1 black conductor to (-)

Battery Lead: Length 25" (635 mm), Position "B", Minimum Cable Size 4/0 AWG

# FOOT DIRECTIONAL CONTROL PEDAL (FDC) (OPTIONAL)

The foot directional control pedal is a highly productive directional/accelerator pedal. One pedal allows the operator to change direction and acceleration reducing operator movement resulting in increased productivity.

# **HYDRAULIC COMPONENTS**

A transistor control hydraulic system is powered by a brushless, AC induction motor with maintenance free wet spline coupling that joins the motor to the pump for long drive life and low noise. The motor and pump are mounted on rubber isolators for reduced noise and vibration. A combination of flexible wire-braid hoses and steel tubing is used to simplify the hydraulic plumbing. These hydraulic lines are carefully routed and held in place to reduce possible damage. A 10-Micron full flow hydraulic filter located in the return line protects the hydraulic system from contaminants and helps provide long life. A by-pass relief valve permits oil flow in the event of the filter clogging.

### HYDROSTATIC POWER STEERING

Hydrostatic power steering is standard and the all-hydraulic design gives precise, reliable control while eliminating mechanical linkages and road shocks at the steering wheel. An infinitely adjustable tilt steering column provides excellent operator comfort and visibility.

### **DRIVE/STEERING AXLE**

The drive axle consists of a three-piece cast ductile iron housing and is a full floating axle. The steering axle is a onepiece ductile iron casting mounted on

elastic cushions that reduce shock and provide a softer ride. The Continuous Stability System (CSS™) enhances truck stability in a simple, maintenance free design, without compromising uneven surface travel.

# MASTS\CARRIAGE\FORKS\LOAD **BACKREST EXTENSION**

Yale® Global Hi-Vis™ simplex, duplex and triplex masts provide excellent visibility. The mast features flush face design with geometrically matched, angled load rollers, which are canted, yet provide full-face roller contact. The mast front rail flange angle coupled with the inverted "J" inner channel and three degree mast rollers significantly reduces channel web milling and roller wear. Trunnion mast mounting allows masts to be mounted with the shortest possible load distance (center of front wheel to face of forks) to maximize truck maneuverability. The mounting is standardized for direct mast interchangeability on a variety of Yale truck models without modification. Class III six-roller carriages are standard on the ERC080VH and Class IV six-roller carriages are standard on the ERC100-120VH. Forks are "upset forged" from a single piece of high-strength steel giving added strength and thickness for wear. A 48" load backrest extension is standard.

# **FRAME**

The frame is a unitized construction, stress tested for durability. An integral step on both sides of the truck is provided for easy entry and exit. The truck has a two-piece floor plate that can be easily lifted out for service access. An easily removable counterweight top cover gives easy access

to components. A stamped steel springassisted hood allows easy changing of the battery. The battery compartment can be fitted with rollers.

### **ADDITIONAL FEATURES**

Additional features on the ERC-VH include an overhead guard, 42" forks, nonsuspension seat, seat belt and an operator sensing system. An infinitely adjustable tilt steering column, rubber floor mat, and electronic horn are also standard.

### **OPTIONS**

Accutouch e-hydraulics Mini-levers Foot Directional Control Pedal Return to set tilt Telescoping Steering Column with Tilt Memory Rapid charge Cooler/freezer package Wide tread Full suspension seats (with and without Red (Hi-Vis) ELR non-cinch seat belt Battery rollers Overhead guard mounted headlights Lowered overhead guard LED and Halogen work light/tail light packages LED Dome/reading light 8° forward tilt Integral sideshifter 48, 80 volt Audible Alarm – Reverse Operation Light - Amber strobe Various type drive tires Type "EE" UL construction **Dual Rear View Mirrors** Panoramic Rear View Mirrors Fire Extinguisher Accumulator

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Truck performance may be affected by the condition of the vehicle, how it is equipped and the application. Consult your Yale® Industrial Truck Dealer if any of the information shown is critical to your application. Specifications are subject to change

This truck meets all design specifications of ANSI B56.1 Safety Standard for Powered Industrial Trucks at the time of

Classified by Underwriters' Laboratories, Inc. as to fire hazard only. The Yale products included in this document may be covered by US patent 6,684,148 and other patents pending.

