

CLARK ESX

12/15S/15/17/20/22/25



Max Load Capacity

2500 / 3000 / 3000 / 3500 / 4000 / 4500 / 5000 lbs.
(1250 / 1500 / 1500 / 1750 / 1815 / 2050 / 2270 kg)





- The low overhead guard height facilitates **easier trailer access** while providing the operator ample headroom.

- Rear posts add support to the overhead guard and help prevent objects from entering the operator compartment, keeping your employees as **safe** as possible.

- The **low step height** means frequent entry and exit is easy and less tiring for the operator.

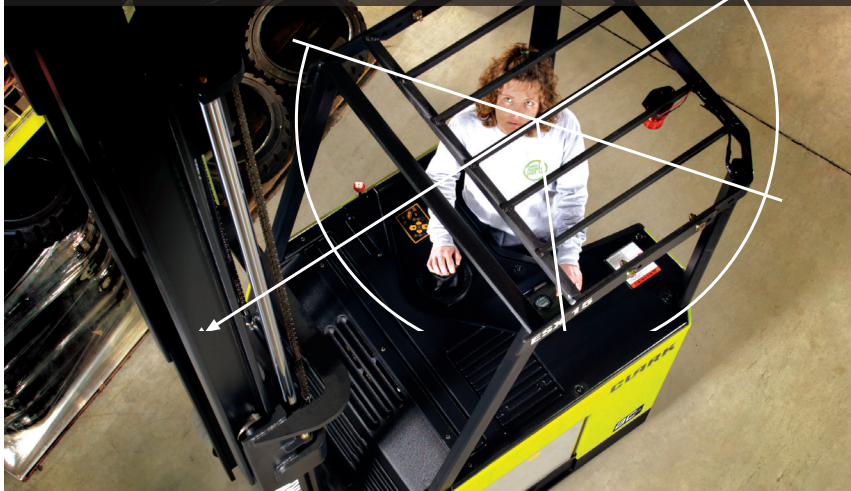
Standard Equipment

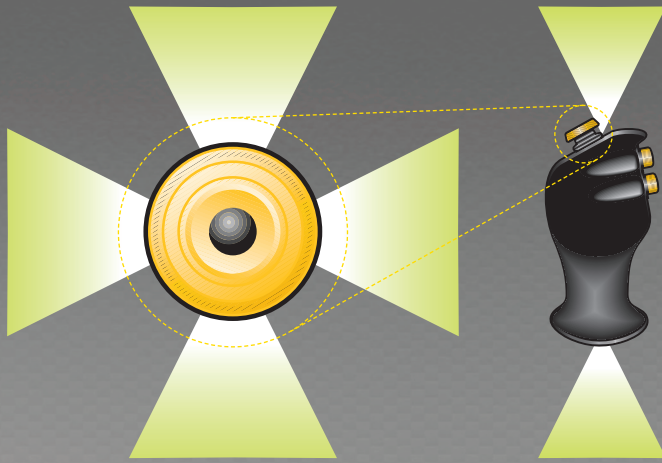
- Overhead Guard w/ (2) Rear posts
- 48" in. High Load Backrest
- Electric Horn
- Single Auxiliary Valve
- Proprietary CLARK green finish with non-glare black trim and bright white wheels
- Capacity Plate, Operator Instruction & Warning Labels are durable and highly visible
- Rip-resistant Operator's Manual tethered to truck

Available Equipment

- Side Shifters
- Operating Lights
- Strobes
- Travel Alarms
- Solid Pneumatic Drive Tires
- Cushion type non-marking, lug and polyurethane drive tires
- Cold Storage Specs
- U.L. type EE Construction
- Overhead Guard for Drive-In type rack

Maximum Visibility + Minimum Fatigue = Increased Safety & Product Integrity





ELECTRO-HYDRAULIC FULLY PROPORTIONAL VALVE

- **Featherable / Adjustable / Sealed**
 - Pump Motor Speed ramps to match hydraulic requirement.
- **Fly-by-Wire**
 - No Mechanical Linkage = No Wear.
- **Less Battery Use & No Overheating**
 - Increases ease of operation & Allows faster cycle times.
- **Easily Accessible & Serviceable**



TRUE MULTIFUNCTION CONTROL

- **CLARK Designed Control Handle**
 - 3-function design allows simultaneous operation of (1) travel, (2) lift or lower **AND** (3) one other hydraulic function.
- **Integrated Mini-Thumbstick**
 - Controls Tilt & Side Shift + Auxiliary functions
 - Two-Way Fork Leveling

[Thumbstick + Right Button] (see Product Enhancement Package)

■ Makes for One Smooth Operator

- Molded to fit a wide range of hand sizes and still give that “custom fit” feel for better ergonomics and less operator fatigue.



FULLY ADJUSTABLE/PROGRAMMABLE

- A properly trained mechanic can completely customize parameters to Operator's Preference such as Acceleration Rate, Deceleration Rate, Maximum Speed (separate Forward and Reverse).

& Don't Forget... Safety Starts With You!

Before operating a lift truck, an operator must:

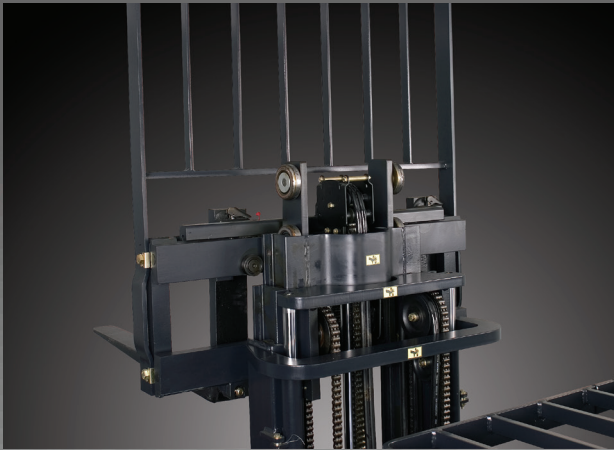
- Be trained and authorized
- Read and understand operator's manual
- Not operate a faulty lift truck
- Not repair a lift truck unless trained and authorized
- Have the overhead guard and load backrest extension in place
- Perform daily inspections

During operation, a lift truck operator must:

- Keep feet, legs and all parts of body inside operator compartment
- Never carry passengers or lift people
- Keep truck away from people and obstructions
- Travel with lift mechanism as low as possible and tilted back
- Allow safe stopping distance and come to a complete stop before leaving operator compartment

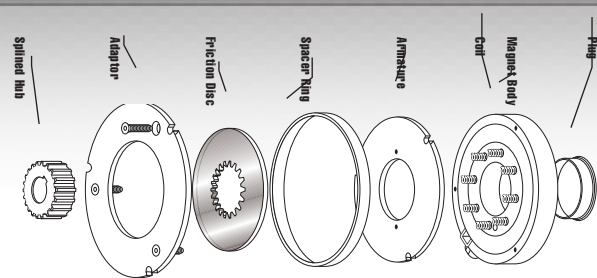
To park a lift truck, an operator must:

- Completely lower forks or attachments
- Turn key off



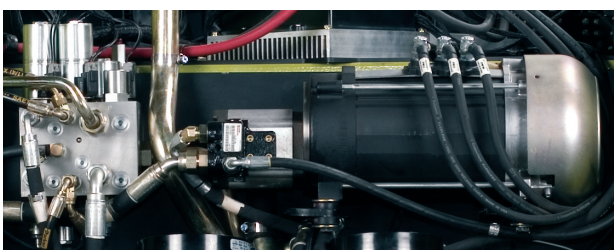
RUGGED UPRIGHT AND CARRIAGE

- **Hydraulic Cushioning Valves**
 - Silent Staging Reduces Shock & Vibration.
- **Shimmable, Sealed & Canted Load Rollers**
 - Maximize Load Distribution & Reduce Free Play.



ENCLOSED ELECTROMAGNETIC BRAKES

- **Spring Applied/EM Release**
 - No Master Cylinder, No Seals,
No Hydraulic Fluids = No Leaks.
- **Anti-Rollaway & Ramp Hold Feature**
 - Increased Controllability & Enhanced Safety.
- **On the Fly Self-Checking Software**
 - Checks for unintended movement.
- **Rebuildable, Easily Accessible**



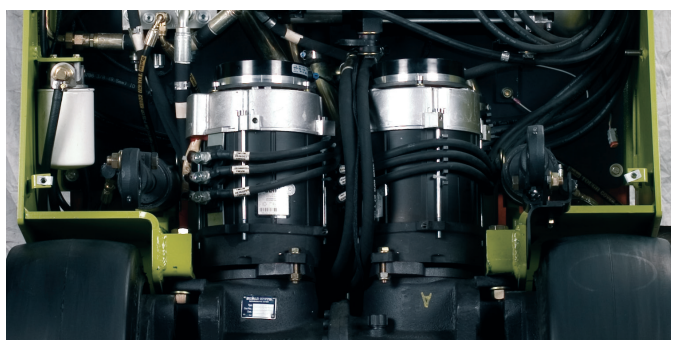
100% AC MOTORS

- **Fewer Parts & Minimum Wear = Less Downtime and Cost = Higher ROI**
 - Enclosed • Brushless • Thermal protection
 - Stall protection • Smart Lift Lock Out
 - One Motor for both Steering & Hydraulics.



PRODUCT ENHANCEMENT PACKAGE

- **Two-Way Fork Leveling**
 - Levels backward & forward assisting the operator when dealing with high racking. No more broken pallets or bent racks.
- **Full Range of Tilt**
 - Full forward tilt when forks are low, allowing for broken pallet pick up and general chiseling operations.
- **Faster Tilt Speeds**
 - Allowing faster cycle times when forks are low.
- **Travel Speed Reduction**
 - Limits the speed of the truck when the forks are elevated allowing for safer operation when dealing with high loads.



HEAVY DUTY DRIVE MOTORS & AXLES

- **"BEST IN CLASS" Power**
 - Larger Motors mean Cooler Operation and Increased Efficiency. Rated for grades $\leq 15\%$.
- **Easily Accessible & Serviceable**

GENERAL DATA & STANDARD DIMENSIONS

Upright Table

Maximum† Fork Height in mm	Overall Height Lowered in mm	Free Lift** in mm
Standard Two Stage		
110 (2794)	78 (1981)	4.3 (109)
• 122 (3099)	84 (2134)	4.3 (109)
130 (3302)	88 (2235)	4.3 (109)
Quad Four Stage†		
222.5 (5652)	78.5 (1994)	55 (1397)
• 240.5 (6109)	83 (2108)	59 (1499)
258.5 (6566)	89 (2261)	65 (1651)
ESX 12/15S/15/17/20 Hi-Lo Two Stage		
116 (2946)	77 (1956)	53 (1346)
• 128 (3251)	83 (2108)	59 (1499)
Triple Stage		
152 (3875)	72 (1821)	46 (1168)
170 (4325)	77.5 (1964)	53 (1346)
• 188 (4775)	83 (2109)	59 (1499)
199 (5075)	89 (2259)	65 (1651)
214 (5450)	95 (2397)	68 (1727)
226 (5750)	99 (2517)	75 (1905)
238 (6050)	104.5 (2654)	79 (2007)
ESX 22/25 Triple Stage		
150 (3825)	72 (1821)	46 (1168)
168 (4275)	77.5 (1964)	53 (1346)
• 186 (4725)	83 (2109)	59 (1499)
197 (5025)	89 (2259)	65 (1651)
212 (5400)	95 (2397)	68 (1727)
224 (5700)	99 (2517)	75 (1905)
236 (6000)	104.5 (2654)	79 (2007)

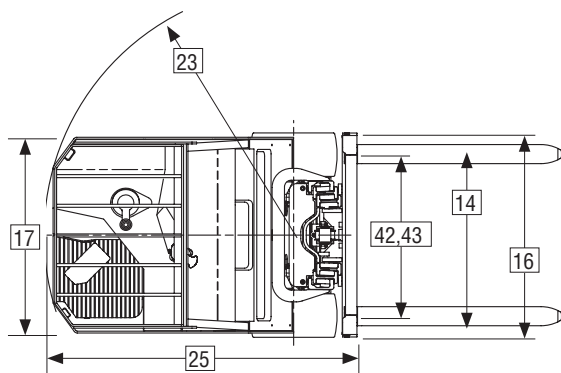
• Indicates preferred standard sizes. For overall height raised with load backrest, add 48 in. (1220 mm) to maximum fork height. Other uprights available contact a Clark representative.

** All free lift dimensions shown without standard 48 in. (1220 mm) high load backrest.

† Length to face of fork and RAS increase 3.14 in. with quad installation.

Battery Compartment Dimensions

Width (W) in mm	Length (L) in mm	Height (H) in mm
ESX 12/15S		
38.8 (985)	13.88 (353)	31.0 (787)
ESX 15		
38.8 (985)	16.13 (410)	31.0 (787)
ESX 17		
38.8 (985)	18.38 (467)	31.0 (787)
ESX 20/22/25		
38.8 (985)	20.88 (530)	31.0 (787)



Grade Clearance*

Model	A%
ESX 12/15S	41%
ESX 15	38%
ESX 17	36%
ESX 20	34%
ESX 22/25	32%

* The ESX is designed for operation on and over grades but must be limited to 15%.

Tilt Specifications

Upright MFH (in / mm)	Low Tilt B° / F°	High Tilt B° / F°
All Standard Uprights thru 151 in (3835 mm)	8° B / 6° F	8° B / 6° F
All TSU & HiLo Uprights thru 151 in (3835 mm)	8° B / 6° F	8° B / 1.5° F
All TSU Uprights 152 in (3861 mm) thru 240.5 in (6096 mm)	8° B / 6° F	5° B / 1.5° F
All Quads 222.5 in (5652 mm) thru 240.5 in (6096 mm)	5° B / 6° F	5° B / 1.5° F
All TSU & Quads above 241 in (6121 mm)	5° B / 6° F	3° B / 1.5° F

* Standard tilt with MFH's noted. Contact Clark representative for information on optional tilt.

Notes

Performance may vary +5% and -10% due to motor and systems efficiency tolerance. The performance shown represents nominal values which may be obtained under typical operating conditions of a standard machine.

ANSI/ITSDF and Insurance Classification

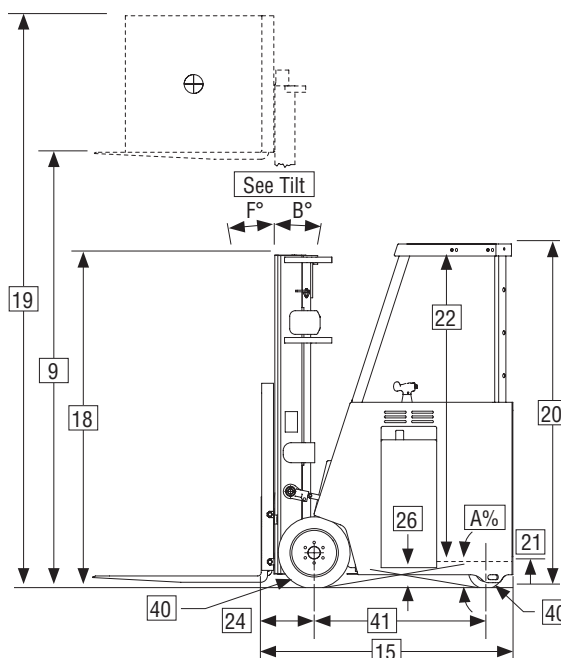
Standard truck meets all applicable mandatory requirements of Part III-ANSI/ITSDF B56.1 Safety Standard for Powered Industrial Trucks (latest edition at time of manufacture) and Underwriters Laboratories requirements as to fire and electrical shock hazard only for "E" classification. For further information contact a Clark representative.

Users should be aware of, and adhere to, applicable codes and regulations regarding operator training, use, operation and maintenance of powered industrial trucks, including:

- ANSI/ITSDF B56.1
- NFPA 505, fire safety standard for powered industrial trucks - type designations, areas of use, maintenance and operation.
- Occupational Safety and Health Administration (OSHA) regulations that may apply.

Contact your authorized CLARK forklift truck dealer for further information including operator training programs and auxiliary visual and audible warning systems, fire extinguishers, etc., as available for specific user applications and requirements.

Specifications, equipment, technical data, photos and illustrations are based on information at time of printing and are subject to change without notice. Some products may be shown with optional equipment.



For corresponding data see Specification Chart

General Information	1	Manufacturer		Clark	Clark	Clark
	2	Model	Manufacturer's Designation	ESX 12	ESX15S	ESX 15
	3	Load Capacity	lbs(kg)	2500 (1250)	3000 (1500)	3000 (1500)
	4	Load Center	Fork Face to Load CG	in(mm)	24 (500)	24 (500)
	5	Power Unit	Electric	36 volt	36 volt	36 volt / 48 volt
	6	Operator Type		Stand-up Counterbalanced	Stand-up Counterbalanced	Stand-up Counterbalanced
	7	Tire Type	Multi-tire	Cushion / Pneumatic	Cushion / Pneumatic	Cushion / Pneumatic
	8	Wheels (x=driven)	Front/Rear	2x / 1 Dual	2x / 1 Dual	2x / 1 Dual
Basic Dimensions ³	9	Upright ¹	Maximum Lift Height, Full Capacity	in(mm)	188 (4775)	188 (4775)
	10		Lift Height (Preferred Upright)	in(mm)	188 (4775)	188 (4775)
	11		Freelift	in(mm)	59 (1499)	59 (1499)
	12	Upright Tilt	Back/Forward (Triple Stage Upright)	degrees	See Table	See Table
	13	Fork	Std. Fork Size (T x W x L)	in(mm)	1.5 x 4 x 42 (40 x 100 x 1067)	1.5 x 4 x 42 (40 x 100 x 1067)
	14	Carriage	Width of Carriage ⁵	in(mm)	37 (940)	37 (940)
	15	Overall Dimensions	Length to Fork Face (TSU) ²	in(mm)	62.6 (1590)	62.6 (1590)
	16		Width Over Tires ⁴	in(mm)	40.3 (1024) / 42.2 (1072)	40.3 (1024) / 42.2 (1072)
	17		Width Over Frame	in(mm)	40.3 (1024)	40.3 (1024)
	18		Height, Upright Lowered	in(mm)	83 (2108)	83 (2108)
	19		Height, Upright Extended	in(mm)	236 (5994)	236 (5994)
	20		Height, Overhead Guard	in(mm)	86.5 (2197)	86.5 (2197)
	21	Step Height	Ground to Top of Step	in(mm)	7.5 (191)	7.5 (191)
	22				78 (1981)	78 (1981)
	23	Turning Radius		in(mm)	51.6 (1311)	51.6 (1311)
	24	Load Center Distance	Center of Drive Axle to Fork Face ²	in(mm)	13.1 (334)	13.1 (334)
25	Right Angle Stack Aisle	Add Load Length and Clearance ²	in(mm)	64.5 (1638)	64.5 (1638)	
26	Battery Roller Height	Ground to Top of Rollers	in(mm)	6.0 (152)	6.0 (152)	
Performance	27	Stability	According to ANSI	Yes	Yes	Yes
	28	Speeds	Travel Speed, Max, With Load	mph(kph)	7.3 (11.7)	7.3 (11.7)
	29		Travel Speed, Max, Without Load	mph(kph)	7.3 (11.7)	7.3 (11.7)
	30	Lift Speeds, Loaded	Triple Stage Upright	fpm(mps)	73 (.37)	69 (.35)
	31	Lift Speeds, Unloaded	Triple Stage Upright	fpm(mps)	108 (.55)	108 (.55) / 118 (.60)
	32	Lower Speeds, Loaded	Triple Stage Upright	fpm(mps)	90 (.46)	90 (.46)
	33	Lower Speeds, Unloaded	Triple Stage Upright	fpm(mps)	81 (.41)	81 (.41)
Weights ²	34	Service Weight, TSU	W/Min Battery Weight	lbs(kg)	8200 (3720)	8515 (3862)
	35	Axle loading	With Load, Front	lbs(kg)	8935 (4053)	10011 (4541)
	36		With Load, Rear	lbs(kg)	1765 (801)	1504 (682)
	37		W/O Load, Front	lbs(kg)	4280 (1941)	4419 (2004)
	38		W/O Load, Rear	lbs(kg)	3922 (1779)	4096 (1858)
Chassis	39	Tires	Number, Front/Rear		2X / 1 DUAL	2X / 1 DUAL
	40		Size, Front	in	18X7X12.12 / 18X7X8 16PR	18X7X12.12 / 18X7X8 16PR
			Size, Rear	in(mm)	9 x 5 (229 x 127) Dual Poly	9 x 5 (229 x 127) Dual Poly
	41	Wheelbase		in(mm)	43.0 (1092)	43.0 (1092)
	42	Track	Front, Cushion	in(mm)	33.3 (846)	33.3 (846)
	43		Front, Pneumatic	in(mm)	35.6 (904)	35.6 (904)
	44	Ground Clearance	Min w/Load ⁶	in(mm)	2.4 (61)	2.4 (61)
	45		At Center of Wheelbase, Loaded	in(mm)	3.6 (91)	3.6 (91)
	46	Service Brake	Type		Regenerative	Regenerative
	47	Parking Brake	Type		Auto-Electro Magnetic	Auto-Electro Magnetic
Drive Line		Battery	Type		Lead-Acid	Lead-Acid
			Max Capacity (6 hr. Rate)	kWh	27.0	32.2
			Weight, Min	lbs(kg)	1280 (581)	1590 (721)
	49	Motors, Controls	Drive Motor, Diameter (Dual)	in(mm)	7.9 (201)	7.9 (201)
			Hydraulic Motor, Diameter	in(mm)	6.7 (170)	6.7 (170)
			Drive Motor Control		Inverter	Inverter
			Speed Control		Solid State	Solid State
			Hydraulic Motor Control		Inverter	Inverter
57	Hydraulic Pressure			Adjustable	Adjustable	
58	Sound Level	Avg. at Operator's Ear Per ANSI B56.11.5	dB(A)	70	70	

Notes: 1 See upright table for other available uprights.
2 Dimensions are for TSU uprights: add the following (with 1.5in. thick forks) for other uprights: 3.14 for Quad, 0.1in. for STD and 2.37in. for HiLo uprights.
3 Specifications are given with preferred triple stage upright and minimum battery weight.

ESX 12/15S/15/17/20/22/25

1	Clark	Clark	Clark	Clark
2	ESX17	ESX 20	ESX22	ESX 25
3	3500 (1750)	4000 (1815)	4500 (2050)	5000 (2270)
4	24 (500)	24 (500)	24 (500)	24 (500)
5	36 volt / 48 volt	36 volt / 48 volt	36 volt / 48 volt	36 volt / 48 volt
6	Stand-up Counterbalanced	Stand-up Counterbalanced	Stand-up Counterbalanced	Stand-up Counterbalanced
7	Cushion / Pneumatic	Cushion / Pneumatic	Cushion	Cushion
8	2x / 1 Dual	2x / 1 Dual	2x / 1 Dual	2x / 1 Dual
9	188 (4775)	188 (4775)	168 (4267)	150 (3810)
10	188 (4775)	188 (4775)	186 (4725)	186 (4725)
11	59 (1499)	59 (1499)	59 (1499)	59 (1499)
12	See Table	See Table	See Table	See Table
13	1.5 x 4 x 42 (40 x 100 x 1067)	1.5 x 4 x 42 (40 x 100 x 1067)	1.5 x 4 x 42 (40 x 100 x 1067)	1.5 x 4 x 42 (40 x 100 x 1067)
14	37 (940)	37 (940)	41 (1041)	41 (1041)
15	67.1 (1704)	69.6 (1763)	71.6 (1819)	71.6 (1819)
16	40.3 (1024) / 47.2 (1199)	40.3 (1024) / 47.2 (1199)	42.2 (1072)	42.2 (1072)
17	40.3 (1024)	40.3 (1024)	40.3 (1024)	40.3 (1024)
18	83 (2108)	83 (2108)	83 (2108)	83 (2108)
19	236 (5994)	236 (5994)	234 (5944)	234 (5944)
20	86.5 (2197)	86.5 (2197)	86.5 (2197)	86.5 (2197)
21	7.5 (191)	7.5 (191)	7.5 (191)	7.5 (191)
22	78 (1981)	78 (1981)	78 (1981)	78 (1981)
23	56.1 (1425)	58.6 (1488)	60.6 (1539)	60.6 (1539)
24	13.1 (334)	13.1 (334)	13.1 (334)	13.1 (334)
25	69.0 (1753)	71.5 (1816)	73.5 (1867)	73.5 (1867)
26	6.0 (152)	6.0 (152)	6.0 (152)	6.0 (152)
27	Yes	Yes	Yes	Yes
28	7.3 (11.7)	7.3 (11.7)	7.3 (11.7)	7.3 (11.7)
29	7.3 (11.7)	7.3 (11.7)	7.3 (11.7)	7.3 (11.7)
30	65 (.33) / 75 (.38)	61 (.31) / 74 (.38)	53 (.27) / 64 (.33)	45 (.23) / 53 (.27)
31	108 (.55) / 118 (.60)	108 (.55) / 118 (.60)	108 (.55) / 118 (.60)	108 (.55) / 118 (.60)
32	90 (.46)	90 (.46)	90 (.46)	90 (.46)
33	81 (.41)	81 (.41)	81 (.41)	81 (.41)
34	9240 (4191)	9450 (4287)	9650 (4377)	10265 (4656)
35	10922 (4654)	11820 (5362)	12503 (5671)	13653 (6193)
36	1818 (825)	1630 (739)	1647 (747)	1612 (731)
37	4688 (2126)	4852 (2201)	4792 (2174)	5086 (2307)
38	4552 (2065)	4598 (2086)	4858 (2204)	5179 (2349)
39	2X / 1 DUAL	2X / 1 DUAL	2X / 1 DUAL	2X / 1 DUAL
40	18X8X12.12 / 18X9X8 16PR 9 x 5 (229 x 127) Dual Poly	18X8X12.12 / 18X9X8 16PR 9 x 5 (229 x 127) Dual Poly	18X9X12.12 9 x 5 (229 x 127) Dual Poly	18X9X12.12 9 x 5 (229 x 127) Dual Poly
41	47.5 (1207)	50.0 (1270)	52.0 (1321)	52.0 (1321)
42	32.3 (820)	32.3 (820)	33.3 (846)	33.3 (846)
43	38.2 (970)	38.2 (970)	NA	NA
44	2.4 (61)	2.4 (61)	2.4 (61)	2.4 (61)
45	3.6 (91)	3.6 (91)	3.6 (91)	3.6 (91)
46	Regenerative	Regenerative	Regenerative	Regenerative
47	Auto-Electro Magnetic	Auto-Electro Magnetic	Auto-Electro Magnetic	Auto-Electro Magnetic
	Hydrostatic	Hydrostatic	Hydrostatic	Hydrostatic
48	Lead-Acid	Lead-Acid	Lead-Acid	Lead-Acid
	37.6	43.0	43.0	43.0
	2175 (987)	2460 (1116)	1845 (837)	2460 (1116)
49	7.9 (201)	7.9 (201)	7.9 (201)	7.9 (201)
	6.7 (170)	6.7 (170)	6.7 (170)	6.7 (170)
	Inverter	Inverter	Inverter	Inverter
	Solid State	Solid State	Solid State	Solid State
	Inverter	Inverter	Inverter	Inverter
57	Adjustable	Adjustable	Adjustable	Adjustable
58	70	70	70	70

4 OAW with wide drive tires is 45in. for all models with quad uprights above 222.5 in. and with triple stage uprights above 239 in.

5 36 in. max fork spread w/ 37 in. carriage. 40 in. max fork spread w/ 41 in. carriage.

6 Ground Clearance at rear frame tie-down points is approximately 1.5 in.



OVER 100 YEARS OF MATERIAL HANDLING INNOVATION

A Centennial is an important milestone which not only celebrates longevity, but testifies to the strength of the CLARK brand across generations. This is reflected in the more than one million lift trucks manufactured by CLARK Material Handling Company over the past 100 years. Even more powerful than the number of trucks built is the company's legacy of innovation. It began in 1917 when employees of CLARK Equipment Company constructed a simple three-wheeled shop buggy to haul sand and castings between buildings at their Buchanan, Michigan plant. The "Trutractor" as the shop buggy was named, became



the first internal combustion material handling truck and was a great success. The industrial truck was born and in the process CLARK developed the first hydraulic lift. Through the years, many extraordinary inventions followed, among them the nested I-beam upright, overhead guard and operator restraint system. The founding principles of Eugene B. Clark are still true: "Aim always to build the best; never be content with just as good." Today the company remains focused on a bright future and the technologies and trends driving the material handling industry around the world. One Purpose, One Brand, One Legacy, One Century.



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