ESX

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

ELECTRIC 36/48 VOLT
2500 / 3000 / 3000 / 3500 / 4000 / 4500 / 5000 lbs.
(1250 / 1500 / 1500 / 1750 / 1815 / 2050 / 2270 kg)

CLARK®
THE FORKLIFT

- 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.

60°

The ESX Operator Compartment and Controls are designed at **60 degrees from centerline** to offer the widest range of flexibility and visual confirmation to the operator's preferred stance (no shuffling required).

- Nested Upright Rails & Overhead Guard Safety Bars (running parallel to operator's line of sight) expand the vision window, **reduce product damage** and decrease pick times.

Maximum Visibility + Minimum Fatigue = **Ultimate Safety** & **Product Integrity**

Highly Maneuverable, Easily Serviceable, Broadly Flexible, Extremely Dependable

Aisle space is always at a premium. So the 100% AC ESX is not only designed to be fast, energy efficient and inexpensive to operate, we also made sure that your operators can use the ESX to negotiate those tighter spaces. **"Well-Engineered"** would be an understatement, so let's go with... **"Tenacious"**.

ESX STANDARD FEATURES & BENEFITS

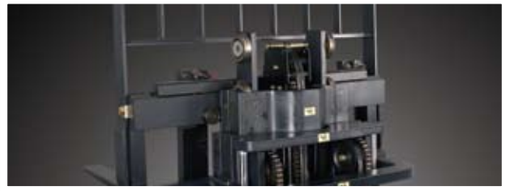
100% AC MOTORS

- **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.

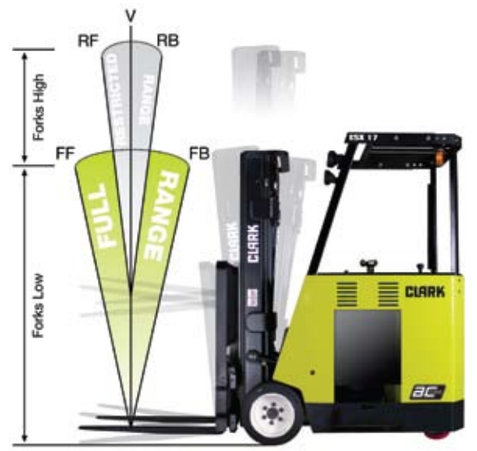
HEAVY DUTY DRIVE MOTORS & AXLES

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



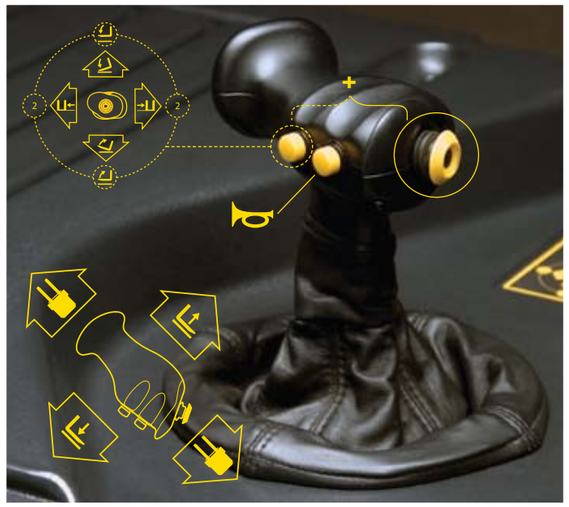
RUGGED UPRIGHT AND CARRIAGE

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



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.

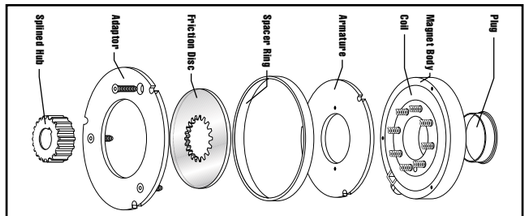


TRUE MULTIFUNCTION CONTROL

- **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.



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**

Standard Equipment

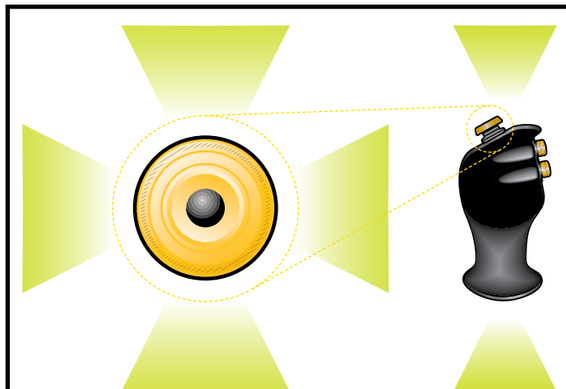
- Overhead Guard w/ (2) Rear posts
- 48" in. High Load Backrest
- Electric Horn
- Single Auxiliary Valve
- Finish is High Visibility CLARK Green w/ non-glare black trim and bright white wheels
- Capacity Plate, Operator Instruction & Warning Labels are durable and highly visible
- Rip-resistant Operator's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

Optional 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

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).



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**

STANDARD SPECIFICATIONS

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

General Information	1	Manufacturer			Clark	Clark	Clark	Clark	Clark	Clark	Clark
	2	Model	Manufacturer's Designation		ESX 12	ESX15S	ESX 15	ESX17	ESX 20	ESX22	ESX 25
	3	Load Capacity	lbs(kg)		2500 (1250)	3000 (1500)	3000 (1500)	3500 (1750)	4000 (1815)	4500 (2050)	5000 (2270)
	4	Load Center	Fork Face to Load CG	in(mm)	24 (500)	24 (500)	24 (500)	24 (500)	24 (500)	24 (500)	24 (500)
	5	Power Unit	Electric		36 volt	36 volt	36 volt / 48 volt	36 volt / 48 volt	36 volt / 48 volt	36 volt / 48 volt	36 volt / 48 volt
	6	Operator Type			Stand-up Counterbalanced	Stand-up Counterbalanced	Stand-up Counterbalanced	Stand-up Counterbalanced	Stand-up Counterbalanced	Stand-up Counterbalanced	Stand-up Counterbalanced
	7	Tire Type	Multi-tire		Cushion / Pneumatic	Cushion / Pneumatic	Cushion / Pneumatic	Cushion / Pneumatic	Cushion / Pneumatic	Cushion	Cushion
	8	Wheels (x=driven)	Front/Rear		2x / 1 Dual	2x / 1 Dual	2x / 1 Dual	2x / 1 Dual	2x / 1 Dual	2x / 1 Dual	2x / 1 Dual
Basic Dimensions	9	Upright[1]	Maximum Lift Height, Full Capacity	in(mm)	188 (4775)	188 (4775)	188 (4775)	188 (4775)	188 (4775)	168 (4267)	150 (3810)
	10		Lift Height (Preferred Upright)	in(mm)	188 (4775)	188 (4775)	188 (4775)	188 (4775)	188 (4775)	186 (4725)	186 (4725)
	11		Freelift	in(mm)	59 (1499)	59 (1499)	59 (1499)	59 (1499)	59 (1499)	59 (1499)	59 (1499)
	12	Upright Tilt	Back/Forward (Triple Stage Upright)	degrees	See Table	See Table	See Table	See Table	See Table	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)	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)	1.5 x 4 x 42 (40 x 100 x 1067)
	14	Carriage	Width of Carriage[5]	in(mm)	37 (940)	37 (940)	37 (940)	37 (940)	37 (940)	41 (1041)	41 (1041)
	15	Overall Dimensions	Length to Fork Face (TSU)[2]	in(mm)	62.6 (1590)	62.6 (1590)	64.6 (1641)	67.1 (1704)	69.6 (1763)	71.6 (1819)	71.6 (1819)
	16		Width Over Tires[4]	in(mm)	40.3 (1024) / 42.2 (1072)	40.3 (1024) / 42.2 (1072)	40.3 (1024) / 42.2 (1072)	40.3 (1024) / 47.2 (1199)	40.3 (1024) / 47.2 (1199)	42.2 (1072)	42.2 (1072)
	17		Width Over Frame	in(mm)	40.3 (1024)	40.3 (1024)	40.3 (1024)	40.3 (1024)	40.3 (1024)	40.3 (1024)	40.3 (1024)
	18		Height, Upright Lowered	in(mm)	83 (2108)	83 (2108)	83 (2108)	83 (2108)	83 (2108)	83 (2108)	83 (2108)
	19		Height, Upright Extended	in(mm)	236 (5994)	236 (5994)	236 (5994)	236 (5994)	236 (5994)	234 (5944)	234 (5944)
	20		Height, Overhead Guard	in(mm)	86.5 (2197)	86.5 (2197)	86.5 (2197)	86.5 (2197)	86.5 (2197)	86.5 (2197)	86.5 (2197)
	21	Step Height	Ground to Top of Floor Plate	in(mm)	7.5 (191)	7.5 (191)	7.5 (191)	7.5 (191)	7.5 (191)	7.5 (191)	7.5 (191)
	22	Head Clearance	Top of Floor Plate to Bottom of OHG	in(mm)	78 (1981)	78 (1981)	78 (1981)	78 (1981)	78 (1981)	78 (1981)	78 (1981)
	23	Turning Radius		in(mm)	51.6 (1311)	51.6 (1311)	53.6 (1361)	56.1 (1425)	58.6 (1488)	60.6 (1539)	60.6 (1539)
	24	Load Center Distance	Center of Drive Axle to Fork Face[2]	in(mm)	13.1 (334)	13.1 (334)	13.1 (334)	13.1 (334)	13.1 (334)	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)	66.5 (1689)	69.0 (1753)	71.5 (1816)	73.5 (1867)	73.5 (1867)
	26	Battery Roller Height	Ground to Top of Rollers	in(mm)	6.0 (152)	6.0 (152)	6.0 (152)	6.0 (152)	6.0 (152)	6.0 (152)	6.0 (152)
Performance	27	Stability	According to ANSI		Yes	Yes	Yes	Yes	Yes	Yes	Yes
	28	Speeds	Travel Speed, Max, With Load	mph(kph)	7.3 (11.7)	7.3 (11.7)	7.3 (11.7)	7.3 (11.7)	7.3 (11.7)	7.3 (11.7)	7.3 (11.7)
	29		Travel Speed, Max, Without Load	mph(kph)	7.3 (11.7)	7.3 (11.7)	7.3 (11.7)	7.3 (11.7)	7.3 (11.7)	7.3 (11.7)	7.3 (11.7)
	30	Lift Speeds, Loaded	Triple Stage Upright	fpm(mps)	73 (.37)	69 (.35)	69 (.35) / 81 (.41)	65 (.33) / 75 (.38)	61 (.31) / 74 (.38)	53 (.27) / 64 (.33)	45 (.23) / 53 (.27)
	31	Lift Speeds, Unloaded	Triple Stage Upright	fpm(mps)	108 (.55)	108 (.55)	108 (.55) / 118 (.60)	108 (.55) / 118 (.60)	108 (.55) / 118 (.60)	108 (.55) / 118 (.60)	108 (.55) / 118 (.60)
	32	Lower Speeds, Loaded	Triple Stage Upright	fpm(mps)	90 (.46)	90 (.46)	90 (.46)	90 (.46)	90 (.46)	90 (.46)	90 (.46)
	33	Lower Speeds, Unloaded	Triple Stage Upright	fpm(mps)	81 (.41)	81 (.41)	81 (.41)	81 (.41)	81 (.41)	81 (.41)	81 (.41)
Weights[3]	34	Service Weight, TSU	W/Min Battery Weight	lbs(kg)	8200 (3720)	8515 (3862)	8805 (3994)	9240 (4191)	9450 (4287)	9650 (4377)	10265 (4656)
	35	Axle loading	With Load, Front	lbs(kg)	8935 (4053)	10011 (4541)	10058 (4562)	10922 (4654)	11820 (5362)	12503 (5671)	13653 (6193)
	36		With Load, Rear	lbs(kg)	1765 (801)	1504 (682)	1747 (792)	1818 (825)	1630 (739)	1647 (747)	1612 (731)
	37		W/O Load, Front	lbs(kg)	4280 (1941)	4419 (2004)	4595 (2084)	4688 (2126)	4852 (2201)	4792 (2174)	5086 (2307)
	38		W/O Load, Rear	lbs(kg)	3922 (1779)	4096 (1858)	4210 (1910)	4552 (2065)	4598 (2086)	4858 (2204)	5179 (2349)
Chassis	39	Tires	Number, Front/Rear		2X / 1 DUAL	2X / 1 DUAL	2X / 1 DUAL	2X / 1 DUAL	2X / 1 DUAL	2X / 1 DUAL	2X / 1 DUAL
	40		Size, Front	in	18X7X12.12 / 18X7X8 16PR	18X7X12.12 / 18X7X8 16PR	18X7X12.12 / 18X7X8 16PR	18X8X12.12 / 18X9X8 16PR	18X8X12.12 / 18X9X8 16PR	18X9X12.12	18X9X12.12
			Size, Rear	in(mm)	9 x 5 (229 x 127) Dual Poly	9 x 5 (229 x 127) Dual Poly	9 x 5 (229 x 127) Dual Poly	9 x 5 (229 x 127) Dual Poly	9 x 5 (229 x 127) Dual Poly	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)	45.2 (1148)	47.5 (1207)	50.0 (1270)	52.0 (1321)	52.0 (1321)
	42	Track	Front, Cushion	in(mm)	33.3 (846)	33.3 (846)	33.3 (846)	32.3 (820)	32.3 (820)	33.3 (846)	33.3 (846)
	43		Front, Pneumatic	in(mm)	35.6 (904)	35.6 (904)	35.6 (904)	38.2 (970)	38.2 (970)	NA	NA
	44	Ground Clearance	Min w/Load[6]	in(mm)	2.4 (61)	2.4 (61)	2.4 (61)	2.4 (61)	2.4 (61)	2.4 (61)	2.4 (61)
	45		At Center of Wheelbase, Loaded	in(mm)	3.6 (91)	3.6 (91)	3.6 (91)	3.6 (91)	3.6 (91)	3.6 (91)	3.6 (91)
	46	Service Brake	Type		Regenerative	Regenerative	Regenerative	Regenerative	Regenerative	Regenerative	Regenerative
	47	Parking Brake	Type		Auto-Electro Magnetic	Auto-Electro Magnetic	Auto-Electro Magnetic	Auto-Electro Magnetic	Auto-Electro Magnetic	Auto-Electro Magnetic	Auto-Electro Magnetic
		Steering	Type		Hydrostatic	Hydrostatic	Hydrostatic	Hydrostatic	Hydrostatic	Hydrostatic	Hydrostatic
Drive Line	48	Battery	Type		Lead-Acid	Lead-Acid	Lead-Acid	Lead-Acid	Lead-Acid	Lead-Acid	Lead-Acid
			Max Capacity (6 hr. Rate)	kWh	27.0	27.0	32.2	37.6	43.0	43.0	43.0
			Weight, Min	lbs(kg)	1280 (581)	1590 (721)	1885 (855)	2175 (987)	2460 (1116)	1845 (837)	2460 (1116)
	49	Motors, Controls	Drive Motor, Diameter (Dual)	in(mm)	7.9 (201)	7.9 (201)	7.9 (201)	7.9 (201)	7.9 (201)	7.9 (201)	7.9 (201)
			Hydraulic Motor, Diameter	in(mm)	6.7 (170)	6.7 (170)	6.7 (170)	6.7 (170)	6.7 (170)	6.7 (170)	6.7 (170)
			Drive Motor Control		Inverter	Inverter	Inverter	Inverter	Inverter	Inverter	Inverter
			Speed Control		Solid State	Solid State	Solid State	Solid State	Solid State	Solid State	Solid State
			Hydraulic Motor Control		Inverter	Inverter	Inverter	Inverter	Inverter	Inverter	Inverter
	57	Hydraulic Pressure			Adjustable	Adjustable	Adjustable	Adjustable	Adjustable	Adjustable	Adjustable
	58	Sound Level	Avg. at Operator's Ear Per ANSI B56.11.5	dB(A)	70	70	70	70	70	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.
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.

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)

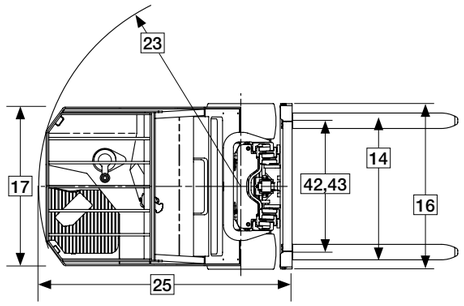
- Indicates preferred standard sizes. For overall height raised with load backrest, add 48 in. (1220 mm) to maximum fork height. Other uprights available contact a Clark representative.

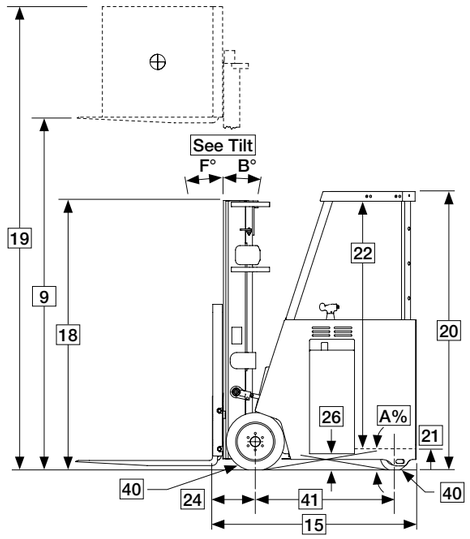
** All free lift dimensions shown without standard 48 in. (1220 mm) high load backrest.

† 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)





For corresponding data see Specification Chart

Grade Clearance*

	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.

& 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

- We don't just build forklifts. As a company, we are also focused on providing our customers with the best possible technical service support and aftermarket parts available.
- Even though our business starts with a quality, cost-effective product, our organization understands that it is the support and services we provide after the sale that help keep your business running at peak efficiency.

- **THE CLARK PartsPRO® SYSTEM** is our industry-leading electronic parts and service documentation tool that provides dealers with a quick and accurate method of identifying parts for every CLARK forklift built since 1961. PartsPRO® ensures the availability of the most current technical information and has the unique capability to create parts manuals specific to your mixed CLARK fleet, making it simple to positively identify and order the correct part(s) from your local CLARK dealer. The right CLARK part — The First Time, Every Time.

- **UNRIVALED PARTS SUPPORT** Our Aftermarket Distribution Center provides parts to over 250 North American CLARK dealers and many international dealers. This CLARK operated 184,000 square foot facility is dedicated to supporting the CLARK models built over the last 90 years. This facility is focused on providing excellent off-the-shelf availability, quality parts, quick response time and competitive pricing.

DEPENDABLE PARTS = DEPENDABLE TRUCKS

To Find Your Nearest Authorized CLARK Dealer, Visit Our Website www.clarkmhc.com

BUILT TO LAST.®

CLARK THE FORKLIFT

CLARK MATERIAL HANDLING COMPANY
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