

# GEX

40/45/50 **AC 100%**

ELECTRIC 80 VOLT  
8000 / 9000 / 10,000 lbs.  
(4000 / 4500 / 4990 kg)



**CLARK**<sup>®</sup>  
**THE FORKLIFT**





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

- **Solid pneumatic tires** provide a softer ride and allow for indoor/outdoor operation.



## Highly Maneuverable, Easily Serviceable, Broadly Flexible, Extremely Dependable

In the past, one truck would be used for outdoor applications and another truck would be used for indoor warehousing. Now one GEX can handle both environments, leaving you with the realization... two “hands” aren’t always better than one.



# 80 volt

The 80 volt high performance drive and lift systems allow the GEX to rival internal combustion truck performance in speed, acceleration and gradeability.

- Speed of the independent dual-drive motors is factored by steer angle; this reduces tire wear and enables gentle start-up, even when steering is fully locked. Solid-pneumatic tires, plus enclosed motors and sealed controls, allow the truck to operate outdoors as well, making the GEX an excellent indoor/outdoor truck.

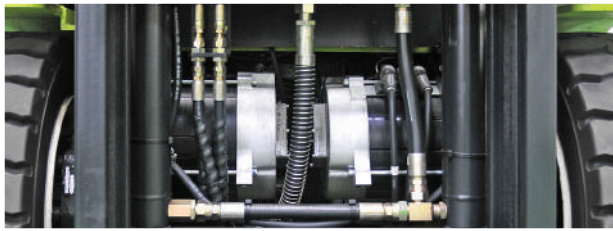
Maximum Visibility + Minimum Fatigue =  
**Increased Safety & Product Integrity**

- **Hydraulic levers** are conveniently mounted on the hood beside the operator for comfortable and effortless access. (Also ask your local CLARK® dealer about the optional armrest fingertip controls that are available.)





# GEX STANDARD FEATURES & BENEFITS



## HEAVY DUTY AC DRIVE MOTORS & AXLES

### ■ Fewer Parts & Minimum Wear = Less Downtime and Cost = Higher ROI

- Enclosed • Brushless • Thermal protection
- Stall protection • Suitable for wet applications
- Dual/power independent control for tight turns
- Same motors for E & EE

## REGEN & WET DISC BRAKES

### ■ Three Forms of Regen Brake

- Accelerator release. (Proportional to accelerator position)
- Change of direction. (Proportional to accelerator position)
- Service brake. (Foot Brake)

### ■ Wet Disc Brakes

- Enclosed and oil cooled for smooth, quiet operation.
- “Wet” brakes provide long life.
- Less downtime.



## 80 VOLT 100% AC SYSTEM

### ■ High Performance

- Rivals IC truck performance in speed, acceleration and gradeability.

### ■ More Efficient System

- Higher Voltage = Lower Line Loss & Heating = Greater Efficiency

### ■ Better Suited to Fast/Rapid Charge

- Only requires one receptacle via single battery connector.

### ■ More Battery Capacity

- GEX 40/45/50 can accommodate a 71.8 Kwh battery.

## Standard Equipment

- 80 Volt
- Wet Disc Brakes
- Single Aux Valve
- Tilt Steer Column
- Regenerative Braking
- Solid Pneumatic Tires
- Hood Mounted Levers
- Vinyl Full Suspension Seat
- Hydrostatic Power Steering
- Independent Drive Motors
- OHG Mounted 12 Volt Head Lights
- Programmable, Color Dash Display
- 100% AC (drive and pump control)

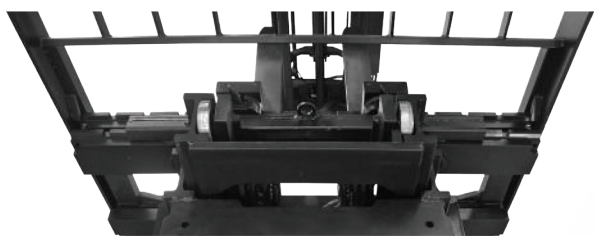
## Optional Equipment

- Sideshifters
- EE Construction
- Armrest Controls
- Double Aux Valves
- 2, 3, & 4-Stage Uprights
- Cold Storage with Heaters
- Lights and Backup Alarms
- Cloth Full Suspension Seat



## EASILY SERVICED

- The rear control cover is hinged and supported by gas springs for easy service access from a standing position. On board diagnostics allow servicing mechanic to check fault codes without service tool.



### **RUGGED UPRIGHT AND CARRIAGE**

#### ■ **Hydraulic Cushioning Valves**

- Silent Staging Reduces Shock & Vibration.

#### ■ **Anti-Rattle Upright**

- Shims added to reduce rattle when forks are lowered.
- Nested I-channel point



### **STABLE PLATFORM**

#### ■ **Low Center of Gravity**

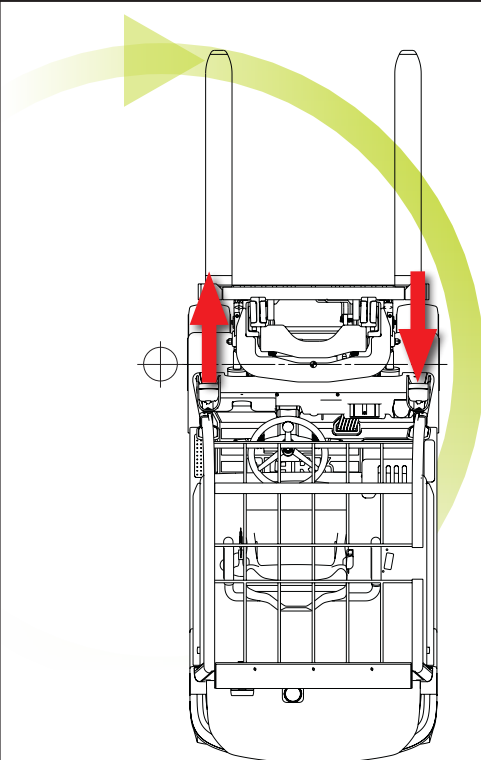
- CLARK moved back the steer axle, dropped the battery compartment, and moved all major components lower.

#### ■ **Curve Cutback**

- Reduces truck travel speed in turns.

#### ■ **Wide Stance**

- Provides excellent lateral stability.



### **POWERED INDEPENDENT DRIVE MOTORS**

#### ■ **2-Wheel Drive**

- Provides added traction, especially on wet or uneven surfaces.

#### ■ **Will Not Scuff Tires**

- Inside wheel power slows/stops in tight turns preventing scuffing of steer tires like conventional 4-wheel trucks.

#### ■ **Hall Effect Steer Sensor**

- Relays steer tire position to controller.



### **INTERACTIVE LCD DASH DISPLAY**

#### ■ **Fully Adjustable/Programmable**

- The operator can select from 4 pre-set performance modes.
- Additional adjustments can be made to maximize performance in certain operations.

#### ■ **Alarm codes**

- Indicates the current alarm code and stores previous alarm codes for quick access.

#### ■ **Password Protected**

- Certain adjustments are password protected to allow only authorized operators to make adjustments.

# GENERAL DATA & STANDARD DIMENSIONS

## Upright Table

| Maximum Fork Height<br>in mm            | Overall Height Lowered<br>in mm | Free Lift<br>in mm | Standard Tilt Spec<br>B°/F° |
|---|---------------------------------|--------------------|-----------------------------|
| <b>Standard Two Stage — GEX40/45/50</b> |                                 |                    |                             |
| 98 2500                                 | 78 1975                         | 5 130              | 8/8                         |
| 106 2700                                | 82 2075                         | 5 130              | 8/8                         |
| 118 3000                                | 88 2225                         | 5 130              | 8/8                         |
| 130 3300                                | 94 2375                         | 5 130              | 8/8                         |
| 138 3500                                | 97 2475                         | 5 130              | 8/8                         |
| 146 3700                                | 101 2575                        | 5 130              | 8/8                         |
| 157 4000                                | 107 2725                        | 5 130              | 5/6                         |
| 177 4500                                | 117 2975                        | 5 130              | 5/6                         |
| 197 5000                                | 127 3225                        | 5 130              | 5/3                         |
| <b>Triple Stage — GEX40/45/50</b>       |                                 |                    |                             |
| 146 3700                                | 79 2002                         | 31 782             | 5/6                         |
| 157 4000                                | 83 2102                         | 35 882             | 5/6                         |
| 169 4300                                | 87 2202                         | 39 982             | 5/6                         |
| 177 4500                                | 89 2269                         | 41 1049            | 5/6                         |
| 189 4800                                | 93 2369                         | 45 1149            | 5/6                         |
| 197 5000                                | 96 2436                         | 48 1216            | 5/3                         |
| 216 5500                                | 102 2603                        | 54 1383            | 5/3                         |
| 236 6000                                | 109 2770                        | 61 1550            | 3/3                         |
| 256 6500                                | 116 2937                        | 68 1717            | 3/3                         |
| 275 7000                                | 122 3104                        | 74 1884            | 3/3                         |
| <b>Hi-Lo — GEX40/45 or 50 only</b>      |                                 |                    |                             |
| 106 2700                                | 83 2099                         | 35 879             | 8/8                         |
| 118 3000                                | 89 2249                         | 41 1029            | 8/8                         |
| 130 3300                                | 94 2399                         | 46 1179            | 8/8                         |

- For Triple stage and Hi-Lo uprights, freelif increases by 483 mm (19") without LBR.

## Battery Compartment Dimensions

| Width (W)<br>in mm             | Length (L)<br>in mm | Height (H)<br>in mm | Weight<br>lbs kg |
|--------------------------------|---------------------|---------------------|------------------|
| <b>GEX 40/45/50 — Standard</b> |                     |                     |                  |
| 40.5 (1029)                    | 39.3 (998)          | 30.8 (782)          | 4562 (2069)      |
| <b>GEX 40/45/50 — Optional</b> |                     |                     |                  |
| 40.5 (1029)                    | 33.6 (853)          | 30.8 (782)          | 3903 (1770)      |

- Note: Optional battery will reduce truck capacity. Consult factory for details.

## Grade Clearance\*

|        |     |
|--------|-----|
| GEX 40 | 34% |
| GEX 45 | 31% |
| GEX 50 | 31% |

\* The GEX is designed for operation on and over grades but must be limited to 20%.

## Tilt Specifications\*

| Upright MFH in. (mm)  | Tilt Angle<br>B°/F° |
|---|---------------------|
| Standard uprights thru 146 in. (3780 mm) and Hi-Lo thru 130 in. (3300 mm)     | 8 / 8               |
| TSU thru 189 in. (4800 mm), Standard 157 in. (4000 mm) thru 177 in. (4500 mm) | 5 / 6               |
| TSU 197 in. (5000 mm) thru 216 in. (5500 mm) and 197 in. (5000 mm) Standard   | 5 / 3               |
| TSU 236 in. (6000 mm) thru 275 in. (7000 mm)                                  | 3 / 3               |

\* 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.

## And Don't Forget... Safety Starts With You!

### Before operating a lift truck, an operator must:

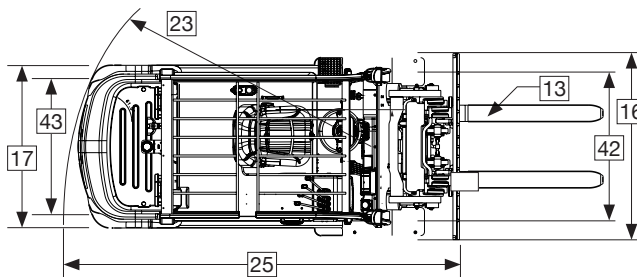
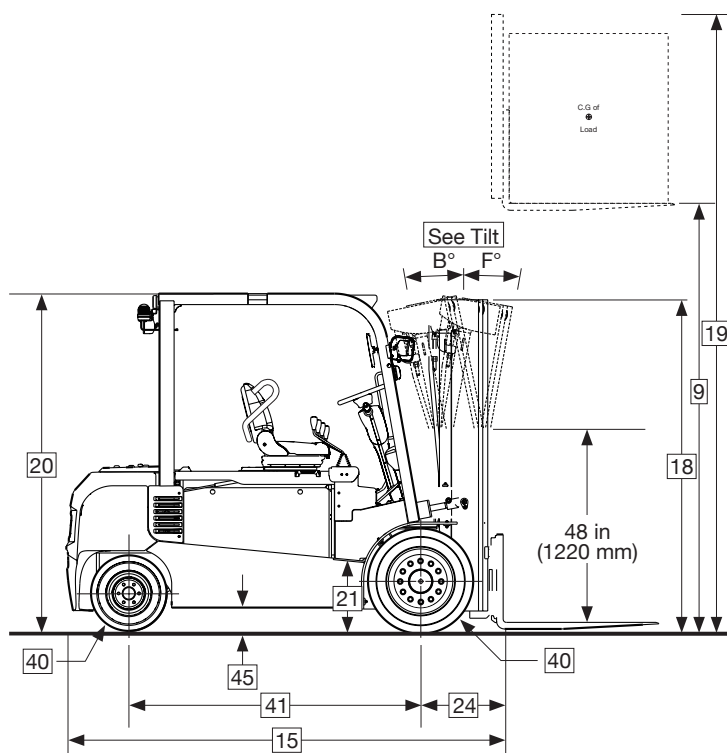
- Be trained and authorized
- Read and understand operator's manual
- Not operate a faulty lift truck
- Not repair a lift truck unless trained and authorized
- Have the overhead guard and load backrest extension in place
- Perform daily inspections

### During operation, a lift truck operator must:

- Wear a seat belt
- Keep entire body inside truck cab
- 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
- Shift into neutral
- Turn key off
- Set parking brake



For corresponding data see Specification Chart



# STANDARD SPECIFICATIONS

# GEX40/45/50

|                      |    |                               |  |                       |                       |                       |
|----------------------|----|-------------------------------|--|-----------------------|-----------------------|-----------------------|
| General Information  | 1  | Manufacturer                  |  | Clark                 | Clark                 | Clark                 |
|                      | 2  | Model                         | Manufacturer's Designation                     | GEX40                 | GEX45                 | GEX50                 |
|                      | 3  | Load Capacity                 | lbs(kg)  | 8000/4000             | 9000/4500             | 10000/4990            |
|                      | 4  | Load Center                   | Fork Face to Load CG                           | 24 (500)              | 24 (500)              | 24 (500)              |
|                      | 5  | Power Unit                    | Electric                                       | 80 volt               | 80 volt               | 80 volt               |
|                      | 6  | Operator Type                 |  | Rider Counterbalanced | Rider Counterbalanced | Rider Counterbalanced |
|                      | 7  | Tire Type                     |  | Solid Pneumatic       | Solid Pneumatic       | Solid Pneumatic       |
|                      | 8  | Wheels (x=driven)             | Front/Rear                                     | 2X / 2                | 2X / 2                | 2X / 2                |
| Basic Dimensions     | 9  | Upright <sup>1,2</sup>        | Maximum Lift Height, Full Capacity             | 177 (4500)            | 177 (4500)            | 177 (4500)            |
|                      | 10 |                               | Lift Height (Preferred Upright)                | 177 (4500)            | 177 (4500)            | 177 (4500)            |
|                      | 11 |                               | Freelift w / wo LBR                            | 41 (1049)             | 41 (1049)             | 41 (1049)             |
|                      | 12 | Upright Tilt                  | Back/Forward (Triple Stage Upright)            | 5/6                   | 5/6                   | 5/6                   |
|                      | 13 | Fork                          | Std. Fork Size (T x W x L)                     | 42X5X2 (1067X122X50)  | 42X6X2 (1067X150X50)  | 42X6X2 (1067X150X50)  |
|                      | 14 | Carriage                      | Width of Carriage                              | 52 (1324)             | 57 (1438)             | 57 (1438)             |
|                      | 15 | Overall Dimensions            | Length to Fork Face (TSU) <sup>2</sup>         | 116.7 (2965)          | 116.7 (2965)          | 118.1 (3000)          |
|                      | 16 |                               | Width Over Tires                               | 55 (1396)             | 58.7 (1490)           | 58.7 (1490)           |
|                      | 17 |                               |  |                       |                       |                       |
|                      | 18 |                               | Height, Upright Lowered                        | 89.3 (2269)           | 89.3 (2269)           | 89.3 (2269)           |
|                      | 19 |                               | Height, Upright Extended w / wo LBR            | 207.4 (5269)          | 207.4 (5269)          | 207.4 (5269)          |
|                      | 20 |                               | Height, Overhead Guard                         | 90.9 (2310)           | 90.9 (2310)           | 90.9 (2310)           |
|                      | 21 | Step Height                   | Ground to Top of Step                          | 19.9 (506)            | 19.9 (506)            | 19.9 (506)            |
|                      | 22 |                               |  |                       |                       |                       |
|                      | 23 | Turning Radius                |  | 105.3 (2675)          | 105.3 (2675)          | 106.3 (2700)          |
|                      | 24 | Load Center Distance          | Center of Drive Axle to Fork Face <sup>2</sup> | 22.4 (569)            | 22.4 (569)            | 22.4 (569)            |
|                      | 25 | Right Angle Stack Aisle       | Add Load Length and Clearance <sup>2</sup>     | 127.7 (3244)          | 127.7 (3244)          | 128.7 (3269)          |
|                      | 26 |                               |  |                       |                       |                       |
| Performance          | 27 | Stability                     | According to ANSI                              | Yes                   | Yes                   | Yes                   |
|                      | 28 | Speeds                        | Travel Speed, Max, With Load                   | 12.4 (20.0)           | 11.8 (19.0)           | 11.8 (19.0)           |
|                      | 29 |                               | Travel Speed, Max, Without Load                | 13.0 (21.0)           | 12.4 (20.0)           | 12.4 (20.0)           |
|                      | 30 | Lift Speeds, Loaded           | Triple Stage Upright                           | 69 (0.35)             | 645 (0.33)            | 61 (0.31)             |
|                      | 31 | Lift Speeds, Unloaded         | Triple Stage Upright                           | 93 (0.47)             | 93 (0.47)             | 93 (0.47)             |
|                      | 32 | Lower Speeds, Loaded          | Triple Stage Upright                           | 104 (0.53)            | 104 (0.53)            | 104 (0.53)            |
|                      | 33 | Lower Speeds, Unloaded        | Triple Stage Upright                           | 98 (0.50)             | 98 (0.50)             | 98 (0.50)             |
|                      | 34 | Service Weight, TSU           | W/Min Battery Weight                           | 15477 (7019)          | 16535 (7499)          | 17439 (7909)          |
| Weights <sup>5</sup> | 35 | Axle loading                  | With Load, Front                               | 21598 (9795)          | 23692 (10745)         | 25247 (11450)         |
|                      | 36 |                               | With Load, Rear                                | 2701 (1225)           | 2767 (1255)           | 3195 (1449)           |
|                      | 37 |                               | W/O Load, Front                                | 8214 (3725)           | 8635 (3916)           | 8551 (3878)           |
|                      | 38 |                               | W/O Load, Rear                                 | 7265 (3295)           | 7901 (3583)           | 8888 (4031)           |
|                      | 39 | Tires                         | Number, Front/Rear                             | 2 / 2                 | 2 / 2                 | 2 / 2                 |
| Chassis              | 40 |                               | Size, Front                                    | 250-15                | 28x12.5-15            | 28x12.5-15            |
|                      |    |                               | Size, Rear                                     | 21x8-9                | 21x8-9                | 21x8-9                |
|                      | 41 | Wheelbase                     |  | 78.7 (2000)           | 78.7 (2000)           | 78.7 (2000)           |
|                      | 42 | Track                         | Front  | 45.3 (1150)           | 46.5 (1180)           | 46.5 (1180)           |
|                      | 43 |                               | Rear   | 39.4 (1000)           | 39.4 (1000)           | 39.4 (1000)           |
|                      | 44 | Ground Clearance <sup>4</sup> | Min w/Load                                     | 5.3 (135)             | 5.3 (135)             | 5.3 (135)             |
|                      | 45 |                               | At Center of Wheelbase, Loaded                 | 6.0 (152)             | 6.0 (152)             | 6.0 (152)             |
|                      | 46 | Service Brake                 | Type   | Wet Disk              | Wet Disk              | Wet Disk              |
|                      | 47 | Parking Brake                 | Type   | Pedal Actuated        | Pedal Actuated        | Pedal Actuated        |
|                      |    | Steering                      | Type   | Hydrostatic           | Hydrostatic           | Hydrostatic           |
| Drive Line           | 48 | Battery                       | Type   | Lead-Acid             | Lead-Acid             | Lead-Acid             |
|                      |    |                               | Max Capacity (6 hr. Rate)                      | 71.8                  | 71.8                  | 71.8                  |
|                      |    |                               | Weight, Min                                    | 4562 (2069)           | 4562 (2069)           | 4562 (2069)           |
|                      | 49 | Motors, Controls              | Drive Motor, Diameter (Dual)                   | 9.4 X 6.3 (240 x 160) | 9.4 X 6.3 (240 x 160) | 9.4 X 6.3 (240 x 160) |
|                      |    |                               | Hydraulic Motor, Diameter                      | 9.4 x 9.4 (240 x 240) | 9.4 x 9.4 (240 x 240) | 9.4 x 9.4 (240 x 240) |
|                      |    |                               | Drive Motor Control                            | Mosfet                | Mosfet                | Mosfet                |
|                      |    |                               | Speed Control                                  | Solid State           | Solid State           | Solid State           |
|                      |    |                               | Hydraulic Motor Control                        | Mosfet Iverter        | Mosfet Iverter        | Mosfet Iverter        |
|                      | 57 | Hydraulic Pressure            |  | Adjustable            | Adjustable            | Adjustable            |
|                      | 58 | Sound Level                   | Avg. at Operator's Ear Per DIN 12053           | 74                    | 74                    | 74                    |

- Notes: 1 See upright table for other available uprights. 2 Dimensions are for TSU uprights, w/ standard forks. Subtract 34mm (1.3") for STD or Hi-Lo upright. 3 Specifications are given with preferred triple stage upright and minimum battery weight. 4 Ground clearance at center of wheelbase is 6.0" and 5.3" at drive tires. 5 All service weights are for units equipped with 130" STD upright.

- 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***

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