# UNICARRIERS. FORKLIFT



**Engine Powered Forklifts** 

EPA Tier 4 Diesel 4,000 - 7,000 lbs. Capacities I Pneumatic Tire



## **OPERATOR COMFORT & CONTROL**

The FK Series offers a variety of operator conveniences for greater productivity including a standard full suspension seat for enhanced shock absorption. The seat includes lumbar support adjustment, weight-adjustment plus operator restraint armrests. Non-cinching seat belt provides greater range of movement. A spacious operator compartment provides generous foot, leg and head room for a variety of driver sizes.

Enhanced comfort results from the FK Series' Operator Comfort System, which includes a rubber floor mat, pedals mounted to the chassis frame, and rubber shock absorbers located throughout the vehicle to reduce vibration from the engine and transmission. For additional vibration reduction, FK Series models include an automotive-type floating powertrain design, which incorporates four rubber engine/transmission supports.

The FK Series' tilt-adjustable steering wheel helps the operator quickly find his or her ideal driving position, while its compact design offers enhanced control and handling. Automotive-style light and turn signal levers simplify repetitive actions allowing the operator to focus on the job. Low profile design provides ample head clearance. An optional swivel seat pivots 15° to the left and right, for more comfortable reverse driving\*.

Hydrostatic power steering system reduces operator effort for easier maneuvering and less fatigue. Exclusive single hydraulic control lever design combines lift and tilt operations into one fluid motion for greater productivity. Separate control levers are available at no charge. An optional auto-tilt leveling system assists operator during mast/fork positioning.

# **ENHANCED WORK ENVIRONMENT**

Several standard features are included in the FK Series to deliver a more comfortable and productive work environment for the operator and those in the surrounding area.

The FK Series' Operator Presence System, with seat-actuated power interrupt, incorporates a mast-lock which automatically locks lift and tilt operations when the operator leaves the seat, and a return to neutral feature to minimize forklift movement if the operator leaves the seat while the lift truck is still in gear. This presence system also includes audible and visual warnings if either the seat belt is not engaged, or when the parking brake has not been applied prior to the operator exiting the compartment.

For easy entry/exit, an assist grip, combined with a replaceable metal traction plate bolted to the truck's wide, low entry step, provide the operator with comfortable footing and grip for this often repeated task.

UniCarriers' own GCT ZD30 engine offers extremely low noise levels at the operator's ear during idle and at maximum travel speeds. An optional travel speed control feature is available to regulate high or low maximum travel speed settings, while the controlled acceleration's Economy Mode adjusts throttle sensitivity to increase fuel efficiency, extend drivetrain life and reduce excessive tire wear.

Maintenance-free cushioned stability control, with rubber dampers located between rear axle and body, enhance lateral stability under normal driving conditions.

# **DURABLE DESIGN FEATURES**

The FK Series is built for rugged applications, incorporating a robust mast, strong frame and thick steel fenders.

The FK's superior cooling system consists of an oversized fan and wide cooling outlet, for enhanced airflow. Plus, a heavy-duty radiator, with transmission oil cooler, rubber mounted to reduce flexing and absorb vibration for enhanced reliability. Its improved cooling capacity translates into dependable cooling efficiency under heavy usage or high ambient temperatures. A heavy-duty steer axle protects the steer cylinder from damage, while steer cylinder boot covers keep out dirt and debris.

Lift cylinders include oil return piping for reduced heat generation. The counterweight is designed to deflect cooling airflow down and away from the truck, and it features a built-in radiator protection bar.

<sup>\*</sup>Reduces headroom by 1" (25mm)

## LOW EMISSION DIESEL ENGINE

UniCarriers' global commitment to preserving and protecting the environment is evident in our own GCT ZD30 low emission, 4-cylinder 'Advanced Turbo Diesel' (ATD) engine, offering improved fuel consumption and near elimination of particulate matter. The combination of advanced engine technology—electronic fuel injection, turbo charger, cooled exhaust gas recirculation, and diesel oxidation catalyst—results in high power and increased efficiency, with emission levels below EPA Tier 4 requirements. The ATD ZD30 provides low emissions without using a Diesel Particulate Filter (DPF), so regeneration is not necessary. The ZD30 engine includes an electronic controlled Quick Glow system for dependable cold weather starting.

# ELECTRONIC CONTROLLED ENGINE TECHNOLOGY

The ZD30 'Advanced Turbo Diesel' (ATD) electronic fuel injected engine analyzes engine performance parameters and optimizes engine operation, resulting in enhanced productivity and lower fuel consumption. This system includes three main components: Engine Control Module (ECM), Vehicle Control Module (VCM), and Multifunction LCD Display.

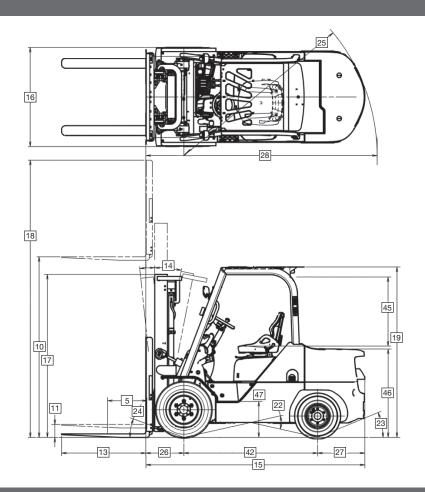
The ECM responds to sensor input to control basic engine related functions, such as proper air/fuel ratio, turbo boost pressure, torque and speed, based on the requirements of the application. The VCM monitors a number of sensors to alert the operator of changing conditions via a full range of warning indicators located on the truck's LCD display. All communication among these components occurs through a Controller Area Network (CAN) system.

The ZD30 industrial engine is specifically designed and tested for industrial applications in order to deliver the power and torque to meet the needs of the application. As an added safeguard for your investment, the FK Series includes a protection and warning system for the engine and transmission, to reduce engine rpm in the event of excessive heat generation or loss of engine oil.

### **EASE OF MAINTENANCE**

Tilt cylinders can be greased without removing any body panels. The diamond tread floorboard can be easily lifted off, promoting simple access to hydraulic and transmission components. Detachable side panels and a wide-open clamshell hood provide a roomy area for service technicians to perform their tasks. The three-piece reinforced overhead guard simplifies replacement of individual components if necessary, saving time and money. Plus an access door in the dash panel allows for quick and easy brake fluid checks.

A multi-function LCD display includes on-board diagnostics to keep service time low, with a programmable service reminder in order to stay current with periodic maintenance needs. Its display design provides the operator with excellent visibility and understanding of indicator lights.



# MAST SPECIFICATIONS & RATED CAPACITIES

|                                |           | Maximum                          | Overall                 | Erron       | Tilt Angle |              |             |              |             |
|--------------------------------|-----------|----------------------------------|-------------------------|-------------|------------|--------------|-------------|--------------|-------------|
| Mac                            | st Name   | Fork Height Lift' Height Lowered | Free<br>Lift*           | Forward/    |            | 0YD          | PF5         |              |             |
| IVIAS                          | st Marrie |                                  | Lowered                 | LIIT        | Backward   | Single Drive | Dual Drive  | Single Drive | Dual Drive  |
|                                |           | in (mm)                          | in (mm) in (mm) in (mm) |             | degrees    | lb (kg)      |             | lb (kg)      |             |
|                                | VM270     | 106.3 (2700)                     | 73.8 (1875)             | 4.3 (110)   | 6/11       | 4000 (1800)  | 4000 (1800) | 5000 (2250)  | 5000 (2250) |
|                                | VM300     | 118.1 (3000)                     | 79.7 (2025)             | 4.3 (110)   | 6/11       | 4000 (1800)  | 4000 (1800) | 5000 (2250)  | 5000 (2250) |
| €                              | VM330     | 129.9 (3300)                     | 85.6 (2175)             | 4.3 (110)   | 6/11       | 4000 (1800)  | 4000 (1800) | 5000 (2250)  | 5000 (2250) |
| 8 ≥                            | VM350     | 137.8 (3500)                     | 89.6 (2275)             | 4.3 (110)   | 6/11       | 4000 (1800)  | 4000 (1800) | 5000 (2250)  | 5000 (2250) |
| T W                            | VM370     | 145.7 (3700)                     | 93.5 (2375)             | 4.3 (110)   | 6/11       | 4000 (1800)  | 4000 (1800) | 5000 (2250)  | 5000 (2250) |
| 0 0                            | VM400     | 157.5 (4000)                     | 101.4 (2575)            | 4.3 (110)   | 6/11       | 4000 (1800)  | 4000 (1800) | 5000 (2250)  | 5000 (2250) |
| TWO STAGE<br>(Wide view VM)    | VM450     | 177.2 (4500)                     | 111.2 (2825)            | 4.3 (110)   | 6/6        | 4000 (1800)  | 4000 (1800) | 5000 (2250)  | 5000 (2250) |
| . 5                            | VM500     | 196.9 (5000)                     | 121.1 (3075)            | 4.3 (110)   | 6/6        | 3900 (1750)  | 3900 (1750) | 4900 (2200)  | 4900 (2200) |
|                                | VM550     | 216.5 (5500)                     | 132.9 (3375)            | 4.3 (110)   | 6/6        | -            | 3650 (1650) | -            | 4600 (2050) |
|                                | VM600     | 236.2 (6000)                     | 142.7 (3625)            | 4.3 (110)   | 6/6        | _            | 3500 (1550) | _            | 4450 (2000) |
|                                | VFM270    | 106.3 (2700)                     | 73.8 (1875)             | 25.8 (655)  | 6/9        | 4000 (1800)  | 4000 (1800) | 5000 (2250)  | 5000 (2250) |
|                                | VFM275    | 108.3 (2750)                     | 74.8 (1900)             | 26.8 (680)  | 6/9        | 4000 (1800)  | 4000 (1800) | 5000 (2250)  | 5000 (2250) |
| =                              | VFM300    | 118.1 (3000)                     | 79.7 (2025)             | 31.7 (805)  | 6/11       | 4000 (1800)  | 4000 (1800) | 5000 (2250)  | 5000 (2250) |
| B E                            | VFM325    | 128.0 (3250)                     | 84.6 (2150)             | 37.4 (950)  | 6/11       | 4000 (1800)  | 4000 (1800) | 5000 (2250)  | 5000 (2250) |
| TWO STAGE<br>(Full free VFM)   | VFM330    | 129.9 (3300)                     | 85.6 (2175)             | 37.6 (955)  | 6/11       | 4000 (1800)  | 4000 (1800) | 5000 (2250)  | 5000 (2250) |
| f e                            | VFM350    | 137.8 (3500)                     | 89.6 (2275)             | 45.5 (1055) | 6/11       | 4000 (1800)  | 4000 (1800) | 5000 (2250)  | 5000 (2250) |
| ≥ 등                            | VFM370    | 145.7 (3700)                     | 93.5 (2375)             | 45.3 (1150) | 6/11       | 4000 (1800)  | 4000 (1800) | 5000 (2250)  | 5000 (2250) |
| . =                            | VFM375    | 147.6 (3750)                     | 94.5 (2400)             | 47.4 (1205) | 6/11       | 3950 (1750)  | 4000 (1800) | 4950 (2200)  | 5000 (2250) |
|                                | VFM400    | 157.5 (4000)                     | 101.4 (2575)            | 53.3 (1355) | 6/11       | 3950 (1750)  | 4000 (1800) | 4950 (2200)  | 5000 (2250) |
|                                | VFM450    | 177.2 (4500)                     | 111.2 (2825)            | 63.2 (1605) | 6/6        | 3950 (1750)  | 4000 (1800) | 4950 (2200)  | 5000 (2250) |
|                                | VFH360    | 141.7 (3600)                     | 69.9 (1775)             | 21.9 (555)  | 6/6        | 4000 (1800)  | 4000 (1800) | 5000 (2250)  | 5000 (2250) |
|                                | VFH400    | 157.5 (4000)                     | 74.8 (1900)             | 26.8 (680)  | 6/6        | 4000 (1800)  | 4000 (1800) | 5000 (2250)  | 5000 (2250) |
| E E                            | VFH435    | 171.3 (4350                      | 79.7 (2025)             | 34.7 (805)  | 6/6        | 4000 (1800)  | 4000 (1800) | 5000 (2250)  | 5000 (2250) |
| THREE STAGE<br>(Full free VFH) | VFH480    | 189.0 (4800)                     | 85.6 (2175)             | 37.6 (955)  | 6/6        | 3850 (1700)  | 4000 (1800) | 3950 (1750)  | 4950 (2200) |
| E S S                          | VFH500    | 196.9 (5000)                     | 89.6 (2275)             | 40.7 (1035) | 6/6        | 3650 (1650)  | 3900 (1750) | 3700 (1650)  | 4850 (2150) |
| # ≒                            | VFH550    | 216.5 (5500)                     | 96.1 (2440)             | 48.0 (1220) | 6/6        | 2950 (1300)  | 3750 (1700) | 3650 (1650)  | 4500 (2000) |
| 토르                             | VFH600    | 236.2 (6000)                     | 103.3 (2625)            | 55.3 (1405) | 6/6        | 2000 (900)   | 3400 (1500) | 2100 (950)   | 4300 (1950) |
|                                | VFH650    | 255.9 (6500)                     | 111.8 (2840)            | 63.6 (1615) | 6/6        | -            | 3250 (1450) | -            | 3400 (1500) |
|                                | VFH700    | 275.6 (7000)                     | 120.5 (3060)            | 72.2 (1835) | 6/6        | -            | 2550 (1150) | -            | 2600 (1150) |

\*With LBR

# MAIN TRUCK SPECIFICATIONS

| CHARACTERISTICS  | 2 3           | Model                      | Model designation               |                    | PF40YD                    | DECOVE.                   |
|------------------|---------------|----------------------------|---------------------------------|--------------------|---------------------------|---------------------------|
| CHARACTERIST     | 3             |                            |                                 |                    | 11-1010                   | PF50YD                    |
| CHARACTEF        | $\rightarrow$ |                            | Long model code                 |                    | FHD20T5V                  | FHD25T5V                  |
| CHARAC           | 4             | Rated Load Capacity        | oad Capacity                    |                    | 4000 (1800)               | 5000 (2250)               |
| CHAP             | 5             | Load Center                | Distance                        | lb (kg)<br>in (mm) | 24 (600)                  | 24 (600)                  |
| O                | 6             | Power Type                 |                                 | ,                  | Diesel                    | Diesel                    |
|                  | 7             | Operator Orientation       |                                 |                    | Sit                       | Sit                       |
|                  | 8             | Tire Type                  | Front & rear                    |                    | Pneumatic                 | Pneumatic                 |
|                  | 9             | Wheels                     | Number (x=driven) front/rear    |                    | 2 x / 2                   | 2 x / 2                   |
|                  | 10            | Mast                       | Maximum fork height             | in (mm)            | 129.9 (3300)              | 129.9 (3300)              |
|                  | 11            | Wast                       | Standard freelift               | in (mm)            | 4.3 (110)                 | 4.3 (110)                 |
|                  | 12            | Forks                      | Thickness & width               | in (mm)            | 1.5 x 4 (40x100)          | 1.5 x 4 (40x100)          |
|                  | 13            | TOIKS                      |                                 | ` '                | 42 (1070)                 | , ,                       |
|                  | 14            | Tilt Angle                 | Length Standard mast - fwd/back | in (mm)            | 6/11                      | 42 (1070)<br>6/11         |
|                  | 15            |                            |                                 | degree             |                           |                           |
|                  |               | Overall Dimensions         | Length (to face of forks)       | in (mm)            | 102.8 (2610)              | 105.3 (2675)              |
| DIMENSIONS       | 16            |                            | Width (single/dual tires)       | in (mm)            | 45.3 (1150) / 64.6 (1640) | 45.3 (1150) / 64.6 (1640) |
| Sic              | 17            |                            | Mast lowered (OHL)              | in (mm)            | 85.6 (2175)               | 85.6 (2175)               |
| Ž<br>U           | 18            |                            | Mast extended with LBR          | in (mm)            | 173.4 (4405)              | 173.4 (4405)              |
| <u> </u>         | 19            |                            | Height - top of OHG             | in (mm)            | 84.1 (2135)               | 84.1 (2135)               |
|                  | 20            |                            | Height - top of standard LBR    | in (mm)            | 48.0 (1220)               | 48.0 (1220)               |
|                  | 21            |                            | Width - standard carriage       | in (mm)            | 42.3 (1075)               | 42.3 (1075)               |
|                  | 22            | Grade Clearance            | Ramp breakover angle            | tan (%)            | 40                        | 40                        |
|                  | 23            |                            | Departure angle                 | tan (%)            | 44                        | 44                        |
|                  | 24            |                            | Approach angle                  | tan (%)            | 28                        | 28                        |
|                  | 25            | Turning Radius             | Minimum outside                 | in (mm)            | 90.7 (2305)               | 92.9 (2360)               |
|                  | 26            | Overhang                   | Front                           | in (mm)            | 18.5 (470)                | 18.5 (470)                |
|                  | 27            |                            | Rear                            | in (mm)            | 19.3 (490)                | 21.9 (555)                |
|                  | 28            | Min Right Angle Stack      | Add load length & clearance     | in (mm)            | 109.2 (2775)              | 111.4 (2830)              |
| 兴                | 29            | Speeds Maximum             | Travel - forward or reverse     | mph (kmh)          | 11.5 (18.5)               | 11.5 (18.5)               |
| Ž                | 30            |                            | Lift - full/empty               | fpm (mm/sec)       | 129.9/139.8(660/710)      | 129.9/139.8(660/710)      |
| PERFORMANCE      | 31            |                            | Lowering - full/empty           | fpm (mm/sec)       | 98.4 (500)                | 98.4 (500)                |
| Ö                | 32            | Drawbar Pull Max           | Full load                       | lb (kg)            | 5845 (2651)               | 5800 (2630)               |
| 摧                | 33            |                            | Empty                           | lb (kg)            | 2220 (1006)               | 2120 (961)                |
| 2                | 34            | Gradeability Max (1.2 mph) | Full/empty                      | tan (%)            | 45 / 30                   | 38 / 26                   |
|                  | 35            | Truck Weight               | Standard truck - no load        | lb (kg)            | 7795 (3535)               | 8560 (3880)               |
| <b>≒</b>         | 36            | Weight Distribution        | Front axle - empty              | lb (kg)            | 3775 (1712)               | 3600 (1633)               |
| EIGHT            | 37            |                            | Rear axle - empty               | lb (kg)            | 4020 (1823)               | 4960 (2250)               |
| *                | 38            |                            | Front axle - with rated load    | lb (kg)            | 10390 (4713)              | 11870 (5384)              |
|                  | 39            |                            | Rear axle - with rated load     | lb (kg)            | 1400 (635)                | 1690 (760)                |
|                  | 40            | Tire Size                  | Front - single tire             | , 5,               | 7.00-12-12PR              | 7.00-12-12PR              |
|                  | 41            |                            | Rear                            |                    | 6.00-9-10PR               | 6.00-9-10PR               |
|                  | 42            | Wheelbase                  |                                 | in (mm)            | 65 (1650)                 | 65 (1650)                 |
|                  | 43            | Tread - Center of Tire     | Front / rear                    | in (mm)            | 37.8/38.4 (960/975)       | 37.8/38.4 (960/975)       |
| CHASSIS & WHEELS | 44            |                            | Front - dual tires              | in (mm)            | 47.5 (1205)               | 47.5 (1205)               |
| Ÿ.               | 45            | Headroom                   | SIP to bottom of OHG            | in (mm)            | 38.5 (980)                | 38.5 (980)                |
| ⋛                | 46            | Counterweight Height       |                                 | in (mm)            | 43.1 (1095)               | 43.1 (1095)               |
| త                | 47            | Step Height                |                                 | in (mm)            | 16.7 (425)                | 16.7 (425)                |
| SSIS             | 48            | Ground Clearance           | Under mast                      | in (mm)            | 4.1 (105)                 | 4.1 (105)                 |
| ₹                | 49            | Ground Olcaranoc           | Under power unit                | in (mm)            | 6.9 (175)                 | 6.9 (175)                 |
| ਹ                | 50            |                            | Under frame (WB center)         |                    | 5.9 (150)                 | 5.9 (150)                 |
|                  | 51            | Service Brake              | Type                            | in (mm)            | Drum and Shoe             | Drum and Shoe             |
|                  | 52            |                            |                                 |                    |                           |                           |
|                  |               | Parking Brake              | Type                            |                    | Hand<br>Full Hydraulic    | Hand<br>Full Hydraulic    |
|                  | 53            | Steering                   | Type                            |                    | Full Hydraulic            | Full Hydraulic            |
| Ш                | 54            | Engine                     | Model                           | h (1.140 G)        | GCT ZD30                  | GCT ZD30                  |
| Z                | 55            | Rated Output               | SAE gross                       | hp (kW) @ rpm      | 63 (47) @ 2400            | 63 (47) @ 2400            |
|                  | 56            | Rated Torque               | SAE gross                       | ft-lb (Nm) @ rpm   | 157.8 (214) @ 1900        | 157.8 (214) @ 1900        |
|                  | 57            | Displacement               |                                 | cu in (cm³)        | 180 (2953)                | 180 (2953)                |
| DRIVE LINE       | 58            | Transmission               | Type                            |                    | Automatic                 | Automatic                 |

# MAIN TRUCK SPECIFICATIONS

| 40               | 1  | Manufacturer's Name        |                              | UniCarriers      | UniCarriers               |                           |
|------------------|----|----------------------------|------------------------------|------------------|---------------------------|---------------------------|
| CHARACTERISTICS  | 2  | Model designation          |                              |                  | PF60YD                    | PF70YD                    |
|                  | 3  |                            | Long model code              |                  | FHD30T5V                  | FHD35T5SV                 |
| 岜                | 4  | Rated Load Capacity        |                              | lb (kg)          | 6000 (2700)               | 7000 (3150)               |
| . AC             | 5  | Load Center                | Distance                     | in (mm)          | 24 (600)                  | 24 (600)                  |
| ¥                | 6  | Power Type                 |                              | , ,              | Diesel                    | Diesel                    |
| ਠ                | 7  | Operator Orientation       |                              |                  | Sit                       | Sit                       |
|                  | 8  | Tire Type                  | Front & rear                 |                  | Pneumatic                 | Pneumatic                 |
|                  | 9  | Wheels                     | Number (x=driven) front/rear |                  | 2 x / 2                   | 2 x / 2                   |
|                  | 10 | Mast                       | Maximum fork height          | in (mm)          | 129.9 (3300)              | 129.9 (3300)              |
|                  | 11 |                            | Standard freelift            | in (mm)          | 6.5 (165)                 | 6.5 (165)                 |
|                  | 12 | Forks                      | Thickness & width            | in (mm)          | 2 x 5 (50x122)            | 2 x 5 (50x122)            |
|                  | 13 |                            | Length                       | in (mm)          | 42 (1070)                 | 42 (1070)                 |
|                  | 14 | Tilt Angle                 | Standard mast - fwd/back     | degree           | 6/11                      | 6/11                      |
|                  | 15 | Overall Dimensions         | Length (to face of forks)    | in (mm)          | 109.6 (2785)              | 112.8 (2865)              |
| w                | 16 |                            | Width (single/dual tires)    | in (mm)          | 49.2 (1250) / 65.6 (1665) | 50.4 (1280) / 69.9 (1775) |
| DIMENSIONS       | 17 |                            | Mast lowered (OHL)           | in (mm)          | 87.2 (2220)               | 89.8 (2280)               |
| Š                | 18 |                            | Mast extended with LBR       | in (mm)          | 180.3 (4580)              | 180.3 (4580)              |
| É                | 19 |                            | Height - top of OHG          | in (mm)          | 85.0 (2160)               | 85.0 (2160)               |
| ā                | 20 |                            | Height - top of standard LBR | in (mm)          | 48.0 (1220)               | 48.0 (1220)               |
|                  | 21 |                            | Width - standard carriage    | in (mm)          | 44.7 (1136)               | 44.7 (1136)               |
|                  | 22 | Grade Clearance            | Ramp breakover angle         | tan (%)          | 46                        | 51                        |
|                  | 23 |                            | Departure angle              | tan (%)          | 40                        | 38                        |
|                  | 24 |                            | Approach angle               | tan (%)          | 36                        | 36                        |
|                  | 25 | Turning Radius             | Minimum outside              | in (mm)          | 96.7 (2455)               | 99.2 (2520)               |
|                  | 26 | Overhang                   | Front                        | in (mm)          | 19.1 (485)                | 19.5 (495)                |
|                  | 27 | · ·                        | Rear                         | in (mm)          | 23.6 (600)                | 26.4 (670)                |
|                  | 28 | Min Right Angle Stack      | Add load length & clearance  | in (mm)          | 115.8 (2940)              | 118.7 (3015)              |
| ш                | 29 | Speeds Maximum             | Travel - forward or reverse  | mph (kmh)        | 11.2 (18)                 | 11.2 (18)                 |
| PERFORMANCE      | 30 |                            | Lift - full/empty            | fpm (mm/sec)     | 106.3/114.2 (540/580)     | 90.6/96.5 (460/490)       |
| MA               | 31 |                            | Lowering - full/empty        | fpm (mm/sec)     | 98.4 (500)                | 82.7/70.9 (420/360)       |
| OH OH            | 32 | Drawbar Pull Max           | Full load                    | lb (kg)          | 5735 (2601)               | 5365 (2434)               |
| 뜐                | 33 |                            | Empty                        | lb (kg)          | 2345 (1064)               | 2390 (1084)               |
| H                | 34 | Gradeability Max (1.2 mph) | Full/empty                   | tan (%)          | 31 / 25                   | 26 / 23                   |
|                  | 35 | Truck Weight               | Standard truck - no load     | lb (kg)          | 9745 (4420)               | 10815 (4906)              |
| ÷                | 36 | Weight Distribution        | Front axle - empty           | lb (kg)          | 3940 (2633)               | 4030 (1828)               |
| EIGHT            | 37 |                            | Rear axle - empty            | lb (kg)          | 5805 (2633)               | 6790 (3080)               |
| 8                | 38 |                            | Front axle - with rated load | lb (kg)          | 13805 (6263)              | 15500 (7031)              |
|                  | 39 |                            | Rear axle - with rated load  | lb (kg)          | 1940 (880)                | 2245 (1018)               |
|                  | 40 | Tire Size                  | Front - single tire          |                  | 28x9-15-12PR              | 250-15-16PR               |
|                  | 41 |                            | Rear                         |                  | 6.50-10-10PR              | 6.50-10-12PR              |
|                  | 42 | Wheelbase                  |                              | in (mm)          | 66.9 (1700)               | 66.9 (1700)               |
| (0               | 43 | Tread - Center of Tire     | Front / rear                 | in (mm)          | 40.6/38.6 (1030/980)      | 41.7/38.6 (1060/980)      |
| 끏                | 44 |                            | Front - dual tires           | in (mm)          | 47.7 (1210)               | 50.6 (1285)               |
| 뿦                | 45 | Headroom                   | SIP to bottom of OHG         | in (mm)          | 38.5 (980)                | 38.5 (980)                |
| CHASSIS & WHEELS | 46 | Counterweight Height       |                              | in (mm)          | 44.3 (1125)               | 44.7 (1135)               |
| <u>8</u>         | 47 | Step Height                |                              | in (mm)          | 17.9 (455)                | 18.3 (465)                |
| SS               | 48 | Ground Clearance           | Under mast                   | in (mm)          | 5.3 (135)                 | 5.5 (140)                 |
| Ä                | 49 |                            | Under power unit             | in (mm)          | 8.1 (205)                 | 8.5 (215)                 |
| Ö                | 50 |                            | Under frame (WB center)      | in (mm)          | 7.1 (180)                 | 7.5 (190)                 |
|                  | 51 | Service Brake              | Туре                         |                  | Drum and Shoe             | Drum and Shoe             |
|                  | 52 | Parking Brake              | Туре                         |                  | Hand                      | Hand                      |
|                  | 53 | Steering                   | Туре                         |                  | Full Hydraulic            | Full Hydraulic            |
|                  | 54 | Engine                     | Model                        |                  | GCT ZD30                  | GCT ZD30                  |
| ٣                | 55 | Rated Output               | SAE gross                    | hp (kW) @ rpm    | 63 (47) @ 2400            | 63 (47) @ 2400            |
| =                | 56 | Rated Torque               | SAE gross                    | ft-lb (Nm) @ rpm | 157.8 (214) @ 1900        | 157.8 (214) @ 1900        |
| N N              | 57 | Displacement               |                              | cu in (cm³)      | 180 (2953)                | 180 (2953)                |
| DRIVE LINE       | 58 | Transmission               | Туре                         |                  | Automatic                 | Automatic                 |
|                  |    |                            |                              |                  |                           |                           |

# MAST SPECIFICATIONS & RATED CAPACITIES

|                                |            | Maximum      | Overall      | Free        | Tilt Angle | Rated Capacity 24 in (600 mm) Load Center |             |  |
|--------------------------------|------------|--------------|--------------|-------------|------------|---|-------------|--|
| Mor                            | st Name    | Fork         | Height       | Lift*       | Forward/   | PF60YD                                    |             |  |
| IVIA                           | st ivallie | Height       | Lowered      | Life        | Backward   | Single Drive                              | Dual Drive  |  |
|                                |            | in (mm)      | in (mm)      | in (mm)     | degrees    | lb (kg)                                   | lb (kg)     |  |
|                                | VM270      | 106.3 (2700) | 75.6 (1920)  | 6.5 (165)   | 6/11       | 6000 (2700)                               | 6000 (2700) |  |
|                                | VM300      | 118.1 (3000) | 81.5 (2070)  | 6.5 (165)   | 6/11       | 6000 (2700)                               | 6000 (2700) |  |
| €                              | VM330      | 129.9 (3300) | 87.2 (2220)  | 6.5 (165)   | 6/11       | 6000 (2700)                               | 6000 (2700) |  |
| 띯통                             | VM350      | 137.8 (3500) | 91.3 (2320)  | 6.5 (165)   | 6/11       | 6000 (2700)                               | 6000 (2700) |  |
| E W                            | VM370      | 145.7 (3700) | 95.3 (2420)  | 6.5 (165)   | 6/11       | 6000 (2700)                               | 6000 (2700) |  |
| 0 0                            | VM400      | 157.5 (4000) | 103.2 (2620) | 6.5 (165)   | 6/11       | 6000 (2700)                               | 6000 (2700) |  |
| TWO STAGE<br>(Wide view VM)    | VM450      | 177.2 (4500) | 113.0 (2870) | 6.5 (165)   | 6/6        | 6000 (2700)                               | 6000 (2700) |  |
| . S                            | VM500      | 196.9 (5000) | 128.8 (3120) | 6.5 (165)   | 6/6        | 5900 (2650)                               | 5900 (2650) |  |
|                                | VM550      | 216.5 (5500) | 134.7 (3420) | 6.5 (165)   | 6/6        | -   | 5500 (2450) |  |
|                                | VM600      | 236.2 (6000) | 144.5 (3670) | 6.5 (165)   | 6/6        | -   | 5300 (2400) |  |
|                                | VFM270     | 106.3 (2700) | 75.6 (1920)  | 27.4 (695)  | 6/9        | 6000 (2700)                               | 6000 (2700) |  |
|                                | VFM275     | 108.3 (2750) | 76.6 (1945)  | 28.3 (720)  | 6/9        | 6000 (2700)                               | 6000 (2700) |  |
| ≘                              | VFM300     | 118.1 (3000) | 81.5 (2070)  | 33.3 (845)  | 6/11       | 6000 (2700)                               | 6000 (2700) |  |
| 띯륜                             | VFM325     | 128.0 (3250) | 86.4 (2195)  | 38.2 (970)  | 6/11       | 6000 (2700)                               | 6000 (2700) |  |
| TWO STAGE<br>(Full free VFM)   | VFM330     | 129.9 (3300) | 87.4 (2220)  | 39.2 (995)  | 6/11       | 6000 (2700)                               | 6000 (2700) |  |
| <u>=</u>                       | VFM350     | 137.8 (3500) | 91.3 (2320)  | 43.1 (1095) | 6/11       | 6000 (2700)                               | 6000 (2700) |  |
| ≥ 등                            | VFM370     | 145.7 (3700) | 95.3 (2420)  | 47.0 (1195) | 6/11       | 6000 (2700)                               | 6000 (2700) |  |
| . =                            | VFM375     | 147.6 (3750) | 96.3 (2445)  | 48.0 (1220) | 6/11       | 5950 (2650)                               | 6000 (2700) |  |
|                                | VFM400     | 157.5 (4000) | 103.1 (2620) | 54.9 (1395) | 6/11       | 5950 (2650)                               | 6000 (2700) |  |
|                                | VFM450     | 177.2 (4500) | 113.0 (2870) | 64.8 (1645) | 6/6        | 5950 (2650)                               | 6000 (2700) |  |
|                                | VFH360     | 141.7 (3600) | 71.7 (1820)  | 23.4 (595)  | 6/6        | 6000 (2700)                               | 6000 (2700) |  |
|                                | VFH400     | 157.5 (4000) | 76.6 (1945)  | 28.3 (720)  | 6/6        | 6000 (2700)                               | 6000 (2700) |  |
| THREE STAGE<br>(Full free VFH) | VFH435     | 171.3 (4350) | 81.5 (2070)  | 33.3 (845)  | 6/6        | 6000 (2700)                               | 6000 (2700) |  |
| A Y                            | VFH480     | 189.0 (4800) | 87.4 (2220)  | 39.2 (995)  | 6/6        | 6000 (2700)                               | 6000 (2700) |  |
| E S S                          | VFH500     | 196.9 (5000) | 91.3 (2320)  | 43.1 (1095) | 6/6        | 5600 (2500)                               | 5900 (2650) |  |
| ##                             | VFH550     | 216.5 (5500) | 97.8 (2485)  | 49.6 (1260) | 6/6        | 4200 (1900)                               | 5600 (2500) |  |
| 토트                             | VFH600     | 236.2 (6000) | 105.1 (2670) | 56.9 (1445) | 6/6        | 3100 (1400)                               | 5100 (2300) |  |
|                                | VFH650     | 255.9 (6500) | 113.6 (2885) | 65.4 (1660) | 6/6        | -   | 3450 (1550) |  |
|                                | VFH700     | 275.6 (7000) | 122.2 (3105) | 74.0 (1880) | 6/6        | -   | 2950 (1300) |  |

<sup>\*</sup>Free Lift with LBR.

|                                |         | Maximum        | Overall           | Free        | Tilt Angle           | Rated Capacity 24 in (600 mm) Load Center PF70YD |             |  |
|--------------------------------|---------|----------------|-------------------|-------------|----------------------|--|-------------|--|
| Mas                            | st Name | Fork<br>Height | Height<br>Lowered | Lift*       | Forward/<br>Backward | Single Drive                                     | Dual Drive  |  |
|                                |         | in (mm)        | in (mm)           | in (mm)     | degrees              | lb (kg)  | lb (kg)     |  |
|                                | VM270   | 106.3 (2700)   | 78.0 (1980)       | 6.5 (165)   | 6/9                  | 7000 (3150)                                      | 7000 (3150) |  |
|                                | VM300   | 118.1 (3000)   | 83.9 (2130)       | 6.5 (165)   | 6/11                 | 7000 (3150)                                      | 7000 (3150) |  |
| _                              | VM330   | 129.9 (3300)   | 89.8 (2280)       | 6.5 (165)   | 6/11                 | 7000 (3150)                                      | 7000 (3150) |  |
| 병                              | VM350   | 137.8 (3500)   | 93.7 (2380)       | 6.5 (165)   | 6/11                 | 7000 (3150)                                      | 7000 (3150) |  |
| E A                            | VM370   | 145.7 (3700)   | 97.6 (2480)       | 6.5 (165)   | 6/11                 | 7000 (3150)                                      | 7000 (3150) |  |
| S C                            | VM400   | 157.5 (4000)   | 105.5 (2680)      | 6.5 (165)   | 6/11                 | 6900 (3100)                                      | 7000 (3150) |  |
| TWO STAGE<br>(Wide view VM)    | VM450   | 177.2 (4500)   | 115.4 (2930)      | 6.5 (165)   | 6/6                  | 6800 (3050)                                      | 6900 (3100) |  |
| ్క                             | VM500   | 196.9 (5000)   | 125.2 (3180)      | 6.5 (165)   | 6/6                  | 6600 (2950)                                      | 6700 (3000) |  |
|                                | VM550   | 216.5 (5500)   | 137.0 (3480)      | 6.5 (165)   | 6/6                  | -  | 6400 (2900) |  |
|                                | VM600   | 236.2 (6000)   | 146.9 (3730)      | 6.5 (165)   | 6/6                  | -  | 6150 (2750) |  |
|                                | VFM270  | 106.3 (2700)   | 78.0 (1980)       | 29.7 (755)  | 6/9                  | 7000 (3150)                                      | 7000 (3150) |  |
|                                | VFM275  | 108.3 (2750)   | 78.9 (2005)       | 30.7 (780)  | 6/9                  | 7000 (3150)                                      | 7000 (3150) |  |
|                                | VFM300  | 118.1 (3000)   | 83.9 (2130)       | 35.6 (905)  | 6/11                 | 7000 (3150)                                      | 7000 (3150) |  |
| B F                            | VFM325  | 128.0 (3250)   | 88.8 (2255)       | 40.6 (1030) | 6/11                 | 7000 (3150)                                      | 7000 (3150) |  |
| TWO STAGE<br>(Full free VFM)   | VFM330  | 129.9 (3300)   | 89.8 (2280)       | 41.5 (1055) | 6/11                 | 7000 (3150)                                      | 7000 (3150) |  |
| o S<br>fre                     | VFM350  | 137.8 (3500)   | 93.7 (2380)       | 45.5 (1155) | 6/11                 | 7000 (3150)                                      | 7000 (3150) |  |
| ≥ 등                            | VFM370  | 145.7 (3700)   | 97.6 (2480)       | 49.4 (1255) | 6/11                 | 7000 (3150)                                      | 7000 (3150) |  |
| . =                            | VFM375  | 147.6 (3750)   | 98.6 (2505)       | 50.4 (1280) | 6/11                 | 6900 (3100)                                      | 7000 (3150) |  |
|                                | VFM400  | 157.5 (4000)   | 105.5 (2680)      | 57.3 (1455) | 6/11                 | 6900 (3100)                                      | 7000 (3150) |  |
|                                | VFM450  | 177.2 (4500)   | 115.4 (2930)      | 67.1 (1705) | 6/6                  | 6800 (3050)                                      | 6900 (3100) |  |
|                                | VFH360  | 141.7 (3600)   | 74.0 (1880)       | 25.0 (655)  | 6/6                  | 7000 (3150)                                      | 7000 (3150) |  |
|                                | VFH400  | 157.5 (4000)   | 78.9 (2005)       | 30.7 (780)  | 6/6                  | 7000 (3150)                                      | 7000 (3150) |  |
| THREE STAGE<br>(Full free VFH) | VFH435  | 171.3 (4350)   | 83.9 (2130)       | 35.6 (905)  | 6/6                  | 6800 (3050)                                      | 6800 (3050) |  |
| ¥ ¥                            | VFH480  | 189.0 (4800)   | 89.8 (2280)       | 41.5 (1055) | 6/6                  | 6600 (2950)                                      | 6600 (2950) |  |
| E S                            | VFH500  | 196.9 (5000)   | 93.7 (2380)       | 45.5 (1155) | 6/6                  | 6300 (2850)                                      | 6500 (2900) |  |
| ##                             | VFH550  | 216.5 (5500)   | 100.2 (2545)      | 52.0 (1320) | 6/6                  | 5300 (2400)                                      | 6050 (2700) |  |
| 王氏                             | VFH600  | 236.2 (6000)   | 107.5 (2730)      | 59.3 (1505) | 6/6                  | 3500 (1550)                                      | 5750 (2600) |  |
|                                | VFH650  | 255.9 (6500)   | 115.9 (2945)      | 67.7 (1720) | 6/6                  | _  | 3500 (1550) |  |
|                                | VFH700  | 275.6 (7000)   | 124.6 (3165)      | 76.4 (1940) | 6/6                  | _  | 3000 (1350) |  |

<sup>\*</sup>Free Lift with LBR.

### STANDARD EQUIPMENT

- UniCarriers' own GCT ZD30 low emission, 4-cylinder, 3.0L industrial engine
- · 'Advanced Turbo Diesel' (ATD) engine design
- Computer controlled electronic engine system with common rail fuel injection
- · Cooled Exhaust Gas Recirculation (EGR) and Diesel Oxidation Catalyst (DOC)
- Engine/transmission protection and warning system
- Operator Presence System
- Full suspension vinyl seat with operator restraint system
- · Parking brake with warning buzzer
- Horn and back-up alarm
- Rubber floor mat
- · Tilt-adjustable steering wheel
- Multi-function LCD:
  - Hour meter, Clock, Calendar & Operator PIN access
  - Onboard diagnostics and programmable service reminders
  - Warning lights & engine coolant temperature gauge
  - Air cleaner service indicator
  - Low engine oil pressure warning
  - Low coolant & brake fluid level warning indicators
  - Low fuel warning indicator & fuel gauge
- Single speed powershift transmission with full floating powertrain
- Hydrostatic power steering
- Single lift/tilt hydraulic control lever
- · High air intake system with large cyclone air filter
- · Overhead guard mounted LED headlights
- 3-piece reinforced overhead guard
- · Power/Economy acceleration mode

### **OPTIONAL EQUIPMENT**

- · High/Low travel speed control settings
- · Separate lift & tilt hydraulic control levers
- · Standard or wide carriage
- Integral or hang-on side shifter
- 4-spool hydraulic valve
- · Internal hydraulic hose reeving single or dual
- · Solid or dual drive pneumatic tires
- Anti-Dust, Low Noise, or Corrosion Resistance packages
- Tilt cylinder boots or covers
- · Vertical exhaust
- Open core straight fin radiator
- Radiator screen
- Air intake pre-cleaner
- Rear LED combination light package
- · Rear LED work light
- · Rear strobe light
- · Rear view mirrors
- · Fire extinguisher
- Polycarbonate overhead guard rain cover
- Orange seat belt



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