

# J40XNL

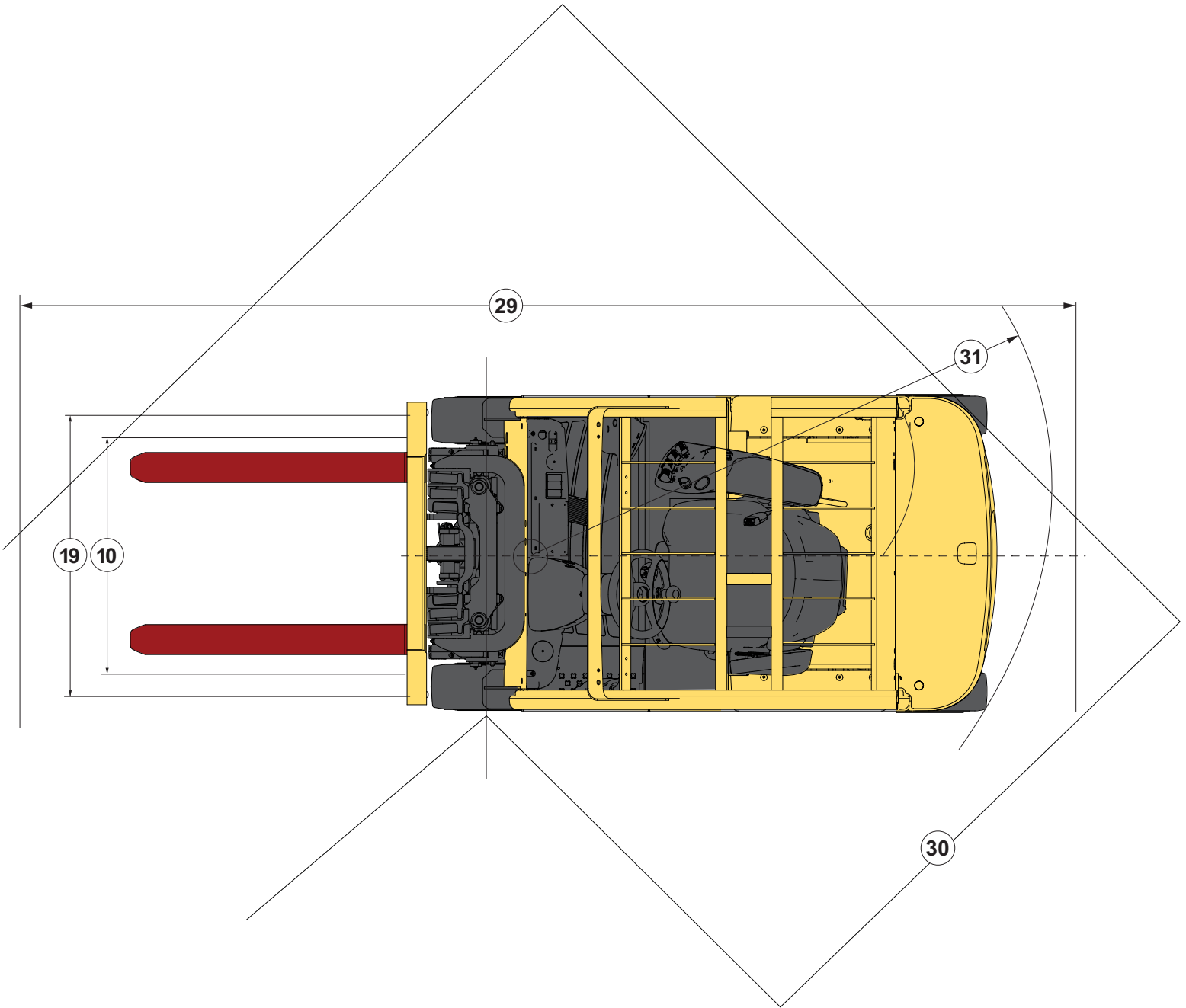
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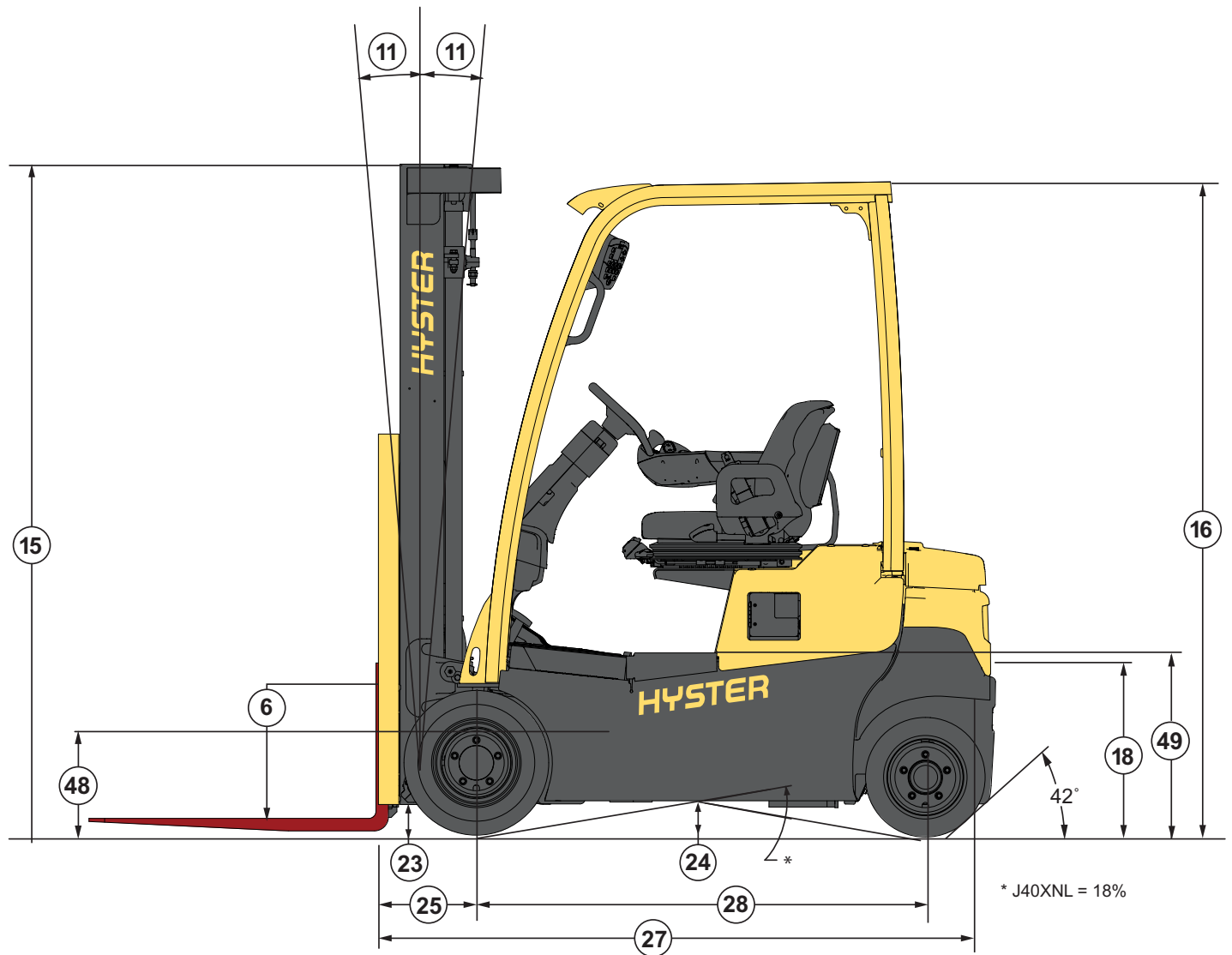
## 4-WHEEL LITHIUM-ION COUNTERBALANCED FORKLIFT PRODUCT TECHNICAL GUIDE



# DIMENSIONS



*Circled dimensions correspond to the line numbers on the tabulated chart inside the technical guide.  
Dimensions are in inches (millimeters).*



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# MAST DIMENSIONS AND BATTERY SPECIFICATIONS

## J40XNL MAST DIMENSIONS

| Maximum fork height (TOF)<br>in (mm)        | Overall lowered height<br>in (mm) | Overall extended height     |                              | Free lift (TOF)             |                              |
|---|-----------------------------------|-----------------------------|------------------------------|-----------------------------|------------------------------|
|   |                                   | w/ Load backrest<br>in (mm) | w/o Load backrest<br>in (mm) | w/ Load backrest<br>in (mm) | w/o Load backrest<br>in (mm) |
| <b>2-STAGE LIMITED FREE LIFT (LFL) MAST</b> |                                   |                             |                              |                             |                              |
| 119 (3032)                                  | 78 (1980)                         | 168 (4262)                  | 142 (3606)                   | 5 (140)                     | 5 (140)                      |
| 127 (3232)                                  | 82 (2080)                         | 176 (4462)                  | 150 (3806)                   | 5 (140)                     | 5 (140)                      |
| <b>2-STAGE FULL FREE LIFT (FFL) MAST</b>    |                                   |                             |                              |                             |                              |
| 118 (3018)                                  | 78 (1980)                         | 168 (4262)                  | 143 (3613)                   | 29 (750)                    | 55 (1405)                    |
| 126 (3218)                                  | 82 (2080)                         | 176 (4462)                  | 151 (3813)                   | 33 (850)                    | 59 (1505)                    |
| <b>3-STAGE FULL FREE LIFT (FFL) MAST</b>    |                                   |                             |                              |                             |                              |
| 175 (4450)                                  | 78 (1980)                         | 224 (5025)                  | 198 (5025)                   | 29 (750)                    | 55 (1405)                    |
| 187 (4750)                                  | 82 (2080)                         | 236 (5325)                  | 210 (5325)                   | 33 (850)                    | 59 (1505)                    |
| 192 (4900)                                  | 84 (2130)                         | 238 (5375)                  | 212 (5375)                   | 35 (900)                    | 61 (1555)                    |
| 198 (5050)                                  | 88 (2230)                         | 248 (5625)                  | 222 (5625)                   | 39 (1000)                   | 65 (1655)                    |
| 216 (5500)                                  | 94 (2380)                         | 265 (6075)                  | 240 (6075)                   | 45 (1150)                   | 71 (1805)                    |
| <b>4-STAGE FULL FREE LIFT (FFL) MAST</b>    |                                   |                             |                              |                             |                              |
| 241 (6121)                                  | 84 (2121)                         | 291 (7380)                  | 265 (6721)                   | 34 (873)                    | 59 (1511)                    |
| 259 (6578)                                  | 90 (2273)                         | 309 (7837)                  | 283 (7179)                   | 40 (1025)                   | 65 (1663)                    |

The table below is a helpful guide to visualize the truck run time with different batteries in different applications. (Chart is a guide only and not a replacement for a site survey and full power study.)

**Heavy** – High throughput, typically runs full capacity, runs either attachments or has high lifts

**Medium** – High throughput, runs near capacity without attachments or high lifts

**Light** – lower throughput, runs less than rated capacity without attachments or high lifts

Note: Run time is from 100% to Lift-Lock Out. Charge time is from Lift-Lock Out to 100%.

## J40XNL BATTERY SPECIFICATIONS

| APPLICATION  | RUN TIME   Battery size 20.1kWh    |
|--------------|------------------------------------|
| Heavy        | 3h 45m                             |
| Medium       | 5h 15m                             |
| Light        | 7h 15m                             |
| CHARGER SIZE | CHARGE TIME   Battery size 20.1kWh |
| 30kW         | 0h 45m                             |
| 20kW         | 1h 15m                             |
| 15kW         | 1h 30m                             |
| 10kW         | 2h 15m                             |
| 5kW          | 4h 15m                             |

# J40XNL SPECIFICATIONS

|             |                  |   |  |   |   |                                      |
|-------------|------------------|---|--|---|---|--------------------------------------|
| GENERAL     | 1                | Manufacturer                            |  | Hyster  |   |                                      |
|             | 2                | Model designation                       |  | J40XNL  |   |                                      |
|             | 3                | Power                                   |  | Electric  |   |                                      |
|             | 4                | Operation                               |  | Sit   |   |                                      |
|             | 5                | Rated capacity                          | lb (kg)  | 4000 (1814)                                     |   |                                      |
|             | 6                | Load center                             | in (mm)  | 24 (610)  |   |                                      |
| TIRES       | 7                | Tire type (drive/steer)                 |  | Pneumatic shaped solid / pneumatic shaped solid |   |                                      |
|             | 8                | Tire size (drive/steer)                 | in   | 200/50-10 / 15x4.5-8                            |   |                                      |
|             | 9                | Wheels - number x= driven (drive/steer) |  | 2x / 2  |   |                                      |
|             | 10               | Tread - center of tires (drive/steer)   | in (mm)  | 35.7 / 7 (908 / 179)                            |   |                                      |
| DIMENSIONS  | 11               | Mast tilt                               | Std opt opt                                    | degrees   | 5f/5b 10f/5b 5f/4b                      |                                      |
|             | 12               | Mast - lowered height                   | Std mast                                       | in (mm)   | 78 (1980)                               |                                      |
|             | 13               | Free lift - top of fork                 | Std 2 stg limited free lift mast               | in (mm)   | 5 (140)                                 |                                      |
|             |                  |   | Opt 2 stg full free lift mast with/without LBR | in (mm)   | 29 / 55 (750 / 1405)                    |                                      |
|             | 14               | Lift height - top of fork               | St 2 stg limited free lift mast                | in (mm)   | 119 (3032)                              |                                      |
|             | 15               | Mast - extended height                  | Std mast with/without LBR                      | in (mm)   | 168 / 142 (4262 / 3606)                 |                                      |
|             | 16               | Overhead guard height                   | Std/flat plate/drive in rack                   | in (mm)   | 81.5 / 77.9 / 81.5 (2070 / 1979 / 2070) |                                      |
|             | 17               | Sip to bottom std OHG                   | Nominal  | Std/susp/swivel                                 | in (mm)                                 | 38.9 / 39.2 / 38.7 (989 / 997 / 985) |
|             | 18               | Tow pin height                          | Vertical center of pin                         | in (mm)   | 21.2 (540)                              |                                      |
|             | 19               | Overall width                           |  | in (mm)   | 43.9 (1116)                             |                                      |
|             | 20               | Forks                                   | Thickness x width x length                     | in (mm)   | 1.6 X 3.9 X 42 (40 x 100 x 1067)        |                                      |
|             | 21               | Standard carriage width                 |  | in (mm)   | 38.5 (977)                              |                                      |
|             | 22               | Ground clearance                        | Lowest point (NL/RL)                           | in (mm)   | 2.8 / 2.8 (70 / 70)                     |                                      |
|             | 23               | Ground clearance                        | Center of truck (NL/RL)                        | in (mm)   | 3.7 / 3.5 (95 / 90)                     |                                      |
|             | 24               | Load distance                           | Center of wheel to face of forks               | in (mm)   | 12.6 (321)                              |                                      |
|             | 25               | Length to face of forks                 | Chassis length                                 | in (mm)   | 74.9 (1903)                             |                                      |
|             | 26               | Wheelbase                               |  | in (mm)   | 54.6 (1386)                             |                                      |
|             | 27               | Right angle stack                       |  | in (mm)   | 122.7 (3117)                            |                                      |
|             | 28               | Equal aisle                             | 90 Intersecting aisle                          | in (mm)   | 71.5 (1816)                             |                                      |
|             | 29               | Outside turning radius                  |  | in (mm)   | 62.1 (1577)                             |                                      |
| WT.         | 30               | Truck weight                            |  | lb (kg)   | 7550 (3435)                             |                                      |
|             | 31               | Axle loading - drive                    | Static (NL/RL)                                 | lb (kg)   | 3675 (1665) / 10375 (4705)              |                                      |
|             | 32               | Axle loading - steer                    | Static (NL/RL)                                 | lb (kg)   | 3900 (1765) / 1200 (545)                |                                      |
| PERFORMANCE | 33               | Travel speed                            | Extended shift off (NL/RL)                     | mph (km/h)                                      | 9.8 / 9.8 (15.7 / 15.7)                 |                                      |
|             |                  |   | Extended shift on (NL/RL)                      | mph (km/h)                                      | 8.7 / 8.7 (14.0 / 14.0)                 |                                      |
|             | 34               | Lift speed                              | Std 2 stg LFL mast (NL/RL)                     | ft/min (m/sec)                                  | 134 / 83 (0.68 / 0.42)                  |                                      |
|             |                  |   | Opt 2 stg FFL mast (NL/RL)                     | ft/min (m/sec)                                  | 120 / 81 (0.61 / 0.41)                  |                                      |
|             |                  |   | Opt 3 stg FFL mast (NL/RL)                     | ft/min (m/sec)                                  | 120 / 81 (0.61 / 0.41)                  |                                      |
|             |                  |   | Opt 4 stg FFL mast (NL/RL)                     | ft/min (m/sec)                                  | 126 / 89 (0.64 / 0.45)                  |                                      |
|             | 35               | Lower speed                             | Std 2 stg LFL mast (NL/RL)                     | ft/min (m/sec)                                  | 93 / 100 (0.47 / 0.51)                  |                                      |
|             |                  |   | Opt 2 stg FFL mast (NL/RL)                     | ft/min (m/sec)                                  | 77 / 93 (0.41 / 0.47)                   |                                      |
|             |                  |   | Opt 3 stg FFL mast (NL/RL)                     | ft/min (m/sec)                                  | 81 / 93 (0.41 / 0.47)                   |                                      |
|             |                  |   | Opt 4 stg FFL mast (NL/RL)                     | ft/min (m/sec)                                  | 94 / 98 (0.48 / 0.50)                   |                                      |
| 36          | Gradeability     | 5 Minutes rating (NL/RL)                | %  | 34.0 / 21.0                                     |   |                                      |
|             |                  | 60 Minutes rating (NL/RL)               | %  | 9.2 / 5.6                                       |   |                                      |
| 37          | Drawbar pull     | 5 Minutes rating                        | LBF  | 2480 / 2410 (11025 / 10715)                     |   |                                      |
|             |                  | 60 Minutes rating (NL/RL)               | LBF  | 730 / 660 (3260 / 2950)                         |   |                                      |
| 38          | Brake            | Method of control (service/parking)     |  | Hydraulic / mechanical                          |   |                                      |
|             |                  | Method of operation (service/operation) |  | Foot / automatic                                |   |                                      |
| ELECTRIC    | 39               | Battery                                 | Type   | Lithium   |   |                                      |
|             | 40               | Dual voltage battery                    | Size (discharge / charge)                      | 48V @ 420Ah / 96V @ 210Ah                       |   |                                      |
|             | 41               | Traction motors (dual)                  | 60 Minute rating (each)                        | Hp (kW)   | 6.7 (5.0)                               |                                      |
|             | 42               | Pump motor                              | 15 Minute rating                               | Hp (kW)   | 16.1 (12.0)                             |                                      |
|             | 43               | Traction motors                         | Type/control method                            |   | AC / transistor                         |                                      |
|             | 44               | Pump motor                              | Type/control method                            |   | AC / transistor                         |                                      |
| 45          | Number of speeds | Traction/pump                           |  | Infinitely variable / infinitely variable       |   |                                      |
| OTHER       | 46               | Step height                             |  | in (mm)   | 19.1 (484)                              |                                      |
|             | 47               | Floor height                            | Lowest point                                   | in (mm)   | 21.9 (557)                              |                                      |
|             | 48               | Attachment relief pressure              |  | psi (bar)                                       | 2611 / 2248 (180 / 155)                 |                                      |
|             | 49               | Auxiliary oil flow                      | 3rd and 4th function                           | gal/min (l/min)                                 | 5.3 / 10.6 (20 / 40)                    |                                      |
|             | 50               | Sound level                             | Measured per ANSI B56.11.5                     | dB  | 69                                      |                                      |

NL = no load, RL = rated load

CERTIFICATION: Hyster lift trucks meet the design and construction requirements of B56.1-1969, per OSHA Section 1910.178(a)(2), and also comply with the B56.1 revision in effect at time of manufacture. Certification of compliance with the applicable ANSI standards appears on the lift truck. Performance specifications are for a truck equipped as described under Standard Equipment on this Technical Guide. Performance specifications are affected by the condition of the vehicle and how it is equipped, as well as by the nature, condition of the operating area, proper service and maintenance of the vehicle. If these specifications are critical, the proposed application should be discussed with your dealer.

# FEATURES AND OPTIONS


| PERFORMANCE  | STD | OPT |
|--|-----|-----|
| 48-volt electrical system  | x   |     |
| Dual voltage lithium battery technology  | x   |     |
| AC tractions and pump motors (completely brushless)                            | x   |     |
| Hydrostatic steer system   | x   |     |
| Transistor drive and pump control  | x   |     |
| Advanced VSM (Vehicle System Manager)  | x   |     |
| Dual drive motors  | x   |     |
| Wet disc brakes  | x   |     |
| Regenerative braking   | x   |     |
| DRIVE  | STD | OPT |
| Pneumatic-shaped solid drive tire and steer tire                               | x   |     |
| Rubber cushion smooth tread drive tire and steer tire                          |     | x   |
| LIFT   | STD | OPT |
| 2-Stage limited free lift (LFL) mast with maximum fork height of 119"          | x   |     |
| 5 forward / 5 back mast tilt   | x   |     |
| 2-Stage full free lift mast  |     | x   |
| 3-Stage full free list mast  |     | x   |
| 4-Stage full free lift mast  |     | x   |
| Mast tilt option - 10F / 5B  |     | x   |
| Mast tilt option - 5F / 4B   |     | x   |
| HANDLING   | STD | OPT |
| 38.5" wide Class II carriage with 48" high load backrest extension             | x   |     |
| 42" (1067mm) long forks  | x   |     |
| Carriage with integral sideshift   |     | x   |
| Carriage with integral sideshifting forkpositioner                             |     | x   |
| Return to set tilt   |     | x   |
| Hydraulic attachment extension tubes with or without quick disconnect fittings |     | x   |
| Load weight indicator  |     | x   |
| ERGONOMICS   | STD | OPT |
| MONOTROL foot direction control  | x   |     |
| TouchPoint hydraulic mini-levers   | x   |     |
| 12" steering wheel with integral spinner knob and tilt column                  | x   |     |
| Vinyl non-suspension seat  | x   |     |
| Black, non-cinch seat belt with Emergency Locking Retractor (ELR)              | x   |     |
| Automatic park brake   | x   |     |
| Power assist braking   | x   |     |
| On-demand hydrostatic power-assist steering                                    | x   |     |
| Auto Deceleration System (ADS)   | x   |     |
| Multifunction display (and all its sub features)                               | x   |     |
| Easy ingress/egress with low step height and contoured handhold                | x   |     |
| Operator convenience station   | x   |     |
| Adjustable tilt steering column with low profile cowl                          | x   |     |
| Operator Presence System (OPS)   | x   |     |
| Cushioned floormat   | x   |     |
| Static strap   | x   |     |
| Tow pin  | x   |     |

| ERGONOMICS (CONTINUED)  | STD | OPT |
|---|-----|-----|
| Seatside power disconnect button  | x   |     |
| Battery side covers   | x   |     |
| On-board software (program, test & diagnose / password protected)                           | x   |     |
| Electronic horn with integral relay (long life / no adjustments)                            | x   |     |
| Non-suspension cloth seat   |     | x   |
| Full-suspension seat (vinyl or cloth)   |     | x   |
| Full-suspension swivel seat (vinyl or cloth)  |     | x   |
| Seatside directional control  |     | x   |
| Telescopic steering column with tilt memory   |     | x   |
| LED and halogen work light packages   |     | x   |
| LED dome / reading light  |     | x   |
| Rear dive handle with horn button   |     | x   |
| Mirrors - dual rear view - LH & RH OHG side mounted   |     | x   |
| Mirror - single panoramic - OHG mounted   |     | x   |
| Low mount display   |     | x   |
| OPERATION   | STD | OPT |
| Standard environmental construction   | x   |     |
| Key switch start  | x   |     |
| 81.5" grid style overhead guard   | x   |     |
| 3-function hydraulic valve  | x   |     |
| Full integrated CANbus communication  | x   |     |
| Cooler / Freezer package: operating temperature 0F to +120F                                 |     | x   |
| SubZero freezer package: operating temperature -40F to +120F                                |     | x   |
| 4-function hydraulic control valve  |     | x   |
| 77.9" flat plate overhead guard   |     | x   |
| 81.5" drive-in rack grid style overhead guard   |     | x   |
| Keyless start (with auxiliary key switch)   |     | x   |
| Basic and premium LED brake / tail / back-up light packages                                 |     | x   |
| Key switch controlled lights  |     | x   |
| Audible alarm - reverse operation (manually adjustable to 87, 97 or 102 dB)                 |     | x   |
| Visible amber strobe light - continuous activated, overhead guard mounted                   |     | x   |
| Fire extinguisher - 2.5lb dry chemical  |     | x   |
| Impact monitor  |     | x   |
| Operator password start interlock   |     | x   |
| Operator daily checklist  |     | x   |
| System monitor - hydraulic low fluid level indicator and hydraulic filter service indicator |     | x   |
| Programmable maintenance reminder   |     | x   |
| Synchronous steering  |     | x   |
| Red, high-visibility, non-cinch seat belt with or without start interlock                   |     | x   |
| Hyster Reaction™  |     | x   |
| SUPPLEMENTAL  | STD | OPT |
| 84 month / 12,000 hour lithium-ion battery warranty   | x   |     |
| Operating manual  | x   |     |
| 12 month / 2,000 hour full truck warranty   | x   |     |
| 36 month / 6,000 hour powertrain warranty   | x   |     |



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