

# EXCAVATOR

# SY155U

## STANDARD FEATURES

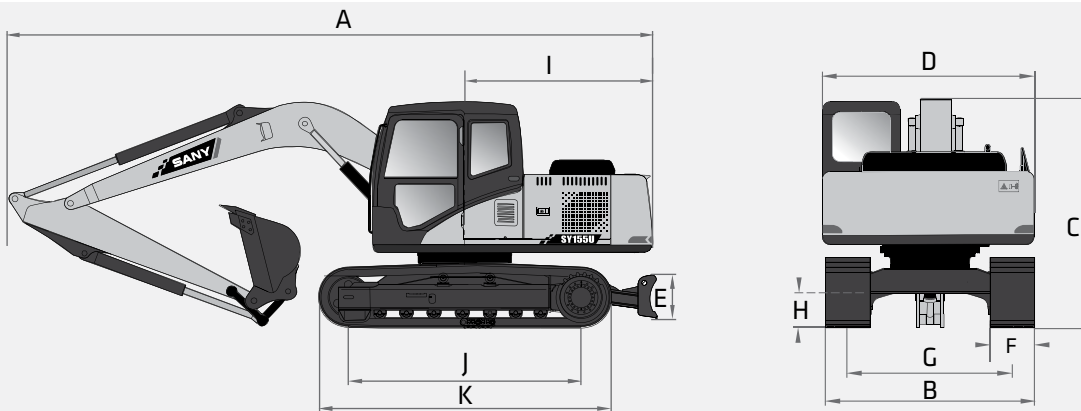
- ➔ Fixed boom functionality and reduced tail swing
- ➔ Quick coupler plumbed to end of stick
- ➔ 1-way and 2-way primary auxiliary with 2-way secondary auxiliary circuits
- ➔ Rear view camera
- ➔ Heated air ride seat
- ➔ Powerful Isuzu Engine

**103.9 hp**  
Net Power

**17' 11"**  
Dig Depth

**35,274 lbs**  
Operating Weight

**23,155 lbf**  
Bucket Breakout



## TECHNICAL SPECIFICATIONS

### TECHNICAL SPECIFICATIONS

|                                        |                                       |                 |
|----------------------------------------|---------------------------------------|-----------------|
| Operating Weight                       | 35,274 lbs                            | 16 000 kg       |
| Ground Pressure                        | 5.9 psi                               | 41.0 kPa        |
| <b>Engine</b>                          | ISUZU FT4-4JJ1X                       |                 |
| Displacement                           | 183.0 in <sup>3</sup>                 | 3.0 L           |
| Gross Power                            | 105.3 HP                              | 78.5 kW         |
| Net Power                              | 103.9 HP                              | 77.5 kW         |
| <b>Hydraulics</b>                      | Positive Flow Control w/Pilot Control |                 |
| Main Hydraulic Pump                    | Axial Piston - Variable Displacement  |                 |
| Operating Flow (maximum)               | 58.1 gal/min                          | 220.0 L/min     |
| Operating Pressure (maximum)           | 4,975 psi                             | 34.3 MPa        |
| Primary Auxiliary Flow                 | 29.1 gal/min                          | 110 L/min       |
| Primary Auxiliary Pressure (maximum)   | 4,975 psi                             | 34.3 MPa        |
| Secondary Auxiliary Flow (maximum)*    | 18.5 gal/min                          | 70 L/min        |
| Secondary Auxiliary Pressure (maximum) | 3,553 psi                             | 24.5 MPa        |
| <b>Travel Motor</b>                    | Axial Piston with Park Brake          |                 |
| Travel Pressure (maximum)              | 4,975 psi                             | 34.3 MPa        |
| Travel Speeds (maximum)                | 1.9 / 3.3 mph                         | 3.1 / 5.3 km/hr |
| Travel Effort (maximum)                | 25,628 lbf                            | 114.0 kN        |
| Grade Capability (maximum)             | 35°                                   |                 |
| <b>Swing Motor</b>                     | Axial Piston with Swing Brake         |                 |
| Swing Pressure (maximum)               | 3,626 psi                             | 25.0 MPa        |
| Swing Speed (maximum)                  | 12.5 RPM                              |                 |
| <b>Undercarriage (standard)</b>        | Steel Track                           |                 |
| Track Shoe Width (standard)            | 24"                                   | 600 mm          |
| Track Rollers (per side)               | 7                                     |                 |
| Carrier Rollers (per side)             | 1                                     |                 |

## DIMENSIONS

### DIMENSIONS

|                               |        |          |
|-------------------------------|--------|----------|
| Boom Length                   | 15' 1" | 4 600 mm |
| Stick (Arm) Length            | 8' 2"  | 2 500 mm |
| A Transport Length            | 24' 5" | 7 430 mm |
| B Transport Width             | 8' 6"  | 2 600 mm |
| C Transport Height            | 9' 3"  | 2 820 mm |
| D Upper Structure Width       | 8' 2"  | 2 490 mm |
| E Blade Height                | 1' 8"  | 504 mm   |
| F Track Width (standard shoe) | 24"    | 600 mm   |
| G Track Gauge                 | 6' 6"  | 1 990 mm |
| H Ground Clearance (minimum)  | 1' 5"  | 425 mm   |
| I Tail Swing Radius           | 4' 11" | 1 500 mm |
| J Track Length on Ground      | 9' 7"  | 2 930 mm |
| K Track Length                | 12' 0" | 3 665 mm |

### SERVICE REFILL CAPACITIES

|                         |          |         |
|-------------------------|----------|---------|
| Fuel Tank Capacity      | 55.5 gal | 210.0 L |
| DEF Tank Capacity       | 5.3 gal  | 20.0 L  |
| Hydraulic Tank Capacity | 29.1 gal | 110.0 L |
| Engine Oil Capacity     | 4.0 gal  | 15.0 L  |
| Cooling System Capacity | 4.2 gal  | 16.0 L  |

\*Based on theoretical calculation at max flow with no load. Subject to alterations. In the interest of continual equipment development

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STANDARD AND OPTIONAL EQUIPMENT

s = standard / o = optional

| SY155U           | ENGINE                                                                  |
|------------------|-------------------------------------------------------------------------|
| s                | Isuzu AR-4J1X                                                           |
| s                | Tier 4F / EU Stage V Ready                                              |
| s                | Auto-idle                                                               |
| s                | Dual-element dry air filter                                             |
| s                | Engine air precleaner                                                   |
| s                | Coolant Expansion tank                                                  |
| s                | Electronic engine control                                               |
| s                | Fan guard                                                               |
| s                | Engine coolant to -37 deg. C (-34 deg. F)                               |
| s                | Full-flow oil filter                                                    |
| s                | High flow cooling fan                                                   |
| s                | 500-hour engine-oil-change interval                                     |
| s                | Fuel filter and water separator                                         |
| HYDRAULIC SYSTEM |                                                                         |
| s                | Spring-applied, hydraulically released automatic swing brake            |
| s                | Load sensing hydraulic system                                           |
| s                | Control pattern change valve                                            |
| s                | Primary auxiliary hydraulic circuit with 1 and 2-way combination piping |
| s                | Secondary auxiliary hydraulics circuit                                  |
| s                | Auxiliary hydraulic-flow adjustments through monitor                    |
| s                | Adjustable auxiliary pressure relief                                    |
| s                | Quick coupler ready                                                     |
| UNDERCARRIAGE    |                                                                         |
| s                | Planetary drive with axial piston motors                                |
| s                | Propel motor shields                                                    |
| s                | Spring-applied, hydraulically released automatic propel brake           |
| s                | Track guides, front idler and middle 6 per side                         |
| s                | 2-speed travel selection through display and on dozer lever             |
| s                | 7 lower track rollers each side                                         |
| s                | 1 upper carrier roller each side                                        |
| s                | Dozer blade with cylinder guarding                                      |
| s                | Tie downs on track frame and dozer blade                                |
| s                | 600mm (24") wide tripple grouser steel tracks                           |
| s                | Undercarriage frame opening guard                                       |
| UPPERSTRUCTURE   |                                                                         |
| s                | Right-hand, left-hand, and counterweight mirrors                        |
| s                | Lockable cab, hood, and service doors                                   |
| s                | Debris screen in side panel                                             |
| s                | Remote-mounted engine oil and fuel filters                              |
| s                | Daily fluid level inspection visible from ground                        |
| s                | Rear reflectors                                                         |
| ATTACHMENTS      |                                                                         |
| s                | Convenient grease points                                                |
| s                | Dirt seals on all bucket pins                                           |
| s                | Thumb bracket                                                           |

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\*Warranty applies to 2023 Excavator and Wheel Loader models only.



STANDARD AND OPTIONAL EQUIPMENT

s = standard / o = optional

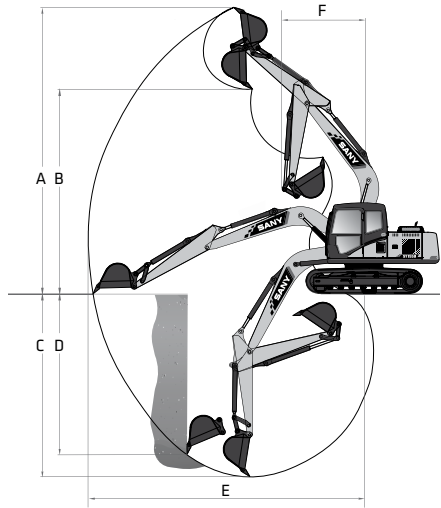
| SY155U             | ATTACHMENTS                                                                                                                                                                                                                                                                                                                                                                                                                   |
|--------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| s                  | Oil-impregnated bushings                                                                                                                                                                                                                                                                                                                                                                                                      |
| s                  | Reinforced thrust plates                                                                                                                                                                                                                                                                                                                                                                                                      |
| s                  | Quick coupler plumbing to end of the stick                                                                                                                                                                                                                                                                                                                                                                                    |
| OPERATOR'S STATION |                                                                                                                                                                                                                                                                                                                                                                                                                               |
| s                  | Hydraulic pilot controls for boom, stick, swing, and travel operations                                                                                                                                                                                                                                                                                                                                                        |
| s                  | Proportional auxiliary switches on joystick                                                                                                                                                                                                                                                                                                                                                                                   |
| s                  | Travel levers with foot pedals                                                                                                                                                                                                                                                                                                                                                                                                |
| s                  | AM/FM radio with bluetooth and USB connection port                                                                                                                                                                                                                                                                                                                                                                            |
| s                  | Rearview camera                                                                                                                                                                                                                                                                                                                                                                                                               |
| s                  | Cell phone tray                                                                                                                                                                                                                                                                                                                                                                                                               |
| s                  | Weight adjustable suspension cloth seat with fore/aft adjustment and adjustable armrests                                                                                                                                                                                                                                                                                                                                      |
| s                  | 2" seat mounted lap belt                                                                                                                                                                                                                                                                                                                                                                                                      |
| s                  | Emergency stop switch                                                                                                                                                                                                                                                                                                                                                                                                         |
| s                  | Sliding front window                                                                                                                                                                                                                                                                                                                                                                                                          |
| s                  | Removable lower front window                                                                                                                                                                                                                                                                                                                                                                                                  |
| s                  | Window breaker                                                                                                                                                                                                                                                                                                                                                                                                                |
| s                  | ECO mode switch                                                                                                                                                                                                                                                                                                                                                                                                               |
| s                  | 8 tool selection modes                                                                                                                                                                                                                                                                                                                                                                                                        |
| s                  | Fully adjustable auxiliary flow circuits and pressure from display                                                                                                                                                                                                                                                                                                                                                            |
| s                  | Multifunction color LCD monitor with: Diagnostic capability / Multiple-language                                                                                                                                                                                                                                                                                                                                               |
| s                  | System monitoring features: Auto-idle indicator, 2-speed indicator, work-mode indicator, preheat icon, time and date, battery charge icon, throttle position, engine oil pressure alarm, DPF regeneration inhibit indicator, fuel level gauge, maintenance needed icon, failure code, standard/eco work mode icon, engine coolant temperature, coolant temp alarm, severe failure alarm, work tool mode icon, operating hours |
| s                  | High performance heating, ventilation, and air conditioning system                                                                                                                                                                                                                                                                                                                                                            |
| s                  | Operation and maintenance manual storage                                                                                                                                                                                                                                                                                                                                                                                      |
| s                  | Heavy duty removeable rubber floor mat                                                                                                                                                                                                                                                                                                                                                                                        |
| s                  | Front windshield wiper with high and low speed                                                                                                                                                                                                                                                                                                                                                                                |
| s                  | Horn, electric                                                                                                                                                                                                                                                                                                                                                                                                                |
| s                  | Hour meter, electric                                                                                                                                                                                                                                                                                                                                                                                                          |
| s                  | Hydraulic shutoff lever, all controls                                                                                                                                                                                                                                                                                                                                                                                         |
| s                  | Interior light                                                                                                                                                                                                                                                                                                                                                                                                                |
| s                  | Cup holder                                                                                                                                                                                                                                                                                                                                                                                                                    |
| s                  | Travel alarm with cancel switch                                                                                                                                                                                                                                                                                                                                                                                               |
| s                  | Transparent overhead hatch with retractable sunshade                                                                                                                                                                                                                                                                                                                                                                          |
| ELECTRICAL         |                                                                                                                                                                                                                                                                                                                                                                                                                               |
| s                  | 12V electrical system                                                                                                                                                                                                                                                                                                                                                                                                         |
| s                  | Maintenance free battery                                                                                                                                                                                                                                                                                                                                                                                                      |
| s                  | Ground level battery disconnect                                                                                                                                                                                                                                                                                                                                                                                               |
| s                  | Terminal battery covers                                                                                                                                                                                                                                                                                                                                                                                                       |
| s                  | 80-amp alternator                                                                                                                                                                                                                                                                                                                                                                                                             |
| s                  | 12V power outlet                                                                                                                                                                                                                                                                                                                                                                                                              |
| LIGHTS             |                                                                                                                                                                                                                                                                                                                                                                                                                               |
| s                  | Work lights: 2 mounted on top of cab, 1 mounted on boom, magnetic beacon                                                                                                                                                                                                                                                                                                                                                      |

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# PRODUCT SPECIFICATIONS EXCAVATOR || SY155U

## WORKING RANGE



| WORKING RANGE                         |         |          |
|---------------------------------------|---------|----------|
| Boom Length                           | 15' 1"  | 4 600 mm |
| Stick (Arm) Length                    | 8' 2"   | 2 500 mm |
| A Maximum Digging Height              | 30' 3"  | 9 218 mm |
| B Maximum Dumping Height              | 22' 2"  | 6 756 mm |
| C Maximum Digging Depth               | 17' 11" | 5 468 mm |
| D Maximum Vertical Wall Digging Depth | 12' 5"  | 3 796 mm |
| E Maximum Reach at Ground Level       | 27' 4"  | 8 338 mm |
| F Minimum Swing Radius                | 6' 10"  | 2 086 mm |

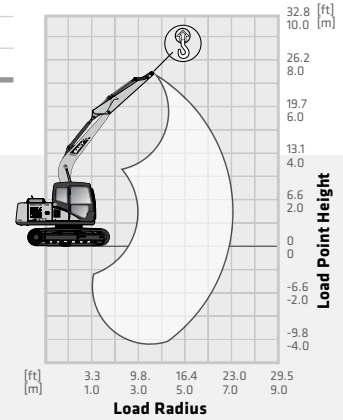
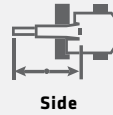
  

| DIGGING PERFORMANCE             |            |          |
|---------------------------------|------------|----------|
| Boom Length                     | 15' 1"     | 4 600 mm |
| Stick (Arm) Length              | 8' 2"      | 2 500 mm |
| Bucket Breakout Force (ISO)     | 23,155 lbf | 103.0 kN |
| Stick (Arm) Digging Force (ISO) | 15,062 lbf | 67.0 kN  |

## LIFTING PERFORMANCE

Standard 15' 1" (4 600 mm) Boom  
 Standard 8' 2" (2 500 mm) Stick  
 Standard 2" (600 mm) Track Shoes  
 No Bucket

Ratings are based on ISO 10567:2007. Lift capacity does not exceed 75% of tipping load with the machine on firm, level ground or 87% of hydraulic lifting capacity.



| LOAD RADIUS        | 6.6 ft<br>2.0 m   |            | 9.8 ft<br>3.0 m |            | 13.4 ft<br>4.0 m |           | 16.4 ft<br>5.0 m |          | 19.7 ft<br>6.0 m |          | 23.0 ft<br>7.0 m |          | MAX REACH |           |
|--------------------|-------------------|------------|-----------------|------------|------------------|-----------|------------------|----------|------------------|----------|------------------|----------|-----------|-----------|
|                    | LOAD POINT HEIGHT |            |                 |            |                  |           |                  |          |                  |          |                  |          |           |           |
| 23 ft<br>7.0 m     |                   |            |                 |            | 7,392 lb*        | 7,392 lb* |                  |          |                  |          |                  |          | 5,591 lb* | 5,591 lb* |
| 19.7 ft<br>6.0 m   |                   |            |                 |            | 8,935 lb*        | 8,007 lb  | 7,297 lb*        | 5,924 lb |                  |          |                  |          | 4,885 lb* | 4,885 lb* |
| 16.4 ft<br>5.0 m   |                   |            |                 |            | 9,266 lb*        | 7,923 lb  | 8,695 lb*        | 5,919 lb | 5,710 lb*        | 4,544 lb |                  |          | 4,570 lb* | 4,396 lb  |
| 13.1 ft<br>4.0 m   |                   |            | 10,441 lb*      | 10,441 lb* | 10,236 lb*       | 7,688 lb  | 9,140 lb*        | 5,794 lb | 8,426 lb*        | 4,515 lb |                  |          | 4,445 lb* | 3,889 lb  |
| 9.8 ft<br>3.0 m    |                   |            | 15,119 lb*      | 10,157 lb  | 11,715 lb*       | 7,330 lb  | 9,886 lb*        | 5,593 lb | 8,746 lb*        | 4,411 lb |                  |          | 4,451 lb* | 3,583 lb  |
| 6.6 ft<br>2.0 m    |                   |            | 6 858 kg*       | 4 607 kg   | 5 314 kg*        | 3 325 kg  | 4 484 kg*        | 2 537 kg | 3 967 kg*        | 2 001 kg |                  |          | 2 019 kg* | 1 625 kg  |
| 3.3 ft<br>1.0 m    |                   |            | 18,453 lb*      | 9,343 lb   | 13,296 lb*       | 6,923 lb  | 10,703 lb*       | 5,136 lb | 9,136 lb*        | 4,279 lb | 5,620 lb*        | 3,470 lb | 4,570 lb* | 3,413 lb  |
| 0 ft<br>0 m        |                   |            | 8 370 kg*       | 4 238 kg   | 6 031 kg*        | 3 140 kg  | 4 855 kg*        | 2 432 kg | 4 144 kg*        | 1 941 kg | 2 549 kg*        | 1 574 kg | 2 073 kg* | 1 548 kg  |
| -3.3 ft<br>-1.0 m  | 10,331 lb*        | 10,331 lb* | 14,663 lb*      | 8,772 lb   | 14,434 lb*       | 6,570 lb  | 11,341 lb*       | 5,146 lb | 9,431 lb*        | 4,147 lb | 6,058 lb*        | 3,406 lb | 4,813 lb* | 3,351 lb  |
| -6.6 ft<br>-2.0 m  | 15,900 lb*        | 13,221 lb  | 16,559 lb*      | 8,497 lb   | 12,990 lb*       | 6,215 lb  | 10,271 lb*       | 4,870 lb | 7,846 lb*        | 3,997 lb |                  |          | 6,947 lb* | 3,887 lb  |
| -9.8 ft<br>-3.0 m  | 7 212 kg*         | 5 997 kg   | 7 511 kg*       | 3 854 kg   | 5 892 kg*        | 2 819 kg  | 4 659 kg*        | 2 209 kg | 3 559 kg*        | 1 813 kg |                  |          | 3 151 kg* | 1 763 kg  |
| -13.1 ft<br>-4.0 m | 16,491 lb*        | 13,422 lb  | 13,382 lb*      | 8,618 lb   | 10,675 lb*       | 6,290 lb  | 8,150 lb*        | 4,943 lb |                  |          |                  |          | 6,720 lb* | 4,519 lb  |
|                    | 7 480 kg*         | 6 088 kg   | 6 070 kg*       | 3 909 kg   | 4 842 kg*        | 2 853 kg  | 3 697 kg*        | 2 242 kg |                  |          |                  |          | 3 048 kg* | 2 050 kg  |
|                    |                   |            | 8,545 lb*       | 8,545 lb*  | 6,517 lb*        | 6,499 lb* |                  |          |                  |          |                  |          | 5,229 lb* | 5,229 lb* |
|                    |                   |            | 3 876 kg*       | 3 876 kg*  | 2 956 kg*        | 2 948 kg* |                  |          |                  |          |                  |          | 2 372 kg* | 2 372 kg* |

| LOAD RADIUS        | 6.6 ft<br>2.0 m   |            | 9.8 ft<br>3.0 m |            | 13.4 ft<br>4.0 m |           | 16.4 ft<br>5.0 m |          | 19.7 ft<br>6.0 m |          | 23.0 ft<br>7.0 m |          | MAX REACH |           |
|--------------------|-------------------|------------|-----------------|------------|------------------|-----------|------------------|----------|------------------|----------|------------------|----------|-----------|-----------|
|                    | LOAD POINT HEIGHT |            |                 |            |                  |           |                  |          |                  |          |                  |          |           |           |
| 23 ft<br>7.0 m     |                   |            |                 |            | 7,392 lb*        | 7,392 lb* |                  |          |                  |          |                  |          | 5,591 lb* | 5,591 lb* |
| 19.7 ft<br>6.0 m   |                   |            |                 |            | 8,935 lb*        | 8,007 lb  | 7,297 lb*        | 5,924 lb |                  |          |                  |          | 4,885 lb* | 4,885 lb* |
| 16.4 ft<br>5.0 m   |                   |            |                 |            | 9,266 lb*        | 7,923 lb  | 7,919 lb         | 5,919 lb | 5,710 lb*        | 4,544 lb |                  |          | 4,570 lb* | 4,396 lb  |
| 13.1 ft<br>4.0 m   |                   |            | 10,441 lb*      | 10,441 lb* | 10,188 lb        | 7,688 lb  | 7,793 lb         | 5,794 lb | 8,426 lb*        | 4,515 lb |                  |          | 4,445 lb* | 3,889 lb  |
| 9.8 ft<br>3.0 m    |                   |            | 13,488 lb       | 10,157 lb  | 9,830 lb         | 7,330 lb  | 7,593 lb         | 5,628 lb | 6,076 lb         | 4,411 lb |                  |          | 4,451 lb* | 3,583 lb  |
| 6.6 ft<br>2.0 m    |                   |            | 6 118 kg        | 4 607 kg   | 4 459 kg         | 3 325 kg  | 3 444 kg         | 2 537 kg | 2 756 kg         | 2 001 kg |                  |          | 2 019 kg* | 1 625 kg  |
| 3.3 ft<br>1.0 m    |                   |            | 12,674 lb       | 9,343 lb   | 9,420 lb         | 6,923 lb  | 7,361 lb         | 5,362 lb | 5,944 lb         | 4,279 lb | 4,896 lb         | 3,470 lb | 4,570 lb* | 3,413 lb  |
| 0 ft<br>0 m        |                   |            | 5 749 kg        | 4 238 kg   | 4 273 kg         | 3 140 kg  | 3 339 kg         | 2 432 kg | 2 696 kg         | 1 941 kg | 2 221 kg         | 1 574 kg | 2 073 kg* | 1 548 kg  |
| -3.3 ft<br>-1.0 m  | 10,331 lb*        | 10,331 lb* | 12,103 lb       | 8,772 lb   | 9,070 lb         | 6,570 lb  | 7,145 lb         | 5,146 lb | 5,814 lb         | 4,147 lb | 4,833 lb         | 3,406 lb | 4,762 lb  | 3,351 lb  |
| -6.6 ft<br>-2.0 m  | 15,900 lb*        | 13,221 lb  | 11,830 lb       | 8,497 lb   | 8,715 lb         | 6,215 lb  | 6,870 lb         | 4,870 lb | 6,664 lb         | 3,997 lb |                  |          | 2 160 kg  | 1 520 kg  |
| -9.8 ft<br>-3.0 m  | 7 212 kg*         | 5 997 kg   | 5 366 kg        | 3 853 kg   | 3 953 kg         | 2 819 kg  | 3 116 kg         | 2 209 kg | 2 569 kg         | 1 813 kg |                  |          | 2 498 kg  | 1 763 kg  |
| -13.1 ft<br>-4.0 m | 16,491 lb*        | 13,422 lb  | 11,951 lb       | 8,618 lb   | 8,790 lb         | 6,290 lb  | 6,942 lb         | 4,943 lb |                  |          |                  |          | 6,352 lb  | 4,519 lb  |
|                    | 7 480 kg*         | 6 088 kg   | 5 421 kg        | 3 909 kg   | 3 987 kg         | 2 853 kg  | 3 149 kg         | 2 242 kg |                  |          |                  |          | 2 881 kg  | 2 050 kg  |
|                    |                   |            | 8,545 lb*       | 8,545 lb*  | 6,517 lb*        | 6,499 lb* |                  |          |                  |          |                  |          | 5,229 lb* | 5,229 lb* |
|                    |                   |            | 3 876 kg*       | 3 876 kg*  | 2 956 kg*        | 2 948 kg  |                  |          |                  |          |                  |          | 2 372 kg* | 2 372 kg* |

\* Indicates load limited by hydraulic lifting capacity.

