# **352F LRE**

**Hydraulic Excavator** 





| Engine                        |           |        |  |  |  |  |
|-------------------------------|-----------|--------|--|--|--|--|
| Engine Model Cat® C13 ACERT   |           |        |  |  |  |  |
| Net Power – ISO 9249          | 304 kW    | 408 hp |  |  |  |  |
| Engine Power – ISO 14396      | 317 kW    | 425 hp |  |  |  |  |
| Working Range                 |           |        |  |  |  |  |
| Maximum Reach at Ground Level | 19 640 mm | 64'5"  |  |  |  |  |

| 4.7 km/h  | 2.9 mph    |  |  |
|-----------|------------|--|--|
| 330 kN    | 74,200 lbf |  |  |
|           |            |  |  |
| 59 400 kg | 130,954 lb |  |  |
|           | 330 kN     |  |  |

### Introduction

The Cat 352F LRE machine is built to keep your production numbers up and your owning and operating costs down. The real power comes from the enhanced hydraulic system, which allows you to move tons of material all day long with a great deal of speed and precision. When you add in a quiet operator environment that keeps you comfortable and productive, service points that make your routine maintenance easy, and multiple Cat work tools that help you take on a variety of jobs, you simply won't find a better long reach excavation machine.

### Contents

| Key Features       | 2   |
|--------------------|-----|
| Specifications     | 4   |
| Standard Equipment | 12  |
| Optional Equipment | 13  |
| Notes              | 1./ |



### **Performance**

- The C13 ACERT engine meets U.S. EPA Tier 4 Final and EU Stage IV emission standards.
- Automatic engine speed control lowers rpm based on load for reduced fuel consumption.
- Power modes help you more actively manage fuel consumption.

### **Durable Structures**

- The boom and stick are built with internal baffle plates and are stress relieved for added durability; each undergoes ultrasound inspection to ensure quality and reliability.
- Front linkage pins have thick chrome plating, giving them high wear resistance even under water.
- Heavy-duty wide undercarriage provides a stable, rugged platform for long reach digging and loading applications.
- Track shoes, links, rollers, idlers, and final drives are built with high-tensile strength steel.
- Grease-lubricated track link protects moving parts by keeping water, debris, and dust out and grease sealed in to deliver longer wear life and reduced noise when traveling.
- Optional guide guards help maintain track alignment to improve the machine's overall performance – whether you're traveling on a flat, heavy bed of rock or a steep, wet field of mud.

### **Maintenance**

- Routine maintenance items like grease points and fluid taps are easy to reach at ground level.
- The side-by-side cooling system enables easy cleaning.
- Multiple S·O·S<sup>SM</sup> ports and pressure diagnostic taps help prevent maintenance downtime.

# **Key Features**

Built-in benefits and available options



### **Comfort**

- The full-size cab is quiet and comfortable.
- Seats are adjustable and feature air suspension and heated and cooled options.
- The LCD monitor is easy to navigate and programmable in 44 languages.

### **Versatility**

- Exclusive Cat attachments allow you to take on a variety of work – quickly and efficiently.
- A Cat coupler lets you swap between attachments in seconds without leaving the cab.
- Optional Tool Control remembers pressures and flows for up to 20 tools to enhance uptime.

### Safety

- Smart refuel fills the machine quickly from an external fuel source; it automatically stops when the fuel tank is full or the fuel source is empty.
- The rearview and sideview cameras enhance visibility to help make operators more efficient.
- Anti-skid plates reduce slipping hazards in all types of weather conditions.

| Engine                   |               |                     |  |  |  |  |  |
|--------------------------|---------------|---------------------|--|--|--|--|--|
| Engine Model             | Cat C13 ACERT |                     |  |  |  |  |  |
| Gross Power – SAE J1995  | 322 kW        | 432 hp              |  |  |  |  |  |
| Engine Power – ISO 14396 | 317 kW        | 425 hp              |  |  |  |  |  |
| Net Power – ISO 9249     | 304 kW        | 408 hp              |  |  |  |  |  |
| Bore                     | 130 mm        | 5.1 in              |  |  |  |  |  |
| Stroke                   | 157 mm        | 6.2 in              |  |  |  |  |  |
| Displacement             | 12.5 L        | 763 in <sup>3</sup> |  |  |  |  |  |

| Hydraulic System                         |            |             |
|--|------------|-------------|
| Main System – Maximum Flow (total)       | 770 L/min  | 203 gal/min |
| Swing System – Maximum Flow              | 385 L/min  | 102 gal/min |
| Maximum Pressure – Equipment             | 35 000 kPa | 5,076 psi   |
| Maximum Pressure – Equipment (Lift mode) | 38 000 kPa | 5,511 psi   |
| Maximum Pressure – Travel                | 35 000 kPa | 5,076 psi   |
| Maximum Pressure – Swing                 | 27 500 kPa | 3,989 psi   |
| Auxiliary Circuit – High Pressure        | 300 L/min  | 79 gal/min  |
| Auxiliary Circuit – Medium Pressure      | 45 L/min   | 12 gal/min  |
| Pilot System – Maximum Flow              | 27 L/min   | 7 gal/min   |
| Pilot System – Maximum Pressure          | 4120 kPa   | 598 psi     |
| Boom Cylinder – Bore                     | 170 mm     | 6.7 in      |
| Boom Cylinder – Stroke                   | 3748 mm    | 147.6 in    |
| Stick Cylinder – Bore                    | 190 mm     | 7.5 in      |
| Stick Cylinder – Stroke                  | 4306 mm    | 169.5 in    |
| B1 Bucket Cylinder – Bore                | 120 mm     | 4.7 in      |
| B1 Bucket Cylinder – Stroke              | 2788 mm    | 109.8 in    |

# **Air Conditioning System**

The air conditioning system on this machine contains the fluorinated greenhouse gas refrigerant R134a (Global Warming Potential = 1430). The system contains 1.00 kg of refrigerant, which has a CO<sub>2</sub> equivalent of 1.430 metric tonnes.

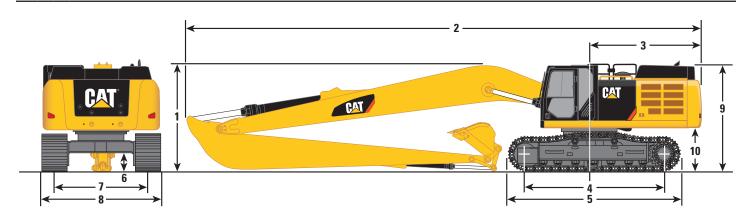
| Drive  |           |                |
|--|-----------|----------------|
| Maximum Travel Speed                           | 4.7 km/h  | 2.91 mph       |
| Maximum Drawbar Pull                           | 330 kN    | 74,200 lbf     |
| Swing  |           |                |
| Swing Speed                                    | 8.7 rpm   |                |
| Maximum Swing Torque                           | 187 kN·m  | 137,924 lbf-ft |
| Service Refill Capacities                      |           |                |
| Fuel Tank Capacity                             | 720 L     | 190 gal        |
| Cooling System                                 | 50 L      | 13.2 gal       |
| Engine Oil (with filter)                       | 38 L      | 10 gal         |
| Swing Drive (each)                             | 10 L      | 2.6 gal        |
| Final Drive (each)                             | 15 L      | 4 gal          |
| Hydraulic System (including tank)              | 570 L     | 151 gal        |
| Hydraulic Tank                                 | 407 L     | 108 gal        |
| DEF Tank                                       | 41 L      | 11 gal         |
| Track  |           |                |
| Number of Shoes (each side)                    | 52 pieces |                |
| Number of Track Rollers (each side)            | 9 pieces  |                |
| Number of Carrier Rollers (each side)          | 3 pieces  |                |
| Sound  |           |                |
| Exterior Sound Power Level –<br>ISO 6395:2008* | 106 dB(A) |                |
| Operator Sound Pressure Level –                | 69 dB(A)  |                |

- Hearing protection may be needed when operating with an open operator station and cab (when not properly maintained or doors/ windows open) for extended periods or in a noisy environment.
- \* As per European Union Directive 200/14/EC as amended by 2005/88/EC.

ISO 6396:2008

### **Dimensions**

All dimensions are approximate.



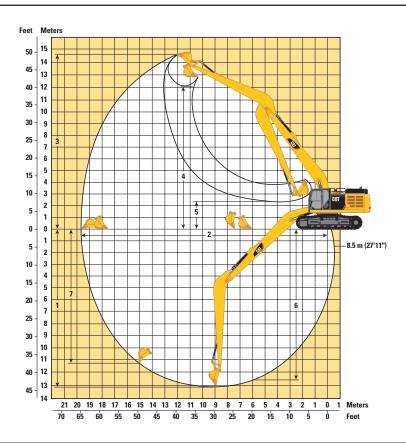
| Boom Option                                     | LRE Boom<br>11.5 m (37'9")  |          |  |  |  |
|---|-----------------------------|----------|--|--|--|
| Stick Option                                    | LRE Stick<br>8.5 m (27'11") |          |  |  |  |
| 1 Shipping Height*                              | 3740 mm                     | 12'3"    |  |  |  |
| 2 Shipping Length                               | 16 460 mm                   | 54'0"    |  |  |  |
| 3 Tail Swing Radius                             | 3760 mm                     | 12'4"    |  |  |  |
| 4 Length to Center of Rollers                   | 4340 mm                     | 14'3"    |  |  |  |
| 5 Track Length                                  | 5380 mm                     | 17'8"    |  |  |  |
| 6 Ground Clearance, including Shoe Lug Height   | 710 mm                      | 2'4"     |  |  |  |
| Ground Clearance, not including Shoe Lug Height | 740 mm                      | 2'5"     |  |  |  |
| 7 Track Gauge                                   |                             |          |  |  |  |
| Long Variable Gauge Undercarriage (expanded)    | 3720 mm                     | 12'3"    |  |  |  |
| Long Variable Gauge Undercarriage (retracted)   | 3220 mm                     | 10'7"    |  |  |  |
| 8 Transport Width without Steps                 |                             |          |  |  |  |
| Long Variable Gauge Undercarriage (expanded)    |                             |          |  |  |  |
| 600 mm (24") Shoes                              | 4320 mm                     | 14'2"    |  |  |  |
| 750 mm (30") Shoes                              | 4470 mm                     | 14'8"    |  |  |  |
| 900 mm (35") Shoes                              | 4620 mm                     | 15'2"    |  |  |  |
| Long Variable Gauge Undercarriage (retracted)   |                             |          |  |  |  |
| 600 mm (24") Shoes                              | 3820 mm                     | 12'6"    |  |  |  |
| 750 mm (30") Shoes                              | 3970 mm                     | 13'0"    |  |  |  |
| 900 mm (35") Shoes                              | 4120 mm                     | 13'6"    |  |  |  |
| <b>9</b> Cab Height                             | 3390 mm                     | 11'2"    |  |  |  |
| 10 Counterweight Clearance**                    | 1450 mm                     | 4'9"     |  |  |  |
| Bucket Type                                     | GI                          | )        |  |  |  |
| Bucket Part Number                              | 347-6                       | 708      |  |  |  |
| Bucket Capacity                                 | 1.19 m³                     | 1.56 yd³ |  |  |  |
| Bucket Tip Radius                               | 1557 mm                     | 5'1"     |  |  |  |

 $<sup>{}^*</sup>$ Including shoe lug height.

<sup>\*\*</sup>Without shoe lug height.

## **Working Ranges**

All dimensions are approximate.



| Boom Option   | LRE Boom<br>11.5 m (37'9")  |            |  |  |  |
|---|-----------------------------|------------|--|--|--|
| Stick Option  | LRE Stick<br>8.5 m (27'11") |            |  |  |  |
| 1 Maximum Digging Depth                             | 13 040 mm                   | 42'9"      |  |  |  |
| 2 Maximum Reach at Ground Level                     | 19 640 mm                   | 64'5"      |  |  |  |
| Maximum Radius of Working Equipment                 | 19 790 mm                   | 64'11"     |  |  |  |
| 3 Maximum Cutting Height                            | 14 700 mm                   | 48'3"      |  |  |  |
| 4 Maximum Loading Height                            | 12 030 mm                   | 39'6"      |  |  |  |
| 5 Minimum Loading Height                            | 2250 mm                     | 7'5"       |  |  |  |
| 6 Maximum Depth Cut for 2440 mm (8'0") Level Bottom | 12 600 mm                   | 41'4"      |  |  |  |
| 7 Maximum Vertical Wall Digging Depth               | 11 280 mm                   | 37'0"      |  |  |  |
| Bucket Digging Force (ISO)                          | 141 kN                      | 31,600 lbf |  |  |  |
| Stick Digging Force (ISO)                           | 104 kN                      | 23,400 lbf |  |  |  |
| Bucket Digging Force (SAE)                          | 125 kN                      | 28,000 lbf |  |  |  |
| Stick Digging Force (SAE)                           | 103 kN                      | 23,100 lbf |  |  |  |
| Bucket Type   | GD                          |            |  |  |  |
| Bucket Part Number                                  | 347-6                       | 5708       |  |  |  |
| Bucket Capacity                                     | 1.19 m³                     | 1.56 yd³   |  |  |  |
| Bucket Tip Radius                                   | 1557 mm                     | 5'1"       |  |  |  |

# **Operating Weights and Ground Pressures**

|                   |           | m (35")<br>user Shoes |           | m (30")<br>user Shoes | 600 mm (24")<br>Triple Grouser Shoes |            |  |
|-------------------|-----------|-----------------------|-----------|-----------------------|--------------------------------------|------------|--|
| Operating Weights | 59 400 kg | 130,954 lb            | 58 600 kg | 129,190 lb            | 57 800 kg                            | 127,427 lb |  |
| Ground Pressures  | 69 kPa    | 10.0 psi              | 82 kPa    | 11.8 psi              | 101 kPa                              | 14.6 psi   |  |

### **Major Component Weights**

|   | kg     | lb     |
|---|--------|--------|
| Base Machine (with boom cylinder, without counterweight, front linkage and track) | 29 844 | 65,795 |
| Lower Structure (without track)   |        |        |
| Long Variable Gauge Undercarriage   | 14 504 | 31,976 |
| Upper Structure (with boom cylinder, without front linkage and counterweight)     |        |        |
| For 12 mt (13.2 t) Counterweight  | 15 340 | 33,818 |
| Counterweight   |        |        |
| 12 mt (13.2 t)  | 12 000 | 26,455 |
| Boom (includes lines, pins and stick cylinder)                                    |        |        |
| LRE Boom – 11.5 m (37'9")   | 5800   | 12,787 |
| Stick (includes lines, pins and bucket cylinder)                                  |        |        |
| LRE Stick – 8.5 m (27'11")  | 3300   | 7,275  |
| Track Shoes   |        |        |
| 900 mm (35") Triple Grouser Shoes   | 6700   | 14,770 |
| 750 mm (30") Triple Grouser Shoes   | 5940   | 13,095 |
| 600 mm (24") Triple Grouser Shoes   | 5190   | 11,441 |
| Bucket  |        |        |
| GD 1.19 m³ (1.56 yd³)   | 773    | 1,706  |

Base machine includes 75 kg (165 lb) operator weight, 90% fuel weight, and undercarriage with center guard.

### LRE Fronts Capacities - Counterweight: 12 mt (13.2 t) - without Bucket - Heavy Lift: On

| 8.5 m (27'11") 11.5 m (37'9") |                 |                         |                        |                         |                         |                            | Figure 3720 mm (12'3") – Expanded |                           |                         |                           |                         |                        | 4340 mm (14'3") 5380 mm (17'8") |                       |  |  |
|-------------------------------|-----------------|-------------------------|------------------------|-------------------------|-------------------------|----------------------------|-----------------------------------|---------------------------|-------------------------|---------------------------|-------------------------|------------------------|---------------------------------|-----------------------|--|--|
| 5                             | <b>→</b>        | 3.0 m/                  | /10.0 ft               | 4.5 m/                  | 15.0 ft                 | 6.0 m/                     | /20.0 ft                          | 7.5 m/                    | /25.0 ft                | 9.0 m/                    | /30.0 ft                |                        |                                 |                       |  |  |
|                               |                 |                         |                        |                         |                         |                            |                                   | Ī,                        |                         | Ī,                        |                         | Ī.                     |                                 | m<br><b>ft</b>        |  |  |
| 13.5 m                        | kg              |                         |                        |                         |                         |                            |                                   |                           |                         |                           |                         | *2950                  | *2950                           | 14.40                 |  |  |
| <b>45.0 ft</b><br>12.0 m      | lb<br>kg        |                         |                        |                         |                         |                            |                                   |                           |                         |                           |                         | *2900                  | *2900                           | 15.46                 |  |  |
| 40.0 ft                       | lb              |                         |                        |                         |                         |                            |                                   |                           |                         |                           |                         | *6,350                 | *6,350                          | 50.83                 |  |  |
| 10.5 m                        | kg              |                         |                        |                         |                         |                            |                                   |                           |                         |                           |                         | *2850                  | *2850                           | 16.30                 |  |  |
| 35.0 ft                       | lb              |                         |                        |                         |                         |                            |                                   |                           |                         |                           |                         | *6,300                 | *6,300                          | 53.33                 |  |  |
| 9.0 m                         | kg              |                         |                        |                         |                         |                            |                                   |                           |                         |                           |                         | *2900                  | *2900                           | 16.97                 |  |  |
| 30.0 ft                       | lb              |                         |                        |                         |                         |                            |                                   |                           |                         |                           |                         | *6,350                 | *6,350                          | 55.83                 |  |  |
| 7.5 m<br><b>25.0 ft</b>       | kg<br><b>Ib</b> |                         |                        |                         |                         |                            |                                   |                           |                         |                           |                         | *2950<br><b>*6,450</b> | *2950<br><b>*6,450</b>          | 17.48<br><b>57.50</b> |  |  |
| 6.0 m                         | kg              |                         |                        |                         |                         |                            |                                   |                           |                         |                           |                         | *3050                  | *3050                           | 17.86                 |  |  |
| 20.0 ft                       | lb              |                         |                        |                         |                         |                            |                                   |                           |                         |                           |                         | *6,650                 | *6,650                          | 59.17                 |  |  |
| 4.5 m                         | kg              |                         |                        |                         |                         |                            |                                   |                           |                         |                           |                         | *3150                  | *3150                           | 18.10                 |  |  |
| 15.0 ft                       | lb              |                         |                        |                         |                         |                            |                                   |                           |                         |                           |                         | *6,950                 | *6,950                          | 60.00                 |  |  |
| 3.0 m                         | kg              |                         |                        | *13 200                 | *13 200                 | *15 700                    | *15 700                           | *12 150                   | *12 150                 | *10 000                   | *10 000                 | *3350                  | *3350                           | 18.21                 |  |  |
| 10.0 ft                       | lb              |                         |                        | *31,750                 | *31,750                 | *33,800                    | *33,800                           | *26,250                   | *26,250                 | *21,600                   | *21,600                 | *7,300                 | *7,300                          | 60.00                 |  |  |
| 1.5 m                         | kg              |                         |                        | *7700                   | *7700                   | *17 100                    | *17 100                           | *13 100                   | *13 100                 | *10 650                   | *10 650                 | *3550                  | *3550                           | 18.19                 |  |  |
| 5.0 ft                        | lb              | V 4400                  | V 4400                 | *17,750                 | *17,750                 | *36,900                    | *36,900                           | *28,300                   | *28,300                 | *23,000                   | *23,000                 | *7,750                 | *7,750                          | 60.00                 |  |  |
| 0 m                           | kg              | *4100                   | *4100                  | *7150                   | *7150                   | *13 250                    | *13 250                           | *13 750                   | 13 300                  | *11 100                   | 10 400                  | *3800                  | 3600                            | 18.06                 |  |  |
| 0 ft                          | lb              | * <b>9,150</b><br>*5450 | <b>*9,150</b><br>*5450 | <b>*16,150</b><br>*7750 | *16,150                 | * <b>30,450</b><br>*12 300 | * <b>30,450</b><br>*12 300        | <b>*29,700</b><br>*14 050 | <b>28,700</b><br>12 600 | <b>*24,050</b><br>*11 400 | <b>22,450</b><br>9850   | <b>*8,400</b><br>*4150 | <b>7,950</b><br>3600            | <b>59.17</b> 17.79    |  |  |
| −1.5 m<br><b>−5.0 ft</b>      | kg<br><b>lb</b> | *12.100                 | *12.100                | *17.400                 | *7750<br><b>*17.400</b> | * <b>27.950</b>            | *27.950                           | *30.400                   | 27.100                  | *24.700                   | 21.200                  | *9.200                 | 7.950                           | 58.33                 |  |  |
| -3.0 m                        | kg              | *6800                   | *6800                  | *8800                   | *8800                   | *12 600                    | *12 600                           | *14 050                   | 12 150                  | 11 200                    | 9450                    | 4400                   | 3700                            | 17.39                 |  |  |
| -10.0 ft                      | lb              | *15.100                 | *15.100                | *19.700                 | *19.700                 | *28.550                    | *28.550                           | *30,350                   | 26,150                  | 24,100                    | 20.350                  | 9.650                  | 8.100                           | 57.50                 |  |  |
| -4.5 m                        | kg              | *8150                   | *8150                  | *10 100                 | *10 100                 | *13 600                    | *13 600                           | *13 700                   | 11 950                  | 10 950                    | 9250                    | 4550                   | 3800                            | 16.84                 |  |  |
| -15.0 ft                      | lb              | *18,200                 | *18,200                | *22,600                 | *22,600                 | *30,750                    | *30,750                           | *29,650                   | 25,650                  | 23,600                    | 19,850                  | 10,050                 | 8,400                           | 55.83                 |  |  |
| −6.0 m                        | kg              | *9600                   | *9600                  | *11 550                 | *11 550                 | *15 000                    | *15 000                           | *13 100                   | 11 900                  | 10 850                    | 9150                    | 4850                   | 4050                            | 16.13                 |  |  |
| –20.0 ft                      | lb              | *21,400                 | *21,400                | *25,950                 | *25,950                 | *33,950                    | *33,950                           | *28,300                   | 25,600                  | 23,400                    | 19,650                  | 10,650                 | 8,950                           | 53.33                 |  |  |
| −7.5 m                        | kg              |                         |                        | *13 200                 | *13 200                 | *14 700                    | *14 700                           | *12 200                   | 12 000                  | *10 250                   | 9150                    | 5250                   | 4450                            | 15.25                 |  |  |
| -25.0 ft                      | lb              |                         |                        | *29,750                 | *29,750                 | *31,700                    | *31,700                           | *26,250                   | 25,800                  | *22,100                   | 19,750                  | 11,650                 | 9,800                           | 50.00                 |  |  |
| −9.0 m                        | kg              |                         |                        | *15 100                 | *15 100                 | *12 950                    | *12 950                           | *10 900                   | *10 900                 | *9300                     | *9300                   | *5300                  | 5000                            | 14.14                 |  |  |
| -30.0 ft                      | lb              |                         |                        | *33,450                 | *33,450                 | *27,750                    | *27,750                           | *23,400                   | *23,400                 | *19,850                   | *19,850                 | *11,650                | 11,150<br>*F100                 | 46.67                 |  |  |
| −10.5 m<br><b>−35.0 ft</b>    | kg<br><b>lb</b> |                         |                        |                         |                         |                            |                                   | *9200<br>* <b>19.500</b>  | *9200<br><b>*19,500</b> | *7900<br><b>*16,700</b>   | *7900<br><b>*16,700</b> | *5100<br>*11 200       | *5100<br>* <b>11,200</b>        | 12.77<br>//1.67       |  |  |
| −33.U π                       | ID              |                         | _                      |                         |                         |                            | <u> </u>                          | "13,500                   | " 13,500                | "10,/00                   | "10,/00                 | *11,200                | "11,200                         | 41.67                 |  |  |
|                               |                 | *                       | ┧                      |                         |                         |                            | ISO 1056                          | 7                         |                         |                           |                         |                        |                                 |                       |  |  |

<sup>\*</sup>Indicates that the load is limited by hydraulic lifting capacity rather than tipping load. The above loads are in compliance with hydraulic excavator lift capacity standard ISO 10567:2007. They do not exceed 87% of hydraulic lifting capacity or 75% of tipping load. Weight of all lifting accessories must be deducted from the above lifting capacities. Lifting capacities are based on the machine standing on a firm, uniform supporting surface. The use of a work tool attachment point to handle/lift objects, could affect the machine lift performance.

Lift capacity stays with  $\pm 5\%$  for all available track shoes.

Always refer to the appropriate Operation and Maintenance Manual for specific product information.

(continued on next page)

### LRE Fronts Capacities – Counterweight: 12 mt (13.2 t) – without Bucket – Heavy Lift: On (continued)

| 8.5 m (27'11")             |                               |                         |                       |                         |                       |                         |                         |                         |                         |                        | +                      | nm (14'3") |          |                        |                        |                       |
|----------------------------|-------------------------------|-------------------------|-----------------------|-------------------------|-----------------------|-------------------------|-------------------------|-------------------------|-------------------------|------------------------|------------------------|------------|----------|------------------------|------------------------|-----------------------|
|                            |                               |                         |                       |                         |                       |                         |                         | 3720                    | mm (12'3"               | ) – Expand             | led                    |            |          |                        | (12 0 7                |                       |
| 5                          | <b>→</b>                      | 10.5 m                  | /35.0 ft              | 12.0 m                  | n/40.0 ft             | 13.5 m                  | ı/45.0 ft               | 15.0 m                  | /50.0 ft                | 16.5 m                 | /55.0 ft               | 18.0 m     | /60.0 ft |                        |                        | ។<br>—                |
|                            |                               |                         |                       |                         |                       |                         |                         |                         |                         |                        |                        |            |          |                        |                        | m<br>ft               |
| 13.5 m                     | kg                            |                         |                       |                         |                       |                         |                         |                         |                         |                        |                        |            |          | *2950                  | *2950                  | 14.40                 |
| <b>45.0 ft</b><br>12.0 m   | lb<br>kg                      |                         | -                     | -                       |                       | -                       | -                       | *3350                   | *3350                   |                        |                        |            | -        | *2900                  | *2900                  | 15.46                 |
| 40.0 ft                    | l lb                          |                         |                       |                         |                       |                         |                         | * <b>6,550</b>          | *6.550                  |                        |                        |            |          | * <b>6,350</b>         | *6.350                 | 50.83                 |
| 10.5 m                     | kg                            |                         |                       |                         |                       |                         |                         | *4150                   | *4150                   |                        |                        |            |          | *2850                  | *2850                  | 16.30                 |
| 35.0 ft                    | lb                            |                         |                       |                         |                       |                         |                         | *8,550                  | *8,550                  |                        |                        |            |          | *6,300                 | *6,300                 | 53.33                 |
| 9.0 m                      | kg                            |                         |                       |                         |                       |                         |                         | *4750                   | *4750                   | *3500                  | *3500                  |            |          | *2900                  | *2900                  | 16.97                 |
| 30.0 ft                    | lb                            |                         |                       |                         |                       |                         |                         | *10,000                 | *10,000                 | *6,800                 | *6,800                 |            |          | *6,350                 | *6,350                 | 55.83                 |
| 7.5 m                      | kg                            |                         |                       |                         |                       | *5950                   | *5950                   | *5350                   | *5350                   | *4200                  | *4200                  |            |          | *2950                  | *2950                  | 17.48                 |
| 25.0 ft<br>6.0 m           | lb<br>kg                      |                         |                       | *6750                   | *6750                 | <b>*12,900</b><br>*6150 | <b>*12,900</b><br>*6150 | <b>*11,400</b><br>*5700 | <b>*11,400</b><br>*5700 | <b>*8,450</b><br>*4800 | <b>*8,450</b><br>*4800 |            |          | <b>*6,450</b><br>*3050 | <b>*6,450</b><br>*3050 | <b>57.50</b> 17.86    |
| 20.0 ft                    | lb                            |                         |                       | *14,650                 | *14,650               | *13,350                 | *13,350                 | *12,350                 | *12,350                 | *9,850                 | *9,850                 |            |          | * <b>6,650</b>         | *6,650                 | <b>59.17</b>          |
| 4.5 m                      | kg                            | *8000                   | *8000                 | *7100                   | *7100                 | *6400                   | *6400                   | *5850                   | 5650                    | *5400                  | 4750                   | *3350      | *3350    | *3150                  | *3150                  | 18.10                 |
| 15.0 ft                    | lb                            | *17,350                 | *17,350               | *15,400                 | *15,400               | *13,900                 | *13,900                 | *12,700                 | 12,100                  | *11,150                | 10,100                 |            |          | *6,950                 | *6,950                 | 60.00                 |
| 3.0 m                      | kg                            | *8500                   | *8500                 | *7450                   | *7450                 | *6650                   | 6450                    | *6050                   | 5400                    | 5300                   | 4550                   | *3700      | *3700    | *3350                  | *3350                  | 18.21                 |
| 10.0 ft                    | lb                            | *18,400                 | *18,400               | *16,150                 | *16,150               | *14,400                 | 13,900                  | *13,050                 | 11,600                  | 11,400                 | 9,750                  |            |          | *7,300                 | *7,300                 | 60.00                 |
| 1.5 m                      | kg                            | *8950                   | *8950                 | *7800                   | 7350                  | *6900                   | 6150                    | 6050                    | 5150                    | 5150                   | 4400                   | *3950      | 3750     | *3550                  | *3550                  | 18.19                 |
| 5.0 ft                     | lb                            | *19,400<br>*9350        | 19,350                | *16,850                 | 15,850                | *14,900                 | 13,200                  | 12,950                  | 11,100                  | 11,000                 | 9,350                  | *2050      | 2050     | <b>*7,750</b><br>*3800 | *7,750                 | 60.00                 |
| 0 m<br><b>0 ft</b>         | kg<br><b>lb</b>               | * <b>20,200</b>         | 8400<br><b>18,150</b> | *8050<br><b>*17,400</b> | 6950<br><b>14,950</b> | 6800<br><b>14,650</b>   | 5850<br><b>12,550</b>   | 5800<br><b>12,450</b>   | 4950<br><b>10,600</b>   | 5000<br><b>10,650</b>  | 4250<br><b>9,050</b>   | *3950      | 3650     | *8.400                 | 3600<br><b>7,950</b>   | 18.06<br><b>59.17</b> |
| -1.5 m                     | kg                            | 9400                    | 8000                  | 7800                    | 6650                  | 6550                    | 5600                    | 5600                    | 4750                    | 4850                   | 4100                   |            |          | *4150                  | 3600                   | 17.79                 |
| -5.0 ft                    | lb                            | 20,200                  | 17,200                | 16,750                  | 14,250                | 14,100                  | 12,000                  | 12,050                  | 10,200                  | 10,400                 | 8,750                  |            |          | *9,200                 | 7.950                  | 58.33                 |
| -3.0 m                     | kg                            | 9050                    | 7650                  | 7500                    | 6350                  | 6350                    | 5400                    | 5450                    | 4600                    | 4750                   | 4000                   |            |          | 4400                   | 3700                   | 17.39                 |
| -10.0 ft                   | lb                            | 19,450                  | 16,500                | 16,150                  | 13,700                | 13,700                  | 11,600                  | 11,750                  | 9,900                   | 10,150                 | 8,550                  |            |          | 9,650                  | 8,100                  | 57.50                 |
| −4.5 m                     | kg                            | 8850                    | 7450                  | 7350                    | 6200                  | 6250                    | 5250                    | 5350                    | 4500                    | 4700                   | 3950                   |            |          | 4550                   | 3800                   | 16.84                 |
| -15.0 ft                   | lb                            | 19,000                  | 16,050                | 15,800                  | 13,350                | 13,400                  | 11,300                  | 11,550                  | 9,700                   | 10,050                 | 8,450                  |            |          | 10,050                 | 8,400                  | 55.83                 |
| −6.0 m                     | kg                            | 8750                    | 7350                  | 7250                    | 6100                  | 6150                    | 5200                    | 5350                    | 4500                    |                        |                        |            |          | 4850                   | 4050                   | 16.13                 |
| -20.0 ft                   | lb                            | 18,800                  | 15,850                | 15,600                  | 13,150                | 13,250                  | 11,150                  | 11,450                  | 9,650                   |                        |                        |            |          | 10,650                 | 8,950                  | 53.33                 |
| −7.5 m                     | kg                            | *8750                   | 7350                  | 7250                    | 6100                  | 6200                    | 5200                    | 5350                    | 4500                    |                        |                        |            |          | 5250                   | 4450                   | 15.25                 |
| <b>−25.0 ft</b><br>−9.0 m  | lb<br>ka                      | <b>*18,800</b><br>*7950 | <b>15,850</b><br>7450 | <b>15,650</b><br>*6800  | <b>13,200</b><br>6200 | <b>13,300</b><br>*5750  | <b>11,200</b> 5300      |                         |                         |                        |                        |            | -        | <b>11,650</b><br>*5300 | <b>9,800</b> 5000      | <b>50.00</b><br>14.14 |
| −9.0 m<br>− <b>30.0 ft</b> | kg<br><b>lb</b>               | *16,950                 | 16,100                | *14,450                 | 13,400                | *12,100                 | 11,450                  |                         |                         |                        |                        |            |          | *11,650                | 11,150                 | 46.67                 |
| -10.5 m                    | kg                            | *6750                   | *6750                 | *5650                   | *5650                 | 12,100                  | 11,130                  |                         |                         |                        |                        |            |          | *5100                  | *5100                  | 12.77                 |
| -35.0 ft                   | lb                            | *14,200                 | *14,200               | *11,800                 | *11,800               |                         |                         |                         |                         |                        |                        |            |          | *11,200                | *11,200                | 41.67                 |
|                            | *   1,200 11,200 11,200 41.97 |                         |                       |                         |                       |                         |                         |                         |                         |                        |                        |            |          |                        |                        |                       |

<sup>\*</sup>Indicates that the load is limited by hydraulic lifting capacity rather than tipping load. The above loads are in compliance with hydraulic excavator lift capacity standard ISO 10567:2007. They do not exceed 87% of hydraulic lifting capacity or 75% of tipping load. Weight of all lifting accessories must be deducted from the above lifting capacities. Lifting capacities are based on the machine standing on a firm, uniform supporting surface. The use of a work tool attachment point to handle/lift objects, could affect the machine lift performance.

Lift capacity stays with  $\pm 5\%$  for all available track shoes.

Always refer to the appropriate Operation and Maintenance Manual for specific product information.

### **Bucket Specifications and Compatibility – North America**

|  |         | Width |    | Capacity |      | Weight |             | Fill |                       |
|--|---------|-------|----|----------|------|--------|-------------|------|-----------------------|
|  | Linkage | mm    | in | m³       | yd³  | kg     | lb          | %    | Long Reach Excavation |
| Pin-On (No Quick Coupler)                    |         |       |    |          |      |        |             |      |                       |
| General Duty Capacity                        | В       | 600   | 24 | 0.55     | 0.72 | 617    | 1,360       | 100  | •                     |
|  | В       | 750   | 30 | 0.75     | 0.98 | 708    | 1,561       | 100  | •                     |
|  | В       | 900   | 36 | 0.95     | 1.24 | 784    | 1,729       | 100  | •                     |
| General Duty Capacity – WT                   | В       | 600   | 24 | 0.55     | 0.72 | 615    | 1,356       | 100  | •                     |
|  | В       | 750   | 30 | 0.75     | 0.98 | 708    | 1,561       | 100  | •                     |
|  | В       | 900   | 36 | 0.95     | 1.24 | 784    | 1,728       | 100  | •                     |
| Heavy Duty                                   | В       | 600   | 24 | 0.46     | 0.61 | 648    | 1,428       | 100  | •                     |
|  | В       | 750   | 30 | 0.64     | 0.84 | 747    | 1,647       | 100  | •                     |
|  | В       | 900   | 36 | 0.81     | 1.06 | 824    | 1,816       | 100  | •                     |
|  | В       | 1050  | 42 | 1.00     | 1.31 | 878    | 1,935       | 100  | •                     |
| Ditch Cleaning                               | В       | 1500  | 60 | 1.01     | 1.32 | 651    | 1,436       | 100  | •                     |
| Ditch Cleaning – Tilt                        | В       | 1800  | 72 | 0.90     | 1.83 | 1105   | 2,436       | 100  | •                     |
|  | В       | 2000  | 79 | 1.11     | 1.61 | 1161   | 2,560       | 100  | •                     |
| Maximum load with pin-on (payload + bucket)  |         |       |    |          |      |        | d + bucket) | kg   | 3500                  |
|  |         |       |    |          |      |        | Ī           | lb   | 7,716                 |
| With Cat Pin Grabber Coupler                 |         | ,     | ,  |          |      |        |             |      | '                     |
| General Duty Capacity                        | В       | 600   | 24 | 0.55     | 0.72 | 617    | 1,360       | 100  | •                     |
|  | В       | 750   | 30 | 0.75     | 0.98 | 708    | 1,561       | 100  | •                     |
|  | В       | 900   | 36 | 0.95     | 1.24 | 784    | 1,729       | 100  | •                     |
| General Duty Capacity – WT                   | В       | 600   | 24 | 0.55     | 0.72 | 615    | 1,356       | 100  | •                     |
|  | В       | 750   | 30 | 0.75     | 0.98 | 708    | 1,561       | 100  | •                     |
|  | В       | 900   | 36 | 0.95     | 1.24 | 784    | 1,728       | 100  | •                     |
| Heavy Duty                                   | В       | 600   | 24 | 0.46     | 0.61 | 648    | 1,428       | 100  | •                     |
|  | В       | 750   | 30 | 0.64     | 0.84 | 747    | 1,647       | 100  | •                     |
|  | В       | 900   | 36 | 0.81     | 1.06 | 824    | 1,816       | 100  | •                     |
|  | В       | 1050  | 42 | 1.00     | 1.31 | 878    | 1,935       | 100  | •                     |
| Ditch Cleaning                               | В       | 1500  | 60 | 1.01     | 1.32 | 651    | 1,436       | 100  | •                     |
| Ditch Cleaning – Tilt                        | В       | 1800  | 72 | 0.90     | 1.83 | 1105   | 2,436       | 100  | •                     |
|  | В       | 2000  | 79 | 1.11     | 1.61 | 1161   | 2,560       | 100  | •                     |
| Maximum load with coupler (payload + bucket) |         |       |    |          |      |        | kg          | 3078 |                       |
|  |         |       |    |          |      |        | ´ L         | Ib   | 6,787                 |

The above loads are in compliance with hydraulic excavator standard EN474-5:2006 + A3:2013, they do not exceed 87% of hydraulic lifting capacity or 75% of tipping capacity with front linkage fully extended at ground line with bucket curled. Capacity based on ISO 7451:2007.

Bucket weight with long tips.

#### **Maximum Material Density:**

- 2100 kg/m³ (3,500 lb/yd³)
- 1800 kg/m³ (3,000 lb/yd³)

Caterpillar recommends using appropriate work tools to maximize the value customers receive from our products. Use of work tools, including buckets, which are outside of Caterpillar's recommendations or specifications for weight, dimensions, flows, pressures, etc. may result in less-than-optimal performance, including but not limited to reductions in production, stability, reliability, and component durability. Improper use of a work tool resulting in sweeping, prying, twisting and/or catching of heavy loads will reduce the life of the boom and stick.

### **Bucket Specifications and Compatibility – Europe**

|  |         | Width |    | Capacity |      | Weight |       | Fill |                       |
|--|---------|-------|----|----------|------|--------|-------|------|-----------------------|
|  | Linkage | mm    | in | m³       | yd³  | kg     | lb    | %    | Long Reach Excavation |
| Without Pin Grabber Coupler                  |         |       |    |          |      |        |       |      |                       |
| Cat General Duty                             | В       | 1200  | 48 | 1.19     | 1.56 | 800    | 1,763 | 100  | •                     |
|  | В       | 1300  | 51 | 1.30     | 1.71 | 832    | 1,833 | 100  | •                     |
| Ditch Cleaning                               | В       | 1800  | 72 | 1.24     | 1.62 | 740    | 1,631 | 100  | •                     |
|  | В       | 2010  | 79 | 1.18     | 1.54 | 800    | 1,764 | 100  | •                     |
| Tilting Ditch Cleaning                       | В       | 2010  | 79 | 1.15     | 1.50 | 1095   | 2,414 | 100  | •                     |
| Maximum load with pin on (payload + bucket)  |         |       |    |          |      |        |       | kg   | 3500                  |
|  |         |       |    |          |      |        |       | lb   | 7,716                 |
| With Pin Grabber Coupler                     |         |       |    |          |      |        |       |      |                       |
| Cat General Duty                             | В       | 1200  | 48 | 1.19     | 1.56 | 800    | 1,763 | 100  | •                     |
|  | В       | 1300  | 51 | 1.30     | 1.71 | 832    | 1,833 | 100  | •                     |
| Ditch Cleaning                               | В       | 1800  | 72 | 1.24     | 1.62 | 740    | 1,631 | 100  | •                     |
|  | В       | 2010  | 79 | 1.18     | 1.54 | 800    | 1,764 | 100  | •                     |
| Tilting Ditch Cleaning                       | В       | 2010  | 79 | 1.15     | 1.50 | 1095   | 2,414 | 100  | •                     |
| Maximum load with coupler (payload + bucket) |         |       |    |          |      |        |       | kg   | 3500                  |
|  |         |       |    |          |      |        |       | lb   | 7,716                 |
| With Quick Coupler (CW40)                    |         |       |    |          |      |        |       |      |                       |
| Cat General Duty                             | В       | 1050  | 42 | 1.00     | 1.31 | 704    | 1,551 | 100  | •                     |
|  | В       | 1200  | 48 | 1.19     | 1.55 | 764    | 1,683 | 100  | •                     |
| Ditch Cleaning                               | В       | 2000  | 78 | 1.27     | 1.66 | 696    | 1,534 | 100  | •                     |
| Maximum load with coupler (payload + bucket) |         |       |    |          |      |        | kg    | 2345 |                       |
|  |         |       |    |          |      |        |       | lb   | 5,170                 |

The above loads are in compliance with hydraulic excavator standard EN474-5:2006 + A3:2013, they do not exceed 87% of hydraulic lifting capacity or 75% of tipping capacity with front linkage fully extended at ground line with bucket curled. Capacity based on ISO 7451:2007.

Bucket weight with long tips.

**Maximum Material Density:** 

- 2100 kg/m³ (3,500 lb/yd³)
- 1800 kg/m³ (3,000 lb/yd³)

Caterpillar recommends using appropriate work tools to maximize the value customers receive from our products. Use of work tools, including buckets, which are outside of Caterpillar's recommendations or specifications for weight, dimensions, flows, pressures, etc. may result in less-than-optimal performance, including but not limited to reductions in production, stability, reliability, and component durability. Improper use of a work tool resulting in sweeping, prying, twisting and/or catching of heavy loads will reduce the life of the boom and stick.

# **352F LRE Standard Equipment**

### **Standard Equipment**

Standard equipment may vary. Consult your Cat dealer for details.

#### **ENGINE**

- Cat C13 ACERT diesel engine
- Biodiesel capable up to B20
- Meets Tier 4 Final and Stage IV emission standards
- 2300 m (7,500 ft) altitude capability
- Electric priming pump
- Automatic engine speed control
- Standard, economy and high power modes
- Two-speed travel
- Side-by-side cooling system
- · Radial seal air filter
- Primary filter with water separator and water separator indicator switch
- Fuel differential indicator switch in fuel line
- 2×6 micron main filters
- 1×10 micron primary fuel line filter

#### HYDRAULIC SYSTEM

- · Regeneration circuit for boom and stick
- Reverse swing dampening valve
- Automatic swing parking brake
- High-performance hydraulic return filter

#### CAB

- Pressurized operator station with positive filtration
- · Mirror package
- Sliding upper door window
- Glass-breaking safety hammer
- Removable lower windshield within cab storage bracket
- · Coat hook
- · Beverage holder
- · Literature holder
- Radio with MP3 auxiliary audio port
- Two stereo speakers
- Storage shelf suitable for lunch or toolbox
- Color LCD display with warning, filter/ fluid change, and working hour information
- · Adjustable armrest
- Height adjustable joystick consoles
- Neutral lever (lock out) for all controls
- Travel control pedals with removable hand levers
- Two power outlets, 10 amp (total)
- Laminated glass front upper window and tempered other windows

### UNDERCARRIAGE

- Grease Lubricated Track GLT4
- Towing eye on base frame
- · Heavy-duty track rollers
- Track motor guards

### **ELECTRICAL**

- 80 amp alternator
- · Circuit breaker

#### LIGHTS

- Boom light
- · Cab lights with time delay
- Exterior lights integrated into storage box

#### **SECURITY**

- Cat one key security system
- · Door locks
- Cap locks on fuel and hydraulic tanks
- Lockable external tool/storage box
- Signaling/warning horn
- Secondary engine shutoff switch
- Openable skylight for emergency exit
- Rearview and sideview cameras

# **352F LRE Optional Equipment**

### **Optional Equipment**

Optional equipment may vary. Consult your Cat dealer for details.

### **ENGINE**

- Electric refueling pump with auto shut off
- Starting kit, cold weather, -32° C (-26° F)
- Jump start receptacle
- · Quick drains, engine and hydraulic oil

#### **HYDRAULIC SYSTEM**

- · Control pattern quick-changer, two way
- · Additional circuit
- · Boom and stick lines
- · High-pressure line
- Medium-pressure line
- Cat quick coupler line high- and medium-pressure capable
- Quick coupler for high pressure
- Tool control system

#### CAB

- Cab hatch emergency exit
- Seat, high-back air suspension with heater and cooling
- Seat, high-back air suspension with heater
- Seat, high-back mechanical suspension
- Sunscreen
- · Windshield wiper, lower with washer
- AM/FM radio
- Air pre-filter
- · Travel alarm
- · Left foot switch
- Left pedal
- · Straight travel pedal

### **UNDERCARRIAGE**

- Long HD Variable Gauge undercarriage:
- -600 mm (24") triple grouser shoes, PPR2
- -750 mm (30") triple grouser shoes, PPR2
- -900 mm (35") triple grouser shoes, PPR2
- · Guard, full length
- Guard, heavy-duty bottom
- · Center track guiding guard
- Segmented (three piece) track guiding guard
- Fabricating idler
- Casting idler

#### COUNTERWEIGHT

• 12.0 mt (13.2 t)

### **FRONT LINKAGE**

- · Bucket linkage
- -TB family without lifting eye
- · Long Reach boom
- -11.5 m (37'9") boom
- -8.5 m (27'11") stick

#### **LIGHTS**

- Working lights, cab mounted with time delay
- HID lights, cab mounted with time delay
- Halogen boom lights
- HID boom lights

### **SECURITY**

- FOGS, bolt-on
- · Guard, cab front, mesh
- · Guard, vandalism

#### **TECHNOLOGY**

- Cat GRADE
- Product Link<sup>TM</sup>

# Notes

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