

325D, 330D 345C, 385C

Long Reach Excavation



| | 325D | 330D | 345C | 385C |
|-------------------------------------|-----------------|-----------------|-----------------|-----------------|
| Cat® Engines with ACERT™ Technology | C7 | C9 | C13 | C18 |
| Net Power (ISO 9249) at 1800 rpm | 140 kW (190 hp) | 200 kW (270 hp) | 239 kW (325 hp) | 390 kW (530 hp) |
| Operating Weight | 32.2–33.6 mt | 38.4–40.0 mt | 55.4–55.8 mt | 88.3–88.5 mt |
| Maximum Reach (Short/Long) | 14.1–15.9 m | 15.6–18.0 m | 16.2–19.6 m | 18.0–21.3 m |

325D, 330D, 345C, 385C Long Reach Excavation

Caterpillar® Long Reach Excavation Arrangements have been designed specifically for jobs requiring longer reach than standard excavators, combined with digging capabilities.

Long Reach Excavation (LRE)

Caterpillar Long Reach Excavation machines are ideally suited for applications such as deep or long distance digging in sand or gravel pits (replacing draglines), slope forming, cleaning of settling banks and ponds, drainage, etc. These excavators can feed directly into a hopper or load a truck.

Hydraulics

Designed to deliver power and maximum control for long reach excavation jobs. For weed-cutting and tilting buckets, medium pressure circuit, as well as hydraulic lines for the boom and the stick, are available as options.

Booms and Sticks

The Long Reach Excavation booms and sticks are purposely designed, following Caterpillar standards, to provide maximum performance and durability in digging applications with a productive bucket size.

Long Reach Excavation Attachments

Caterpillar offers a wide variety of buckets for its Long Reach Excavation product range.

Undercarriage

The heavy duty and wide undercarriages are stable and durable and provide extra stability over the side.

SmartBoom™

The Caterpillar exclusive SmartBoom feature eases the operations by smoothening the movements and accelerating return cycle speed.

Upper Frame and Counterweight

The heavy-duty upper frame guarantees durability and resistance to handle increased loads and movements generated by the demanding long reach application. A heavier counterweight balances the swing bearing and provides enhanced stability.

Complete Customer Service

Your Cat dealer offers a wide range of services that can be set up under a customer support agreement when you purchase your equipment. The dealer will help you choose a plan that can cover everything from machine and attachment selection to replacement.

Service and Maintenance

Fast, easy service has been designed in with extended service intervals, advanced filtration, convenient filter access and user-friendly electronic diagnostics for increased productivity and reduced maintenance costs.



Undercarriage

Durable undercarriage absorbs stresses and provides excellent stability.



Heavy Duty High Wide Undercarriage (HDHW).

The durable Heavy Duty High Wide undercarriages provide very stable and rugged platforms for long reach digging and loading applications.

- The undercarriage is reinforced and has a high ground clearance.
- Thick carbody plates and increased box section height induce increased weight and lift capacities.

Heavy Duty Wide (HDW) Variable Gauge Undercarriage.

The 345C L Heavy Duty Wide variable gauge undercarriage is equipped with the Heavy Duty H-shaped carbody, sealed and lubricated track rollers, carrier rollers and idlers.

Variable Gauge Undercarriage (LVG). The 385C L undercarriage components offer heavy-duty performance and durability. Track rollers, carrier rollers and idlers are sealed and lubricated for excellent service life.

Other undercarriage configurations are also available. Contact your local Caterpillar dealer for details.

L 325D and 330D with Long undercarriage

HDHW 325D and 330D with Heavy Duty High Wide undercarriage

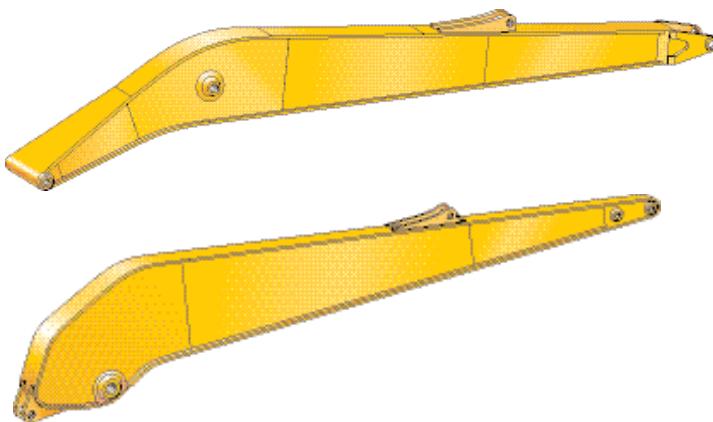
HDW 345C L with Heavy Duty Wide Variable Gauge undercarriage

LVG 385C L with Variable Gauge undercarriage



Boom and Stick for Long Reach Excavation

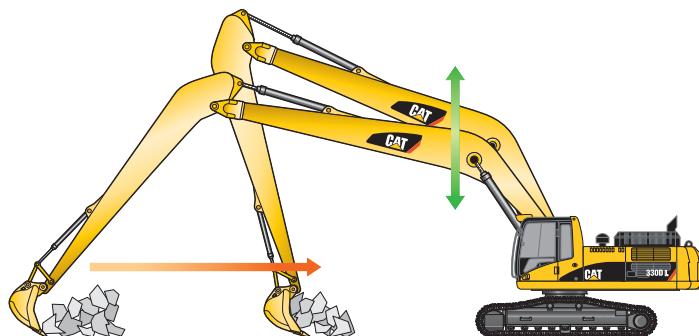
Durable front parts help you get the best out of your machine.



Long Reach Excavation Front Parts. Like all Cat booms and sticks, Caterpillar Long Reach Excavation front parts are built for performance and long service life:

- Finite elements analysis: analyses the design structural stresses and enables optimization of durability and performance.
- Castings and forgings are used at high stress areas such as boom nose, boom foot, boom cylinder and stick foot.
- Internal baffle plates give the structures extra strength and durability to withstand torsional loads.
- Large welded box section structures with thick, multi-plate fabrication are used in high-stress areas.
- The Long Reach Excavation boom and stick are stress relieved, thanks to an in-house heat treatment, to maximize material strength and durability.

Retrofit Front Parts. Long Reach Excavation retrofit front parts provide a maximal versatility to the 330D LRE. A boom hook system gives the opportunity to quickly and easily change the front parts from LRE configuration to reach or straight boom configuration.



SmartBoom™

Scraping rock and finishing work is easy and fast. SmartBoom simplifies the task and allows the operator to fully concentrate on stick and bucket, while boom freely goes up and down without using pump flow. Therefore, less strain is generated on the structures.

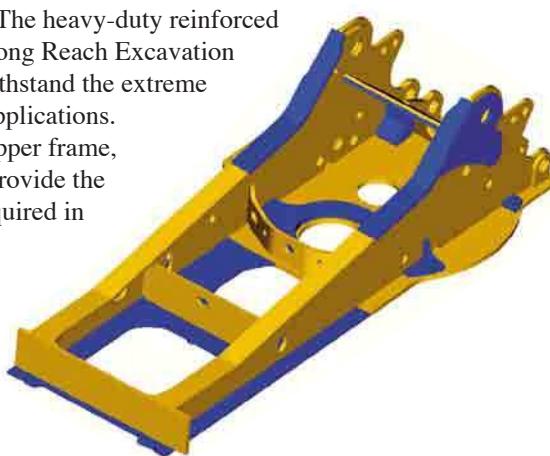
Upper Frame and Counterweight

Purposely designed and built for extreme conditions.

Reinforced Upper Frame. The heavy-duty reinforced upper frames of the Cat Long Reach Excavation models are designed to withstand the extreme load conditions of these applications. Compared to a standard upper frame, several additional plates provide the durability and strength required in these environments.

Counterweight.

A heavier counterweight balances the swing bearing and provides enhanced stability.



Standard



Heavy-duty

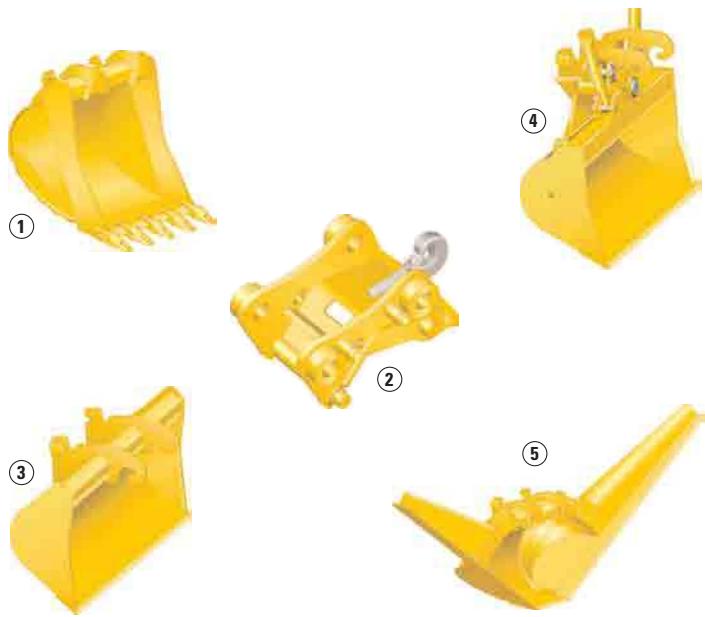


Swing Bearing to Upper Frame Bolts.

The swing bearing bolts are 20 mm longer on the back half of upper frame for increased joint retention. Bolt grade is increased from 10.9 to 11.9 for increased bolt torque of swing bearing to upper frame and carbody.

Buckets and Quick Couplers

A wide variety of buckets help optimize machine performance.
Purpose designed and built to Caterpillar's high durability standards.



Rationalized Bucket Line. Optimized design matches machine configuration perfectly. Improved balance between performance and durability. Buckets feature the Caterpillar K Series Tooth System.

1 Excavation (X). Digs and loads soft to medium materials such as clay and earth. Features weld on tip adapters, wear resistant steel alloy cutting edge and wear plates, and high grade steel side bars.

2 Quick Coupler. Caterpillar quick couplers enable the operator to simply release one work tool and pick up another. Your hydraulic excavator becomes highly versatile. The dedicated CW-Series quick coupler enables a quick tool exchange while maintaining top machine performance. A lifting hook is added for maximum lift capacity.

Buckets for Special Applications. Choose from a variety of buckets such as ditch cleaning buckets (tiltable) and trapezoidal buckets. Each of these buckets enhances the performance in special applications. Ask your dealer representative to recommend the optimum solution for your material and operation.

3 Ditch Cleaning Bucket. Wide, light duty bucket tailored for long reach configurations to clean waterbeds and banks.

4 Tilttable Ditch Cleaning Bucket. Wide, light duty hydraulically tilttable bucket for ditch cleaning and slope finishing applications.

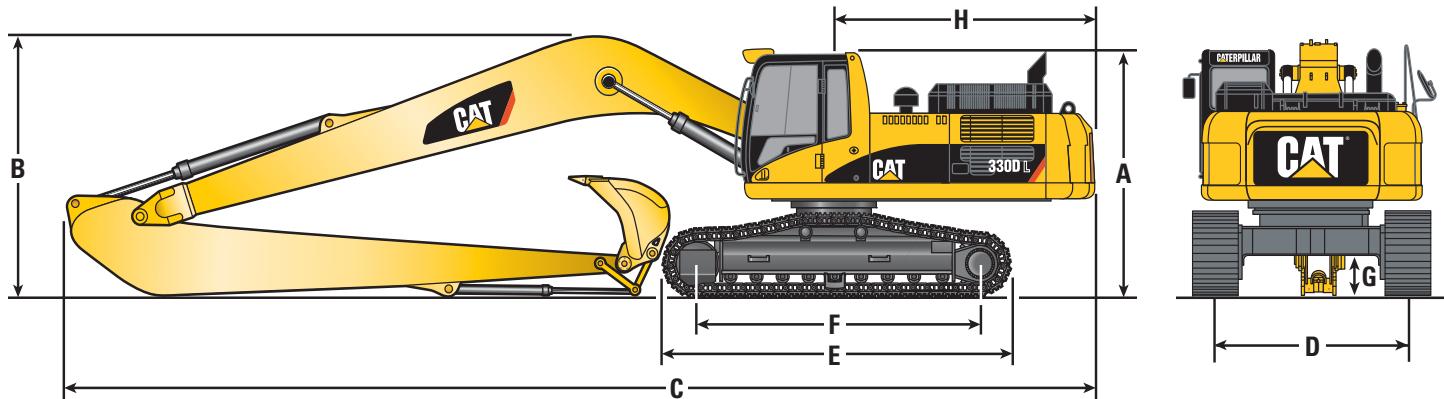
5 Trapezoidal Bucket. Features tapered design to shape ditch banks in one operation and to prepare and maintain small irrigation ditches. Available with fixed or mechanically adjustable wings.

Hydraulic System

| | 325D | 330D | 345C | 385C |
|-------------------------------------|---------------|---------------|---------------|-----------|
| Main Implement System | | | | |
| Maximum flow | 2 x 235 L/min | 2 x 280 L/min | 2 x 360 L/min | 980 L/min |
| Maximum pressure | | | | |
| Implements | 350 bar | 350 bar | 350 bar | 320 bar |
| Travel | 350 bar | 350 bar | 350 bar | 350 bar |
| Swing | 275 bar | 280 bar | 314 bar | 260 bar |
| Pilot System | | | | |
| Maximum flow | 32 L/min | 43 L/min | 43 L/min | 90 L/min |
| Maximum pressure | 39 bar | 39 bar | 41 bar | 41 bar |
| Bucket Cylinder Family (Short/Long) | CB2/B1 | CB2/B1 | DB/B1 | HB/DB |

Dimensions and Weights

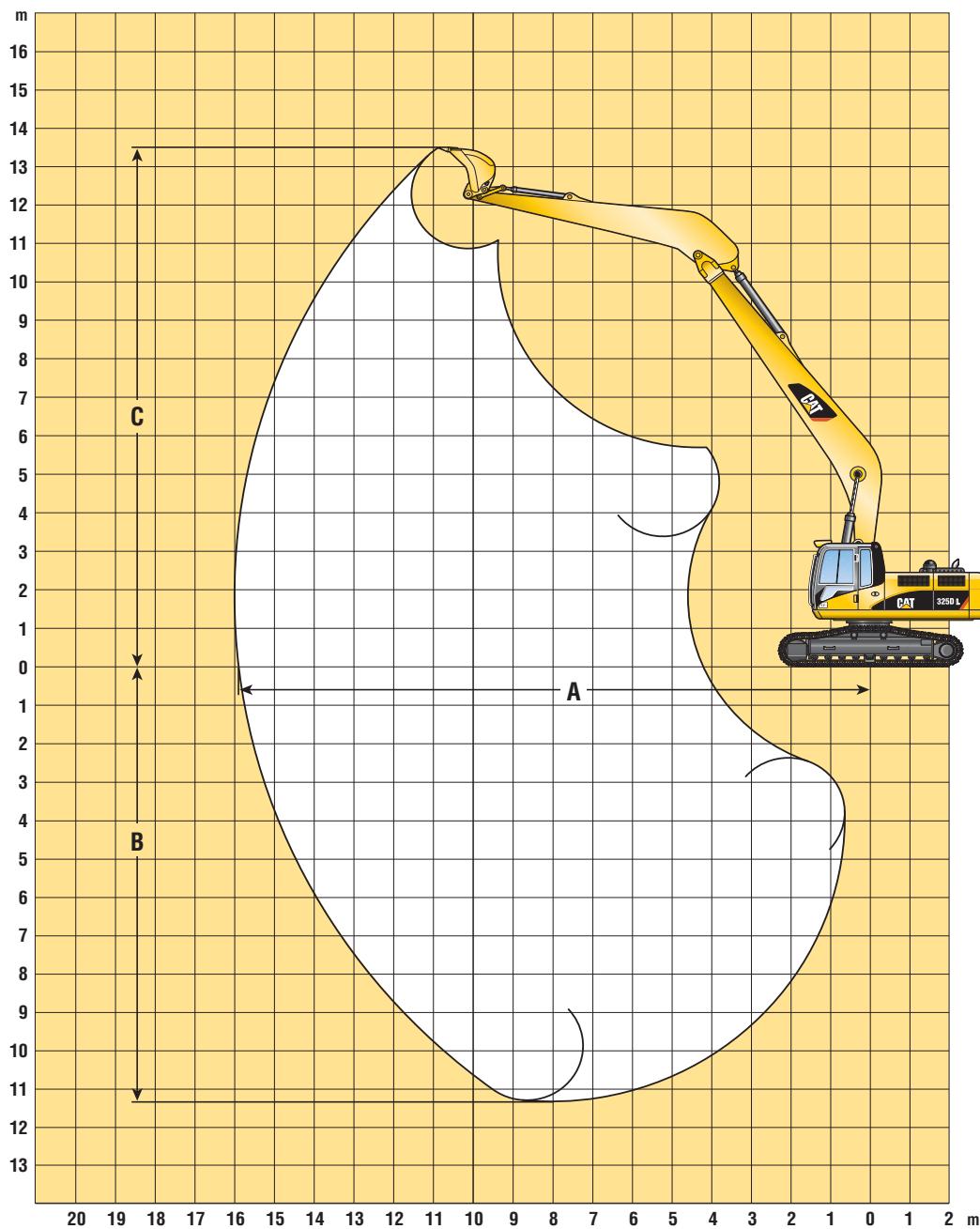
All dimensions and weights are approximate



| | 325D | | | 330D | | | 345C | | 385C | |
|---------------------------------------|------|-------|-------|--------|--------|-------|-------|--------|--------|--------|
| Undercarriage | L | HDHW | HDHW | L | HDHW | HDHW | HDW | HDW | LVG | LVG |
| Front Linkage | 14 m | 14 m | 16 m | 15.5 m | 15.5 m | 18 m | 16 m | 19.5 m | 18 m | 21.5 m |
| A Cab height | | | | | | | | | | |
| without FOG | mm | 3170 | 3392 | 3392 | 3280 | 3511 | 3511 | 3373 | 3373 | 3760 |
| with FOG | mm | 3340 | 3562 | 3562 | 3450 | 3681 | 3681 | 3543 | 3543 | 3950 |
| B Boom height | mm | 3205 | 3340 | 3575 | 3305 | 3445 | 3595 | 3555 | 3725 | 5715 |
| C Overall length | mm | 12155 | 12130 | 13640 | 13665 | 13630 | 15310 | 14500 | 16480 | 16605 |
| D Shipping gauge | mm | 2590 | 2920 | 2920 | 2590 | 2920 | 2920 | 3220 | 3220 | 2750 |
| Working gauge | mm | 2590 | 2920 | 2920 | 2590 | 2920 | 2920 | 3720 | 3720 | 3510 |
| E Track length | mm | 4860 | 4860 | 4860 | 5020 | 5020 | 5020 | 5340 | 5340 | 6360 |
| F Length to centers of rollers | mm | 3990 | 3990 | 3990 | 4040 | 4040 | 4040- | 4340 | 4340 | 5120 |
| G Ground clearance | mm | 480 | 660 | 660 | 510 | 720 | 720 | 740 | 740 | 890 |
| H Tail swing radius | mm | 3080 | 3080 | 3080 | 3500 | 3500 | 3500 | 3770 | 3770 | 4590 |
| Boom length | mm | 8000 | 8000 | 9500 | 9000 | 9000 | 10660 | 9500 | 11500 | 10500 |
| Stick length | mm | 5300 | 5300 | 6000 | 6000 | 6000 | 7100 | 6500 | 8500 | 5500 |
| Linkage family | CB2 | CB2 | B1 | CB2 | CB2 | B1 | DB | B1 | HB | DB |
| Counterweight | kg | 7700 | 7700 | 7700 | 8450 | 8450 | 8450 | 12000 | 12000 | 14700 |
| Operating weight | kg | 32230 | 33580 | 33580 | 38420 | 39990 | 39680 | 55350 | 55 800 | 88310 |
| | | | | | | | | | | 88490 |

Working Ranges – 325D

Long reach excavation front parts with heavy duty upper frame,
7700 kg counterweight, 800 mm triple grouser shoes.

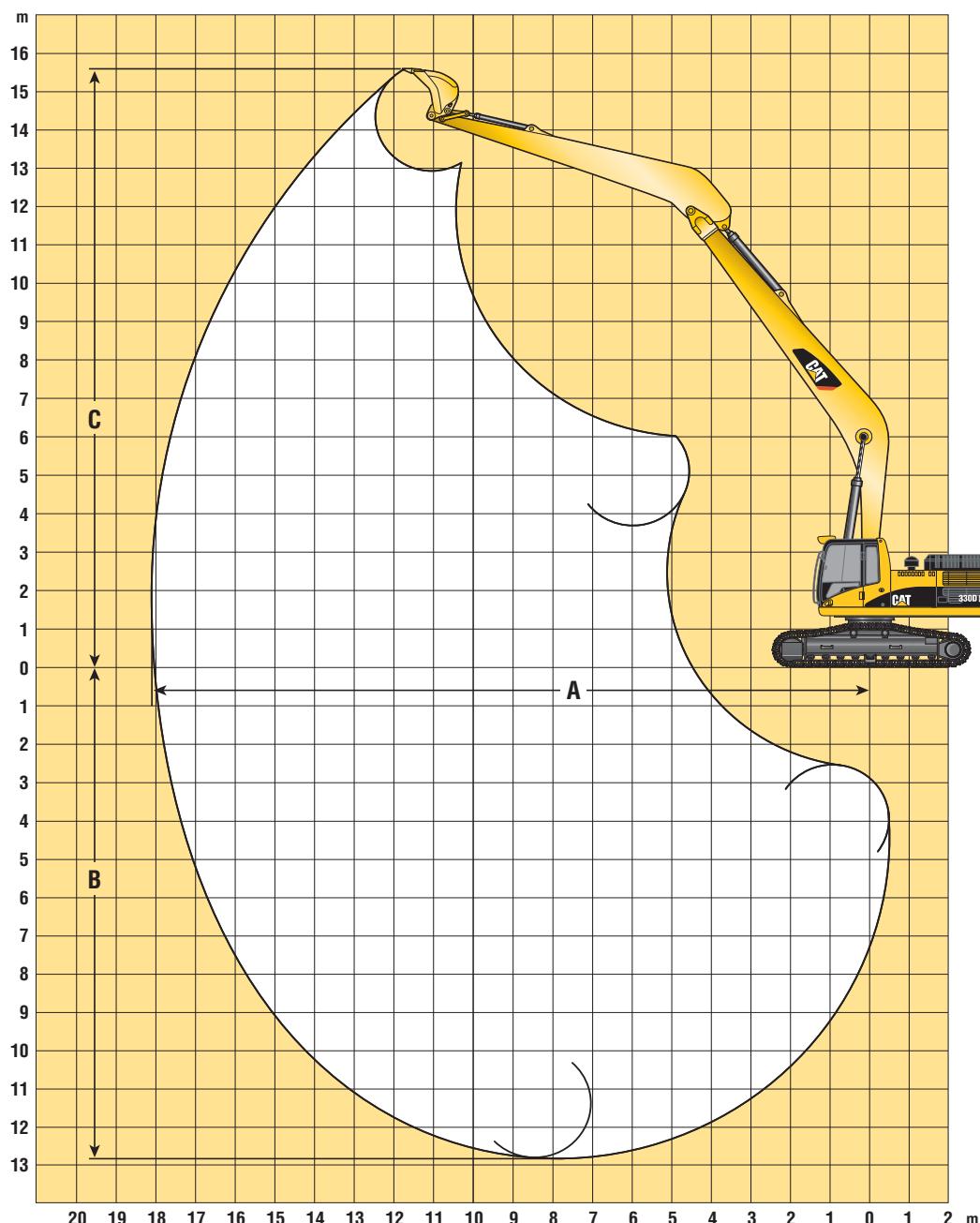


| Undercarriage | L | HDHW | HDHW |
|---------------------------------|-------------|-------------|-------------|
| Front linkage | 14 m | 14 m | 16 m |
| A Maximum reach | mm 14 105 | 14 105 | 15 990 |
| B Maximum digging depth | mm 10 135 | 9915 | 11 350 |
| C Maximum cutting height | mm 11 940 | 12 160 | 13 550 |
| Bucket tip radius | mm 1610 | 1610 | 1402 |
| Bucket digging force (ISO 6015) | kN 138 | 138 | 118 |
| Stick digging force (ISO 6015) | kN 97 | 97 | 88 |

Depending on the bucket used, the working range may change.

Working Ranges – 330D

Long reach excavation front parts with heavy duty upper frame,
8450 kg counterweight, 700 mm triple grouser shoes.

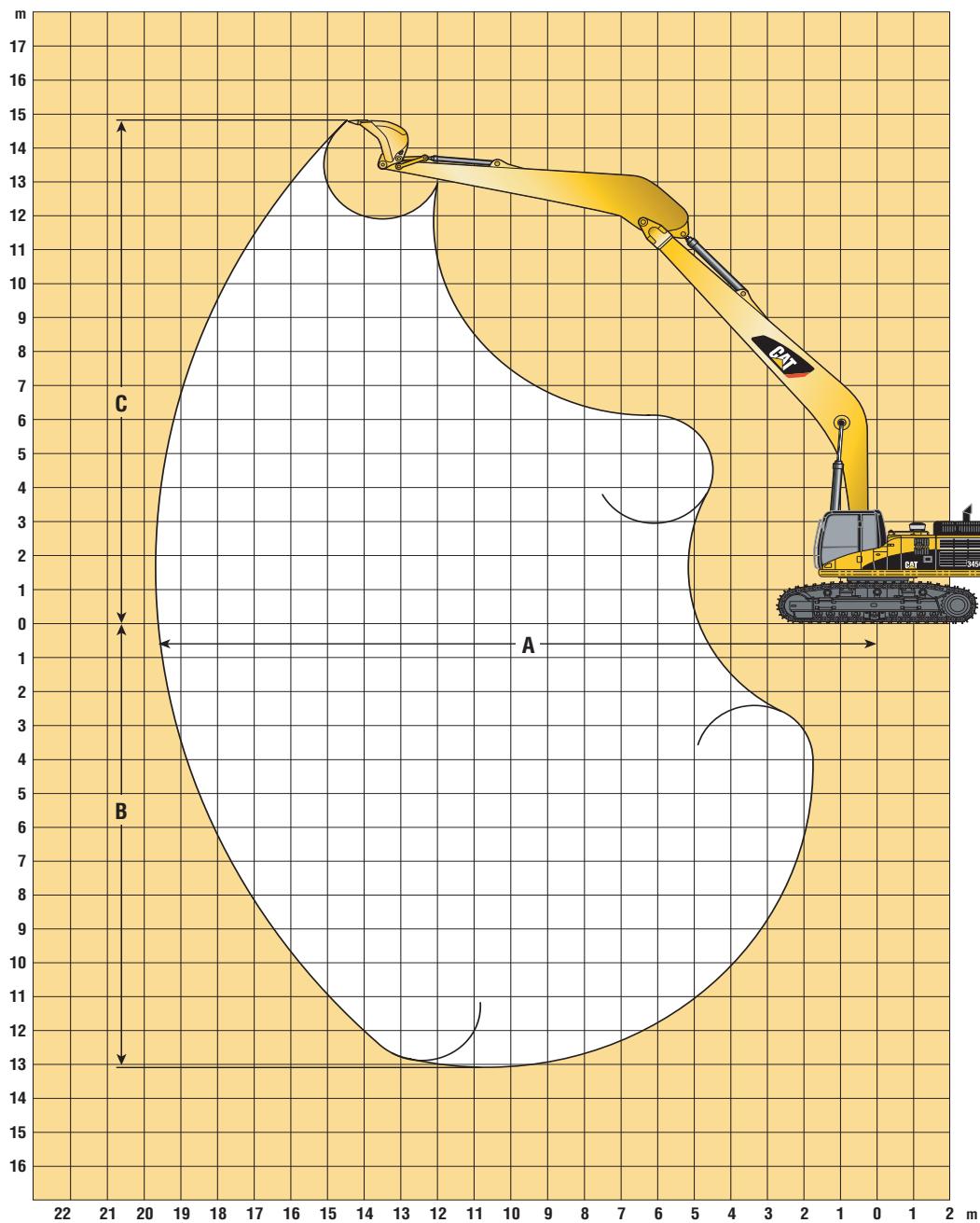


| Undercarriage | L | HDHW | HDHW |
|---------------------------------|---------------|---------------|-------------|
| Front linkage | 15.5 m | 15.5 m | 18 m |
| A Maximum reach | mm | 15 650 | 15 650 |
| B Maximum digging depth | mm | 11 095 | 10 865 |
| C Maximum cutting height | mm | 13 555 | 13 785 |
| Bucket tip radius | mm | 1453 | 1453 |
| Bucket digging force (ISO 6015) | kN | 153 | 153 |
| Stick digging force (ISO 6015) | kN | 116 | 116 |

Depending on the bucket used, the working range may change.

Working Ranges – 345C

Long reach excavation front parts with heavy duty upper frame,
12 000 kg counterweight, 600 mm triple grouser shoes.

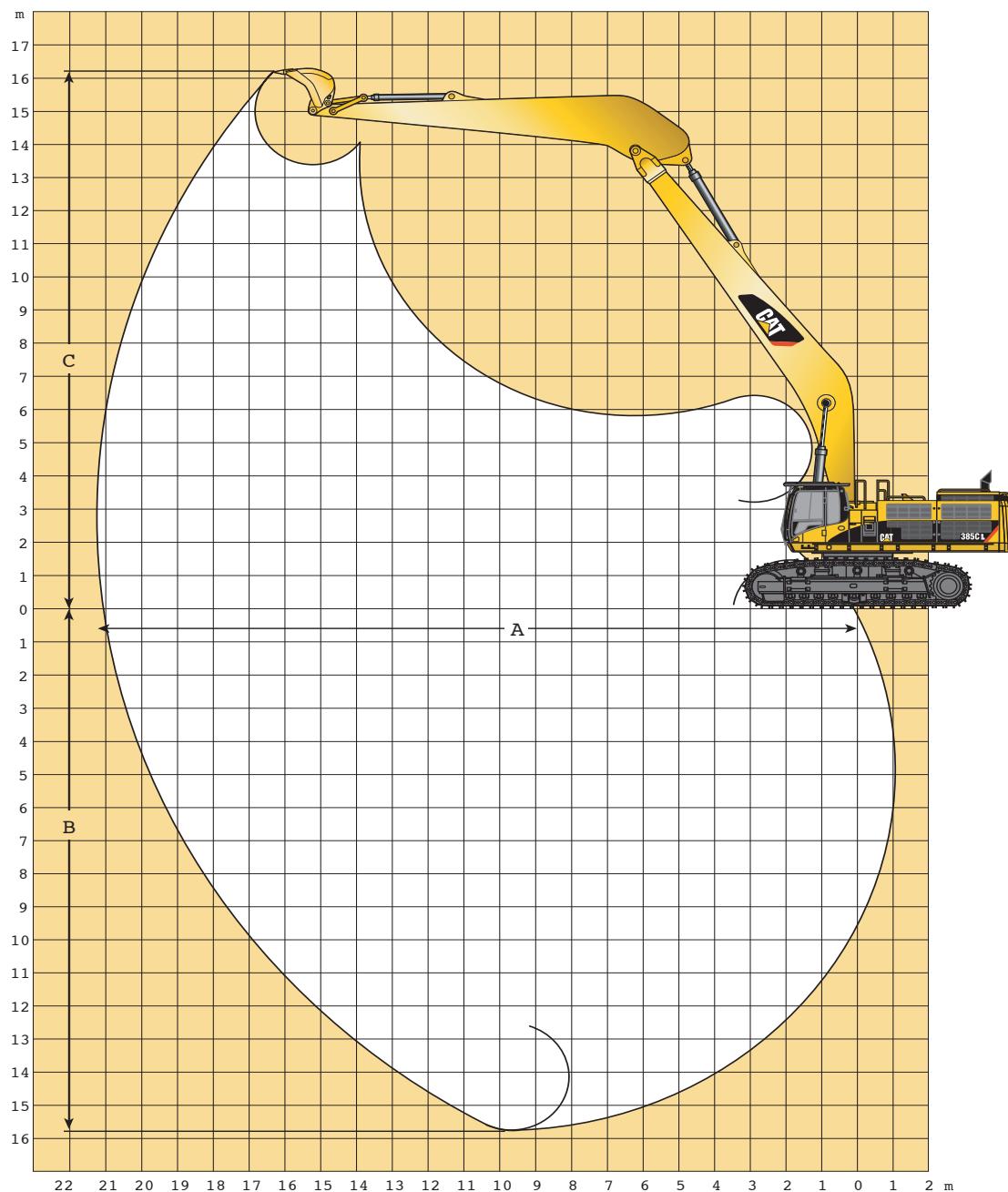


| Undercarriage | HDW | HDW |
|---------------------------------|-------------|---------------|
| Front linkage | 16 m | 19.5 m |
| A Maximum reach | mm | 16 245 |
| B Maximum digging depth | mm | 10 440 |
| C Maximum cutting height | mm | 12 525 |
| Bucket tip radius | mm | 1680 |
| Bucket digging force (ISO 6015) | kN | 181 |
| Stick digging force (ISO 6015) | kN | 139 |
| | | 111 |

Depending on the bucket used, the working range may change.

Working Ranges – 385C

Long reach excavation front parts with heavy duty upper frame,
14 700 kg counterweight, 750 mm triple grouser shoes.



| Undercarriage | L VG | L VG |
|---------------------------------|-------------|---------------|
| Front linkage | 18 m | 21.5 m |
| A Maximum reach | mm | 17 950 |
| B Maximum digging depth | mm | 12 285 |
| C Maximum cutting height | mm | 15 400 |
| Bucket tip radius | mm | 1959 |
| Bucket digging force (ISO 6015) | kN | 317 |
| Stick digging force (ISO 6015) | kN | 255 |
| | | 156 |

Depending on the bucket used, the working range may change.

325D, 330D, 345C, 385C LRE Long Reach Excavation

For more complete information on Cat products, dealer services, and industry solutions, visit us on the web at
www.cat.com

Materials and specifications are subject to change without notice. Featured machines in photos
may include additional equipment. See your Caterpillar dealer for available options.

© 2007 Caterpillar -- All rights reserved

CAT, CATERPILLAR, their respective logos, "Caterpillar Yellow" and the POWER EDGE trade dress as well as
corporate and product identity used herein, are trademarks of Caterpillar and may not be used without permission.

HE

HH3

