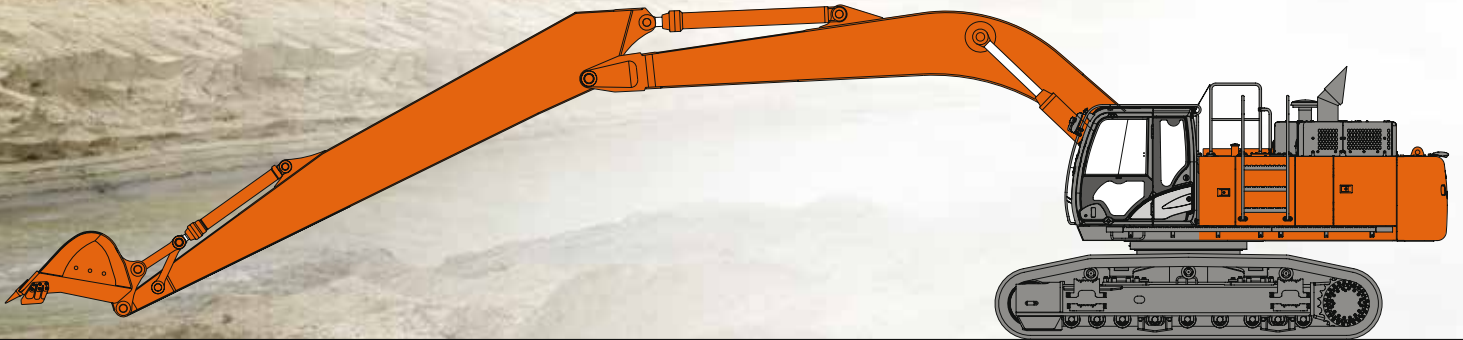


# SUPER LONG FRONT

## ZAXIS 470LCH

A P P L I C A T I O N   &   A T T A C H M E N T



|                           |                   |
|---------------------------|-------------------|
| <b>Model Code</b>         | ZX470LCH-5B       |
| <b>Engine Rated Power</b> | 270 kW (362 HP)   |
| <b>Operating Weight</b>   | 48 100 -50 300 kg |

# SPECIFICATIONS

## ZX470LCH-5B TYPE 14 / TYPE 16 / TYPE 20 SUPER LONG FRONT

### ENGINE

|                         |   |
|-------------------------|---|
| Model .....             | Isuzu AL-6UZ1XZSA-01                                    |
| Type .....              | 4-cycle water-cooled, common rail direct injection      |
| Aspiration .....        | Variable geometry turbocharged, intercooled, cooled EGR |
| Aftertreatment .....    | Muffler filter  |
| No. of cylinders .....  | 6   |
| Rated power             |   |
| ISO 9249, net .....     | H/P mode:   |
| (Without Fan)           | 270 kW (362 HP) at 2 000 min <sup>-1</sup> (rpm)        |
| EEC 80/1269, net ...    | H/P mode:   |
| (Without Fan)           | 270 kW (362 HP) at 2 000 min <sup>-1</sup> (rpm)        |
| SAE J1349, net .....    | H/P mode:   |
| (Without Fan)           | 270 kW (362 HP) at 2 000 min <sup>-1</sup> (rpm)        |
| Maximum torque .....    | 1 435 Nm (146 kgf m) at 1 500 min <sup>-1</sup> (rpm)   |
| Piston displacement ... | 9.839 L   |
| Bore and stroke .....   | 120 mm x 145 mm   |
| Batteries .....         | 2 x 12 V / 170 Ah                                       |

### HYDRAULIC SYSTEM

#### Hydraulic Pumps

|                      |  |
|----------------------|--|
| Main pumps .....     | 2 variable displacement axial piston pumps |
| Maximum oil flow ... | 2 x 400 L/min                              |
| Pilot pump .....     | 1 gear pump                                |
| Maximum oil flow ... | 34 L/min                                   |

#### Hydraulic Motors

|              |  |
|--------------|--|
| Travel ..... | 2 axial piston motors with parking brake |
| Swing .....  | 2 axial piston motors                    |

#### Relief Valve Settings

|                         |  |
|-------------------------|--|
| Implement circuit ..... | TYPE 14 : 31.9 MPa (325 kgf/cm <sup>2</sup> )<br>TYPE 16 & TYPE 20 : 28.9 MPa (295 kgf/cm <sup>2</sup> ) |
| Swing circuit .....     | 28.4 MPa (290 kgf/cm <sup>2</sup> )  |
| Travel circuit .....    | 35.3 MPa (360 kgf/cm <sup>2</sup> )  |
| Pilot circuit .....     | 3.9 MPa (40 kgf/cm <sup>2</sup> )  |
| Power boost .....       | 35.3 MPa (360 kgf/cm <sup>2</sup> )  |

#### Hydraulic Cylinders

|        | Quantity | Bore   | Rod diameter |
|--------|----------|--------|--------------|
| Boom   | 2        | 170 mm | 115 mm       |
| Arm    | 1        | 190 mm | 130 mm       |
| Bucket | TYPE 14  | 170 mm | 120 mm       |
|        | TYPE 16  | 145 mm | 95 mm        |
|        | TYPE 20  | 125 mm | 85 mm        |

### UPPERSTRUCTURE

#### Revolving Frame

D-section frame for resistance to deformation.

#### Swing Device

Axial piston motor with planetary reduction gear is bathed in oil. Swing parking brake is spring-set/hydraulic-released disc type.

Swing speed ..... 9.5 min<sup>-1</sup> (rpm)

#### Operator's Cab

Independent spacious cab, 1 025 mm wide by 1 675 mm high.

### UNDERCARRIAGE

#### Tracks

Track shoes with triple grousers made of induction-hardened rolled alloy.

Heat-treated connecting pins with dirt seals. Hydraulic (grease) track adjusters with shock-absorbing recoil springs.

#### Numbers of Rollers and Shoes on Each Side

|                     |    |
|---------------------|----|
| Upper rollers ..... | 3  |
| Lower rollers ..... | 9  |
| Track shoes .....   | 53 |
| Track guards .....  | 2  |

#### Travel Device

Each track driven by axial piston motor through reduction gear for counterrotation of the tracks. Parking brake is spring-set/hydraulic released disc type.

Automatic transmission system: High-Low.

|                     |   |
|---------------------|---|
| Travel speeds ..... | High : 0 to 5.5 km/h<br>Low : 0 to 3.9 km/h |
|---------------------|---|

Maximum traction force ... 329 kN (33 600 kgf)

Gradeability ..... 70% (35 degree) continuous

### SOUND LEVEL

Sound level in cab according to ISO 6396 .....LpA 75 dB(A)

External sound level according to ISO 6395 and

EU Directive 2000/14/EC ..... LwA 107 dB(A)

### SERVICE REFILL CAPACITIES

|                                 |         |
|---------------------------------|---------|
| Fuel tank .....                 | 725.0 L |
| Engine coolant .....            | 52.0 L  |
| Engine oil .....                | 41.0 L  |
| Swing device (each side).....   | 6.5 L   |
| Travel device (each side) ..... | 11.0 L  |
| Hydraulic system .....          | 510.0 L |
| Hydraulic oil tank .....        | 310.0 L |

## WEIGHTS AND GROUND PRESSURE

### ZX470LCH-5B TYPE 14 SUPER LONG FRONT :

Equipped with 8.2 m Boom, 4.9 m Arm, and 1.15 m<sup>3</sup> rock bucket (SAE, PCSA heaped).

| Shoe type      | Shoe width | Operating weight | Ground pressure                    |
|----------------|------------|------------------|------------------------------------|
| Triple grouser | 600 mm     | 48 100 kg        | 82 kPa (0.84 kgf/cm <sup>2</sup> ) |
|                | 750 mm     | 48 900 kg        | 66 kPa (0.67 kgf/cm <sup>2</sup> ) |
|                | 900 mm     | 49 600 kg        | 56 kPa (0.57 kgf/cm <sup>2</sup> ) |

### ZX470LCH-5B TYPE 16 SUPER LONG FRONT :

Equipped with 8.2 m Boom, 7.3 m Arm, and 1.15 m<sup>3</sup> bucket (SAE, PCSA heaped).

| Shoe type      | Shoe width | Operating weight | Ground pressure                    |
|----------------|------------|------------------|------------------------------------|
| Triple grouser | 750 mm     | 50 100 kg        | 68 kPa (0.69 kgf/cm <sup>2</sup> ) |
|                | 900 mm     | 50 800 kg        | 58 kPa (0.59 kgf/cm <sup>2</sup> ) |

### ZX470LCH-5B TYPE 20 SUPER LONG FRONT :

Equipped with 11.5 m Boom, 8.5 m Arm, and 0.8 m<sup>3</sup> bucket (SAE, PCSA heaped).

| Shoe type      | Shoe width | Operating weight | Ground pressure                    |
|----------------|------------|------------------|------------------------------------|
| Triple grouser | 750 mm     | 52 400 kg        | 71 kPa (0.72 kgf/cm <sup>2</sup> ) |
|                | 900 mm     | 53 100 kg        | 60 kPa (0.61 kgf/cm <sup>2</sup> ) |

Note : Depending on the jobsites conditions, 900 mm grouser shoe may not be recommended for rock, hard surface or forestry application.

## BUCKET SPECIFICATIONS AND COMPATIBILITY

| Capacity ISO heaped | Width without side cutters | Weight   | TYPE 14 | TYPE 16 | TYPE 20 |
|---------------------|----------------------------|----------|---------|---------|---------|
| 0.8 m <sup>3</sup>  | 1 140 mm                   | 960 kg   | —       | —       | ⊙       |
| 1.15 m <sup>3</sup> | 1 210 mm                   | 1 070 kg | ⊙       | ⊙       | —       |

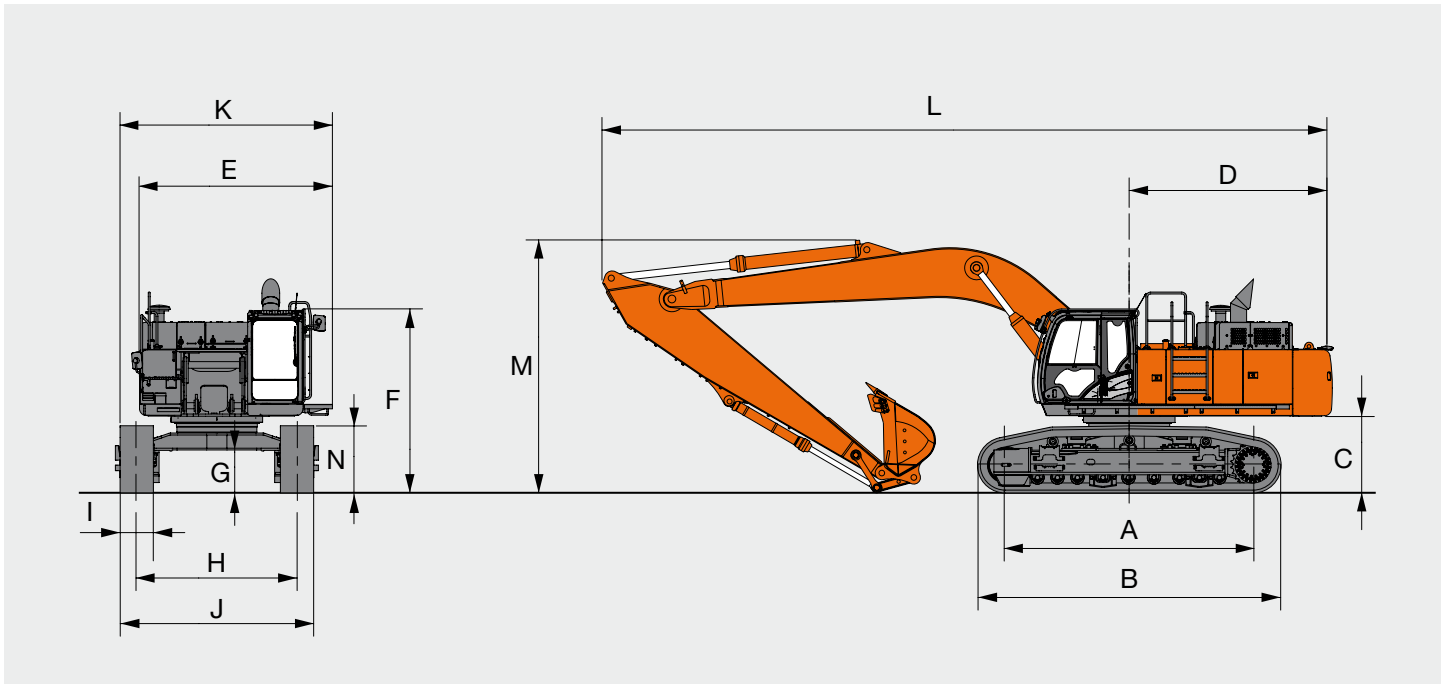
⊙ : Suitable for materials with density of 1 800 kg/m<sup>3</sup> or less

— : Not applicable

# SPECIFICATIONS

## ZX470LCH-5B TYPE 14 SUPER LONG FRONT

### DIMENSIONS



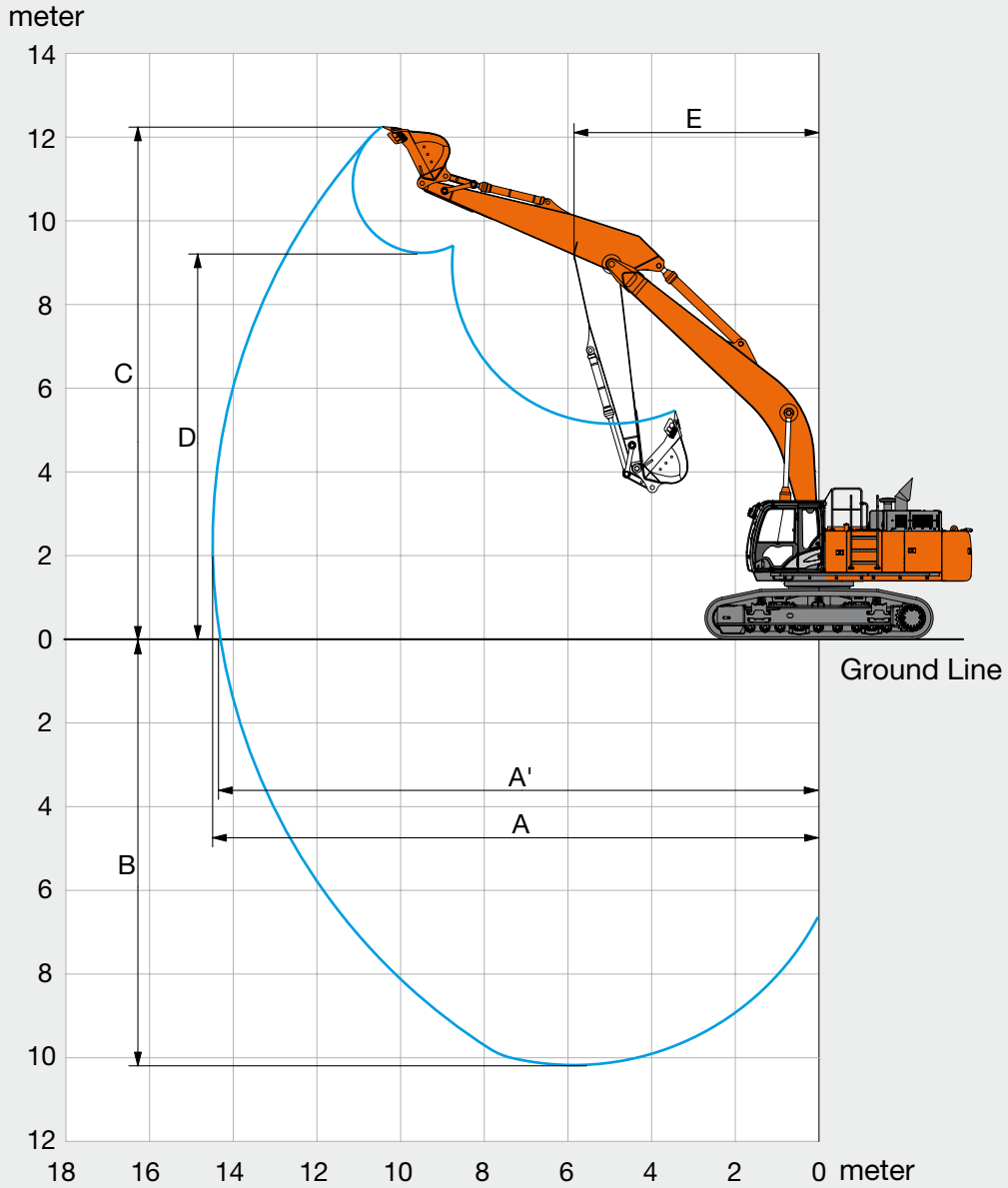
Unit: mm

|     |  | ZX470LCH-5B TYPE 14 |       |       |
|-----|--|---------------------|-------|-------|
| A   | Distance between tumblers              | 4 470               |       |       |
| B   | Undercarriage length                   | 5 470               |       |       |
| *C  | Counterweight clearance                | 1 360               |       |       |
| D   | Rear-end swing radius                  | 3 670               |       |       |
| E   | Overall width of upperstructure        | 3 480               |       |       |
| F   | Overall height of cab                  | 3 330               |       |       |
| **G | Min. ground clearance                  | 737                 |       |       |
| H   | Track gauge : Extended / Retracted     | 2 890 / 2 390       |       |       |
| I   | Track shoe width                       | G 600               | G 750 | G 900 |
| J   | Undercarriage width    Extended        | 3 490               | 3 640 | 3 790 |
|     | Retracted                              | 2 990               | 3 140 | 3 290 |
| K   | Overall width                          | 3 770               | 3 820 | 3 880 |
| L   | Overall length                         | 13 190              |       |       |
| M   | Overall height of boom                 | 4 570               |       |       |
| N   | Track height with triple grouser shoes | 1 220               |       |       |

•\* : Excluding track shoe lug

•\*\* : Triple grouser shoe

## WORKING RANGES



Unit: mm

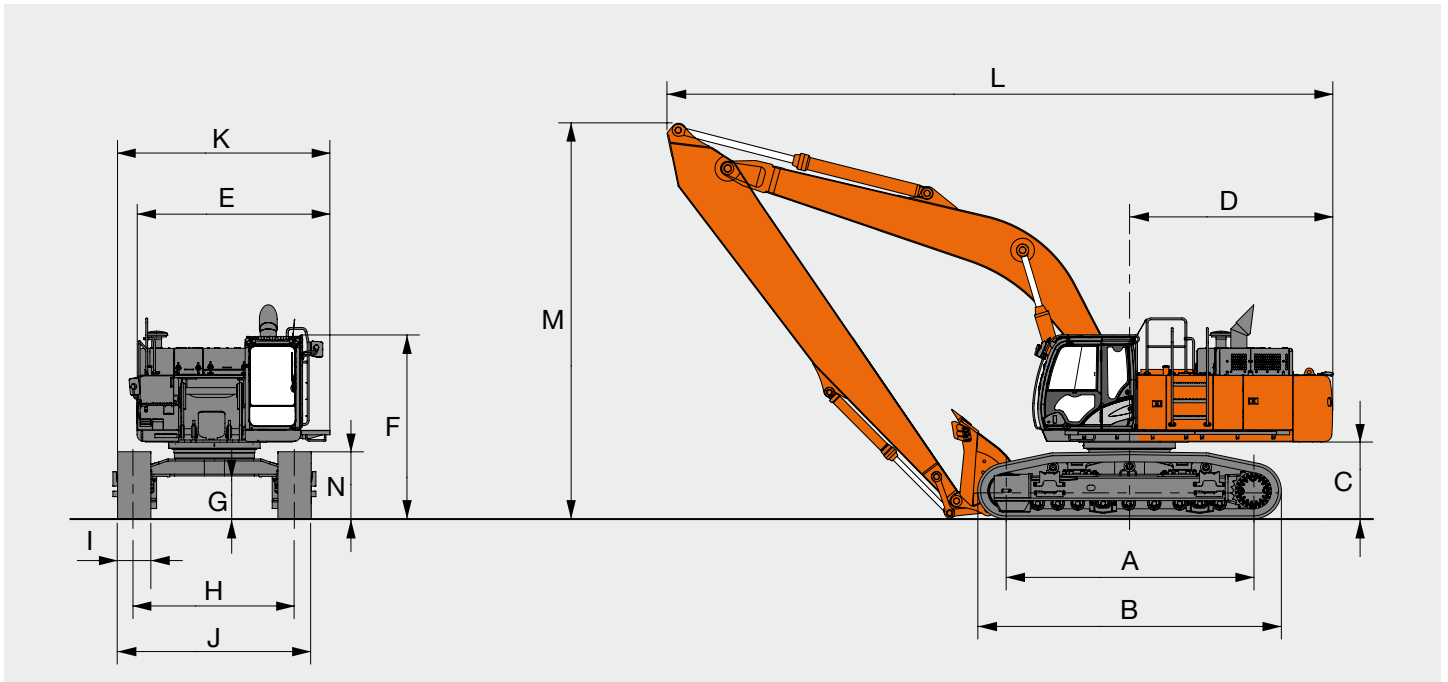
|                                   | ZX470LCH-5B TYPE 14 |
|-----------------------------------|---------------------|
| A Max. digging reach              | 14 510              |
| A' Max. digging reach (on ground) | 14 330              |
| B Max. digging depth              | 10 230              |
| C Max. cutting height             | 12 240              |
| D Max. dumping height             | 9 220               |
| E Min. swing radius               | 5 870               |
| Bucket digging force ISO          | 238 kN (24 300 kgf) |
| Arm crowd force ISO               | 177 kN (18 000 kgf) |

• Excluding track shoe lug

# SPECIFICATIONS

## ZX470LCH-5B TYPE 16 SUPER LONG FRONT

### DIMENSIONS



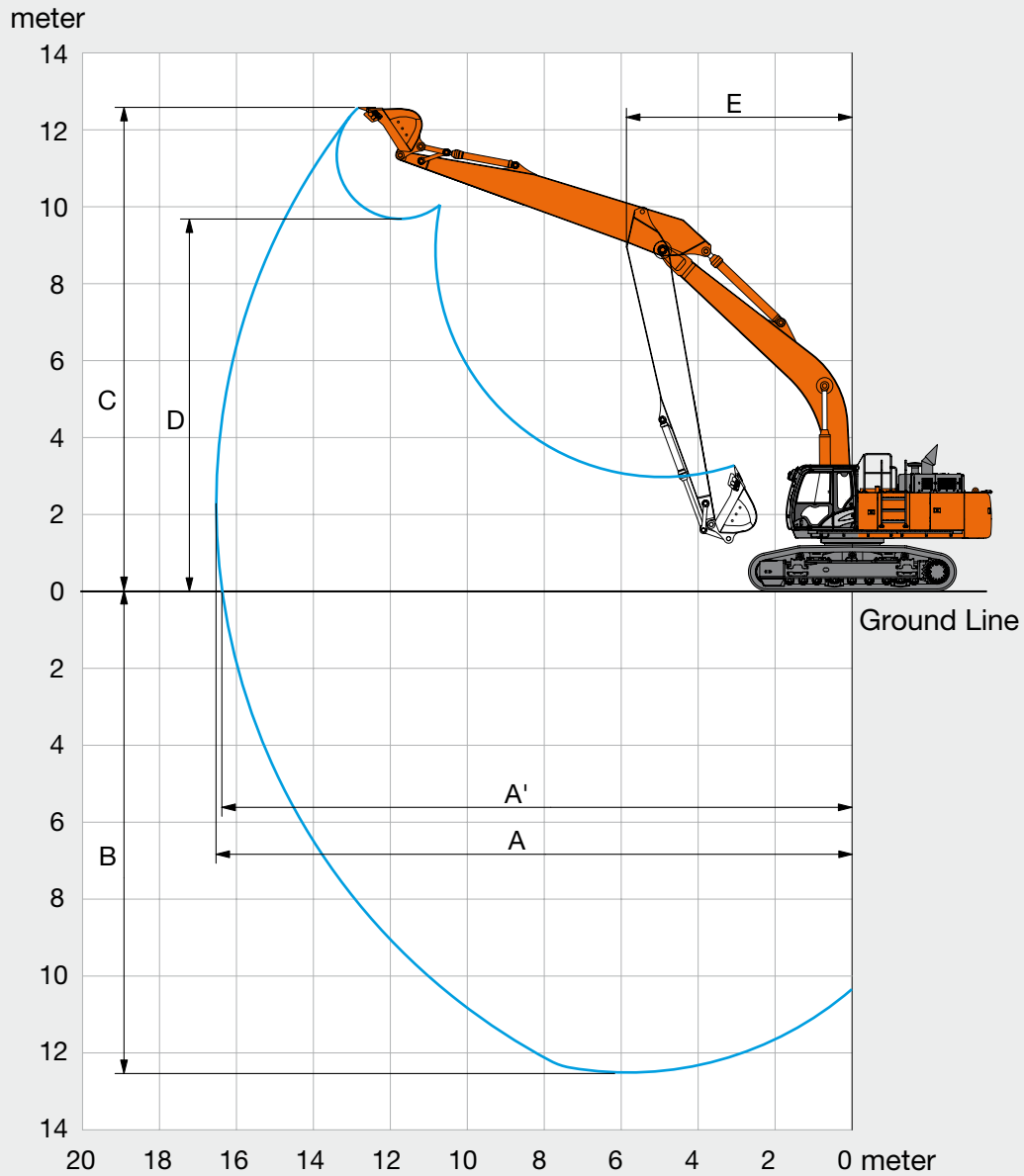
Unit: mm

|     |  | ZX470LCH-5B TYPE 16 |       |
|-----|--|---------------------|-------|
| A   | Distance between tumblers              | 4 470               |       |
| B   | Undercarriage length                   | 5 470               |       |
| *C  | Counterweight clearance                | 1 360               |       |
| D   | Rear-end swing radius                  | 3 670               |       |
| E   | Overall width of upperstructure        | 3 480               |       |
| F   | Overall height of cab                  | 3 330               |       |
| **G | Min. ground clearance                  | 737                 |       |
| H   | Track gauge : Extended / Retracted     | 2 890 / 2 390       |       |
| I   | Track shoe width                       | G 750               | G 900 |
| J   | Undercarriage width                    |                     |       |
|     | Extended                               | 3 640               | 3 790 |
|     | Retracted                              | 3 140               | 3 290 |
| K   | Overall width                          | 3 820               | 3 880 |
| L   | Overall length                         | 12 030              |       |
| M   | Overall height of boom                 | 7 130               |       |
| N   | Track height with triple grouser shoes | 1 220               |       |

•\* : Excluding track shoe lug

•\*\* : Triple grouser shoe

## WORKING RANGES



Unit: mm

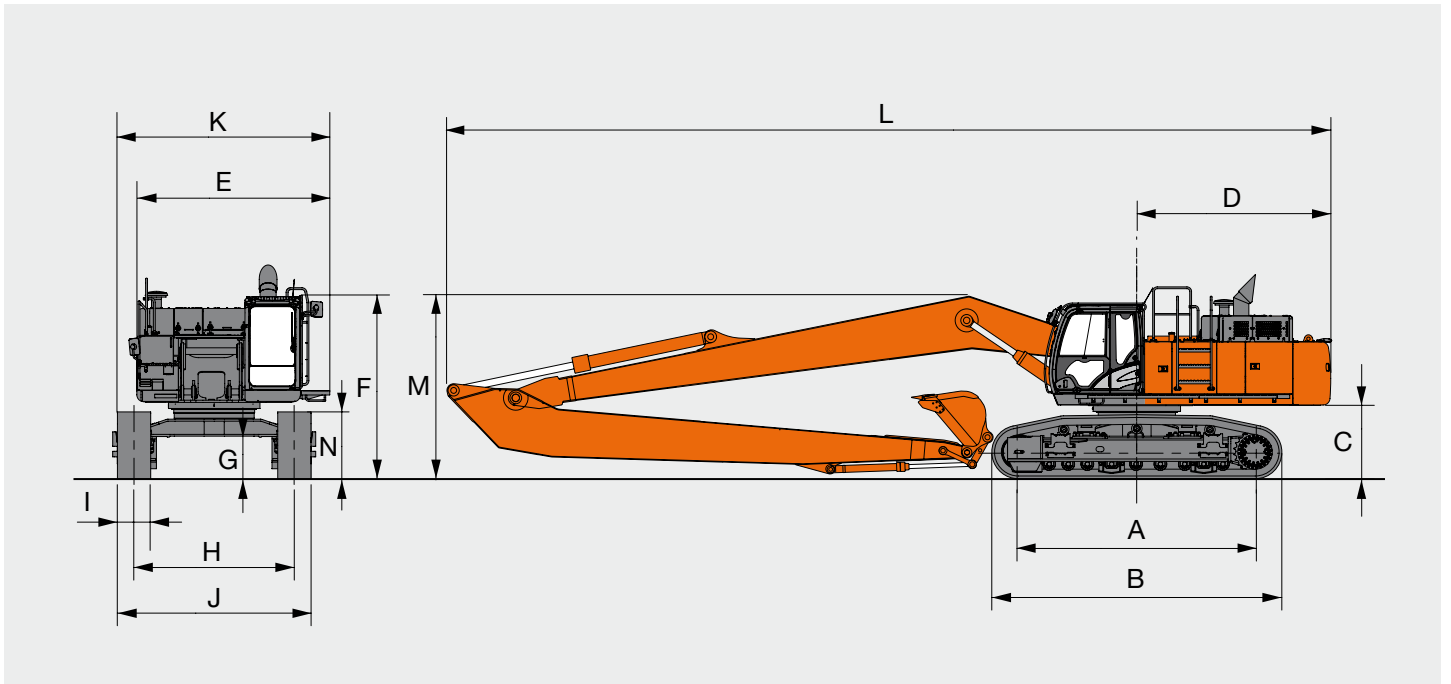
|                                   | ZX470LCH-5B TYPE 16 |
|-----------------------------------|---------------------|
| A Max. digging reach              | 16 650              |
| A' Max. digging reach (on ground) | 16 490              |
| B Max. digging depth              | 12 600              |
| C Max. cutting height             | 12 670              |
| D Max. dumping height             | 9 760               |
| E Min. swing radius               | 6 000               |
| Bucket digging force ISO          | 194 kN (19 800 kgf) |
| Arm crowd force ISO               | 106 kN (10 800 kgf) |

• Excluding track shoe lug

# SPECIFICATIONS

## ZX470LCH-5B TYPE 20 SUPER LONG FRONT

### DIMENSIONS



Unit: mm

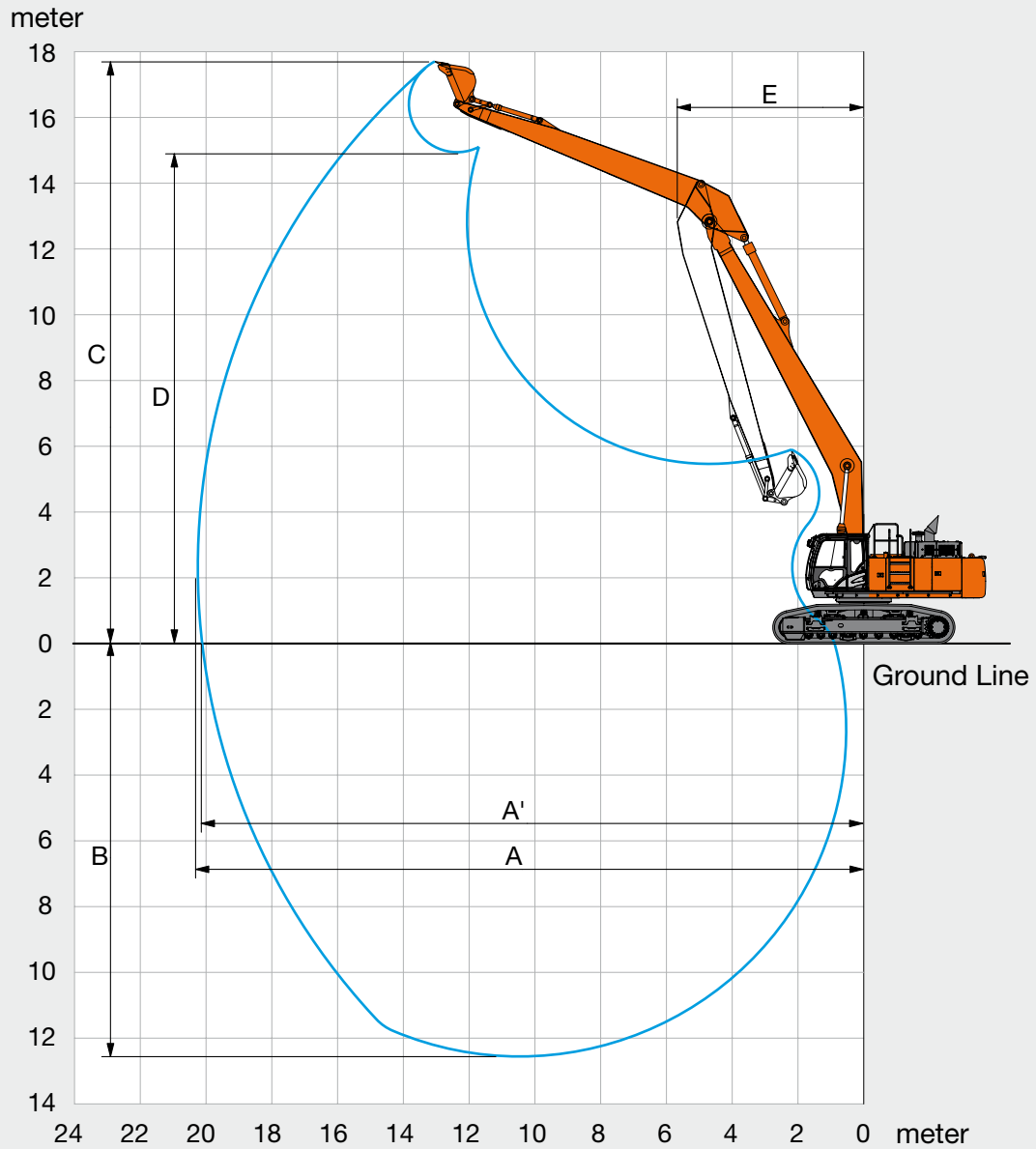
|     |  | ZX470LCH-5B TYPE 20 |       |
|-----|--|---------------------|-------|
| A   | Distance between tumbler               | 4 470               |       |
| B   | Undercarriage length                   | 5 470               |       |
| *C  | Counterweight clearance                | 1 360               |       |
| D   | Rear-end swing radius                  | 3 670               |       |
| E   | Overall width of upperstructure        | 3 480               |       |
| F   | Overall height of cab                  | 3 330               |       |
| **G | Min. ground clearance                  | 737                 |       |
| H   | Track gauge : Extended / Retracted     | 2 890 / 2 390       |       |
| I   | Track shoe width                       | G 750               | G 900 |
| J   | Undercarriage width    Extended        | 3 640               | 3 790 |
|     | Retracted                              | 3 140               | 3 290 |
| K   | Overall width                          | 3 820               | 3 880 |
| L   | Overall length                         | 16 640              |       |
| M   | Overall height of boom                 | 3 560               |       |
| N   | Track height with triple grouser shoes | 1 220               |       |

•\* : Excluding track shoe lug

•\*\* : Triple grouser shoe



## WORKING RANGES



Unit: mm

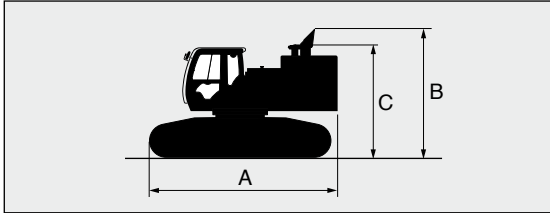
|                                   | ZX470LCH-5B TYPE 20 |
|-----------------------------------|---------------------|
| A Max. digging reach              | 20 340              |
| A' Max. digging reach (on ground) | 20 200              |
| B Max. digging depth              | 12 670              |
| C Max. cutting height             | 17 710              |
| D Max. dumping height             | 14 940              |
| E Min. swing radius               | 5 700               |
| Bucket digging force ISO          | 144 kN (14 700 kgf) |
| Arm crowd force ISO               | 105 kN (10 700 kgf) |

• Excluding track shoe lug

# TRANSPORTATION

ZX470LCH-5B TYPE 14 / TYPE 16 / TYPE 20 SUPER LONG FRONT

## BASIC MACHINE (WITHOUT COUNTERWEIGHT)

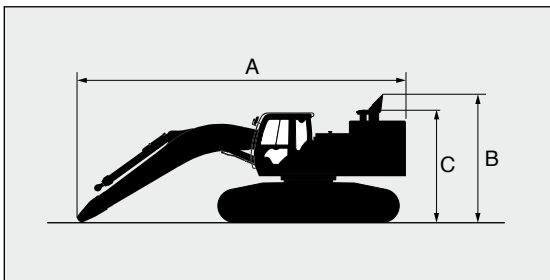


| Shoe width | Overall width* <sup>1</sup> | Weight    | A        | B        | C* <sup>2</sup> |
|------------|-----------------------------|-----------|----------|----------|-----------------|
| 600 mm     | 2 990 mm                    | 29 400 kg | 5 690 mm | 3 870 mm | 3 400 mm        |
| 750 mm     | 3 140 mm                    | 30 200 kg |          |          |                 |
| 900 mm     | 3 290 mm                    | 30 900 kg |          |          |                 |

\*<sup>1</sup> Undercarriage retracted

\*<sup>2</sup> Without exhaust funnel

## BASIC MACHINE FITTED WITH BOOM AND NO SIDEWALK

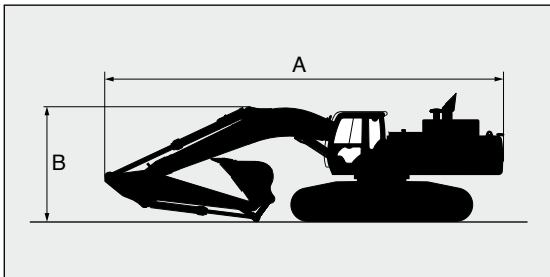


| Boom length | Shoe width | Overall width* <sup>1</sup> | Weight    | A         | B        | C* <sup>2</sup> |
|-------------|------------|-----------------------------|-----------|-----------|----------|-----------------|
| 8.2 m       | 600 mm     | 2 990 mm                    | 34 400 kg | 11 190 mm | 3 870 mm | 3 400 mm        |
|             | 750 mm     | 3 140 mm                    | 35 200 kg |           |          |                 |
|             | 900 mm     | 3 290 mm                    | 35 900 kg |           |          |                 |
| 11.5 m      | 600 mm     | 3 000 mm                    | 35 000 kg | 14 560 mm | 3 870 mm | 3 400 mm        |
|             | 750 mm     | 3 140 mm                    | 35 800 kg |           |          |                 |
|             | 900 mm     | 3 290 mm                    | 36 500 kg |           |          |                 |

\*<sup>1</sup> Undercarriage retracted

\*<sup>2</sup> Without exhaust funnel

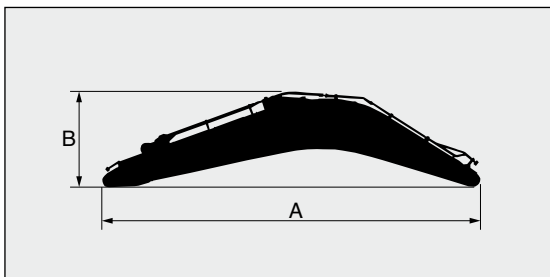
## BASIC MACHINE WITH FRONT AND SIDEWALK



| Boom length | Arm length | Shoe width | Overall width* | Weight    | A         | B        |
|-------------|------------|------------|----------------|-----------|-----------|----------|
| 8.2 m       | 4.9 m      | 600 mm     | 2 990 mm       | 48 100 kg | 13 190 mm | 4 570 mm |
|             |            | 750 mm     | 3 140 mm       | 48 900 kg |           |          |
|             |            | 900 mm     | 3 290 mm       | 49 600 kg |           |          |
| 11.5 m      | 8.5 m      | 750 mm     | 3 140 mm       | 52 400 kg | 16 640 mm | 3 560 mm |
|             |            | 900 mm     | 3 290 mm       | 53 100 kg |           |          |
|             |            | 900 mm     | 3 290 mm       | 53 100 kg |           |          |

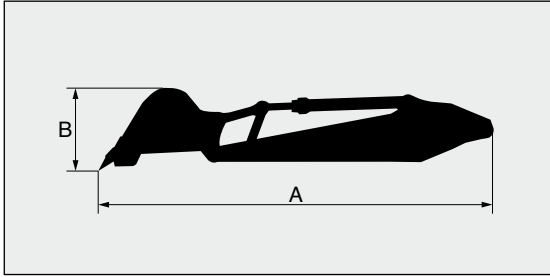
\* Undercarriage retracted

## BOOM



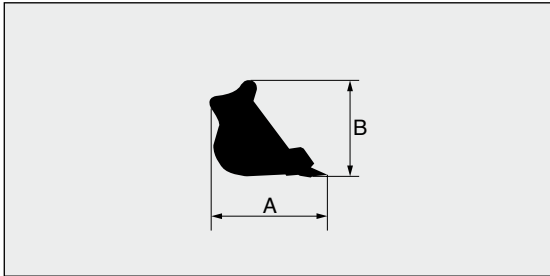
| Boom   | Overall width | Weight   | A        | B        |
|--------|---------------|----------|----------|----------|
| 8.2 m  | 1 100 mm      | 4 960 kg | 8 510 mm | 1 930 mm |
| 11.5 m | 1 100 mm      | 5 550 kg | 1 170 mm | 1 600 mm |

**ARM**



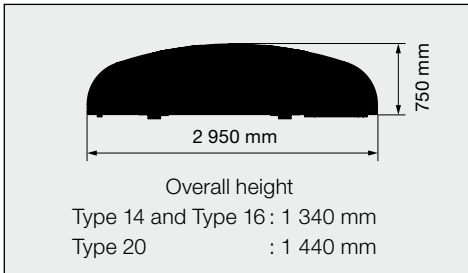
| Arm   | Bucket SAE heaped   | A         | B        | Overall width | Weight   |
|-------|---------------------|-----------|----------|---------------|----------|
| 4.9 m | 1.15 m <sup>3</sup> | 7 760 mm  | 1 170 mm | 2 130 mm      | 3 760 kg |
| 7.3 m | 1.15 m <sup>3</sup> | 10 160 mm | 1 180 mm | 1 230 mm      | 4 300 kg |
| 8.5 m | 0.80 m <sup>3</sup> | 11 270 mm | 1 320 mm | 1 150 mm      | 4 150 kg |

**BUCKET**



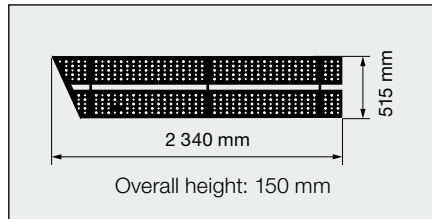
| Bucket              |                     | A        | B        | Overall width | Weight   |
|---------------------|---------------------|----------|----------|---------------|----------|
| ISO heaped          | CECE heaped         |          |          |               |          |
| 1.15 m <sup>3</sup> | 1.00 m <sup>3</sup> | 1 800 mm | 1 350 mm | 1 210 mm      | 1 070 kg |
| 0.80 m <sup>3</sup> | 0.70 m <sup>3</sup> | 1 480 mm | 1 260 mm | 1 140 mm      | 960 kg   |

**COUNTERWEIGHT**

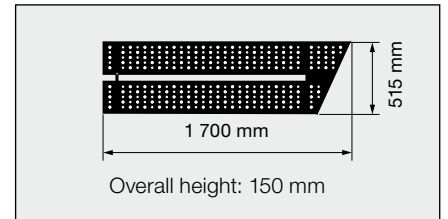


|         | Weight    |
|---------|-----------|
| Type 14 | 9 080 kg  |
| Type 16 | 9 780 kg  |
| Type 20 | 11 580 kg |

**LEFT FRONT SIDEWALK 44 kg**



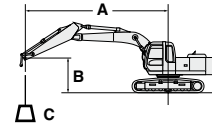
**LEFT REAR SIDEWALK 30 kg**



# LIFTING CAPACITIES (Without bucket)

Notes: 1. Ratings are based on ISO 10567.

- Lifting capacity does not exceed 75% of tipping load with the machine on firm, level ground or 87% full hydraulic capacity.
- The load point is the center-line of the bucket pivot mounting pin on the arm.
- \*Indicates load limited by hydraulic capacity.
- 0 m = Ground.



A: Load radius  
B: Load point height  
C: Lifting capacity

For lifting capacities, subtract bucket and quick hitch weight from lifting capacities without bucket.

## ZX470LCH-5B TYPE 14 SUPER LONG FRONT

Rating over-front

Rating over-side or 360 degrees

Unit: kg

| Conditions   | Load point height m | Load radius |         |         |         |         |         |         |       |        |       |        |       | At max. reach |        |      |
|--|---------------------|-------------|---------|---------|---------|---------|---------|---------|-------|--------|-------|--------|-------|---------------|--------|------|
|  |                     | 2.0 m       |         | 4.0 m   |         | 6.0 m   |         | 8.0 m   |       | 10.0 m |       | 12.0 m |       | meter         |        |      |
|  |                     |             |         |         |         |         |         |         |       |        |       |        |       |               |        |      |
| Boom 8.2 m<br>Arm 4.9 m<br>Counterweight 9 080 kg<br>Shoe 600 mm | 8.0                 |             |         |         |         |         |         |         |       | *7 800 | 7 300 |        |       | *5 700        | *5 700 | 11.5 |
|  | 6.0                 |             |         |         |         |         |         |         |       | *8 300 | 7 100 | *6 900 | 5 200 | *5 600        | 4 900  | 12.3 |
|  | 4.0                 |             |         |         |         | *13 500 | *13 500 | *10 600 | 9 500 | *9 100 | 6 800 | 7 900  | 5 000 | *5 700        | 4 500  | 12.7 |
|  | 2.0                 |             |         |         |         | *16 600 | 13 100  | *12 100 | 8 800 | *9 900 | 6 400 | 7 700  | 4 800 | *6 000        | 4 300  | 12.8 |
|  | 0 (Ground)          |             |         |         |         | *18 400 | 12 200  | *13 300 | 8 300 | 9 800  | 6 100 | 7 600  | 4 700 | *6 500        | 4 300  | 12.6 |
|  | -2.0                | *6 600      | *6 600  | *11 500 | *11 500 | *18 900 | 11 800  | 13 300  | 7 900 | 9 600  | 5 900 | 7 500  | 4 600 | 7 200         | 4 500  | 12.1 |
|  | -4.0                | *12 000     | *12 000 | *17 600 | *17 600 | *18 200 | 11 800  | 13 200  | 7 900 | 9 600  | 5 900 |        |       | 8 000         | 5 100  | 11.2 |
|  | -6.0                | *18 300     | *18 300 | *22 300 | *22 300 | *16 100 | 12 000  | *12 100 | 8 000 |        |       |        |       | *9 000        | 6 200  | 9.8  |
|  | -8.0                |             |         | *15 900 | *15 900 | *11 700 | *11 700 |         |       |        |       |        |       | *8 500        | 9 200  | 7.6  |

| Conditions   | Load point height m | Load radius |         |         |         |         |         |         |       |        |       |        |       | At max. reach |        |      |
|--|---------------------|-------------|---------|---------|---------|---------|---------|---------|-------|--------|-------|--------|-------|---------------|--------|------|
|  |                     | 2.0 m       |         | 4.0 m   |         | 6.0 m   |         | 8.0 m   |       | 10.0 m |       | 12.0 m |       | meter         |        |      |
|  |                     |             |         |         |         |         |         |         |       |        |       |        |       |               |        |      |
| Boom 8.2 m<br>Arm 4.9 m<br>Counterweight 9 080 kg<br>Shoe 900 mm | 8.0                 |             |         |         |         |         |         |         |       | *7 800 | 7 500 |        |       | *5 700        | *5 700 | 11.5 |
|  | 6.0                 |             |         |         |         |         |         |         |       | *8 300 | 7 300 | *6 900 | 5 300 | *5 600        | 5 100  | 12.3 |
|  | 4.0                 |             |         |         |         | *13 500 | *13 500 | *10 600 | 9 800 | *9 100 | 7 000 | 8 200  | 5 200 | *5 700        | 4 700  | 12.7 |
|  | 2.0                 |             |         |         |         | *16 600 | 13 400  | *12 100 | 9 100 | *9 900 | 6 600 | 8 000  | 5 000 | *6 000        | 4 500  | 12.8 |
|  | 0 (Ground)          |             |         |         |         | *18 400 | 12 500  | *13 300 | 8 500 | 10 200 | 6 300 | 7 800  | 4 800 | *6 500        | 4 500  | 12.6 |
|  | -2.0                | *6 600      | *6 600  | *11 500 | *11 500 | *18 900 | 12 200  | 13 700  | 8 200 | 10 000 | 6 100 | 7 800  | 4 800 | *7 400        | 4 700  | 12.1 |
|  | -4.0                | *12 000     | *12 000 | *17 600 | *17 600 | *18 200 | 12 100  | *13 600 | 8 100 | 9 900  | 6 100 |        |       | 8 300         | 5 300  | 11.2 |
|  | -6.0                | *18 300     | *18 300 | *22 300 | *22 300 | *16 100 | 12 400  | *12 100 | 8 300 |        |       |        |       | *9 000        | 6 400  | 9.8  |
|  | -8.0                |             |         | *15 900 | *15 900 | *11 700 | *11 700 |         |       |        |       |        |       | *8 500        | 9 400  | 7.6  |

**ZX470LCH-5B TYPE 16 SUPER LONG FRONT**



Rating over-front



Rating over-side or 360 degrees

Unit: kg

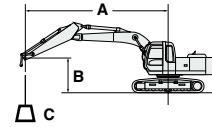
| Conditions   | Load point height m | Load radius |         |         |        |        |        |        |        |        |        | At max. reach |        |      |
|--|---------------------|-------------|---------|---------|--------|--------|--------|--------|--------|--------|--------|---------------|--------|------|
|  |                     | 6.0 m       |         | 8.0 m   |        | 10.0 m |        | 12.0 m |        | 14.0 m |        | meter         |        |      |
|  |                     |             |         |         |        |        |        |        |        |        |        |               |        |      |
| Boom 8.2 m<br>Arm 7.3 m<br>Counterweight 9 780 kg<br>Shoe 750 mm | 8.0                 |             |         |         |        |        |        |        |        |        |        | *2 800        | *2 800 | 13.8 |
|  | 6.0                 |             |         |         |        |        |        | *4 700 | *4 700 | *3 800 | *3 800 | *2 800        | *2 800 | 14.5 |
|  | 4.0                 |             |         |         |        |        |        | *5 100 | *5 100 | *4 500 | 4 000  | *2 900        | *2 900 | 14.8 |
|  | 2.0                 |             |         | *7 600  | *7 600 | *6 300 | *6 300 | *5 600 | 5 100  | *5 100 | 3 800  | *3 000        | *3 000 | 14.9 |
|  | 0 (Ground)          | *12 300     | *12 300 | *9 000  | 8 900  | *7 200 | 6 400  | *6 100 | 4 800  | *5 300 | 3 700  | *3 200        | *3 200 | 14.8 |
|  | -2.0                | *13 900     | 12 300  | *10 000 | 8 200  | *7 800 | 6 000  | *6 400 | 4 500  | *4 800 | 3 500  | *3 600        | 3 400  | 14.3 |
|  | -4.0                | *14 500     | 11 800  | *10 500 | 7 800  | *8 100 | 5 700  | *6 600 | 4 400  |        |        | *4 200        | 3 700  | 13.5 |
|  | -6.0                | *14 200     | 11 700  | *10 300 | 7 700  | *8 000 | 5 700  | *6 200 | 4 400  |        |        | *5 200        | 4 200  | 12.4 |
|  | -8.0                | *12 700     | 11 900  | *9 300  | 7 900  | *6 900 | 5 800  |        |        |        |        | *5 900        | 5 200  | 10.8 |
| -10.0  | *9 500              | *9 500      | *6 600  | *6 600  |        |        |        |        |        |        | *5 900 | *5 900        | 8.4    |      |

| Conditions   | Load point height m | Load radius |         |         |        |        |        |        |        |        |        | At max. reach |        |      |
|--|---------------------|-------------|---------|---------|--------|--------|--------|--------|--------|--------|--------|---------------|--------|------|
|  |                     | 6.0 m       |         | 8.0 m   |        | 10.0 m |        | 12.0 m |        | 14.0 m |        | meter         |        |      |
|  |                     |             |         |         |        |        |        |        |        |        |        |               |        |      |
| Boom 8.2 m<br>Arm 7.3 m<br>Counterweight 9 780 kg<br>Shoe 900 mm | 8.0                 |             |         |         |        |        |        |        |        |        |        | *2 800        | *2 800 | 13.8 |
|  | 6.0                 |             |         |         |        |        |        | *4 700 | *4 700 | *3 800 | *3 800 | *2 800        | *2 800 | 14.5 |
|  | 4.0                 |             |         |         |        |        |        | *5 100 | *5 100 | *4 500 | 4 100  | *2 900        | *2 900 | 14.8 |
|  | 2.0                 |             |         | *7 600  | *7 600 | *6 300 | *6 300 | *5 600 | 5 200  | *5 100 | 3 900  | *3 000        | *3 000 | 14.9 |
|  | 0 (Ground)          | *12 300     | *12 300 | *9 000  | *9 000 | *7 200 | 6 500  | *6 100 | 4 900  | *5 300 | 3 700  | *3 200        | *3 200 | 14.8 |
|  | -2.0                | *13 900     | 12 500  | *10 000 | 8 400  | *7 800 | 6 100  | *6 400 | 4 600  | *4 800 | 3 600  | *3 600        | 3 500  | 14.3 |
|  | -4.0                | *14 500     | 12 000  | *10 500 | 8 000  | *8 100 | 5 800  | *6 600 | 4 500  |        |        | *4 200        | 3 800  | 13.5 |
|  | -6.0                | *14 200     | 11 900  | *10 300 | 7 900  | *8 000 | 5 800  | *6 200 | 4 500  |        |        | *5 200        | 4 300  | 12.4 |
|  | -8.0                | *12 700     | 12 100  | *9 300  | 8 000  | *6 900 | 5 900  |        |        |        |        | *5 900        | 5 400  | 10.8 |
| -10.0  | *9 500              | *9 500      | *6 600  | *6 600  |        |        |        |        |        |        | *5 900 | *5 900        | 8.4    |      |

# LIFTING CAPACITIES (Without bucket)

Notes: 1. Ratings are based on ISO 10567.

- Lifting capacity does not exceed 75% of tipping load with the machine on firm, level ground or 87% full hydraulic capacity.
- The load point is the center-line of the bucket pivot mounting pin on the arm.
- \*Indicates load limited by hydraulic capacity.
- 0 m = Ground.



A: Load radius  
B: Load point height  
C: Lifting capacity

For lifting capacities, subtract bucket and quick hitch weight from lifting capacities without bucket.

## ZX470LCH-5B TYPE 20 SUPER LONG FRONT

Rating over-front

Rating over-side or 360 degrees

Unit: kg

| Conditions   | Load point height m | Load radius |        |        |        |        |        |        |        |        |        | At max. reach |        |       |
|--|---------------------|-------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|---------------|--------|-------|
|  |                     | 10.0 m      |        | 12.0 m |        | 14.0 m |        | 16.0 m |        | 18.0 m |        |               |        | meter |
|  |                     |             |        |        |        |        |        |        |        |        |        |               |        |       |
| Boom 11.5 m<br>Arm 8.5 m<br>Counterweight 11 580 kg<br>Shoe 750 mm | 14.0                |             |        |        |        | *3 000 | *3 000 |        |        |        |        | *2 300        | *2 300 | 14.7  |
|  | 12.0                |             |        |        |        | *3 300 | *3 300 | *2 400 | *2 400 |        |        | *2 200        | *2 200 | 16.1  |
|  | 10.0                |             |        |        |        | *3 300 | *3 300 | *3 100 | *3 100 |        |        | *2 200        | *2 200 | 17.1  |
|  | 8.0                 |             |        | *3 900 | *3 900 | *3 400 | *3 400 | *3 100 | *3 100 |        |        | *2 200        | *2 200 | 17.9  |
|  | 6.0                 | *4 900      | *4 900 | *4 100 | *4 100 | *3 600 | *3 600 | *3 200 | *3 200 | *2 900 | 2 500  | *2 200        | *2 200 | 18.4  |
|  | 4.0                 | *5 300      | *5 300 | *4 400 | *4 400 | *3 700 | *3 700 | *3 300 | 3 100  | *2 900 | 2 400  | *2 300        | 2 100  | 18.7  |
|  | 2.0                 | *5 700      | *5 700 | *4 600 | *4 600 | *3 900 | 3 800  | *3 400 | 2 900  | *2 900 | 2 300  | *2 500        | 2 000  | 18.8  |
|  | 0 (Ground)          | *6 000      | 5 800  | *4 800 | 4 400  | *4 000 | 3 500  | *3 400 | 2 700  | *2 900 | 2 100  | *2 700        | 2 000  | 18.7  |
|  | -2.0                | *6 200      | 5 300  | *4 900 | 4 100  | *4 100 | 3 200  | *3 400 | 2 500  | *2 800 | 2 000  | *2 700        | 2 000  | 18.3  |
|  | -4.0                | *6 100      | 4 900  | *4 900 | 3 800  | *4 000 | 3 000  | *3 300 | 2 400  |        |        | *2 700        | 2 000  | 17.7  |
|  | -6.0                | *5 800      | 4 800  | *4 700 | 3 700  | *3 800 | 3 000  | *3 100 | 2 400  |        |        | *2 700        | 2 200  | 16.9  |
| -8.0   | *5 300              | 4 800       | *4 300 | 3 700  | *3 400 | 3 000  |        |        |        |        | *2 600 | *2 500        | 15.7   |       |
| -10.0  | *4 400              | *4 400      | *3 500 | *3 500 | *2 600 | *2 600 |        |        |        |        | *2 400 | *2 400        | 14.2   |       |

| Conditions   | Load point height m | Load radius |        |        |        |        |        |        |        |        |        | At max. reach |        |       |
|--|---------------------|-------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|---------------|--------|-------|
|  |                     | 10.0 m      |        | 12.0 m |        | 14.0 m |        | 16.0 m |        | 18.0 m |        |               |        | meter |
|  |                     |             |        |        |        |        |        |        |        |        |        |               |        |       |
| Boom 11.5 m<br>Arm 8.5 m<br>Counterweight 11 580 kg<br>Shoe 900 mm | 14.0                |             |        |        |        | *3 000 | *3 000 |        |        |        |        | *2 300        | *2 300 | 14.7  |
|  | 12.0                |             |        |        |        | *3 300 | *3 300 | *2 400 | *2 400 |        |        | *2 200        | *2 200 | 16.1  |
|  | 10.0                |             |        |        |        | *3 300 | *3 300 | *3 100 | *3 100 |        |        | *2 200        | *2 200 | 17.1  |
|  | 8.0                 |             |        | *3 900 | *3 900 | *3 400 | *3 400 | *3 100 | *3 100 |        |        | *2 200        | *2 200 | 17.9  |
|  | 6.0                 | *4 900      | *4 900 | *4 100 | *4 100 | *3 600 | *3 600 | *3 200 | *3 200 | *2 900 | 2 600  | *2 200        | *2 200 | 18.4  |
|  | 4.0                 | *5 300      | *5 300 | *4 400 | *4 400 | *3 700 | *3 700 | *3 300 | 3 200  | *2 900 | 2 500  | *2 300        | 2 200  | 18.7  |
|  | 2.0                 | *5 700      | *5 700 | *4 600 | *4 600 | *3 900 | 3 800  | *3 400 | 3 000  | *2 900 | 2 300  | *2 500        | 2 100  | 18.8  |
|  | 0 (Ground)          | *6 000      | 5 900  | *4 800 | 4 500  | *4 000 | 3 500  | *3 400 | 2 800  | *2 900 | 2 200  | *2 700        | 2 000  | 18.7  |
|  | -2.0                | *6 200      | 5 400  | *4 900 | 4 200  | *4 100 | 3 300  | *3 400 | 2 600  | *2 800 | 2 100  | *2 700        | 2 000  | 18.3  |
|  | -4.0                | *6 100      | 5 100  | *4 900 | 3 900  | *4 000 | 3 100  | *3 300 | 2 500  |        |        | *2 700        | 2 100  | 17.7  |
|  | -6.0                | *5 800      | 4 900  | *4 700 | 3 800  | *3 800 | 3 000  | *3 100 | 2 500  |        |        | *2 700        | 2 300  | 16.9  |
| -8.0   | *5 300              | 5 000       | *4 300 | 3 800  | *3 400 | 3 100  |        |        |        |        | *2 600 | *2 600        | 15.7   |       |
| -10.0  | *4 400              | *4 400      | *3 500 | *3 500 | *2 600 | *2 600 |        |        |        |        | *2 400 | *2 400        | 14.2   |       |

# EQUIPMENT

## ZX470LCH-5B TYPE 14 / TYPE 16 / TYPE 20 SUPER LONG FRONT

● ..... Standard equipment    ○ ..... Optional equipment

### ENGINE

|  |   |
|--|---|
| Auto idle system   | ● |
| Cartridge-type engine oil filter   | ● |
| Dry-type air double filter with evacuator valve (with air filter restriction switch for monitor) | ● |
| Fan guard  | ● |
| Fuel main filter   | ● |
| Fuel pre-filter  | ● |
| Isolation-mounted engine   | ● |
| Power mode control [H/P (High Power) PWR (Power) ECO (Economy) ]                                 | ● |
| Pre-cleaner  | ○ |
| Radiator, oil cooler and intercooler with dust protective net                                    | ● |
| Radiator reserve tank  | ● |
| 50 A alternator  | ● |

### HYDRAULIC SYSTEM

|  |   |
|--|---|
| Accessories for breaker                | ○ |
| Accessories for breaker & crusher      | ○ |
| Accessories for 2 speed selector       | ○ |
| Auto power lift                        | ● |
| Boom mode selector system              | ● |
| Control valve with main relief valve   | ● |
| Drain filter                           | ● |
| Engine speed sensing system            | ● |
| E-P control system                     | ● |
| Extra port for control valve           | ● |
| Full-flow filter                       | ● |
| Hose rupture valve                     | ○ |
| Pilot filter                           | ● |
| Power boost                            | ● |
| Quick warm-up system for pilot circuit | ● |
| Shockless valve in pilot circuit       | ● |
| Suction filter                         | ● |
| Work mode selector                     | ● |

### CAB

|   |   |
|---|---|
| Additional fuse box   | ● |
| Adjustable armrests   | ● |
| All-weather sound suppressed steel cab  | ● |
| AM-FM radio   | ● |
| Ashtray   | ● |
| Auto control air conditioner  | ● |
| Auto-idle selector  | ● |
| AUX. terminal and storage   | ● |
| Cab : ROPS for excavators compliant cab (TYPE 14) OPG top guard Level I (ISO 10262) compliant cab (TYPE 16 & TYPE 20) | ● |
| Laminated round glass (green color) front window  | ● |
| Front window on upper, lower and left side can be opened  | ● |
| OPG top guard fitted Level II (ISO10262)  | ○ |
| OPG front guard fitted Level II (ISO10262)  | ○ |
| Drink holder  | ● |
| Engine shut-off switch  | ● |
| Electric double horn  | ● |
| Evacuation hammer   | ● |
| Floor mat   | ● |
| Footrest  | ● |
| Front window washer   | ● |
| Glove compartment   | ● |
| Hot & cool box  | ● |
| Intermittent windshield wiper   | ● |
| LED room light with door courtesy   | ● |
| Pilot control shut-off lever  | ● |
| Rain guard for cab  | ○ |
| Retractable seat belt   | ● |
| Rubber radio antenna  | ● |
| Seat: Adjustable reclining air suspension with heater   | ● |
| Short wrist control levers  | ● |
| Storage box   | ● |
| Sun visor (front)   | ○ |
| Sun visor (side)  | ○ |
| Transparent roof with slide curtain   | ● |
| 2 speaker   | ● |
| 6 fluid-filled elastic mounts   | ● |
| 12 V power outlet   | ○ |
| 24 V cigarette lighter  | ● |

### MONITOR SYSTEM

|   |   |
|---|---|
| Alarm buzzers: overheat, engine oil pressure, overload  | ● |
| Alarms: overheat, engine warning, engine oil pressure, alternator, minimum fuel level, air filter restriction, work mode, overload, etc | ● |
| Display of meters: water temperature, hour, fuel rate, clock  | ● |
| Other displays: work mode, auto-idle, glow, rearview monitor, operating conditions etc  | ● |

### LIGHTS

|   |   |
|---|---|
| 2 cab lights                                | ○ |
| 4 cab lights                                | ○ |
| 2 working lights                            | ● |
| Additional working lights (boom right side) | ○ |

### UPPER STRUCTURE

|   |   |
|---|---|
| Electric fuel refilling pump with auto stop | ● |
| Electrical grease pump with hose-reel       | ● |
| Fuel level float                            | ● |
| Hydraulic oil level gauge                   | ● |
| Ladder                                      | ● |
| Rear view camera                            | ● |
| Rear view mirror (right & left side)        | ● |
| Sidewalk (cab side)                         | ● |
| Swing parking brake                         | ● |
| Tool box                                    | ● |
| Utility space                               | ● |
| 170 Ah batteries                            | ● |
| 4.5 mm thickness undercover                 | ● |

### UNDERCARRIAGE

|                                       |   |
|---------------------------------------|---|
| Bolt-on sprocket                      | ● |
| Full track guard                      | ○ |
| Hydraulic track adjuster              | ● |
| Idler track adjuster                  | ● |
| Reinforced track links with pin seals | ● |
| Shoes :                               |   |
| TYPE 14                               |   |
| 600 mm triple grouser shoes           | ● |
| 750 mm triple grouser shoes           | ○ |
| 900 mm triple grouser shoes           | ○ |
| TYPE 16                               |   |
| 750 mm triple grouser shoes           | ● |
| 900 mm triple grouser shoes           | ○ |
| TYPE 20                               |   |
| 750 mm triple grouser shoes           | ● |
| 900 mm triple grouser shoes           | ○ |

|                           |   |
|---------------------------|---|
| Travel motor covers       | ● |
| Travel parking brake      | ● |
| Track undercover          | ○ |
| Upper and lower rollers   | ● |
| 2 track guard (each side) | ● |

### FRONT ATTACHMENTS

|   |   |
|---|---|
| Centralized lubrication system          | ● |
| Damage prevention plate and square bars | ● |
| Dirt seal on all bucket pins            | ● |
| Flanged pin                             | ● |
| Monolithically cast bucket link A       | ● |

### MISCELLANEOUS

|                                      |   |
|--------------------------------------|---|
| Anti-slip steps and handrails        | ● |
| Global e-Service                     | ● |
| Lockable fuel refilling cap          | ● |
| Lockable machine covers              | ● |
| Onboard information controller       | ● |
| Standard tool kit                    | ● |
| Theft deterrent system*              | ○ |
| Travel direction mark on track frame | ● |

\* Hitachi Construction Machinery cannot be held liable for theft, any system will just minimize the risk of theft.



**Built on the foundation of superb technological capabilities, Hitachi Construction Machinery is committed to providing leading-edge solutions and services to contribute as a reliable partner to the business of customers worldwide.**

## Hitachi Environmental Vision 2025

The Hitachi Group released the Environmental Vision 2025 to curb annual carbon dioxide emissions. The Group is committed to global production while reducing environmental impact in life cycles of all products, and realizing a sustainable society by tackling three goals — prevention of global warming, recycling of resources, and enhancement of ecosystem.

### Reducing Environmental Impact by New ZAXIS

Hitachi makes a green way to cut carbon emissions for global warming prevention according to LCA\*. New ZAXIS utilizes lots of technological advances, including the new ECO mode, and Isochronous Control. Hitachi has long been committed to recycling of components, such as aluminum parts in radiators and oil cooler. Resin parts are marked for recycling.

\*Life Cycle Assessment – ISO 14040

Prior to operating this machine, including communication system, in a country other than a country of its intended use, it may be necessary to make modifications to it so that it complies with the local regulatory standards (including safety standards) and legal requirements of that particular country. Please do not export or operate this machine outside the country of its intended use until such compliance has been confirmed. Please contact your Hitachi dealer in case of questions about compliance. These specifications are subject to change without notice.

Illustrations and photos show the standard models, and may or may not include optional equipment, accessories, customer installed and modified parts, optional parts and all standard equipment with some differences in color and features. Before use, read and understand the Operator's Manual for proper operation.



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