

## Slew System

|                   |                                                        |
|-------------------|--------------------------------------------------------|
| Slew circle       | Single row shear-type ball bearings with internal gear |
| Boom swing, right | 60.00                                                  |
| Boom swing, left  | 80.00                                                  |
| Slew drive        | Orbit motor, direct drive                              |

## Hydraulic Cylinders

|                               |             |
|-------------------------------|-------------|
| Boom swing cylinder rod       | 32.00 mmMM  |
| Boom cylinder stroke          | 445.00 mmMM |
| Undercarriage cylinder rod    | 12 mmMM     |
| Undercarriage cylinder stroke | 390.00 mmMM |
| Dipperstick cylinder bore     | 60.00 mmMM  |
| Undercarriage cylinder bore   | 45.00 mmMM  |
| Dipperstick cylinder stroke   | 425.00 mmMM |
| Boom swing cylinder stroke    | 411.00 mmMM |
| Dipperstick cylinder rod      | 38.00 mmMM  |
| Boom cylinder bore            | 75.00 mmMM  |
| Bucket cylinder rod           | 40.00 mmMM  |
| Blade cylinder bore           | 70.00 mmMM  |
| Bucket cylinder bore          | 60.00 mmMM  |
| Boom cylinder rod             | 40.00 mmMM  |
| Boom swing cylinder bore      | 60.00 mmMM  |
| Bucket cylinder stroke        | 316.00 mmMM |
| Blade cylinder rod            | 40.00 mmMM  |
| Blade cylinder stroke         | 108.00 mmMM |

## Performance

|                                       |          |
|---------------------------------------|----------|
| Drawbar pull                          | 18965.00 |
| Ground pressure with rubber tracks    | 27.70KPA |
| Digging force, bucket (ISO 6015)      | 14550.00 |
| Digging force, dipperstick (ISO 6015) | 11920.00 |

## Cycle Times

|                            |      |
|----------------------------|------|
| Bucket curl time           | 2.20 |
| Boom swing left time       | 6.50 |
| Undercarriage retract time | 3.40 |
| Blade lower time           | 2.50 |
| Blade raise time           | 2.10 |
| Boom raise time            | 4.50 |
| Boom lower time            | 3.60 |
| Undercarriage expand time  | 4.70 |
| Boom swing right time      | 7.20 |
| Dipperstick extend time    | 2.30 |
| Bucket dump time           | 1.50 |
| Dipperstick retract time   | 2.70 |

## Hydraulic System

|                              |                                                 |
|------------------------------|-------------------------------------------------|
| Control valve                | 9 spool, parallel series type, close center     |
| Pump type                    | Single outlet variable displacement piston pump |
| Auxiliary relief             | 180.0 bar                                       |
| Auxiliary flow               | 30.00                                           |
| System Relief                | 230                                             |
| Main hydraulic filter bypass | 3.40BAR                                         |
| Pump capacity @ 2200 rpm     | 44.00                                           |

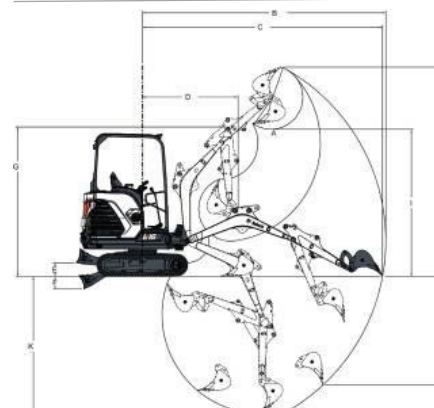
## Drive System

|                 |                                                        |
|-----------------|--------------------------------------------------------|
| Travel motor    | Each track is driven by a hydraulic axial piston motor |
| Drive reduction | 29.83 : 1 - two stage planetary                        |
| Gradeability    | 30.00                                                  |

## Traction

|                                  |                                                          |
|----------------------------------|----------------------------------------------------------|
| Travel speed, high range         | 4.00                                                     |
| Travel speed, low range          | 2.00                                                     |
| Number of track rollers per side | 3                                                        |
| Track type, standard             | Half-pitch, rubber                                       |
| Track adjusters                  | Grease type adjusters, rubber                            |
| Undercarriage                    | Sealed track rollers with box section track roller frame |

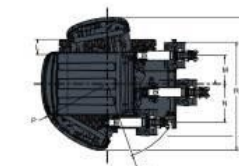
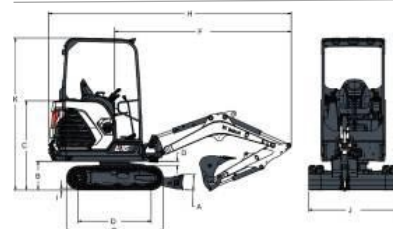
## Working range



Boom length (boom pivot to arm pivot)

|                   |                   |
|-------------------|-------------------|
| (A) 210.00        | (F) 204.00 mm MM  |
| (B) 3948.00 MM    | (F*) 254.00 MM    |
| (C) 3894.00 MM    | (G) 2429.00 mm MM |
| (D) 1549.00 mm MM | (H) 3400.00 mm MM |
| (E) 220.00 MM     | (J) 1762.00 mm MM |
| (E*) 300.00 MM    | (K) 2230.00 MM    |

## Dimensions



Boom length (boom pivot to arm pivot)

|                  |                   |
|------------------|-------------------|
| (A) 235.00 mm MM | (J*) 1360.00 MM   |
| (B) 443.00 mm MM | (K) 2321.00 MM    |
| (C) 1364.00 MM   | (L) 230.00 MM     |
| (D) 1114.00 MM   | (M) 433.00 MM     |
| (E) 1046.00 MM   | (N) 589.00 MM     |
| (F) 2696.00 MM   | (O) 1156.00 MM    |
| (G) 1476.00 MM   | (P) 1034.00 mm MM |
| (H) 3704.00 MM   | (Q) 1806.00 MM    |
| (I) 22.00 MM     | (R) 1652.00 MM    |
| (J) 980.00 MM    | (I) 2391.00 mm MM |

| Brakes        |                                   |
|---------------|-----------------------------------|
| Parking brake | Hydraulic lock on motor           |
| Travel brake  | Hydraulic lock on motor           |
| Slew brake    | Spring applied, pressure released |

### Fluid Capacities

|                                   |         |
|-----------------------------------|---------|
| Cooling system with heater        | 4.15 IL |
| Final drive case (each)           | 0.40L   |
| Fuel tank                         | 21.2 IL |
| Cooling system without heater     | 3.5 IL  |
| Engine oil with filter            | 2.5 IL  |
| Hydraulic / Hydrostatic reservoir | 14.30L  |

### Fluid Specifications

|                                                |                                                                                                |
|------------------------------------------------|------------------------------------------------------------------------------------------------|
| Engine oil                                     | Oil must meet API Service Classification of CD, CF, CF4,                                       |
| CI4, or better. Recommended SAE                | viscosity number for                                                                           |
| anticipated temperature                        | range.                                                                                         |
| * Can be used only when available with         | appropriate diesel rating. For synthetic oil use the recommendation from the oil manufacturer. |
| Hydraulic fluid                                | Motor oil is not an acceptable alternative fluid                                               |
| Bobcat Bio Hydraulic, 5 L can - 6904843A, 25 L | ·                                                                                              |
|                                                | container - 6904843B, 209 L drum - 6904843C, 1000 L tank - 6904843D                            |
| Bobcat Superior SH, 5 L can -                  | 6904842A, 25 L container - 6904842B, 209 L drum - 6904842C, 1000 L tank - 6904842D             |
| Engine coolant                                 | 5 L can - 6904844A, 25 L container - 6904844B, 209 L drum - 6904844C, 1000 L tank - 6904844D   |
|                                                | Propylene glycol/water mix (53% - 47%) with freeze protection to -37°C                         |

### Controls

|                                                   |                                                                          |
|---------------------------------------------------|--------------------------------------------------------------------------|
| Steering                                          | Direction and speed controlled by two hand levers or foot pedals         |
| Boom swing                                        | Right foot pedal                                                         |
| Hydraulics                                        | Two joysticks control boom, bucket, dipperstick and upper structure slew |
| Auxiliary hydraulics                              | Left-hand foot pedal                                                     |
| Upper structure slew lock for holding and service | Hydraulic lock on motor                                                  |
| Blade                                             | Right hand lever                                                         |
| Holding brake for upper structure slew            | Spring applied, pressure released                                        |
| Starting                                          | Key-type starter switch and shutdown                                     |
| Engine                                            | Hand lever on right hand side                                            |

### Environmental

|                                          |       |
|------------------------------------------|-------|
| Whole body vibration (ISO 2631-1)        | 0.33  |
| Noise level LWA(EU Directive 2000/14/EC) | 93.00 |
| Hand-arm vibration (ISO 5349–1)          | 0.68  |
| Noise level LpA(EU Directive 2006/42/EC) | 80.00 |

### Safety

|                                    |                                                                                                                                                                                                                                                                          |
|------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Safety tread, standard             | Slip resistant tread on canopy threshold to be used when entering/exiting excavator.                                                                                                                                                                                     |
| Retractable seat belt, standard    | Should always be worn when operating the excavator                                                                                                                                                                                                                       |
| Control lockout, standard          | Operator console locks out work group and travel functions when in the upright position.                                                                                                                                                                                 |
| Grab handles, standard             | Should always be used when entering/exiting excavator.                                                                                                                                                                                                                   |
| Front working lights, standard     | Use for indoor and low light operation.                                                                                                                                                                                                                                  |
| Upper carriage slew lock, standard | An automatic disc brake locks the upper structure to the undercarriage for transport.                                                                                                                                                                                    |
| Operator cab, standard             | A four-post canopy or optional closed cab. Roll Over Protective Structure (ROPS) – Meets requirements of ISO 3471. Tip Over Protective Structure (TOPS) – Meets requirements of ISO 12117 . Falling Object Protective Structure (FOPS) - Meets requirements of ISO 3449. |
| Special applications kit, optional | Restricts objects and material from entering cab openings.                                                                                                                                                                                                               |
| Pedal lock, standard               | Prevents activation of the boom swing function.                                                                                                                                                                                                                          |
| Travel motion alarm, optional      | For use when required                                                                                                                                                                                                                                                    |

### Electrical

|            |                                                                                |
|------------|--------------------------------------------------------------------------------|
| Battery    | 12 V negative ground - 500 A cold cranking at -18 °C - 90 min reserve capacity |
| Alternator | 12 V - 40 A open frame with internal regulator                                 |
| Starter    | 12 V positive shift drive 1.4 kW (1.88 hp)                                     |

Engine

|                                       |                                      |
|---------------------------------------|--------------------------------------|
| Maximum torque @ 1600 rpm (SAE J1995) | 49.80                                |
| Number of Cylinders                   | 3                                    |
| Bore                                  | 70.00 mmMM                           |
| Glow plug resistance                  |                                      |
| Air filter                            | Dual dry replaceable paper cartridge |
| Fuel filter                           |                                      |
| Ignition                              | Diesel compression                   |
| Compliance                            | Stage V (V)                          |
| Cooling                               | Liquid, forced circulation           |
| Make / Model                          | YANMAR / 3TNV70-SBC1                 |
| Maximum power @ 2200 rpm (ISO 14396)  | 10.10KW                              |
| Displacement                          | 0.854                                |
| Fuel                                  | Ultra low sulfur diesel              |
| Stroke                                | 74.00 mmMM                           |

Weights

|                                        |           |
|----------------------------------------|-----------|
| Additional weight for cab with heating | 99        |
| Additional weight for suspension seat  | 14 kgKG   |
| Weight reduction with standard seat    | -8 kgKG   |
| Additional weight for long blade       | 12 kgKG   |
| Operating Weight                       | 1612 kgKG |
| Shipping Weight                        | 1495 kgKG |

Package options

Options

|                                                                                                                                                                                                      |                                                                                                                                                                                                                                                                                                                                                                    |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <ul style="list-style-type: none"><li>• Additional LED work lights</li><li>• Auto idle</li><li>• AUX1 on arm</li><li>• Bucket valves (AUX3) kit</li></ul>                                            | <ul style="list-style-type: none"><li>• AM/FM/DAB radio + phone call ready</li><li>• AUX1 direct return to tank</li><li>• Beacon</li><li>• Demolition package (boom, arm, bucket cylinder covers &amp; HD travel hoses guard)</li><li>• Hydr. coupler lines (AUX5)</li><li>• L/R mirrors</li><li>• Special application kit</li><li>• Travel motion alarm</li></ul> |
| <ul style="list-style-type: none"><li>• Grease gun w/ holder</li><li>• Keyless ignition</li><li>• Long dozer blade</li><li>• TOPS/ROPS cab w/ heater</li><li>• Dlx textile suspension seat</li></ul> |                                                                                                                                                                                                                                                                                                                                                                    |

Instrumentation

|                                                                                                                                                                                                                                                   |                                                                                                                                                                                                                                                       |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>LCD display</p> <ul style="list-style-type: none"><li>• Job clock</li><li>• Battery voltage</li><li>• Service codes</li></ul>                                                                                                                  | <ul style="list-style-type: none"><li>• Hour meter</li><li>• Engine RPM</li><li>• Service reminder</li><li>• Engine pre-heat and countdown for glow plugs (time depends on engine coolant temperature)</li></ul>                                      |
| <p>Gauges</p> <ul style="list-style-type: none"><li>• Engine coolant temperature</li><li>• High travel speed indicator</li><li>• Left console lockout</li><li>• General warning</li><li>• Hydraulic system malfunction</li><li>• Lights</li></ul> | <p>Indicators</p> <ul style="list-style-type: none"><li>• Seat belt</li></ul> <p>Warning lights</p> <ul style="list-style-type: none"><li>• Engine malfunction</li></ul> <p>Buttons</p> <ul style="list-style-type: none"><li>• Information</li></ul> |
| <p>Left hand console</p> <ul style="list-style-type: none"><li>• Retractable undercarriage switch</li><li>• Overload warning device switch (optional)</li></ul>                                                                                   | <ul style="list-style-type: none"><li>• Windshield wiper/washer switch (optional)</li><li>• Beacon / strobe switch (optional)</li></ul>                                                                                                               |

Serviceability

|                                                                                                                                                                                                                                             |                                                                                                                                                                                                                                 |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Fuel filler is external and has key lock for vandal proofing                                                                                                                                                                                | Access is available to the following through the rear tailgate or side access hood: <ul style="list-style-type: none"><li>• Battery</li></ul>                                                                                   |
| <ul style="list-style-type: none"><li>• Air cleaner with indicator</li><li>• Cooling system (engine oil and hydraulic oil coolers) for cleaning</li><li>• Engine oil level</li><li>• Starter</li><li>• Sight gauge for fuel level</li></ul> | <ul style="list-style-type: none"><li>• Engine oil and fuel filters</li><li>• Fuel filler</li><li>• Sight gauges for hydraulic level</li></ul> <p>Central grease point for swing bearing, swing pinion, and offset cylinder</p> |
| Tailgate and access cover have locks for vandal-proofing.                                                                                                                                                                                   | Easy access to all grease points.                                                                                                                                                                                               |

Attachments

|                                                                                        |                                                                                            |
|----------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------|
| <ul style="list-style-type: none"><li>• Auger Accessories</li><li>• Breakers</li></ul> | <ul style="list-style-type: none"><li>• Augers</li><li>• Clayspade Buckets, Klac</li></ul> |
|----------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------|

- Clayspade Buckets, Pin-on
- Digging Buckets, German Profile
- Digging Buckets, Pin-on
- Grading Buckets, Klac
- Laser Equipment
- Skeleton Bucket, Pin-On
- Tilt Buckets, Klac
- Tilt Buckets, SW

- Clayspade Buckets, SW
- Digging Buckets, Klac
- Grading Buckets, German Type
- Klac
- Skeleton Bucket, Klac
- Skeleton Bucket, SW
- Tilt Buckets, Pin-on

### Standard Features

- |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <ul style="list-style-type: none"> <li>• 230 mm rubber track</li> <li>• Adjustable double acting auxiliary hydraulic (AUX1) with Quick Couplers</li> <li>• Clamp ready</li> <li>• Cupholders</li> <li>• Engine monitor with auto shutdown</li> <li>• Full fuel warning alarm</li> <li>• Hydraulic and travel control lockout</li> <li>• Hydraulically retractable undercarriage from 1360 mm to 980 mm</li> <li>• Machine IQ (telematic)</li> <li>• Retractable seat belt</li> <li>• TOPS/ROPS/FOPS canopy</li> <li>• Two speed travel</li> <li>• Water separator</li> </ul> | <ul style="list-style-type: none"> <li>• 980 mm dozer blade with two 190 mm blade extensions</li> <li>• Battery disconnect switch</li> <li>• Control console locks</li> <li>• Dual Direction Detent</li> <li>• Foldable and ergonomic travel pedals</li> <li>• Horn</li> <li>• Hydraulic joystick controls</li> <li>• LED Work light</li> <li>• Proportional fingertip auxiliary and boom swing offset hydraulic control</li> <li>• Storage compartment</li> <li>• Roll Over Protective Structure (ROPS) – Meets requirements of ISO 3471. Tip Over Protective Structure (TOPS) – Meets requirements of ISO 12117 . Falling Object Protective Structure (FOPS) - Meets requirements of ISO 3449.</li> <li>• Upper structure four point tie down</li> <li>• Warranty: 24 months, 2000 hours (whichever occurs first)</li> </ul> |
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