



# Cat<sup>®</sup> 430F/430F IT

## BACKHOE LOADER

### FEATURES:

- **Operator Station** – Air suspension seat and ergonomic joystick controls provide a comfortable working environment.
- **Load Sensing Hydraulics** – Electronic pump control provides better pump response for improved hoe and loader productivity, performance and power management.
- **Service Access** – Fully opening engine hood and hinged cooling pack allow easy access for fluid checks and grouped fill points provide one position to check all fluids.
- **Loader Performance** – New front loader arms deliver more reach, dump height and breakout.
- **Backhoe Design** – New beefier swing casting and double clevis design improves durability and reliability.
- **Versatility** – A wide array of Cat<sup>®</sup> Work Tools lets you do more jobs with one machine. A hydraulic thumb is also available. The hydraulic coupler makes work tool changes quick and easy.

## Specifications

### Engine

|                             |  |                     |
|-----------------------------|--|---------------------|
| Engine Model                | Cat <sup>®</sup> 3054C (Mechanical Turbocharged) |                     |
| Gross Power                 |  |                     |
| SAE J1995                   | 75 kW  | 101 hp              |
| ISO 14396                   | 74 kW  | 99 hp               |
| Rated Net Power @ 2,200 rpm |  |                     |
| SAE J1349                   | 70 kW  | 94 hp               |
| ISO 9249                    | 71 kW  | 95 hp               |
| EEC 80/1269                 | 71 kW  | 95 hp               |
| Net Peak Power @ 1,800 rpm  |  |                     |
| SAE J1349                   | 70 kW  | 94 hp               |
| ISO 9249                    | 71 kW  | 95 hp               |
| EEC 80/1269                 | 71 kW  | 95 hp               |
| Bore                        | 105 mm   | 4.13 in             |
| Stroke                      | 127 mm   | 5 in                |
| Displacement                | 4.4 L  | 268 in <sup>3</sup> |
| Net Torque Rise @ 1,400 rpm | 31%  |                     |
| SAE J1349                   | 397 N-m  | 293 lb-ft           |

### Weights\*

|   |           |           |
|---|-----------|-----------|
| Operating Weight – Nominal  | 7125 kg   | 15,708 lb |
| Operating Weight – Maximum  | 11 000 kg | 24,251 lb |
| Cab, ROPS/FOPS  | 184 kg    | 406 lb    |
| AutoShift Transmission  | 197 kg    | 434 lb    |
| Ride Control  | 160 kg    | 353 lb    |
| Air Conditioning  | 55 kg     | 121 lb    |
| Four Wheel Drive  | 54 kg     | 119 lb    |
| MP Bucket (0.96 m <sup>3</sup> /1.25 yd <sup>3</sup> )<br>(no forks or teeth) | 745 kg    | 1,642 lb  |
| Loader, IT with Quick Coupler   | 197 kg    | 434 lb    |
| Extendible Stick  | 301 kg    | 664 lb    |
| Counterweights (Option 1)   | 115 kg    | 255 lb    |
| Counterweights (Option 2)   | 240 kg    | 530 lb    |
| Counterweights (Option 3)   | 460 kg    | 1,015 lb  |

\*Specifications shown are for machine equipped with 1.0 m<sup>3</sup> (1.31 yd<sup>3</sup>) general purpose loader bucket, 610 mm (24 in) heavy duty backhoe bucket, 240 kg (530 lb) counterweight, 80 kg (176 lb) operator and full fuel tank.



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## Transmission

### Power Shuttle Transmission – Standard

|               |          |         |
|---------------|----------|---------|
| Forward – 1st | 6 km/h   | 3.7 mph |
| 2nd           | 9.6 km/h | 5.9 mph |
| 3rd           | 20 km/h  | 12 mph  |
| 4th           | 40 km/h  | 25 mph  |
| Reverse – 1st | 6 km/h   | 3.7 mph |
| 2nd           | 9.6 km/h | 5.9 mph |
| 3rd           | 20 km/h  | 12 mph  |
| 4th           | 40 km/h  | 25 mph  |

### AutoShift Transmission – Optional

|               |          |         |
|---------------|----------|---------|
| Forward – 1st | 5.9 km/h | 3.7 mph |
| 2nd           | 10 km/h  | 5.9 mph |
| 3rd           | 20 km/h  | 12 mph  |
| 4th           | 27 km/h  | 17 mph  |
| 5th           | 42 km/h  | 26 mph  |
| Reverse – 1st | 5.9 km/h | 3.7 mph |
| 2nd           | 13 km/h  | 7.8 mph |
| 3rd           | 27 km/h  | 17 mph  |

## Axle Ratings

### Front Axle, 2WD

|         |           |           |
|---------|-----------|-----------|
| Static  | 22 964 kg | 50,582 lb |
| Dynamic | 9186 kg   | 20,233 lb |

### Front Axle, 4WD

|         |           |           |
|---------|-----------|-----------|
| Static  | 22 964 kg | 50,582 lb |
| Dynamic | 9186 kg   | 20,233 lb |

### Rear Axle

|         |           |           |
|---------|-----------|-----------|
| Static  | 22 964 kg | 50,582 lb |
| Dynamic | 9186 kg   | 20,233 lb |

## Hydraulic System

|                           |                             |            |
|---------------------------|-----------------------------|------------|
| Type                      | Closed Center               |            |
| Pump Type                 | Variable Flow, Axial Piston |            |
| Pump Capacity @ 2,200 rpm | 163 L/min                   | 43 gal/min |
| System Pressure – Backhoe | 25 000 kPa                  | 3,600 psi  |
| System Pressure – Loader  | 25 000 kPa                  | 3,600 psi  |

## Steering

|   |             |        |
|---|-------------|--------|
| Type  | Front Wheel |        |
| Power Steering                                    | Hydrostatic |        |
| Bore  | 65 mm       | 2.6 in |
| Stroke  | 120 mm      | 4.7 in |
| Rod Diameter                                      | 36 mm       | 1.4 in |
| Axle Oscillation                                  | 11°         |        |
| Turning Circle – 2WD/4WD (inner wheel not braked) |             |        |
| Outside, Front Wheels                             | 8.18 m      | 26'10" |
| Outside, Widest Loading Bucket                    | 10.97 m     | 36'0"  |

## Service Refill Capacities

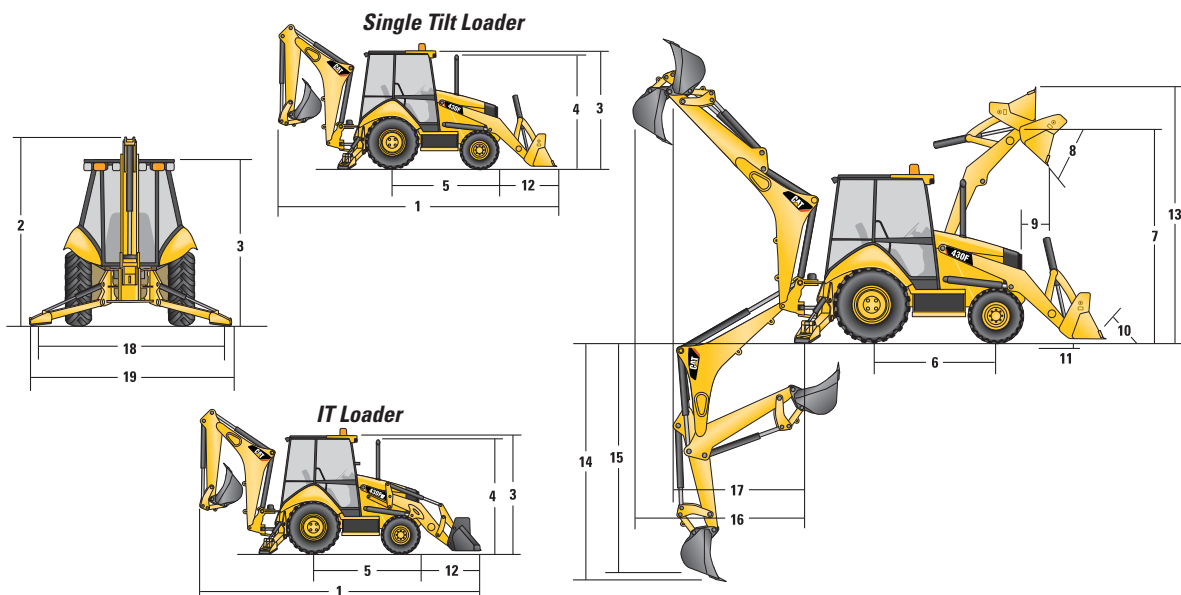
|                                      |        |          |
|--------------------------------------|--------|----------|
| Cooling System with Air Conditioning | 22 L   | 5.8 gal  |
| Fuel Tank                            | 170 L  | 45 gal   |
| Engine Oil with Filter               | 7.6 L  | 2.0 gal  |
| Transmission – Power Shuttle         |        |          |
| 4WD                                  | 18.5 L | 4.9 gal  |
| Transmission – AutoShift             |        |          |
| 4WD                                  | 19.0 L | 5.0 gal  |
| Rear Axle                            | 16.5 L | 4.4 gal  |
| Planetaries                          | 1.7 L  | 0.4 gal  |
| Front Axle (4WD)                     | 11.0 L | 2.9 gal  |
| Planetaries                          | 0.7 L  | 0.2 gal  |
| Hydraulic System                     | 95.0 L | 25.1 gal |
| Hydraulic Tank                       | 42.0 L | 11.1 gal |

- Requires ultra-low sulfur fuel  $\leq$  15 ppm fuel sulfur

## Tires

Choices listed as combination of front/rear tires:

- 12.5/80-18 (12 ply) 1-3/19.5L-24 (12 ply) ATU
- 12.5/80-18 NHS (12 ply) 1-3/21L-24 (16 ply) R4 ATU
- 340/80R 18/19.5L-24 (12 ply) R4 ATU
- 340/80R 18/500/70R 24 RT



# 430F/430F IT Backhoe Loader

## Dimensions

|  | Single Tilt Loader                                       |        |  |        | IT Loader with Quick Coupler                             |        |  |        |
|--|--|--------|--|--------|--|--------|--|--------|
|  | 0.96 m <sup>3</sup> (1.25 yd <sup>3</sup> )<br>GP Bucket |        | 1.00 m <sup>3</sup> (1.31 yd <sup>3</sup> )<br>MP Bucket |        | 0.96 m <sup>3</sup> (1.25 yd <sup>3</sup> )<br>GP Bucket |        | 1.00 m <sup>3</sup> (1.31 yd <sup>3</sup> )<br>MP Bucket |        |
| 1 Overall Length (Loader on Ground) – Standard Stick | 7282 mm  | 23'11" | 7200 mm  | 23'7"  | 7430 mm  | 24'5"  | 7338 mm  | 24'1"  |
| Overall Length (Loader on Ground) – Extendible Stick | 7298 mm  | 23'11" | 7216 mm  | 23'8"  | 7446 mm  | 24'5"  | 7354 mm  | 24'2"  |
| Overall Transport Length – Standard Stick            | 7310 mm  | 24'0"  | 7274 mm  | 23'10" | 7423 mm  | 24'4"  | 7352 mm  | 24'1"  |
| Overall Transport Length – Extendible Stick          | 7327 mm  | 24'0"  | 7290 mm  | 23'11" | 7440 mm  | 24'5"  | 7369 mm  | 24'2"  |
| 2 Overall Transport Height – Standard Stick          | 3577 mm  | 11'9"  | 3577 mm  | 11'9"  | 3577 mm  | 11'9"  | 3577 mm  | 11'9"  |
| Overall Transport Height – Extendible Stick          | 3631 mm  | 11'11" | 3631 mm  | 11'11" | 3631 mm  | 11'11" | 3631 mm  | 11'11" |
| Overall Width  | 2322 mm  | 7'7"   | 2322 mm  | 7'7"   | 2322 mm  | 7'7"   | 2322 mm  | 7'7"   |
| 3 Height to Top of Cab/Canopy                        | 2819 mm  | 9'3"   | 2819 mm  | 9'3"   | 2819 mm  | 9'3"   | 2819 mm  | 9'3"   |
| 4 Height to Top of Exhaust Stack                     | 2744 mm  | 9'0"   | 2744 mm  | 9'0"   | 2744 mm  | 9'0"   | 2744 mm  | 9'0"   |
| Height to Loader Hinge Pin (Transport)               | 381 mm   | 1'3"   | 432 mm   | 1'5"   | 396 mm   | 1'4"   | 386 mm   | 1'3"   |
| Ground Clearance (minimum)                           | 320 mm   | 1'1"   | 320 mm   | 1'1"   | 320 mm   | 1'1"   | 320 mm   | 1'1"   |
| 5 Rear Axle Centerline to Front Grill                | 2705 mm  | 8'10"  | 2705 mm  | 8'10"  | 2705 mm  | 8'10"  | 2705 mm  | 8'10"  |
| Front Wheel Tread Gauge                              | 1895 mm  | 6'3"   | 1895 mm  | 6'3"   | 1895 mm  | 6'3"   | 1895 mm  | 6'3"   |
| Rear Wheel Tread Gauge                               | 1714 mm  | 5'7"   | 1714 mm  | 5'7"   | 1714 mm  | 5'7"   | 1714 mm  | 5'7"   |
| 6 Wheelbase 2WD/4WD                                  | 2200 mm  | 7'3"   | 2200 mm  | 7'3"   | 2200 mm  | 7'3"   | 2200 mm  | 7'3"   |

## Loader Bucket Dimensions and Performance

|   | Single Tilt Loader                                       |                      |  |                      | IT Loader with Quick Coupler                             |                      |  |                      |
|---|--|----------------------|--|----------------------|--|----------------------|--|----------------------|
|   | 0.96 m <sup>3</sup> (1.25 yd <sup>3</sup> )<br>GP Bucket |                      | 1.00 m <sup>3</sup> (1.31 yd <sup>3</sup> )<br>MP Bucket |                      | 0.96 m <sup>3</sup> (1.25 yd <sup>3</sup> )<br>GP Bucket |                      | 1.00 m <sup>3</sup> (1.31 yd <sup>3</sup> )<br>MP Bucket |                      |
| Capacity (SAE Rated)                            | 0.96 m <sup>3</sup>                                      | 1.25 yd <sup>3</sup> | 1.0 m <sup>3</sup>                                       | 1.31 yd <sup>3</sup> | 0.96 m <sup>3</sup>                                      | 1.25 yd <sup>3</sup> | 1.0 m <sup>3</sup>                                       | 1.31 yd <sup>3</sup> |
| Overall Bucket Width                            | 2262 mm  | 89 in                | 2279 mm  | 90 in                | 2262 mm  | 89 in                | 2279 mm  | 90 in                |
| Lift Capacity at Maximum Height                 | 3283 kg  | 7,237 lb             | 3097 kg  | 6,828 lb             | 3716 kg  | 8,193 lb             | 3448 kg  | 7,601 lb             |
| Lift Breakout Force                             | 49 809 N   | 11,197 lb            | 49 019 N   | 11,020 lb            | 51 085 N   | 11,484 lb            | 49 678 N   | 11,168 lb            |
| Tilt Breakout Force                             | 50 190 N   | 11,283 lb            | 57 555 N   | 12,938 lb            | 46 314 N   | 10,411 lb            | 50 380 N   | 11,325 lb            |
| Tipping Load at Breakout Point                  | 7228 kg  | 15,934 lb            | 7339 kg  | 16,179 lb            | 7028 kg  | 15,495 lb            | 7157 kg  | 15,779 lb            |
| 7 Maximum Hinge Pin Height                      | 3474 mm  | 11'5"                | 3474 mm  | 11'5"                | 3490 mm  | 11'5"                | 3490 mm  | 11'5"                |
| 8 Dump Angle at Full Height                     | 44°  |                      | 44°  |                      | 44°  |                      | 44°  |                      |
| Dump Height at Maximum Angle                    | 2746 mm  | 9'0"                 | 2798 mm  | 9'2"                 | 2679 mm  | 8'9"                 | 2745 mm  | 9'0"                 |
| 9 Dump Reach at Maximum Angle                   | 808 mm   | 2'8"                 | 716 mm   | 2'4"                 | 869 mm   | 2'10"                | 814 mm   | 2'8"                 |
| 10 Maximum Bucket Rollback at Ground Level      | 37°  |                      | 38°  |                      | 40°  |                      | 39°  |                      |
| 11 Digging Depth                                | 83 mm  | 3"                   | 110 mm   | 4"                   | 105 mm   | 4"                   | 95 mm  | 4"                   |
| Maximum Grading Angle                           | 112°   |                      | 116°   |                      | 110°   |                      | 112°   |                      |
| Width of Dozer Cutting Edge                     | N/A  |                      | 2262 mm  | 7'5"                 | N/A  |                      | 2262 mm  | 7'5"                 |
| 12 Grill to Bucket Cutting Edge, Carry Position | 1487 mm  | 4'11"                | 1451 mm  | 4'9"                 | 1600 mm  | 5'3"                 | 1529 mm  | 5'0"                 |
| 13 Maximum Operating Height                     | 4355 mm  | 14'3"                | 4404 mm  | 14'5"                | 4407 mm  | 14'6"                | 4480 mm  | 14'8"                |
| Jaw Opening Maximum                             | N/A  |                      | 790 mm   | 2'7"                 | N/A  |                      | 790 mm   | 2'7"                 |
| Bucket Jaw Clamping Force                       | N/A  |                      | 55 700 N   | 12,521 lb            | N/A  |                      | 55 700 N   | 12,521 lb            |
| Weight (does not include teeth or forks)        | 451 kg   | 994 lb               | 745 kg   | 1,642 lb             | 447 kg   | 985 lb               | 724 kg   | 1,596 lb             |

## Backhoe Dimensions and Performance

|   | Standard Stick |           | E-Stick Retracted |           | E-Stick Extended |           |
|---|----------------|-----------|-------------------|-----------|------------------|-----------|
| 14 Digging Depth, SAE (max.)                      | 4698 mm        | 15'5"     | 4795 mm           | 15'9"     | 5935 mm          | 19'6"     |
| 15 Digging Depth, 610 mm (2 ft) Flat Bottom       | 4660 mm        | 15'4"     | 4766 mm           | 15'8"     | 5906 mm          | 19'5"     |
| Reach from Rear Axle Centerline at Ground Line    | 7133 mm        | 23'6"     | 7227 mm           | 23'10"    | 8316 mm          | 27'5"     |
| 16 Reach from Swing Pivot at Ground Line          | 6043 mm        | 19'10"    | 6137 mm           | 20'2"     | 7226 mm          | 23'9"     |
| Maximum Operating Height                          | 6007 mm        | 19'9"     | 6075 mm           | 20'0"     | 6958 mm          | 22'11"    |
| Loading Height                                    | 3961 mm        | 13'0"     | 3921 mm           | 12'10"    | 4533 mm          | 14'10"    |
| 17 Loading Reach                                  | 1855 mm        | 6'1"      | 2022 mm           | 6'8"      | 3003 mm          | 9'10"     |
| Swing Arc   | 180°           |           | 180°              |           | 180°             |           |
| Bucket Rotation                                   | 205°           |           | 205°              |           | 205°             |           |
| 18 Stabilizer Spread, Operating Position (center) | 3310 mm        | 10'10"    | 3310 mm           | 10'10"    | 3310 mm          | 10'10"    |
| Stabilizer Spread, Operating Position (outside)   | 3770 mm        | 12'4"     | 3770 mm           | 12'4"     | 3770 mm          | 12'4"     |
| Stabilizer Spread, Transport Position             | 2322 mm        | 7'7"      | 2322 mm           | 7'7"      | 2322 mm          | 7'7"      |
| Bucket Dig Force                                  | 71 864 N       | 16,156 lb | 70 870 N          | 15,932 lb | 70 870 N         | 15,932 lb |
| Stick Dig Force                                   | 44 778 N       | 10,067 lb | 43 841 N          | 9,856 lb  | 32 414 N         | 7,287 lb  |

# 430F/430F IT Backhoe Loader

## STANDARD EQUIPMENT

- Air cleaner
- Alarm, back-up
- Audible system fault alarm
- Battery, maintenance-free, 880 CCA
- Battery disconnect switch
- Battery remote jumpstart
- Boom transport lock
- Brace, lift cylinder
- Brake, secondary parking
- Brakes, hydraulically boosted, oil disc, dual pedals, interlocking
- Bucket level indicator
- Canopy, ROPS/FOPS
- Cat cushion swing system
- Coat hook
- Coolant/antifreeze, extended life
- Counterweight, bumper
- Dome light (cab only)
- Diagnostic port for machine Electronic Control Module
- Differential lock
- Engine, Cat 3054C (Direct Injection Turbocharged), meets U.S. EPA Tier 2/ EU Stage II emission standards
- Engine enclosure
- Face seals, O-ring
- Fan, suction and guard
- Fast reversing shuttle, all gears
- Fenders, rear
- Filters, spin-on: fuel, engine oil, transmission oil, water separator
- Filters, bowl and cartridge: hydraulic fluid
- Flashing hazards/signal lights
- Floor mat
- Four Wheel Drive
- Fully hinged front grill for cooling package cleaning access
- Gauge Cluster:
  - Gauges: coolant temperature, fuel level, tachometer
  - LCD screen: hour meter, torque converter oil temperature (service mode only)
- Ground level fuel fill
- Guard, fuel tank bottom
- High ambient cooling package
- Hood lock
- Hydraulic hose, XT™
- Hydraulic oil cooler
- Hydraulic valve, hydrostatic steering
- Hydraulic valves, loader 2 function
- Hydraulic valves, backhoe 5 function
- Hydraulics, load sensing with variable displacement piston pump
- Indicators: air cleaner service, water separator service, engine coolant, oil pressure, hydraulic temperature, hydraulic bypass, torque converter temperature high, fuel level, charging, action lamp, wait to start
- Instrument panel lights
- Joystick controls: pilot operated, excavator-style with pattern changer
- Key start/stop system
- Lights, working (4 front, 4 rear)
- Loader, self-leveling, return-to-dig and transmission disconnect switch
- Loader, single tilt
- Lunch box and drink holder
- Mirror, rearview
- Open circuit breather
- Pattern changer, in cab
- Power receptacle, 12 volt, 2 internal, 1 external
- Power steering, hydrostatic
- Radio ready cab
- Seat belt, retractable, 51 mm (2 in)
- Stabilizer shoes, street
- Steering knob
- Seat, air suspension, fabric or vinyl cover, with armrest
- Starting system, glow plugs
- Steering, hydrostatic
- Storage compartment, external
- Storage compartment, internal
- Stop and tail lights
- Swing transport lock
- Tilt steering wheel
- Tires
- Toolbox, external, lockable
- Torque converter
- Throttle, hand and foot, mechanical
- Transmission, four speed, syncromesh
- Transmission neutralizer switch
- Transport tie-downs
- Vandalism locks
- Warning horn, electric

## OPTIONAL EQUIPMENT

- Battery, additional, 880 CCA
- Cab, deluxe
- Cab, deluxe with air conditioning
- Cold weather fuel (-30° C/-22° F)
- Cold weather package, including additional battery, engine block heater, radiator antifreeze, cold weather fuel (-30° C/-22° F) and mounting for an ether bottle
- Counterweights, 115 kg (255 lb), 240 kg (530 lb) or 460 kg (1,015 lb)
- Fenders, front with integral steps
- Fenders, rear extensions
- Guard, boom protection plate
- Guard, stabilizer, rock
- Guard, fuel tank front and rear
- Hydraulic valves, loader (3rd valve for GP, MP or Quick Coupler)
- Hydraulic valves, backhoe 6 function
- Hydraulic lines, combined function auxiliary
- Loader, IT with Quick Coupler and pilot loader control
- Product Link
- Quick Coupler, manual, dual lock
- Quick Coupler, pin lock
- Ride Control
- Rotating beacon, magnetic mount
- Seat belt, 75 mm (3 in)
- Stabilizer pads, reversible
- Stick, extendible
- Transmission, AutoShift
- Vandalism protection, gauge cover
- Work Tool Attachments such as buckets, forks, material handling arms, augers, hammers, brooms, cold planers and vibratory plate compactors. See your Cat dealer for more information.

For more complete information on Cat products, dealer services, and industry solutions, visit us on the web at [www.cat.com](http://www.cat.com)

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