

# TH220B

Telehandler



## Engine

Model	Caterpillar® 3054E	
Gross Power (Basic)	74.5 kW	99 hp
Gross Power (Premium)	92 kW	120 hp

## Weights

Operating Weight	6700 kg	14,771 lb
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## Operating Specifications

Rated Load Capacity	2500 kg	5,500 lb
Maximum Lift Height	6100 m	20 ft

# TH220B Telehandler

*Caterpillar Telehandlers offer performance and versatility.*

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## Operator Station

- ✓ Operators will feel relaxed and comfortable in the spacious, ergonomically designed cab. Considerable attention has been paid to control layout, making this cab an industry leader. **pg. 4**

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## Ease of Operation

- ✓ Ease of operation was paramount in the design of the new TH220B. The single joystick, with its intuitive, modulated, hydraulic functions and the new Cat electronic machine information display are designed to maximize operator efficiency. **pg. 5**

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## Performance

- ✓ In its size class, the TH220B combines productivity, maneuverability and responsiveness to deliver smooth and stable performance on the job site. **pg. 6**

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## Serviceability and Customer Support

- ✓ The lowest operating costs in the industry – setting new standards in serviceability. Caterpillar Dealer Services enables you to operate longer with lower costs, helped by significantly extended service intervals. **pg. 10**

*The TH220B is a highly versatile machine, designed to deliver maximum performance with traditional Cat reliability, durability and productivity in the toughest working conditions.*



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### Power Train

- ✓ The TH220B is designed to perform in the toughest conditions. With its Cat 3054E engine, that is U.S. EPA Tier 2 compliant, and purpose designed Caterpillar transmission and axles, you can depend on the TH220B to keep your job on schedule. **pg. 7**

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### Versatility

- ✓ The TH220B is a very versatile machine. With its optional hydraulic quick coupler and extensive range of work tools, you can simply and efficiently get the job done. **pg. 8**

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### Cost of Ownership

- ✓ Extended service intervals and the reduction in service parts give Cat the lowest operating costs in the industry. **pg. 9**



✓ *New Feature*

## Operator Station

*The operator station provides comfort and protection with excellent job site visibility and convenient, logical controls.*



**Intuitive Control Layout.** All day operator comfort and efficiency is ensured through our simple, logical control layout.

**Easy Access.** Cab entry and exit is both easy and convenient due to the well placed handholds and step.

**Operator Protection.** The machine provides full operator security with ROPS/FOPS protection.

**Seat.** A variety of seats are available, tailored to meet the requirements of the operator and applications.

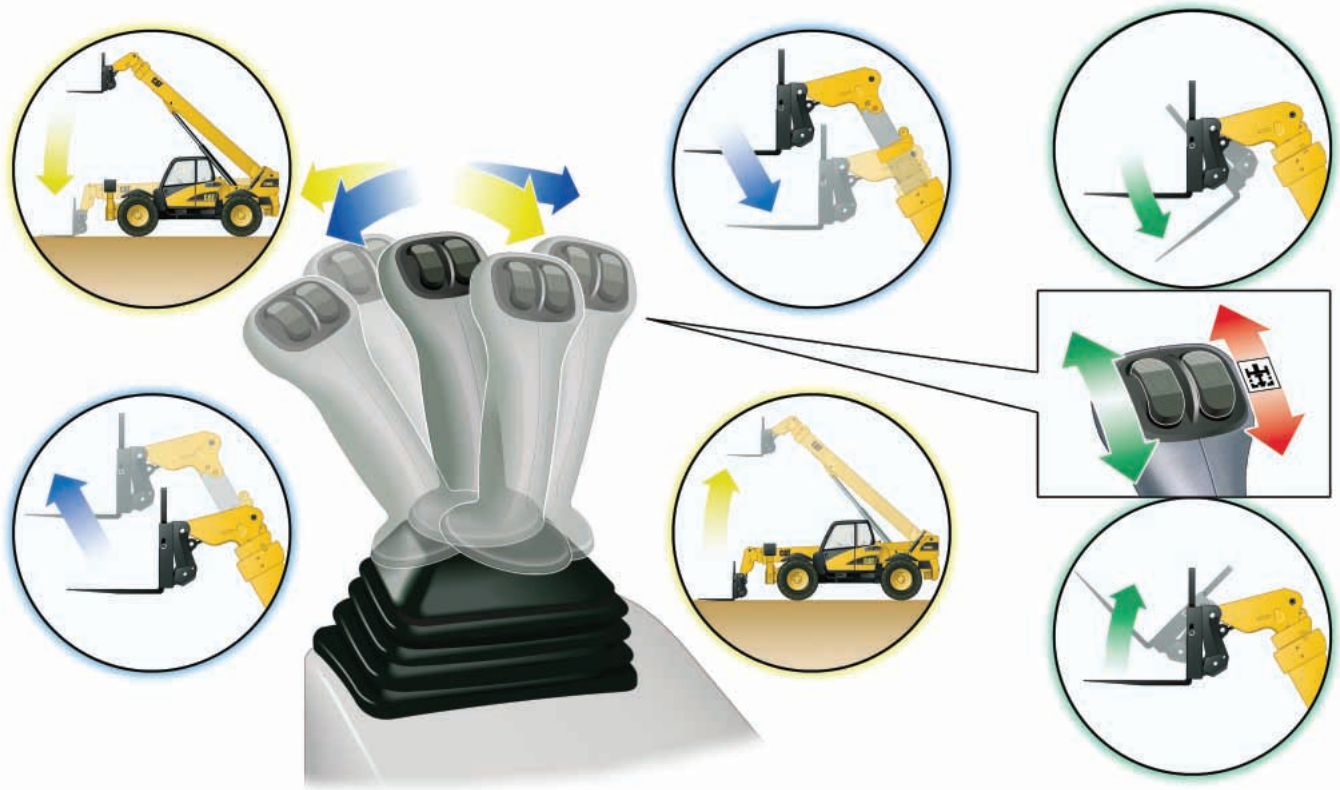
**Electronic Machine Information Display.** Communicates essential technical data to facilitate easier machine operation.

**Excellent Visibility.** The B-Series cab has superb visibility due to the use of advanced virtual design techniques.

**Joystick.** The joystick is capable of three simultaneous boom functions making machine operation easy. All functions are fully modulated.

## Ease of Operation

*Ease of operation was paramount in the design of the new TH220B. The single joystick, with its intuitive, modulated, hydraulic functions, and the new Cat electronic machine information display are designed to maximize operator efficiency.*



**Joystick Control.** The joystick allows three simultaneous boom functions and incorporates unique slider switches.

The joystick also operates the auxiliary hydraulic function and allows the option of a second auxiliary service for the use of work tools that require more than one hydraulic service.

**Hydraulic System.** The Cat Electro Hydraulic system allows all three boom functions to be operated simultaneously and proportionally. This enables precise placing of loads in challenging applications.

Auxiliary hydraulic functions are available on the joystick to allow operators to utilize more complex work tools.

A continuous flow auxiliary hydraulic supply is also available for operating tools such as brooms that require continuous flow for long periods of time.

**Integrated System.** The Caterpillar exclusive integrated management system allows the engine, transmission and hydraulic systems to operate with maximum efficiency, control and productivity.

**Flow Sharing.** Three simultaneous hydraulic functions are achieved using a full flow sharing hydraulic valve. A load sensing variable displacement pump allows full hydraulic power even at low revs.

## Performance

*The TH220B delivers high performance to meet your specific job site needs.*



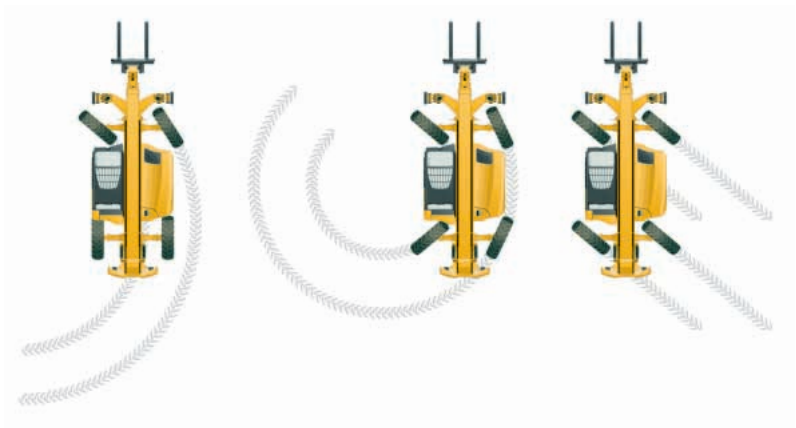
**Maneuverability.** The TH220B offers excellent maneuverability, due to its tight turning circle and its three different steering modes.

The TH220B has a 50 degree axle steering angle and no rear tail swing, allowing it to work productively and safely in confined areas.

**Steering Modes.** The TH220B offers three steering modes (two wheel, crab and circle steer) to allow an operator to easily position the machine. Steering modes are selected by a single three-position rocker switch. Steering position sensors are fitted as standard to all steering modes to be changed while moving.

**Lift Height.** The TH220B can effectively and quickly place bricks, roofing materials and trusses to a maximum height of 6.1 m (20 ft).

**Reach.** Job site obstacles present challenges demanding a machine to place loads at greater distances – the TH220B delivers.



## Power Train

*Caterpillar engines, axles and transmissions give you the quality power train that you expect.*

**High Torque Rise Engine.** The Cat 3054E Electronic engine is fully compliant with the latest round of worldwide emissions regulations. While continuing to deliver maximum performance it features improved timing, reduced smoke and exceptional service improvements. For improved sound characteristics, a venturi tailpipe has been packaged inside the engine enclosure.

The cooling system has been designed to work in the most challenging conditions.

Electronic engines deliver:

- Improved low idle performance
- Improved fuel consumption
- Improved cold start
- Increased diagnostic and security capability

**Transmission.** The TH220B has a purpose designed Caterpillar four speed forward, three speed reverse powersyncro transmission.

**Axles.** The TH220B is fitted with Caterpillar planetary reduction axles.

For improved machine performance in difficult conditions, a differential lock is available (front axle).



## Versatility

*Redefine the traditional role of a Telehandler with the Cat TH220B.*



**Quick Coupler.** An IT interface is standard on the B-Series. For optimum versatility, all machines are equipped with the hydraulic quick coupler, allowing the operator to quickly and easily change non-hydraulic work tools without leaving the cab.

**Hydraulic Services.** Machines are equipped with Auxiliary Hydraulic services, allowing the use of hydraulically operated work tools. All B-Series Telehandlers are equipped with a single auxiliary hydraulic service and continuous hydraulic flow.

**Work Tools.** A wide range of work tools are available to meet most job site applications.

Caterpillar Telehandler Work Tools extend the versatility of the machine. Built for performance and durability, these work tools deliver high productivity, long life and excellent value.

- General Purpose Bucket (1.0 m<sup>3</sup>/1.3 yd<sup>3</sup>)
- Light Materials Buckets (2.0 m<sup>3</sup>/2.6 yd<sup>3</sup>) (2.5 m<sup>3</sup>/3.25 yd<sup>3</sup>) (3.0 m<sup>3</sup>/3.90 yd<sup>3</sup>)
- Material Handling Bucket (1.5 m<sup>3</sup>/1.95 yd<sup>3</sup>)
- Multi Purpose Bucket (1.0 m<sup>3</sup>/1.3 yd<sup>3</sup>)
- Grapple Bucket (0.85 m<sup>3</sup>/1.1 yd<sup>3</sup>)
- Fixed Carriage
- Rotate Carriage
- Sideshift Carriage
- Wide Carriage
- Wide Rotate Carriage
- Pallet Forks
- Block Forks
- Lift Hook
- Truss Boom
- Self-tipping Hopper
- Material Handling Arm
- Bale Handler

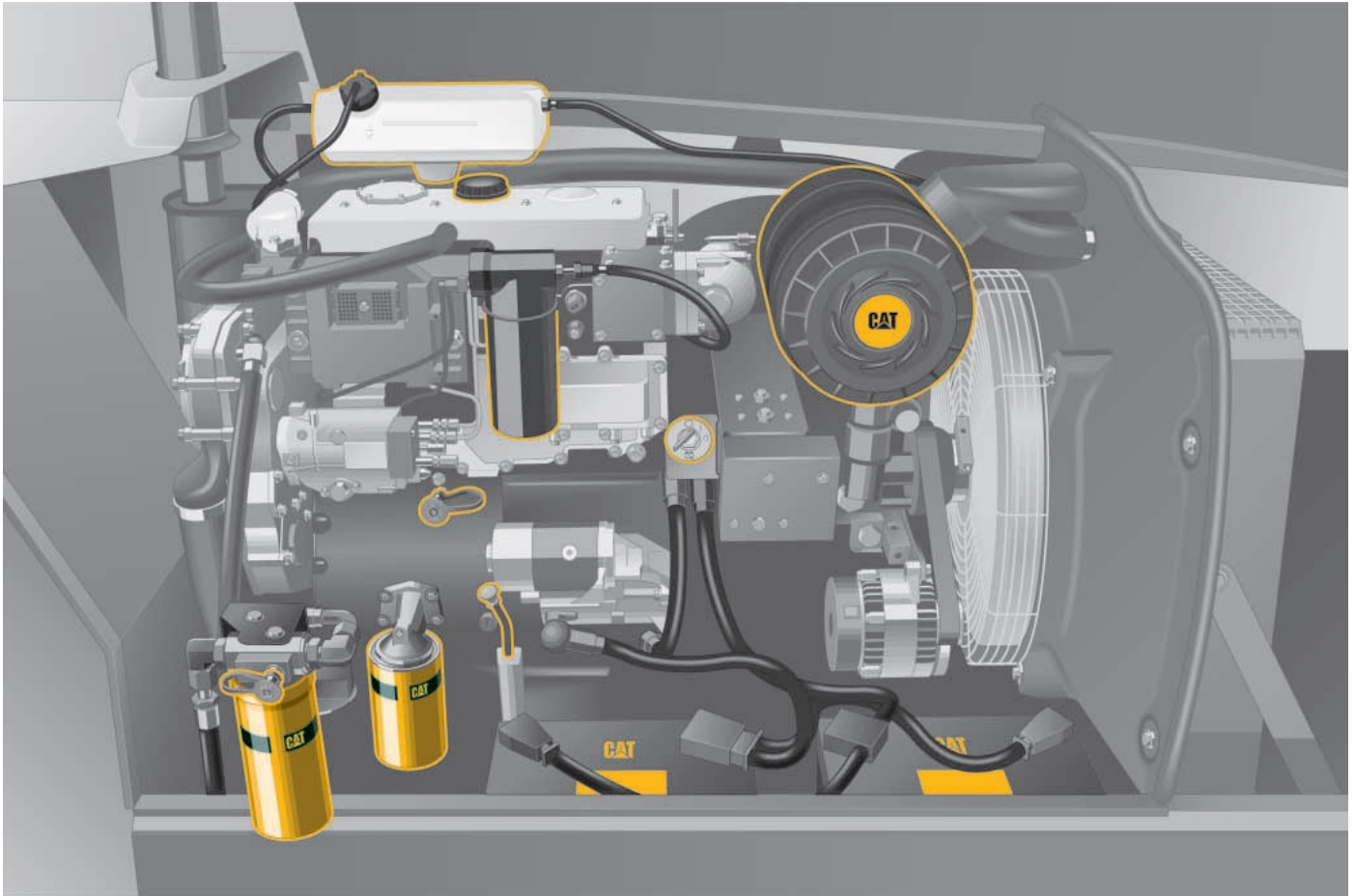
Contact your Cat dealer for additional work tool options.

**Tow Hitches.** A manual rear tow hitch is available for off-highway towing as an option.



## Cost of Ownership

*Specifically designed to lower your owning and operating costs.*



**Ease of Access.** Cost of ownership starts with ease of service. All Cat Telehandler service points are readily accessible and major components are easy to reach at ground level due to overall machine design.

**Daily Maintenance.** Routine daily maintenance is now reduced to checking fluid levels and a walkaround inspection.

**Service Intervals.** Engine oil, filter changes and routine lubrication are now only required every 500 hours.

**Reduced Componentry.** The combined hydraulic/transmission oil filter requires changing at 1,000 hours.

With the reduction in the number of filters and extended service intervals, operating costs are the lowest in the industry.

**Machine Security System.** Secure your investment with the Caterpillar Machine Security System (MSS), a programmable key system that provides optimum machine security for both fleet users and single owners.

- MSS disables machine by interacting with the machine's Electronic Control Modules (ECM)

- Keys fit all existing Cat machines (including machines without MSS)
- Each machine can store up to 50 key identifications
- Each key can be configured to operate a certain range of machines or enable operation for a certain period of time

## Serviceability and Customer Support

*Caterpillar Dealer Services enables you to operate longer with lower costs, helped by significantly extended service intervals.*



**Access.** All Cat Telehandler service points, including the combined transmission/hydraulic oil filter, are readily accessible and major components are easy to reach at ground level due to the overall machine design.

A cab mounted service point allows access to the fuel fill, hydraulic oil fill, washer bottle, fuse box and cab air filter for routine checks.

**Selection.** Make detailed comparisons before you buy. Your Cat Dealer can give you precise answers to your questions.

**Purchase.** Look at the value that the TH220B Telehandler will offer you. Consider all the flexible financing options your Cat Dealer offers as well as day to day operating costs.

**Operation.** Improving operating techniques can boost your profits. Your Cat Dealer has training literature and other ideas to help increase your productivity.

**Maintenance.** Repair options guarantee the cost of repairs up front. Diagnostic programs such as Scheduled Oil Sampling and Technical Analysis help you avoid unscheduled repairs.

**Replacement.** Repair, rebuild or replace? Your Cat Dealer can help you evaluate the cost involved so you can make the right choice.

**Product Support.** You will find high availability of parts at our Dealer parts counter. Cat Dealers utilize a worldwide computer network to find in-stock parts to minimize machine downtime.

Additionally, Caterpillar offers a line of genuine remanufactured components which can help lower repair costs.

**Easy Financing.** Your Cat Dealer can provide a financing package to meet your needs.

## Engine

Model	Caterpillar 3054E	
Gross Power (Basic)	74.5 kW	99 hp
Gross Power (Premium)	92 kW	120 hp
Net Power (Basic)	70.8 kW	94.9 hp
Net Power (Premium)	87.6 kW	117.5 hp
Maximum Torque (Basic)	410 N•m	300 lb ft
Maximum Torque (Premium)	450 N•m	330 lb ft
Bore	105 mm	4.1 in
Stroke	127 mm	5 in
Displacement	4.4 L	268 in <sup>3</sup>

- Maximum torque shown is at 1,400 rpm
- Net Power shown is the power available at the flywheel when equipped with fan, air cleaner, muffler and alternator.

## Weights

Operating Weight	6700 kg	14,771 lb
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## Operating Specifications

Rated Load Capacity	2500 kg	5,500 lb
Maximum Lift Height	6.1 m	20 ft
Maximum Forward Reach	3.2 m	10.5 ft
Top Travel Speed	40 kph	25 mph
Load at Max Height	2000 kg	4,400 lb
Load at Max Reach	1500 kg	3,300 lb
Turning Radius over Tires	3340 mm	10.9 ft
Turning Radius over Forks	4370 mm	14.3 ft

## Dimensions

Height	2250 mm	7.4 ft
Width	2350 mm	7.7 ft
Wheelbase	2950 mm	9.7 ft
Length to Fork Face	4740 mm	15.6 ft
Ground Clearance	425 mm	16.7 in

## Tires

Standard	15.5-25 SGL-2A Goodyear
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## Hydraulic System

Maximum System Pressure	250 bar	3,626 psi
Maximum Pump Flow	106 L/min	28 gal/min
Pump Type	Variable Displacement Load Sensing Axial Piston Pump	
Auxiliary Hydraulic Supply – Intermittent	90 L/min	24 gal/min
Auxiliary Hydraulic Supply – Continuous	60 L/min	15.6 gal/min

## Service Refill Capacities

Fuel Tank	100 L	26.4 gal
Additional Fuel Tank	50 L	13 gal
Hydraulic Tank	59 L	15.6 gal

## Transmission Speeds

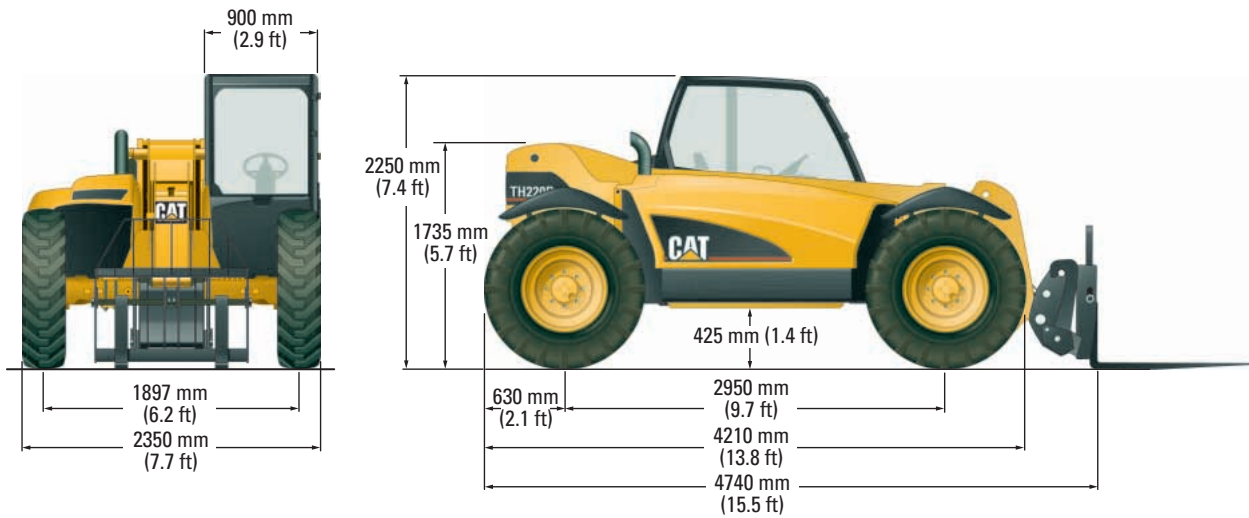
Forward – 1	6 kph	4 mph
Forward – 2	12 kph	7 mph
Forward – 3	20 kph	13 mph
Forward – 4	40 kph	25 mph
Reverse – 1	6 kph	4 mph
Reverse – 2	12 kph	7 mph
Reverse – 3	20 kph	13 mph

## Boom Performance

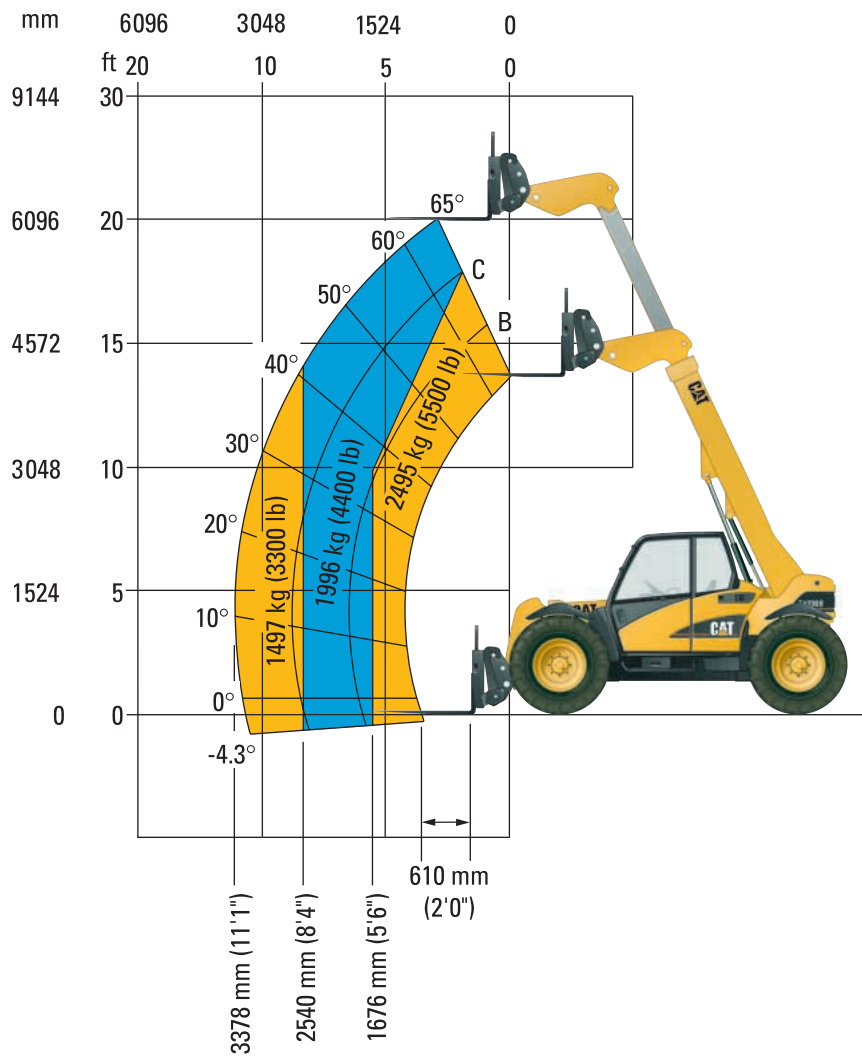
Boom Up	5 Seconds	
Boom Down	4 Seconds	
Tele In	5 Seconds	
Tele Out	6 Seconds	
Crowd Forward (dump)	3 Seconds	
Crowd Backward	3 Seconds	
Combined – Up and Out	10 Seconds	
Combined – Down and In	5 Seconds	
Boom Breakout Force	30.8 kN	6,924 lb
Bucket Breakout Force	55.0 kN	12,365 lb
Drawbar Pull (Basic)	80 kN	17,985 lb
Drawbar Pull (Premium)	95 kN	21,357 lb

# Dimensions

All dimensions are approximate.



# Load Chart and Dimensions



## Standard Equipment

*Standard equipment may vary. Consult your Caterpillar dealer for details.*

### TELESCOPIC BOOM

- Wear pads, non-metallic
- Lock valve on hydraulic cylinders
- Boom angle indicator
- Single auxiliary to the boom head

### ELECTRICAL

- Alternator, 105-amp
- Anti-restart key switch
- Battery, maintenance-free, 12 volt, 750 CCA with disconnect
- Horn
- Alarm, back up
- Electronic Control Module
- Power sockets, 12 volt internal and external
- Caterpillar Electronic Technician diagnostic connection

### OPERATOR STATION

- Canopy, ROPS/FOPS
- Joystick, electronic
- Adjustable joystick arm rest
- Low step, grab bars for easy entry
- 2-way adjustable vinyl suspension seat, seat belt, document pouch
- Steering wheel spinner knob
- Floor mat
- Right and left side rear view mirror
- Service door, cab air intake filter, fuel fill, hydraulic fill, level indicator, fuse panel and washer fill
- Instrument cluster with power train and system monitor, steering alignment indicator, fuel gauge, engine oil temperature gauge, engine water temperature gauge, hydraulic transmission temperature, SMU
- Cup holder
- Fixed steering column
- Boom lights

### POWER TRAIN

- Engine, Caterpillar 3054E (U.S. EPA Tier 2 compliant)
- Air cleaner, dual element and filter condition indicator
- Self aligned steering
- Thermal starting aid
- Water separator
- Transmission, Caterpillar 4 forward/3 reverse Powersyncro
- Direction change, single lever, column mounted
- Spin-on filters: engine oil filter, hydraulic/transmission filter
- Axles, Caterpillar; planetary drive, full time mechanical 4-wheel drive, Integrated steer cylinders protected above axles, with steer sensors
- Steering, power assisted, enclosed oil disc brakes, front axle
- Parking brake, dry disc with transmission disconnect

### STRUCTURE

- Chassis, fixed frame
- Hydraulic quick coupler

### ANTIFREEZE

- Antifreeze, extended life  $-37^{\circ}\text{C}$  ( $-34^{\circ}\text{F}$ )

### TIRES

- Goodyear 15.5-25 SGL-2A

### OTHER EQUIPMENT

- Integrated lift and tie down points
- Padlock on power module
- Retrieval point
- Standard Cat color paint
- Continuous flow hydraulics

## Optional Equipment

*Optional equipment may vary. Consult your Caterpillar dealer for details.*

### ELECTRICAL

Light packages: boom lights, roading lights, cab lights  
Dual battery  
Engine heater block, 120V

### OPERATOR STATION

Enclosed cab  
Air conditioning  
Heater  
Seats: cloth suspension, cloth air-suspension  
Headliner  
Sun visor  
Screen guard  
Additional mirror packages  
Rear wash/wipe  
Machine Security System (MSS)  
Beacon, magnetic mount  
Adjustable steering column  
Radio ready  
Adjustable joystick armrest

### POWER TRAIN

Differential lock

### ANTI-FREEZE

Anti-freeze, extended life  $-50^{\circ}\text{C}$  ( $-58^{\circ}\text{F}$ )

### TIRES

15.5-25 SGL Goodyear (T&S)  
17.5LR 24 XM27 Michelin  
15.5-25 SGL Goodyear  
15.5-25 SGL Goodyear foam filled

### OTHER EQUIPMENT

Additional fuel tank  
Fenders  
Lockable storage drawer  
Steering cylinder lock

### WORK TOOLS

Carriage: standard, rotate, wide frame, wide frame (rotate), side-shift

### Forks:

Pallet forks 50 mm  $\times$  100 mm  $\times$  1220 mm  
(2 in  $\times$  4 in  $\times$  48 in)  
Pallet forks 50.8 mm  $\times$  101.6 mm  $\times$  1066.8 mm  
(2 in  $\times$  4 in  $\times$  42 in)  
Block forks 51 mm  $\times$  51 mm  $\times$  1219 mm  
(2 in  $\times$  2 in  $\times$  48 in)  
Pallet forks 51 mm  $\times$  102 mm  $\times$  1524 mm  
(2 in  $\times$  4 in  $\times$  60 in)

### Buckets:

General Purpose, 1.0 m<sup>3</sup> (1.3 yd<sup>3</sup>)  
Light Materials, 2.0 m<sup>3</sup> (2.6 yd<sup>3</sup>)  
2.5 m<sup>3</sup> (3.25 yd<sup>3</sup>)  
3.0 m<sup>3</sup> (3.90 yd<sup>3</sup>)  
Multi Purpose, 1.5 m<sup>3</sup> (1.95 yd<sup>3</sup>)  
Grapple, 0.85 m<sup>3</sup> (1.1 yd<sup>3</sup>)  
Material Handling, 1.5 m<sup>3</sup> (1.95 yd<sup>3</sup>)

### Material Handling Arm

Self-tipping Hopper, 1.2 m<sup>3</sup> (1.56 yd<sup>3</sup>)

### Lifting Hook

### Truss Boom

### OTHER ATTACHMENTS

Tow hitches: hitch, manual rear-tow



# TH220B Telehandler

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