



TH220B

Telehandler



CAT[®]

Cat[®] 3054E Diesel Engine

Gross Power

Option 1

74.5 kW/99.9 hp

Option 2

92 kW/123 hp

Operating Weight

6700 kg

Rated Load Capacity

2600 kg

Maximum Lift Height

6 100 mm

TH220B Telehandler

Caterpillar Telehandlers offer performance and versatility.

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**

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**

Performance

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

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



- ✓ *New features*

Powertrain

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

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**

Cost of Ownership

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

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**



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.

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

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

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

Operator Protection. The machine provides full operator security with ROPS/FOPS protection and OECD approved.

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



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

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 a unique slider switch. Two joystick control patterns are available to meet application requirements. 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 pickup brooms.

Integrated System. Cat's 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 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.

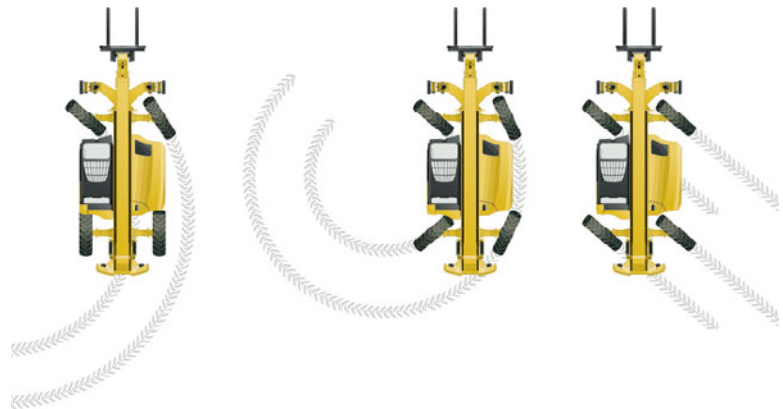


Lift Height. The TH220B can effectively and quickly place bricks, roofing materials and trusses to a maximum height of 6100 mm.

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

Maneuverability. The TH220B offers excellent maneuverability, due to its tight turning circle and its three different steering modes. The TH220B has 50 degree axle turning circle 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 3-position rocker switch.



Powertrain

Caterpillar engines, axles and transmissions give you the quality powertrain 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, they also feature improved timing, reduced smoke and exceptional service improvements. For improved sound characteristics, a venturi tailpipe has been packaged inside the engine enclosure.

Electronic engines deliver:

- Improved low idle performance
- Product Link capabilities
- Improved fuel consumption
- Increased diagnostic and security capability

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

Two Engine Options. The 3054E engine will be offered in two configurations for the TH220B, a 74.5 kW (99.9 hp) option or a 92 kW (123 hp) option. These options will be available through the Merchandising Arrangement structure.

Transmission. The TH220B transmission option depends upon which engine is specified. The 92 kW (123 hp) engine option is combined with a five forward/three speed reverse power-synchro transmission. The 74.5 kW (99.9 hp) engine is combined with a four forward/three speed reverse power-synchro transmission. Engine and transmission options are selected through the MA structure.

Axles. The TH220B is fitted with Caterpillar planetary reduction axles, with four wheel braking. For improved machine performance in difficult conditions, a differential lock is available (front axle).

Versatility

Re-define the traditional role of a Telehandler with the Cat TH220B.



Hydraulic Services. All machines are equipped with Auxiliary Hydraulic services, allowing the use of hydraulically operated work tools. 3 options are available:

- One auxiliary hydraulic service at the boom head
- Two auxiliary hydraulic services at the boom head
- Continuous Hydraulic Flow

A continuous hydraulic flow option is available if the machine is to be equipped with Work Tools such as brooms.

Quick Coupler. An IT coupler interface is standard on the TH220B. The operator can quickly and easily change work tools without leaving the cab when the hydraulic coupler is selected.

The IT interface also enables maximum interchangeability of work tools between models. All A-Series work tools are compatible with the TH220B.

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.

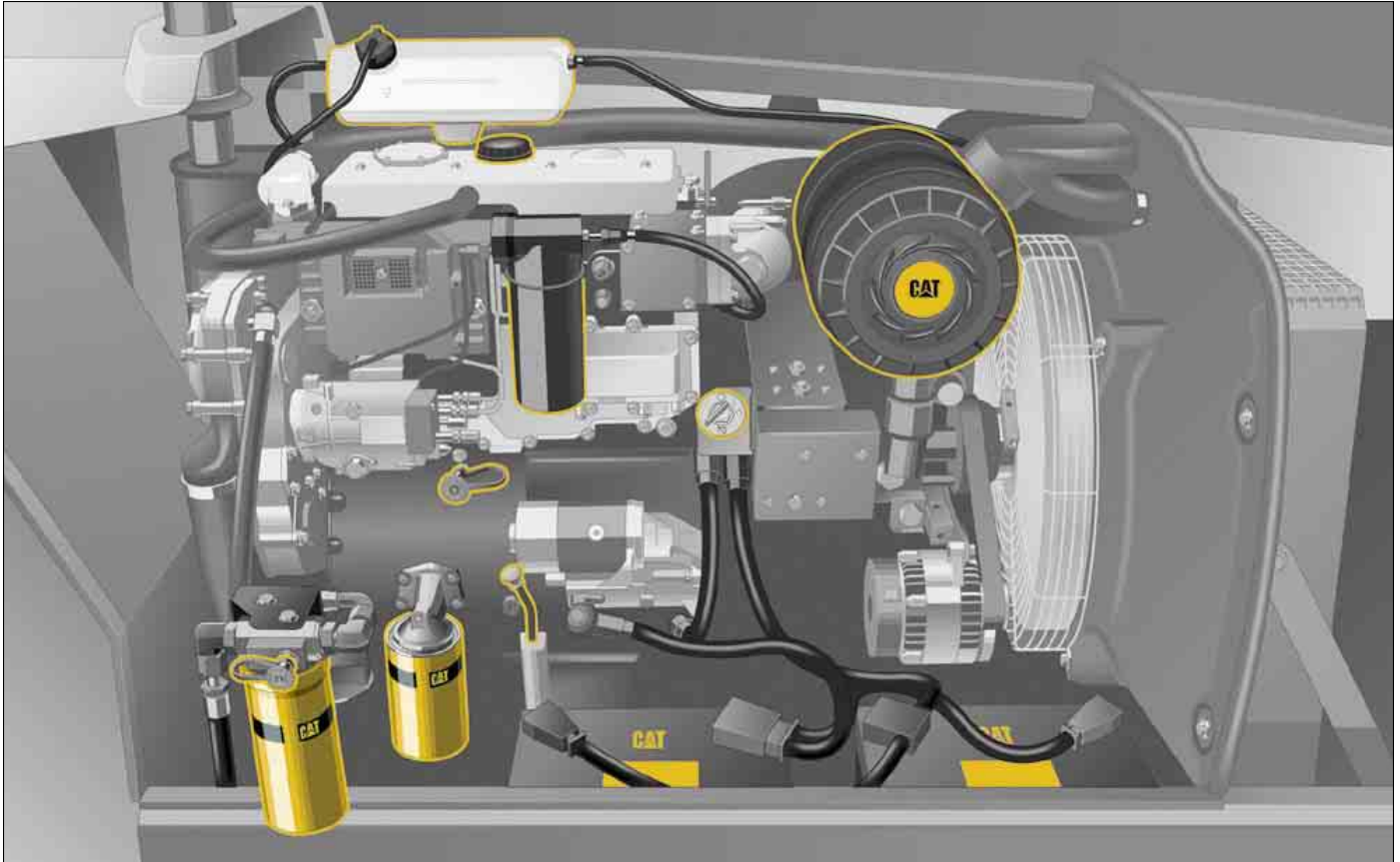
- General Purpose Bucket (1.0 m³)
- Light Material Bucket (2.0 m³)
- Light Material Bucket (2.5 m³)
- Light Material Bucket (3.0 m³)
- Material Handling Bucket (1.5 m³)
- Multi Purpose Bucket (1.0 m³)
- Grapple Bucket (0.85 m³)
- Fork Carriage

- Rotate Carriage
- Sideshift Carriage
- Wide Carriage
- Wide Rotate Carriage
- Pallet Forks
- Block Forks
- Manure Forks
- Manure Forks with grab
- Manure Forks with grab and push-off
- Light duty manure and grab fork
- Heavy duty manure and grab and pusher
- Lift Hook
- Truss Boom
- Self-tipping Hopper
- Material Handling Arm
- Pickup Broom
- Bale Handler

Tow Hitches. A range of Tow Hitches are available to meet local market regulations. All Cat Telehandler models come with an ISO10532 rated retrieval point as standard.

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 1000 hours. With the reduction in the number of filters and extended service intervals, owning and operating costs are the lowest in the industry.

Machine Security System. Secure your investment with Caterpillar's Machine Security System (MSS), a programmable key system that provides maximum machine security for Cat Telehandler 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 daily checks.

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

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

Product Link. This established Caterpillar technology uses a Global Positioning System (GPS) to provide additional machine data to both Cat dealers and end users. Data can be received by either a web based application system or notifications by email or pager. Product Link can provide:

- Machine hours
- Location four times a day
- Notifications via email or pager
- Total fuel consumption
- Events and diagnostics from data link

Cat Engine 3054E

Ratings	2200 rpm
Gross Power	
Option 1	74.5 kW/99.9 hp
Option 2	92 kW/123 hp
Maximum Net Power (ISO 9249 and EEC 80/1269)	
Option 1	73.1 kW/97.9 hp
Option 2	90.4 kW/121.1 hp
Maximum Torque at 1400 rpm	
Option 1	410 Nm
Option 2	450 Nm
Bore	105 mm
Stroke	127 mm
Displacement	4.4 liters

- Maximum net power shown is the power available at the flywheel when the engine is equipped with fan, air cleaner, muffler and alternator.
- Engine meets EU directive 97/68/EC Stage II emission requirements.

Boom Performance

	seconds
Boom Up	5
Boom Down	4
Tele In	5
Tele Out	6
Crowd Forward (dump)	3
Crowd Backward	3
Combined	
Up and Out	10
Down and In	5

Hydraulic System

Maximum System Pressure	250 bar
Maximum Pump Flow	113 L/min
Auxiliary Hydraulic Supply	
Continuous	60 L/min
Intermittent	90 L/min
Pump Type	
Variable Displacement Load Sensing	
Axial Piston Pump	

Brakes

Service Brake	Servo assisted on front axle
Parking Brake	Dry disc on front axle

Operating Specifications

Rated Load Capacity	2600 kg
Maximum Lift Height	6100 mm
Load at Maximum Height	2000 kg
Maximum Forward Reach	3300 mm
Load at Maximum Reach	1500 kg
Top Travel Speed	40 km/h
Operating Weight	6700 kg

Service Refill Capacities

	Liter
Fuel Tank	115
Additional Fuel Tank	50
Hydraulic Tank	60

Transmission Speeds

	km/h
Forward	
1	7
2	13
3	22
4	34
5	40
Reverse	
1	7
2	13
3	22

Sound

Operator Sound. The operator sound level measured according to the procedures specified in ISO 6396 is 80 dB(A).

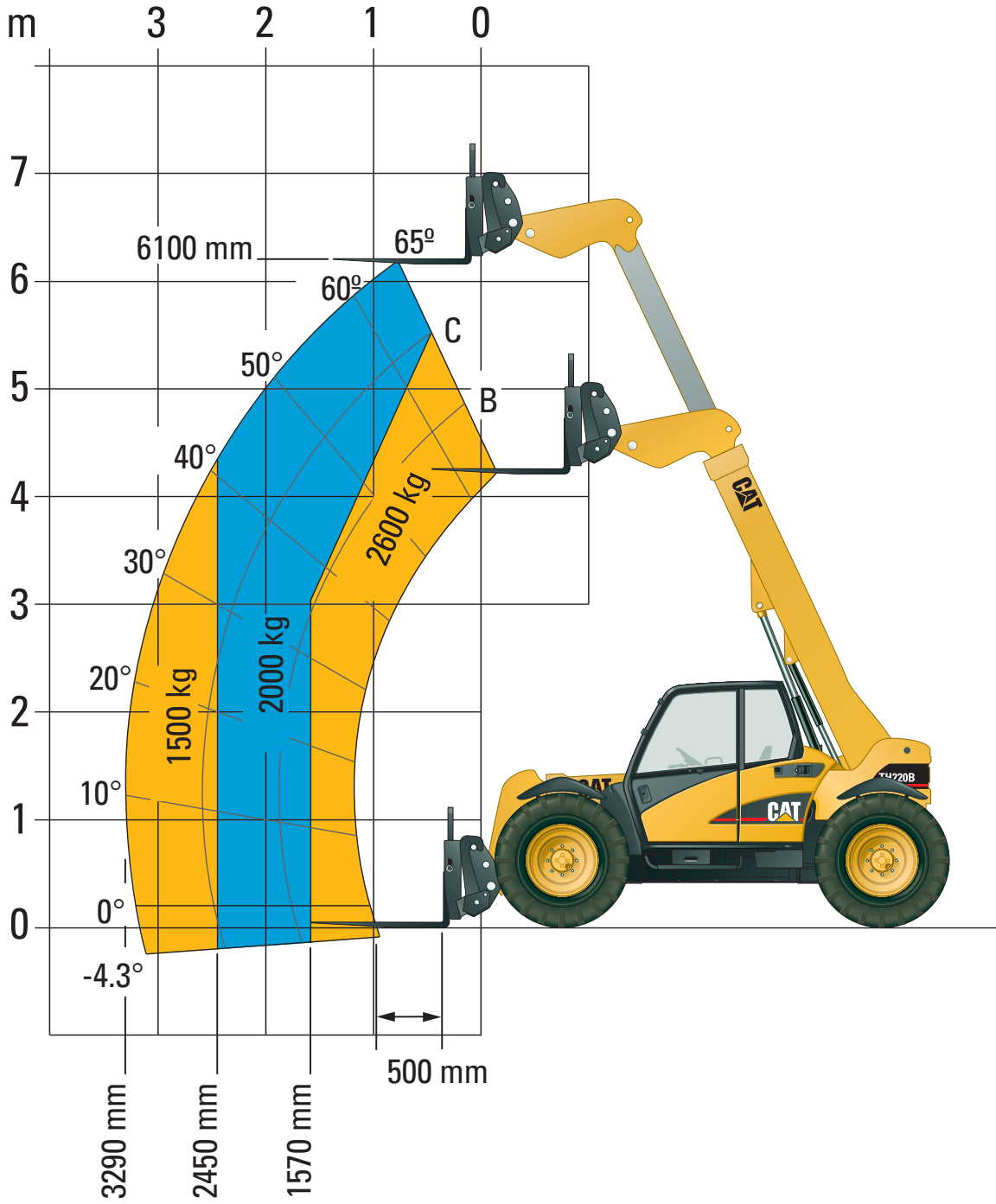
Exterior Sound. The labeled spectator sound power level measured according to the test procedures and conditions specified in 2000/14/EC.

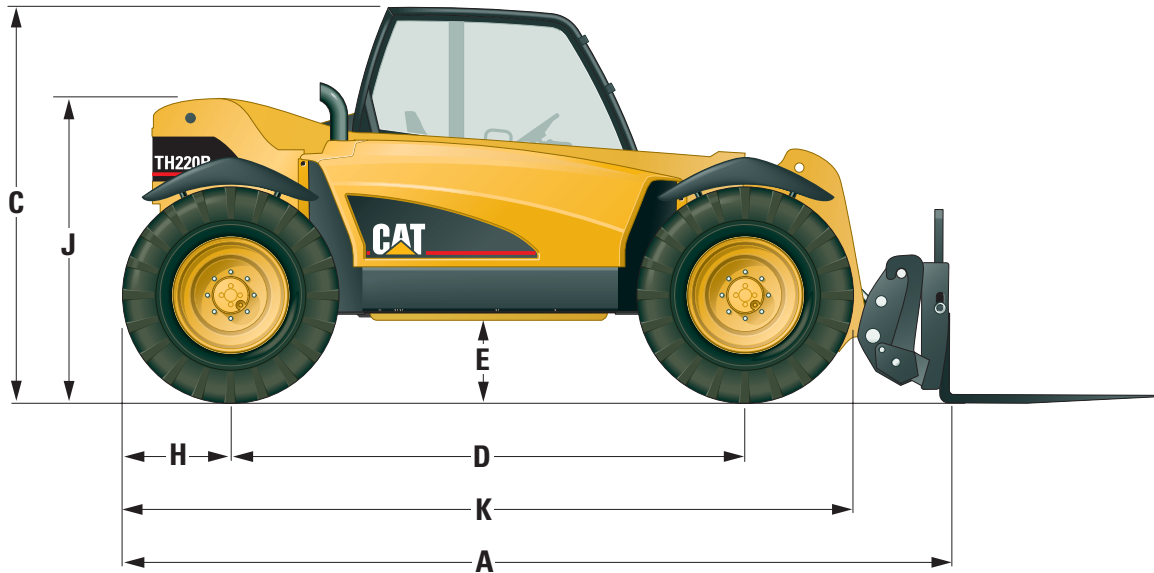
Option 1	106 dB(A)
Option 2	107 dB(A)

Tires

Standard	11.5-25
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Load Charts and Dimensions





	mm
A Length to Carriage	4740
B Width	2350
C Height	2250
D Wheelbase	2950
E Ground Clearance	425
F Track	1897
G Cab Width	900
H Rear Overhang	630
J Rear Boom Height	1735
K Length to Front of Tire	4210
Outside Turning Radius over Tires	3550
Outside Turning Radius over Forks	4410



Standard Equipment

Standard equipment may vary. Consult your Caterpillar dealer for specifics.

Telescopic Boom

Wear pads, non-metallic
Lock valve on hydraulic cylinders
Hydraulic Quick Coupler
Single Auxiliary

Electrical

Alternator, 105-amp
Anti-restart key switch
Battery, Maintenance-free, 12 volt,
750 CCA
Battery disconnect
Horn
Alarm, Back up
Electronic Control Module
Power Sockets, 12 volt internal
and external
'Electronic Technician'
diagnostic connection

Operator Station

Enclosed cab, ROPS/FOPS
Joystick, Electronic
Adjustable joystick wrist rest
Adjustable steering column
Low step, grab bars for easy entry
2 way adjustable seat, seat belt,
document pouch
Steering wheel spinner knob
Floor mat
Right side rear view mirror
Service Door, Cab air intake filter,
fuel fill, hydraulic fill, level indicator,
fuse panel and washer fill
Instrument Cluster with:
powertrain and system monitor,
longitudinal stability indicator,
steering alignment indicator,
fuel gauge,
engine oil temperature gauge,
engine water temperature gauge,
hydraulic transmission temperature,
SMU and air filter blockage light
2 piece entry door
Cup holder

Powertrain

Engine, Caterpillar 3054E (two options)
Air cleaner; Dual element and filter
condition indicator
Thermal starting aid
Water separator
Transmission, Caterpillar 4 forward/
3 reverse powersynchro
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
Differential lock
Auto steering align
Steering, power assisted, enclosed oil
disc brakes, front axle
Parking brake, dry disc with
transmission disconnect

Structure

Chassis, fixed frame

Antifreeze

Antifreeze, extended life -36°C

Tires

15.5-25 SGL-2A Goodyear

Other Equipment

Integrated lift and tie down points
Padlock on power module
Retrieval Point
Standard Cat color paint

Optional Equipment

Optional Equipment may vary. Consult your Caterpillar dealer for details.

Electrical

Light packages; boom lights,
roading lights, cab lights
Product Link
Dual battery
7 pin trailer services socket
Engine heater block,
240V/750 Watts

Operator Station

Canopy, ROPS/FOPS
Air conditioning
Seats; cloth suspension,
cloth air-suspension
Headliner
Door pocket
Sun visor
Screen guard
Exterior cab lights, front and rear
Additional left hand mirror
Rear wash/wipe
Machine Security System (MSS)
Beacon, magnetic mount
Radio ready
Auxiliary hydraulic continuous
flow switch

Powertrain

Transmission, Caterpillar 5 speed
powersyncro
Engine, Caterpillar 3054E
Option 1 – 74.5 kW/99.9 hp
Option 2 – 92 kW/123 hp

Anti-Freeze

Anti-freeze, extended life -50°C

Tires

460/70 R24 IT520 Goodyear
15.5-25 SGL Goodyear
17.5 R24 XM27 Michelin

Other Equipment

Fenders
Lockable storage drawer
Custom color
Additional Fuel Tank

Work Tools

Carriage; standard, rotate, wide frame,
wide frame (rotate), side-shift
Forks:
Pallet forks 50 x 100 x 1220 mm
Block forks 50 x 50 x 1220 mm
Pallet forks 50 x 100 x 1520 mm
Manure fork
Manure fork with grab
Manure fork with grab and push-off
Light duty manure and grab fork
Buckets:
General Purpose 1.0 m³
Light Material 2.0 m³
Light Material 2.5 m³
Light Material 3.0 m³
Multi Purpose 1.0 m³, width 2450 mm
Material Handling 1.5 m³, width 2450 mm
Multi-grapple 0.85 m³, width 2350 mm
Material Handling Arm
Self-tipping Hopper, 1.2 m³
Lifting Hook
Truss Boom
Pick-up Broom
Heavy duty manure and grab and pusher
Bale Handler

Other Attachments

Tow hitches; hitch, manual rear-tow
Hitches complete with adjustable frame
height (98/37/EC and DGM approved):
Hitch, tow, category “C” clevis
Hitch, towing, manual
Hitch, towing, frame only
Hitch, towing auto, manual locking
Hitch, towing automatic locking
Hitch, piton frame
Hitch, hydraulic
Mirror, rear tow hitch
Trailer, hydraulic tipping and braking
Steering cylinder lock

TH220B Telehandler

HEHB2884 (06/2003) hr

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

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