

**BID SUBMITTAL FORM**  
**Alabama County Joint Bidding Program**  
**Heavy Equipment – Bid Item: 21 Ton Wheel Excavator**

Company Name: THOMPSON TRACTOR COMPANY

Address: P.O. BOX 10367

BIRMINGHAM, AL 35202-0367

Bid Submitted by: JAY SMITH  
(Name of company representative)

Title: SALES OPERATIONS MANAGER e-mail address: JAYSMITH@THOMPSONTRACTOR.COM

Phone: (205) 849-4242 Fax: (205) 849-4394

By submitting this bid, we agree:

Initials

The equipment model number identified below meets the bid specs for this bid item

JS

That the bid price will be honored for all counties for the period from Jan. 1, 2021 to Dec. 31, 2021.

JS

The equipment will be delivered at the bid price to all counties participating in the joint bid program.

JS

The company acknowledges the freight preparation and delivery price is to be included in the total bid price for the standard machine.

JS

The company representative listed above will be the contact person for purchasing this bid item under the joint bid program.

JS

The bid is accompanied by a current catalog or model specification document for the model number identified below.

JS

The bid is accompanied by a copy of the manufacturer's standard warranty as required in the bid specifications.

JS

The bid includes the e-verify documentation required by Alabama law.

JS

If awarded the bid, a performance bond will be provided upon request.

JS

The bid documents include the **Manufacturer's Suggested Retail Price Sheet (MSRP) for the Standard Machine.**

JS

## BID SUBMITTAL FORM: OPTION COST SHEET

By submitting this bid, we agree:

To offer any available options at the percent difference between the Manufacturer's Suggested Retail Price Sheet and the actual bid price on the Standard Machine\*



The bid documents include the **Manufacturer's Suggested Retail Price Sheet (MSRP)** for the Standard Machine



Equipment Model #: CATERPILLAR M320F

Description: WHEELED HYDRAULIC EXCAVATOR

Signature of company representative submitting bid: \_\_\_\_\_



Title: SALES OPERATIONS MANAGER

**\*Note:** The percent difference between the **Manufacturer's Suggested Retail Price Sheet (MSRP)** for the standard machine as specified by these **Bid Specifications** and the actual price bid by the vendor will be calculated to determine the percentage discount to be applied to any available options. The bid price of the freight preparation, delivery cost shall be excluded in determining the percentage discount to be applied to available options. Any individual county may choose to add any available option to the standard machine at the percentage discount at the time of purchase.



Total Bid Price for Standard Machine: \$ 251,561

(Total Bid Price for Standard Machine Includes Freight Preparation, Delivery and Standard Warranty Costs)\*

Freight Preparation and Delivery: \$ 7,322

(Included in Standard Machine Bid Price)

Manufacturer's Suggested Retail Price for Standard Machine: \$ 342,551

Equipment Model #: CATERPILLAR M320F

Description: WHEELED HYDRAULIC EXCAVATOR

Signature of company representative submitting bid: \_\_\_\_\_



Title: SALES OPERATIONS MANAGER

\* **NOTE:** Award will be made based on the total cost of the **Standard Machine**. The total cost of the standard machine is to include the freight preparation, delivery and standard warranty cost. Freight preparation, delivery will be excluded from the total bid price of the standard machine in determining the percentage discount for any available options.

## M320F WHEELED EXCAVATOR

M320F	21 TON WHEELED EXCAVATOR	2021 Pricing
501-3121	M320F WHEELED EXCAVATOR	\$235,835
583-6608	ENGINE ARRANGEMENT	\$0
503-4078	1 PIECE BOOM WITH AUTO LUBE	\$39,127
503-2179	9'2" STICK	\$15,675
423-0674	RIDE CONTROL	\$4,399
435-5726	21.7 MPH SPEED	\$0
423-0708	FRONT & REAR OUTRIGGERS	\$26,684
454-2156	UPPERCARRIAGE STEPS	\$263
474-7236	11.00-20 DUEL BRIDGESTONE TIRES	\$6,090
431-8615	MEDIUM PRESSURE CONTROL CIRCUIT	\$1,313
489-2995	CAB W/ 70/30 OPENABLE WINDSHIELD	\$0
374-5098	WIPER FOR 70/30 WINDHSIELD	\$0
373-6030	COMFORT SEAT W/ 2" SEAT BELT	\$848
383-3964	HIGH PRESSURE CIRCUIT PEDAL	\$1,040
509-9866	CHANGEABLE JOYSTICK PATTERN CONTROL	\$954
488-1890	JOYSTICK W/ 2 SLIDER	\$1,278
510-9701	MAIN CONTROL VALVE	\$0
492-8468	ELECTRONIC CONTROLLER XL	\$0
459-6004	CELLULAR PL641 PRODUCT LINK	\$0
491-8396	LED CAB WORKING LIGHTS	\$0
491-1066	1 PIECE MIRROR	\$0
432-6342	STANDARD COOLING SYSTEM	\$0
433-5666	9,258 LB COUNTERWEIGHT	\$848
435-5720	HYDRAULIC OIL	\$0
473-2982	N.A. ANSI DECALS	\$0
509-9879	2ND HIGH PRESSURE CONTROL VALVE	\$6,212
251-7919	2ND HIGH PRESSURE STICK LINES 9'2" STICK	\$929
505-5366	BACK UP ALARM	\$752
422-9762	ROTATING BEACON	\$302
	TOTAL BID PRICE FOR STANDARD MACHINE	\$251,561
	FREIGHT PREPARATION AND DELIVERY	\$7,322
	TOTAL MANUFACTURER'S SUGGESTED RETAIL PRICE FOR STANDARD MACHINE	\$342,551

# BID SPECIFICATIONS FOR 21 TON WHEELED EXCAVATOR

## GENERAL

These specifications shall be construed as the minimum acceptable standards for a 21-ton wheeled excavator. Should the manufacturer's current published data or specifications exceed these standards, the manufacturer's standards shall be considered minimum and shall be furnished. All integral parts not specifically mentioned in the scope of these specifications that are necessary to provide a complete working unit shall be furnished. Additionally, the machine offered for bid shall include all standard manufacturer's equipment. **The wheeled excavator must be a new current production model and shall meet all EPA and other applicable standards at the time of manufacture.**

The use of specific names and numbers in the specifications is not intended to restrict the bidder or any seller or manufacturer, but is intended solely for the purpose of indicating the type, size and quality of equipment considered best adapted to the uses of the counties participating in this joint bid.

## BID SUBMITTAL FORM

Each bidder must submit his or her bid on the bid submittal form included in the invitation to bid package. All written warranties to be submitted shall be attached to the bid submittal form.

## BID PRICE

The price bid shall include all destination charges, delivery charges, title fees, rebates, and all other applicable costs and refunds.

## MANUALS

Each unit shall be provided with one (1) copy of the operator's manual, one (1) copy of the repair manual and one (1) copy of the current parts manual. Units will not be accepted for delivery until the manuals as outlined above are received by the purchaser.

## REPLACEMENT PARTS AVAILABILITY

Parts must be available for 5 years or 7,500 hours of use for the piece of equipment. If any replacement parts are not delivered within three (3) working days of an order being placed, the bidder will deliver an equivalent machine for the county to use at no cost to the county until such time as the parts are delivered to the county so it can affect repairs to its machine.

## WARRANTY

Bidders shall submit a copy of the manufacturer's standard warranty. Warranty shall include service response time of maximum of 36 hours within notification by county.

Yes ☒ No ☐  
Page #   
or  
Attachment ☒

### WEIGHT

Minimum **41,337 lbs.**

Yes ☒ No ☐  
Page # 1, 21

### ENGINE

Six (6) cylinders, turbo charged, diesel engine with minimum of **169 NET** flywheel Horsepower. Displacement minimum of **427 Cu. In.**

Yes ☒ No ☐  
Page # 1, 21

Oil and fuel filters of spin-on type, vertically mounted, accessible from ground level

Yes ☒ No ☐  
Page # 16

Automatic engine speed control

Yes ☒ No ☐  
Page # 32

Factory installed fuel line water separator

Yes ☒ No ☐  
Page # 32

Variable speed on-demand fan type cooling system

Yes ☒ No ☐  
Page # 5

**Engine designed and produced by equipment manufacturer**

Yes ☒ No ☐  
Page # 1, 6, 21

### TRANSMISSION

Two-speed powershift, all-wheel drive in both speed ranges with creeper speed

Yes ☒ No ☐  
Page # 33

Maximum travel speed not less than **22 mph**

Yes ☒ No ☐  
Page # 1

Travel speed lock

Yes ☒ No ☐  
Page # 13

### HYDRAULICS

Variable displacement, closed center, load sensing hydraulic system

Yes ☒ No ☐  
Page # 32

Minimum **71-gallon** hydraulic oil system

Yes ☒ No ☐  
Page # 22

Travel circuit maximum pressure not less than **5,075 psi**

Yes ☒ No ☐  
Page # 22

Implement circuit maximum pressure not less than **5,075 psi**

Yes ☒ No ☐  
Page # 22

High pressure hydraulics circuit capable of powering high speed cutting attachment

Yes ☒ No ☐  
Page # 22, 32, 34



Single rocker pedal controls

Yes ☒ No ☐  
Page # 7

### **AXLES/BRAKES**

Front steering axle pivotally mounted to the frame and free to oscillate not less than 8° in either direction

Yes ☒ No ☐  
Page # 21

Minimum Turning Radius (Outside of Tire) **21- ft**

Yes ☒ No ☐  
Page # 21

Minimum **14"** ground clearance

Yes ☒ No ☐  
Page # 21

Minimum tractive force/drawbar pull **23,380 lb**

Yes ☒ No ☐  
Page # 21

Dig and Go Auto Axle Lock

Yes ☒ No ☐  
Page # 9

### **ELECTRONICS, ELECTRONIC CONTROLS, ELECTRIC SYSTEM**

Electronic fluid level check at machine start-up with operator warning for the following fluids: engine coolant, hydraulic oil

Yes ☒ No ☐  
Page # 33

Lighter/Power Supply

Yes ☒ No ☐  
Page # 33

24 volt electrical starting system

Yes ☒ No ☐  
Page # 33

Alternator rated at not less than 115 amps

Yes ☒ No ☐  
Page # 32

Two 12 Volt Heavy Duty, Maintenance Free Batteries

Yes ☒ No ☐  
Page # 32

Central diagnostic function to record system parameters and faults

Yes ☒ No ☐  
Page # 17

Cab monitor warning display when oil and filter maintenance interval is due

Yes ☒ No ☐  
Page # 33

Cab monitor text warning messages of problems and international fault codes display

Yes ☒ No ☐  
Page # 33

Central diagnostic function to record system parameters and faults

Yes ☒ No ☐  
Page # 17

Master electrical disconnect switch that cuts all electrical power to all circuits

Yes ☒ No ☐  
Page # 19

### **BOOM STICK AND PERFORMANCE**

One piece boom with **9'2"** minimum stick length

Maximum reach at ground level not less than **31' 5"**

Yes ☒ No ☐  
Page # 34

Maximum digging depth not less than **20'-7"**

Yes ☒ No ☐  
Page # 1, 24

Maximum bucket digging force with standard trenching bucket not less than **30,799 lbs.**

Yes ☒ No ☐  
Page # 1, 24

Maximum stick digging force not less than **19,334 lbs.**

Yes ☒ No ☐  
Page # 24

Maximum lifting capacity at ground level 20' from machine with load over front and two stabilizers down not less than **15,900 lbs.**

Yes ☒ No ☐  
Page # 29

Anti-drift valves for stick and bucket cylinders

Yes ☒ No ☐  
Page # 32

### **SWING MECHANISM**

Max. Swing Speed not less than **9 rpm**

Yes ☒ No ☐  
Page # 21

Swing Torque not less than **35,403 ft-lb**

Yes ☒ No ☐  
Page # 21

### **CAB**

Road, tail, and turn lights

Yes ☒ No ☐  
Page # 32

Falling objects guard

Yes ☒ No ☐  
Page # 33

Suspension seat with lumbar support

Yes ☒ No ☐  
Page # 33

Sliding door window

Yes ☒ No ☐  
Page # 33

Control levers mounted to suspension seat

Yes ☒ No ☐  
Page # 6

Shock reducing dampening mounts

Yes ☒ No ☐  
Page # 16, 33

Factory installed CD/MP3/radio

Yes ☒ No ☐  
Page # 33

Factory installed air conditioning with easy removable primary filter

Yes ☒ No ☐  
Page # 16, 33

All hydraulic controls locked out when console is in raised position.

Yes ☒ No ☐  
Page # 18, 33

Console must be in raised position for engine start-up

Yes ☒ No ☐  
Page # 18, 33

Back-up alarm

Yes ☒ No ☐  
Page # 19, 34

Rear View and side view Cameras

Yes ☒ No ☐  
Page # 33

Retractable seat belt

Yes ☒ No ☐  
Page # 33

**GENERAL:**

Anti-skid, punched steel star plate covering the entire normal walking surface of the upper structure

Yes ☒ No ☐  
Page # 18, 19

Centralized maintenance and greasing points accessible from ground level

Yes ☒ No ☐  
Page # 16, 33

Wiper and washer for lower windshield

Yes ☒ No ☐  
Page # 7, 33

Fuel capacity not less than **109 gal.**

Yes ☒ No ☐  
Page # 21

**Bucket:**

**Standard with no bucket. Buckets will be considered optional attachments.**



# M320F

Wheeled Excavator

2017



## Engine

Engine Model	Cat® C7.1 ACERT™	
Emissions	U.S. EPA Tier 4 Final/ EU Stage IV	

## Net Power (Maximum)

ISO 9249/SAE J1349 at 1,550 rpm	126 kW	169 hp
ISO 9249/SAE J1349 at 1,550 rpm, metric		171 hp
ISO 14396 at 1,550 rpm (gross)	129.4 kW	174 hp
ISO 14396 at 1,550 rpm (gross), metric		176 hp

## Weights

Operating Weight with Attachment	19 115 kg-	42,141 lb-
	20 900 kg	46,076 lb

## Bucket Specifications

Bucket Capacities	0.35-1.18 m <sup>3</sup>	0.46-1.54 yd <sup>3</sup>
-------------------	--------------------------	---------------------------

## Working Ranges

Maximum Reach at Ground Level	9580 mm	31'5"
Maximum Digging Depth	6330 mm	20'9"

## Drive

Maximum Travel Speed	35 kph	22 mph
----------------------	--------	--------



## M320F Features

### Made to keep your costs down.

*Not only does the machine give you all the versatility you need, but it does so while providing a great deal of precision and speed with an absolute minimum fuel consumption – and zero impact on your efficiency.*

### Made to make operation easy and pleasant.

*Have a seat, you will be impressed by the quietness and comfort of the cab. Feel relaxed, we help you make sure you're safe.*

### Enjoy integrated technologies; they act transparently.

*When you add the ground level grouped service points that make your maintenance quick and easy, and multiple Cat attachments that help you do all kinds of jobs, you simply won't find a better machine.*

## Contents

Sustainability .....	4
Engine .....	5
Built-in Fuel Savers That Add Up .....	5
Premium Comfort .....	6
Simplicity and Functionality .....	7
The Next Generation .....	8
Smart Technologies .....	9
Dig and Go Auto Axle Lock .....	9
Hydraulics .....	10
Undercarriage .....	11
Booms and Sticks .....	12
SmartBoom™ .....	13
Ride Control .....	13
Attachments .....	14
Serviceability .....	16
Integrated Technologies .....	17
Safety .....	18
Unmatched Visibility .....	20
Complete Customer Care .....	20
Specifications .....	21
Standard Equipment .....	32
Optional Equipment .....	34
Notes .....	35



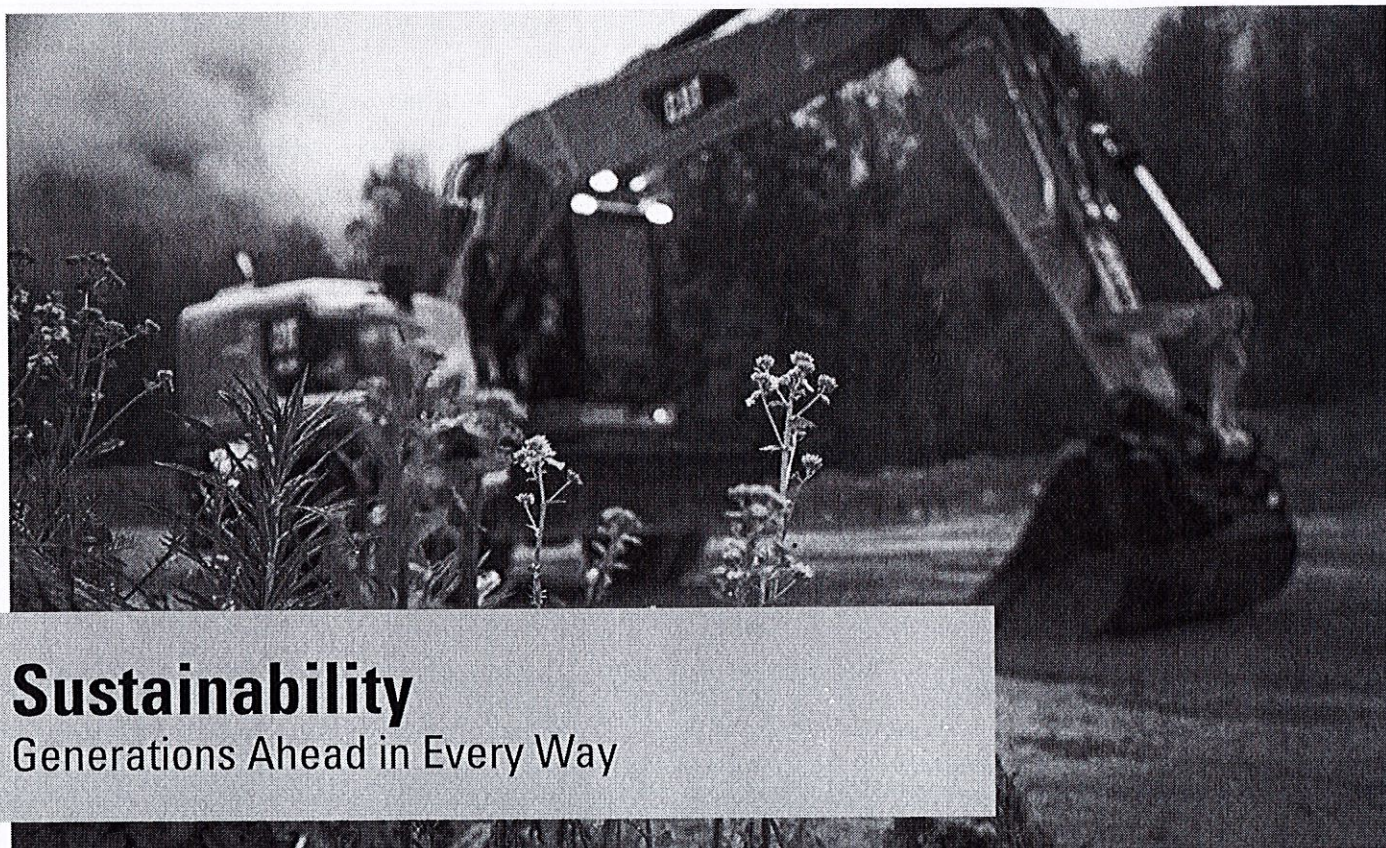




The new F Series generation is here to help you take on the wide variety of challenges you face every day, more easily and at a lower cost.

***F Series Wheeled Excavators – Easier Than Ever.***





# Sustainability

Generations Ahead in Every Way

## Fuel Efficiency and Reduced Exhaust Emissions

The engine meets Tier 4 Final/Stage IV emission standards, is powerful and efficient, with an optimized 10% fuel consumption improvement versus the previous model and no impact on your productivity. This means less resource consumption, and fewer CO<sub>2</sub> emissions.

## Quiet Operation

Outstandingly low sound levels, you won't believe your machine is running.

## Transparent Technologies and Longer Service Intervals

- The Eco Mode, Auto Engine Speed Control and Engine Idle Shutdown help further reduce your overall fuel consumption.
- Product Link™ allows remote monitoring of the machine and helps improve overall efficiency.
- Your Cat dealer can help extend service intervals, meaning fewer fluids and disposals, all adding up to lower costs.

## Biodiesel and Biodegradable Hydraulic Oil

- The M320F has the flexibility of running on either ultra-low-sulfur diesel (ULSD) fuel with 15 ppm for EPA/10 ppm for EU of sulfur or less or up to B20 biodiesel fuel blended with ULSD.
- Cat BIO HYDO™ Advanced HEEST™ reduces the impact on the environment.

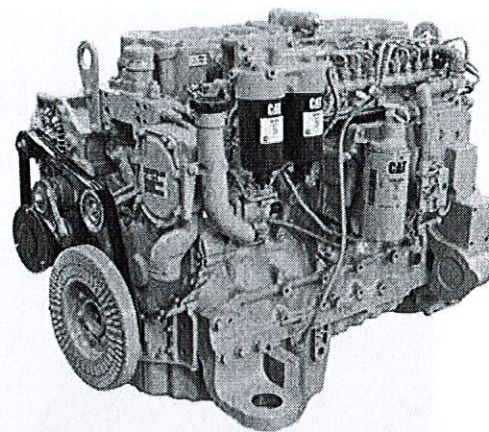
## Cat Certified Used

This program is a key element in the range of solutions offered by Caterpillar and Cat dealers to help customers achieve growth at the lowest cost while eliminating waste. Used equipment is inspected, guaranteed and ready for work and customers will benefit from a Caterpillar warranty.



# Engine

Power, Reliability, and Fuel Economy



## *The Power and Performance You Need*

### **Constant Power Strategy**

Provides a quick response to changing loads, while delivering the same amount of power regardless of operating conditions.

### **A Transparent Emission Solution That Works.**

The Cat C7.1 ACERT engine meets today's Tier 4 Final/Stage IV emission standards, and it does so without interrupting your job process. It is designed to be:

- **Transparent:** no operator intervention
- **Durable:** fit for life Diesel Particulate Filter
- **Efficient:** no work interruption, even in case of extended idling time
- **Simple:** minimum maintenance. Longitudinal engine installation, which further simplifies maintenance.

### **Biodiesel Not a Problem**

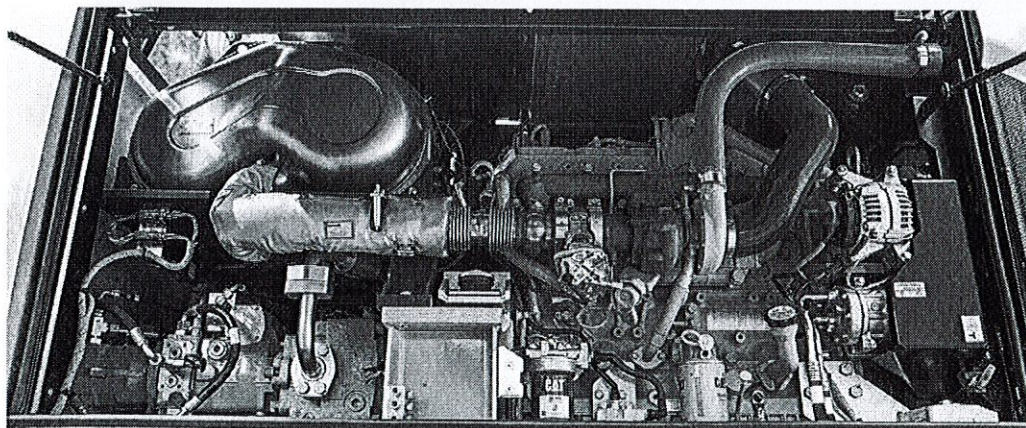
The engine can run on up to B20 biodiesel fuel that meets ASTM 6751 standards – all to give you more potential fuel-saving flexibility.

### **Proven Technology**

To assure that our technology will meet your expectations for reliable trouble-free service, we subjected these engines and technologies to extensive operating hours of test and validation.

## **Built-in Fuel Savers That Add Up**

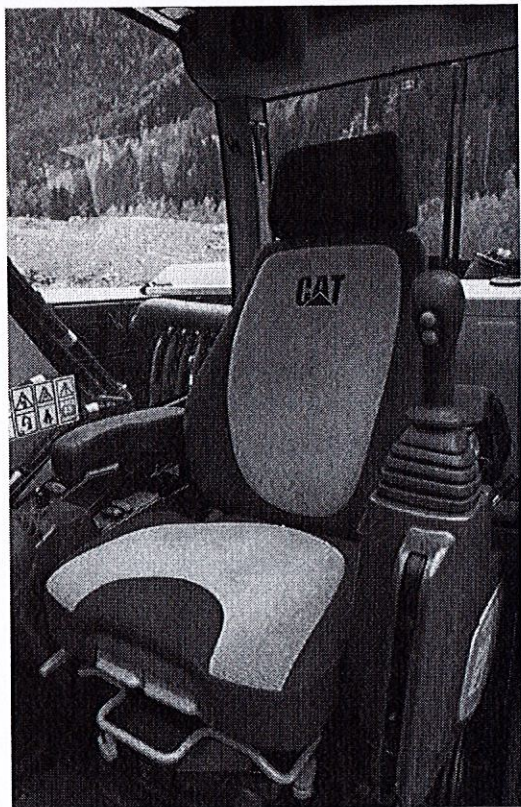
- **Automatic Engine Speed Control:** lowers engine speed when it is not needed.
- **Engine Idle Shutdown:** turns the engine off when it's been idling for more than a pre-set amount of time.
- **On-Demand Cooling System:** variable speed and on-demand fan.
- **Enhanced Eco Mode:** reduces engine speed while delivering the same power.
- **Automatic Shift to Travel Mode** when you start driving.
- **NEW! Optimized Travel Mode:** travel mode rpm levels are set automatically on-demand only to further reduce fuel consumption.





# Premium Comfort

Keeps Operators Productive All Shift Long



## Legacy from the Renowned Cat Wheeled Excavators

Designed for the operator, our cabs are unique.

### Ergonomic Layout

- Frequently used switches are centralized, kept to the minimum and ideally located close to the joysticks.
- Storage compartments are useful... when well designed. Several areas provide sufficient room to store a hard hat, a drink, phone, or keys.

### Comfortable Seat Options

Our seats provide all the comfort needed for a long day of work, including FULL adjustment. All seats are heated and air suspended. Automatic weight adjustment and ventilated seats are available.

### Safety Is Not Optional

ROPS cab, compatible with FOPS, seat belt alarm, safety bar, sideview camera ... among others.

### Details That Make the Difference

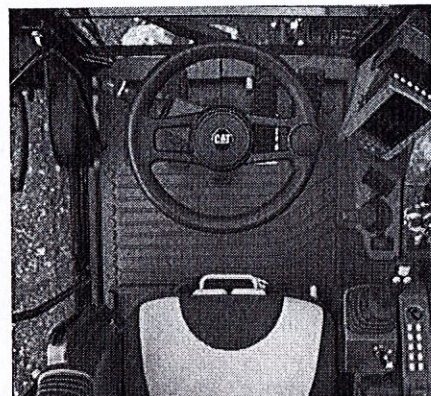
Have a look at the cab; you will see it is through details that we improve pleasure of operating.

### Smart Controls to Reduce Fatigue

- Features like ride control, SmartBoom or Joystick Steering will be precious to increase your productivity.
- New technologies that work transparently like the swing and auto travel lock or the automatic brake and axle lock, reduce the number of tasks you need to do.

### Plug, Charge and Play Your Devices

- The 12V 10A power supply socket is conveniently located for charging your laptop, or a tablet.
- A CD/MP3 Radio with speakers and USB port is available.







# Simplicity and Functionality

## For Ease of Operation

### A Cab Just for You – Fully Adjustable

- Seat armrests, in height and angle
- Steering column adjustment, not only tilting fore/aft but also in height
- Hydraulic sensitivity of the machine to make it more or less aggressive
- NEW! Joystick and left pedal controls assignments: can be set up as desired and per tool
- NEW! Optional advanced joystick offering more controls (two sliders, five buttons each)
- Automatic air conditioning
- NEW! Optional heated mirrors are now also electrically adjustable from the cab

### Incredibly Low Sound Levels, Less Fatigue

Increased cab pressure, preventing from dust entry, combined with the cab design contributes to reducing sound.

### Outstanding Visibility: See the Difference!

- All glass areas have been drastically increased
- Standard LED working lights and halogen roading lights
- Standard LED dome light
- Standard rearview AND sideview wide angle cameras
- Wide angle mirrors for better visibility even down to the ground
- Parallel intermittent (four speeds) wipers covering the whole windshield

### NEW! Standard LED Lights for BOTH Cameras to See What's Going on Around, Day or Night.

The rear camera is integrated into the counterweight for enhanced protection.

### NEW! Split-Screen View of BOTH Cameras on the Same Monitor

The views from both cameras are displayed side by side on the additional wide color monitor for better visibility at first glance.

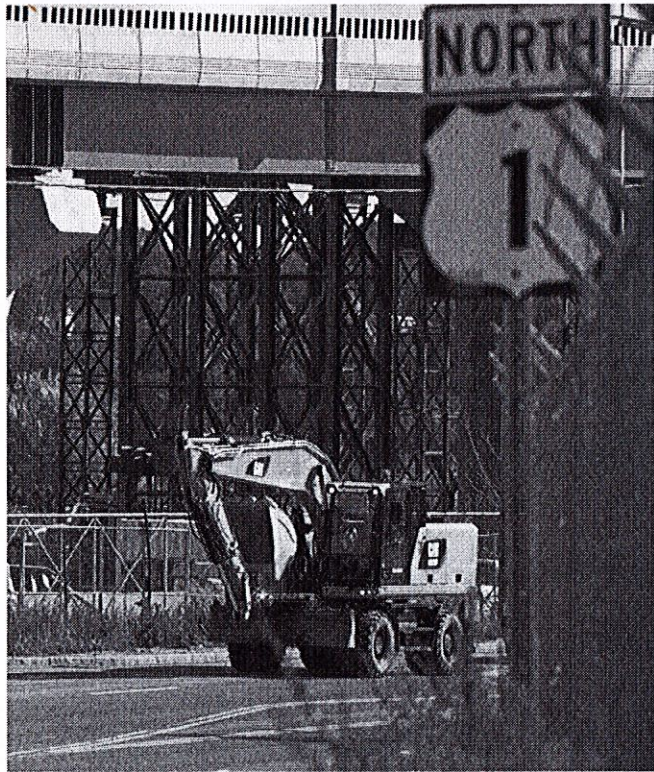
### Large Color Machine Monitor

Easy to read and in local language, the high resolution LCD monitor will keep you aware of any important information. "Quick Access" buttons allow a quick selection of favorite functions. The tool select function lets you preset up to ten different hydraulic attachments for quick tool changes.



# The Next Generation

Easier Than Ever



## Make the Move to the Next Generation

Refinements. From the whole design to the smallest details. Convenient features, new advanced and transparent technologies, not only to reduce emissions but to further improve your daily experience when working with our products.

## Cruise Control – Focus on the Road, Not on Your Foot

No need to press the pedal all the time.

- Choose the very speed you wish
- Press the quick access button on the monitor
- Enjoy the ride

*It's as Easy as That.*

## NEW! Trailer-Ready Package\* – Hitch-Up Your Trailer and Go

How to be more autonomous than ever while increasing your flexibility?

Our trailer-ready package includes all the necessary electrical and hydraulic systems, even for trailers equipped with a tailgate and dumping devices.

***Moving your tools, and fuel along with you to each job site or material directly on site has never been easier!***

*\*Not available for Australia & New-Zealand.*





# Smart Technologies

## Swing and Auto Travel Lock: Press, Go and Relax

No need for the operator to bend to engage the swing lock pin.

- Just press a button,
- Align the upper to the lower frame,
- Enjoy the ride: a green indicator confirms the swing and the implements have been automatically locked.
- NEW! The swing lock can be applied independently from the implements lock at low speed (below 5 kph/3.1 mph)

*It's as Easy as That.*

## Integrated Pin Code – Switch Off and Relax

No need to buy an optional security system to protect your equipment against theft.

- The pin code is integrated into the monitor (standard)
- Entering the right code allows the engine to start

The Machine Security System (MSS – optional) adds even more protection when needed.

*It's as Easy as That.*



## Dig and Go Auto Axle Lock

Presses the pedal for you, reducing the number of actions you need to do

The machine automatically detects when the service brake and axle need to be locked (like when digging), or unlocked (roading), hence removing the need for the operator to systematically press the pedal.

Brake and axle are released automatically by pressing the travel pedal again.





# Hydraulics

Fast, Precise, Flexible

*When it comes to moving material quickly, you need efficient hydraulics – the type the F Series can deliver.*

## Efficient Design, Smart and Fast

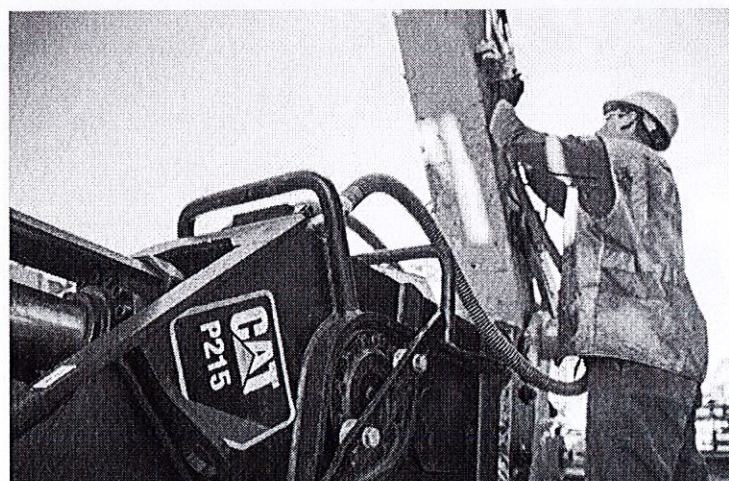
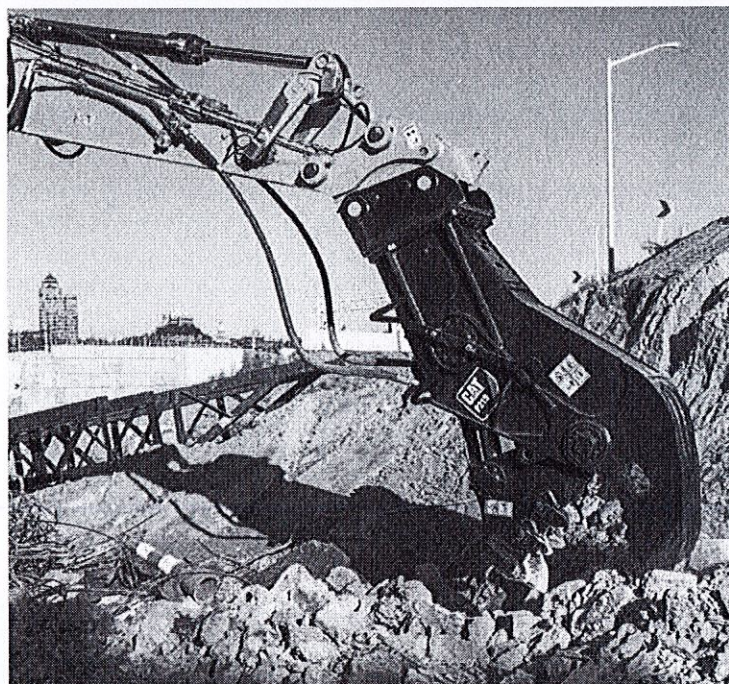
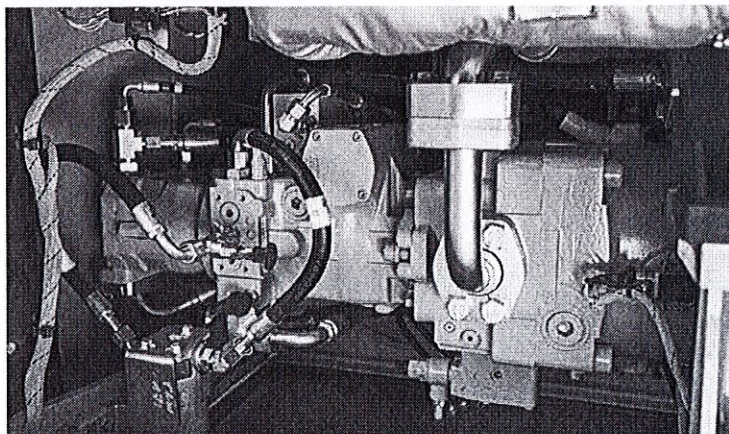
- **Simple Design:** The hydraulic valve compartment and routings offer a simple and clean design to help ensure durability.
- **Smart Main Hydraulics:** The system allows reducing the load on the engine when not needed, which translates into lower fuel consumption.
- **Dedicated Swing Pump:** A closed hydraulic circuit is dedicated to the swing only. Having two separate pumps, one for the swing and the second for the other functions allows faster and smoother combined movements.

## Control Like No Other

- **Electronic Pump Control** – Controllability is one of the main attributes of Cat excavators, and one of the key contributors to this is the Electronic Pump Control (EPC) that's designed to improve response time and precision. It puts flow exactly where you need it, when you need it, which means a much smoother operation and greater efficiency.
- **Adjustable Hydraulic Sensitivity** – Allows you to adjust the aggressiveness of the machine according to the application.
- **Stick Regeneration Circuit** – Increases efficiency and helps enhance controllability for higher productivity.

## Proportional Auxiliary Hydraulics, Tremendous Versatility

Medium, high pressure and hydraulic quick coupler lines and circuits: they all come standard.







## Undercarriage

Strength and Versatility at 35 kph (22 mph)




### Heavy Duty Axles

Long life with effective heavy duty axles. The transmission is mounted directly on the rear axle for protection and optimum ground clearance. The front axle offers wide oscillating and steering angles. The drive shaft offers longer service intervals (1,000 hours).

### Advanced Disc Brake System

Minimizes the rocking effect when working free on wheels. The disc brake system acts directly on the hub instead of the drive shaft to avoid planetary gear backlash.



### Fenders (optional)

Fenders provide excellent coverage of all tires, protecting the machine and surroundings from mud and stones being thrown up.



### Joystick Steering

Keep both hands on the joysticks even when simultaneously moving the implements and repositioning the machine, by the use of the slider switch on the right joystick.

### Blade Design

- Optimized design to provide rigidity, stability and ease of maintenance.
- Parallel kinematic to keep the blade parallel to the ground, in every height position
- A profile that allows material to roll better and minimizes material packing



# Booms and Sticks

Options To Take on Your Far-reaching  
or Up-close Tasks

## Rugged Performance

Booms and sticks are welded, box section structures with thick, multi-plate fabrications in high stress areas for the tough work you do.

## Flexibility

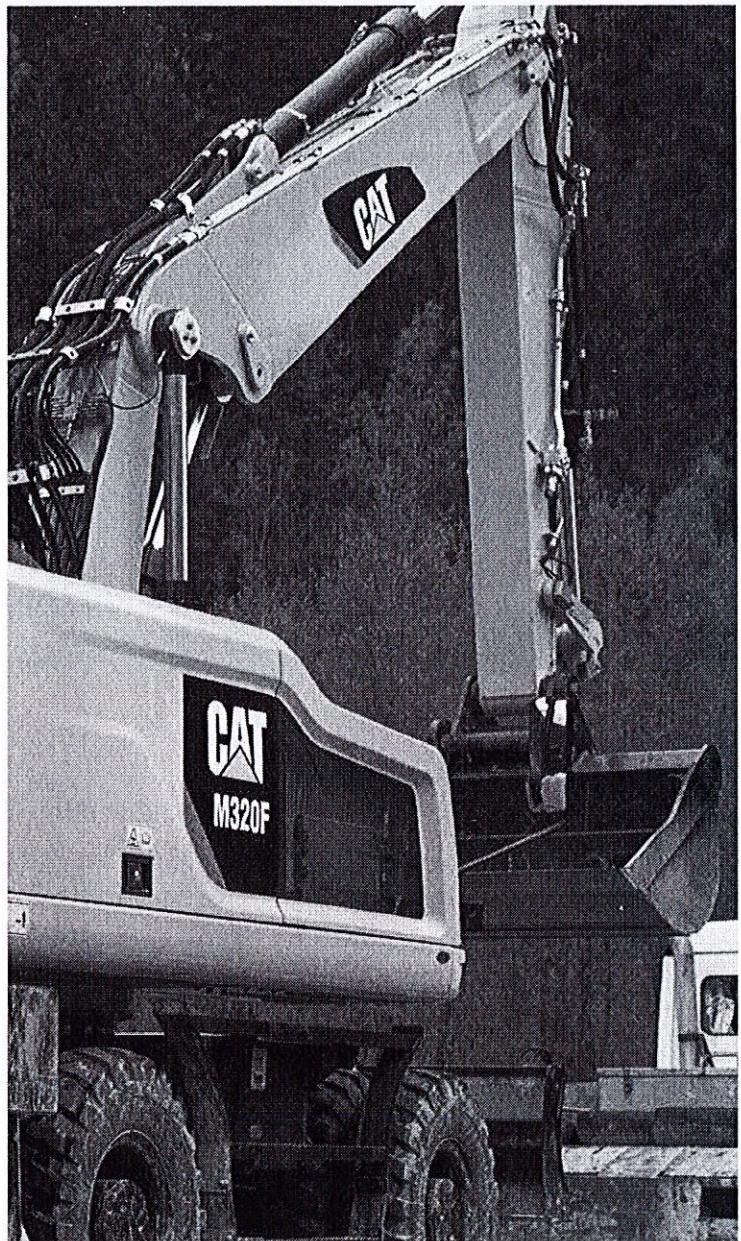
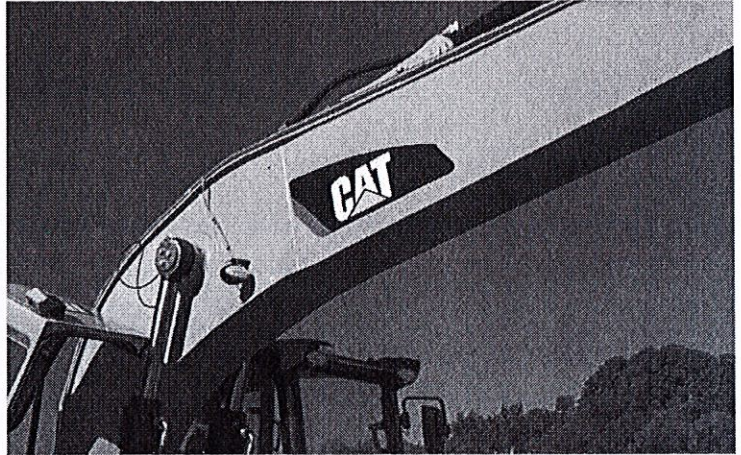
The choice of various booms and sticks provides the right balance of reach and digging forces for all applications.

## Sticks

- **Medium stick** – 2500 mm (8'2") for greater crowd force and lift capacity
- **Long stick** – 2800 mm (9'2") for greater depth and reach

## Booms

- **Variable Adjustable (VA)** – improved right side visibility and roading balance. When working in tight quarters or lifting heavy loads, the VA boom offers the best flexibility.
- **One-Piece Boom** – Fits best for all standard applications such as truck loading and digging. A unique straight section in the curve of the side plate reduces stress flow and helps increase boom life.





# SmartBoom

## Reduces Stress and Vibration

### Rock Scraping

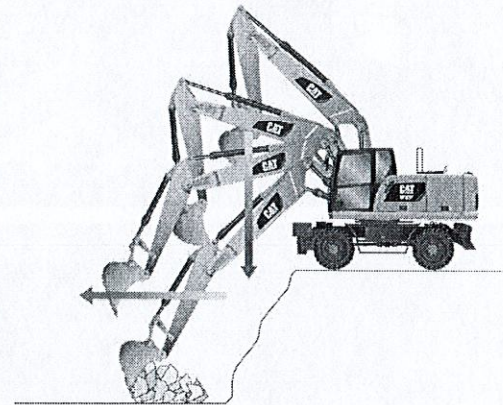
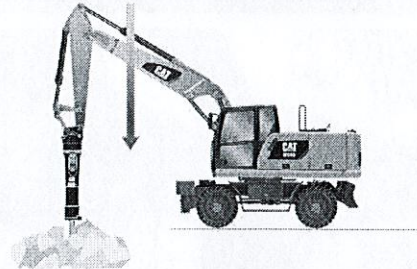
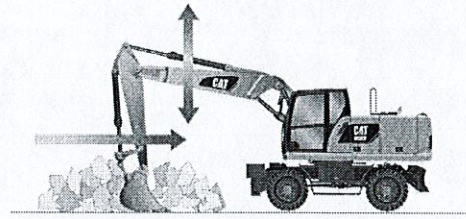
Scraping rock and finishing work is easy and fast. SmartBoom simplifies the task and allows more focus on stick and bucket, while the boom freely goes up and down without using pump flow.

### Hammer Work

The front parts automatically follow the hammer while penetrating the rock. Blank shots or excessive force on the hammer are avoided resulting in longer life for the hammer and the machine. Similar advantages with vibratory plate compactors.

### Truck Loading

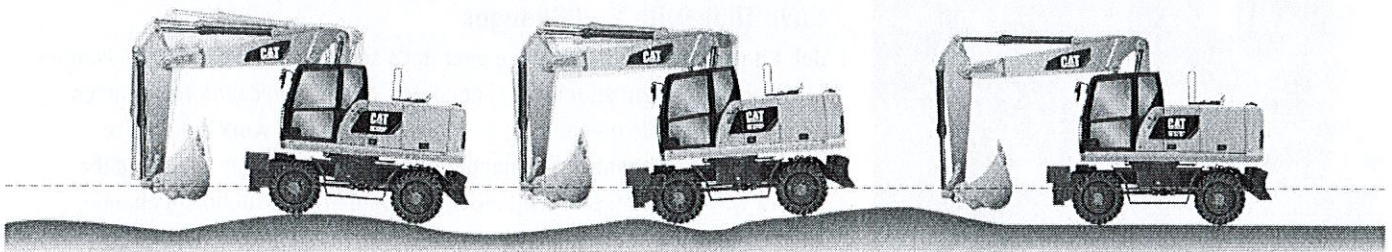
Loading trucks from a bench is more productive and fuel efficient as the return cycle is reduced while the boom down function does not require pump flow.



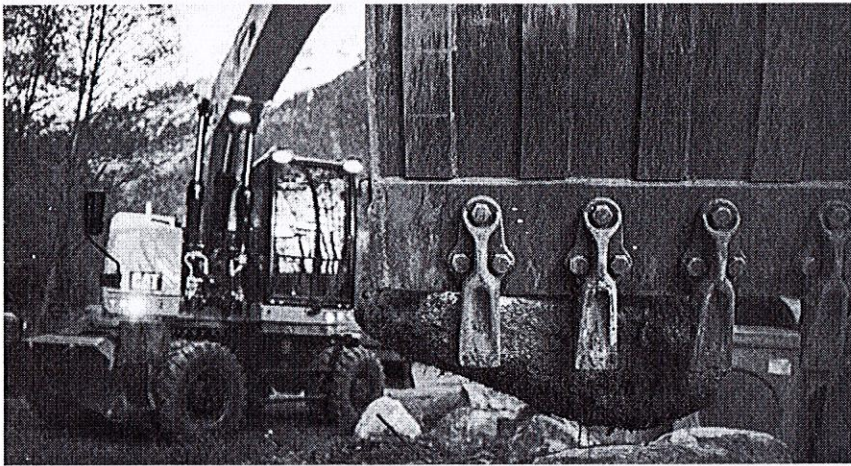
# Ride Control

## Fast Travel Speed with More Comfort

The ride control system lets you travel faster over rough terrain with improved ride quality for the operator. Accumulators are acting as shock absorbers to dampen the front part motion. It can be activated through a button located on the soft switch panel in the cab.







## Attachments

Get the Most Out of Your Equipment

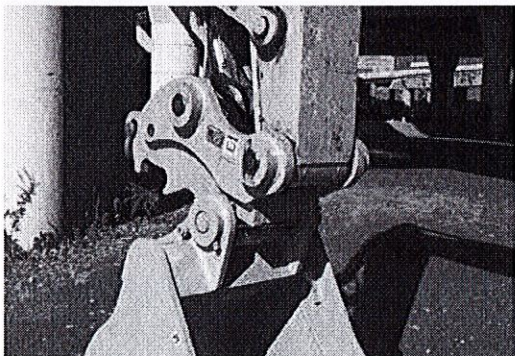
### NEW! Tilt-Rotator-Ready Option.

This option provides a factory-installed on-board platform for a Rototilt® tiltrotator.

Tiltrotators eliminate the need to constantly reposition the machine, by providing a tilting and rotary connection with any attachment.

The wheeled excavator Tilt-Rotator-Ready Package includes all that you need, with lines, circuits, software and advanced joysticks. This is a perfectly integrated interface between the machine and this tool.

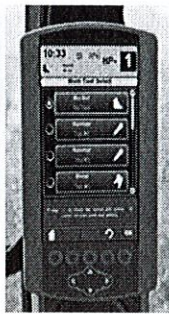
Tiltrotator parameters can be set directly from the machine monitor.



### Save Time with Tool Changes

**Job Site Confidence** ... From the operator's seat, visual and audible indicators help assure that the attachment is coupled. Your Cat excavator hydraulics, mechanisms inside the coupler, and digging forces all work together to assure the attachment stays engaged. The Cat Pin Grabber coupler is the secure way to decrease downtime by allowing quick attachment change, and increase job site flexibility.





### **Power Match**

Match your Cat hydraulic attachments to your Cat machine, and get the most out of the standard, built-in software. Attachment changes have never been easier!

### **Get the Most from Your Machine**

If you have multiple tasks to get done, the M320F can help. And you can easily expand all the possibilities it offers by utilizing any of the variety of Cat attachments.

### **Dig, Load, Finish and Compact**

A wide range of buckets offers solutions for digging, trenching, loading and finishing works. The addition of a Cat Compactor will introduce your machine to utility work, site prep, road repair and pipeline work.

### **Move and Handle Material**

Choose from one of three different thumb styles to work with your bucket and you have the instant ability to move and handle brush, rocks and debris.

### **Demolish and Break**

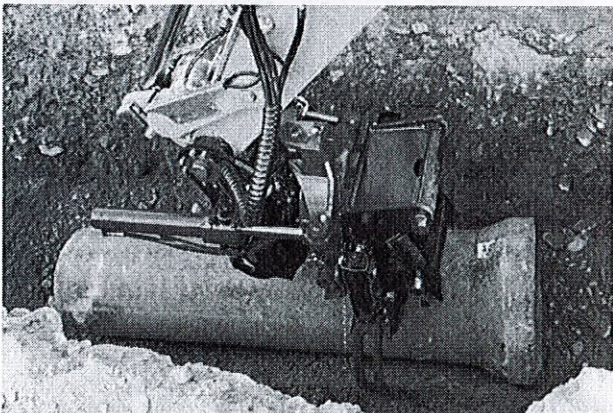
Our hammer includes a buffer to improve your comfort and protect your machine from vibration. Fully enclosed, it is ideal when working in noise regulated areas.

### **Sort and Load**

Demolition and Sorting Grapples bring your machine into demolition and waste handling opportunities. Jaws open wide to move volumes, yet are nimble enough to pull a single copper wire out of a pile. Their 360° rotation capability allows you to place the grapple where you want it without moving the machine.

### **Scrap and Recycle**

Shears also have the ability to rotate 360°. A pulverizer allows you to crush and reduce concrete.





# Serviceability

## When Uptime Counts

### Convenient Access Built In

You can reach routine maintenance items like fuel and engine oil filters and fluid taps at ground level while fuel and DEF tank with engine air filter are accessible from the safety of the slip-resistant new service platform. Compartments feature wide composite service doors, designed to be more resistant to shocks, which all include gas struts to facilitate the opening. Components are now gathered in specific dedicated compartments, like the special electrical compartments.

### A Smart Design for Any Temperature

The side-by-side coolers and axial fan design allows greater cooling performance. The system is completely separated from the engine compartment to reduce noise and heat and all radiators are gathered in the same compartment while featuring easy-to-clean cores with a tilting device that requires no tool to unlock.

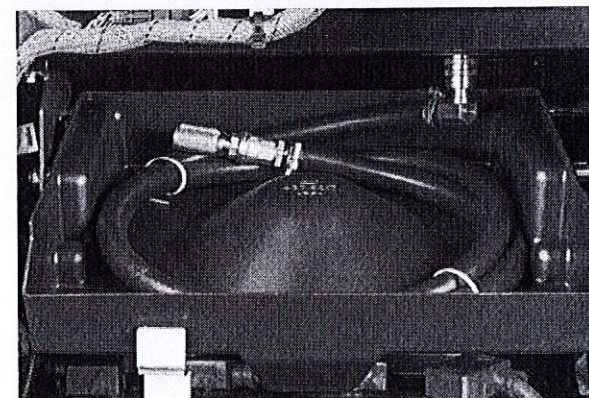
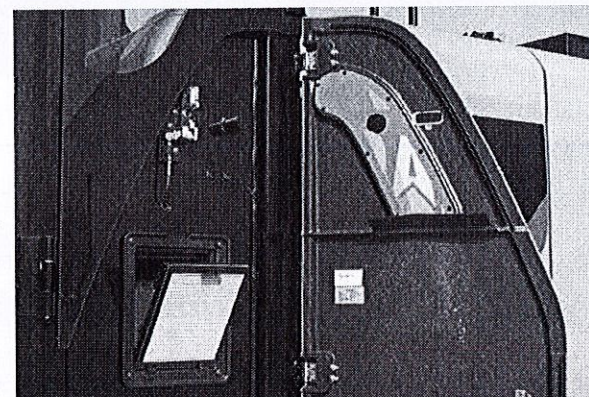
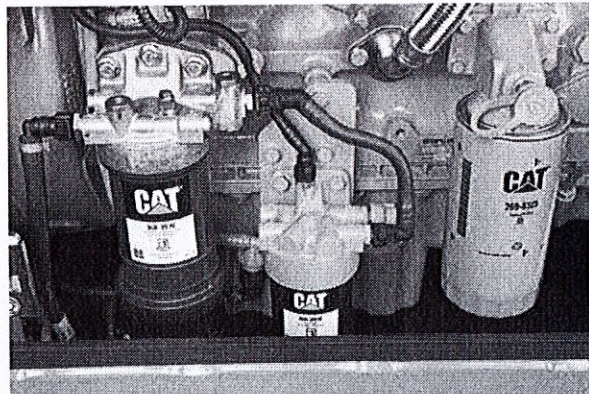
### A Fresh Idea

Ventilation inside the cab allows outside air to enter through a fresh air filter. The filter is located on the side of the cab to make it easy to reach, and it is protected by a lockable door that can be opened with the ignition key.

### Lube and Fuel Standard Features

An electric lubricator system is an available time-saving standard feature for greasing the whole upper carriage. Greasing points for the undercarriage are kept to a minimum and grouped. The new drive shaft extends greasing intervals from 500 hours to 1,000 hours and allows simultaneous greasing with the lower axle bearing. An electric refueling pump is also standard. The hose is stored in a dedicated tray, for more cleanliness. Add in the electric lift pump removing the need to prime the system manually, the standard fuel and water separator and you get a machine that does the fastidious maintenance works for you.

*Keep it simple.*





# Integrated Technologies

It Pays to Know



Cat Connect makes smart use of technology and services to improve your job site efficiency. Using the data from technology-equipped machines, you'll get more information and insight into your equipment and operations than ever before.

Cat Connect technologies offer improvements in these key areas:



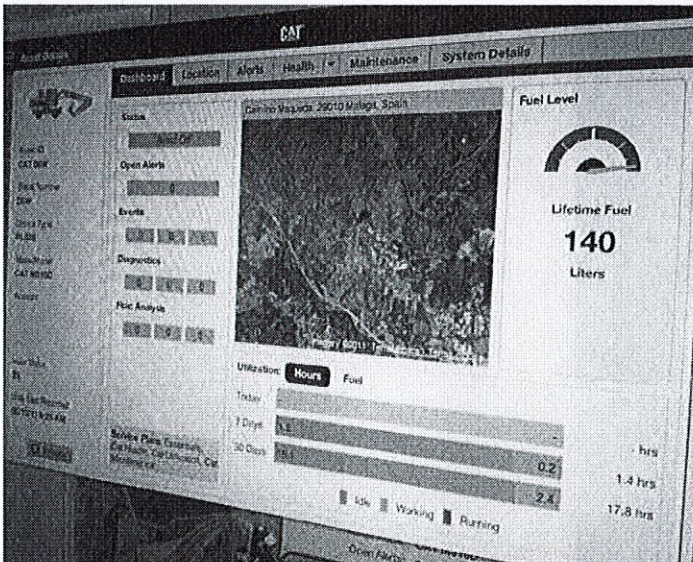
**Equipment Management** – increase uptime and reduce operating costs.



**Productivity** – monitor production and manage job site efficiency.



**Safety** – enhance job site awareness to keep your people and equipment safe.



Featured Cat Connect technologies include the following:

## Link

Link technologies provide wireless capability to machines to enable two-way transfer of information collected by on-board sensors, control modules, and other Cat Connect technologies.

## Manage Your Machine Remotely

Cat Product Link is a system that is deeply integrated into the machine monitoring system to take the guesswork out of managing your equipment. The system tracks location, hours, fuel usage, productivity, idle time, and diagnostic codes and shares it with you through VisionLink® to help you maximize efficiency, improve productivity, and lower operating costs.

# CAT® CONNECT



EQUIPMENT  
MANAGEMENT



PRODUCTIVITY



SAFETY



SUSTAINABILITY



# Safety

Your Safety Is NOT Optional

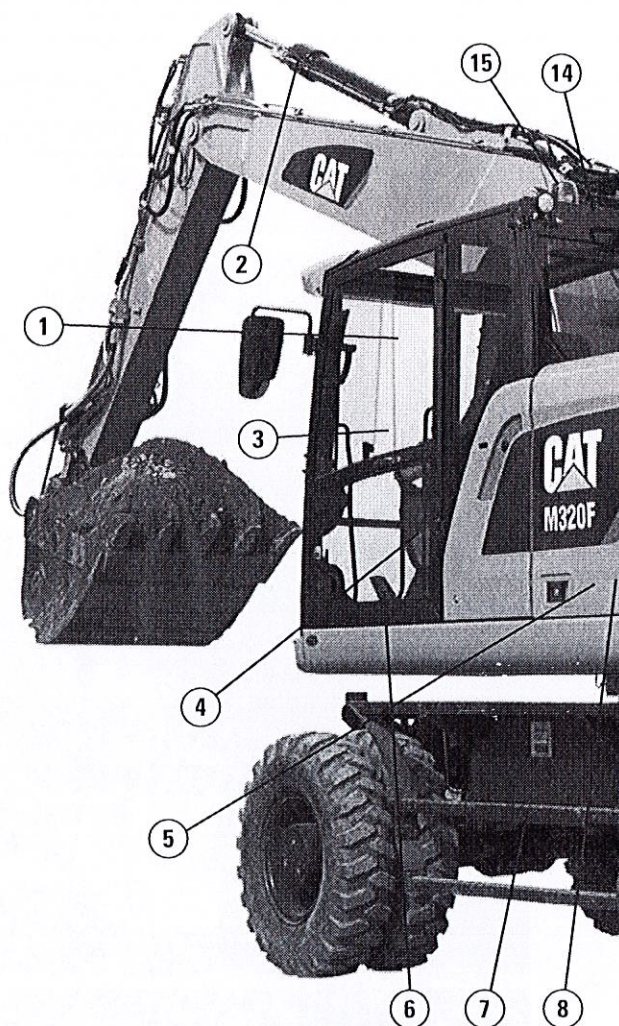
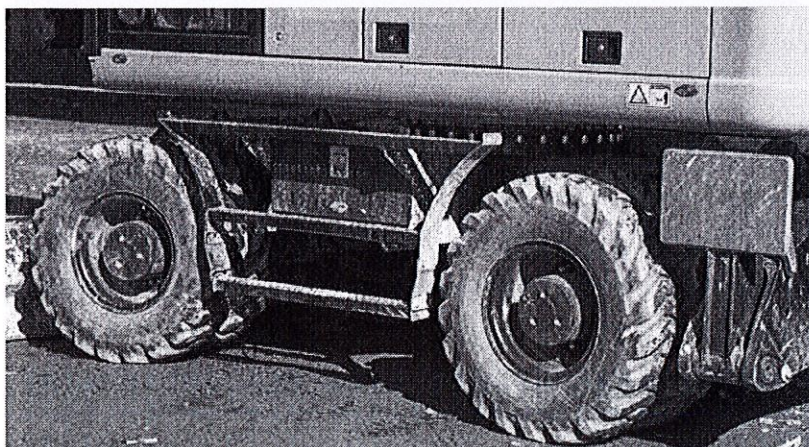
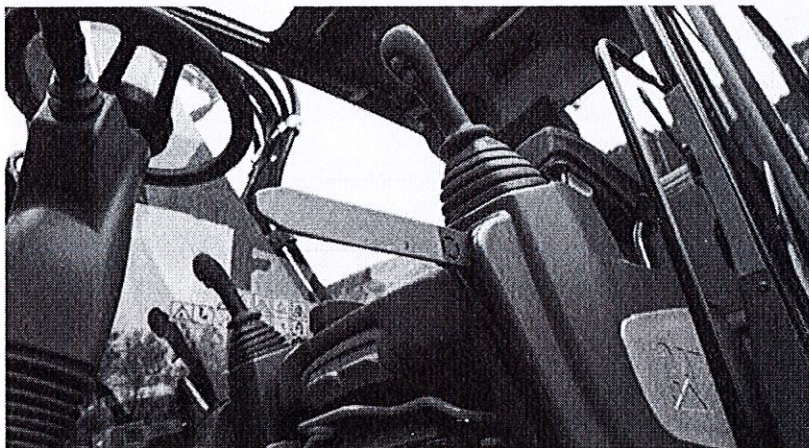
## Cab Ingress

We bring a solution to allow you to safely climb into the cab:

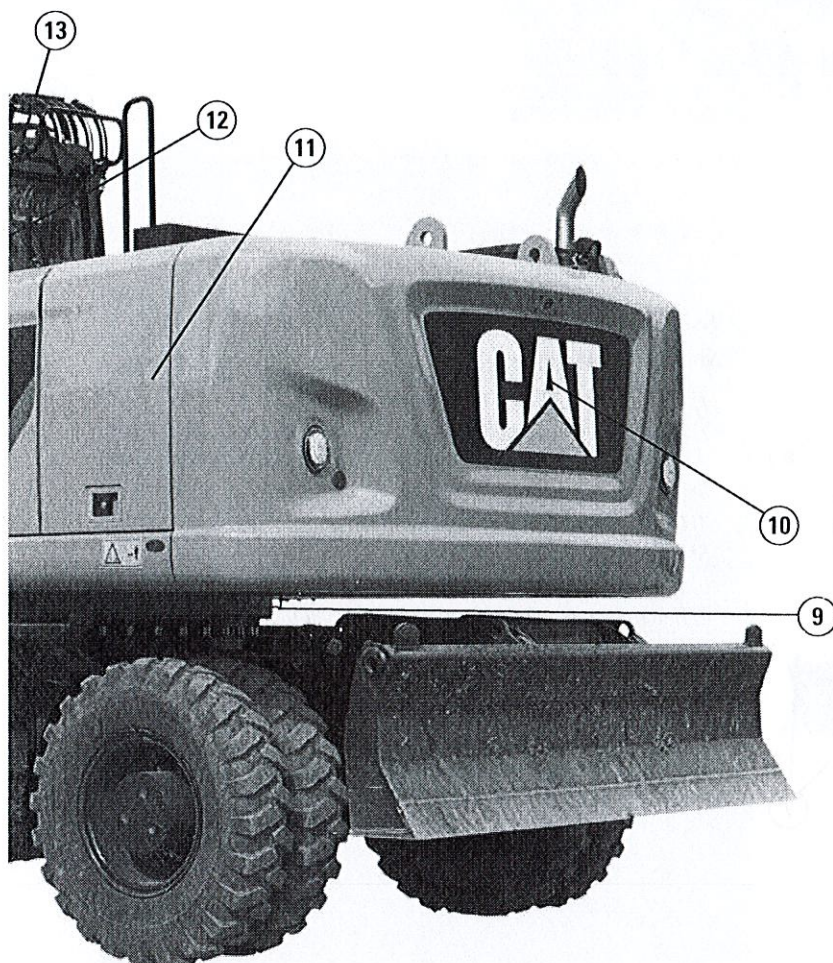
- Three longer access steps, aligned with the cab entry
- Anti-skid plates on all walkways and steps reducing slipping hazards
- Convenient door handrail
- Tiltable console to make sure the way in and out is free of obstacle

## Safe and Quiet Cab

The cab provides you with a safe environment. It also contributes to your comfort with limited vibrations and drastically reduced sound levels.







## Embedded Features

Smart embedded devices help enforce safe behavior:

- 1) Laminated windshield and skylight window. One-piece 10 mm (0.4") windshield and skylight fulfilling EN356 P5A standards.
- 2) Lowering check valves
- 3) Safety seat belt indicator
- 4) Safety lever
- 5) Emergency shut-off switch
- 6) Automatic brake and axle lock
- 7) Punched, anti-slippery walking surfaces
- 8) Battery disconnect switch
- 9) Swing and implement electronic lock
- 10) Travel alarm
- 11) All doors equipped with gas struts cylinders
- 12) Emergency hammer and exit
- 13) ROPS compliant and front/top guards compatible cab
- 14) Sound proofing
- 15) Beacon available

**NEW!** Quick coupler control switch, ISO 13031 compliant

## Smart Lighting

- LED lights for all working lights for enhanced night-time visibility
- Halogen lights for front roading lights
- LED dome light for better illumination inside the cab
- **NEW!** Dedicated LED lights for both rear and side cameras



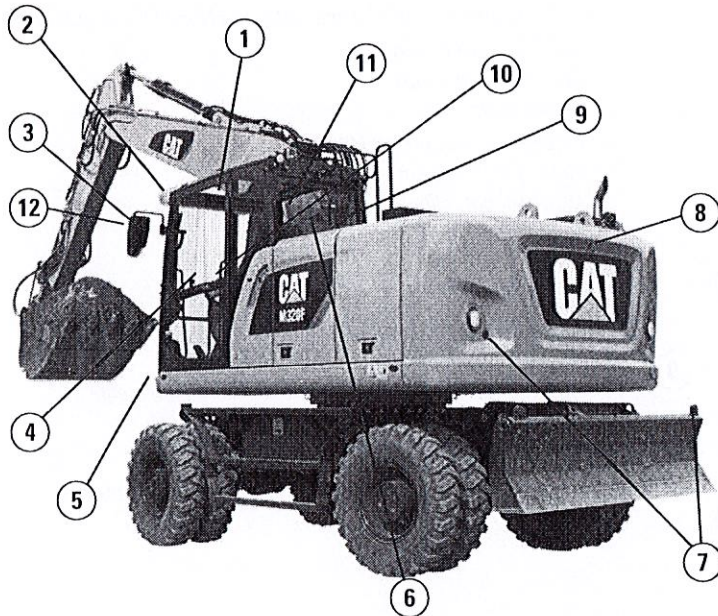
## Great Views

- Enlarged glass gives you excellent visibility to the front, top, rear, and sides, even to the right
- Standard rearview camera gives you a clear field of view behind the machine
- Standard sideview camera, to check nothing is hidden to you from the front right hand side to the rear of the machine
- **NEW!** Monitor split-screen to easily check cameras rearview and sideview on the same display
- Lenses of all the cameras are wide angle and heated
- All mirrors are wide angle and allow view not only around the machine but also to the ground



# Unmatched Visibility

Make Sure Nothing Is Hidden to You



**Visibility all around is critical**, especially for machines which go on public roads.

- 1) Increased skylight and windshield glass areas
- 2) Improved lighting with standard LED lights for all working lights
- 3) Optional electrically adjustable and heated mirrors
- 4) Great left hand side visibility with all glass door
- 5) Halogen roading lights
- 6) Wide rear window
- 7) Red reflectors, on counterweight and rear blade/outriggers
- 8) Standard wide rearview camera with LED light
- 9) Standard wide sideview camera with LED light
- 10) Split-screen display of both cameras on the same monitor
- 11) Large right hand side window
- 12) Mirrors, wide angle, with additional lower mirror for ground visibility

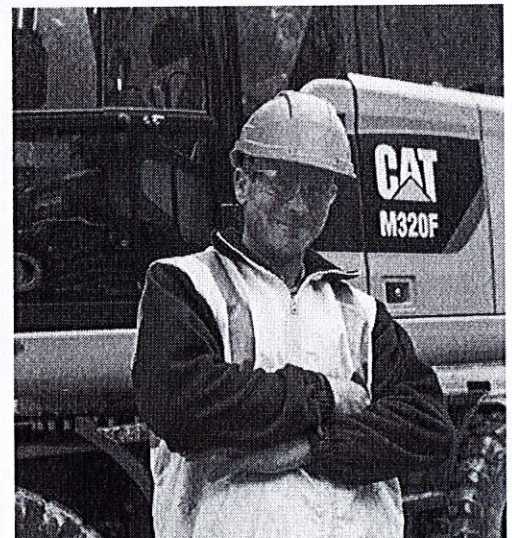
## Complete Customer Care

Your Cat Dealer Will Support You Like No Other

### Support You Can Count On

From helping you to choose the right machine to knowledgeable on-going support, Cat dealers provide the best-in-sales and services.

- **Best long-term investment** with financing options and services
- **Productive operation** with training programs
- **Preventive maintenance** and guaranteed maintenance contracts
- **Uptime**, with best-in-class parts availability
- **Repair, rebuild, or replace?** Your dealer can help evaluate the best option.





# M320F Wheeled Excavator Specifications

## Engine

Engine Model	Cat C7.1 ACERT <sup>(1)</sup>	
Ratings	1,550 rpm	
Engine Gross Power (maximum)		
ISO 14396	129.4 kW	174 hp
ISO 14396 (metric)	176 hp	
Net Power (Rated) <sup>(2)</sup>		
ISO 9249/SAE J1349	126 kW	169 hp
ISO 9249/SAE J1349 (metric)	171 hp	
80/1269/EEC	126 kW	169 hp
Net Power (maximum)		
ISO 9249/SAE J1349	126 kW	169 hp
ISO 9249/SAE J1349 (metric)	171 hp	
80/1269/EEC	126 kW	169 hp
Bore	105 mm	4.1 in
Stroke	135 mm	5.3 in
Displacement	7.01 L	427.8 in <sup>3</sup>
Maximum Torque at 1,400 rpm	830 N·m	612.0 lbf-ft
Number of Cylinders	6	

<sup>(1)</sup> Meets Tier 4 Final/Stage IV emission standards.

<sup>(2)</sup> Rated speed 1,550 rpm. Constant power from 1,500-1,550 rpm.

- Net power advertised is the power available at the flywheel when engine is equipped with air cleaner, CEM exhaust gas aftertreatment, alternator, and cooling fan running at intermediate speed.
- No deratings required up to 3000 m (9,842 ft) altitude. Automatic derating occurs after 3000 m (9,842 ft).

## Transmission

Forward/Reverse		
1st Gear	10 kph	6.2 mph
2nd Gear	35 kph	21.7 mph
Creeper Speed		
1st Gear	3 kph	1.9 mph
2nd Gear	12 kph	7.5 mph
Drawbar Pull	104 kN	23,380 lbf
Maximum Gradeability (at 18 500 kg/40,785 lb)	65%	

## Swing Mechanism

Maximum Swing Speed	9 rpm	
Maximum Swing Torque	48 kN·m	35,403 lbf-ft

## Undercarriage

Axle Clearance	360 mm	14.2 in
Maximum Steering Angle	35°	
Oscillation Axle Angle	±8.5°	
Minimum Turning Radius		

Standard Axle		
Outside of Tire	6400 mm	21.0 ft
End of VA Boom	7000 mm	23.0 ft
End of One-Piece Boom	8300 mm	27.2 ft
Maximum Towable Trailer Mass*	8000 kg	17,637 lb

\*Not available in Australia and New Zealand.

## Service Refill Capacities

Fuel Tank (total capacity)	415 L	109.6 gal
Diesel Exhaust Fluid Tank	34.5 L	9.1 gal
Cooling System	46.9 L	12.4 gal
Engine Crankcase	18.5 L	4.9 gal
Rear Axle Housing (differential)	14 L	3.7 gal
Front Steering Axle (differential)	10.5 L	2.8 gal
Final Drive	2.5 L	0.7 gal
Powershift Transmission	2.5 L	0.7 gal

## Weights

Operating Weights*	19 520 kg-	43,034-
	20 220 kg	44,577 lb

### Weights

VA Boom		
Rear Dozer, Front Outriggers	20 020 kg	44,136 lb
Front and Rear Outriggers	20 220 kg	44,577 lb
One-Piece Boom		
Rear Dozer, Front Outriggers	19 520 kg	43,034 lb
Front and Rear Outriggers	19 720 kg	43,475 lb
Sticks**		
Medium, 2500 mm (8'2")	870 kg	1,918 lb
Long, 2800 mm (9'2")	910 kg	2,006 lb
Counterweight		
Standard	3700 kg	8,157 lb
Optional	4200 kg	9,259 lb

\*Operating weight includes medium stick, 3700 kg (8,157 lb) counterweight, full fuel tank, operator, quick coupler (245 kg/540 lb), bucket (695 kg/1,532 lb) and dual pneumatic tires. Weight varies depending on configuration.

\*\*Includes cylinder, bucket linkage, pins and standard hydraulic lines.



# M320F Wheeled Excavator Specifications

## Hydraulic System

Tank Capacity	153 L	40.4 gal
System	315 L	83.2 gal
Maximum Pressure		
Implement Circuit		
Normal	350 bar	5,076 psi
Heavy Lift	370 bar	5,366 psi
Travel Circuit	350 bar	5,076 psi
Auxiliary Circuit		
High Pressure	350 bar	5,076 psi
Medium Pressure	185 bar	2,683 psi
Swing Mechanism	310 bar	4,496 psi
Maximum Flow		
Implement/Travel Circuit	290 L/min	76.6 gal/min
Auxiliary Circuit		
High Pressure	250 L/min	66.0 gal/min
Medium Pressure	49 L/min	12.9 gal/min
Swing Mechanism	108 L/min	28.5 gal/min

## Tires

Standard	10.00-20 (Dual Pneumatic)
Optional	11.00-20 (Dual Pneumatic) 445/70/R19.5 TL XF (Single Pneumatic) 10.00-20 (Dual Solid Rubber)*

\*Not available in Australia and New Zealand.

## Blade

Blade Type	Parallel	
Width	2550 mm	100.4 in
Blade Roll-Over Height	576 mm	22.7 in
Blade Total Height	680 mm	26.7 in
Maximum Lowering Depth from Ground	130 mm	5.1 in
Maximum Raising Height above Ground	495 mm	1 ft 7 in

## Emissions and Safety

Engine Emissions	Tier 4 Final/Stage IV	
Diesel Exhaust Fluid	Must meet ISO 22241	
Fluids (Optional)		
Biodiesel up to B20	Meets EN14214 or ASTM D6751 with EN590 or ASTM D975 Standard Mineral diesel fuels	
Vibration Levels		
Maximum Hand/Arm		
ISO 5349:2001	<2.5 m/s <sup>2</sup>	<8.2 ft/s <sup>2</sup>
Maximum Whole Body		
ISO/TR 25398:2006	<0.5 m/s <sup>2</sup>	<1.6 ft/s <sup>2</sup>
Seat Transmissibility Factor		
ISO 7096:2000-spectral class EM5	<0.7	

## Standards

ROPS	ROPS (Rollover Protective Structure) offered by Caterpillar meets ROPS criteria ISO 12117-2:2008	
Operator Protective Structure: Top/Front Guards	FOPS (Falling Object Protective Structure) meets FOPS criteria ISO 10262:1998 and SAE J1356:2008	
Cab/Sound Levels	Meets appropriate standards as listed below	

## Sound Performance

Operator Sound	
2000/14/EC	71 dB(A)
Spectator Sound	
2000/14/EC	99 dB(A)

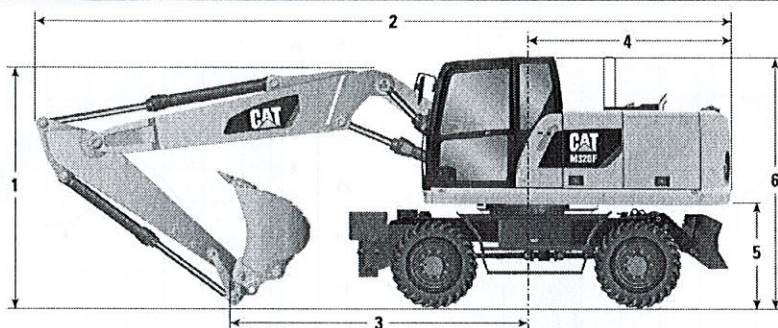
- Operator Sound – The operator sound level is measured according to the procedures specified in 2000/14/EC, for a cab offered by Caterpillar, when properly installed and maintained and tested with the door and windows closed.
- Exterior Sound – The labeled spectator sound power level is measured according to the test procedures and conditions specified in 2000/14/EC.
- Hearing protection may be needed when operating with an open operator station and cab (when not properly maintained for doors/windows open) for extended periods or in noisy environment(s).



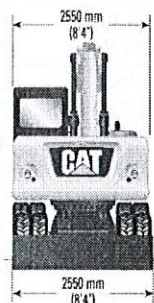
# M320F Wheeled Excavator Specifications

## Dimensions

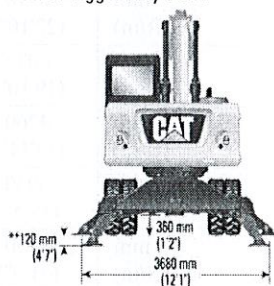
All dimensions are approximate. Values are with 10.00-20 pneumatic tires.



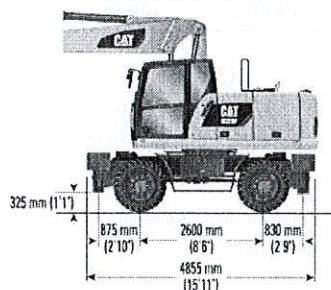
Stick Length	mm (ft/in)	Variable Adjustable Boom		One-Piece Boom	
		2500 (8'2")	2800 (9'2")	2500 (8'2")	2800 (9'2")
1 Shipping Height with Falling Object Guard and Handrails Lowered (highest point between boom and cab)	mm (ft/in)	3330 (10'11")		3320 (10'11")	
2 Shipping Length	mm (ft/in)	9025 (29'7")	9025 (29'7")	8915 (29'3")	8890 (29'2")
3 Support Point	mm (ft/in)	3495 (11'6")	3315 (10'11")	3640 (11'11")	3500 (11'6")
4 Tail Swing Radius	mm (ft/in)	2570 (8'5")			
5 Counterweight Clearance	mm (ft/in)	1280 (4'2")			
6 Cab Height – No Falling Object Guard, Handrails Lowered	mm (ft/in)	3190 (10'6")			
With Handrails not Lowered	mm (ft/in)	3260 (10'9")			
With Falling Object Guard	mm (ft/in)	3320 (10'11")			
7 Overall Machine Width					
Width with Outriggers on Ground	mm (ft/in)	3680 (12'1")			
Width with Outriggers Up	mm (ft/in)	2550 (8'4")			
Width with Blade	mm (ft/in)	2250 (8'4")			
8 Maximum Outriggers Depth	mm (ft/in)	120 (4.7")			



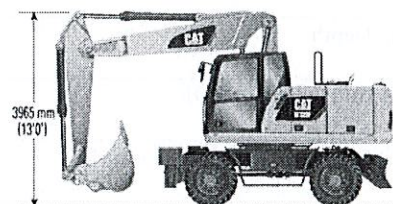
\*\* Maximum tire clearance with outrigger fully down



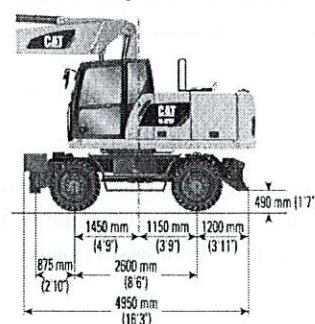
Undercarriage with 2 sets of outriggers



Roading position with 2500 mm (8'2") stick



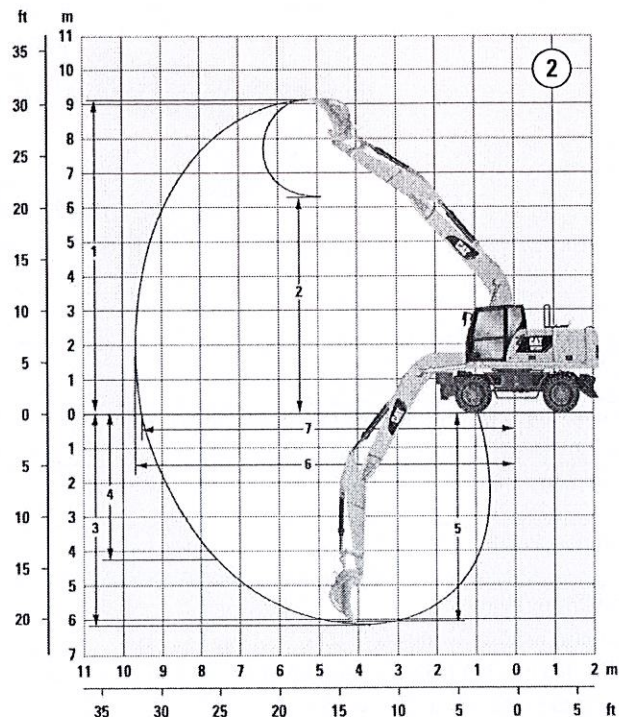
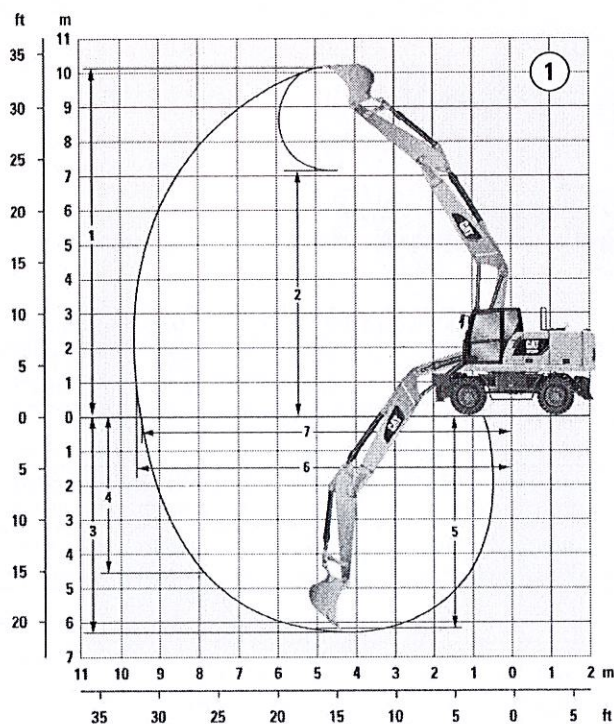
Undercarriage with 1 set of outriggers and dozer





# M320F Wheeled Excavator Specifications

## Working Ranges



		①		②	
		Variable Adjustable Boom		One-Piece Boom	
Stick Length	mm (ft/in)	2500 (8'2")	2800 (9'2")	2500 (8'2")	2800 (9'2")
1 Digging Height	mm (ft/in)	9950 (32'8")	10 165 (33'4")	8940 (29'4")	9095 (29'10")
2 Dump Height	mm (ft/in)	6970 (22'10")	7180 (23'7")	6140 (20'2")	6290 (20'8")
3 Digging Depth	mm (ft/in)	6035 (19'10")	6330 (20'9")	5980 (19'7")	6280 (20'7")
4 Vertical Wall Digging Depth	mm (ft/in)	4260 (13'11")	4510 (14'10")	3935 (12'11")	4225 (13'10")
5 Depth 2.5 m (8'2") in Straight Clean-Up	mm (ft/in)	5930 (19'5")	6235 (20'5")	5755 (18'11")	6070 (19'11")
6 Reach	mm (ft/in)	9450 (31'0")	9735 (31'11")	9470 (31'1")	9750 (32'0")
7 Reach at Ground Level	mm (ft/in)	9270 (30'5")	9565 (31'5")	9295 (30'6")	9580 (31'5")
Bucket Forces (ISO 6015)	kN (lbf)	137 (30,799)		137 (30,799)	
Stick Forces (ISO 6015)	kN (lbf)	93 (20,907)	86 (19,334)	93 (20,907)	86 (19,334)

Working Range dimensions refer to stick nose pin, with pneumatic tires.

Range values are calculated with GD Bucket, 1200 mm (48 in), 0.98 m<sup>3</sup> (1.28 yd<sup>3</sup>) with tips K080 and quick coupler with a tip radius of 1535 mm (5'0").

Bucket and Stick force values are calculated with heavy lift on (no quick coupler) and a tip radius of 1298 mm (4'3").



# M320F Wheeled Excavator Specifications

## Bucket Specifications and Compatibility

Contact your Cat dealer for special bucket requirements.

Without Quick Coupler							Variable Adjustable Boom								One-Piece Boom							
Counterweight							3.7 mt (8,157 lb)								3.7 mt (8,157 lb)							
Stick Length							2500 mm (8'2")				2800 mm (9'2")				2500 mm (8'2")				2800 mm (9'2")			
	Width		Capacity		Weight		Free on wheels	Dozer lowered	1 set of stabilizers lowered	Fully stabilized	Free on wheels	Dozer lowered	1 set of stabilizers lowered	Fully stabilized	Free on wheels	Dozer lowered	1 set of stabilizers lowered	Fully stabilized	Free on wheels	Dozer lowered	1 set of stabilizers lowered	Fully stabilized
	mm	in	m <sup>3</sup>	yd <sup>3</sup>	kg	lb																
General Duty (GD)	600	24	0.41	0.54	474	1,042																
	750	30	0.56	0.73	522	1,148																
	900	36	0.70	0.92	583	1,283																
	1050	42	0.83	1.09	632	1,390																
	1200	48	1.00	1.31	695	1,530																
	1300	51	1.09	1.43	724	1,593																
	1400	55	1.18	1.54	756	1,664																
Heavy Duty (HD)	900	36	0.70	0.92	626	1,378																
	1100	43	0.83	1.09	669	1,472																
	1200	48	1.00	1.31	733	1,613																
	1300	51	1.09	1.43	763	1,679																

The above loads are in compliance with hydraulic excavator standard EN474, they do not exceed 87% of hydraulic lifting capacity or 75% of tipping capacity with front linkage fully extended at ground line with bucket curled.

Capacity based on ISO 7451.

Bucket weight with General Duty tips.

	Maximum material density 2100 kg/m <sup>3</sup> (3,500 lb/yd <sup>3</sup> )
	Maximum material density 1800 kg/m <sup>3</sup> (3,000 lb/yd <sup>3</sup> )
	Maximum material density 1500 kg/m <sup>3</sup> (2,500 lb/yd <sup>3</sup> )
	Maximum material density 1200 kg/m <sup>3</sup> (2,000 lb/yd <sup>3</sup> )
	Maximum material density 900 kg/m <sup>3</sup> (1,500 lb/yd <sup>3</sup> )
	Not recommended

Caterpillar recommends using appropriate attachments to maximize the value customers receive from our products. Use of attachments, including buckets, which are outside of Caterpillar's recommendations or specifications for weight, dimensions, flows, pressures, etc. may result in less-than-optimal performance, including but not limited to reductions in production, stability, reliability, and component durability. Improper use of an attachment resulting in sweeping, prying, twisting and/or catching of heavy loads will reduce the life of the boom and stick.



# M320F Wheeled Excavator Specifications

## Bucket Specifications and Compatibility

Contact your Cat dealer for special bucket requirements.

With Pin Grabber Coupler							Variable Adjustable Boom								One-Piece Boom							
Counterweight							3.7 mt (8,157 lb)								3.7 mt (8,157 lb)							
Stick Length							2500 mm (8'2")				2800 mm (9'2")				2500 mm (8'2")				2800 mm (9'2")			
	Width		Capacity		Weight		Free on wheels	Dozer lowered	1 set of stabilizers lowered	Fully stabilized	Free on wheels	Dozer lowered	1 set of stabilizers lowered	Fully stabilized	Free on wheels	Dozer lowered	1 set of stabilizers lowered	Fully stabilized	Free on wheels	Dozer lowered	1 set of stabilizers lowered	Fully stabilized
	mm	in	m <sup>3</sup>	yd <sup>3</sup>	kg	lb																
General Duty (GD)	600	24	0.41	0.54	474	1,042																
	750	30	0.56	0.73	522	1,148																
	900	36	0.70	0.92	583	1,283																
	1050	42	0.83	1.09	632	1,390																
	1200	48	1.00	1.31	695	1,530																
	1300	51	1.09	1.43	724	1,593																
	1400	55	1.18	1.54	756	1,664																
Heavy Duty (HD)	900	36	0.70	0.92	626	1,378																
	1100	43	0.83	1.09	669	1,472																
	1200	48	1.00	1.31	733	1,613																
	1300	51	1.09	1.43	763	1,679																

The above loads are in compliance with hydraulic excavator standard EN474, they do not exceed 87% of hydraulic lifting capacity or 75% of tipping capacity with front linkage fully extended at ground line with bucket curled.

Capacity based on ISO 7451.

Bucket weight with General Duty tips.

	Maximum material density 2100 kg/m <sup>3</sup> (3,500 lb/yd <sup>3</sup> )
	Maximum material density 1800 kg/m <sup>3</sup> (3,000 lb/yd <sup>3</sup> )
	Maximum material density 1500 kg/m <sup>3</sup> (2,500 lb/yd <sup>3</sup> )
	Maximum material density 1200 kg/m <sup>3</sup> (2,000 lb/yd <sup>3</sup> )
	Maximum material density 900 kg/m <sup>3</sup> (1,500 lb/yd <sup>3</sup> )
	Not recommended

Caterpillar recommends using appropriate attachments to maximize the value customers receive from our products. Use of attachments, including buckets, which are outside of Caterpillar's recommendations or specifications for weight, dimensions, flows, pressures, etc. may result in less-than-optimal performance, including but not limited to reductions in production, stability, reliability, and component durability. Improper use of an attachment resulting in sweeping, prying, twisting and/or catching of heavy loads will reduce the life of the boom and stick.



# M320F Wheeled Excavator Specifications

## Attachments Matching Guide

When choosing between various attachment models that can be installed onto the same machine configuration, consider attachment application, productivity requirements, and durability. Refer to attachment specifications for application recommendations and productivity information.

		(1)		(2)		(3)		(1)		(2)		(3)	
Stick Length		2500 mm (8'2")	2800 mm (9'2")	2500 mm (8'2")	2800 mm (9'2")	2500 mm (8'2")	2800 mm (9'2")	2500 mm (8'2")	2800 mm (9'2")	2500 mm (8'2")	2800 mm (9'2")	2500 mm (8'2")	2800 mm (9'2")
<b>Variable Adjustable Boom</b>		With 3.7 mt (8,157 lb) Counterweight						With 4.2 mt (9,259 lb) Counterweight					
Hydraulic Hammer	H115Es												
	H120Es												
	H130Es												
Multi-Processor	MP318 CC, D, U Jaws												
	MP318 S Jaw												
Crusher	P315												
Pulverizer	P215												
Demolition and Sorting Grapple	G315B												
Scrap and Demolition Shear	S320B												
	S325B												
Compactor Plate	CVP75												
Orange Peel Grapple (4 or 5 Tines)	GSH15B 400 L (½ yd³)	These attachments, along with trash grapples, thumbs and rakes are available for the M320F. Consult your Cat dealer for proper match.											
	GSH15B 500 L (¾ yd³)												
	GSH15B 600 L (¾ yd³)												
	GSH15B 800 L (1 yd³)												
<b>One-Piece Boom</b>		With 3.7 mt (8,157 lb) Counterweight						With 4.2 mt (9,259 lb) Counterweight					
Hydraulic Hammer	H115Es												
	H120Es												
	H130Es												
Multi-Processor	MP318 CC and U Jaws												
	MP318 D Jaw												
	MP318 P Jaw												
	MP318 S Jaw												
Crusher	P315												
Pulverizer	P215												
Demolition and Sorting Grapple	G315B												
Scrap and Demolition Shear	S320B												
	S325B												
Compactor Plate	CVP75												
Pin Grabber Coupler	Cat PG												

(1) Dozer lowered

(2) 2 sets outriggers lowered

(3) Dozer and outrigger lowered

Attachment is a match

Pin-on only

Over the front only

Boom Mount

Over the front only with Pin Grabber coupler

Not recommended

Offerings not available in all areas. Matches are dependent on Wheeled Excavator configurations. Consult your Cat dealer to determine what is offered in your area and for proper attachment match.



# M320F Wheeled Excavator Specifications

## Lift Capacities – Variable Adjustable Boom

All values are in kg, bucket cylinder and bucket linkage installed, attachment: none, with counterweight (4200 kg), heavy lift on.

		Load over front			Load over rear			Load over side			Load point height						
Long Stick 2800 mm		3000 mm			4500 mm			6000 mm			7500 mm						
																	mm
6000 mm	Rear dozer up							*5150	3950	3450				*2850	*2850	2600	6980
	Rear dozer down								*5150	3900					*2850	*2850	
	Dozer and stabilizer down								*5150	*5150					*2850	*2850	
	2 sets of stabilizers down							*5150	*5150	*5150				*2850	*2850	*2850	
4500 mm	Rear dozer up				*6550	6050	5250	5350	3800	3350	3700	2600	2300	*2750	2450	2150	7720
	Rear dozer down					*6550	6000		*5850	3800			*3850	2600	*2750	2450	
	Dozer and stabilizer down					*6550	*6550		*5850	5600			*3850	3850	*2750	*2750	
	2 sets of stabilizers down				*6550	*6550	*6550	*5850	*5850	*5850	*3850	*3850	*3850	*2750	*2750	*2750	
3000 mm	Rear dozer up				8000	5550	4800	5150	3600	3150	3600	2550	2200	*2750	2200	1900	8100
	Rear dozer down					*8350	5550		*6450	3600		5450	2550	*2750	*2750	2200	
	Dozer and stabilizer down					*8350	*8350		*6450	5350		*5450	3800	*2750	*2750	*2750	
	2 sets of stabilizers down				*8350	*8350	*8350	*6450	*6450	6200	*5450	*5450	4350	*2750	*2750	*2750	
1500 mm	Rear dozer up				7500	5100	4350	4900	3400	2950	3500	2450	2100	*2900	2100	1850	8190
	Rear dozer down					*9700	5050		*7100	3400		5300	2450	*2900	*2900	2100	
	Dozer and stabilizer down					*9700	7900		*7100	5150		5350	3700	*2900	*2900	*2900	
	2 sets of stabilizers down				*9700	*9700	9350	*7100	*7100	5950	*5700	5500	4250	*2900	*2900	*2900	
0 mm	Rear dozer up				7200	4850	4100	4750	3250	2800	3450	2350	2050	3150	2150	1850	7990
	Rear dozer down					*10 100	4800		*7350	3250		5200	2350	*3200	*3200	2150	
	Dozer and stabilizer down					*10 100	7600		*7350	4950		5250	3600	*3200	*3200	*3200	
	2 sets of stabilizers down				*10 100	*10 100	9000	*7350	*7350	5800	*5650	5400	4200	*3200	*3200	*3200	
-1500 mm	Rear dozer up	*9000	8950	7300	7100	4750	4000	4650	3150	2700				3450	2350	2050	7480
	Rear dozer down		*9000	8800		*9600	4700		*7000	3150					*3750	2350	
	Dozer and stabilizer down		*9000	*9000		*9600	7500		*7000	4900					*3750	3600	
	2 sets of stabilizers down	*9000	*9000	*9000	*9600	*9600	8900	*7000	*7000	5700				*3750	*3750	*3750	
-3000 mm	Rear dozer up	*11 000	9100	7450	7150	4800	4050	4700	3200	2750				4150	2850	2450	6580
	Rear dozer down		*11 000	8950		*8050	4750		*5750	3200					*4700	2850	
	Dozer and stabilizer down		*11 000	*11 000		*8050	7550		*5750	4950					*4700	4350	
	2 sets of stabilizers down	*11 000	*11 000	*11 000	*8050	*8050	*8050	*5750	*5750	*5750				*4700	*4700	*4700	

\* Limited by hydraulic rather than tipping load.

Lift capacity ratings are based on ISO 10567:2007, they do not exceed 87% of hydraulic lifting capacity or 75% of tipping load. The load point is the center line of the bucket pivot mounting pin on the stick. The oscillating axle must be locked. Lifting capacities are based on the machine standing on a firm uniform supporting surface and the Variable Boom Cylinder adjusted to the maximum length. For lifting capacity including bucket and/or quick coupler, the respective weight has to be subtracted from above values. The use of a work tool attachment point to handle/lift objects, could affect the machine lift performance.























Always refer to the appropriate Operation and Maintenance Manual for specific product information.



# M320F Wheeled Excavator Specifications

## Lift Capacities – Variable Adjustable Boom

All values are in lb, bucket cylinder and bucket linkage installed, attachment: none, with counterweight (9,259 lb), heavy lift on.

 Load at maximum reach (stick nose/bucket pin)		 Load over front			 Load over rear			 Load over side			 Load point height						
Long Stick 9'2"	 Undercarriage configuration	10 ft			15 ft			20 ft			25 ft						ft
																	
20 ft	Rear dozer up							*11,000	8,400	7,400				*6,300	*6,300	5,900	22.67
	Rear dozer down							*11,000	*11,000	8,200				*6,300	*6,300	*6,300	
	Dozer and stabilizer down							*11,000	*11,000	*11,000				*6,300	*6,300	*6,300	
	2 sets of stabilizers down							*11,000	*11,000	*11,000				*6,300	*6,300	*6,300	
15 ft	Rear dozer up				*14,200	13,000	11,300	11,500	8,200	7,200	*7,000	5,600	4,900	*6,000	5,500	4,800	25.23
	Rear dozer down				*14,200	*14,200	12,600	11,400	*12,700	8,000	*7,000	*7,000	5,400	*6,000	*6,000	5,300	
	Dozer and stabilizer down				*14,200	*14,200	*14,200	*12,700	*12,700	11,800	*7,000	*7,000	*7,000	*6,000	*6,000	*6,000	
	2 sets of stabilizers down				*14,200	*14,200	*14,200	*12,700	*12,700	*12,700	*7,000	*7,000	*7,000	*6,000	*6,000	*6,000	
10 ft	Rear dozer up				17,300	12,000	10,400	11,000	7,800	6,800	7,800	5,500	4,700	*6,000	4,900	4,300	26.57
	Rear dozer down				17,200	*18,000	11,600	11,000	*14,000	7,600	7,800	*11,200	5,300	*6,000	*6,000	4,800	
	Dozer and stabilizer down				*18,000	*18,000	17,700	*14,000	*14,000	11,300	*11,200	*11,200	8,000	*6,000	*6,000	*6,000	
	2 sets of stabilizers down				*18,000	*18,000	*18,000	*14,000	*14,000	13,400	*11,200	*11,200	9,400	*6,000	*6,000	*6,000	
5 ft	Rear dozer up				16,200	11,000	9,400	10,600	7,300	6,300	7,600	5,300	4,600	*6,400	4,700	4,000	26.87
	Rear dozer down				16,100	*20,900	10,600	10,500	*15,300	7,100	7,500	11,400	5,100	*6,400	*6,400	4,500	
	Dozer and stabilizer down				*20,900	*20,900	16,600	*15,300	*15,300	10,800	*12,400	11,500	7,800	*6,400	*6,400	*6,400	
	2 sets of stabilizers down				*20,900	*20,900	20,100	*15,300	*15,300	12,900	*12,400	11,800	9,200	*6,400	*6,400	*6,400	
0 ft	Rear dozer up				15,500	10,400	8,900	10,200	7,000	6,000	7,400	5,100	4,400	6,900	4,800	4,100	26.21
	Rear dozer down				15,400	*21,900	10,000	10,100	*15,900	6,800	7,400	11,200	4,900	6,900	*7,000	4,600	
	Dozer and stabilizer down				*21,900	*21,900	15,900	*15,900	*15,900	10,400	*12,200	11,300	7,600	*7,000	*7,000	*7,000	
	2 sets of stabilizers down				*21,900	*21,900	19,400	*15,900	*15,900	12,500	*12,200	11,600	9,000	*7,000	*7,000	*7,000	
-5 ft	Rear dozer up	*20,400	19,200	15,700	15,300	10,200	8,700	10,000	6,800	5,900				7,600	5,200	4,500	24.51
	Rear dozer down	*20,400	*20,400	18,200	15,200	*20,700	9,800	10,000	*15,200	6,600				7,600	*8,300	5,100	
	Dozer and stabilizer down	*20,400	*20,400	*20,400	*20,700	*20,700	15,700	*15,200	*15,200	10,300				*8,300	*8,300	7,800	
	2 sets of stabilizers down	*20,400	*20,400	*20,400	*20,700	*20,700	19,100	*15,200	*15,200	12,300				*8,300	*8,300	*8,300	
-10 ft	Rear dozer up	*23,700	19,500	16,000	15,400	10,300	8,800	10,100	6,900	6,000				9,200	6,400	5,500	21.46
	Rear dozer down	*23,700	*23,700	18,500	15,300	*17,300	9,900	10,100	*12,200	6,700				9,200	*10,400	6,200	
	Dozer and stabilizer down	*23,700	*23,700	*23,700	*17,300	*17,300	15,800	*12,200	*12,200	10,400				*10,400	*10,400	9,500	
	2 sets of stabilizers down	*23,700	*23,700	*23,700	*17,300	*17,300	*17,300	*12,200	*12,200	*12,200				*10,400	*10,400	*10,400	

\*Limited by hydraulic rather than tipping load.

Lift capacity ratings are based on ISO 10567:2007, they do not exceed 87% of hydraulic lifting capacity or 75% of tipping load. The load point is the center line of the bucket pivot mounting pin on the stick. The oscillating axle must be locked. Lifting capacities are based on the machine standing on a firm uniform supporting surface and the Variable Boom Cylinder adjusted to the maximum length. For lifting capacity including bucket and/or quick coupler, the respective weight has to be subtracted from above values. The use of a work tool attachment point to handle/lift objects, could affect the machine lift performance.























Always refer to the appropriate Operation and Maintenance Manual for specific product information.



# M320F Wheeled Excavator Specifications

## Lift Capacities – One-Piece Boom

All values are in kg, bucket cylinder and bucket linkage installed, attachment: none, with counterweight (4200 kg), heavy lift on.

 Load at maximum reach (stick nose/bucket pin)		 Load over front			 Load over rear			 Load over side			 Load point height							
Long Stick 2800 mm		3000 mm			4500 mm			6000 mm			7500 mm							
																	mm	
6000 mm	Undercarriage configuration																	
	Rear dozer up							*5150	3900	3450						*3000	*3000	2650
	Rear dozer down								*5150	3900							*3000	3000
	Dozer and stabilizer down								*5150	*5150							*3000	*3000
4500 mm	2 sets of stabilizers down							*5150	*5150	*5150						*3000	*3000	*3000
	Rear dozer up							5300	3800	3350	3700	2650	2300	*2900	2500	2150		
	Rear dozer down								*5700	3800				*4000	2650		*2900	2500
	Dozer and stabilizer down								*5700	5550				*4000	3850		*2900	*2900
3000 mm	2 sets of stabilizers down							*5700	*5700	*5700	*4000	*4000	*4000	*2900	*2900	*2900		
	Rear dozer up				7950	5550	4800	5100	3600	3150	3600	2550	2250	*2950	2250	1950		
	Rear dozer down					*8250	5500		*6400	3600								
	Dozer and stabilizer down					*8250	*8250		*6400	5350								
1500 mm	2 sets of stabilizers down				*8250	*8250	*8250	*6400	*6400	6150	*5450	*5450	4350	*2950	*2950	*2950		
	Rear dozer up				7450	5100	4400	4900	3400	2950	3500	2450	2150	3050	2150	1850		
	Rear dozer down					*9700	5100		*7050	3400								
	Dozer and stabilizer down					*9700	7850		*7050	5100								
0 mm	2 sets of stabilizers down				*9700	*9700	9250	*7050	*7050	5950	*5700	5450	4250	*3150	*3150	*3150		
	Rear dozer up				7200	4850	4150	4700	3250	2800	3450	2400	2050	3150	2150	1900		
	Rear dozer down					*10 200	4850		7350	3250								
	Dozer and stabilizer down					*10 200	7600		7350	4950								
-1500 mm	2 sets of stabilizers down				*10 200	*10 200	8950	*7400	*7400	5750	*5750	5350	4150	*3500	*3500	*3500		
	Rear dozer up	*8900	*8900	7400	7100	4800	4050	4650	3200	2750					3400	2350	2050	
	Rear dozer down		*8900	8850		*9800	4750		*7200	3200								
	Dozer and stabilizer down		*8900	*8900		*9800	7500		*7200	4900								
-3000 mm	2 sets of stabilizers down	*8900	*8900	*8900	*9800	*9800	8900	*7200	*7200	5700					*4200	*4200	4150	
	Rear dozer up	*11 700	9150	7550	7150	4850	4100	4700	3250	2800					4150	2850	2500	
	Rear dozer down		*11 700	9000		*8450	4800		*6100	3200								
	Dozer and stabilizer down		*11 700	*11 700		*8450	7550		*6100	4900								
-4500 mm	2 sets of stabilizers down	*11 700	*11 700	*11 700	*8450	*8450	*8450	*6100	*6100	5750					*5150	*5150	5000	
	Rear dozer up				*5500	5000	4300								*4500	4250	3650	
	Rear dozer down					*5500	5000											
	Dozer and stabilizer down					*5500	*5500											
2800 mm	2 sets of stabilizers down				*5500	*5500	*5500								*4500	*4500	*4500	

\* Limited by hydraulic rather than tipping load.

Lift capacity ratings are based on ISO 10567:2007, they do not exceed 87% of hydraulic lifting capacity or 75% of tipping load. The load point is the center line of the bucket pivot mounting pin on the stick. The oscillating axle must be locked. Lifting capacities are based on the machine standing on a firm uniform supporting surface. For lifting capacity including bucket and/or quick coupler, the respective weight has to be subtracted from above values. The use of a work tool attachment point to handle/lift objects, could affect the machine lift performance.

























Always refer to the appropriate Operation and Maintenance Manual for specific product information.



# M320F Wheeled Excavator Specifications

## Lift Capacities – One-Piece Boom

All values are in lb, bucket cylinder and bucket linkage installed, attachment: none, with counterweight (9,259 lb), heavy lift on.

		Load at maximum reach (stick nose/bucket pin)		Load over front		Load over rear		Load over side		Load point height															
Long Stick 9'2"		Undercarriage configuration	5 ft			10 ft			15 ft			20 ft			25 ft						ft				
																									
25 ft	Rear dozer up																	*7,400	*7,400	*7,400	18.50				
	Rear dozer down																	*7,400	*7,400	*7,400					
	Dozer and stabilizer down																	*7,400	*7,400	*7,400					
	2 sets of stabilizers down																	*7,400	*7,400	*7,400					
20 ft	Rear dozer up										*11,000	8,400	7,400					*6,600	*6,600	5,900	22.74				
	Rear dozer down										*11,000	*11,000	8,200					*6,600	*6,600	6,500					
	Dozer and stabilizer down										*11,000	9,300	7,700					*6,600	*6,600	6,200					
	2 sets of stabilizers down										*11,000	*11,000	*11,000					*6,600	*6,600	*6,600					
15 ft	Rear dozer up										11,400	8,200	7,200	*7,400	5,600	4,900		*6,400	5,500	4,800	25.30				
	Rear dozer down										11,400	*12,400	8,000	*7,400	*7,400	5,500		*6,400	*6,400	5,400					
	Dozer and stabilizer down										11,400	9,100	7,500	*7,400	6,300	5,200		*6,400	6,200	5,100					
	2 sets of stabilizers down										*12,400	*12,400	*12,400	*7,400	*7,400	*7,400		*6,400	*6,400	*6,400					
10 ft	Rear dozer up										17,100	12,000	10,400	11,000	7,800	6,800	7,800	5,500	4,800	*6,500	4,900	4,300	26.61		
	Rear dozer down										17,000	*17,800	11,500	10,900	*13,800	7,600	7,700	*11,400	5,300	*6,500	*6,500	4,800			
	Dozer and stabilizer down										17,100	13,200	10,800	11,000	8,700	7,100	7,800	6,200	5,000	*6,500	5,600	4,500			
	2 sets of stabilizers down										*17,800	*17,800	*17,800	*13,800	*13,800	13,300	*11,400	*11,400	9,400	*6,500	*6,500	*6,500			
5 ft	Rear dozer up										16,100	11,000	9,500	10,500	7,400	6,400	7,600	5,300	4,600	6,800	4,700	4,100	26.94		
	Rear dozer down										16,000	*20,900	10,600	10,500	*15,300	7,100	7,500	11,300	5,200	6,700	*6,900	4,600			
	Dozer and stabilizer down										16,100	12,300	9,900	10,500	8,200	6,700	7,600	6,000	4,900	6,800	5,300	4,300			
	2 sets of stabilizers down										*20,900	*20,900	19,900	*15,300	*15,300	12,800	*12,400	11,700	9,200	*6,900	*6,900	*6,900			
0 ft	Rear dozer up										*11,500	*11,500	*11,500	15,500	10,500	9,000	10,200	7,000	6,100	7,400	5,100	4,500	26.28		
	Rear dozer down										*11,500	*11,500	*11,500	15,400	*22,100	10,100	10,100	15,800	6,800	7,400	11,200	5,000			
	Dozer and stabilizer down										*11,500	*11,500	*11,500	15,500	11,700	9,400	10,200	7,900	6,400	7,400	5,800	4,700			
	2 sets of stabilizers down										*11,500	*11,500	*11,500	*22,100	*22,100	19,300	*16,000	*16,000	12,400	*12,500	11,500	9,000			
-5 ft	Rear dozer up										*12,400	*12,400	*12,400	*20,300	19,300	15,900	15,300	10,300	8,800	10,000	6,900	6,000		24.57	
	Rear dozer down										*12,400	*12,400	*12,400	*20,300	*20,300	18,300	15,200	*21,200	9,900	10,000	*15,600	6,700			
	Dozer and stabilizer down										*12,400	*12,400	*12,400	*20,300	*20,300	16,700	15,300	11,600	9,200	10,000	7,800	6,300			
	2 sets of stabilizers down										*12,400	*12,400	*12,400	*20,300	*20,300	*20,300	*21,200	*21,200	19,100	*15,600	*15,600	12,300			
-10 ft	Rear dozer up																								21.52
	Rear dozer down																								
	Dozer and stabilizer down																								
	2 sets of stabilizers down																								
-15 ft	Rear dozer up																								16.37
	Rear dozer down																								
	Dozer and stabilizer down																								
	2 sets of stabilizers down																								

\*Limited by hydraulic rather than tipping load.

Lift capacity ratings are based on ISO 10567:2007, they do not exceed 87% of hydraulic lifting capacity or 75% of tipping load. The load point is the center line of the bucket pivot mounting pin on the stick. The oscillating axle must be locked. Lifting capacities are based on the machine standing on a firm uniform supporting surface. For lifting capacity including bucket and/or quick coupler, the respective weight has to be subtracted from above values. The use of a work tool attachment point to handle/lift objects, could affect the machine lift performance.

Always refer to the appropriate Operation and Maintenance Manual for specific product information.



# M320F Wheeled Excavator Standard Equipment

## Standard Equipment

Standard equipment may vary. Consult your Cat dealer for details.

### ELECTRICAL

- Alternator, 115A
- Lighting
  - LED light package, including all working lights (compatible with falling object guard). Working lights include cab mounted lights (two front, one rear), one on the counterweight for the rear camera and one on the right for the sideview camera.
  - Boom LED working light
  - Cab interior LED light
  - Rooding lights two front, halogen
  - Rooding lights two rear, LED modules
- Main shut-off switch
- Maintenance free batteries, heavy duty
- Signal/warning horn
- Electrical refueling pump

### ENGINE

- Cat C7.1 engine with ACERT Technology meets Tier 4 Final/Stage IV emission standards
- Aftertreatment technologies including the Cat Clean Emission Module package (CEM)
- Automatic Engine Speed Control (AESC), including one touch low idle
- Engine Idle Shutdown (EIS)
- Power mode selector
- Altitude 3000 m (9,842 ft) capability without de-rate
- Automatic starting aid
- Fuel/water separator with water in fuel switch
- Electric fuel priming pump

### HYDRAULICS

- Adjustable hydraulic sensitivity
- Auxiliary boom and stick lines
- All Cat XT™-6 ES hoses
- Anti-drift valves for bucket and tool control/multi-function circuits
- Basic control circuits:
  - Medium pressure
    - Two-way, medium pressure circuit, for rotating or tilting of attachments
  - Tool control/multi function
    - One/two-way high pressure for hammer application or opening and closing of attachments
  - Programmable flow and pressure for up to 10 attachments – selection via monitor
  - Quick coupler circuit and lines for hydraulic quick coupler (either pin grabber or dedicated/CW Quick Couplers, controlled by a dedicated switch)
- Boom Lowering Check Valve (BLCV), including overload warning device
- Electronic Pump Control (EPC)
- Heavy lift mode
- Load-sensing hydraulic system
- Separate swing pump
- Stick Lowering Check Valve (SLCV)
- Stick regeneration circuit

*(continued on next page)*



# M320F Wheeled Excavator Standard Equipment

## Standard Equipment *(continued)*

Standard equipment may vary. Consult your Cat dealer for details.

### OPERATOR STATION

- Reinforced (ROPS) cab structure compliant with 2006/42/EC and tested according to ISO 12117-2:2008
- Adjustable armrests
- Air conditioner, heater and defroster with automatic climate control
- Cigarette lighter (24 volt)
- Beverage cup/can holder
- Bolt-on Falling Object Guards (FOGS) capability
- Bottle holder
- Bottom mounted intermittent (four speeds) wiping system that covers the upper and lower windshield glass
- Cameras
  - Rear mounted wide angle camera (integrated into the counterweight)
  - Right side wide angle camera, mounted on the cooling hood
  - Both cameras are displayed side by side on a dedicated large color monitor
- Coat hook
- Cruise Control System
- Fastened seat belt warning signal
- Floor mat, washable, with storage compartment
- FM Radio with CD player, speakers and USB port
- Fully adjustable suspension seat
- Instrument panel and full graphic and color display
  - Information and warning messages in local language
  - Gauges for fuel level, engine coolant, Diesel Exhaust Fluid (DEF) and hydraulic oil temperature
  - Filters/fluids change intervals
  - Indicators for headlights, turning signal, low fuel, engine dial setting
  - Clock with 10-day backup battery
- Interior LED lighting with door switch
- Joystick pilot operated with one proportional slider
  - Joystick pattern, changeable
- Laminated upper front windshield
- Left side console, tiltable, with lock out for all controls
- Literature holder in right hand side panel
- Mobile phone holder
- Parking brake
- Pin-code, engine start prevention
- Power supply, 12V-10A
- Rain protector\*
- Rear window (tempered glass)/emergency exit, with hammer
- Retractable seat belt, integrated into the seat
- Safety lever, integrated into the left console
- Sealed cab with positive filtered ventilation
- Skylight, laminated glass
- Sliding door windows
- Steering column, adjustable height and angle
- Storage area suitable for a lunch box
- Sunshade for windshield and skylight

### UNDERCARRIAGE

- All wheel drive
- Automatic brake/axle lock
- Creeper speed
- Electronic swing and travel lock
- Heavy-duty axles, advanced disc brake system and travel motor, adjustable braking force
- Oscillating front axle, lockable, with remote greasing point
- Steps with box in undercarriage (left and right)
- Two-piece drive shaft, with 1,000 hours greasing intervals
- Two speed hydrostatic transmission
- Spacer rings for tires

### OTHER EQUIPMENT

- Auto-lube, centralized greasing (implement and swing gear)
- Automatic swing brake
- Bucket linkage for digging sticks
- Counterweight, 3700 kg (8,157 lb)
- Engine emergency shutoff switch
- Mirrors, wide angle, frame and cab
- Product Link
- S-O-S<sup>SM</sup> sampling valves for engine oil, hydraulic oil and coolant

\*Not compatible with the falling objects guards



# M320F Wheeled Excavator Optional Equipment

## Optional Equipment

Optional equipment may vary. Consult your Cat dealer for details.

### AUXILIARY CONTROLS AND LINES

- Basic control circuits:
  - Second high pressure
    - Additional two-way, high pressure circuit, for tools requiring a second high or medium pressure function
- SmartBoom

### FRONT LINKAGE

- Booms
  - One-piece boom, 5350 mm (17'6")
  - VA boom (two piece), 5260 mm (17'3")
- Sticks
  - 2500 mm (8'2")
  - 2800 mm (9'2")

### ELECTRICAL

- Travel alarm
- Rotating beacon on cab

### OPERATOR STATION

- Advanced joysticks with two proportional sliders
- Joystick steering
- Seat, adjustable high-back, with vertical and horizontal air-suspension and head rest
  - comfort, automatic weight adjustment, mechanical lumbar support, heated
  - deluxe seat adds automatic height and weight adjustment, pneumatic lumbar support, premium fabric, heated and ventilated
- Windshield
  - One-piece impact resistant, laminated windshield and skylight (EN356 P5A standards)
  - 70/30 split, openable
- Mirrors electrically adjustable and heated, frame and cab
- High pressure auxiliary pedal
- Falling Objects Guards (top and front)

### UNDERCARRIAGE

- Front blade (parallel)/rear outriggers
- Front blade (parallel)/rear outriggers, with trailer-ready package\*
- Front outriggers/rear blade (parallel)
- Front and rear outriggers

### OTHER EQUIPMENT

- Cat Machine Security System (MSS)
- Cooling protection package for dusty applications (includes fine mesh for enhanced radiator protection and engine air precleaner)\*
- Kit, Cooling Protection Package
- Counterweight, 4200 kg (9,259 lb)
- Fenders, front and rear
- Ride Control
- Tires (see pg. 22)
- Attachments (see pg. 25-27)
- Tilt-Rotator-Ready Package

\*Not available in Australia and New Zealand







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)

© 2016 Caterpillar  
All rights reserved

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

CAT, CATERPILLAR, SAFETY.CAT.COM, their respective logos, "Caterpillar Yellow" and the "Power Edge" trade dress, as well as corporate and product identity used herein, are trademarks of Caterpillar and may not be used without permission.

VisionLink is a trademark of Trimble Navigation Limited, registered in the United States and in other countries.

AEHQ7965  
(Americas North, Australia,  
New Zealand)





Effective with sales to the first user on or after November 1, 2010

# CATERPILLAR LIMITED WARRANTY

## For Selected Machine Models Designated by Caterpillar With 12 Month/Unlimited Hour Warranty

### Worldwide

Caterpillar Inc. or any of its subsidiaries ("Caterpillar") warrants the following products sold by it to be free from defects in material and workmanship:

This warranty does not apply to new replacement engines.

This warranty does not apply to selected models or new replacement engines designated by Caterpillar in India and China.

(In other areas different warranties may apply. Copies of applicable warranties may be obtained by writing to Caterpillar Inc., 100 N.E. Adams St., Peoria, IL 61629.)

- New earthmoving, construction, material handling, forestry product, paving product, compact wheel loader, mini hydraulic excavator, skid steer loader, multi terrain loader, and compact track loader machines designated by Caterpillar as having 12 -months/unlimited hour warranty. See your Cat dealer for a complete listing of covered models.

- Attachments/work tools installed on such machines prior to delivery (unless covered by the Cat Work Tool warranty statement or another manufacturer's warranty). Hammer tool points and compacting plates used on hydraulic hammers are not warranted.

An additional warranty against breakage is applicable to certain Cat ground engaging tools. An additional warranty against wear is applicable to all landfill compactor tips when used in residential waste landfills. Refer to the applicable warranty statements for coverage detail.

This warranty does not apply to Cat batteries, Mobil-Trac belts, rubber tracks used on multi terrain loaders, compact track loaders, and mini hydraulic excavators, or Cat Work Tools, which are covered by other Caterpillar warranties.

This warranty is subject to the following:

#### Warranty Period

For new machines and work tools/attachments the warranty period is 12-months/unlimited hours, starting from date of delivery to the first user.

Note: For hydraulic lines quick connect/disconnect components sold on compact wheel loaders, mini hydraulic excavators, skid steer loaders, multi terrain loaders, and compact track loader machines, the warranty period is 50 hours starting from the date of delivery to the first user.

#### Caterpillar Responsibilities

If a defect in material or workmanship is found during the warranty period, Caterpillar will, during normal working hours and at a place of business of a Cat dealer or other source approved by Caterpillar:

- Provide (at Caterpillar's choice) new, remanufactured, or Caterpillar approved repaired parts or assembled components needed to correct the defect.

Note: New, remanufactured, or Caterpillar approved replacement parts provided under the terms of this warranty are warranted for the remainder of the warranty period applicable to the product in which installed as if such parts were original components of that product. Items replaced under this warranty become the property of Caterpillar.

- Replace lubricating oil, filters, antifreeze, and other service items made unusable by the defect.

- Provide reasonable and customary labor needed to correct the defect, except in the case of a new replacement engine originally installed by other than a Cat dealer or source approved by Caterpillar. In this

case, labor is limited to repair only, and removal and installation is the user's responsibility.

#### User Responsibilities

The user is responsible for:

- Providing proof of delivery date to the first user.
- Labor costs, except as stated under "Caterpillar Responsibilities."
- Transportation costs, except as stated under "Caterpillar Responsibilities."

- Premium or overtime labor costs.

- Parts shipping charges in excess of those, that are considered usual and customary.

- Local taxes, if applicable.

- Costs to investigate complaints, unless the problem is caused by a defect in Caterpillar material or workmanship.

- Giving timely notice of a warrantable failure and promptly making the product available for repair.

- Performance of the required maintenance (including use of proper fuel, oil, lubricants, and coolant) and items replaced due to normal wear and tear.

- Allowing Caterpillar access to all electronically stored data.

(continued on the reverse side...)



## Limitations

Caterpillar is not responsible for:

- Failures resulting from attachments, accessory items, and parts not sold or approved by Caterpillar.
- Failures resulting from any use or installation that Caterpillar judges improper.
- Failures resulting from abuse, neglect, and/or improper repair.
- Failures resulting from user's delay in making the product available after being notified of a potential product problem.
- Failures resulting from unauthorized repair or adjustments, and unauthorized fuel setting changes.

*For products operating outside of Australia, Fiji, Nauru, New Caledonia, New Zealand, Papua New Guinea, the Solomon Islands, and Tahiti, the following is applicable:*

NEITHER THE FOREGOING EXPRESS WARRANTY NOR ANY OTHER WARRANTY BY CATERPILLAR, EXPRESS OR IMPLIED, IS APPLICABLE TO ANY ITEM CATERPILLAR SELLS THAT IS WARRANTED DIRECTLY TO THE USER BY ITS MANUFACTURER.

THIS WARRANTY IS EXPRESSLY IN LIEU OF ANY OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, EXCEPT CATERPILLAR EMISSION-RELATED COMPONENTS WARRANTY FOR NEW ENGINES, WHERE APPLICABLE. REMEDIES UNDER THIS WARRANTY ARE LIMITED TO THE PROVISION OF MATERIAL AND SERVICES, AS SPECIFIED HEREIN.

CATERPILLAR IS NOT RESPONSIBLE FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES.

CATERPILLAR EXCLUDES ALL LIABILITY FOR OR ARISING FROM ANY NEGLIGENCE ON ITS PART OR ON THE PART OF ANY OF ITS EMPLOYEES, AGENTS, OR REPRESENTATIVES IN RESPECT OF THE MANUFACTURE OR SUPPLY OF GOODS OR THE PROVISION OF SERVICES RELATING TO THE GOODS.

IF OTHERWISE APPLICABLE, THE VIENNA CONVENTION ON CONTRACTS FOR THE INTERNATIONAL SALE OF GOODS IS EXCLUDED IN ITS ENTIRETY.

*For products operating in Australia, Fiji, Nauru, New Caledonia, New Zealand, Papua New Guinea, the Solomon Islands, and Tahiti, the following is applicable:*

THIS WARRANTY IS IN ADDITION TO WARRANTIES AND CONDITIONS IMPLIED BY STATUTE AND OTHER STATUTORY RIGHTS AND OBLIGATIONS THAT BY ANY APPLICABLE LAW CANNOT BE EXCLUDED, RESTRICTED OR MODIFIED ("MANDATORY RIGHTS"). ALL OTHER WARRANTIES OR CONDITIONS, EXPRESS OR IMPLIED (BY STATUTE OR OTHERWISE), ARE EXCLUDED.

NEITHER THIS WARRANTY NOR ANY OTHER CONDITION OR WARRANTY BY CATERPILLAR, EXPRESS OR IMPLIED (SUBJECT ONLY TO THE MANDATORY RIGHTS), IS APPLICABLE TO ANY ITEM CATERPILLAR SELLS THAT IS WARRANTED DIRECTLY TO THE USER BY ITS MANUFACTURER.

TO THE EXTENT PERMITTED UNDER THE MANDATORY RIGHTS, IF CATERPILLAR IS THE SUPPLIER TO THE USER, CATERPILLAR'S LIABILITY SHALL BE LIMITED AT ITS OPTION TO (a) IN THE CASE OF SERVICES, THE SUPPLY OF THE SERVICES AGAIN OR THE PAYMENT OF THE COST OF HAVING THE SERVICES SUPPLIED AGAIN, AND (b) IN THE CASE OF GOODS, THE REPAIR OR REPLACEMENT OF THE GOODS, THE SUPPLY OF EQUIVALENT GOODS, THE PAYMENT OF THE COST OF SUCH REPAIR OR REPLACEMENT OR THE ACQUISITION OF EQUIVALENT GOODS.

CATERPILLAR EXCLUDES ALL LIABILITY FOR OR ARISING FROM ANY NEGLIGENCE ON ITS PART OR ON THE PART OF ANY OF ITS EMPLOYEES, AGENTS OR REPRESENTATIVES IN RESPECT OF THE MANUFACTURE OR SUPPLY OF GOODS OR THE PROVISION OF SERVICES RELATING TO THE GOODS.

CATERPILLAR IS NOT LIABLE FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES UNLESS IMPOSED UNDER MANDATORY RIGHTS.

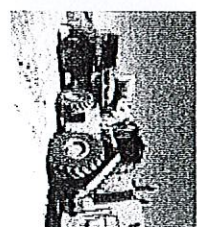
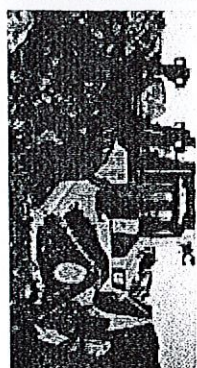
IF OTHERWISE APPLICABLE, THE VIENNA CONVENTION (CONTRACTS FOR THE INTERNATIONAL SALE OF GOODS) IS EXCLUDED IN ITS ENTIRETY.

This warranty covers every major component of the products. Claims under this warranty should be submitted to a place of business of a Cat dealer or other source approved by Caterpillar. For further information concerning either the location to submit claims or Caterpillar as the issuer of this warranty, write Caterpillar Inc., 100 N. E. Adams St., Peoria, IL USA 61629.



# CONTROL YOUR COSTS MINIMIZE YOUR RISKS

This plan safeguards your investments in new, used and rebuilt machines beyond the standard warranty period. It includes all parts and labor to protect you against failures caused by defects in materials and workmanship. With the Powertrain Equipment Protection Plan, you can increase the predictability of service and maintenance costs—and reduce unplanned downtime.



## WHAT WE DO

- Perform necessary inspections to confirm eligibility
- Install parts approved by Caterpillar on covered repairs
- Validate your enrollment in the program

## WHAT YOU DO

- Operate equipment according to the Cat Operation & Maintenance Manual (OMM)
- Have recommended preventive maintenance performed at intervals specified in the OMM
- Upon request, provide proof of preventive maintenance compliance (receipts, copies of work orders, invoices)
- Promptly provide the machine for repair in the event of a covered failure

## EXCLUSIONS

**If a component is not listed, it may not be included in the plan. Other exclusions include:**

- > Improper or abusive use of the machine
- > Lubricating oil, antifreeze, filters, consumables and other maintenance items replaced during the covered component repair, unless such items are rendered unusable by a covered component failure
- > Failures caused by normal wear-out
- > Freight charges for parts shipments
- > Travel time and mileage involved in getting to a job site
- > Hauling costs and / or retrieval costs
- > Overtime labor costs
- > Repair costs resulting from the failure of any non-covered components
- > Downtime loss
- > Equipment rental charges
- > Any incidental / consequential damages or costs incurred as a result of a covered component failure.
- > Modifications unless approved by Caterpillar

**Examples of covered and excluded components or items are listed here. The actual dealer contract will govern. For a complete list of included components and more information on Cat Equipment Protection Plans, contact your local Cat dealer.**

Engine - Internal Components	Camshaft & Camshaft Bearings	Hydrostatic Pumps &
Oil Cooler	Timing / Accessory Gears	Drive Motors
Manifolds	Timing Chain / Belt	Linkage / Lines Connected to
Fan Motor	Inlet / Exhaust Valve	Hystat Pump
Water Pump	Valve Cover & Base	Drive (pilot / eh) Control Valves
Fuel Injection Pumps	Valve Spring & Guide	Bevel and Transfer Case
Injectors	Rocker Arm	
Lift / Transfer Pump	Rocker Shaft Assembly	
Senders / Solenoids / Sensors	Push Rod	Axles
Thermostat	Balancer	Axle Seals
Flywheel & Torque Converter	Fuel Pump / Governor Drive	Final Drive & Wheel
Engine Oil Filter Mount	Oil Pump	Final Drive Case / Bore
Turbocharger	Oil Pan Group	Final Drive Chain
AC Compressor / Condenser	Fan & Fan Drive	Final Drive Gears
Electronic Control Modules		Axle Shaft
Oil Hoses / Lines (non-hydraulic)		Drive Axle Oil Pump
Cylinder Block	Transmissions	
Piston	Hydraulic Controls	Steering Clutch
Piston Rings	Transmission Oil Filter Base	Steering Clutch & Brake Control Valve
Crankshaft, Main Bearings & Rod Bearings	Transmission Gears	
	Final Drives/Planetary Drive Shafts	Hydraulic Oil Coolers
	Transfer Case	





## Employment Eligibility Verification

Welcome  
Teresa McClinton

User ID  
TRMOP5-102

Last Login  
09:22 AM - 01/06/2012 Log Out



Click any for help

[Home](#)

[My Cases](#)

[New Case](#)

[View Cases](#)

[Search Cases](#)

[My Profile](#)

[Edit Profile](#)

[Change Password](#)

[Change Security Questions](#)

[My Company](#)

[Edit Company Profile](#)

[Add New User](#)

[View Existing Users](#)

[Close Company Account](#)

[My Reports](#)

[View Reports](#)

[My Resources](#)

[View Essential Resources](#)

[Take Tutorial](#)

[View User Manual](#)

[Contact Us](#)

### Company Information

Company Name: Thompson Tractor Co., Inc.

[View / Edit](#)

Company ID Number: 47130

Doing Business As (DBA)  
Name:

DUNS Number:

#### Physical Location:

Address 1: 2401 Pinson Highway

Address 2:

City: Birmingham

State: AL

Zip Code: 35217

County: JEFFERSON

#### Mailing Address:

Address 1: P O. Box 10367

Address 2:

City: Birmingham

State: AL

Zip Code: 35202-0367

#### Additional Information:

Employer Identification Number: 630377478

Total Number of Employees: 1,000 to 2,499

Parent Organization:

Administrator:

Organization Designation:

Employer Category:

NAICS Code: 423 - MERCHANT WHOLESALERS, DURABLE GOODS

[View / Edit](#)

Total Hiring Sites: 40

[View / Edit](#)

Total Points of Contact: 3

[View / Edit](#)

[View MOU](#)



## Request for Taxpayer Identification Number and Certification

Give form to the  
requester. Do not  
send to the IRS.

Print or type  
See Specific Instructions on page 2:

Name (as shown on your income tax return) <b>Thompson Tractor Co., Inc. DBA Thompson Power Systems, Thompson Lift Truck Co.</b>	
Business name, if different from above <b>and The Cat Rent Store</b>	
Check appropriate box: <input type="checkbox"/> Individual/Sole proprietor <input checked="" type="checkbox"/> Corporation <input type="checkbox"/> Partnership <input type="checkbox"/> Limited liability company. Enter the tax classification (D=disregarded entity, C=corporation, P=partnership) ▶ ..... <input checked="" type="checkbox"/> Exempt payee <input type="checkbox"/> Other (see instructions) ▶	
Address (number, street, and apt. or suite no.) <b>P O Box 10367 2401 Pinson Hwy. Tarrant, AL 35217</b>	
City, state, and ZIP code <b>Birmingham, AL 35202-0367</b>	
List account number(s) here (optional) <b>Lockbox Remit To: P O Box 934085, Atlanta, GA 31193-4005</b>	

### Part I Taxpayer Identification Number (TIN)

Enter your TIN in the appropriate box. The TIN provided must match the name given on Line 1 to avoid backup withholding. For individuals, this is your social security number (SSN). However, for a resident alien, sole proprietor, or disregarded entity, see the Part I Instructions on page 3. For other entities, it is your employer identification number (EIN). If you do not have a number, see *How to get a TIN* on page 3.

Note. If the account is in more than one name, see the chart on page 4 for guidelines on whose number to enter.

Social security number
or
Employer identification number
<b>63 : 0377478</b>

### Part II Certification

Under penalties of perjury, I certify that:

- The number shown on this form is my correct taxpayer identification number (or I am waiting for a number to be issued to me), and
- I am not subject to backup withholding because: (a) I am exempt from backup withholding, or (b) I have not been notified by the Internal Revenue Service (IRS) that I am subject to backup withholding as a result of a failure to report all interest or dividends, or (c) the IRS has notified me that I am no longer subject to backup withholding, and
- I am a U.S. citizen or other U.S. person (defined below).

**Certification Instructions.** You must cross out item 2 above if you have been notified by the IRS that you are currently subject to backup withholding because you have failed to report all interest and dividends on your tax return. For real estate transactions, item 2 does not apply. For mortgage interest paid, acquisition or abandonment of secured property, cancellation of debt, contributions to an individual retirement arrangement (IRA), and generally, payments other than interest and dividends, you are not required to sign the Certification, but you must provide your correct TIN. See the Instructions on page 4.

Sign  
Here

Signature of  
U.S. person ▶

*Linda L. Denton, Controller*

Date ▶

### General Instructions

Section references are to the Internal Revenue Code unless otherwise noted.

#### Purpose of Form

A person who is required to file an information return with the IRS must obtain your correct taxpayer identification number (TIN) to report, for example, income paid to you, real estate transactions, mortgage interest you paid, acquisition or abandonment of secured property, cancellation of debt, or contributions you made to an IRA.

Use Form W-9 only if you are a U.S. person (including a resident alien), to provide your correct TIN to the person requesting it (the requester) and, when applicable, to:

- Certify that the TIN you are giving is correct (or you are waiting for a number to be issued).
- Certify that you are not subject to backup withholding, or
- Claim exemption from backup withholding if you are a U.S. exempt payee. If applicable, you are also certifying that as a U.S. person, your allocable share of any partnership income from a U.S. trade or business is not subject to the withholding tax on foreign partners' share of effectively connected income.

Note. If a requester gives you a form other than Form W-9 to request your TIN, you must use the requester's form if it is substantially similar to this Form W-9.

**Definition of a U.S. person.** For federal tax purposes, you are considered a U.S. person if you are:

- An individual who is a U.S. citizen or U.S. resident alien,
- A partnership, corporation, company, or association created or organized in the United States or under the laws of the United States,
- An estate (other than a foreign estate), or
- A domestic trust (as defined in Regulations section 301.7701-7).

**Special rules for partnerships.** Partnerships that conduct a trade or business in the United States are generally required to pay a withholding tax on any foreign partners' share of income from such business. Further, in certain cases where a Form W-9 has not been received, a partnership is required to presume that a partner is a foreign person, and pay the withholding tax. Therefore, if you are a U.S. person that is a partner in a partnership conducting a trade or business in the United States, provide Form W-9 to the partnership to establish your U.S. status and avoid withholding on your share of partnership income.

The person who gives Form W-9 to the partnership for purposes of establishing its U.S. status and avoiding withholding on its allocable share of net income from the partnership conducting a trade or business in the United States is in the following cases:

- The U.S. owner of a disregarded entity and not the entity.



Company ID Number: 47130

U.S. DEPARTMENT OF HOMELAND SECURITY

MEMORANDUM OF UNDERSTANDING

**ARTICLE I**

**PURPOSE AND AUTHORITY**

This Memorandum of Understanding (MOU) sets forth the points of agreement between the Social Security Administration (SSA), the Department of Homeland Security (DHS) and Thompson Tractor Co., Inc. (Employer) regarding the Employer's participation in the Employment Eligibility Verification Program (E-Verify). E-Verify is a program in which the employment eligibility of all newly hired employees will be confirmed after the Employment Eligibility Verification Form (Form I-9) has been completed.

Authority for the E-Verify program is found in Title IV, Subtitle A, of the Illegal Immigration Reform and Immigrant Responsibility Act of 1996 (IIRIRA), Pub. L. 104-208, 110 Stat. 3009, as amended (8 U.S.C. § 1324a note).

**ARTICLE II**

**FUNCTIONS TO BE PERFORMED**

**A. RESPONSIBILITIES OF THE SSA**

1. Upon completion of the Form I-9 by the employee and the Employer, and provided the Employer complies with the requirements of this MOU, SSA agrees to provide the Employer with available information that allows the Employer to confirm the accuracy of Social Security Numbers provided by all newly hired employees and the employment authorization of U.S. citizens.
2. The SSA agrees to provide to the Employer appropriate assistance with operational problems that may arise during the Employer's participation in the E-Verify program. The SSA agrees to provide the Employer with names, titles, addresses, and telephone numbers of SSA representatives to be contacted during the E-Verify process.
3. The SSA agrees to safeguard the information provided by the Employer through the E-Verify program procedures, and to limit access to such information, as is appropriate by law, to individuals responsible for the verification of Social Security Numbers and for evaluation of the E-Verify program or such other persons or entities who may be authorized by the SSA as governed by the Privacy Act (5 U.S.C. § 552a), the Social Security Act (42 U.S.C. 1306(a)), and SSA regulations (20 CFR Part 401).
4. SSA agrees to establish a means of automated verification that is designed (in conjunction with DHS's automated system if necessary) to provide confirmation or tentative nonconfirmation of U.S. citizens' employment eligibility and accuracy of SSA records for both citizens and aliens within 3 Federal Government work days of the initial inquiry.



Company ID Number: 47130

5. SSA agrees to establish a means of secondary verification (including updating SSA records as may be necessary) for employees who contest SSA tentative nonconfirmations that is designed to provide final confirmation or nonconfirmation of U.S. citizens' employment eligibility and accuracy of SSA records for both citizens and aliens within 10 Federal Government work days of the date of referral to SSA, unless SSA determines that more than 10 days may be necessary. In such cases, SSA will provide additional verification instructions.

#### **B. RESPONSIBILITIES OF THE DEPARTMENT OF HOMELAND SECURITY**

1. Upon completion of the Form I-9 by the employee and the Employer and after SSA verifies the accuracy of SSA records for aliens through E-Verify, DHS agrees to provide the Employer access to selected data from DHS's database to enable the Employer to conduct:

- Automated verification checks on newly hired alien employees by electronic means, and
- Photo verification checks (when available) on newly hired alien employees.

2. DHS agrees to provide to the Employer appropriate assistance with operational problems that may arise during the Employer's participation in the E-Verify program. DHS agrees to provide the Employer names, titles, addresses, and telephone numbers of DHS representatives to be contacted during the E-Verify process.

3. DHS agrees to provide to the Employer a manual (the E-Verify Manual) containing instructions on E-Verify policies, procedures and requirements for both SSA and DHS, including restrictions on the use of E-Verify. DHS agrees to provide training materials on E-Verify.

4. DHS agrees to provide to the Employer a notice, which indicates the Employer's participation in the E-Verify program. DHS also agrees to provide to the Employer anti-discrimination notices issued by the Office of Special Counsel for Immigration-Related Unfair Employment Practices (OSC), Civil Rights Division, and U.S. Department of Justice.

5. DHS agrees to issue the Employer a user identification number and password that permits the Employer to verify information provided by alien employees with DHS's database.

6. DHS agrees to safeguard the information provided to DHS by the Employer, and to limit access to such information to individuals responsible for the verification of alien employment eligibility and for evaluation of the E-Verify program, or to such other persons or entities as may be authorized by applicable law. Information will be used only to verify the accuracy of Social Security Numbers and employment eligibility, to enforce the Immigration and Nationality Act and federal criminal laws, and to ensure accurate wage reports to the SSA.

7. DHS agrees to establish a means of automated verification that is designed (in conjunction with SSA verification procedures) to provide confirmation or tentative nonconfirmation of employees' employment eligibility within 3 Federal Government work days of the initial inquiry.



Company ID Number: 47130

8. DHS agrees to establish a means of secondary verification (including updating DHS records as may be necessary) for employees who contest DHS tentative nonconfirmations and photo non-match tentative nonconfirmations that is designed to provide final confirmation or nonconfirmation of the employees' employment eligibility within 10 Federal Government work days of the date of referral to DHS, unless DHS determines that more than 10 days may be necessary. In such cases, DHS will provide additional verification instructions.

### **C. RESPONSIBILITIES OF THE EMPLOYER**

1. The Employer agrees to display the notices supplied by DHS in a prominent place that is clearly visible to prospective employees.

2. The Employer agrees to provide to the SSA and DHS the names, titles, addresses, and telephone numbers of the Employer representatives to be contacted regarding E-Verify.

3. The Employer agrees to become familiar with and comply with the E-Verify Manual.

4. The Employer agrees that any Employer Representative who will perform employment verification queries will complete the E-Verify Tutorial before that individual initiates any queries.

- A. The employer agrees that all employer representatives will take the refresher tutorials initiated by the E-Verify program as a condition of continued use of E-Verify.
- B. Failure to complete a refresher tutorial will prevent the employer from continued use of the program.

5. The Employer agrees to comply with established Form I-9 procedures, with two exceptions:

- If an employee presents a "List B" identity document, the Employer agrees to only accept "List B" documents that contain a photo. (List B documents identified in 8 C.F.R. § 274a.2 (b) (1) (B)) can be presented during the Form I-9 process to establish identity).
- If an employee presents a DHS Form I-551 (Permanent Resident Card) or Form I-766 (Employment Authorization Document) to complete the Form I-9, the Employer agrees to make a photocopy of the document and to retain the photocopy with the employee's Form I-9. The employer will use the photocopy to verify the photo and to assist the Department with its review of photo non-matches that are contested by employees. Note that employees retain the right to present any List A, or List B and List C, documentation to complete the Form I-9. DHS may in the future designate other documents that activate the photo screening tool.

6. The Employer understands that participation in E-Verify does not exempt the Employer from the responsibility to complete, retain, and make available for inspection Forms I-9 that relate to its employees, or from other requirements of applicable regulations or laws, except for the following modified requirements applicable by reason of the Employer's participation in E-Verify: (1) identity documents must have photos, as described in paragraph 5 above; (2) a



Company ID Number: 47130

rebuttable presumption is established that the Employer has not violated section 274A(a)(1)(A) of the Immigration and Nationality Act (INA) with respect to the hiring of any individual if it obtains confirmation of the identity and employment eligibility of the individual in compliance with the terms and conditions of E-Verify ; (3) the Employer must notify DHS if it continues to employ any employee after receiving a final nonconfirmation, and is subject to a civil money penalty between \$500 and \$1,000 for each failure to notify DHS of continued employment following a final nonconfirmation; (4) the Employer is subject to a rebuttable presumption that it has knowingly employed an unauthorized alien in violation of section 274A(a)(1)(A) if the Employer continues to employ any employee after receiving a final nonconfirmation; and (5) no person or entity participating in E-Verify is civilly or criminally liable under any law for any action taken in good faith on information provided through the confirmation system. DHS reserves the right to conduct Form I-9 compliance inspections during the course of E-Verify, as well as to conduct any other enforcement activity authorized by law.

7. The Employer agrees to initiate E-Verify verification procedures within 3 Employer business days after each employee has been hired (but after both sections 1 and 2 of the Form I-9 have been completed), and to complete as many (but only as many) steps of the E-Verify process as are necessary according to the E-Verify Manual. The Employer is prohibited from initiating verification procedures before the employee has been hired and the Form I-9 completed. If the automated system to be queried is temporarily unavailable, the 3-day time period is extended until it is again operational in order to accommodate the Employer's attempting, in good faith, to make inquiries during the period of unavailability. In all cases, the Employer must use the SSA verification procedures first, and use DHS verification procedures and photo screening tool only after the the SSA verification response has been given.

8. The Employer agrees not to use E-Verify procedures for pre-employment screening of job applicants, support for any unlawful employment practice, or any other use not authorized by this MOU. The Employer must use E-Verify for all new employees and will not verify only certain employees selectively. The Employer agrees not to use E-Verify procedures for re-verification, or for employees hired before the date this MOU is in effect. The Employer understands that if the Employer uses E-Verify procedures for any purpose other than as authorized by this MOU, the Employer may be subject to appropriate legal action and the immediate termination of its access to SSA and DHS information pursuant to this MOU.

9. The Employer agrees to follow appropriate procedures (see Article III.B. below) regarding tentative nonconfirmations, including notifying employees of the finding, providing written referral instructions to employees, allowing employees to contest the finding, and not taking adverse action against employees if they choose to contest the finding. Further, when employees contest a tentative nonconfirmation based upon a photo non-match, the Employer is required to take affirmative steps (see Article III.B. below) to contact DHS with information necessary to resolve the challenge.

10. The Employer agrees not to take any adverse action against an employee based upon the employee's employment eligibility status while SSA or DHS is processing the verification request unless the Employer obtains knowledge (as defined in 8 C.F.R. § 274a.1 (l)) that the employee is not work authorized. The Employer understands that an initial inability of the SSA or DHS automated verification to verify work authorization, a tentative nonconfirmation, or the finding of



Company ID Number: 47130

a photo non-match, does not mean, and should not be interpreted as, an indication that the employee is not work authorized. In any of the cases listed above, the employee must be provided the opportunity to contest the finding, and if he or she does so, may not be terminated or suffer any adverse employment consequences until and unless secondary verification by SSA or DHS has been completed and a final nonconfirmation has been issued. If the employee does not choose to contest a tentative nonconfirmation or a photo non-match, then the Employer can find the employee is not work authorized and take the appropriate action.

11. The Employer agrees to comply with section 274B of the INA by not discriminating unlawfully against any individual in hiring, firing, or recruitment or referral practices because of his or her national origin or, in the case of a protected individual as defined in section 274B(a)(3) of the INA, because of his or her citizenship status. The Employer understands that such illegal practices can include selective verification or use of E-Verify, discharging or refusing to hire eligible employees because they appear or sound "foreign", and premature termination of employees based upon tentative nonconfirmations, and that any violation of the unfair immigration-related employment practices provisions of the INA could subject the Employer to civil penalties pursuant to section 274B of the INA and the termination of its participation in E-Verify. If the Employer has any questions relating to the anti-discrimination provision, it should contact OSC at 1-800-255-7688 or 1-800-237-2515 (TDD).

12. The Employer agrees to record the case verification number on the employee's Form I-9 or to print the screen containing the case verification number and attach it to the employee's Form I-9.

13. The Employer agrees that it will use the information it receives from the SSA or DHS pursuant to E-Verify and this MOU only to confirm the employment eligibility of newly-hired employees after completion of the Form I-9. The Employer agrees that it will safeguard this information, and means of access to it (such as PINS and passwords) to ensure that it is not used for any other purpose and as necessary to protect its confidentiality, including ensuring that it is not disseminated to any person other than employees of the Employer who are authorized to perform the Employer's responsibilities under this MOU.

14. The Employer acknowledges that the information which it receives from SSA is governed by the Privacy Act (5 U.S.C. § 552a (i) (1) and (3)) and the Social Security Act (42 U.S.C. 1306(a)), and that any person who obtains this information under false pretenses or uses it for any purpose other than as provided for in this MOU may be subject to criminal penalties.

15. The Employer agrees to allow DHS and SSA, or their authorized agents or designees, to make periodic visits to the Employer for the purpose of reviewing E-Verify -related records, i.e., Forms I-9, SSA Transaction Records, and DHS verification records, which were created during the Employer's participation in the E-Verify Program. In addition, for the purpose of evaluating E-Verify, the Employer agrees to allow DHS and SSA or their authorized agents or designees, to interview it regarding its experience with E-Verify, to interview employees hired during E-Verify use concerning their experience with the pilot, and to make employment and E-Verify related records available to DHS and the SSA, or their designated agents or designees. Failure to comply with the terms of this paragraph may lead DHS to terminate the Employer's access to E-Verify.



Company ID Number: 47130

### **ARTICLE III**

#### **REFERRAL OF INDIVIDUALS TO THE SSA AND THE DEPARTMENT OF HOMELAND SECURITY**

##### **A. REFERRAL TO THE SSA**

1. If the Employer receives a tentative nonconfirmation issued by SSA, the Employer must print the tentative nonconfirmation notice as directed by the automated system and provide it to the employee so that the employee may determine whether he or she will contest the tentative nonconfirmation.
2. The Employer will refer employees to SSA field offices only as directed by the automated system based on a tentative nonconfirmation, and only after the Employer records the case verification number, reviews the input to detect any transaction errors, and determines that the employee contests the tentative nonconfirmation. The Employer will transmit the Social Security Number to SSA for verification again if this review indicates a need to do so. The Employer will determine whether the employee contests the tentative nonconfirmation as soon as possible after the Employer receives it.
3. If the employee contests an SSA tentative nonconfirmation, the Employer will provide the employee with a referral letter and instruct the employee to visit an SSA office to resolve the discrepancy within 8 Federal Government work days. The Employer will make a second inquiry to the SSA database using E-Verify procedures on the date that is 10 Federal Government work days after the date of the referral in order to obtain confirmation, or final nonconfirmation, unless otherwise instructed by SSA or unless SSA determines that more than 10 days is necessary to resolve the tentative nonconfirmation..
4. The Employer agrees not to ask the employee to obtain a printout from the Social Security Number database (the Numident) or other written verification of the Social Security Number from the SSA.

##### **B. REFERRAL TO THE DEPARTMENT OF HOMELAND SECURITY**

1. If the Employer receives a tentative nonconfirmation issued by DHS, the Employer must print the tentative nonconfirmation notice as directed by the automated system and provide it to the employee so that the employee may determine whether he or she will contest the tentative nonconfirmation.
2. If the Employer finds a photo non-match for an alien who provides a document for which the automated system has transmitted a photo, the employer must print the photo non-match tentative nonconfirmation notice as directed by the automated system and provide it to the employee so that the employee may determine whether he or she will contest the finding.
3. The Employer agrees to refer individuals to DHS only when the employee chooses to contest a tentative nonconfirmation received from DHS automated verification process or when



Company ID Number: 47130

the Employer issues a tentative nonconfirmation based upon a photo non-match. The Employer will determine whether the employee contests the tentative nonconfirmation as soon as possible after the Employer receives it.

4. If the employee contests a tentative nonconfirmation issued by DHS, the Employer will provide the employee with a referral letter and instruct the employee to contact the Department through its toll-free hotline within 8 Federal Government work days.

5. If the employee contests a tentative nonconfirmation based upon a photo non-match, the Employer will provide the employee with a referral letter to DHS. DHS will electronically transmit the result of the referral to the Employer within 10 Federal Government work days of the referral unless it determines that more than 10 days is necessary.

6. The Employer agrees that if an employee contests a tentative nonconfirmation based upon a photo non-match, the Employer will send a copy of the employee's Form I-551 or Form I-766 to DHS for review by:

- Scanning and uploading the document, or
- Sending a photocopy of the document by an express mail account (furnished and paid for by DHS).

7. The Employer understands that if it cannot determine whether there is a photo match/non-match, the Employer is required to forward the employee's documentation to DHS by scanning and uploading, or by sending the document as described in the preceding paragraph, and resolving the case as specified by the Immigration Services Verifier at DHS who will determine the photo match or non-match.

#### ARTICLE IV

##### **SERVICE PROVISIONS**

The SSA and DHS will not charge the Employer for verification services performed under this MOU. The Employer is responsible for providing equipment needed to make inquiries. To access the E-Verify System, an Employer will need a personal computer with Internet access.

#### ARTICLE V

##### **PARTIES**

This MOU is effective upon the signature of all parties, and shall continue in effect for as long as the SSA and DHS conduct the E-Verify program unless modified in writing by the mutual consent of all parties, or terminated by any party upon 30 days prior written notice to the others. Any and all system enhancements to the E-Verify program by DHS or SSA, including but not limited to the E-Verify checking against additional data sources and instituting new verification procedures, will be covered under this MOU and will not cause the need for a supplemental MOU that outlines these changes. DHS agrees to train employers on all changes made to E-Verify through the use of mandatory refresher tutorials and updates to the E-Verify manual. Even



Company ID Number: 47130

without changes to E-Verify, the Department reserves the right to require employers to take mandatory refresher tutorials.

Termination by any party shall terminate the MOU as to all parties. The SSA or DHS may terminate this MOU without prior notice if deemed necessary because of the requirements of law or policy, or upon a determination by SSA or DHS that there has been a breach of system integrity or security by the Employer, or a failure on the part of the Employer to comply with established procedures or legal requirements. Some or all SSA and DHS responsibilities under this MOU may be performed by contractor(s), and SSA and DHS may adjust verification responsibilities between each other as they may determine.

Nothing in this MOU is intended, or should be construed, to create any right or benefit, substantive or procedural, enforceable at law by any third party against the United States, its agencies, officers, or employees, or against the Employer, its agents, officers, or employees.

Each party shall be solely responsible for defending any claim or action against it arising out of or related to E-Verify or this MOU, whether civil or criminal, and for any liability wherefrom, including (but not limited to) any dispute between the Employer and any other person or entity regarding the applicability of Section 403(d) of IIRIRA to any action taken or allegedly taken by the Employer.

The employer understands that the fact of its participation in E-Verify is not confidential information and may be disclosed as authorized or required by law and DHS or SSA policy, including but not limited to, Congressional oversight, E-Verify publicity and media inquiries, and responses to inquiries under the Freedom of Information Act (FOIA).

The foregoing constitutes the full agreement on this subject between the SSA, DHS, and the Employer.

The individuals whose signatures appear below represent that they are authorized to enter into this MOU on behalf of the Employer and DHS respectively.

To be accepted as a participant in E-Verify, you should only sign the Employer's Section of the signature page. If you have any questions, contact E-Verify Operations at 888-464-4218.

Employer Thompson Tractor Co., Inc.

Frank M Wright

Name (Please type or print)

Title

*Electronically Signed*

07/11/2007

Signature

Date

Department of Homeland Security – Verification Division



Company ID Number: 47130

## INFORMATION REQUIRED FOR THE E-VERIFY PROGRAM

Information relating to your Company:

Company Name: Thompson Tractor Co., Inc.

Company Facility Address: 2401 Pinson Highway  
Birmingham, AL 35217

Company Alternate Address: P.O. Box 10367  
Birmingham, AL 35202-0367

County or Parish: JEFFERSON

Employer Identification Number: 630377478

North American Industry  
Classification Systems Code: 423

Parent Company: \_\_\_\_\_

Number of Employees: 1,000 to 2,499 Number of Sites Verified for: 5

Are you verifying for more than 1 site? If yes, please provide the number of sites verified for in each State.

- GEORGLA 5 site(s)

Information relating to the Program Administrator(s) for your Company on policy questions or operational problems:

Name: Kimberly A Stark  
Telephone Number: (205) 849 - 4279 Fax Number: (205) 849 - 4565  
E-mail Address: kimberlystark@thompsoncontractor.com

Name: Frank M Wright  
Telephone Number: (205) 849 - 4267 Fax Number: (205) 849 - 4854  
E-mail Address: frankwright@thompsontractor.com



Company ID Number: 47130

**INFORMATION REQUIRED  
FOR THE E-VERIFY PROGRAM**

Information relating to your Company:

Company Name: Thompson Tractor Co., Inc.

Company Facility Address: 2401 Pinson Highway  
Birmingham, AL 35217

Company Alternate Address: P.O. Box 10367  
Birmingham, AL 35202-0367

County or Parish: JEFFERSON

Employer Identification Number: 630377478

North American Industry  
Classification Systems Code: 423

Parent Company: \_\_\_\_\_

Number of Employees: 1,000 to  
2,499 Number of Sites Verified for: 5

Are you verifying for more than 1 site? If yes, please provide the number of sites verified for in each State.

- GEORGIA 5 site(s)

Information relating to the Program Administrator(s) for your Company on policy questions or operational problems:

Name:	Kimberly A Stark		
Telephone Number:	(205) 849 - 4279	Fax Number:	(205) 849 - 4565
E-mail Address:	kimberlystark@thompsontractor.com		
Name:	Frank M Wright		
Telephone Number:	(205) 849 - 4267	Fax Number:	(205) 849 - 4854
E-mail Address:	frankwright@thompsontractor.com		



Company ID Number: 47130

**USCIS Verification Division**

\_\_\_\_\_  
Name (Please type or print)

\_\_\_\_\_  
Title

*Electronically Signed*

*07/11/2007*

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Date