

# EXCAVATOR

# GRADALL® XL 5100 IV

HYDRAULIC EXCAVATOR



## SPECIFICATIONS

### Undercarriage

6 x 4 or 6 x 6

Wheelbase: 171" (4.34m)

Width 102" (2.6m)

#### Frame:

48" (1.2m) wide, welded plate design  
65 ksi material

#### Gross vehicle axle weight rating:

6 x 4 66,000 lb (29,937 kg)

6 x 6 69,000 lb (31,928 kg)

#### Front axles:

6 x 4: Meritor Model MFS-16-122A, 16,000 lb  
(7,257 kg) rating

6 x 6: Meritor Model MX19-145, 19,000 lb  
(8,618 kg) rating, 7.17 ratio

#### Rear axle:

Meritor Model RT-50-160, 50,000 lb (22,680 kg)  
rating, 7.17 ratio, single reduction with driver  
controlled differential lock in front/rear and  
interaxle differential with lock.

#### Suspension:

Front: 8 leaf spring with automatic  
lock-out cylinders

Rear: Hendrickson Equalizer Beam,  
8" oscillation

#### Brakes:

6 x 4 Front: Meritor "Q" Plus Series Cam-Master  
Size: 16.5" x 5" (419 mm x 152 mm)  
Automatic Slack Adjusters

6 x 6 Front: Meritor "Q" Series Cam-Master  
Size: 16.5" x 6" (419 mm x 127 mm)  
Automatic Slack Adjusters

Rear: Meritor "P" Series Cam-Master  
Size: 16.5" x 7"  
(419 mm x 178 mm)  
Automatic Slack Adjusters

Spring brake system incorporates  
emergency and parking brakes on the  
rear axle. Heated air dryer.

#### Wheels:

Hub piloted disc 10-stud, 11.25" (286 mm)  
bolt circle.

#### Tires:

6x4 front: 385/65R22.5 18-ply on/off highway tread

6x6 front: 425/65R22.5 18-ply on/off highway  
traction tread

6x4 and 6x6 rear: 11R24.5 16-ply on/off highway  
traction tread

#### Steering:

Ross, integral hydraulic power steering. Gear  
type power steering pump. 4-quart power  
steering reservoir with filter and 10 Micron  
pre-filter.

#### Standard chassis equipment:

Halogen headlights, tail lights, back-up lights  
and alarm, stoplights, identification lights front  
and rear, directional lights, 4-way hazard lights, and  
instrument panel lights. Windshield wiper/washer,  
West Coast style mirror system with plane and  
convex mirrors, front and rear tow hooks,  
desiccant type air dryer with automatic purge  
valve and thermostatically controlled heater.

### Hydraulic System

#### PUMPS

One load-sensing axial piston pump; 0-77  
GPM (0-291 41L/min) total.

One gear pump (pilot & cooling) 11 gpm (41 L/min)

#### SYSTEM SPECIFICATIONS

##### Four double acting cylinders

- 1 Boom Cylinder: 3.75" (95mm) bore x  
2.75" (70mm) rod x 168" (4267mm) stroke
- 2 Hoist Cylinders: 4.75" (121mm) bore x  
3.347" (85mm) rod x 30.5" (775mm) stroke
- 1 Tool Cylinder: 5.0" (127mm) bore x  
3.0" (76mm) rod x 25.9" (658mm) stroke

#### Three hydraulic motors

Swing, 68 Hp (51kW); tilt, 21 Hp (16kW);  
remote drive, 110 Hp (82kW) total.

#### Operating pressures

Hoist	4,800 psi (331 Bar)
Tilt	2,500 psi (172 Bar)
Swing	4,500 psi (310 Bar)
Tool	4,800 psi (331 Bar)
Telescope	4,800 psi (331 Bar)
Remote Propel	4,800 psi (331 Bar)
Pilot system	.500 psi (35 Bar)

#### Oil capacity

Reservoir 50 gallons (189 L), system  
70 gallons (265 L). Pressurized reservoir with  
visual oil level gauge.

#### Filtration system

5 micron return filter with magnet.  
10 micron pilot filter.

Fin and tube-type oil cooler with  
thermostatically controlled cooling fan.

Pressure-compensated, load-sensing valves with  
circuit reliefs in all circuits.

### Chassis Cab

One-person cab, left-hand mount, isolated  
from frame on rubber mounts. Acoustical lining.  
Sun visor. Gauges for oil pressure, coolant  
temperature, air tank pressures, fuel level,  
DEF level, voltmeter, speedometer with odometer,  
tachometer with hour meter. Engine and  
transmission monitor lights. Engine shutdown  
controlled by engine electronics. Indicator lights  
and controls for front axle engagement (6 x 6  
only) and rear axle differential lock. Park brake  
control. Tinted safety glass. Sliding side windows.  
Fresh air heater and defroster. Dome light. Air  
suspension seat with seat belt. Vent in door.

### Upperstructure Cab

All-weather cab isolated from frame on rubber  
mounts. Tinted safety glass windows, skylight,  
acoustical lining, four-way adjustable operator's  
seat, dome light, filtered air heater and defroster,  
AM/FM radio, air conditioning, work light package.

The heat source is provided by a fast response,  
closed circuit hydraulic heater with 20,000  
BTU/Hr. capacity.

Front window slides to overhead storage.  
Mirrors on right and left sides of the machine.  
Windshield wiper and washer.

### Hydraulic Remote Control

Upperstructure powered by chassis hydraulics  
through hydraulic motor and transfer case. Travel  
and steering pedals in upperstructure cab.  
Digging brakes and front axle lockout cylinders  
set automatically with travel pedal in neutral.  
Parking brake controlled by toggle.

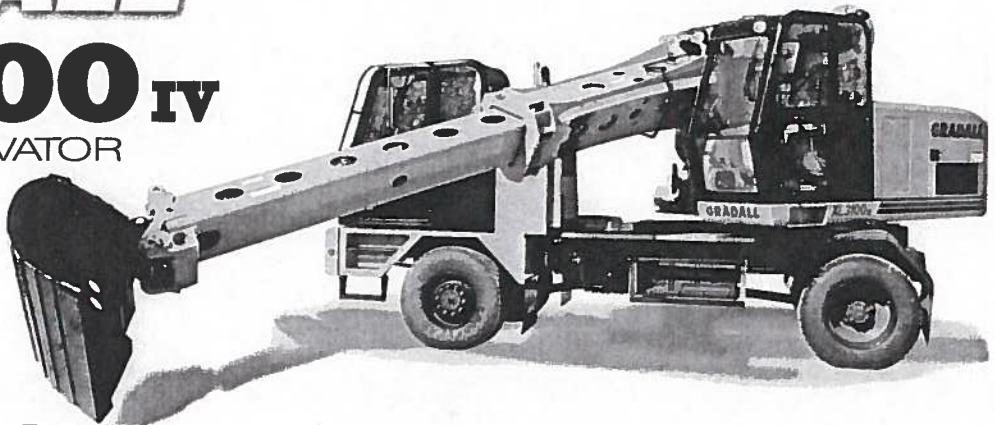
Electrically operated alarm mounted on  
undercarriage signals remote control movement  
in either direction, reverse movement when  
driven from undercarriage cab.

# EXCAVATOR

# GRADALL®

## XL 3100<sup>IV</sup>

### HYDRAULIC EXCAVATOR



## SPECIFICATIONS

### Undercarriage

4 x 2 or 4 x 4  
Wheelbase: 160" (4.06m)  
Width 102" (2.6m)

**Frame:**  
48" (1.2m) wide, welded plate design  
65 ksi material

**Gross vehicle axle weight rating:**  
4 x 2 41,250 lb (18,711 kg)  
4 x 4 44,250 lb (20,071 kg)

**Front axles:**  
4 x 2: Meritor Model MFS-16-122A, 16,000 lb (7,257 kg) rating  
4 x 4: Meritor Model MX19-145, 19,000 lb (8,618 kg) rating, 7.17 ratio

**Rear axle:**  
Meritor Model RS25-160, 25,250 lb (11,453 kg) rating, 7.17 ratio, single reduction with driver controlled differential lock

**Suspension:**  
Front: 8 leaf spring with automatic lock-out cylinders  
Rear: Solid mount

**Brakes:**  
4 x 2 Front: Meritor "Q" Series Cam-Master  
Size: 16.5" x 5" (419 mm x 152 mm)  
Automatic Slack Adjusters

4 x 4 Front: Meritor "Q" Series Cam-Master  
Size: 16.5" x 6" (419 mm x 127 mm)  
Automatic Slack Adjusters

4 x 4 Rear and 4 x 2 Rear: Meritor "P" Series Cam-Master  
Size: 16.5" x 7" (419 mm x 178 mm)  
Automatic Slack Adjusters

Spring brake system incorporates emergency and parking brakes on the rear axle.

**Wheels:**  
Hub piloted disc 10-stud, 11.25" (286 mm) bolt circle.

**Tires:**  
4 x 4 front: 425/65R22.5 20-ply on/off highway traction tread  
4 x 2 front: 385/65R22.5 18-ply on/off highway tread  
4 x 2 and 4 x 4 rear: 11R24.5 16-ply on/off highway traction tread

### Steering:

Ross, integral hydraulic power steering. Gear type power steering pump. 4-quart power steering reservoir with filter and 10 Micron pre-filter.

### Standard chassis equipment:

Halogen headlights, tail lights, back-up lights and alarm, stoplights, identification lights front and rear, directional lights, 4-way hazard lights, work lights, and instrument panel lights. Windshield wiper/washer, West Coast style mirror system with plane and convex mirrors, front and rear tow hooks, desiccant type air dryer with automatic purge valve and thermostatically controlled heater.

### Hydraulic System

#### PUMPS

One load-sensing axial piston pump; 8-55 GPM (30-208 L/min) total.

One gear pump (pilot & cooling) 11 gpm (42 L/min)

#### SYSTEM SPECIFICATIONS

##### Four double acting cylinders:

- 2 hoist cylinders: 3.5" x 2.56" Rod x 31" stroke 89mm x 65mm x 787mm
- 1 tool cylinder: 4.25" Borex 3.0" Rod x 25.9 stroke (108mm x 76 x 658)
- 1 telescope: 3.5" ID, 2.559" Rod (89mm x 65mm), 11' (3.34m) stroke

##### Three hydraulic motors:

Swing, 51 Hp (38kW); tilt, 21 Hp (16kW); remote drive, 110 Hp (82kW) total.

##### Operating pressures:

Hoist	4,800 psi (331 BAR)
Tilt	2,500 psi (172 BAR)
Swing	3,000 psi (206 BAR)
Tool	4,800 psi (331 BAR)
Telescope	4,800 psi (331 BAR)
Remote Propel	4,800 psi (331 BAR)
Pilot system	.550 psi (38 BAR)

##### Oil capacity:

Reservoir 50 gallons (189 L), system 65 gallons (246 L). Pressurized reservoir with visual oil level gauge.

##### Filtration system:

5 micron return filter with magnet.  
10 micron pilot filter.

Fin and tube-type oil cooler with thermostatically controlled cooling fan.

Pressure-compensated, load-sensing valves with circuit reliefs in all circuits.

### Chassis Cab

One-person cab, left-hand mount, isolated from frame on rubber mounts. Acoustical lining. Sun visor. Gauges for oil pressure, coolant temperature, air tank pressures, fuel level, DEF level, voltmeter, speedometer with odometer, tachometer, hour meter. Engine and transmission monitor lights. Engine shutdown controlled by engine electronics. Indicator lights and controls for front axle engagement (4 x 4 only) and rear axle differential lock. Park brake control. Tinted safety glass. Sliding side windows. Fresh air heater and defroster. Dome light. Air suspension seat with seat belt. Vent in door.

### Upperstructure Cab

All-weather cab isolated from frame on rubber mounts. Tinted safety glass windows, skylight, acoustical lining, four-way adjustable operator's seat, dome light, filtered air heater and defroster. AM/FM Radio, Air-Conditioning, work light package.

The heat source is provided by a fast response, closed circuit hydraulic heater with 20,000 BTU/Hr. capacity.

Front window slides to overhead storage. Rearview mirrors on right and left sides of the machine. Windshield wiper and washer.

### Hydraulic Remote Control

Upperstructure powered by chassis hydraulics through hydraulic motor and transfer case. Travel and steering pedals in upperstructure cab. Digging brakes and front axle lockout cylinders set automatically with travel pedal in neutral. Parking brakes controlled by toggle.

Electrically operated alarm mounted on undercarriage signal remote control movement in either direction, reverse movement when driven from undercarriage cab.

# LeeBoy

 VT LeeBoy  
A company of VT Systems

Street Drum Roller

## Asphalt Roller

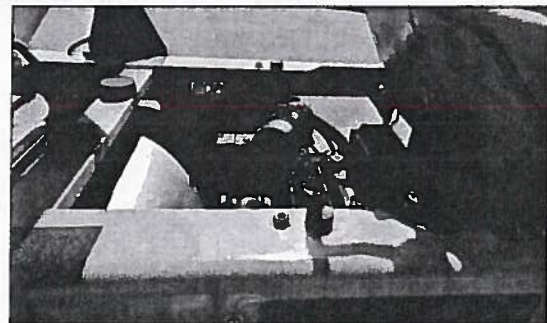
### 400 Vibratory Roller



#### 400 Vibratory Roller

**Performance features include:**

- 39 HP Kubota Tier 4i Diesel Engine
- Servo-controlled Hydrostatic Transmission
- 40" (1,016 mm) Split-front Drum / 44" (1,118 mm) Rear Drum
- High Capacity 80-gallon (303 l) Polyethylene Tank
- Pressurized Water System
- 5,640-lb. Static Weight
- Cushioned, Full Width Bench Seat
- 2,600 VPM Internal Vibratory System
- Vandalism Protection Package
- Dynamic and Secondary Braking
- Optional Tow Package



*The operator's platform is hinged for easy access. The 400 Compactor is best suited for asphalt compaction projects on streets, parking lots, driveways, and sidewalks.*

Designed with the Paving Professional in Mind.®



# Cat<sup>®</sup> AP1000F PAVER

## FEATURES:

### HIGH RETURN ON INVESTMENT

- Higher resale value: long-life components, and latest engine emissions technology
- Exclusive 70 kW integrated generator, designed for long life by the same team that developed the D7E electric drive dozer
- Fast heating screed leads to more daily production, heating time in as little as 15 minutes
- Excellent turning capability, fast travel leads to increased production
- Exclusive air flow design improves operating conditions for the crew and keeps components cooler for lasting durability

### ADVANCED TECHNOLOGY

- Exclusive screed heating system monitors elements for failure conditions, eliminates unnecessary replacement
- Cat<sup>®</sup> Grade and Slope option integrated in the tractor and screed displays for optimized operator efficiency
- Propel and feeder system settings transfer between stations with a single switch
- Auto-fill feeder system simplifies setup
- Single touch feeder system activation optimizes efficiency
- Automated travel feature; augers and hydraulic mainframe extensions raise with the screed, preventing damage during transport
- Product Link™ remotely monitors machine location, daily hours of operation, fuel consumption, fault codes, and preventative maintenance status, for optimal machine support

### HIGH QUALITY RESULTS, HIGHER EARNINGS

- SE60 XW screeds deliver excellent ride, density, and mat texture while providing superior adjustment capabilities up to 7.65 m (25')
- SE60 V screed delivers great ride and mat qualities while providing versatility in urban areas as well as interstate applications
- Tow-point utilizes exclusive linkage design for optimal screed flotation
- Exclusive 2-speed proportional control on the screed extenders

### LOW OWNING AND OPERATING COSTS

- Exclusive Eco-mode and Automatic Engine Speed Control, reduce fuel consumption and lower sound levels for better comfort and communication
- 4-pump feeder system is designed for high production in Eco-mode, leads to lower fuel consumption
- Keypad switches have been tested to 1-million cycles without failure
- Conveyor bed plates and chain guards designed to minimize labor requirements and provide lower cost replacement
- Heating elements slide-out for easy replacement
- Machined screed frames simplify screed plate replacement

### UNMATCHED AFTER-THE-SALE SUPPORT

- Strategically located dealers with 24/7 support
- In-the-Iron service training for technicians
- Paver Operator Training helps maximize machine performance
- Project consulting helps improve technique and job site management

## Specifications:

### Engine – Powertrain

Cat C7.1 ACERT™ Engine		
Australia, U.S., and Canada*	168 kW	225 hp
* Engine meets U.S. EPA Tier 4 Final/E.U. Stage IV emission standards.		
Number of cylinders	6	
Engine speed - maximum/minimum	2200/1100 rpm	
Eco-mode	1650 rpm	
Screed heating - standard width (Quiet)	1300 rpm	
Screed heating - w/extensions (Quick)	1300 to 2200 rpm	
Speed ranges:		
Paving	76 mpm	250 fpm
With Tamper-bar screed	76 mpm	250 fpm
Travel	19.9 km/hr	12 mph

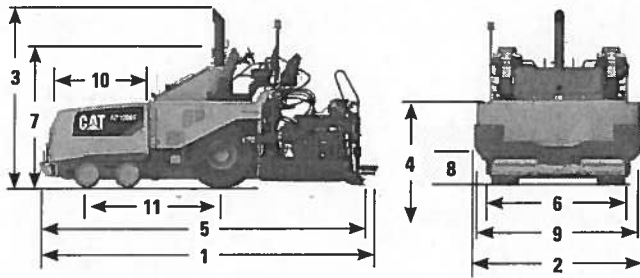
### Weights – Australia, U.S., and Canada

AP1000F (tractor only - shipping)	15 526 kg	34,228 lb
AP1000F (tractor only - operating)	15 794 kg	34,820 lb
AP1000F with SE60 V screed	18 956 kg	41,790 lb
AP1000F with SE60 V XW screed	19 692 kg	43,414 lb
AP1000F with SE60 VT XW screed	20 424 kg	45,028 lb

*Operating weights include full fuel tank and 75 kg (165 lb) operator.*



## AP1000F Specifications



### Dimensions:

<b>1</b> Operating length with screed	7034 mm	23' 1"
Length without screed and canopy	5563 mm	18' 3"
<b>2</b> Operating width - standard entry hopper	3336 mm	10' 11"
Operating width - low entry hopper	3604 mm	11' 10"
<b>3</b> Operating height with canopy, (top of beacon)	3996 mm	13' 1"
Operating height without canopy	3715 mm	12' 2"
<b>4</b> Operating deck height	1791 mm	5' 11"
<b>5</b> Transport length - endgates/walkway folded	6874 mm	22' 7"
<b>6</b> Transport width with endgates	3211 mm	10' 6"
Transport width - endgates folded	2929 mm	9' 7"
<b>7</b> Transport height - canopy retracted	3056 mm	10'
Transport height - without canopy	2929 mm	9' 7"
<b>8</b> Truck entry height with standard entry hopper		
Manual apron	570 mm	22"
Hydraulic apron	616 mm	24"
Truck entry height with low entry hopper		
Manual apron	529 mm	21"
Hydraulic apron	587 mm	23"
<b>9</b> Truck entry width - standard entry hopper	3224 mm	10' 7"
Truck entry width - low entry hopper	3490 mm	11' 6"
<b>10</b> Hopper length, with pushroller - minimum	2329 mm	7' 8"
<b>11</b> Wheel base	2776 mm	9' 1"

### Screed Specifications

Standard paving range	3.0 - 5.95 m	10' - 19' 6"
Maximum paving width with extensions	7.65 m	25'
Maximum paving depth	305 mm	12"
Crown range	-1.5% to 5%	
Extender height range	-20 mm to + 50 mm	
Extender slope range	-3% to +10%	

### Electrical System

Starting and Charging	24-volt
Alternator	100 amp
Batteries	Two, 1400 CCA
Generator	70 kW
Auxiliary power capability	6.6 kW
Machine Security System	Wire-ready
Product Link System	Wire-ready
Remote jump-start	Yes
Cat Grade and Slope	Integrated

### Capacities

Maximum throughput capacity	1602 tonnes/h	1,766 tph
Hopper capacity with tunnels		
Standard entry hopper	7.6 m <sup>3</sup>	267 ft <sup>3</sup>
Low entry hopper	8.1 m <sup>3</sup>	286 ft <sup>3</sup>
Fuel tank	348 L	92 gal
DEF (Urea) capacity	19.1 L	5 gal
Cooling system	45.4 L	12 gal
Engine oil	16 L	4.2 gal
Hydraulic tank	219 L	58 gal

### Optional Equipment

- Air-ride Seat w/Heat
- Auger and Mainframe Extensions
- Auxiliary Power Panel
- Ballast (front bumper)
- Cat Grade and Slope Controls
- Decelerator Pedals
- Ecological Washdown System
- Feeder Sensor (mechanical or sonic)
- Front Wheel Assist or All-Wheel Drive
- Hard Top Canopy
- HID Lights
- Leveling Devices
- Lights (Working or Roding)
- Oscillating Push Roller
- Power Folding Front Apron
- Power Mainframe Extensions
- Product Link
- Screed Extensions
- Tow-point Indicators (Upper)
- Truck Hitch
- Umbrella
- Up-time Kit
- Warning Beacon
- Wide Width Paving Packages
- Windshield w/hard top canopy

Materials and specifications are subject to change without notice.

Featured machines in photos may include additional equipment.

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)

©2014 Caterpillar Inc.  
All Rights Reserved.

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

Product ID: AP1000F

QEHQ1816-01 (07-2014)



TRACTOR BACKHOE / LOADER

