MONTANA Department of Transportation

MDT-BRG-015 04/23

Montana Department of Transportation
Bridge Bureau
Approved Construction Equipment List

mdtacel@mt.gov

Make: Caterpillar

Model: AP1055 with SE60 VXW screed and full hopper

Equipment Type: paver

Contractor Modifications: none

Interstate Approval Conditions

Approval Type	crossing only
Speed:	no restriction
Weight:	89,473 lb or less
Traffic:	approved with regular traffic
Location Restrictions:	no restriction

Non-Interstate Approval Conditions

Approval Type	denied
Speed:	denied
Weight:	denied
Traffic:	denied
Location Restrictions:	denied

Comments:

Equipment configuration, weight, and specifications on following pages. Approval does not apply to load posted bridges. Other construction equipment is not allowed to operate on or cross bridge at the same time this equipment is on the bridge.



Cat® AP1055

Asphalt Paver

The Cat® AP1055 Asphalt Paver is a rubber track paver that delivers a high-return on investment with its extremely versatile Mobil-trac™ undercarriage that delivers speed, traction, and flotation. This high-production paver offers a fast-heating screed system, durable components, and easy to use technology.

High Return on Investment

- Exclusive 70 kW integrated generator delivers fast, reliable screed heating and is 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
- Mobil-trac™ undercarriage design delivers excellent traction, good flotation, and fast travel that helps lead to increased production
- Exclusive air flow design improves operating conditions for the crew and keeps components cooler for lasting durability

Technology That Works For You

- Pave Start Assistant (option) saves set-up profiles for repeatable use on future job sites including: tow-point height, screed heat temperature, paving speed, paving width, paving depth, crown, extender slope and height, screed assist, and screed locking features
- A hopper level sensor (option) with temperature indication keeps the operator informed of material height and delivery temperatures, indicators are located in each tractor display
- Exclusive screed heating system monitors elements for failure conditions and helps eliminate unnecessary replacement
- Cat® Grade Control option is integrated into the tractor and screed displays for optimized operator efficiency
- Thermal mapping option utilizes an infra-red camera mounted on a fixed-position mast that captures the entire width of the asphalt surface behind the screed. An LCD display mounted near the screed console provides real-time visibility to the surface being paved

High Quality Results, Higher Earnings

- Versatile screed designs deliver excellent ride, density, and mat texture while providing superior adjustment; available with front-mount extenders, rear-mount extenders, or tamper-bar systems
- Tow-point design utilizes exclusive linkage for optimal screed flotation
- Exclusive 2-speed proportional control on the screed extenders
- Cat Grade Control is a factory-integrated guidance system that helps remove irregularities from the surface and control mat thickness for increased production, lower operating costs, and higher profitability

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
- Million cycle switches provide reliability
- 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
- Enhanced hopper flashing with increased memory and temperature resiliency offers better performance during truck exchanges

More Comfort

- Ventilation system draws fumes from the auger chamber and redirects them away from the operator for a more comfortable working environment
- Dual operating station provide back-up capability and complete control from either side of the machine, each station can swing-out beyond the frame for good all-around visibility
- Heated seat option, pneumatic suspension, multiple adjustments, and tilting consoles provide day-long comfort
- Eco-mode provides low sound levels that supports clear communication with the crew
- High visibility 76 mm (3") seat belt helps with crew safety compliance
- USB port simplifies software updates
- Cup holders offer convenience

Easy Viewing Displays, Simple Operation

- Touch-screen displays with adjustable brightness control enable operators to fine-tune performance in various lighting conditions
- Touch-screen access simplifies activation of the generator and auxiliary power, while also providing easy adjustments to screed plate heating temperatures, tamper and vibratory speeds, Cat Grade Control (option), and stored operator preferences
- Operating displays can be tailored to specific language requirements with multiple options available

Cat Electronics

- Cat Electronic Control Modules (ECM) and Electronic Technician (ET) compatibility simplifies diagnostics and trouble-shooting procedures

Product Link™ Elite

- Make timely, fact-based decisions to maximize efficiency, improve productivity, and lower owning and operating costs
- Easily track location, machine hours, fuel usage, and idle time
- Diagnostic codes are made available through online web applications

Service and Repair Kits

- Paver and screed service and repair kits include the parts necessary to complete specific repairs
- Cat genuine parts are manufactured to precise specifications and designed for optimal performance and maximum uptime
- Repair kits are identified by a single part number to make ordering easy
- Select kits are available to be packaged as a kit by the dealer for over-the-counter purchases or through the dealer service shop

Standard and Optional Equipment

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

	Standard	Optional
OPERATING ENVIRONMENT		
Air-ride seat		✓
Canopy – hard top		✓
Deceleration pedal		✓
Dual operating stations	✓	
Friction steering		✓
Heated seats		✓
Side shields		✓
Steering guide	✓	
Tow-point indicator		✓
Umbrella – tractor/screed		✓
Ventilation system	✓	
Visor – LCD screen		✓
Windshield – requires hard top canopy		✓
TECHNOLOGY		
Cat® Grade Control		✓
Hopper level and material temperature indication		✓
Pave Start Assistant		✓
Product Link™ Elite 631(satellite)		✓
Product Link Elite 641 (cellular)	✓	
Thermal mapping		✓
POWERTRAIN		
Automatic engine speed control	✓	
Ballast – front weights		✓
Cat C7.1 – six-cylinder	✓	
Cooling fan – variable speed	✓	
Eco-mode	✓	
Mobil-trac™ belt – smooth belt		✓
Mobil-trac belt – tread bar belt		✓
ELECTRICAL SYSTEM		
1400 CCA batteries (2)	✓	
100 amp alternator	✓	
12-volt power receptacle	✓	
24-volt charging system	✓	
Auxiliary Power Panel - 6.6 kW		✓
Cat Electronic Technician (Cat ET)	✓	
Generator – 70 kW	✓	
Machine security – wire ready	✓	
Remote jump-start receptacle	✓	

	Standard	Optional
MATERIAL DELIVERY		
Auger extensions		✓
Leveling devices		✓
Mainframe extensions – manual		✓
Mainframe extensions – power		✓
Material feed sensors – contact	✓	
Material feed sensors – sonic		✓
Power folding front hopper apron		✓
Push-roller – adjustable	✓	
Truck hitch		✓
Wash-down pump and reel		✓
Washdown Tank		✓
Wide-width paving packages		✓
SERVICE AND MAINTENANCE		
Extended-life coolant to -35° C (-37° F)	✓	
Hydraulic oil – extended life	✓	
Remote access drains and lubrication points	✓	
Service repair kits		✓
Sampling ports for Scheduled Oil Sampling (S·O·S℠)	✓	
Sight Gauges – engine coolant, hydraulic oil	✓	
Uptime kit		✓
SAFETY		
Alarm – back-up	✓	
Horn – warning (front & rear)	✓	
Lights – working	✓	
Lights – roading		✓
Mirror package	✓	
Vandal covers	✓	
Warning – LED safety beacons		✓

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Technical Specifications

PowerTrain		
Engine model	Cat C7.1	
Engine power @ 2200 rpm (ISO 14396-2002)	168 kW	225 hp
Meets U.S. EPA Tier 4 Final emission standards.		
Speed – paving	64 mpm	210 fpm
Speed – paving with tamper screed	25 mpm	82 fpm
Speed – travel	14.5 km/hr	9 mph

Machine Weight		
Paver only (shipping)	16 691 kg*	36,800 lb*
w/SE60 FM screed (operating)	20 571 kg*	45,352 lb*
w/SE60 V screed (operating)	20 451 kg*	45,087lb*
w/SE60 V XW screed (operating)	21 125 kg*	46,573 lb*
w/SE60 VT XW screed (operating)	21 591 kg*	47,600 lb*

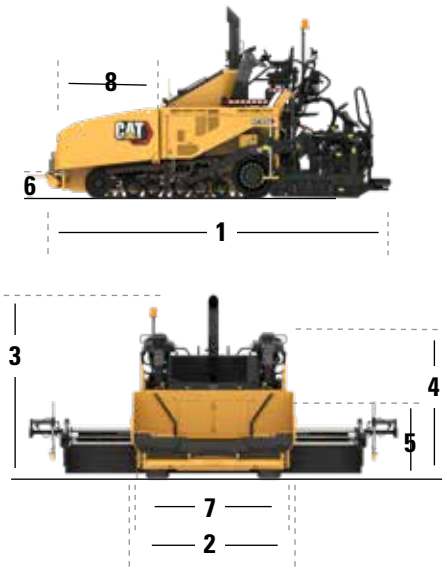
Operating weights are approximate and include coolant, lubricants, full fuel tank , and 75 kg (165 lb) operator.
** Add 324 kg (714 lbs) when equipped with canopy*

Service Refill Capacities		
Maximum throughput capacity	1602 Tonnes	1766 Tons
Hopper capacity	8.1 m^3	286 ft^3
Cooling system	45 L	12 gal
Diesel Exhaust Fluid (DEF)	19.1 L	5 gal
Engine oil	16 L	4.2 gal
Fuel tank	348 L	92 gal
Hydraulic tank	219 L	58 gal
Washdown spray tank	30 L	7.9 gal

Paving Range With Extensions		
SE60 FM screed	3.05 m - 7.8 m	10' - 25' 6"
SE60 V screed*	3.0 m - 7.65 m	9' 10" - 25'
SE60 V XW, VT XW screeds	3.0 m - 10.0 m	10' - 33'
Paving depth	305 mm	12"

** Paving range includes wide width endgate shoe*

	Dimensions		
1	Operating length w/SE60 FM	6608 mm	21' 9"
	Shipping length w/SE60 FM	6375 mm	20' 11"
	Shipping width w/SE60 FM	3592 mm	11' 10"
1	Operating length w/SE60 V	6800 mm	22' 4"
	Shipping length w/SE60 V	6635 mm	21' 10"
	Shipping width w/end gates - SE60 V	3211 mm	10' 6"
	Shipping width w/end gates folded - SE60 V	3000 mm	9' 10"
1	Operating length w/SE60 V XW, VT XW	7034 mm	23' 1"
	Shipping length w/SE60 V XW, VT XW	6910 mm	22'8"
	Shipping width w/end gates - SE60 V XW, VT XW	3211 mm	10' 6"
	Shipping width w/end gates folded - SE60 V XW, VT XW	3000 mm	9' 10"
2	Operating width (standard entry hopper)	3306 mm	10' 10"
3	Operating height (exhaust stack)	3732 mm	12' 3"
	Operating height with canopy	3861 mm	12' 4"
4	Shipping height	2929 mm	9' 7"
	Shipping height with canopy retracted	3056 mm	10'
5	Operating platform height	1792 mm	5' 11"
6	Truck entry height (standard entry hopper)	570 mm	23"
7	Truck entry width (standard entry hopper)	3224 mm	10' 7"
8	Hopper length with push roller extended	2414 mm	7' 11"
	Auger diameter	406 mm	16"



Environmental Declaration

The following information applies to the machine at the time of final manufacture as configured for sale in the regions covered in this document. The content of this declaration is valid as of the date issued; however, content related to machine features and specifications are subject to change without notice. For additional information, please see the machine's Operation and Maintenance Manual.

For more information on sustainability in action and our progress, please visit www.caterpillar.com/en/company/sustainability.html.

ENGINE

- The Cat® C7.1 engine is available in configurations that meet U.S. EPA Tier 4 Final emission standards.
- Cat U.S. EPA Tier 4 Final diesel engines are required to use ULSD (ultra-low sulfur diesel fuel with 15 ppm of sulfur or less) or ULSD blended with the following lower-carbon intensity fuels up to:
  - ✓ 20% biodiesel FAME (fatty acid methyl ester)*
  - ✓ 100% renewable diesel, HVO (hydrotreated vegetable oil) and GTL (gas-to-liquid) fuels

Refer to guidelines for successful application. Please consult your Cat dealer or "Caterpillar Machine Fluids Recommendations" (SEBU6250) for details.

**Engines with no aftertreatment devices can use higher blends, up to 100% biodiesel.*

PAINT

- Based on best available knowledge, the maximum allowable concentration, measured in parts per million (PPM), of the following heavy metals in paint are:
  - – Barium < 0.01%
  - – Cadmium < 0.01%
  - – Chromium < 0.01%
  - – Lead < 0.01%

SOUND PERFORMANCE

With cooling fan speed at 70% of maximum value, engines meeting U.S. EPA Tier 4 Final, no canopy, and vibratory screed:

Operator Sound Pressure Level – 88 dB(A) European Directive 2000/14/EC, ISO 11201, EN 500-1, and EN 500-6:2006+A1:2008, Annex B
Exterior Sound Power Level – 107 dB(A) European Directive 2000/14/EC, European Directive 2005/88/EC, ISO 3744, EN 500-1, and EN 500-6:2006+A1:2008, Annex B

With cooling fan speed at 70% of maximum value, engines meeting U.S. EPA Tier 4 Final, canopy, and vibratory screed:

Operator Sound Pressure Level – 90 dB(A) European Directive 2000/14/EC, ISO 11201, EN 500-1, and EN 500-6:2006+A1:2008, Annex B
Exterior Sound Power Level – 107 dB(A) European Directive 2000/14/EC, European Directive 2005/88/EC, ISO 3744, EN 500-1, and EN 500-6:2006+A1:2008, Annex B

- When equipped with tamper bar screeds, operator sound pressure levels are 1 dB (A) higher than the values listed above.
- Hearing protection may be needed when operating with an open operator station for extended periods or in a noisy environment.

OILS AND FLUIDS

- Caterpillar factory fills with ethylene glycol coolants. Cat Diesel Engine Antifreeze/Coolant (DEAC) and Cat Extended Life Coolant (ELC) can be recycled. Consult your Cat dealer for more information.
- Cat Bio HYDO™ Advanced is an EU Ecolabel approved biodegradable hydraulic oil.
- Additional fluids are likely to be present, please consult the Operations and Maintenance Manual or the Application and Installation guide for complete fluid recommendations and maintenance intervals.

FEATURES AND TECHNOLOGY

- The following features and technology may contribute to fuel savings and/or carbon reduction. Features may vary. Consult your Cat dealer for details.
  - – Eco-mode operates at a lower rpm to minimize fuel consumption
  - – Automatic engine speed control modifies engine speed when moved to and from neutral to enhance fuel efficiency
  - – Advanced Eco-mode combines automatic engine speed control and Eco-mode to modify engine speed based on engine load, conserving fuel and increasing efficiency
  - – Extended maintenance intervals reduce fluid and filter consumption

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For more complete information on Cat products, dealer services, and industry solutions, visit us on the web at **www.cat.com**

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

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