



PNEUMATIC TIRE ROLLERS



THE PRESSURE IS ON

WITH NEW PNEUMATIC ROLLERS

PRODUCTIVE IN ANY APPLICATION

Your crew needs a roller that can adjust on the fly to changing conditions, and even applications. The Cat® Pneumatic Tire Rollers do exactly that. The rollers easily take on (or shed) ballast to deliver the varied contact pressures you need.

The result is consistently achieving density targets, whether compacting granular materials or asphalt. The success continues through final compaction, where precise contact pressures provide the proper finishing touches.

COMPACTION PERFORMANCE

- Compaction width:
 - CW34 – 2090 mm (82")
 - CW16 – 1754 mm (69") w/bias tires
 - CW16 – 1728 mm (68") w/radial tires
- Versatile operating weights
- Ballast systems for easy weight adjustment
- Optional Air-on-the-Run tool on CW34 automatically adjusts tire pressure

VISIBILITY, CONTROL AND COMFORT

- Easy-to-reach, responsive controls
- Intuitive console design
- Sliding and rotating operator station on CW34
- Rotating operator station CW16

UNMATCHED UPTIME AND VALUE

- Powered by durable, reliable Cat engines
- Standard 500-hour engine oil service interval maximizes uptime and minimizes lifetime operating costs
- Large cooling system keeps components cool, even in high ambient temperatures, for long life
- Advanced water spray and emulsion systems prevent asphalt pickup and costly on-site adjustments



1. Flexible Ballast Options
2. Modular Ballast (CW34)
3. Cat Compaction Control (Option for CW34)
4. Roomy Operating Environment
5. Air-on-the-Run (Option for CW34)
6. Edge Cutter / Compactor (Option for CW34)



APPLICATIONS

- Highways
- City streets
- County roads
- Lane additions
- Overlays
- Industrial sites
- Parking lots
- Airport runways
- Production-sized jobs
- Base materials
- Binder course
- Wear course
- Soil applications
- Lime or cement compaction

COMPACTION PERFORMANCE

MANY OPTIONS AVAILABLE

EASY ADJUSTMENTS MAKE THE DIFFERENCE

Cat Pneumatic Tire Rollers are able to work on granular material and asphalt, enabling you to compact everything from a sub-base to the surface lift of asphalt with a single machine. When extra pressure is (or isn't) needed on a specific portion of a job, you can easily adjust the ballast—or with the CW34 take advantage of the Air-on-the-Run option—and fine-tune the roller for your working conditions.

OSCILLATING TIRES

- Oscillating front and rear tires deliver vertical and horizontal forces that reduce air voids, ensuring surface uniformity
- Vertical suspension improves results on uneven surfaces by uncovering voids and enabling consistent, uniform compaction

FLEXIBLE BALLAST

- Ballast options include sand, steel and water
- Modular and non-modular steel ballast option on CW34
 - 6.5 metric ton (7.1 U.S. ton) modular steel
 - 6.1 metric ton (6.7 U.S. ton) non-modular steel
 - 3 cu m (793 gal) water-tight chamber
- Baffled compartments prevent surge, balance weight
- Large doors provide easy component access
- Large drain port

The CW34 features modular steel ballast that are easy to add or remove.





PICK-UP PREVENTION

LEAVE THE ASPHALT WHERE IT BELONGS

A SMOOTH FINAL STEP

A paving job can go from success to failure in a hurry if the tires start picking up asphalt. That's why Caterpillar placed special emphasis on the design and functionality of water spray and emulsion systems. If each tire isn't properly covered, all your previous hard work can vanish.

KEY FEATURES

- Dedicated spray nozzles for each tire
- Standard pressurized system includes water pump, triple filtration, and adjustable intermittent operation
- Optional emulsion spray system with dedicated tank, lines and spray bars enables utilization of release agents on the wheels for additional protection against asphalt adhesion

OTHER ASPHALT PICKUP PREVENTIONS

- *Tires equipped with self-adjusting scrapers*
- *Optional cocoa mats improve water coverage*
- *Heat-retention covers trap heat*





ENGINES AND POWERTRAINS

POWER AND PRECISION

LOWER FUEL CONSUMPTION, SOUND LEVELS

Your operators need power to get the job done, hour after hour, and the Cat engines on Pneumatic Tire Rollers deliver. The engines do more than propel the rollers. They also help reduce fuel consumption. You can have your power—and your fuel savings, too.

The CW34 operates efficiently at temperatures up to 49° C (120° F) with maximum engine load, due to the high-volume cooling system and large fan.

CW34 POWERTRAIN

- Standard Eco-mode provides fuel efficiency and reduces sound levels
- Variable electronic throttle
- Transmission coasting feature saves fuel and reduces sound levels



ENGINES

U.S. EPA Tier 4 Final/EU Stage IV Engine Features

- Self-Activating Regeneration
 - Easy-fill DEF tank, assists with regeneration
 - 19.1 L (5 gal) capacity
 - Refill when fueling
- Ultra Low Sulfur Diesel (ULSD) fuel is required
(Bio-diesel up to B20 can be utilized when blended with ULSD, refer to the Cat Fluids Guide for more information)
- Engine oil must meet Caterpillar ECF-3, API CJ-4/ACEA E9 specifications

The following engines meet U.S. EPA Tier 4 Final and EU Stage IV emissions.

Machine	Engine	Power Rating at 2200 RPM
CW16	Cat C3.4B ACERT	75 kW, 101.9 hp (M), 100.5 hp (I)
CW34	Cat C4.4 ACERT	98 kW, 133.2 hp (M), 131 hp (I)

(M) Metric Horsepower
(I) Imperial Horsepower

The following engine meets emissions equivalent to U.S. EPA Tier 3, EU Stage IIIA and China Stage III requirements.

Machine	Engine	Power Rating at 2200 RPM
CW16	Cat C4.4 ACERT	75 kW, 101.9 hp (M), 100.5 hp (I)
CW34	Cat C4.4 ACERT	96.5 kW, 131.2 hp (M), 129 hp (I)

REDUCED FUEL CONSUMPTION AND LOWER SOUND LEVELS

Don't waste fuel or power, Eco-mode optimizes engine speed and delivers the power when needed.

Eco-mode

- Eco-mode, utilizes an engine speed of 1900 rpm for reduced fuel consumption and lower sound levels
- Well suited for most applications

Automatic Engine Speed Control

- Operating in intermediate or high gear, the system shifts smoothly through the speed ranges and has a maximum speed of 19 km/hr (12 mph) for quick movement around and between job sites
- System has the ability to coast, leading to less fuel consumption and lower sound levels for a more comfortable environment

CW34 COMFORT AND CONTROL

CAT® COMPACTION CONTROL

THE CONFIDENCE YOU NEED

Your operators need answers while they're rolling. What is the temperature? Where have I been, and where do I go next? The optional Cat Compaction Control helps provide those answers. The result: operators who can quickly adjust to changing conditions—and at the end of the day are confident the job was done right.

KEY BENEFITS

- Maximize density
- High performance and efficiency; no unnecessary passes
- Hit mats at the optimal temperatures
- Ensure complete coverage
- Simplify night-time operation

CAT COMPACTION CONTROL FEATURES

- Easy-to-use interface
- Pass-count mapping keeps operator informed regarding the number of completed passes
- Operator informed of mat temperatures through infrared sensors, located on both the front and rear for accuracy
- Sensors combine with mapping to inform operator when optimal conditions exist, and where compaction has occurred
- Temperature mapping records data for future analysis and quality control documentation



Boost operator productivity by preventing unnecessary passes.



CW34 CAT



Easy-to-use interfaces keep operators informed.

IMPROVED COMFORT

ENHANCED VISIBILITY, SIMPLIFIED OPERATION, REDUCED SOUND

- Full floor-to-ceiling glass on cab-equipped machines enables good sight lines to tire edges on both sides of the machine
- Operator can easily view 1 m x 1 m (3.2' x 3.2') in front of machine
- Optional sun canopy can be added to the ROPS for increased protection in adverse conditions
- Sliding and pivoting operator station rotates 90° to either side for ultimate comfort and control
- New console design
- LCD display and push button machine controls simplify operation for an all-around comfortable operating environment
- Exclusive automotive-type powertrain with continuously variable engine speed provides smooth shifting through three speed ranges
- Engine's ability to "coast" lowers sound levels

OTHER HIGHLIGHTS

- Eco-mode saves fuel, reduces sound levels
- Eight 13/80 R20 rubber tires provide overall compaction width of 2090 mm (82") with 45 mm (1.8") overlap
- Air-on-the-Run option enables operator to quickly adjust tire pressures to increase or decrease static loads for optimal surface quality
- Machine controller compatible with Cat Electronic Technician



CW16 KEY FEATURES AND BENEFITS

SIMPLE AND RELIABLE

EXPAND YOUR SOLUTIONS

The Cat CW16 provides a standard nine-wheel configuration that helps your crew reach compaction goals on asphalt or granular materials. You can make it even more versatile with an option to expand to 11 wheels.

HIGHLIGHTS

- Cat engines meet regional emission requirements
- Operating weight of 5200 kg to 15 000 kg (11,464 lb to 33,069 lb) for excellent versatility and performance
- Standard 9 wheels
- Optional 11 wheels
- Efficient engine and durable rubber tires minimize life-time operating costs and maximize profit
- Delivers smooth, reliable performance on grades and soft base materials

EXCEPTIONAL VISIBILITY AND CONTROL

- Rotating operator's station
- Adjustable seat
- Simple controls

SMOOTH OPERATING POWERTRAIN

- Hydrostatic propel control and smooth braking system
- Two-speed hydrostatic propel system delivers excellent gradeability with speeds up to 19 km/hr (12 mph)

VERSATILE COMPACTION PERFORMANCE

- Flexible ballast system and oscillating front and rear tires
- Ballast options include sand, steel and water, making for quick, easy jobsite matches

SIMPLE SERVICE

- Easy-viewing sight gauges
- Convenient filter access
- Color-coded electrical wiring and connections
- Ground-level service access



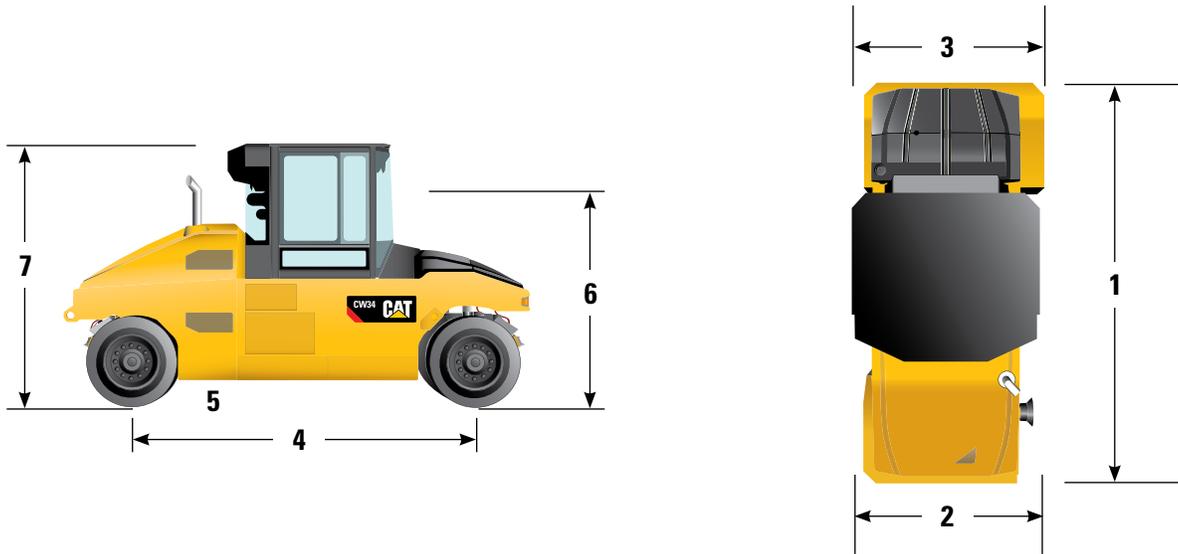


A durable engine and long-lasting tires provide value and lower operating costs over the life of the rollers.

1. 9 or 11-Tire Option
2. Adjustable Seat
3. Contoured Water Tank for Good Sight Lines
4. Pressurized Water Spray System
5. Flexible Ballast Options
6. Fuel Efficient Engine
7. Rotating Operator Station (option)



CW34 SPECIFICATIONS



Engine – Powertrain

Engine Model: Cat C4.4 w/ACERT Technology

Gross Power (2 Engine Options):

Tier 4 Final, Stage IV	98 kW
131 hp Imperial	133.2 hp metric
Tier 3, Stage IIIA, China Stage III	96.5 kW
129 hp Imperial	131.2 hp metric
Number of Cylinders	4
Rated Speed	2200 rpm

Speed Ranges:

Low	0 - 6 km/hr	0 - 4 mph
Medium	0 - 12 km/hr	0 - 7 mph
High	0 - 19 km/hr	0 - 12 mph

Dimensions

1 Overall length	5350 mm	17' 6"
2 Compaction width	2 090 mm	82"
Tire overlap	45 mm	1.8"
3 Frame width	2160 mm	7' 1"
4 Wheelbase	3900 mm	12' 9"
5 Ground clearance		
- without ballast	309 mm	12"
- with ballast	260 mm	10"
6 Height (steering wheel)	2450 mm	96"
7 Height (cab, ROPS)	3000 mm	9' 10"

Service Refill Capacities

Fuel Tank	270 L	71 gal
Cooling System	27 L	7 gal
DEF Tank - (Tier 4 Final/Stage IV only)	19 L	5 gal
Engine Oil	9 L	2.4 gal
Hydraulic Tank	32 L	8.5 gal
Water Tank	380 L	100 gal
Emulsion Tank	40 L	10.5 gal

CW34 SPECIFICATIONS

Weights

CW34*	Operating Weight		Load per Wheel
w/Sun canopy	8625 kg	19,015 lb	1.07 mt
w/ROPS	9000 kg	19,842 lb	1.12 mt
w/Cab	9650 kg	21,275 lb	1.20 mt
w/Water	12 000 kg	26,455 lb	1.50 mt
w/Internal steel and water	13 500 kg	29,762 lb	1.68 mt
w/Internal steel and water	14 000 kg	30,865 lb	1.75 mt
w/Modular steel and water	15 000 kg	33,069 lb	1.87 mt
w/Modular steel	15 600 kg	34,392 lb	1.95 mt
w/Internal steel and water	16 000 kg	35,275 lb	2.00 mt
w/Modular steel, internal steel, and water	16 000 kg	35,275 lb	2.00 mt
w/Modular steel, internal steel	18 000 kg	39,683 lb	2.25 mt
w/Modular steel and water	18 600 kg	41,006 lb	2.32 mt
w/Modular steel, internal steel, and water	20 000 kg	44,092 lb	2.50 mt
w/Modular steel, internal steel, and water	24 000 kg	52,911 lb	3.00 mt
w/Modular steel, internal steel, and water	27 000 kg	59,525 lb	3.38 mt

* Weights shown include ROPS (unless otherwise stated), 80 kg (176 lb) operator, full capacity fuel tank, full capacity water tank, and all machine options. Weights are approximate and may vary by market due to standard and optional equipment requirements. Water and sand ballast are not supplied by the manufacturer.

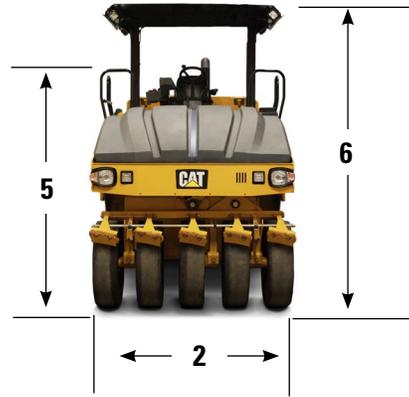
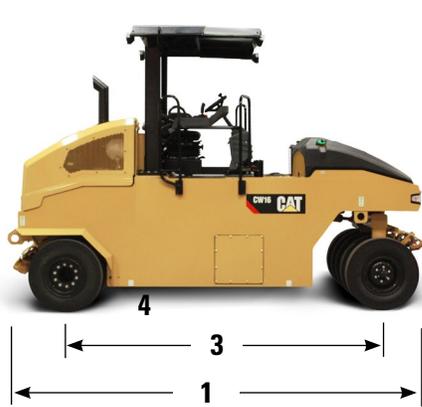
Ground Contact Pressures

		Weight per Wheel							
Tire Pressure		300 kpa 44 psi	400 kpa 58 psi	500 kpa 73 psi	600 kpa 87 psi	700 kpa 102 psi	800 kpa 116 psi	850 kpa 123 psi	900 kpa 131 psi
Average Wheel Load	1500 kg 3,307 lb	242 kPa 35 psi	309 kPa 45 psi	406 kPa 59 psi	612 kPa 89 psi	680 kPa 99 psi	1038 kPa 151 psi	1265 kPa 184 psi	1587 kPa 230 psi
	2000 kg 4,410 lb	260 kPa 38 psi	299 kPa 43 psi	357 kPa 52 psi	462 kPa 67 psi	498 kPa 72 psi	628 kPa 91 psi	691 kPa 100 psi	764 kPa 111 psi
	2500 kg 5,512 lb	308 kPa 45 psi	322 kPa 47 psi	360 kPa 52 psi	429 kPa 62 psi	458 kPa 66 psi	539 kPa 78 psi	577 kPa 84 psi	618 kPa 90 psi
	3000 kg 6,614 lb	397 kPa 58 psi	369 kPa 54 psi	386 kPa 56 psi	433 kPa 63 psi	457 kPa 66 psi	516 kPa 75 psi	543 kPa 79 psi	573 kPa 83 psi
	3375 kg 7,441 lb	518 kPa 75 psi	423 kPa 61 psi	418 kPa 61 psi	448 kPa 65 psi	469 kPa 68 psi	517 kPa 75 psi	539 kPa 78 psi	564 kPa 82 psi

STANDARD EQUIPMENT

- 24-Volt Electrical System
- 3 m³ (793 gal) Water-Tight Ballast Chamber
- 13/80-R20 Tires
- 100-Amp Alternator
- ECO-Mode
- Front Wheel Suspension
- Halogen Working Lights
- LCD Operating Display
- Product Link Ready
- Pressurized Water Spray w/Triple Filtration
- Roading Lights
- Sliding Operator Station w/180° Rotation
- Three-Speed Propel System
- Vinyl Seat with 76 mm (3") Wide Belt
- Wheel Oscillation

CW16 SPECIFICATIONS



Engine – Powertrain

Engine Model: Cat C3.4B (Meets U.S. EPA Tier 4 Final/EU Stage IV emissions.)

Gross Power: 75 kW

100.6 Imperial hp 102 metric hp

Number of Cylinders 4

Rated Speed 2 200 rpm

Engine Model: Cat 4.4 (Meets emissions equivalent to U.S. EPA Tier 3, EU Stage IIIA, and China Stage III)

Gross Power: 75 kW

100.6 Imperial hp 102 metric hp

Number of Cylinders 4

Rated Speed 2 200 rpm

Speed Ranges:

Low 0 - 9 km/hr 0-6 mph

High 0 - 19 km/hr 0-12 mph

Dimensions

1 Overall length 4290 mm (14' 1")

2 Compaction width 1740 mm (68")

Tire overlap 13 mm (0.5")

3 Wheelbase 3340 mm (10' 11")

4 Ground clearance 267 mm (10.5")

5 Height (steering wheel) 2320 mm (91")

6 Height (ROPS) 3000 mm (9' 10")

Service Refill Capacities

Fuel Tank 173 L (45.6 gal)

DEF Tank (C3.4B engine only) 19 L (5 gal)

Cooling System 32 L (8.5 gal)

Engine Oil w/filter 9 L (2.4 gal)

Hydraulic Tank 20.5 L (5.4 gal)

Water Tank 394 L (104 gal)

STANDARD EQUIPMENT

- 12-Volt Electrical System w/120 amp Alternator
- Water-Tight Ballast Chamber
- Halogen Working Lights
- Product Link Ready
- Gravity Water System
- Rooding Lights
- Wheel Oscillation
- Nine, 8:50/90 x 15 6-ply tires
- Extended Life Coolant
- Cocoa Mats

CW16 SPECIFICATIONS

Weights

CW16 – 9-Wheel	Operating Weight		Load per Wheel
Base machine	5200 kg	(11,464 lb)	0.58 mt
w/Water	8700 kg	(19,180 lb)	0.97 mt
w/Wet sand	12 200 kg	(26,896 lb)	1.36 mt
w/Steel	8500 kg	(18,739 lb)	0.94 mt
w/Steel and Water	11 750 kg	(25,904 lb)	1.31 mt
w/Steel and Wet Sand	15 000 kg	(33,069 lb)	1.67 mt
CW16 – 11-Wheel			
Base machine	5300 kg	(11,685 lb)	0.48 mt
w/Water	8800 kg	(19,400 lb)	0.80 mt
w/Wet sand	12 300 kg	(27,117 lb)	1.11 mt
w/Steel	8600 kg	(18,960 lb)	0.78 mt
w/Steel and Water	11 750 kg	(25,904 lb)	1.06 mt
w/Steel and Wet Sand*	14 900 kg	(32,849 lb)	1.35 mt

* The CW16 w/11 wheel option has a lower maximum weight due to the steel ballast configuration.

Ground Contact Pressures

Average Wheel Load	Tire Pressure	kPa	12-Ply 7.5 x 15 Radial Tire							14-Ply 7.5 x 15 Bias Tire								
			344	413	482	550	619	688	757	344	413	482	550	619	688	757	826	862
			psi	50	60	70	80	90	100	110	50	60	70	80	90	100	110	120
545 kg 1,200 lb	GCP	kPa	236	266	284	306	317	317	344	243	266	284	295	317	330	344	359	367
		psi	34	39	41	44	46	46	50	35	39	41	43	46	48	50	52	53
970 kg 2,145 lb	GCP	kPa	250	284	314	343	369	378	410	259	295	321	343	369	388	420	421	427
		psi	36	41	46	50	54	55	60	38	43	47	50	54	56	60	61	62
1440 kg 3,180 lb	GCP	kPa	280	304	331	358	390	405	607	273	312	336	364	390	413	437	465	475
		psi	41	44	48	52	57	59	88	40	45	49	53	57	60	64	68	69

Having a goal like being the paving industry sales leader is no small challenge, even for the worldwide leader in the manufacture of equipment for the construction industry.

But ever since we sold our first paving equipment in 1986, we have continued to grow. Over the years, our machines have been recognized as dependable and rugged, easy to use and highly productive.

We have introduced innovations that have changed the way the world builds roads, features that our competitors now offer on their machines.

And with each new generation of machines we introduce, more and more customers around the world make the decision to switch to Cat.

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

BUILT FOR IT.™



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