

PS360C

Pneumatic Tire
Compactor



Cat® 3054C Turbocharged Diesel Engine

Gross Power	98 kW	130 hp
Maximum Operating Weight	25 000 kg	55,115 lb
Rolling Width	2.28 m	7' 6"

Reliability and Versatility You Can Depend On

These machines are ideal for applications such as wear courses and binder courses as well as compaction of natural soils and materials with lime or cement.

Engine

- ✓ The PS360C pneumatic compactor is powered by the 98 kW (130 hp) Caterpillar® 3054C turbocharged diesel engine. The Cat 3054C engine meets U.S. EPA Tier 2 engine emission standards. The high torque, low rpm engine provides power and fuel efficiency.

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Propel System

The hydrostatic propel system combines smooth starts and stops with plenty of torque. The “High Drive” concept does not use any chains. The drive motors, secondary brake and hoses are protected within the machine frame. An oscillating front and rear suspension design reduces bridging over soft spots regardless of terrain.

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Operator's Station

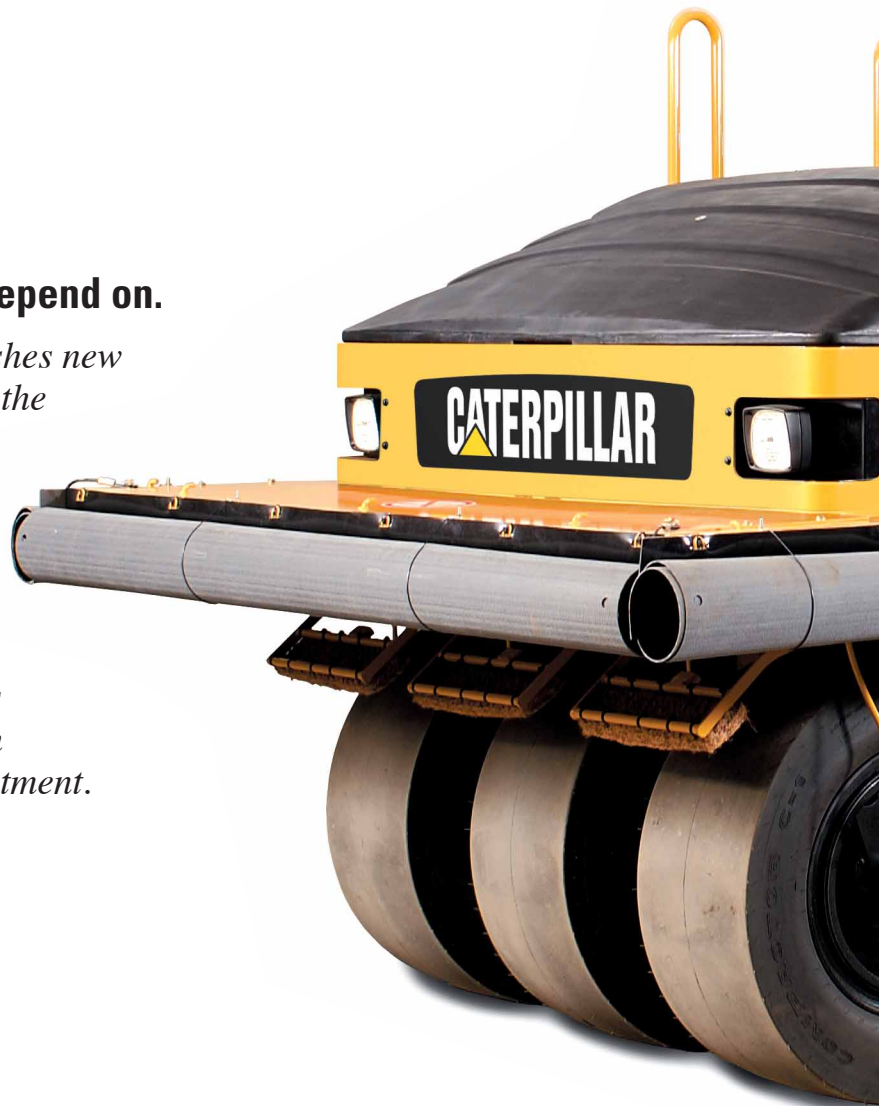
The PS360C provides a spacious and comfortable working environment with controls, levers, switches and gauges positioned to maximize productivity. The low profile of the water tank and the sloped engine hood provide good visibility to the front and rear of the machine.

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- ✓ *New feature*

Performance and reliability you can depend on.

The PS360C Pneumatic Compactor establishes new standards for productivity and reliability in the compaction industry. A durable Cat engine, large ballast tank and the world's largest and most dedicated dealer support system ensure the PS360C Pneumatic Compactor will provide maximum utilization. The PS360C will achieve outstanding compaction results regardless of the application with its proven suspension design and flexible weight adjustment.



Ballasting

The ballast compartments are positioned with a calculated balance of wheel to weight ratio. Internal-frame baffles help prevent surges when water ballast is used.

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Ground Contact Pressures

Ground contact pressures are measured across the width of the tires. Changing the tire pressure or altering the ballast capacity will allow the PS360C to meet specific job requirements.

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Serviceability

The engine compartment offers easy access to the powertrain components. Routine maintenance points are grouped together and easily accessible through the large engine compartment opening. Two gas struts assist in raising the engine hood. Visual indicators for the radiator coolant, hydraulic oil tank level and air cleaner provide easy verification.

- ✓ Standard 500 hour oil service interval reduces maintenance costs.

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✓ Caterpillar Product Link System (CPLS)

The PS360C includes an electrical harness to accept the optional Caterpillar Product Link System. The Caterpillar Product Link System simplifies machine tracking by providing location and hour updates to assist in scheduling of routine service. Consult your Caterpillar® Dealer for purchasing information regarding which Product Link version fits your needs.



Caterpillar® 3054C Turbocharged Engine

High-tech four cylinder engine provides outstanding performance and fuel economy.



Turbocharged engine for top performance and efficiency, even at high altitude with no derating required up to 2134 m (7,000 ft).

Direct injection fuel system provides individually metered high-pressure injection of fuel for maximum efficiency.

High displacement to power ratio ensures long life and exceptional reliability.

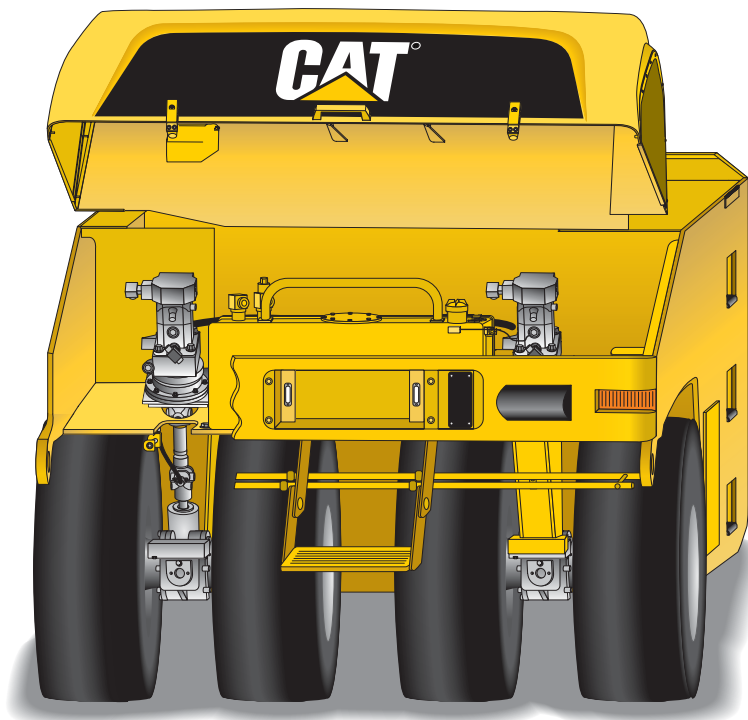
Engine oil cooler maintains the integrity of the oil to provide a cool operating engine.

Dual fuel filters and a water separator provide superior protection for the injection system.

Glow-Plug ignition assists in cold weather starting.

Propel System

The “High Drive System” combines smooth starts and stops with plenty of torque.



Hydrostatic transmission provides smooth direction and speed control, no chains are used.

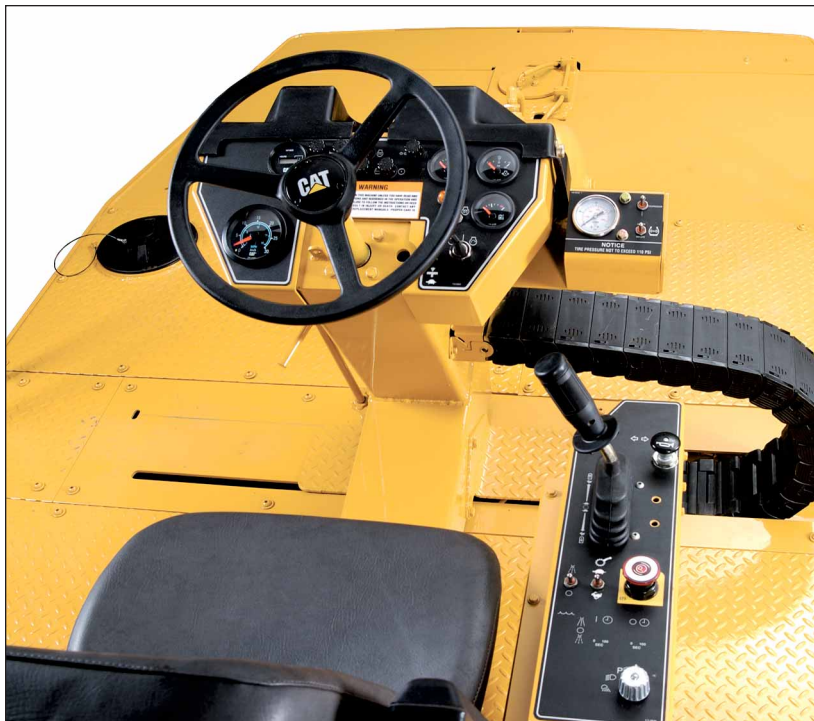
Hydraulic motors, secondary brakes, and drive lines are positioned high inside the machine frame, limiting contamination and damage.

Remote drive-train flushing system supplies cool hydraulic oil to the brakes and axles to provide extended drive-train life.

Two-speed throttle switch provides job-site versatility to suit working conditions.

Operator's Station

Ergonomic design for maximum operator productivity while offering unmatched comfort.



Spacious and comfortable working environment with controls, levers, switches and gauges positioned to maximize productivity.

Durable suspension seat (optional) or non-suspension seat offers day-long comfort.

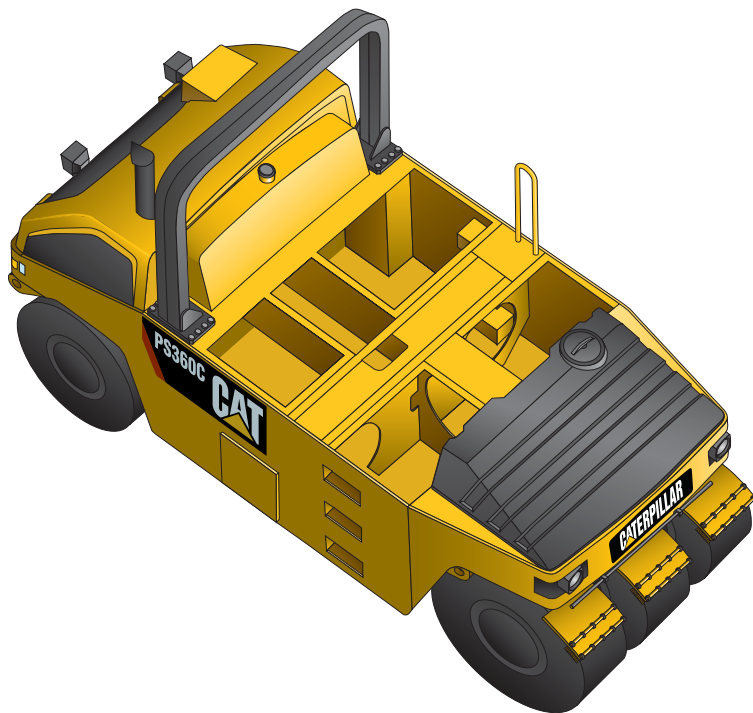
Gauges and controls move with the operator console and seat for easy operation.

Instrument panel includes indicators for hour meter, transmission oil temperature, engine coolant temperature, engine oil pressure and fuel level.

Multi-position operator station (optional) slides into three different positions and the seat pivots 30° in either direction to provide maximum visibility.

Ballast Compartment

Ballast options allow the machine to be tailored to specific weight capacities.



Maximum operating weight of 25 000 kg (55,115 lb) provides versatility for thick lifts.

Ballast compartments accommodate water, sand or steel in order to provide varying weight capacities.

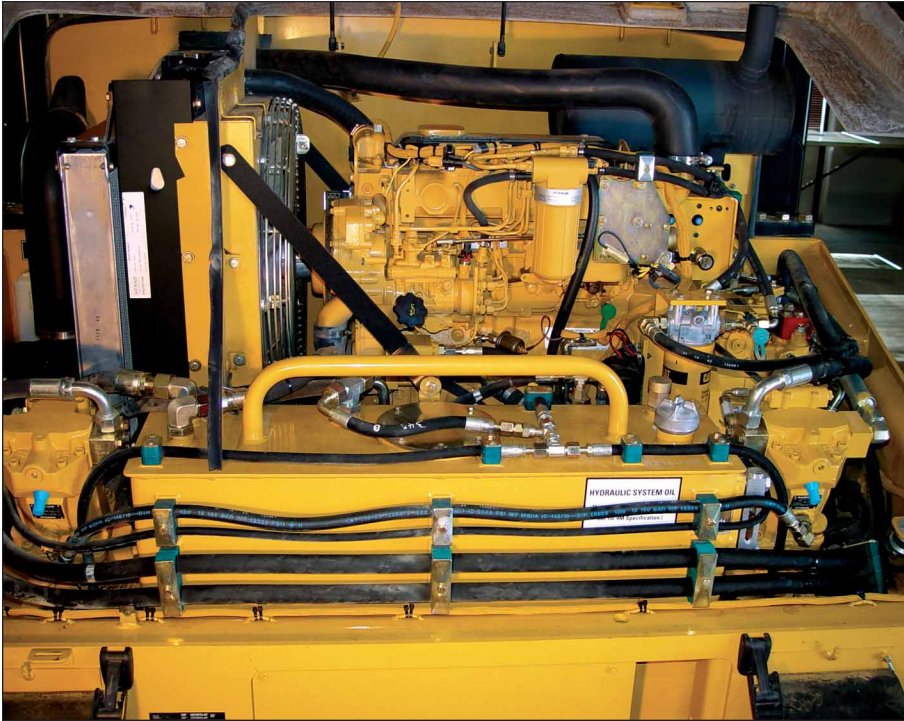
Integrated baffles prevent surges when water ballasted.

Large cover plates on the operator's platform provide fill points for sand or steel. The water fill port can be accessed from ground level.

Bolt-on side cover allows quick removal of sand or steel ballast. Water ballast can be emptied through a drain valve located on the chamber.

Serviceability

Less time on maintenance means more time on the job.



Routine maintenance points are grouped in the engine compartment.

Ground level servicing simplifies maintenance.

Visual restriction indicators for the hydraulic oil filter and air filter.

Simplified access to the power-train through the engine hood.

Color-coded and numbered wires wrapped in nylon braid ensure system integrity and help simplify troubleshooting.

Grouped pressure taps with quick-connect fittings simplify troubleshooting.

Remote lubrication fittings decrease maintenance time.

Optional Equipment

Standard and optional equipment may vary, contact your Caterpillar® dealer for details.

Sliding Operator's Station includes a multi-position control console that slides into three locked positions: left, center and right. The operator's seat also rotates 30° in either direction.

Suspension Seat is a mechanical seat that has vertical height and weight adjustments with armrests.

Speedometer is calibrated in kilometers per hour (km/h) and miles per hour (mph) on an analog dial.

Roading Light Package includes taillights and parking lights with flashers.

Tire Wetting System allows solvent to be sprayed on the tire surfaces. The system includes a 19 L (5 gal) emulsion tank, electric pump and spray nozzles for each tire.

Sun Canopy includes a sheet-metal structure that shields the operator's station from the sun. The structure is attached to the ROPS.

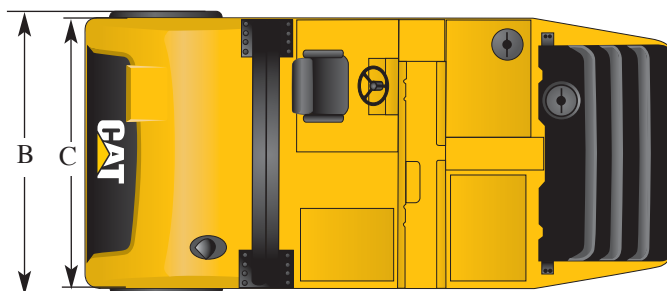
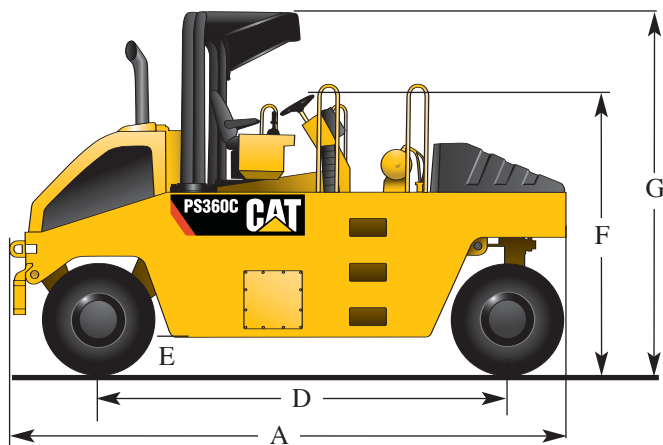
Heat Retention Shields include a belt-type material that traps heat in order to prevent asphalt from adhering to the tire surfaces.

Combined Ballast consists of four internal ballast blocks weighing 4064 kg (8,960 lb), two steel blocks weighing 446 kg (982 lb) that are bolted to the front bumper, and two sets of 51 mm (2") thick steel ballast plates weighing 3084 kg (6,600 lb). This option combined with wet sand ballast provides an operating weight of 25 022 kg (55,115 lb).

Spare Tire and Wheel includes a 14/70 x 20, 20-ply tire and rim.

Dimensions

A	Operating length	4.87 m	16'	F	Height at steering wheel	2.53 m	8' 4"
B	Compaction width	2.28 m	7' 6"	G	Height at ROPS	3.20 m	10' 6"
C	Frame width	2.15 m	7' 1"		Turning radius (outside)	6.7 m	22'
D	Wheel base	3.65 m	12'		Turning radius (inside)	3.47 m	11' 5"
E	Ground clearance	252 mm	10"		Tire overlap	58 mm	2.25"



Weights (approximate)

Operating weight includes lubricants, coolant, 80 kg (175 lb) operator, full fuel tank, and full hydraulic system.

Operating Weights

Condition	Total Weight		Weight Per Wheel	
Shipping	8 500 kg	18,740 lb	1215 kg	2,675 lb
With maximum water ballast	13 500 kg	29,760 lb	1930 kg	4,250 lb
With maximum steel ballast	15 995 kg	35,265 lb	2285 kg	5,040 lb
With maximum wet sand ballast	18 500 kg	40,785 lb	2645 kg	5,830 lb
With water ballast and steel ballast	20 000 kg	44,090 lb	2855 kg	6,300 lb
With wet sand ballast and steel ballast	25 000 kg	55,115 lb	3570 kg	7,870 lb

Engine

Four-stroke cycle, four cylinder Cat® 3054C ATAAC turbocharged diesel engine. This engine meets U.S. EPA Tier 2 engine emission specifications.

Ratings at	RPM	kW	hp
Gross power	2,200	98	130

Ratings of Caterpillar® machine engines are based on standard air conditions of 25°C (77°F) and 99 kPa (29.32" Hg) dry barometer. Power is based on using 35° API gravity fuel having an LHV of 42,780 kJ/kg (18,390 Btu/lb) when used at 30°C (86°F) [ref. a fuel density of 838.9 g/L (7.001 lb/U.S. gal)]. Net power advertised is the power available at the flywheel when the engine is equipped with air cleaner, muffler and alternator. No derating required up to 2134 m (7,000 ft).

The following ratings apply at 2,200 RPM when tested under the specified standard conditions for the specified standard:

Net Power	kW	hp
EEC80/1269	93	125
ISO 9249	93	125
SAE J1349	92	124

Dimensions

Bore	105 mm	4.12"
Stroke	127 mm	5"
Displacement	4.4 L	268 cu. in.

Electrical System

The 24-volt electrical system includes two maintenance-free Cat batteries, color-coded and numbered wiring wrapped in nylon braid. The system includes a 55-amp alternator.

Transmission

Two speed hydrostatic propel system. A hydrostatic pump provides oil to two hydrostatic motors that are mounted above the drive axles. The drive shafts connect the motors to the axles.

A single propel lever located on the control console provides smooth hydrostatic control of the infinitely variable speeds in forward and reverse.

Speeds (forward and reverse):

1st	0 - 8 km/h	0 - 5 mph
2nd	0 - 18 km/h	0 - 11 mph

Brakes

Primary brake features

■ Closed-loop hydrostatic drive system provides dynamic braking during machine operation.

Secondary brake features

■ The secondary brakes are spring-applied and hydraulically released. The wet, multiple disc brakes are actuated by a switch on the control console. They are also activated automatically if pressure is lost in the brake circuit or when the engine is shut off.

Brake systems meet SAE J1472 practice and EN 500 requirement.

Frame

The chassis is a rigid welded frame that supports the engine, transmission and sheet metal. The frame is designed to evenly distribute the machine weight between the front and rear axles. Integrated baffle plates prevent surging when using water ballast.

Steering

The automotive-type steering wheel and column are integral with the operator's sliding platform and allow steering from multiple positions. Priority-demand hydraulic power-assist steering system provides smooth, firm handling.

Each front wheel individually turns to produce true tracking through turns.

Minimum turning radius:

Inside edge	3.47 m	11' 5"
Outside edge	6.70 m	22'

Wheels and Tires

The size of the three front tires and four rear tires are 14/70 x 20 20 ply. The tires provide 58 mm (2.25") of overlap. The rear tires extend 58 mm (2.25") beyond the frame. Each tire is equipped with a cocoa mat. The cocoa mat keeps the tire surface coated with water or emulsion in order to prevent asphalt or soil from adhering to them. The cocoa mats can be retracted and positioned above the tires when they are not needed.

Instrumentation

The front control console includes the start switch, alternator indicator light, coolant temperature gauge, engine oil pressure gauge, hydraulic oil temperature gauge and hour meter. The side console includes the propel lever, speed selector switch, spray system controls, horn and secondary brake switch.

Ballast Considerations and Ground Contact Pressures

The most common method of changing ground contact pressure is to vary the tire pressure. Another means to change ground contact pressure is to alter the ballast. The ballast compartments are positioned with a calculated balance of wheel to weight ratio. Internal-frame baffles help prevent surges when water ballasted.

The ballast blocks provide a low center of gravity, resulting in good stability. The ballast blocks are positioned in the bottom of the mainframe near the center of the machine.

Water System

The pressurized water system is efficient and reliable. The system includes stainless steel distribution bars located over the front and rear tires and retractable cocoa mats for each tire.

The pressurized system includes triple water filtration and a powerful Cat water pump. Cat water pumps are designed to provide long life.

A polyethylene water tank is located at the front of the machine on the operator's platform. A water level gauge is on the tank within easy sight of the operator.

Service Refill Capacities

	Liters	U.S. Gallons
Fuel Tank	200	52
Engine Crankcase	7.3	1.9
Hydraulic Tank	90	23.7
Cooling System	28	7.2
Differential	7.5	2
Tire Watering System	394	104
Emulsion Tank	19	5

Average Ground Contact Pressures

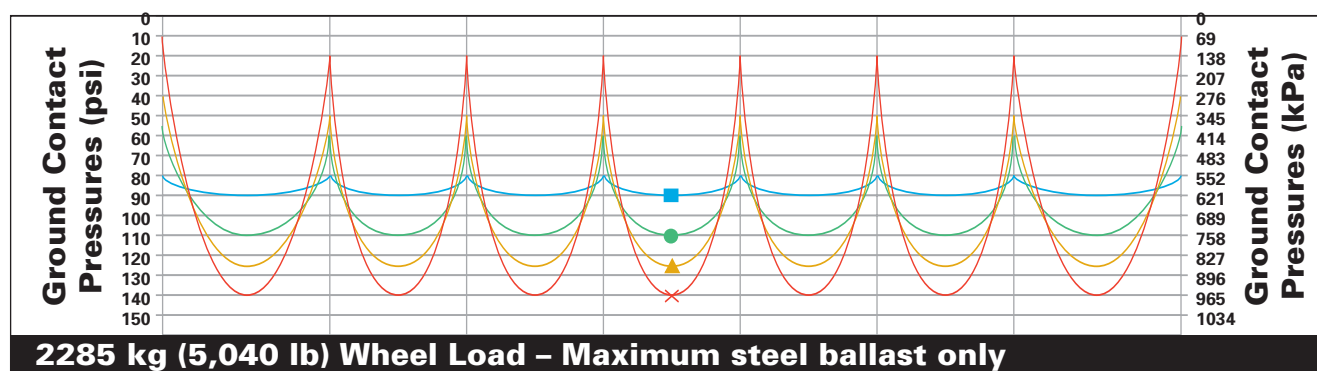
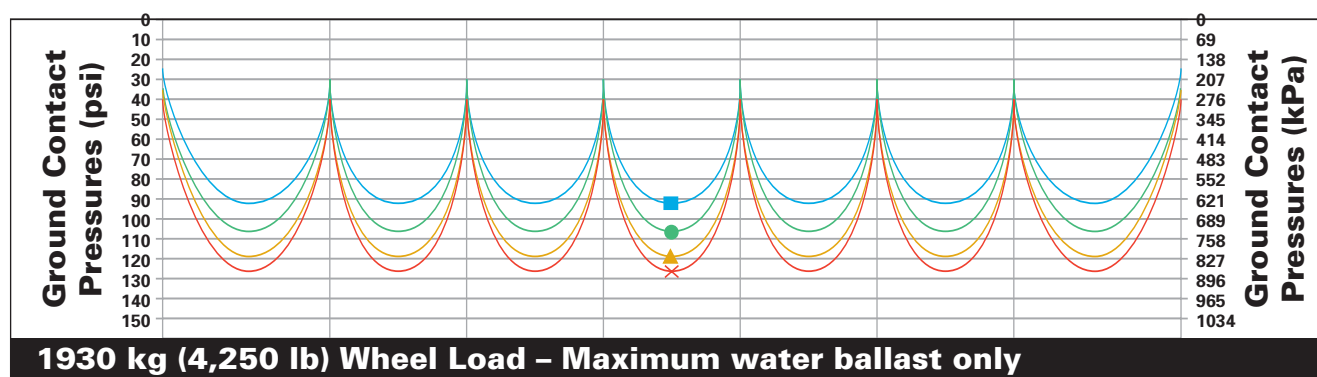
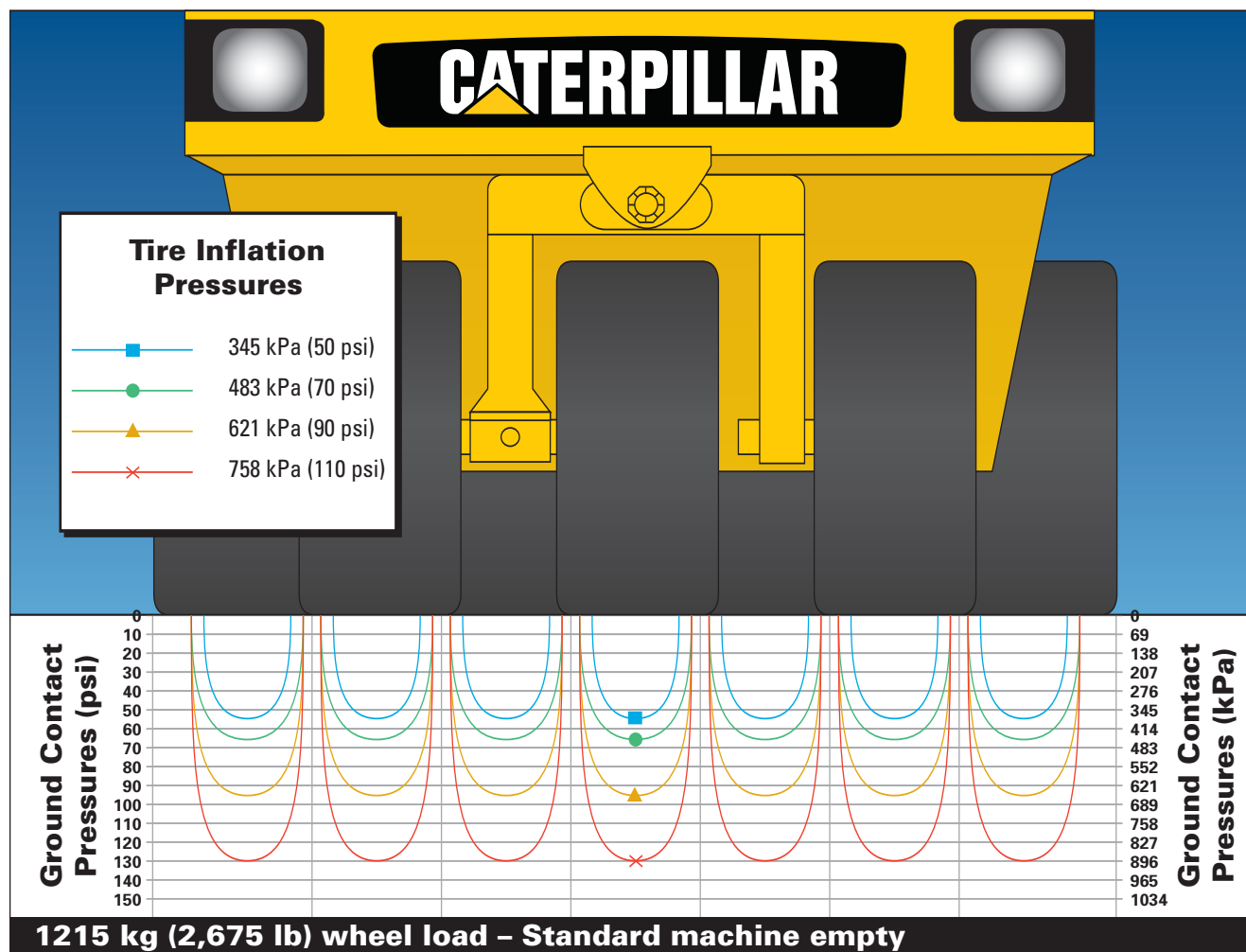
14/70x20, 20-Ply Tires

			20-Ply Tires								
Tire Pressure		kPa	241	310	379	448	517	586	655	724	758
		psi	35	45	55	65	75	85	95	105	110
Average Wheel Load			Ground Contact Pressures and Contact Areas								
1540 kg (3,390 lb)	GCP	kPa	296	338	345	372	400	448	469	469	489
		psi	43	49	50	54	58	65	68	68	71
	CA	cm²	509	446	437	405	377	336	322	322	308
		in²	79	69	68	63	58	52	50	50	48
1930 kg (4,250 lb)	GCP	kPa	317	345	365	386	413	455	469	489	496
		psi	46	50	53	56	60	66	68	71	72
	CA	cm²	596	548	517	490	457	415	403	386	381
		in²	92	85	80	76	71	64	63	60	59
2505 kg (5,510 lb)	GCP	kPa	338	372	393	413	441	469	510	517	524
		psi	49	54	57	60	64	68	74	75	76
	CA	cm²	725	658	624	592	555	523	480	474	468
		in²	112	102	97	92	86	81	74	73	73
2865 kg (6,300 lb)	GCP	kPa	351	379	413	434	455	496	524	531	565
		psi	51	55	60	63	66	72	76	77	82
	CA	cm²	797	739	677	645	616	564	535	528	496
		in²	124	115	105	100	95	88	83	82	77
3575 kg (7,870 lb)	GCP	kPa	372	407	427	462	482	524	558	558	572
		psi	54	59	62	67	70	76	81	81	83
	CA	cm²	940	860	819	758	725	668	627	627	612
		in²	146	133	127	117	112	104	97	97	95

GCP—Ground Contact Pressure CA—Ground Contact Area

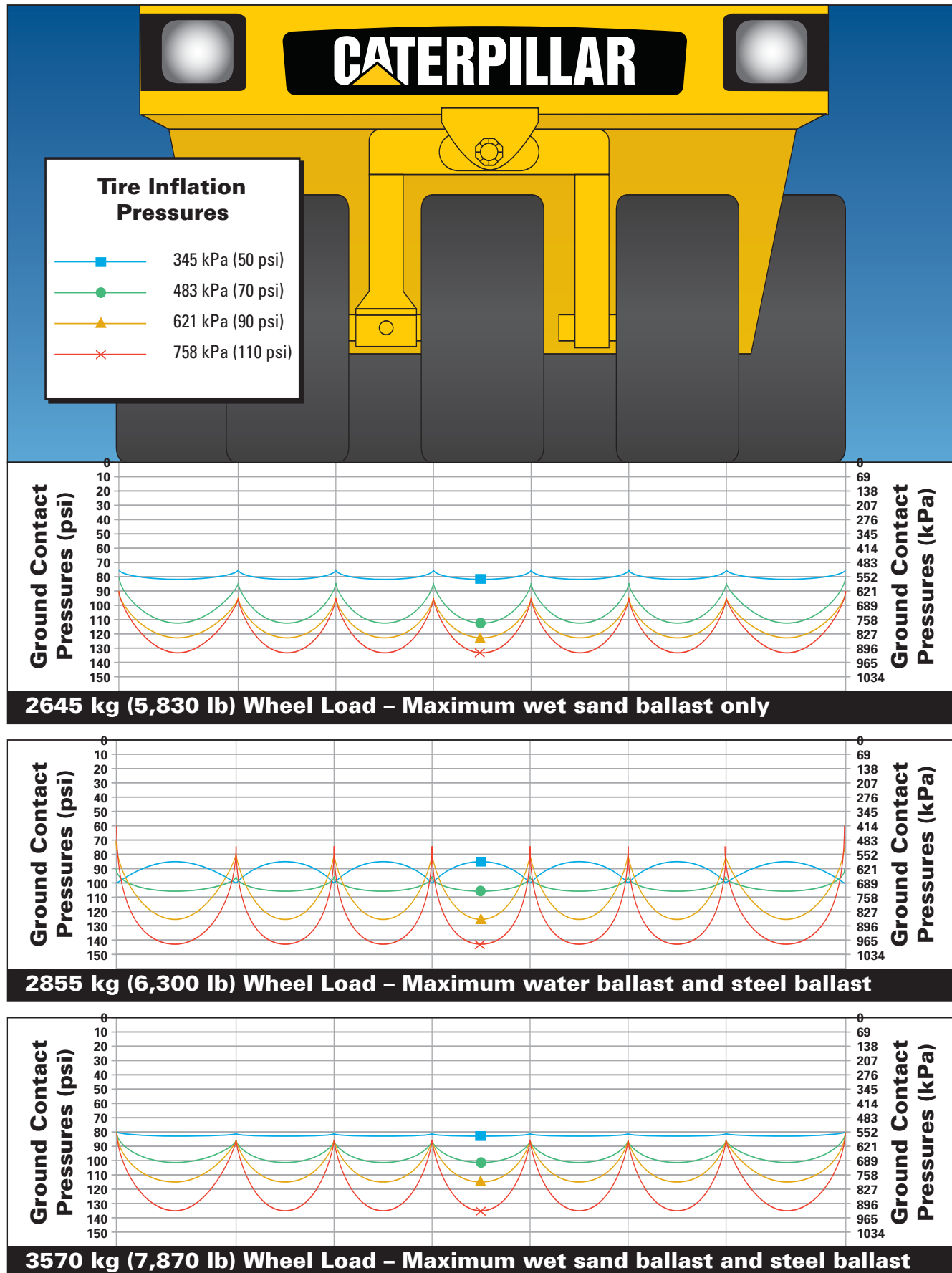
Actual Ground Contact Pressures

Actual Ground Contact Pressures are measured across the width of the tire. The charts include wheel path overlap.



Actual Ground Contact Pressures

Actual Ground Contact Pressures are measured across the width of the tire. The charts include wheel path overlap.



Caterpillar offers a comprehensive line of pneumatic tire compactors.

Contact your local Caterpillar® dealer to learn more about the complete line of Caterpillar Paving Products.



PS150C Pneumatic Compactor			
Operating Weight			
Standard Machine	4885 kg	10,775 lb	
Maximum Ballast	12 940 kg	28,535 lb	
Heavy Weight Option			
Standard Machine	4955 kg	10,925 lb	
Maximum Ballast	17 273 kg	38,000 lb	
Rolling Width	1.74 m	5' 9"	
Gross Power	75 kW	100 hp	

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