

PS-150C

Pneumatic
Compactor



Cat® 3054C Turbocharged Diesel Engine

Gross Power	75 kW	100 hp
Operating Weight	12 940 kg	28,535 lb
Heavy Weight	17 273 kg	38,000 lb
Rolling Width	1743 mm	69"

Productivity and Reliability in a Durable Package

The PS-150C Compactor offers high compaction performance, speed and gradeability to maximize productivity while providing exceptional reliability and durability.

Propel System

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 all protected within the machine frame.

The heavy weight option incorporates

- ✓ *load compensating valves* for each propel motor to increase torque.

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Engine

- ✓ *Cat 3054C turbocharged diesel engine* delivers 75 kW (100 hp) and is built for performance and reliability without sacrificing fuel economy.

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✓ Heavy Weight Option

The PS-150C offers an optional heavy weight package that is able to increase the maximum operating weight to 17 137 kg (38,000 lb). The propel system includes load compensating valves that provide increased torque to the propel motors for working on grades and on tough underfoot conditions.

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- ✓ *New feature*

Performance and reliability you can depend on.

Based upon the industry-proven reputation of the Caterpillar® PS-150B and the PS-200B Asphalt Compactors, the new PS-150C establishes new standards for productivity and reliability in the asphalt compaction industry.

Durable Cat powertrain, field-proven hydraulic systems and the world's largest and most dedicated dealer support system ensure the PS-150C Asphalt Compactors will provide maximum utilization.



Visibility

The one-piece sloped hood design provides exceptional operator visibility to the rear of the machine. The sloped water tank also provides good visibility to the front of the machine.

Operator's Station

The new PS-150C Pneumatic Compactor features excellent operator comfort and visibility. The propel lever, grouped control gauges and conveniently located control switches enhance operator productivity and reduce fatigue. An optional MVP control console rotates to three different positions, left, right or center and allows the operator to view the front tire contact points.

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Versatility

The oscillating front and rear wheels seek out and compact soft spots. The oscillating wheels also provide even wheel loads and uniform compaction across the rolling width.

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Serviceability

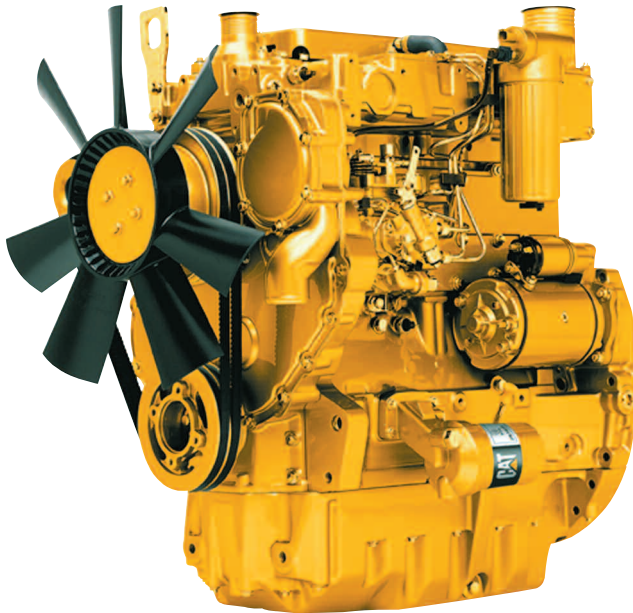
The one-piece fiberglass hood tilts upward to allow access to the engine and daily maintenance points. Daily check points are accessible from ground level. The rear mounted cooling system allows easy access for cleaning. *The standard oil change interval of 500 hours reduces downtime and maintenance costs.*

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Caterpillar 3054C Turbocharged Diesel Engine

Industry-proven Caterpillar technology designed to provide unmatched performance, reliability and fuel economy with ample power for the most demanding jobs.



Turbocharged engine provides 75 kW (100 hp) of gross power. Mechanically controlled direct injection provides excellent fuel efficiency.

Highly-efficient combustion chamber increases power while lowering fuel consumption, engine emissions and noise.

The engine meets U.S. Tier 2 emission standards.

High displacement-to-power ratio ensures long life and provides outstanding reliability and durability.

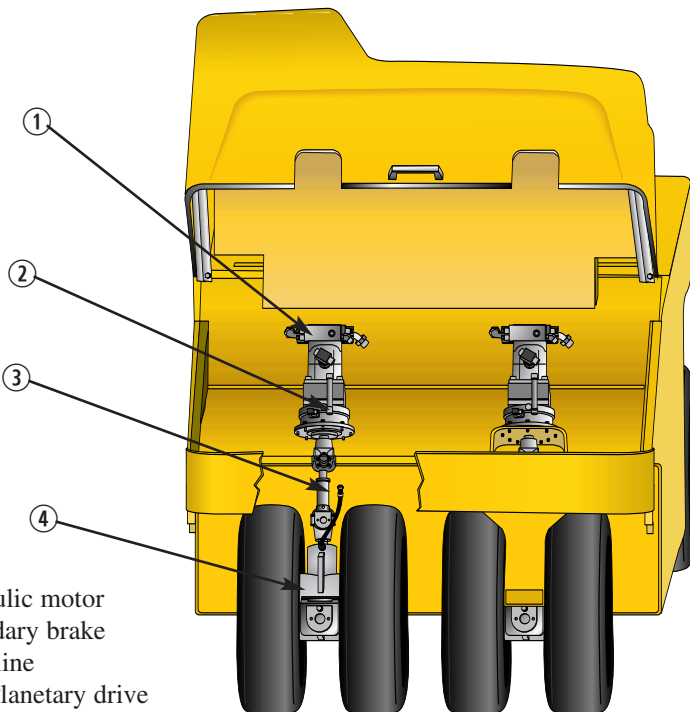
Large oil cooler reduces oil deterioration and varnishing of internal components.

Combination fuel filter and water separator offers superior protection for the fuel injection system.

500 hour oil change interval is standard.

Propel System

Hydrostatic propel system combines smooth stops and starts with plenty of torque.



Power transmission with drive line provides smooth starts and stops – no chains are used.

Hydrostatic transmission provides primary braking – no brake shoes or pads to service.

Easy serviceability to all drive components.

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

Two speed ranges provide job site mobility and traction capability to suit working conditions.

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

Operator's Station

Operating ease and comfort promote all-day productivity.



Exceptional all-around visibility provides easy maneuvering.

Adjustable, cushioned seat provides lasting comfort.

Flat platform enhances operator's mobility and visibility.

Streamlined gauges keep operator informed of engine systems and machine status.

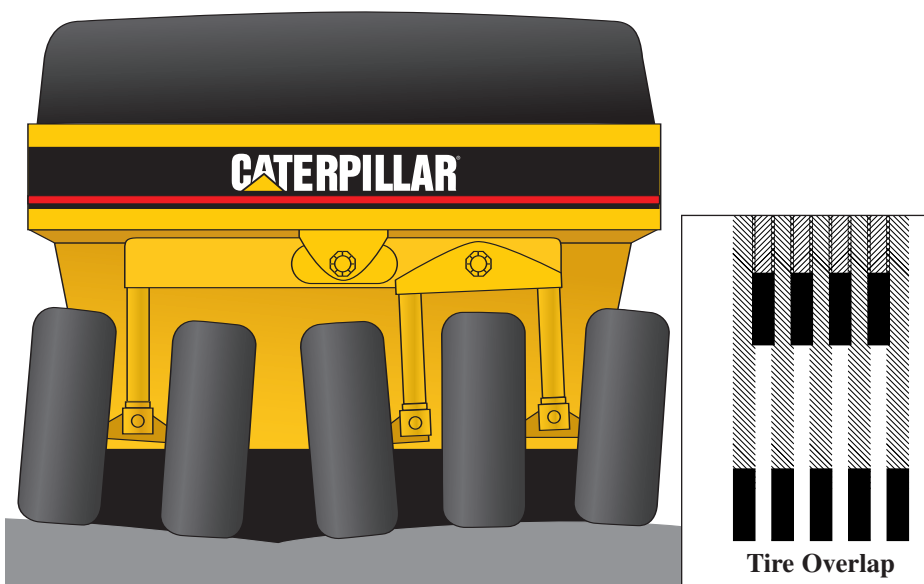
Single lever propel control simplifies operation.

Standard equipment includes Roll Over Protective Structure (ROPS) and a 75 mm (3") wide retractable seat belt.

Optional rotating operator's station allows operator to swivel control console from left side to right side.

Tire Overlap/Wheel Oscillation

Tires overlap and wheels oscillate for maximum compactive effort with each pass.



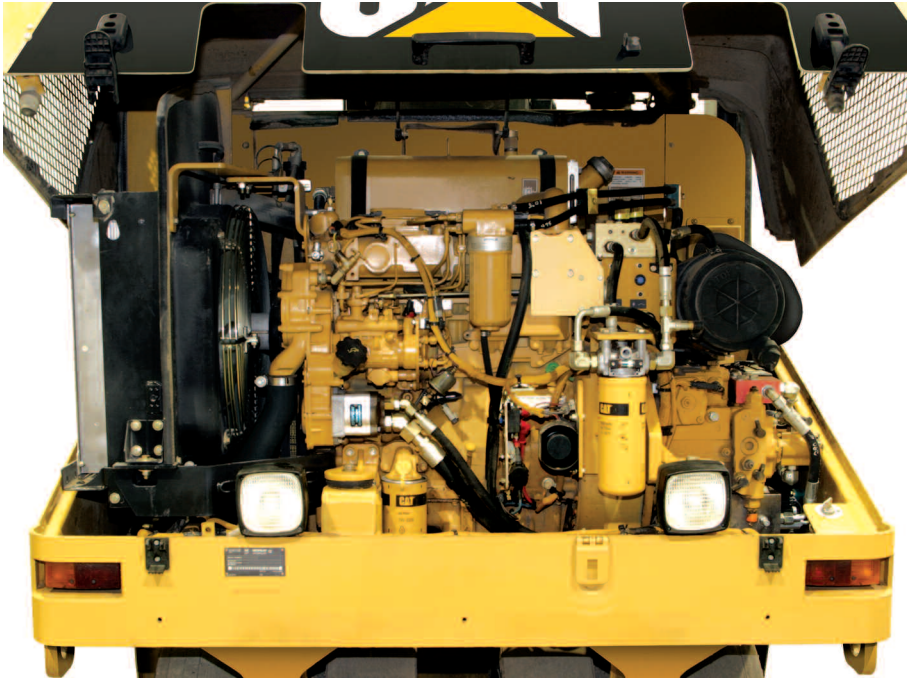
Front and rear wheels paths overlap 13 mm (0.5") to provide full-width coverage of 1743 mm (69") and 2134 mm (84") with 11-wheel option.

Front and rear wheel bolsters oscillate ± 4.4 degrees to allow uniform compaction across entire rolling width. (Note: With the 11-wheel option, oscillation angle on outside rear wheels is zero degrees up and 4.4 degrees down.)

Wheel oscillation helps ensure excellent bonding of longitudinal asphalt joints.

Serviceability

Easy, ground-level access provides convenient and quick service.



Large engine enclosure pivots upward for access to engine, cooling package and filters.

Single-point access to all engine service points and filters is through the engine enclosure.

Engine access at rear provides one-side, ground level, walk-up service.

Nylon braided wrap and all weather connectors ensure electrical system integrity.

Quick-connect hydraulic test ports simplify system diagnosis.

Remote mounted drains for fuel, hydraulic and cooling systems allow collection of fluids.

500 hour oil change interval is standard.

Heavy Weight Option

Provides maximum machine versatility and utilization, while enhancing productivity.



Maximum operating weight of 17 137 kg (38,000 lb) increases versatility for working on thick lifts.

Maximum weight per wheel of 1920 kg (4,220 lb) provides increased ground contact pressures for thick lifts and harsh mixes.

Ballast (optional) provides an additional 6168 kg (13,600 lb) of steel ballast for increased versatility.

Load compensating valves provide increased torque to the propel motors for working on grades and on tough underfoot conditions.

Maximum travel speed of 25.6 km/h (15.9 mph) provides quick maneuverability around the job site.

12-ply tires are standard with the heavy weight option.

Engine

Four-stroke, four cylinder 3054C turbocharged diesel engine. The engine meets U.S. EPA Tier 2 emissions regulations.

Ratings at	RPM	kW	hp
Gross power	2200	75	100

Ratings of Caterpillar machine engines are based on standard air conditions of 25°C (77°F) and 100 kPa (29.61" Hg) dry barometer. Power is based on using API gravity of 35 at 15°C (60°F), fuel having a LHV of 42 780 kJ/kg (18,390 Btu/lb) 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 fan, air cleaner, muffler and alternator.

The following ratings apply at 2200 RPM when tested under the specified standard conditions:

Net Power	kW	hp
ISO 9249	72	96
SAE J1349	72	96
EEC 80/1269	72	96

Dimensions

Bore	105 mm	4.13"
Stroke	127 mm	5"
Displacement	4.4 liters	269 cu. in.

Dual-element, dry-type air cleaner with visual restriction indicator, glow plug starting aid and fuel/water separator are standard.

Transmission

Two-speed hydrostatic propel system. Hydrostatic pump provides oil to two hydrostatic motors mounted above the drive axles. Drive shafts connect the motors to the rear axles.

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

Max. speeds (forward and reverse):

Low	0 - 11 km/h (6.8 mph)
High	0 - 25.6 km/h (15.9 mph)

Wheels and Tires

6-Ply: 8.50/90 x 15

5 wheels front, 4 wheels rear

11-wheel option

6-Ply: 8.50/90 x 15

Heavy weight option

12-Ply: 7.50 x 15

Electrical System

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

Brakes

Service brake features

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

Secondary brake features*

Spring-applied/hydraulically released 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 standard J1472 and EN500-4.*

Axles

Tractive effort is delivered to the four rear drive wheels by standard, heavy-duty axles.

Water System

The gravity water system is efficient and reliable. System includes galvanized distribution bars over the front and rear tires and retractable nylon tire scrapers for each tire.

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.

Pressurized water system is optional.

Service Refill Capacities

	Liters	U.S. Gallons
Fuel tank*	173	45.6
Cooling system	16.1	4.2
Engine oil (w/filter)	7.3	1.9
Brake	0.3	0.08
Axle	2.7	0.71
Hydraulic tank	54.9	14.5
Water spray tank	394	104

*Note: Actual fuel tank capacity is 162 L (42.8 gal).

Steering

Steering is hydraulic power-assist for responsive, low-effort machine handling.

Minimum turning radius:

Inside	4648 mm (15' 3")
Outside	6453 mm (21' 2")

Steering angle (each direction) 37.5°.

Hydraulic system – one 75 mm (3") bore, double-acting cylinder powered by a gear pump.

Frame

Frame is fabricated from welded heavy-gauge steel plates. Integral baffle plates prevent water surge when water ballasted. Ballast compartments have cover plates.

The clean, unitized design provides a flat deck for excellent operator mobility. The frame is designed for easy access to all major components.

Instrumentation and Gauges

The start switch, engine throttle switch, alternator indicator light, coolant temperature gauge, engine oil pressure gauge, hydraulic oil temperature gauge and hour meter are located on the instrument panel in front of the operator.

Machine instrumentation and most controls are located at the operator's right on the control console. This includes the propel lever, speed selector switch, water system control, horn and secondary brake switch.

Operator and Machine Protective Equipment

The Roll Over Protective Structure (ROPS) is a two-post structure that bolts directly onto flanges welded to the machine frame. The structure meets SAE J231, SAE J1040, ISO 3449 and ISO 3471.

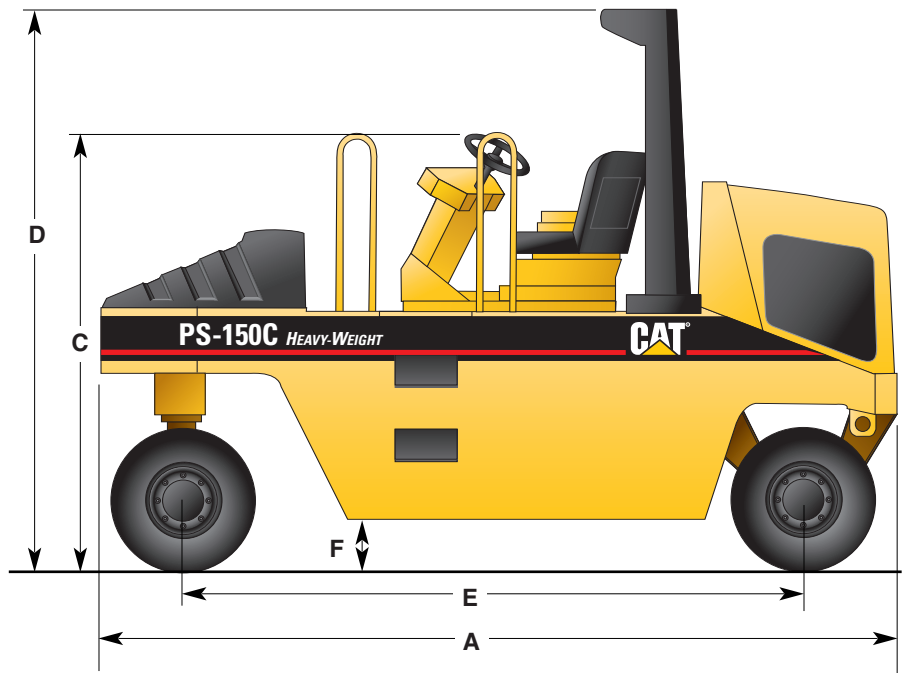
Backup alarm emits a 107 dB(A) alarm whenever the machine is in reverse. The backup alarm is standard equipment.

Retractable seat belt is 76 mm (3") wide and is standard equipment.

Dimensions

	PS-150C		w/11-wheel option	
A Length	4.29 m	14' 1"	4.29 m	14' 1"
B Compaction width	1.74 m	5' 8"	2.13 m	6' 11"
C Height at steering wheel	2.32 m	7' 7"	2.32 m	7' 7"
D Height at ROPS	3.0 m	9' 10"	3.0 m	9' 10"
E Wheelbase	3.34 m	10' 11"	3.34 m	10' 11"
F Ground clearance	267 mm	10.5"	267 mm	10.5"
G Tire overlap	13 mm	0.5"	13 mm	0.5"
Outside turning radius	6.45 m	21' 2"	6.45 m	21' 2"
Inside turning radius	4.64 m	15' 3"	4.44 m	14' 7"
Oscillation angle	±4.4 degrees		±4.4 degrees*	

* Oscillation angle for outside rear wheels is zero degrees up and 4.4 degrees down.



Weights (approximate)

Operating weights include lubricants, coolant, 80 kg (175 lb) operator, full fuel tank, full hydraulic system, half-full water tank and ROPS.

Operating Weights

Model	Condition	Weight of Ballast		Total Weight		Average Weight per Wheel	
PS-150C							
	Standard machine empty	—	—	4885 kg	10,775 lb	545 kg	1,200 lb
	Maximum water ballast	3825 kg	8,430 lb	8710 kg	19,205 lb	970 kg	2,145 lb
	Maximum wet sand ballast	8055 kg	17,760 lb	12 940 kg	28,535 lb	1440 kg	3,180 lb
PS-150C w/11-Wheel Option							
	Standard machine empty	—	—	4955 kg	10,925 lb	450 kg	993 lb
	Maximum water ballast	3825 kg	8,430 lb	8780 kg	19,355 lb	798 kg	1,760 lb
	Maximum wet sand ballast	8055 kg	17,760 lb	13 010 kg	28,685 lb	1183 kg	2,608 lb
PS-150C w/Heavy Weight Option							
	Standard machine empty	—	—	4955 kg	10,925 lb	551 kg	1,214 lb
	Maximum water ballast	3825 kg	8,430 lb	8780 kg	19,355 lb	970 kg	2,145 lb
	Maximum wet sand ballast	8055 kg	17,760 lb	13 010 kg	28,685 lb	1440 kg	3,180 lb
	With 12 307 kg (27,075 lb) of iron and wet sand ballast	12 307 kg	27,075 lb	17 273 kg	38,000 lb	1920 kg	4,222 lb
PS-150C w/Heavy Weight Option and 11-Wheel Option							
	Standard machine empty	—	—	5025 kg	11,078 lb	457 kg	1,008 lb
	Maximum water ballast	3825 kg	8,430 lb	8850 kg	19,511 lb	805 kg	1,775 lb
	Maximum wet sand ballast	8055 kg	17,760 lb	13 080 kg	28,836 lb	1189 kg	2,621 lb

Ballast Compartments

Ballast compartments are positioned with a calculated balance of wheel to weight ratio. Internal-frame baffles help prevent surges when water ballasted.

Sand and steel ballast can be added through large cover plates on the operation deck and water can be added through a fill port.

When adding water, it is recommended that only the primary ballast chamber be used because it is sealed.

Sand and steel ballast can be removed through a bolt-on side cover and water ballast can be emptied through a drain port.

Ballast capacities

Primary	3.9 m ³ (139 ft ³)
Secondary	0.4 m ³ (11 ft ³)
Total	4.3 m ³ (150 ft ³)

Ballast materials

0.028 m ³ (1 ft ³) of wet sand weighs 57 kg (125 lb)
0.028 m ³ (1 ft ³) of water weighs 28 kg (62.4 lb)

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 PS-150C can be ballasted with sand, water, steel or a combination of each.

These three components provide varying weight capacities, allowing the machines to be tailored to specific requirements.

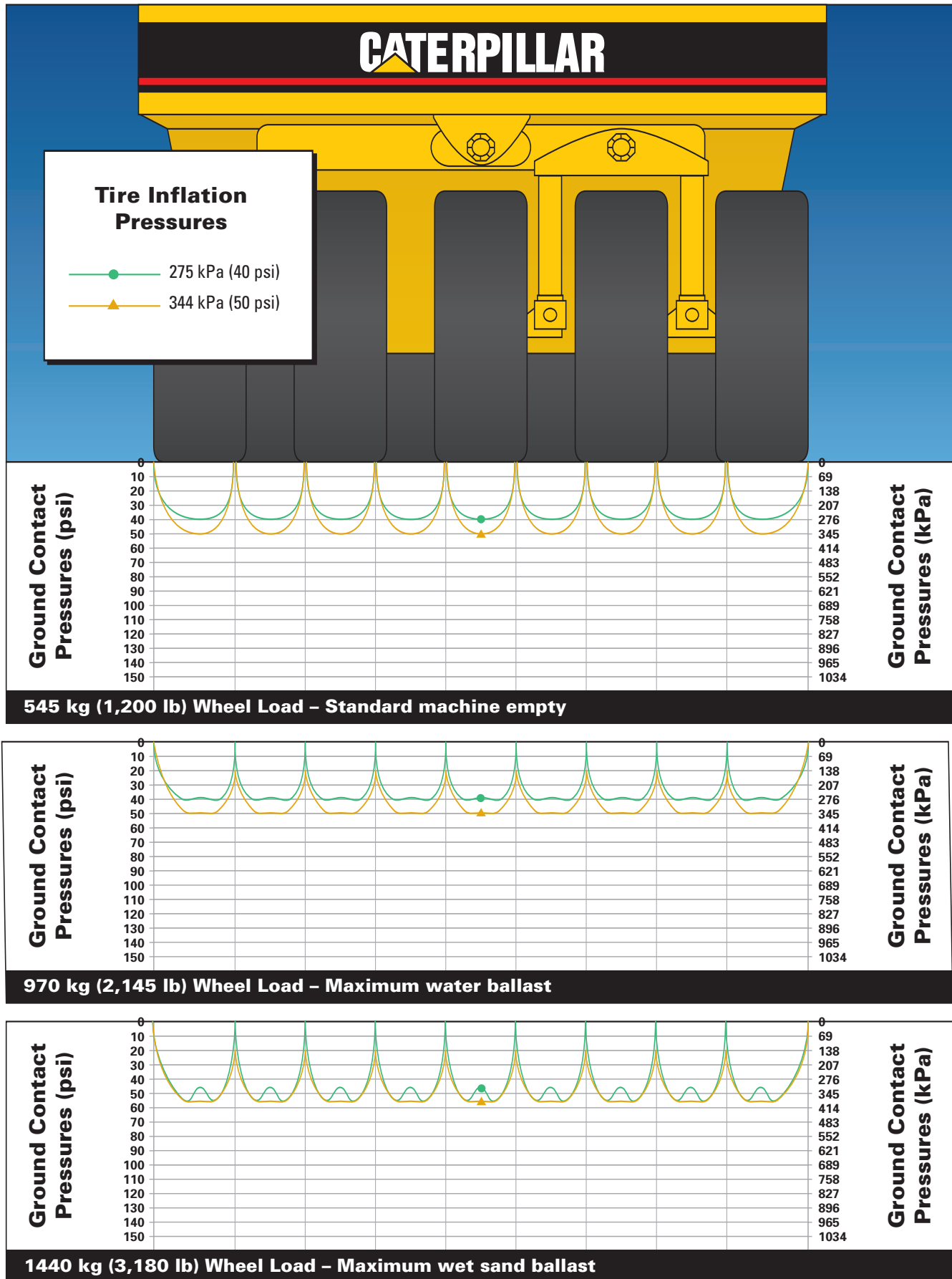
Average Ground Contact Pressures

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

Tire Ply	6-Ply 8.50/90 x 15 Smooth Tires		12-Ply 7.50 x 15 Smooth Tires								14-Ply 7.50 x 15 Smooth Tires									
Tire Pressure	kPa	275	344	344	413	482	550	619	688	757	344	413	482	550	619	688	757	826	862	
	psi	40	50	50	60	70	80	90	100	110	50	60	70	80	90	100	110	120	125	
Wheel Load																				
Ground Contact Pressures (GCP) and Contact Areas (CA)																				
545 kg	GCP	kPa	162	183	236	266	284	306	317	317	344	243	266	284	295	317	330	344	359	367
		psi	24	27	34	39	41	44	46	46	50	35	39	41	43	46	48	50	52	53
1,200 lb	CA	cm ²	329	291	226	200	187	174	168	168	155	220	200	187	181	168	162	155	149	145
		in ²	51	45	35	31	29	27	26	26	24	34	31	29	28	26	25	24	23	22
970 kg	GCP	kPa	197	214	250	284	314	343	369	378	410	259	295	321	343	369	388	410	421	427
		psi	29	31	36	41	46	50	54	55	60	38	43	47	50	54	56	60	61	62
2,145 lb	CA	cm ²	485	446	381	336	304	278	258	252	233	368	323	297	278	258	245	233	226	223
		in ²	75	69	59	52	47	43	40	39	36	57	50	46	43	40	38	36	35	34
1440 kg	GCP	kPa	235	254	280	304	331	358	390	405	607	273	312	336	364	390	413	437	465	475
		psi	34	37	41	44	48	52	57	59	88	40	45	49	53	57	60	64	68	69
3,180 lb	CA	cm ²	601	556	504	465	426	394	362	349	233	517	452	420	388	362	342	323	304	297
		in ²	93	86	78	72	66	61	56	54	36	80	70	65	60	56	53	50	47	46
1920 kg	GCP	kPa	—	—	296	319	346	368	387	403	440	309	319	341	354	372	387	403	414	417
		psi	—	—	43	47	50	53	56	59	64	45	47	49	51	54	56	59	60	61
4,220 lb	CA	cm ²	—	—	601	559	516	485	461	442	405	577	559	522	504	479	461	442	429	427
		in ²	—	—	93	86	80	75	71	68	63	89	86	81	78	74	71	68	67	66

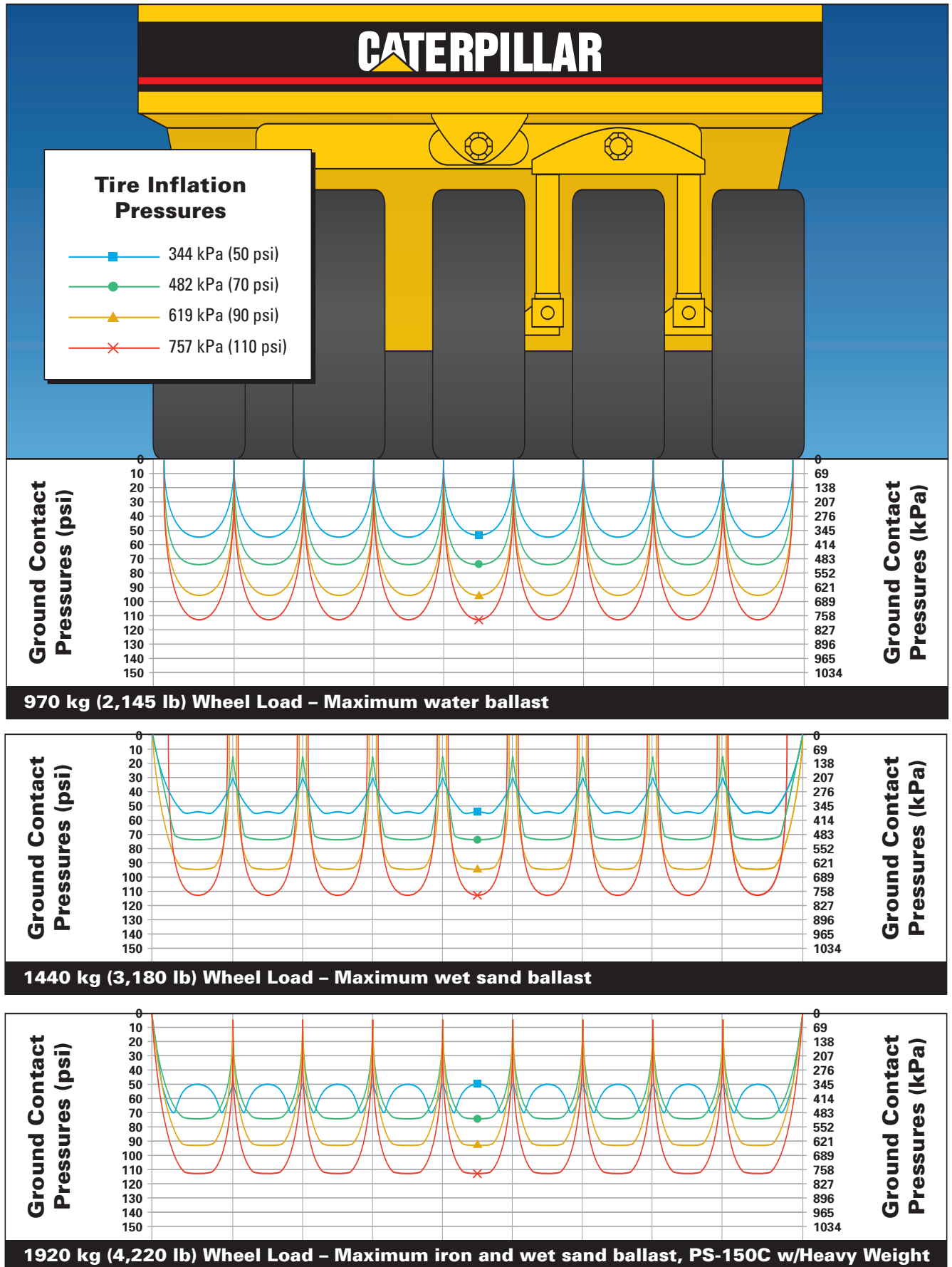
Actual Ground Contact Pressures for 6-Ply: 8.50/90 x 15 Tires

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



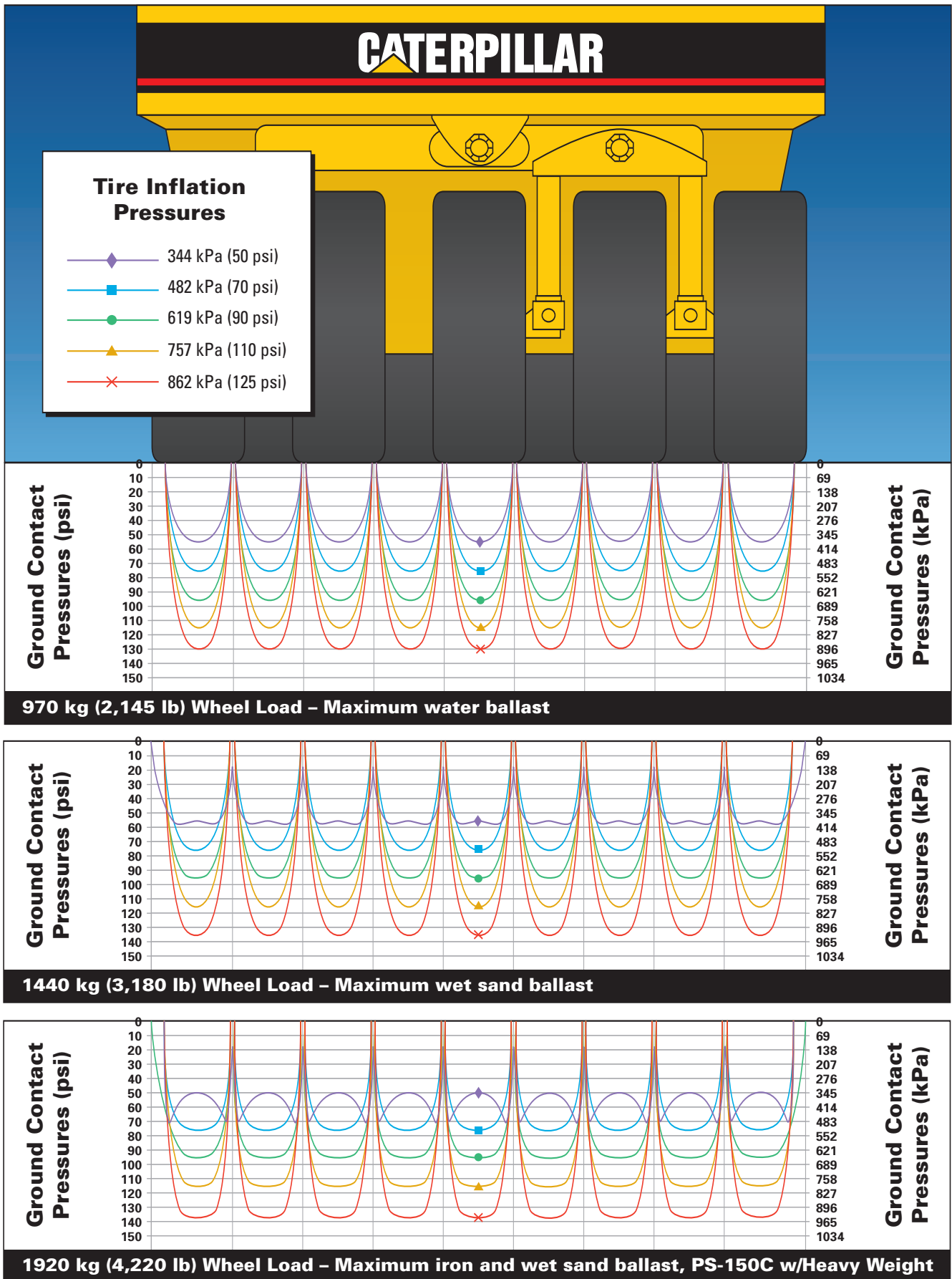
Actual Ground Contact Pressures for 12-Ply: 7.50 x 15 Tires

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



Actual Ground Contact Pressures for 14-Ply: 7.50 x 15 Tires

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



Optional Equipment

Note: Standard and optional equipment may vary. Consult your Caterpillar dealer for specifics.

The Speedometer is calibrated in both kilometers per hour and miles per hour on an analog dial.

Pressure Water Spray System provides constant water spray regardless of the tank level or when working on grades.

12-Ply or 14-Ply Tires with higher tire pressures and increased ground contact pressure provide greater compactive effort.

Radial Tires (7.50 x 15) ensure a flat contact area, regardless of the tire load or inflation pressure.

Heat Retention Shields (Tire Skirts) trap heat and help prevent asphalt from adhering to the tire surfaces.

11-Wheels Option add two wheels to the rear axle. This option is only intended for chip and seal applications and cannot be used in conjunction with the ballast option.

Roading Light Package consists of front and rear floodlights, taillights and parking lights with flashers.

Rotating Operator's Station with Maximum Visibility Position (MVP) control console pivots to three locked positions – left, center and right.

Suspension Seat is mechanical type with vertical adjustment and armrests.

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

Traction Control consists of a foot activated control switch that activates a hydraulic oil flow divider for increased tractive effort.

Heavy Weight Option increases weight capacity to 17 273 kg (38,000) and includes load sensing valves for each propel motor to increase torque for braking and working on grades.

Ballast Option provides an additional 6168 kg (13,600 lb) of steel ballast for use with the heavy weight option.

Total Customer Support System

Parts availability—most parts on dealer's shelf when you need them. Computer-controlled, emergency search system backup.

Parts stock lists—dealer helps you plan on-site parts stock to minimize your parts investment while maximizing machine availability.

Service capability—dealer's shop or fast field service by trained technicians using latest tools and technology.

Machine management services—effective preventive maintenance programs, cost-effective repair options, customer meetings, operator and mechanic training.

Literature support—easy-to-use parts books, operation and maintenance manuals, and service manuals help you get maximum value from equipment.

Flexible financing—your dealer can arrange attractive financing on the entire line of Caterpillar equipment. Terms structured to meet cash flow requirements. See how easy it is to own, lease or rent Cat equipment.

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Featured machines in photography may include optional equipment.
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