

PC220-5 PC220LC-5

HYDRAULIC EXCAVATORS



The New Frontier of Technology and Quality

Operating Weight: PC220 22000 kg **48,500 lb**

PC220LC 23130 kg **50,990 lb**

Bucket Capacity (SAE heaped): 0.44 m³ ~ 1.26 m³

0.58 cu.yd. ~ 1.65 cu.yd.

Flywheel Horsepower: 153 HP **114 kW** at 2200 RPM

 **KOMATSU**
The New Frontier of Technology & Quality

The New Frontier of Technology

UNRIVALED WORK PERFORMANCE AND FUEL ECONOMY



Electronic Monitor And Control Console (EMACC)

Puts all machine controls and display functions in easy view and reach of the operator. Monitor console rotates and locks in 3 positions providing the best glare free viewing angle from any operator position.

EMACC FUNCTIONS:

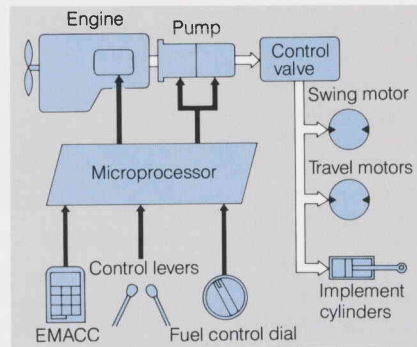
- **Working mode**
- **Power modes:** Three modes (H, S and L) are available. They are automatically set in accordance with the working mode. Manual reset is also possible.
- **Auto-decel**
- **Heater fan control** (option)
- **Swing lock indicator**
- **Monitor** to check the machine's condition
- **"Lo" or "Hi" travel speed selector**
- **Wiper controls:** intermittent or continuous mode
- **Fuel control dial**
- **Engine key stop**

Working Mode Selection System

The ideal working mode for—"Heavy Duty Operations," "General Operations," "Finishing Operations," or "Lifting Operations" can be selected with the touch of a button. The mode selection system allows the operator to match machine performance and economy to actual job conditions.

Pump and Engine Mutual Control System

A microprocessor varies engine and pump output for maximum fuel efficiency without sacrificing productivity.



"Power Max." Button

Temporarily increases implement force for added power in tough situations.



EASY AND COMFORTABLE OPERATION

Fuel Control Dial

The easy to use dial makes adjusting the engine speed quick and effortless.

Engine Key Stop

To stop the engine, simply turn off the ignition key.

Adjustable Wrist Control Levers

Unitized wrist control levers and arm rests can be adjusted through three positions for maximum operator comfort. The proportional pressure wrist controls reduce operating effort while assuring precise work equipment operations.

Automatic Hi-Lo Travel Speed

A microprocessor shifts the travel speed to either "Hi" or "Lo" depending on ground conditions and operator selection.

Adjustable Operator Seat

The seat is fully adjustable fore/aft and up/down for optimum operating position.

Engine Overheat Prevention

Should the coolant temperature rise above desired levels, a microprocessor automatically reduces the hydraulic pump output and engine speed thus preventing damage to the engine.



Power max. button



Adjustable wrist control lever



Adjustable operator seat

The New Frontier of Quality



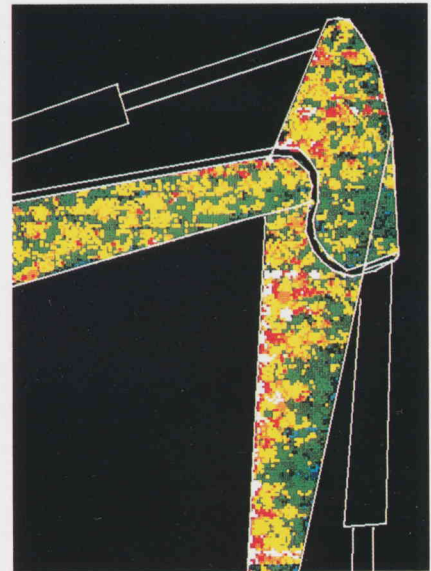
Tough Implement and Under-carriage Construction

Komatsu quality, the philosophy on which our excavators have built their reputation, now sets the new standards for others to follow. Increased structural integrity is assured with these stringent test:

- Computer aided strength analysis of all major parts
- Infrared ray stress test on all assemblies
- Bench and field endurance tests at loads exceeding design criteria.

Additional Quality Improvements Include:

- Added filters and radiator dustproof netting to keep the hydraulic system clean and cool.
- Double lock electronic connectors and in-cab mounted electronic microprocessor provide increased reliability and protection from the elements.



Tough implement and undercarriage construction

Automatic Warm-up System

Engine speed is automatically controlled by the microprocessor when coolant temperature is low for fast, fuel efficient and reliable engine warm-up.

Boom Holding Valve

A lock valve in the boom circuit minimizes hydraulic drift for increased control and efficiency.

Silent Operation

A low noise insulated diesel engine and the Pump and Engine Mutual Control system reduces noise levels to the lowest in the industry today.

Other performance-proven features

- OLSS (Open-center Load Sensing System) reduces hydraulic losses.
- Auto-decel boosts fuel economy.
- Swing holding brake makes working on slopes much easier.
- Car-like operator's cab
- X-leg frame for excellent stability.
- Hydraulic merging circuits shorten cycle time.
- Straight-travel circuits facilitate simultaneous operation.



YOU CAN COUNT ON OUR SERVICE

Training schools worldwide: Every Komatsu mechanic, salespeople and parts man goes to training school to upgrade their servicing abilities.

Product support programs: We'll help you buy the right machines for your operation. Survey on-the-job efficiency. And provide comprehensive service programs for

minimum operation cost and minimum downtime.

24-hour parts hotline: Just call your Komatsu parts representative. You'll be in instant touch with our worldwide communications system, for rush service and rush orders on 490,000 parts.

SPECIFICATIONS



ENGINE

Model..... Komatsu SA6D95L
 Type..... 4-cycle, water-cooled, direct-injection
 Aspiration..... Turbocharged and aftercooled
 No. of cylinders..... 6
 Bore..... 95 mm **3.74"**
 Stroke..... 115 mm **4.53"**
 Piston displacement..... 4.89 ltr. **298 cu.in**
 Flywheel horsepower:
 (SAE J1349)..... 153 HP **114 kW** at 2200 RPM
 (DIN 6270 NET)..... 155 PS **114 kW** at 2200 RPM
 Governor..... All-speed, mechanical



HYDRAULIC SYSTEM

Type..... Pump and engine mutual control
 (PEMC) system
 No. of selectable modes..... 3
 Main pump:
 Type..... Variable-capacity piston pumps
 Pumps for..... Boom, arm, bucket, swing
 and travel circuits
 Maximum flow..... 2 x 205 ltr. **54 U.S.gal/min.**
 Sub-pump for control circuit..... Gear pump
 Hydraulic motors:
 Travel..... 2 x Axial piston motor with parking brake
 Swing..... 1 x Axial piston motor
 Relief valve setting:
 Implement circuits..... 325 kg/cm² **4,620 PSI/31.9 MPa**
 Travel circuit..... 340 kg/cm² **4,830 PSI/33.3 MPa**
 Swing circuit..... 285 kg/cm² **4,050 PSI/27.9 MPa**
 Pilot circuit..... 30 kg/cm² **430 PSI/ 2.9 MPa**
 Service valve..... Installed
 Hydraulic cylinders:
 No. of cylinders—bore x stroke:
 Boom..... 2—130 mm x 1275 mm **5.1" x 50.2"**
 Arm..... 1—140 mm x 1635 mm **5.5" x 64.4"**
 Bucket..... 1—130 mm x 1020 mm **5.1" x 40.2"**



SWING SYSTEM

Driven by..... Hydraulic motor
 Swing reduction..... Planetary and helical
 gear reduction
 Swing circle lubrication..... Grease-bathed
 Swing lock..... Oil disc brake
 Swing speed..... 13.0 RPM



DRIVES & BRAKES

Steering control..... Two levers with pedals
 Drive method..... Fully hydrostatic type
 Drive motor..... Axial piston motor, in-shoe design
 Reduction system..... Planetary double reduction
 Max. drawbar pull..... 17700 kg **39,020 lb/173.5 kN**
 Max. travel speed (High)..... 5.5 km/h **3.4 MPH**
 Max. travel speed (Low)..... 3.4 km/h **2.1 MPH**
 Service brake..... Hydraulic lock type
 Parking brake..... Oil disc brake



UNDERCARRIAGE

Center frame..... X-frame
 Track frame..... Box-section type
 Seal of track..... Sealed track
 Track adjuster..... Hydraulic type
 No. of shoes..... 47 each side (PC220)
 51 each side (PC220LC)
 No. of carrier rollers..... 2 each side
 No. of track rollers..... 8 each side (PC220)
 10 each side (PC220LC)



COOLANT & LUBRICANT CAPACITY (refilling)

Fuel tank..... 310 ltr. **81.9 U.S. gal**
 Radiator..... 16 ltr. **4.1 U.S. gal**
 Engine..... 18 ltr. **4.6 U.S. gal**
 Final drive, each side..... 8 ltr. **2.0 U.S. gal**
 Swing drive..... 9 ltr. **2.5 U.S. gal**
 Hydraulic tank..... 170 ltr. **44.9 U.S. gal**



OPERATING WEIGHT (approximate)

Operating weight, including 5850 mm **19'2"** one-piece boom, 3045 mm **10'** arm, SAE heaped 1.00 m³ **1.31 cu.yd.** backhoe bucket, operator, lubricant, coolant and full fuel tank and the standard equipment.

Triple-grouser shoes	PC220-5		PC220LC-5	
	Operating weight	Ground pressure	Operating weight	Ground pressure
600 mm 24"	22000 kg 48,500 lb	0.49 kg/cm ² 7.02 PSI/48.3 kPa	22841 kg 50,360 lb	0.46 kg/cm ² 6.61 PSI/45.6 kPa
500 mm 20"	21727 kg 47,900 lb	0.58 kg/cm ² 8.32 PSI/57.4 kPa	—	—
700 mm 28"	22263 kg 49,080 lb	0.42 kg/cm ² 6.09 PSI/42.0 kPa	23130 kg 50,990 lb	0.40 kg/cm ² 5.74 PSI/39.5 kPa
800 mm 31"	22531 kg 49,670 lb	0.37 kg/cm ² 5.39 PSI/37.2 kPa	23706 kg 52,260 lb	0.36 kg/cm ² 5.15 PSI/35.5 kPa

Standard Equipment

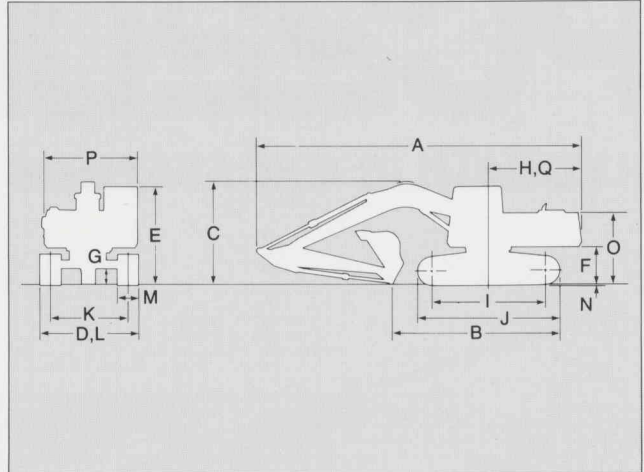
- 24 V/5.5 kW electric starting motor
- 25 A alternator
- 12 V/110 Ah x 2 batteries
- Dry-type air cleaner
- PPC hydraulic control
- EOLSS and PEMC system
- Boom holding valve
- Auto-decel
- Power maximizing system
- Power mode selection system
- Working mode selection system
- Engine overheat prevention system
- Automatic engine warm-up system
- Automatic de-irration system for fuel line
- 600 mm **24"** triple-grouser shoes (PC220)
- 700 mm **27.6"** triple-grouser shoes (PC220LC)
- Track guiding guards (center section)
- Hydraulic track adjusters
- 4350 kg **9,592 lb** counter weight
- Suction fan
- Radiator & oil cooler with dustproof net
- Electric horn
- Front light (1)
- Rearview mirror (RH)
- Vandalism protection locks
- EMACC
- All-weather steel cab (with safety glass windows, pull-up type front window with lock device, removable lower windshield, lockable door, floor mat, intermittent window wiper, adjustable seat with armrest, cigarette lighter and ashtray)



DIMENSIONS

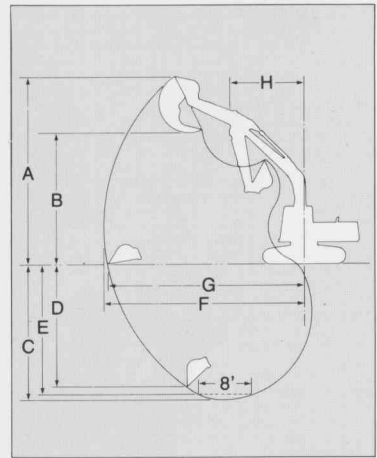
		PC220-5				PC220LC-5			
		2.0 m 6'7" arm	2.5 m 8'2" arm	3.05 m 10' arm	3.5 m 11'6" arm	2.0 m 6'7" arm	2.5 m 8'2" arm	3.05 m 10' arm	3.5 m 11'6" arm
A	Overall length	9800 mm 32'2"	9780 mm 32'1"	9730 mm 31'11"	9745 mm 32'	9800 mm 32'2"	9780 mm 32'1"	9730 mm 31'11"	9745 mm 32'
B	Length on ground (transport)	6250 mm 20'6"	5825 mm 19'1"	5160 mm 16'11"	4925 mm 16'2"	6445 mm 21'2"	6020 mm 19'9"	5353 mm 17'7"	5120 mm 16'10"
C	Overall height (to top of boom)	3350 mm 11'	3270 mm 10'9"	3110 mm 10'2"	3275 mm 10'9"	3350 mm 11'	3270 mm 10'9"	3110 mm 10'2"	3275 mm 10'9"

		PC220-5	PC220LC-5
D	Overall width	2980 mm 9'9"	3280 mm 10'9"
E	Overall height (to top of cab)	2860 mm 9'5"	2860 mm 9'5"
F	Ground clearance, counterweight	1075 mm 3'6"	1075 mm 3'6"
G	Min. ground clearance	440 mm 1'5"	440 mm 1'5"
H	Tail swing radius	2800 mm 9'2"	2800 mm 9'2"
I	Length of track on ground	3445 mm 11'4"	3830 mm 12'7"
J	Track length	4250 mm 13'11"	4640 mm 15'3"
K	Track gauge	2380 mm 7'10"	2580 mm 8'6"
L	Width of crawler	2980 mm 9'9"	3280 mm 10'9"
M	Shoe width	600 mm 23.6"	700 mm 28"
N	Grouser height	26 mm 1"	26 mm 1"
O	Machine cab height	2120 mm 6'11"	2120 mm 6'11"
P	Machine cab width	2480 mm 8'2"	2480 mm 8'2"
Q	Distance, swing center to rear end	2790 mm 9'2"	2790 mm 9'2"



WORKING RANGE

		2.0 m 6'7" arm	2.5 m 8'2" arm	3.05 m 10' arm	3.5 m 11'6" arm
A	Max. digging height	9070 mm 29'9"	9150 mm 30'	9380 mm 30'9"	9620 mm 31'7"
B	Max. dumping height	6120 mm 20'1"	6215 mm 20'5"	6475 mm 21'3"	6720 mm 22'1"
C	Max. digging depth	5880 mm 19'4"	6370 mm 20'11"	6920 mm 22'8"	7375 mm 24'2"
D	Max. vertical wall digging depth	4800 mm 15'9"	5145 mm 16'11"	6010 mm 19'9"	6440 mm 21'2"
E	Max. digging depth of cut for 8' level	5550 mm 18'3"	6170 mm 20'3"	6715 mm 22'	7210 mm 23'8"
F	Max. digging reach	9285 mm 30'6"	9655 mm 31'8"	10180 mm 33'5"	10625 mm 34'10"
G	Max. digging reach at ground level	9090 mm 29'10"	9470 mm 31'1"	10000 mm 32'10"	10460 mm 34'4"
H	Min. swing radius	3950 mm 13'	3925 mm 12'11"	3860 mm 12'8"	3890 mm 12'9"
Bucket digging force		16200 kg 35,710 lb/159 kN	14000 kg 30,860 lb/137 kN	14000 kg 30,860 lb/137 kN	14000 kg 30,860 lb/137 kN
Arm crowd force		14700 kg 32,410 lb/144 kN	12900 kg 28,440 lb/126 kN	10900 kg 24,030 lb/107 kN	9550 kg 21,050 lb/94 kN



ATTACHMENTS

Backhoe bucket and arm combination

Bucket capacity (heaped)		Width		Weight	No. of teeth	Arm			
SAE, PCSA	CECE	Without side cutters	With side cutters			2.0 m 6'7"	2.5 m 8'2"	3.05 m 10'	3.5 m 11'6"
0.44 m ³ 0.58 cu.yd.	0.40 m ³ 0.52 cu.yd.	530 mm 20.9"	635 mm 25"	560 kg 1235 lb	3	○	○	○	○
0.72 m ³ 0.94 cu.yd.	0.65 m ³ 0.85 cu.yd.	830 mm 32.7"	935 mm 36.8"	655 kg 1444 lb	3	○	○	○	○
1.0 m ³ 1.31 cu.yd.	0.9 m ³ 1.18 cu.yd.	1155 mm 45.5"	1260 mm 49.6"	773 kg 1704 lb	4	○	○	○	□
1.14 m ³ 1.49 cu.yd.	1.0 m ³ 1.31 cu.yd.	1300 mm 51.2"	1405 mm 55.3"	830 kg 1830 lb	5	○	□	□	×
1.26 m ³ 1.65 cu.yd.	1.1 m ³ 1.44 cu.yd.	1400 mm 55.1"	1505 mm 59.3"	875 kg 1929 lb	5	○	□	△	×

*These charts are based on over-side stability with fully loaded bucket at maximum reach.

○ Material weight up to 1.8 t/m³ **1.52 U.S. ton/cu.yd.**
 □ Material weight up to 1.5 t/m³ **1.26 U.S. ton/cu.yd.**
 △ Material weight up to 1.2 t/m³ **1.01 U.S. ton/cu.yd.**
 × Not usable

Trapezoidal bucket is ideal for digging ditches and for drainage works.
Capacity (JIS heaped): 0.50 m³ **0.65 cu.yd.**

Slope finishing bucket for scraping slopes or banks.
Capacity (JIS heaped): 0.35 m³ **0.46 cu.yd.**
Width: 2000 mm **78.7"**

Ripper bucket for hard, rocky ground.
Capacity (JIS heaped): 0.56 m³ **0.73 cu.yd.**
Width: 990 mm **40"**

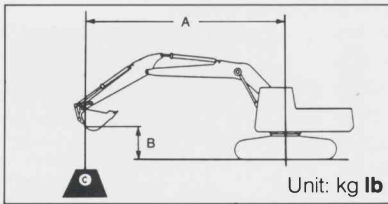
Clamshell bucket is recommended for vertical digging.
Capacity (JIS heaped): 0.60 m³ **0.78 cu.yd.**

Single-shank ripper and **three-shank ripper** are recommended for rock-digging and crushing, hard-soil digging, pavement-removal work, etc.

Other options

- Air conditioner
- Cooler for cab
- Heater
- Fuel supply pump
- Headguard
- Track frame underguard
- In-line filter
- AM radio
- Rearview mirror (LH)
- Suspension seat
- Seat belt for suspension seat
- Warning lights for swing
- Windshield washer
- Tool kit
- First service spare parts

LIFTING CAPACITY



- A: Reach from swing center
 B: Bucket hook height
 C: Lifting capacity

- Cf: Rating over front
 Cs: Rating over side
 Rating at maximum reach

PC220-5

Unit: kg lb

Arm length	B \ A	⊗ MAX.		7.6 m 25'		6.1 m 20'		4.6 m 15'		3.0 m 10'	
		Cf	Cs	Cf	Cs	Cf	Cs	Cf	Cs	Cf	Cs
3.05 m 10'	6.1 m 20'	*3,100 6,950	*3,100 6,950	*3,450 7,650	3,250 7,250						
	4.6 m 15'	*3,150 6,950	2,650 5,850	*3,950 8,700	3,200 7,050	*4,100 9,050	*4,100 9,050				
	3.0 m 10'	*3,300 7,350	2,400 5,300	*4,450 9,800	3,050 6,850	*5,050 11,100	4,500 9,900	*6,450 14,200	*6,450 14,200	*10,750 23,800	*10,750 23,800
	1.5 m 5'	3,550 7,800	2,300 5,050	4,550 10,000	2,950 6,500	*6,050 13,300	4,200 9,250	*8,300 18,300	*6,450 14,200	*5,450 12,000	*5,450 12,000
	0	3,600 8,050	2,300 5,100	4,450 9,700	2,800 6,200	6,200 13,700	4,000 8,750	*9,650 21,300	6,050 13,400	*6,900 15,200	*6,900 15,200
	-1.5 m -5'	3,900 8,600	2,500 5,500	4,350 9,600	2,750 6,050	6,100 13,500	3,850 8,500	*9,650 21,300	5,900 13,000	*10,200 22,500	*10,200 22,500
	-3.0 m -10'	4,650 10,300	2,950 6,550			6,100 13,500	3,900 8,550	9,650 21,300	6,000 13,200	*14,900 32,800	12,300 27,100
	-4.6 m -15'	6,650 14,600	4,250 9,350					*9,200 20,200	6,100 13,500	*13,800 30,400	12,700 28,000
2.0 m 6'7"	0	4,350 9,590	2,650 5,840	4,450 9,810	2,700 5,950	6,300 13,890	3,800 8,380	10,010 22,070	5,850 12,900		
2.5 m 8'2"	0	4,050 8,930	2,450 5,400	4,500 9,920	2,750 6,060	6,400 14,110	3,850 8,490	9,900 21,830	5,900 13,010		
3.5 m 11'6"	0	3,600 7,940	2,150 4,740	4,400 9,700	2,700 5,950	6,250 13,780	3,750 8,270	*9,100 20,060	5,800 12,790	*7,000 15,430	*7,000 15,430

PC220LC-5

Arm length	B \ A	⊗ MAX.		7.6 m 25'		6.1 m 20'		4.6 m 15'		3.0 m 10'	
		Cf	Cs	Cf	Cs	Cf	Cs	Cf	Cs	Cf	Cs
3.05 m 10'	6.1 m 20'	*3,100 6,950	*3,100 6,950	*3,450 7,650	*3,450 7,650						
	4.6 m 15'	*3,150 7,000	3,000 6,600	*3,950 8,700	3,600 7,950	*4,100 9,050	*4,100 9,050				
	3.0 m 10'	*3,300 7,350	2,700 6,000	*4,450 9,800	3,450 7,650	*5,050 11,100	*5,050 11,100	*6,450 14,200	*6,450 14,200	*10,800 23,800	*10,800 23,800
	1.5 m 5'	*3,650 8,050	2,600 5,750	*5,000 11,000	3,300 7,250	*6,050 13,340	4,750 10,400	*8,300 18,300	7,300 16,100	*5,450 12,000	*5,450 12,000
	0	*4,200 9,300	2,650 5,800	5,250 11,700	3,200 7,150	*6,900 15,200	4,550 10,000	*9,650 21,300	6,950 15,300	*6,900 15,200	*6,900 15,200
	-1.5 m -5'	4,700 10,300	2,850 6,300	5,200 11,400	3,150 7,000	7,350 16,200	4,400 9,700	*10,200 22,400	6,800 15,000	*10,200 22,400	*10,200 22,400
	-3.0 m -10'	5,550 12,200	3,350 7,450			7,350 16,100	4,400 9,700	*10,200 22,500	6,800 15,000	*14,900 32,800	14,400 31,800
	-4.6 m -15'	*6,800 15,000	4,800 10,600					*9,200 20,300	7,050 15,500	*13,700 30,200	*13,700 30,200
2.0 m 6'7"	0	5,100 11,240	3,100 6,830	5,200 11,460	3,200 7,050	*7,250 15,980	4,400 9,700	*10,150 22,380	6,750 14,880		
2.5 m 8'2"	0	4,750 10,470	2,900 6,390	5,250 11,570	3,200 7,050	*7,150 15,760	4,450 9,810	*10,000 22,050	6,850 15,100		
3.5 m 11'6"	0	*3,250 7,160	2,350 5,180	*5,200 11,460	3,150 6,940	*6,500 14,330	4,450 9,810	*9,150 20,170	6,900 15,200	*7,000 15,430	*7,000 15,430

* Load is limited by hydraulic capacity rather than tipping. Ratings are based on SAE Standard No. J1097. Rated loads do not exceed 87% of hydraulic lift capacity or 75% of tipping load.

KOMATSU

EQUIPEMENT FÉDÉRAL QUÉBEC LIMITÉE
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