KOMATSU
KOMATSU MARKETING DIVISION

PC300LC-5

HYDRAULIC EXCAVATOR

Model shown may include optional equipment

KOMATSU: The Quality is Standard.

FLYWHEEL HORSEPOWER: 207 HP @ 1950 RPM. BUCKET CAPACITY: .76-1.6 m³ (1.00-2.10 yd³). OPERATING WEIGHT: 31197 kg (68,790 lb).

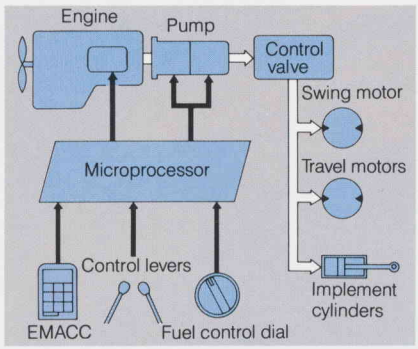
- Working mode selection system matches machine performance to actual job conditions
- OLSS system conserves fuel by preventing neutral, fine control and relief losses
- "Power max" button temporarily boosts digging forces for added power in tough situations
- Autodecelerator lowers engine speed whenever the work equipment and travel controls are in neutral for additional fuel savings
- Hi-Lo travel speed system automatically selects the correct travel speed depending on ground conditions and operator selection
- Merged circuits reduce cycle times
- Straight travel circuit assures straight travel, even during simultaneous operations
- Spacious, well-ventilated cab, excellent visibility and adjustable wrist controls add to the operator's comfort and productivity
- Adjustable electronic monitor and control console puts all control and monitoring functions at your fingertips
- Long track length and a wide track gauge provide for greater stability and increased lifting capacities.

The New Frontier of Technology

UNEQUALLED PERFORMANCE AND FUEL ECONOMY

Working Mode Selection System
This system allows the operator to match machine performance and economy to the task at hand by selecting either the "Heavy Duty Operations," "General Operations," "Finishing Operations" or "Lifting Operations" mode. Simply select the appropriate working mode and the microcomputer does the rest.

Pump and Engine Mutual Control System
A microprocessor automatically varies engine speed and pump output for maximum fuel efficiency without sacrificing productivity.



Electronic Monitor and Control Console (EMACC)
The EMACC puts all system controls and display functions within easy view and reach of the operator. The console can also be rotated through three positions to provide the best, glare-free viewing angle.

The EMACC Consists of:
- Working Modes
- Power Modes: Three modes (H, S and L) are automatically set in accordance with the working mode. Manual reset is also possible.
- Autodeceleration
- Monitor: constantly checks machine's condition
  Pre-start level checks
  Fuel gauge
  Coolant temperature gauge
  Caution items: coolant level and temperature, fuel level, oil pressure, and charge system
- Lo-Hi travel speed selector
- Swing lock indicator
- Wiper controls: intermittent or continuous
- Heater fan control

Power max. button

"Power Max" Button
Located on top of the left hand control lever, the "power max" button temporarily increases digging forces for added power in tough digging situations.

The New Frontier of Quality

Quality Improvements Include:
- Added filters and radiator dust-resistant screening 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.

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.

Engine Overheat Prevention
Should the coolant temperature rise above desired levels, pump output and engine speed are reduced, preventing damage to the engine.

Other Performance-Proven Features
- OLSS (Open-Center Load Sensing System) reduces hydraulic losses.
- Autodeceleration boosts fuel economy.
- Swing holding brake makes working on slopes much easier.
- Car-like operator's cab
- X-leg frame for excellent stability.
- Merged circuits shorten cycle times.
- Straight travel circuits facilitate simultaneous work equipment/ travel operations.

EASY AND COMFORTABLE OPERATION

Automatic Hi-Lo Travel Speed
Travel speed is automatically shifted to either "Hi" or "Lo," depending on ground conditions and operator selection.

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 the ignition key to off.

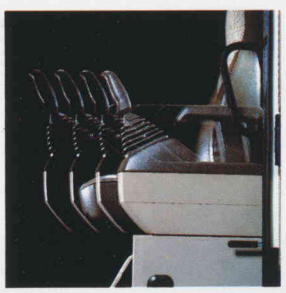
Spacious Cab
The roomy, efficient cab design has a large glass area for excellent visibility, as well as sliding front and side windows for cross ventilation.

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

Adjustable Operator's Seat
The fully adjustable suspension seat provides outstanding comfort.

Boom Lock Valve
The boom circuit is equipped with a boom holding valve to prevent hydraulic drift of the work equipment.

Swing Lock
The swing can be locked for transport simply by flicking a switch.


Adjustable wrist control lever

SPECIFICATIONS

ENGINE

Komatsu SA6D108 4-cycle, water-cooled, and turbocharged diesel engine with 6 cylinders, 108 mm **(4.25″)** bore × 130 mm **(5.12″)** stroke and 7.15 ltr **(436 in³)** piston displacement.
Flywheel horsepower . . . . . **207 HP @ 1950 RPM**
The engine features direct injection for fuel economy, a mechanical all-speed governor, forced lubrication with a full-flow filter, dry-type air cleaner with dust indicator and automatic dust evacuator, 24 V/7.5 kw starting system with 25A alternator, 2 x 12V/150 Ah batteries, and corrosion resistor.

HYDRAULIC SYSTEM

Two variable capacity piston pumps and independent swing operation assure smooth compound movements of the work equipment. The Pump and Engine Mutual Control (PEMC) system controls the engine speed and pump output for maximum fuel efficiency and productivity. The Open-center Load Sensing System (OLSS) controls the pumps for efficient use of engine power, reduced hydraulic losses during operation, and low fuel consumption.
Two variable-capacity piston pumps power boom, arm, bucket, swing and travel circuits. One gear pump powers pilot control circuits.

Pump capacities (discharge flow @ 1950 engine RPM):
Piston . . . . . .250 ltr **(66 U.S. gal)** min × 2
Gear . . . . . .90 ltr **(24 U.S. gal)** min

Hydraulic motors:
Travel . . . . . .Two axial piston motors with parking brake
Swing . . . . .One axial piston motor with swing holding brake

Relief valve settings:
Implement circuits . . . . . .325 kg/cm² **(4,620 psi)**
Swing circuit . . . . . .275 kg/cm² **(3,910 psi)**
Pilot circuit . . . . . .30 kg/cm² **(430 psi)**
Travel circuit . . . . . .325 kg/cm² **(4,620 psi)**

Control valves:
4-spool and 5-spool valves with a service valve

No. of cylinders — bore × stroke:
Boom . . . . . .2-140 mm × 1480 mm **(5.5″ x 4′10″)**
Arm . . . . . .1-160 mm × 1685 mm **(6.3″ x 5′6″)**
Bucket . . . . . .1-140 mm x 1285 mm **(5.5″ x 4′3″)**

STEERING

Steering/traveling controls are activated with either hand levers or foot pedals. Pushing both levers (or pedals) moves machine forward. Pulling them back makes machine go into reverse. Setting one lever (or pedal) in neutral and the other in forward enables machine to make a pivot turn. Pushing one forward while pulling the other backward makes machine counterrotate on the spot.

DRIVES

Fully hydrostatic drive with each track powered by an axial piston two-speed motor. Power goes through a double-reduction planetary gear to the track. Automatic Hi-Lo travel.
Maximum drawbar pull . . . . . .23400 kg **(51,600 lb)**
Maximum travel speed . . . . . .5.5 km/h **(3.4 MPH)**

BRAKES

Each travel motor is equipped with a brake valve that lessens shock when applied, and limits speed during descent. The wet, multiple-disc brakes actuate on the final-drive input shaft and automatically lock when the travel/steering levers and/or pedals are in neutral.

SWING SYSTEM

The swing system is powered by a hydraulic driven motor through spur and planetary gears. Single-row, shear type ball bearings with induction-hardened internal gears are built into the swing circle. Grease-bathed swing pinion, electric swing lock and swing holding brake are provided. Swing speed is proportional to swing control lever stroke.
Max. swing speed . . . . . .10 RPM
Tail-swing radius . . . . . .3225 mm **(10′7″)**
Min. swing radius . . . . . .4260 mm **(14′)**
(work equipment, fully retracted)

UNDERCARRIAGE

X-leg type center frame is integrally welded with reinforced box-section track frames. The design includes sealed tracks, lubricated rollers and idlers, hydraulic track adjusters with shock absorbing springs, and assembled track-type tractor shoes with triple grousers.
Shoe width . . . . . .700 mm **(28″)**
Grouser height . . . . . .26 mm **(1″)**
Number of shoes (each side) 50
Number of carrier rollers (each side) 2
Number of track rollers (each side) 8
Ground pressure . . . . . .0.52 kg/cm² **(7.39 psi)**

SERVICE REFILL CAPACITIES

Fuel tank . . . . . .510 ltr **(134.7 U.S. gal)**
Coolant . . . . . .30 ltr **(7.9 U.S. gal)**
Engine . . . . . .25 ltr **(6.6 U.S. gal)**
Final drive (each side) . . . . . .7.4 ltr **(2 U.S. gal)**
Swing drive . . . . . .22.5 ltr **(5.9 U.S. gal)**
Hydraulic oil . . . . . .195 ltr **(51.5 U.S. gal)**

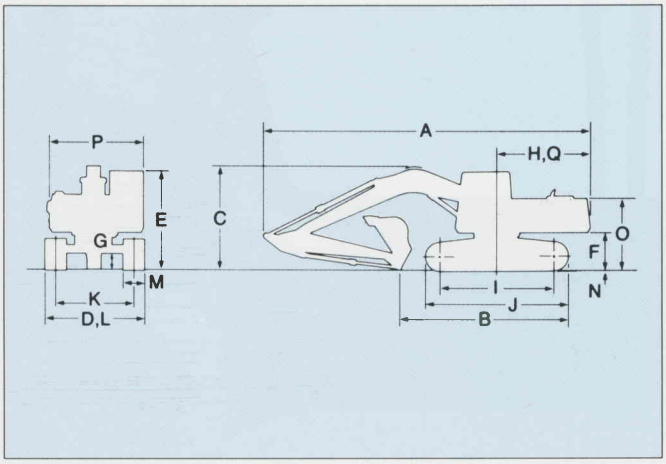
OPERATING WEIGHT

Including 6470 mm **(21′3″)** one-piece boom, 3185 mm **(10′5″)** arm, 1.25 m³ **(1.63 yd³)** backhoe bucket, 700 mm **(28″)** triple grouser shoes, operator, lubricant, coolant and full fuel tank . . . . . .31197 kg **(68,790 lb)**

DIMENSIONS

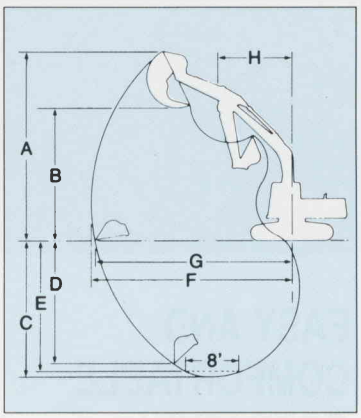
		2.2 m (7′3″) arm	2.2 m (8′4″) arm	3.185 m (10′5″) arm	4.02 m (13′2″) arm
A	Overall length	10950 mm (35′11″)	10855 mm (35′7″)	10810 mm (35′6″)	10840 mm (35′7″)
B	Length on ground (transport)	7728 mm (25′4″)	6850 mm (22′6″)	5405 mm (17′9″)	5390 mm (17′8″)
C	Overall height (to top of boom)	3370 mm (11′3″)	3425 mm (11′3″)	3200 mm (10′6″)	3650 mm (12′)

D	Overall width	3290 mm (10′10″)
E	Overall height (to top of cab)	3060 mm (10′)
F	Ground clearance, counterweight	1180 mm (3′10″)
G	Min. ground clearance	498 mm (1′8″)
H	Tail swing radius	3225 mm (10′7″)
I	Length of track on ground	3945 mm (12′11″)
J	Track length	4855 mm (15′11″)
K	Track gauge	2590 mm (8′6″)
L	Width of crawler	3290 mm (10′10″)
M	Shoe width	700 mm (28″)
N	Grouser height	31 mm (1.2″)
O	Machine cab height	2495 mm (8′2″)
P	Machine cab width	2960 mm (9′9″)
Q	Distance, swing center to rear end	3150 mm (10′4″)



WORKING RANGE

		2.2 m (7′3″) arm	2.55 m (8′4″) arm	3.185 m (10′5″) arm	4.02 m (13′2″) arm
A	Max. digging height	9580 mm (31′5″)	9965 mm (32′8″)	10210 mm (33′6″)	10550 mm (34′7″)
B	Max. dumping height	6595 mm (21′8″)	6895 mm (22′7″)	7110 mm (23′4″)	7490 mm (24′7″)
C	Max. digging depth	6355 mm (20′10″)	6705 mm (22′)	7380 mm (24′3″)	8180 mm (26′10″)
D	Max. vertical wall digging depth	5120 mm (16′10″)	5880 mm (19′4″)	6480 mm (21′3″)	7280 mm (23′11″)
E	Max. digging depth of cut for 8′ level	6130 mm (20′1″)	6520 mm (21′5″)	7180 mm (23′7″)	8045 mm (26′5″)
F	Max. digging reach	10155 mm (33′4″)	10550 mm (34′7″)	11100 mm (36′5″)	11900 mm (39′1″)
G	Max. digging reach at ground level	9950 mm (32′8″)	10355 mm (34′)	10920 mm (35′10″)	11730 mm (38′6″)
H	Min. swing radius	4330 mm (14′2″)	4345 mm (14′3″)	4260 mm (14′)	4280 mm (14′1″)
Bucket digging force		18800 kg (41,450 lb/184 kN)	18800 kg (41,450 lb/184 kN)	18800 kg (41,450 lb/184 kN)	18800 kg (41,450 lb/184 kN)
Arm crowd force		19100 kg (42,110 lb/187 kN)	16700 kg (36,820 lb/164 kN)	14100 kg (31,080 lb/138 kN)	12100 kg (26,680 lb/119 kN)



BUCKETS

	Capacity m³ (yd³) SAE, PCSA heaped	Width mm (in)		Weight kg (lb)		No. of teeth	ARMS			
		without side cutters	with side cutters	without side cutters	with side cutters		2.2 m (7′3″)	2.55 m (8′4″)	3.185 m (10′5″)	4.02 m (13′2″)
LIGHT DUTY BUCKETS	1.60 (2.10)	1473 (58)	1600 (63)	995 (2,191)	1039 (2,291)	6	○	○	□	X
MID-HEAVY DUTY BUCKETS	0.86 (1.13)	710 (28)	815 (32)	898 (2,040)	930 (2,118)	4	○	○	○	○
	1.06 (1.38)	840 (33)	940 (37)	1003 (2,280)	1040 (2,358)	4	○	○	○	○
	1.25 (1.63)	965 (38)	1145 (45)	1110 (2,520)	1145 (2,600)	5	○	○	○	□
ESCO YHD HEAVY DUTY BUCKETS	0.76 (1.00)	710 (28)	790 (31)	990 (2,250)	1035 (2,348)	4	○	○	○	○
	0.96 (1.25)	840 (33)	915 (36)	1075 (2,445)	1120 (2,544)	4	○	○	○	○

○ - Can be used with a material weight up to 3,040 lb/yd³
□ - Can be used with a material weight up to 2,520 lb/yd³
X - Not useable

STANDARD EQUIPMENT

- 24 V/7.5 kW electric starting motor
- 25 A alternator
- 12 V/170 Ah x 2 batteries
- Dry-type air cleaner with dust indicator and auto dust evacuator
- Proportional Pressure hydraulic control
- Electronic Open-Center Load Sensing System and Pump Engine Mutual Control system
- Boom holding valve
- Autodeceleration
- Power maximizing system
- Power mode selection system
- Working mode selection system
- Service valve
- Two speed travel
- Double air cleaner element
- Swing holding brake
- Gauge protector
- Engine overheat prevention system
- Automatic engine warm-up system
- Automatic deaeration system for fuel line
- 700 mm **(28″)** triple-grouser shoes
- Track guiding guards (each side)
- Hydraulic track adjusters
- 5420 kg **(11,951 lb)** counter weight
- Cooling suction fan
- Radiator & oil cooler with dust screen
- Pins for boom foot and boom cylinder foot
- Hydraulic lock type travel/parking brake
- Revolving frame under cover
- Electric horn
- Front light (1)
- Rearview mirror (RH)
- Vandalism protection locks
- Electronic Monitor and Control Console
- All-weather steel cab with tinted safety glass windows, pull-up type front window with lock device, removable lower windshield, lattice guard, lockable door, floor mat, intermittent window wiper and washer, adjustable suspension seat with armrest, cigarette lighter, ashtray, heater and defroster, room light, glass protector brackets.
- Instrument Panel – Electronic Monitor and Control Console Type:
  Caution lights, display lights, gauges, pilot indicators, and switches. Electrically controlled engine throttle dial. Service meter, electric.

ATTACHMENTS AND OPTIONAL EQUIPMENT

- Air conditioner
- Fuel supply pump
- 35A alternator
- Head guard
- Track frame underguard
- Rearview mirror (LH)
- Warning lights for swing
- Tool kit
- Track roller guards (center)

SHOES

Triple grouser Shoe width mm **(in)**	600 **(23.6)**	750 **(29.5)**	800 **(31.5)**	850 **(33.5)**
Machine ground pressure Kg/cm² **(psi)**	0.60 **(8.53)**	0.49 **(6.97)**	0.46 **(6.54)**	0.43 **(6.11)**
Additional weight kg **(lb)**	−330 **(730)**	+170 **(370)**	+345 **(760)**	+510 **(1,130)**
Shoe application code	X	Y	Z	Z

X - Rocky terrain, river banks & general terrain
Y - General or soft terrain
Z - Extremely soft terrain (swamps)

ARMS

Type	Length mm **(ft.in)**	Approx. Weight kg **(lbs)**
Extra Short	2210 **(7′3″)**	821 **(1,810)**
Short	2540 **(8′4″)**	885 **(1,950)**
Standard	3185 **(10′5″)**	980 **(2,160)**
Long	4013 **(13′2″)**	1225 **(2,700)**

BUCKETS

Type	SAE, PCSA heaped capacity m³ **(yd³)**	Width without side cutters mm **(in)**	Width with side cutters mm **(in)**
Light duty	1.60 **(2.09)**	1473 **(58)**	1600 **(63)**
Mid-heavy duty	0.86 **(1.13)**	711 **(28)**	813 **(32)**
Mid-heavy duty	1.06 **(1.38)**	838 **(33)**	940 **(37)**
Mid-heavy duty	1.25 **(1.63)**	965 **(38)**	1143 **(45)**
Heavy duty	0.76 **(1.00)**	711 **(28)**	787 **(31)**
Heavy duty	0.96 **(1.25)**	838 **(33)**	914 **(36)**

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