

PC30-5

HYDRAULIC EXCAVATOR



Operator's cab and red/white toning are optionally available.
Photo shown may include other optional equipment.

INTRODUCING KOMATSU VANGUARD SERIES

- The Komatsu 3D84 engine with a large piston displacement assures powerful excavation even at partial throttle.
- A large 90° boom offset is ideal for trench excavation, etc. in the confined area.
- A wide working range makes excavation easy and efficient.
- In-shoe design of travel motors not only refines the undercarriages but also gives an excellent maneuverability in the rough terrain.
- Relocation and refilling operation are smoothly performed thanks to the two-stage speed travel motors.
- All controls are easily made by manipulating the long control levers.
- Low noise operation is assured by the Komatsu 3D84 engine and noise absorbing materials inside the machine cab for minimized operator's fatigue.
- A newly designed wide cab (optional) offers easy and comfortable controls.
- Maintenance is facilitated by a full-open machine cover.
- Colored, low-profile machine design is newly employed.

SPECIFICATIONS



ENGINE

Komatsu 3D84-1G 4-cycle, water-cooled, overhead valve diesel engine. 3 cylinders, 84 mm (3.31") bore x 85 mm (3.35") stroke and 1.413 ltr. (86 cu.in) piston displacement.

Flywheel horsepower:

29.6 HP (22.1 kW) at 2700 RPM (SAE J1349)
30 PS at 2700 RPM (DIN 6270 NET)

Swirl combustion chamber system. All-speed mechanical governor. Force-lubrication driven by trochoid pump. Full-flow filter for lube purification. Dry-type air cleaner. 12 V/2.5 kW electrical starter motor. 12 V/20 A alternator. 12 V/100 Ah batteries.



HYDRAULIC SYSTEM

Hydraulic pumps

- Three-tandem gear pumps power the boom, arm, bucket, travel, swing, blade and boom offset circuits.

Capacity (discharge flow) at engine 2700 RPM

..... 33 ltr. (8.7 U.S. Gal)/min. x 2 + 26 ltr. (6.9 U.S. gal) min. x 1

Hydraulic motors

Travel Two axial piston motors with brake valve.

Swing One axial piston motor

Relief valve setting

Implement circuits 175 kg/cm² (2,500 PSI/17.2 MPa)

Travel circuits 175 kg/cm² (2,500 PSI/17.2 MPa)

Swing circuits 155 kg/cm² (2,200 PSI/15.2 MPa)

Control valves

2-spool, 3-spool and 4-spool control valves.

Hydraulic cylinders

Cylinder	Numbers	Bore
Boom	1	80 mm (3.1")
Arm	1	80 mm (3.1")
Bucket	1	70 mm (2.8")
Boom offset	1	70 mm (2.8")
Blade	1	90 mm (3.54")



STEERING

Steering/traveling controls are activated with hand levers. Pushing both levers moves machine forward. Pulling them back makes machine go into reverse. Setting one lever 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 type. Each track is independently driven by an axial-piston motor. Power goes through planetary eccentric single-reduction gear to track. Travel motors are neatly installed within track shoe's width (in-shoe design).

Max. drawbar pull 2410 kg (5,310 lb/23.6 kN)

Max. travel speed: Low 2.1 km/h (1.3 MPH)

High 3.6 km/h (2.2 MPH)



BRAKES

Hydraulic lock type travel motors equipped with brake valve. When travel/steering levers are positioned in neutral, brakes automatically lock. Brake valve limits travel speed during descent.



SWING SYSTEM

Hydraulic motor-driven through spur reduction gears. Single-row shear type ball bearings with induction-hardened internal gears are built into swing circle. Grease-bathed swing pinion. Pin-lock type swing lock is provided. Swing speed is proportional to swing control lever stroke.

Swing speed 11 RPM

Tail swing radius 1470 mm (4'10")

Min. swing radius 1800 mm (5'11")

(work equipment, fully retracted)

Boom swing: Boom can be swung 60° to left and 90° to right by boom offset cylinder independent of upper structure swinging.

Boom offset distance: Left 630 mm (2'1")

Right 490 mm (1'7")



BLADE

Welded, unitized construction of blade and frame.

Blade width x height 1520 mm (5') x 350 mm (1'2")

Blade cutting angle 62°

Max. lift above ground 375 mm (1'3")

Max. drop below ground 355 mm (1'2")



UNDERCARRIAGE

Box-section track frames. Sealed track. Lubricated rollers and idlers. Hydraulic track adjusters with shock absorbing springs. Assembled track-type tractor shoes with double grousers.

Shoe width 300 mm (11.8")

Grouser height 16.5 mm (0.65")

Number of shoes 43 each side

Number of track rollers 4 each side

Ground pressure 0.30 kg/cm² (4.3 PSI/29.4 kPa)



COOLANT & LUBRICANT CAPACITY (refilling)

	Liter	U.S. gallon
Fuel tank	45	11.9
Radiator	5	1.3
Engine	4.2	1.1
Final drive, each side	0.5	0.1
Swing drive	1.5	0.4
Hydraulic tank	36	9.5



OPERATING WEIGHT (approximate)

Operating weight including 2420 mm (7'11") one-piece boom, 1365 mm (4'6") arm, heaped 0.15 m³ (0.20 cu.yd) backhoe bucket, operator, lubricant, coolant and full fuel tank 3150 kg (6,950 lb)

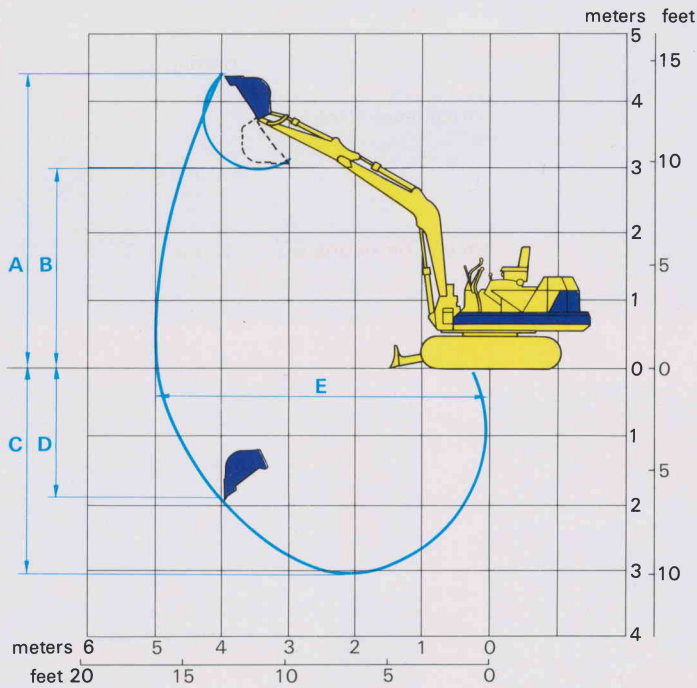
(*Heaped capacity = struck capacity x 2)

STANDARD EQUIPMENT

12 V/2.5 kW electric starting motor, 20 A alternator, dry type air cleaner, crawler tractor undercarriage with 300 mm (11.8") double-grouser shoes, hydraulic track adjusters, shock absorbing recoil springs, fully hydrostatic drive, 253 kg (558 lb) counterweight, pusher type fan, 12 V/100 Ah battery, front light (1), track guard (end section), adjustable operator's seat, dozer blade, engine water temperature gauge, warning lamp for engine oil pressure and service meter, alternator charging lamp, electric horn, working light, tool kit and ordinary spare parts.



WORKING RANGE



Arm length		With 1365 mm (4'6") arm
A	Max. digging height	4.32 m (14'2")
B	Max. dumping height	2.96 m (9'9")
C	Max. digging depth	3.06 m (10')
D	Max. vertical wall digging depth	1.96 m (6'5")
E	Max. digging reach at ground level	4.97 m (16'4")
Bucket digging force		2300 kg (5,070 lb/22.6 kN)

Track shoes: Choose the ideal shoes depending on your job requirements.

Type of shoes	Ground pressure kg/cm ² (PSI/kPa)
400 mm (15.7") double-grouser shoes	0.23 (3.27/23)
400 mm (15.7") swamp shoes	0.23 (3.27/23)
250 mm (9.8") flat shoes	0.36 (5.12/35)
300 mm (11.8") rubber pad shoes	0.90 (12.8/88)

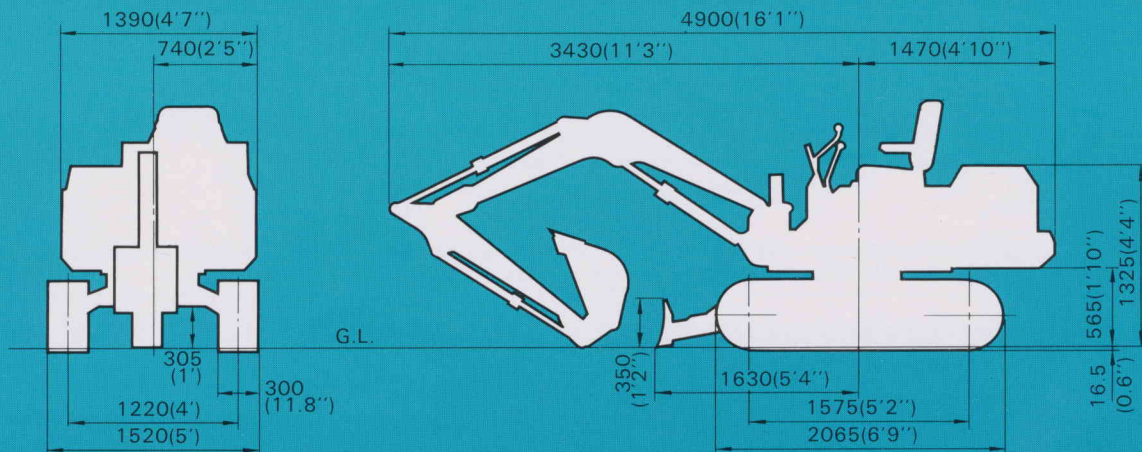
BACKHOE BUCKETS

Capacity : m ³ (cu.yd)			
Heaped (struck x 2)	0.09 (0.12)	0.15 (0.20)	0.18 (0.24)
JIS, CECE heaped	0.05 (0.07)	0.09 (0.12)	0.11 (0.14)
SAE, PCSA heaped	0.06 (0.08)	0.10 (0.13)	0.12 (0.17)
Struck	0.045 (0.06)	0.08 (0.10)	0.09 (0.12)
Bucket width : mm (in)			
without side cutters	300 (11.8)	500 (19.7)	600 (23.6)
with side cutters	330 (13.0)	530 (20.9)	630 (24.8)
No. of bucket teeth	3	4	5
Bucket type	Narrow bucket	Standard bucket	Light-duty bucket



DIMENSIONS

Unit: mm (ft.in)



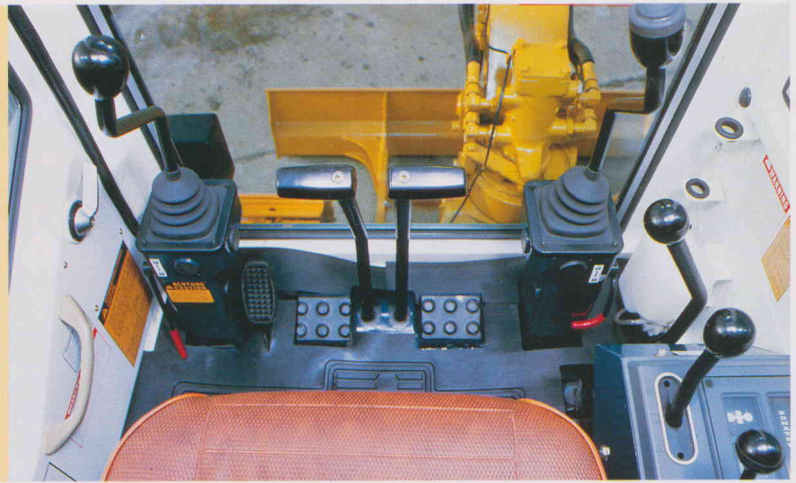
With 2420 mm (7'11") one-piece boom, 1365 mm (4'6") arm, *heaped 0.15 m³ (0.20 cu.yd) backhoe bucket.



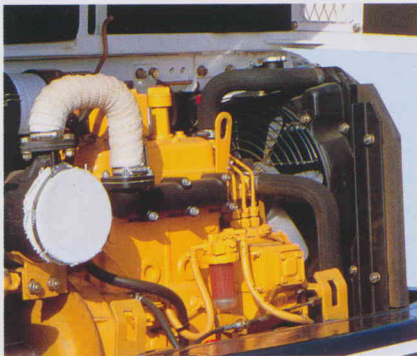
CONTROLS

Human-engineered layout of controls, meters and gauges. Two long control levers, which are employed in the larger class models, ensure quick response and fine controlling of the work equipment. Travel/steering levers positioned alongside each other. Operator's fatigue is greatly minimized thanks to the Komatsu-built 3-cylinder engine and noise absorbing materials attached inside the machine cab.

(Operator's cab is optionally available.)



PRODUCTIVE FEATURES



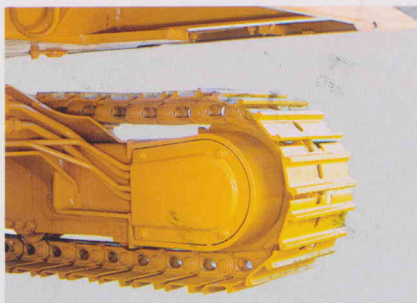
Komatsu-built 3D84 engine provides a tenacious power of 29.6 HP (22.1 kW) at 2700 RPM. Its large piston displacement assures powerful excavation even at partial throttle, without a fear of stalling.



Convenient boom offset: The boom itself can be swung 60° to left and 90° to right side. This means that the PC30-5 can complete quick dig/load operation in extra tight quarters without swinging the upper structure of which the tail end may hit obstacles such as walls, poles, etc.



Wide working range: Equipped with the long boom and arm, the PC30-5 attains a wide working range. This, plus large breakout force make it easy to conduct any type of excavation work.



Two-stage travel speed: High or low travel speed is selectable depending on traveling conditions. Each travel motor with reduction gears is stored inside the track shoe's width (in-shoe design). As a result, it is protected from external objects.



Comfortable cab is optionally available. This wide cab isolates the operator from the external elements such as dust, rain, noise and others. It also offers an ample workspace for relaxed controls and assures a panoramic view.



Full-open machine cover allows quick access to internal components such as engine, hydraulic equipment, etc. for both quick checking and repairing.

This specification sheet may contain attachments and optional equipment that are not available in your area. Please consult your local Komatsu distributor for those items you may require. Materials and specifications are subject to change without notice.



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