

avance series

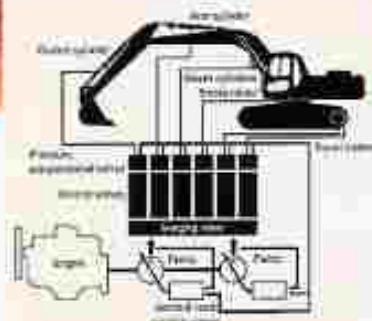


Model shown may include optional equipment.

KOMATSU

Komatsu Avance assures maximum productivity with its exclusive HydraMind

Powerful output and a host of convenient features make it the leader of its class!



In the HydraMind system, the load sensing valves and pressure compensated valves automatically handle all adjustments for individual jobs based on the pressure and lever stroke detected.

What is Komatsu's HydraMind?

It's a technologically complex yet mechanically simple system which supervises the work operations of the excavator.

HydraMind is not computer-dependent. It is not essentially electronic, but hydraulic. Its strength lies in its simplicity.

The system incorporates many major breakthroughs. Komatsu has almost 200 patents on it.

What are the benefits of the HydraMind?

Power, versatility, maneuverability, controllability - you name it. Never has an excavator been so easy to operate, so natural, so intuitive. In a sense, you don't really operate it at all, you wear it.

For example, when the ground conditions change in digging...

You don't have to think about changing your lever strokes because the HydraMind instantly, silently, automatically sends just the right amount of oil to the actuators at just the right pressure to accommodate the change.

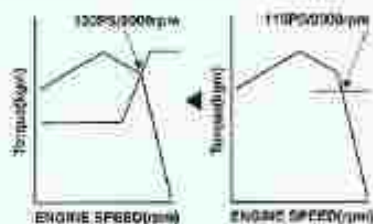
When you move the boom, arm and bucket at the same time...

All the equipment works organically with the optimum combination of speed and power - as if it were a human hand.

The HydraMind also makes it easy to change or add valves and work equipment. Moreover, because the system is hydraulic and not electronic, it ensures the best service availability in the industry.

Engine-speed-sensor-equipped hydraulic system

The pump is controlled with the engine speed sensor, so the maximum horsepower is used at all times. This contributes to more production and shorter cycle times.



The HydraMind Makes Everything Easy



Working through soft rock or pulling up boulders is easy because the system precisely controls boom raise, preventing the cutting edge from slipping.



Fine-control lifting is easy because the system keeps lever control at a steady constant no matter what size the load.



Switching attachments is easy even with such things as breakers or crushers, which require a different amount of oil because the oil flow can be adjusted simply by adjusting the control pedal stroke for the attachment.



Digging along ditch walls is easy because the system delivers such powerful bucket side force, obtained from swing force.



Fully-loading buckets is easy because during simultaneous operations the work equipment can move slowly under maximum power.



Chassis-shake is reduced during simultaneous operations because the work load causes no change in the work equipment speed.

Comfortable operator environment helps keep work efficiency high hour after hour.



Simple Operation in an Easy Position

The seat is tiltable and can slide forward and backward together with the work equipment control levers to ensure the best operating position at all times.

Features for reduced downtime

New hybrid filter element

The new hybrid element in the hydraulic circuit greatly extends the element changing interval to 500 hours and hydraulic oil changing interval to 5,000 hours.



Spacious cab interior

The cab interior is spacious (200 mm longer with 14% greater volume than Dash-5). Ergonomically-designed operator's seat and easy access to all control levers ensure maximum operator comfort and better concentration on the job.



Viscous damping mounts

The cab rests on viscous damping mounts to reduce vibration and noise from the machine body. Operator fatigue is reduced to the minimum.

Comfortable Cab Interior

The excavator cab is equipped with an open air-inlet type air conditioning unit (with a new refrigerant), whose capacity is 30% larger than that of our conventional systems. Luggage space is also provided for portable tools.



Luggage storage compartment



Service monitor Fuel gauge Luggage lock
 Speed of hydraulic oil Charge Monitor Hydraulic monitor Park with alarm

Field-Proven Features:

- Centralized lubrication for work equipment.
- X-leg track frame for superior stability and durability.
- Double lock electric connectors for increased reliability.
- Large undercarriage units for longer service life.
- I-beam structured revolving frame for increased durability.
- Thick plate structured work equipment.
- Swing holding brake for easier working on slopes.
- Fuel-efficient Komatsu engine.

SPECIFICATIONS



ENGINE

Model	Komatsu 96D102E-1-A
Type	4 cycle, water cooled, direct injection
Aspiration	Turbocharged
No. of cylinders	6
Bore	102 mm, 4.02"
Stroke	120 mm, 4.72"
Piston displacement	5.883 ltr, 359 cu in
Rated horsepower:	
(SAE J1349)	88.1 kW 122 HP at 2000 RPM
(DIN 6270 NET)	96.6 kW 134 PS at 2000 RPM
Governor	All speed, mechanical



HYDRAULIC SYSTEM

Type	HydraMind (Hydraulic Mechanical Intelligence New Design) system
	Closed-center system with load sensing valves and pressure compensated valve
Main pump:	
Type	Variable displacement piston pump
Pumps for	Boom, arm, bucket, swing and travel circuits
No. of pump	2
Maximum flow	412 ltr/109 U.S.gal/min
Hydraulic motors:	
Travel	2 x Axial piston motor with parking brake
Swing	1 x Axial piston motor with parking brake
Relief valve setting:	
Implement circuits	32E kg/cm ² 4600 PSI
Travel circuit	255 kg/cm ² 3650 PSI
Swing circuit	280 kg/cm ² 3980 PSI
Pilot circuit	33 kg/cm ² 470 PSI
Hydraulic cylinders:	
No. of cylinders - bore x stroke x rod dia:	
Boom	2 - 120 mm x 1385 mm x 95 mm 4.7" x 55.8" x 3.3"
Arm	1 - 135 mm x 1490 mm x 95 mm 5.3" x 58.7" x 3.7"
Bucket	1 - 118 mm x 1120 mm x 80 mm 4.5" x 44.1" x 3.2"



SWING SYSTEM

Driven by	Hydraulic motor
Swing reduction	Planetary double reduction
Swing circle lubrication	Grease-bathed
Swing circle bearing	Single row shear type ball bearing
Swing lock	Oil disc brake
Swing speed	12.4 RPM

Standard Equipment

- 24 V/5.5 kW electric starting motor
- 35 A alternator
- 12 V/100 Ah x 2 batteries
- Automatic de-aeration system for fuel line
- 800 mm 31.4" triple-grouser shoe
- Track guiding guards (center)
- Hydraulic track adjusters
- Boom lock valve
- Hybrid filter element
- Rearview mirror (TR)
- Suction fan
- Electric horn
- Front light (1)
- Dry type air cleaner



DRIVES & BRAKES

Steering control	Two levers with pedals
Drive method	Fully hydrostatic type
Travel motor	Axial piston motor, in-shoe design
Reduction system	Planetary gear, double-reduction
Max. drawbar pull	17700 kg 39020 lb 174 kN
Max. travel speed (High)	3.5 km/h 2.4 MPH
Max. travel speed (Low)	3.8 km/h 2.4 MPH
Service brake	Hydraulic lock type
Parking brake	Oil disc brake
Gradeability	70% (35 deg)



UNDERCARRIAGE

Type	Crawler tractor design
Center frame	X-leg frame
Track frame	Box section type
Seal of track	Sealed track
Track adjuster	Hydraulic type
Roller seal type	Floating seal
No. of carrier rollers	2 each side
No. of track rollers	7 each side
No. of shoes	45 each side



COOLANT & LUBRICANT CAPACITY (refilling)

Fuel tank	340 ltr, 89.6 U.S. gal
Radiator	22.2 ltr, 5.9 U.S. gal
Engine	24.0 ltr, 6.3 U.S. gal
Final drive (each)	4.2 ltr, 1.1 U.S. gal
Swing drum	6.5 ltr, 1.3 U.S. gal
Hydraulic tank	168 ltr, 43.9 U.S. gal



OPERATING WEIGHT (approximate)

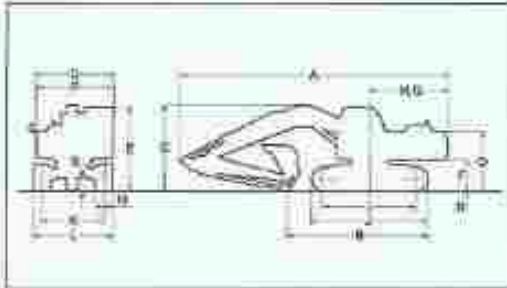
Operating weight, including 5700 mm W/8' one piece boom, 2925 mm W/7' arm, SAE heaped 0.80 M³ 1.05 cu yd. backhoe bucket, operator, lubricant, coolant and fuel tank and standard equipment.

Triple grouser shoes	Operating weight	Ground pressure
600 mm 24"	15160 kg 42250 lb	0.45 kg/cm ² 6.40 PSI/44.1 kPa
600 mm 31.4"	15000 kg 43630 lb	0.35 kg/cm ² 5.0 PSI/34.3 kPa

All weather steel cab (with viscous mount, tinted safety glass windows, pull-up type front window with lock device, removable lower windshield, lockable door)



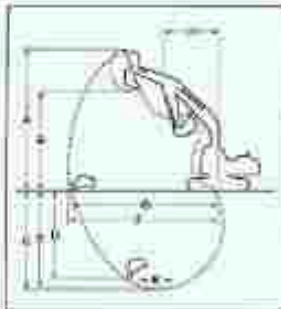
DIMENSIONS



A : Overall length	9425 mm	30' 11"
B : Length on ground (transport)	4890 mm	15' 10"
C : Overall height (to the top of boom)	2975 mm	9' 9"
D : Overall width	3000 mm	9' 10"
E : Overall height (to the top of cab)	2905 mm	9' 6"
F : Ground clearance (to counterweight)	1085 mm	3' 5"
G : Min. ground clearance	440 mm	1' 5"
H : Tail-swing radius	2740 mm	9' 0"
I : Length of track on ground	3270 mm	10' 8"
J : Track length	4090 mm	13' 5"
K : Track gauge	2200 mm	7' 2"
L : Width of counter weight	3000 mm	9' 10"
M : Shoe width (STD)	600 mm	2' 0"
(CPT)	600 mm	24"
N : Grouser height	28 mm	1"
O : Machine cab height	2220 mm	7' 3"
P : Machine cab width	2710 mm	8' 11"
Q : Distance, swing center to rear end	2740 mm	9' 0"



WORKING RANGE



A : Max. digging height	3005 mm	30' 5"
B : Max. dumping height	6475 mm	21' 3"
C : Max. digging depth	5620 mm	21' 7"
D : Max. vertical wall digging depth	5580 mm	19' 7"
E : Max. digging depth of cut to H level	6435 mm	21' 1"
F : Max. digging reach	9675 mm	32' 5"
G : Max. digging reach at ground level	9700 mm	31' 10"
H : Max. swing radius	3630 mm	11' 11"
Bucket digging force	11400 kg	25130 lb/12 kN
Arm crowd force	8900 kg	19640 lb/88 kN

Backhoe bucket and arm combination

DAE, PCSA	CECE	Width		Weight (with side cutters)	No. of teeth	Arm 2.925 m 9'7"
		Without side cutters	With side cutters			
0.50 m ³ 0.65 cu.yd.	0.45 m ³ 0.59 cu.yd.	750 mm 29.5"	855 mm 33.7"	478 kg 1,050 lb	3	⊙
0.80 m ³ 1.05 cu.yd.	0.70 m ³ 0.92 cu.yd.	1045 mm 41.1"	1150 mm 45.3"	645 kg 1,420 lb	5	⊙
0.93 m ³ 1.22 cu.yd.	0.80 m ³ 1.05 cu.yd.	1200 mm 47.2"	1305 mm 51.4"	898 kg 1,930 lb	5	⊠

- ⊙ General purpose use, weight up to 1.8 tons/1.62 U.S. tons/cu.yd.
- ⊠ General purpose use, weight up to 1.5 tons/1.28 U.S. tons/cu.yd.
- ⊡ Light duty work, weight up to 1.2 tons/1.01 U.S. tons/cu.yd.
- ✗ Not usable

OPTIONAL EQUIPMENT

- Air conditioner
- Heater
- Boom holding valve
- In line filter
- 600 mm 24" high-grouser shoe
- Seat belt
- Fuel supply pump
- Defroster
- Window washer
- Travel alarm
- Tread fill
- Rearview mirror (LH)
- AM radio
- Track frame underguard
- Front cab guard
- Self diagnostic monitor
- First service spare parts

PC200-6

ATTACHMENTS

Clamshell bucket for vertical deep digging
 Super long front has extensive reach
 Spike hammer for concrete surface chipping work
 Vibratory pile driver
 Hydraulic breaker

For demolition work:
 Super long boom arm for demolishing the upper parts of tall buildings
 Hydraulic crusher and cutter
 Hydraulic crusher
 Power ripper
 Hydraulic smasher

Fork grab for demolishing wooden houses
 Rotary grab can rotate 350 degree with power
 Scrap grapple for boulders, rocks, large size scrap
 Rotary log grapple for loading log

Reinforcements or modification (e.g. piping) to the base machine or work equipment may be necessary for the attachments. For details, contact the nearest Komatsu distributor.

LIFTING CAPACITY



A : Reach from swing center
 B : Bucket hook height
 C : Lifting capacity
 C1 : Rating over front
 C2 : Rating over side
 MAX : Rating at maximum reach

Conditions:
 • 5700 mm 18'6" one-piece boom
 • 2925 mm 9'7" arm
 • 0.8 m³ 1.05 cu yd. SAE heaped bucket
 • 800 mm 31.4" triple-grouser shoes

Conditions:

Boom: 200 mm (8") Super SAE, 560 mm (22") Max. 400 mm (15.7")

Unit: kg (lb)

B	A	MAX		7.5 m (25')		6.0 m (20')		4.5 m (15')		3.0 m (10')		1.5 m (5')	
		C1	C2	C1	C2	C1	C2	C1	C2	C1	C2	C1	C2
Arm length 2020 mm (6'7")													
7.5 m (25')	2550*	2550*											
6.0 m (20')	2550*	2550*											
4.5 m (15')	2550*	2250	4200	3900	4200*	3700							
3.0 m (10')	2550*	2000	3950	3400	3100*	3450	6450*	3450	10050*	10050*			
1.5 m (5')	2950*	1850	3800	3300	3800	2250	6350*	3000	8700*	8700*			
0 m (0')	3100	1950	3700	2550	5300	3150	8300	4700	8550*	8550*			
-1.5 m (-5')	3400	2100	3800	3200	5150	3050	8200	4600	8550*	8200	8750*	3750*	
-3.0 m (-10')	4050	2400			5100	3050	8150	4550	14150*	9400	8250*	3250*	
-4.5 m (-15')	5800	3600					8700	4800	13150*	8650			

* Lifting capacity (hydraulic capacity) after the boom. Rating increased by SAE Standard No. J1101. Rated load is the mass (kg) of hydraulic fluid capacity of 10% of boom length.

New Hybrid filter Element

The new hybrid element in the hydraulic circuit greatly extends the element changing interval to 500 hours and hydraulic oil changing interval to 5,000 hours.

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 subjected to change without notice.



MORE FRIENDLY TO THE ENVIRONMENT

In-Tune with the Environment

Mixed flow fan is used for the cooling fan to reduce the fan-driving noise. Blower air does not hit the engine body but flows smoothly, which enables to secure a certain air volume with little noise even at low fan RPM.



Clean Engine

The 55D 10CE engine is designed to reduce emissions and to meet the regulation of the U.S.A., which is the strictest regulation in the world.



BANGKOK MOTOR WORKS CO., LTD.

34 MOO 2 BANNA-DIND HIGHWAY KALAE I NGSAJONBANGKOK, BANGKOKTHONG DISTRICT, SAMUTRAKARN 10140
 TEL. 7401000-10, 7401600 FAX. 7401257-8 E-mail: bmk@bmk.com