

HYDRAULIC EXCAVATOR

PW100-3

FLYWHEEL HORSEPOWER: **108 HP** 80.6 kW at 2100 RPM
OPERATING WEIGHT: **11060 kg** 24,380 lb
BUCKET CAPACITIES (SAE heaped): **0.18 ~ 0.56 m³** 0.24 ~ 0.73 cu.yd



Model shown may include optional equipment.

KOMATSU: The Quality is Standard

HIGH MOBILITY

- A high-power turbocharged S6D95L engine gives it a higher travel speed for quick relocation.
- Four-wheel drive and double tires both front and rear make it easy to travel over rough or soft terrain.

HIGH WORKING PERFORMANCE

- Largest working range in its class.
- Rational hydraulic system for increased productivity.

HIGH OPERATING VERSATILITY

- Extra-small swing radius boosts operating versatility.
- Excellent stability due to oscillation lock cylinders and double tires.

ENHANCED OPERATOR COMFORT

- Newly designed cab offers greater comfort.
- Hydrostatic drive system assures smooth, easy travel speed changes.

KOMATSU

High mobility



A high-power turbocharged S6D95L engine gives it a higher travel speed for quick relocation.

The Komatsu S6D95L, 4-cycle, water-cooled, direct-injection, turbocharged diesel engine delivers an output of 108 HP (80.6 kW) at 2100 RPM, giving the PW100 the best maneuverability in its class. In addition, the hydraulic circuit relief valves for the travel system are set as high as 330 kg/cm² (4,690 PSI/32.3 MPa), giving it very responsive travel performance. With its optimum combination of a powerful engine and high-pressure operated travel motors, the PW100 travels at a maximum speed of 34.5 km/h (21.4 MPH), and has responsive acceleration and high gradeability. This means the PW100 travels faster than any competitive machine, on the level or on an incline, and on paved road or over rough terrain, greatly reducing relocation time.



Four-wheel drive and double tires both front and rear make it easy to travel over rough or soft terrain.

The PW100 is equipped with double tires on both front and rear wheels, giving it powerful traction and flotation, and increasing stability during excavation. And since all four wheels are driven to efficiently kick the ground with less tire slippage, the PW100 is highly maneuverable even in soft terrain.

High working performance

Largest working range in its class.

With the largest working range and strongest digging force in its class, excavation of hard ground is easy. This, plus excellent loading performance, drastically reduce cycle time.

Rational hydraulic system for increased productivity.

● **The PC system makes full use of engine power.**

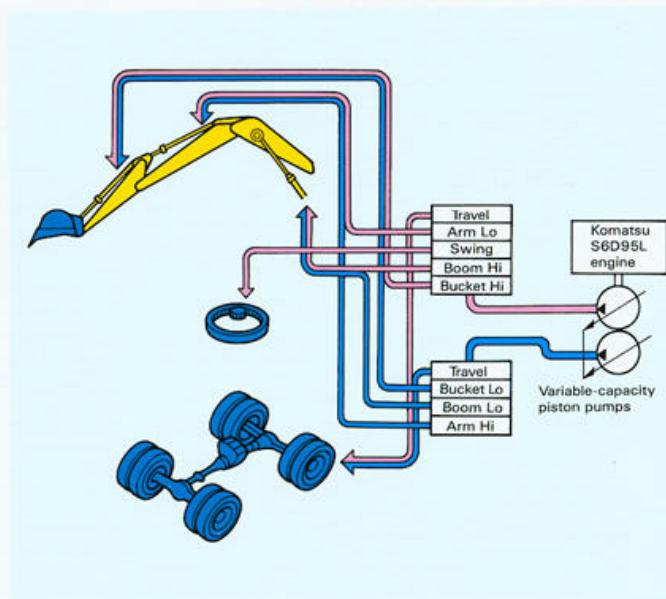
The Power Constant (PC) system with variable-capacity piston pumps allows the engine to operate at its peak performance regardless of the external load and stress applied on the work equipment or the travel system. And because this system converts engine power more efficiently into hydraulic power, excavation and traveling operations are smooth and responsive.

● **A two-pump merge system increases work equipment speed and reduces cycle time.**

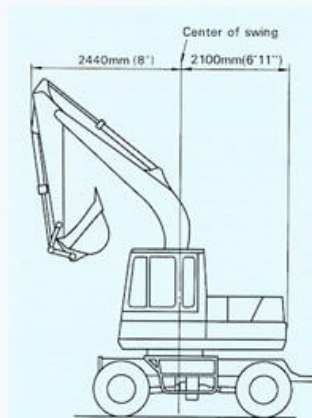
This system ensures smooth compound movements, such as "arm+boom," "arm+swing," "boom+swing," etc., making any combined operation smoother and quicker, reducing cycle time.

● **Smooth, responsive swing starts and stops**

Shocks caused by swing starts and stops are minimized, because the swing action control valve changes oil flow volume in continuous response to the degree of the lever stroke, making swing control smooth and quick for precise positioning in excavation and loading.

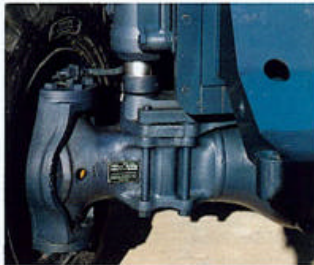


High operating versatility



Extra-small swing radius boosts operating versatility.

In spite of having the largest working range in its class, the PW100 features a very short swing radius of 2.44 m (8'), enabling it to operate in confined areas or sites where there are obstructions such as poles, walls, etc. In addition, since its turning radius is also short, despite a long wheelbase, the PW100 can easily enter roads as narrow as 4 meters (13'1") across.



Excellent stability due to oscillation lock cylinders and double tires.

Oscillation lock cylinders are provided on the lateral ends of the front center-pin supported drive axle. When they are locked, the drive axle can not oscillate. This, plus double tires, keep the chassis stable during heavy-duty excavation. When the cylinders are unlocked, the machine can travel over rough terrain with minimized pitching and rolling.

Enhanced operator comfort



Optional cab accessories included.

Hydrostatic drive system assures smooth, easy travel speed changes.

Thanks to the variable-capacity piston motors, travel speed is continuously variable up to 10.0 km/h (6.2 MPH) in the low gear range or 34.5 km/h (21.4 MPH) in the high gear range. Speed changes are easy; select either low or high gear range and simply depress the accelerator pedal.

Newly designed cab offers greater comfort.

The roomy, 940 mm (3'1") wide cab meets international standards. With the adjustable operator's seat it provides ample work space for any size operator to stretch out in comfort. Perfect uninterrupted front and downward views, obtained by simply pulling up the front window, facilitate efficient deep ditch excavation. The cab is mounted on rubber pads atop the revolving frame. This, together with a fully-enclosed machine cab reduce noise and vibration inside the cab.



SPECIFICATIONS



ENGINE

Komatsu S6D95L, 4-cycle, water-cooled turbocharged diesel engine. 6 cylinders, 95 mm (3.74") bore x 115 mm (4.53") stroke and 4.89 ltr. (298 cu.in) piston displacement.

Flywheel horsepower:

108 HP (80.6 kW) at 2100 RPM (SAE J1349)

110 PS (80.6 kW) at 2100 RPM (DIN 6270 NET)

Direct-injection fuel system. All-speed mechanical governor. Force-lubrication driven by gear pump. Full-flow filter for lube purification. Dry-type air cleaner with automatic dust evacuator and dust indicator. 24 V/5.5 kW electrical starter motor. 24 V/25 A alternator. 2 x 12 V/120 Ah batteries.



HYDRAULIC SYSTEM

Hydraulic pumps

- Two variable-capacity piston pumps power boom, arm, bucket, swing and travel circuits.

Capacity (discharge flow) at engine 2100 RPM

Maximum flow 2 x 103 ltr. (27.2 U.S. gal)/min.

Hydraulic motors

Travel Two axial piston motors with brake valve
Swing One axial piston motor

Relief valve setting

Implement circuits 290 kg/cm² (4,120 PSI/28.4 MPa)

Travel circuits 330 kg/cm² (4,690 PSI/32.3 MPa)

Swing circuits 225 kg/cm² (3,200 PSI/22.1 MPa)

Pilot circuits 30 kg/cm² (430 PSI/ 2.9 MPa)

Steering circuits 140 kg/cm² (1,990 PSI/13.7 MPa)

Control valves

4-way and 5-way spool control valves for work equipment, travel and swing. Orbit-roll type servo valve for steering circuits.

Hydraulic cylinders

Cylinder	Numbers	Bore x stroke
Boom	2	100 mm x 970 mm (3.93" x 38.2")
Arm	1	110 mm x 1010 mm (4.33" x 39.8")
Bucket	1	100 mm x 890 mm (3.93" x 35.0")
Oscillation lock	2	90 mm x 100 mm (3.54" x 3.9")
Steering	1	70 mm x 295 mm (2.76" x 11.6")



STEERING

Hydraulically actuated, orbit-roll type steering system actuates on front wheels through a steering cylinder.

Min. turning radius, center of outer wheel . . 6700 mm (22')



DRIVES

4-wheel hydrostatic drive. Constant mesh transmission of spur and helical gears provides 2 forward and 2 reverse travel speeds. Hypoid bevel gear reduction. Straight bevel gear differential.

Max. drawbar pull 6000 kg (13,230 lb/58.7 kN)

Travel speeds: Forward Reverse

1st 10.0 km/h (6.2 MPH) 10.0 km/h (10.0 MPH)

2nd 34.5 km/h (21.4 MPH) 34.5 km/h (21.4 MPH)



BRAKES

Air-over-hydraulic disc brakes with brake lock device are ap-

plied to all four wheels. Air-actuated internal-expanding type parking brake is applied to the propeller shaft. The parking brake automatically actuates when the air pressure drops below the rated level.



SWING SYSTEM

Hydraulic motor-driven through spur and planetary reduction gears. Single-row shear type ball bearing with induction-hardened internal gears are built into swing circle. Grease-bathed swing pinion.

Swing speed is proportional to swing control lever stroke.

Swing speed 11.8 RPM

Tail swing radius 2100 mm (6'11")

Min. swing radius

work equipment, fully retracted 2440 mm (8')



AXLES AND WHEELS

Full-floating front axle is center-pin-supported for oscillation. It can be locked by oscillation lock cylinders. Full-floating rear axle is fixed on the chassis.

Tires: Front 9.00-20-12 PR x 4

Rear 9.00-20-12 PR x 4



COOLANT & LUBRICANT CAPACITY (refilling)

	Liter	U.S. gallon
Fuel tank	210	55.5
Radiator	14.4	3.8
Engine	10.5	2.8
Pump drive	0.75	0.2
Swing drive	4.5	1.2
Transmission	7.6	2.0
Differential, front	11.0	2.9
rear	11.0	2.9
Final drive	10.0	2.6
Hydraulic tank	110	29.1
Brake fluid	1.3	0.3



OPERATING WEIGHT (approximate)

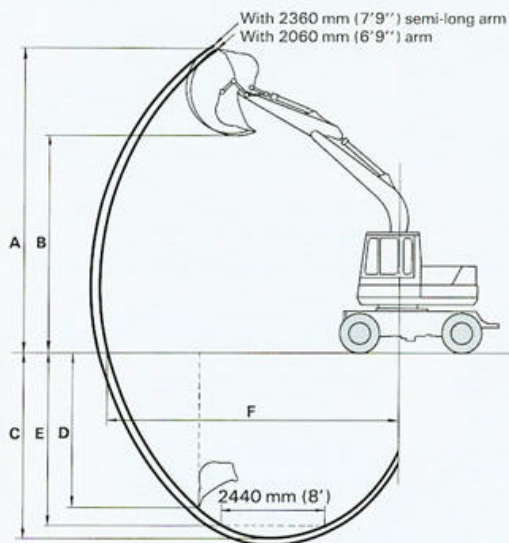
Operating weight including a 4260 mm (14') one-piece boom, 2060 mm (6'9") arm, SAE heaped 0.44 m³ (0.58 cu.yd) backhoe bucket, operator, lubricant, coolant and full fuel tank 11060 kg (24,380 lb)

STANDARD EQUIPMENT

24 V/25 A alternator. 24 V/5.5 kW starter motor. Suction fan. One-piece boom. Dry-type air cleaner. Service brakes and parking brake. 12 V/120 Ah x 2 batteries. Front lights (2). Working light (1). All-weather steel cab (with pull-up type front window, windshield wiper, room lamp). Adjustable pillow-type seat with reclining device. Engine water temperature gauge. Air pressure gauge. Warning lamp for engine oil pressure. Service meter. Alternator charging lamp. Air cleaner service indicator. Fuel level sight gauge. Hydraulic oil level sight gauge. Electric horn. 4 x 9.00-20-12 PR tires. (front and rear).



WORKING RANGE



		With 2060 mm (6'9'') arm	With 2360 mm (7'9'') semi-long arm
A	Max. digging height	7.95 m (26'1'')	8.14 m (26'8'')
B	Max. dumping height	5.70 m (18'8'')	5.88 m (19'4'')
C	Max. digging depth	4.41 m (14'6'')	4.70 m (15'5'')
D	Max. vertical wall digging depth	3.60 m (11'10'')	3.92 m (12'10'')
E	Max. digging depth of cut for 2440 mm (8') level bottom	4.14 m (13'7'')	4.47 m (14'8'')
F	Max. digging reach at ground level	7.22 m (23'8'')	7.51 m (24'8'')
Bucket digging force kg (lb)/kN		7500 (16,530/73.4)	7500 (16,530/73.4)
Arm crowd force kg (lb)/kN		5400 (11,900/52.8)	4800 (10,580/47.1)

BACKHOE BUCKETS

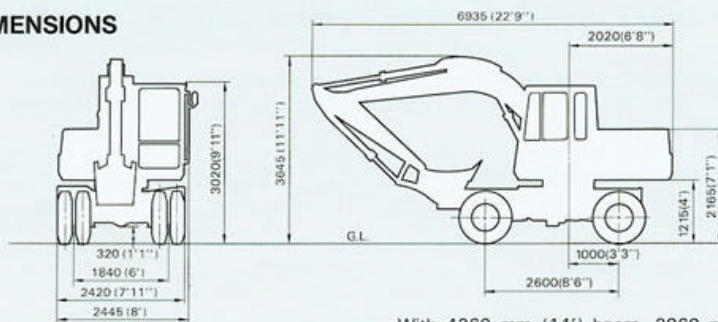
Bucket capacity: m ³ (yd ³)						
JIS, CECE heaped	0.16 (0.21)	0.26 (0.34)	0.33 (0.43)	0.35 (0.46)*	0.40 (0.52)	0.50 (0.65)
SAE, PCSA heaped	0.18 (0.24)	0.28 (0.37)	0.36 (0.47)	0.38 (0.50)	0.44 (0.58)	0.56 (0.73)
Struck	0.12 (0.16)	0.22 (0.29)	0.29 (0.38)	0.30 (0.40)	0.35 (0.46)	0.43 (0.56)
Bucket width: mm (in.)						
without side cutters	450 (17.7)	600 (23.6)	700 (27.6)	825 (32.5)	825 (32.5)	1000 (39.4)
with side cutters	570 (22.4)	720 (28.3)	820 (32.3)	950 (37.4)	925 (36.4)	—
Bucket weight: kg (lb) (with teeth)						
without side cutters	200 (441)	268 (591)	294 (648)	324 (714)	337 (743)	388 (855)
with side cutters	220 (485)	289 (637)	314 (692)	345 (761)	358 (789)	—
No. of bucket teeth	3	3	4	4	4	5

* Shallow bucket



DIMENSIONS

Unit: mm (ft.in)



With 4260 mm (14') boom, 2060 mm (6'9'') arm, SAE heaped 0.44 m³ (0.58 cu.yd) backhoe bucket.

ATTACHMENTS

Backhoe bucket selection: Backhoe buckets of different capacities are available, so you can choose on the basis of specific job requirements.

Trapezoidal bucket is ideal for digging ditches and for drainage works. 0.30 m³ (0.39 cu.yd) capacity.

Slope finishing bucket for scraping slopes or banks. 0.34 m³ (0.44 cu.yd) capacity.

Ripper bucket for hard, rocky ground. 0.30 m³ (0.39 cu.yd) capacity.

Clamshell bucket is recommended for vertical digging. 0.35 m³ (0.46 cu.yd) capacity.

Rippers. Choice of single-shank or three-shank ripper. For rock-digging and crushing, hard-soil digging, pavement-removal work, etc.

Bucket hook

(Bucket capacity: JIS heaped capacity)

2060 mm (6'9") standard arm is recommended for general digging operation.

2360 mm (7'9") semi-long arm is recommended for extra reach.

Other options:

FUEL SUPPLY PUMP

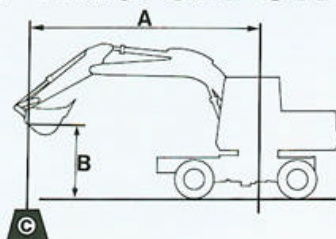
REAR OUTRIGGER: Recommendable for clamshell operation or heavy load lifting. Can not be installed together with dozer blade.

DOZER BLADE: Can not be installed together with rear outrigger.

TOOL KIT

ORDINARY SPARE PARTS

LIFTING CAPACITY



- A : Reach from swing center line [feet (m)]
- B : Bucket hook height [feet (m)]
- C : Lifting capacity [lb (kg)]
- Cf : Rating over front
- Cs : Rating over side or 360 degrees
- MAX. : Rating at maximum reach

A \ B	MAX.		6'7" (2)		9'10" (3)		14'9" (4.5)		19'8" (6)	
	Cf	Cs	Cf	Cs	Cf	Cs	Cf	Cs	Cf	Cs
16'5" (5)	2900* (1300)	2900* (1300)					5500* (2500)	5200 (2350)		
13'1" (4)	2900* (1300)	2900* (1300)					6000* (2700)	5000 (2250)		
6'7" (2)	3200* (1450)	2500 (1150)			10700 (4850)	8400 (3800)	5700 (2600)	4500 (2050)	3600 (1650)	2800 (1250)
0' (0)	3300 (1500)	2500 (1150)	7500* (3400)	7500* (3400)	9800 (4450)	7600 (3450)	5300 (2400)	4100 (1850)	3400 (1550)	2600 (1200)
-6'7" (-2)	4300 (1950)	3300 (1500)	15700* (7100)	15700* (7100)	9800 (4450)	7600 (3450)	5200 (2350)	4000 (1800)		
-9'10" (-3)	6000 (2700)	4700 (2150)	13200* (6000)	13200* (6000)	9700* (4400)	7800 (3550)				

Note: Equipped with 2060 mm (6'9") standard arm.

* Load is limited by hydraulic capacity rather than tipping.

Rating are based on SAE Standard No. J1097.

Rated loads do not exceed 87% of hydraulic lifting capacity or 75% of tipping load.

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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