

# KOMATSU®

## PC78US-6

FLYWHEEL HORSEPOWER  
40.5 kW 54 HP @ 1850 rpm

OPERATING WEIGHT  
7190 kg 15,850 lb

BUCKET CAPACITY  
0.28 m<sup>3</sup> 0.37 yd<sup>3</sup>

**PC  
78  
US**

COMPACT HYDRAULIC  
EXCAVATOR



Photo may include optional equipment.



**JC Machinery**

**SUNIGHT**

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# PRODUCTIVITY FEATURES

The PC78US offers high productivity and efficiency in a compact design. Due to the tight tail design of the PC78US-6, operators can focus on the work in front of them and worry less about rear swing impacts. The rigid boom offers unmatched power and makes tough jobs easy.

**Powerful swing strength** increases work efficiency on slopes.

**Two working modes** give a choice between extra workload and low fuel consumption.

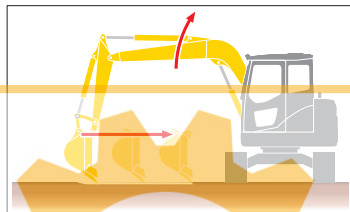
**PC78US-6 superior traveling performance** also provides higher productivity.

### Back fill blade

The PC78US features a standard back fill blade that can quickly and conveniently fill trenches and clear up jobsites.

### New pressure-compensated Closed-center Load Sensing System (CLSS) hydraulic system HydrauMind

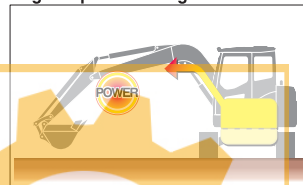
Even when 2 or more actuators are operated simultaneously, the PC78US-6's pressure-compensated CLSS system ensures that each actuator works according to its control input without affecting the size of the load. This gives the operator precise control at all times.



### Engine speed sensing=Optimum Power

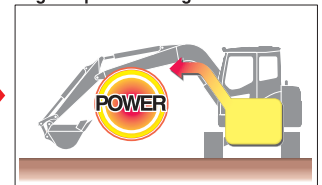
Power utilized by main pump is adjusted automatically in accordance with the engine speed. That means this computerized system keeps engine speed even under high load condition.

#### Engine speed sensing not installed



Engine speed can be dropped under high load condition. Maximum pump power must be limited to prevent engine speed down.

#### Engine speed sensing installed



Engine speed is maintained even under high load condition. Pump can utilize full potential power of engine all the time.

### Powerful Engine With Turbocharger

The engine is EPA Tier 2 emissions certified.



**Extended continuous operation** is achieved by a high-capacity fuel tank.



Photo may include optional equipment.

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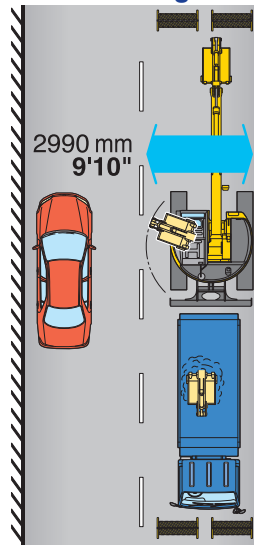
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### Round form uses Tight Tail and Forward Facing Design

The PC78US design uses a Tight Tail concept for both ends. This makes rotating the machine fast, easy and confident. There is less to worry about in tight space conditions because there is little protrusion from either the tail end or the front end.

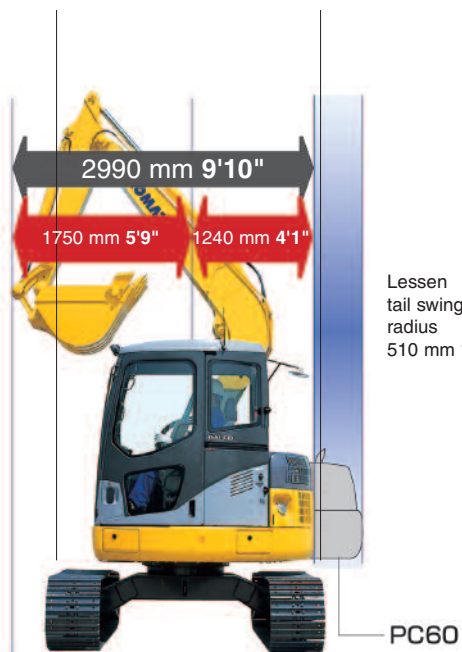


### Road & Bridge Work

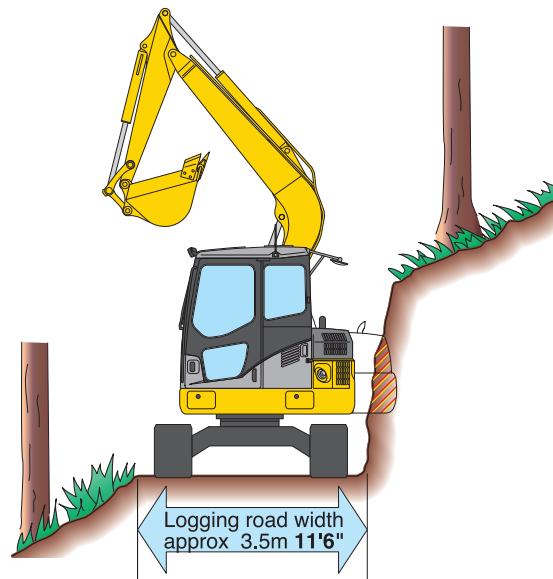


### Amazing Round Shape Offers the Same Balance and Control

Although, the PC78US seems smaller, the excavator still offers the same Komatsu balance, control and power of conventional machines. Another advantage of the rigid boom PC78US besides the power is the forward facing cab. The operator always has a direct line of sight to the bucket, which increases precision, confidence and productivity.



### Road Construction



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# OPERATOR ENVIRONMENT

The cab offers comfort and space to help the operator become even more confident and productive. The ergonomically designed features help reduce fatigue and increase focus on the job at hand. The noise levels of the engine already exceed regulated standards, which helps reduce fatigue and can make the operator even more comfortable.

**Low noise design cab**

**73dB(A)**



**Suspension seat with retractable seat belt**

**Upper-rail type sliding door opens and closes smoothly**



**Housing the wiper motor has greatly improved visibility**



**Fast ventilation and easier communication**

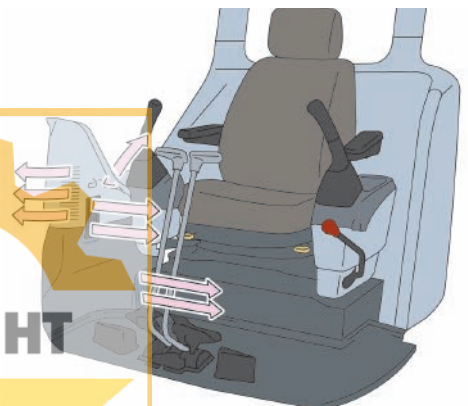
**Monitor panel improves visual confirmation ability**



**Better dump visibility & upper structure**

**Cup holder**

Large capacity air conditioning system combined with carefully placed vents provide optimum cool air flow.

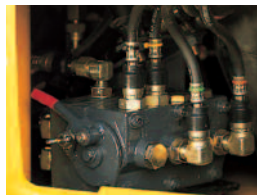


**IC Machinery SUNIGHT**  
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# EASY MAINTENANCE

Engine hood can be opened and closed even in confined areas.

Control pattern change valve



Whether you are comfortable with ISO or backhoe control patterns, you can easily and consciously change from one to the other.

Wide-opening side hood makes everyday inspection simpler.

Main valve can be easily inspected.



Air cleaner with easily replaceable element.

Aluminum oil cooler and radiator are corrosion resistant and easy to clean.

One fuel system inspection window for fast and easy maintenance.



Smaller and longer lasting hydraulic oil filter Ecowhite element.

Battery inspection window enables instant check of liquid level.

Large and accessible toolbox.

Work equipment greasing interval is 250h (100h for armtop only).

Window washer tank is easy to check and refill.

Large fuel filler with strainer



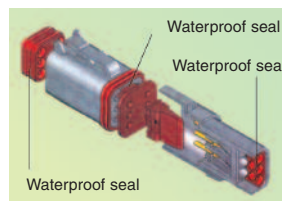
Larger opening reduces fuel back splash.

Inclining track frame



The sloped track frame deters the accumulation of dirt and is easily cleaned.

DT connector



Water-resistant DT connectors are used for the parts which water will be splashed over.

Face seal



O-ring face seals having high sealing performance are used for the hydraulic piping joints.

# PC78US-6 COMPACT HYDRAULIC EXCAVATOR

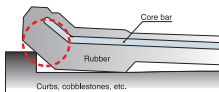
## OPTIONS

**Roadliner** Ideal performance has been achieved with combining the merits of rubber and the strengths of steel in the new Road Liner shoes. Road Liners can last up to twice as long as rubber tracks under most normal operating conditions. Similar to all rubber tracks, pavement is not easily damaged. Replacement is fast and easy. Increased cost reductions are possible by replacing only the damaged or worn-out shoes, which differs from the need to replace a full rubber or steel track.



### Reinforced Type

Rubber thickness has been upgraded using a new type of core bar, and this section that is often sheared, has been reinforced.



### Optional Blade



Bolt-on cutting edge type.

### X-Weight

(Additional Counter Weight)



Advanced X-weight design for increased lift capacity and easy installation.



### LIFTING CAPACITY

PC78US-6	Arm : 1650mm 5'5"		Bucket width : 650mm 25.0"		Shoe width : 450mm 17.7"		Blade on ground		Unit : kg lb	
	1.5m 4'		3.0m 9'		4.5m 14'		Maximum			
	Cf	Cs	Cf	Cs	Cf	Cs	Cf	Cs	Cf	Cs
5.5m 18'			*2060 *4500	*2060 *4500			*2060 *4500	*2060 *4500		
5.0m 16'			*1950 *4300	*1950 *4300			*1920 *4200	*1720 *3700		
4.0m 13'			*2060 *4500	*2060 *4500			*1810 *4000	1190 2600		
3.0m 9'			*2460 *5400	2340 5100	*1860 *4100	1160 2500	*1780 *3900	970 2100		
2.0m 6'			*2970 *6500	2190 4800	*1990 *4400	1130 2400	*1770 *3900	870 1900		
1.0m 3'			*3310 *7300	2060 4500	*2100 *4600	1080 2400	*1780 *3900	840 1800		
0.0m 0'			*3330 *7300	1990 4300	*2100 *4600	1050 2300	*1790 *3900	870 1900		
-1m -3'	*3430 *7500	*3430 *7500	*3060 *6700	1970 4300	*1910 *4200	1040 2300	*1780 *3900	980 2100		
-2.0m -6'	*3660 *8000	*3660 *8000	*2480 *5400	2000 4400			*1700 *3700	1260 2700		
-3.0m -9'							*1330 *2900	*1330 *2900		

\*Load is limited by hydraulic capacity rather than tipping. Rated loads do not exceed 87% of hydraulic lift capacity or 75% of tipping load.

PC78US-6	Arm : 2250mm 7'5"		Bucket width : 650mm 25.0"		Shoe width : 450mm 17.7"		Long arm with blade on ground		Unit : kg lb	
	1.5m 4'		3.0m 9'		4.5m 14'		Maximum			
	Cf	Cs	Cf	Cs	Cf	Cs	Cf	Cs	Cf	Cs
6.0m 19'			*1720 *3800	*1720 *3800			*1740 *3800	*1740 *3800		
5.0m 16'							*1550 *3400	1260 2700		
4.0m 13'			*1660 *3600	*1660 *3600	*1560 *3400	1210 2600	*1480 *3200	960 2100		
3.0m 9'			*2050 *4500	*2050 *4500	*1660 *3600	1190 2600	*1490 *3200	800 1700		
2.0m 6'			*2610 *5700	2250 4900	*1830 *4000	1140 2500	*1530 *3300	730 1600		
1.0m 3'			*3090 *6800	2090 4600	*1990 *4400	1080 2400	*1560 *3400	700 1500		
0.0m 0'			*3300 *7200	1980 4300	*2080 *4500	1040 2300	*1580 *3400	720 1500		
-1m -3'	*2920 *6400	*2920 *6400	*2110 *7000	1930 4200	*2030 *4400	1010 2200	*1600 *3500	790 1700		
-2.0m -6'	*4520 *9900	*4520 *9900	*2840 *6200	1930 4200	*1730 *3800	1010 2200	*1590 *3500	950 2100		
-3.0m -9'	*3390 *7400	*3390 *7400	*2010 *4400	1900 4100			*1490 *3200	1370 3000		

\*Load is limited by hydraulic capacity rather than tipping. Rated loads do not exceed 87% of hydraulic lift capacity or 75% of tipping load.

# SPECIFICATIONS



## ENGINE

Model .....Komatsu S4D95LE-3  
 Type .....Water-cooled, 4-cycle, direct injection  
 Aspiration .....Turbocharged  
 Number of cylinders .....4  
 Piston displacement .....3.26 ltr **199 in³**  
 Flywheel Horsepower (SAE J1349 NET) .... 40.5 kW **54 HP** @ 1850 rpm



## HYDRAULICS

Type .....HydrauMind (Hydraulic Mechanical Intelligence New Design) system,closed-center system with load-sensing valves and pressure-compensated valves

Main pump:

Type .....Variable displacement axial piston  
 Maximum flow .....80.0 ltr x 2 = 160 ltr/min **42.2 U.S. gal/min**  
 Type (for machine with blade) .....Fixed displacement gear  
 Maximum flow .....60 ltr/min **15.9 U.S. gal/min**  
 Auxiliary Hydraulic flow .....123 ltr/min **32.5 U.S. gal/min**

Valve rating:

Relief valve setting for implement .....270 kgf/cm² **3,839 psi**  
 Bucket digging force (ISO) .....6250 kg **13,780 lb**  
 Arm crowd force (ISO)  
 with arm length 1650 mm **5'5"** .....4230 kg **9,330 lb**



## ELECTRICAL SYSTEM

Operating voltage .....24 V  
 Battery .....55 Ah  
 Alternator .....24 A  
 Starter .....3.0 kW

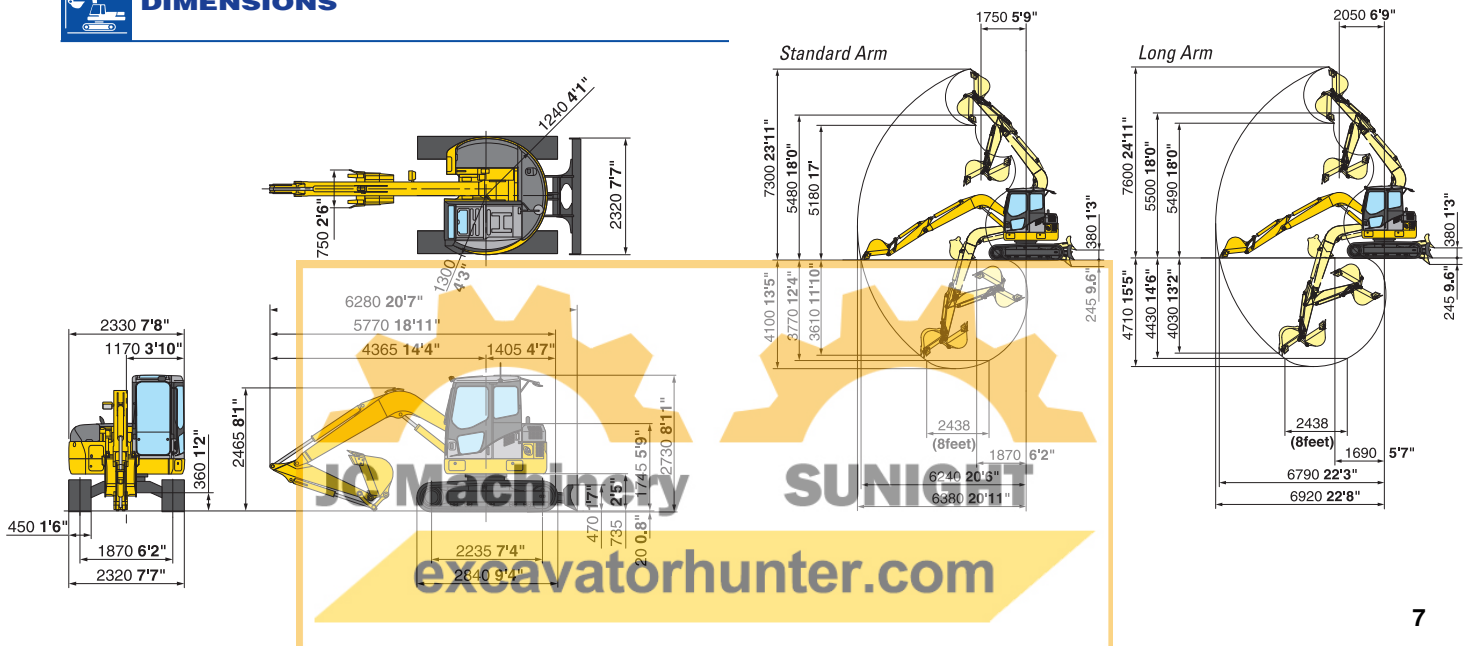


## SWING SYSTEM

Drive method .....Hydrostatic  
 Swing speed .....10.0 rpm  
 180-degree swing width .....2990 mm **9'10"**



## DIMENSIONS



## DRIVES AND BRAKES

Steering control .....Two levers with pedals  
 Drive method .....Fully hydrostatic  
 Hydraulic motors .....Variable displacement, axial piston motors  
 Maximum drawbar pull .....65.2 kN 6650 kg **14661 lb**  
 Maximum travel speed:  
 High .....4.5 km/h **2.8 mph**  
 Low .....3.0 km/h **1.9 mph**  
 Parking brakes .....Mechanical disk



## UNDERCARRIAGE

Track adjustment of the track tension .....Grease  
 Number of shoes .....39 each side  
 Number of carrier rollers .....1 each side  
 Number of track rollers .....5 each side  
 Ground pressure .....0.31 kg/cm² **4.4 psi**



## OPERATING WEIGHT (APPROXIMATE)

Operating weight including 1650 mm **5'5"** arm, bucket with 0.28 m³ **0.37 yd³** ISO 754 capacity, blade, steel shoes, operator weight, liquids, full fuel tank, and standard equipment.

Shoe Width	Operating Weight
450 mm 17.7"	7190 kg 15,850 lb



## COOLANT AND LUBRICANT CAPACITY

Fuel tank .....125 ltr **33 US gal**  
 Radiator .....10.5 ltr **2.8 US gal**  
 Engine oil (refilling) .....7.0–7.5 ltr **1.8–2.0 US gal**  
 Hydraulic (refilling) .....64–110 ltr **16.9–29.1 US gal**



## WORKING RANGE

# Package for PC78US-6

Cab	Cab with A/C							
	1 With aux piping				2 Without aux piping			
<b>Auxiliary piping</b>								
<b>Shoe</b>	A Rubber 450 mm 17.7"	B Road Liner 450 mm 17.7"	C Steel 450 mm 17.7"	D Steel Wide 600 mm 23.6"	A Rubber 450 mm 17.7"	B Road Liner 450 mm 17.7"	C Steel 450 mm 17.7"	D Steel Wide 600 mm 23.6"
<b>Package</b>	1A	1B	1C	1D	2A	2B	2C	2D
<b>Arm</b>								
Standard 1650 mm 5'5"					x	x	x	x
Long 2250 mm 7'5"					x	x	x	x
Std with aux piping 1650 mm 5'5"	x	x	x	x				
Long with aux piping 2250 mm 7'5"	x	x	x	x				
<b>Bucket</b>								
3.2 ft <sup>3</sup> /14" (18" w/Cutters)	x	x	x	x	x	x	x	x
4.2 ft <sup>3</sup> /18" (22" w/Cutters)	x	x	x	x	x	x	x	x
7.1 ft <sup>3</sup> /22" (26" w/Cutters)	x	x	x	x	x	x	x	x
9.9 ft <sup>3</sup> /26" (30" w/Cutters)	x	x	x	x	x	x	x	x
9.9 ft <sup>3</sup> /26" (30" w/Cutters)	x	x	x	x	x	x	x	x
12.0 ft <sup>3</sup> /30" (32" w/Cutters)	x	x	x	x	x	x	x	x
<b>Dozer</b>								
Dozer Assembly 7'7"	In base	In base	In base	In base	In base	In base	In base	In base
Wide Dozer 8'1"	x	x	x	x	x	x	x	x
Reinforced Dozer with BOCE 7'7"	x	x	x	x	x	x	x	x
<b>Others</b>								
Additional Counter Weight	x	x	x	x	x	x	x	x
Additional Working Light	x	x	x	x	x	x	x	x
Window Guard Net	x	x	x	x	x	x	x	x
Heater & Defroster	x	x	x	x	x	x	x	x
Radiator Dust Proof Net	x	x	x	x	x	x	x	x
Field Attachments	x	x	x	x	x	x	x	x

x: Available



## STANDARD EQUIPMENT

- Air cleaner, double element
- Air conditioner
- AM/FM Radio
- Ashtray
- Blade
- Cab FOPS Level 1
- Cooling fan, suction type
- Engine sensing system
- Pattern change valve (ISO-Backhoe)
- Rear view mirror
- Retractable seat belt 76 mm 3" wide
- Suspension seat
- Travel alarm
- Two mode system
- Water separator
- Window washer, front



## OPTIONAL EQUIPMENT

- Additional counter weight
- Additional working light
- Heater & Defroster
- Radiator Dust Proof Net
- Reinforced blade with BOCE
- Wide blade 2464 mm 8'1"
- Window Guard Net

PC78US-6		0.09	0.12	0.20	0.28	0.34
Bucket Capacity	m <sup>3</sup> yd <sup>3</sup>	0.12	0.16	0.26	0.37	0.45
Without Sidecutter	mm in	350 14	450 18	550 22	650 26	725 29
With Sidecutter	mm in	450 18	550 22	650 26	750 30	825 32
Standard Arm		X	X	X	X	X
Long Arm		X	X	X	N/A	N/A

X: Can be used  
N/A: Not available

KUSS128-04

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