

PC1100-6 SERIES

HYDRAULIC EXCAVATOR AND SHOVEL

KOMATSU

NET HORSEPOWER
611 hp 456 kW

OPERATING WEIGHT
227,100 – 248,060 lb
103000 – 112500 kg



PC1100-6

HYDRAULIC EXCAVATOR
OVERVIEW

PHOTO SHOWN INCLUDES OPTIONAL EQUIPMENT.

PC1100-6

WALK-AROUND

Metal guard rings prevent cylinder burning and dirt contamination.

Two-mode setting for boom

By pushing a button it is possible to select either a smooth arm operation or powerful boom thrust.

Shockless boom

control reduces the shaking of the chassis after sudden stops.

Strengthened boom and arm have larger cross sections and improved welding for maximum strength and reliability.

Komatsu excavators own the reputation of being the best in the world.

Operate the PC1100-6 and you'll know why. The PC1100 combines increased production, lower operating cost, and greater comfort with the reliability you've come to depend on. Combine these features with outstanding resale value and you will know why over 90% of our customers gave an "excellent" rating for our excavator design and technology.

Larger digging force

Bucket digging force is increased 12% while the arm crowd force is increased 16%.

Protected hydraulic circuit The cool-running hydraulic system is protected with the most extensive filtration system available, including a high pressure in-line filter.

Largest bucket capacity in its class.





Advanced monitor features

- Self-diagnosis of 119 different problems.
- Three working modes combine with heavy lift mode for maximum productivity.

NET HORSEPOWER
611 hp 456 kW @ 1800 rpm

OPERATING WEIGHT
227,100 – 248,060 lb
103000 – 112500 kg

BUCKET CAPACITY
4.45 – 8.50 yd³
3.40 – 6.50 m³

Larger counterweight

The counterweight is increased by 3.5 tons and moved back almost 8" to provide greater stability.



Faster hydraulics

The PC1100-6's high-output engine provides plenty of hydraulic horsepower for faster movement and increased productivity.

Comfortable cab Komatsu's low-noise cab design uses viscous cab mounts for reduced noise and vibration.

Emissionized engine, at 611 hp, it is the most powerful in its class.

Large catwalk provides easy access to the engine and hydraulic equipment.

Large undercarriage features improved reliability and meets U.S. transportation regulations.

Inside travel motor increases drawbar pull by 13% and increases reliability.

MAINTENANCE FEATURES

Easy Maintenance

Komatsu designed the PC1100-6 to have easy service access. We know by doing this, routine maintenance and servicing are less likely to be skipped, which can mean a reduction in costly downtime later on. Here are some of the many service features found on the PC1100-6.

Large doors provide easy access to the engine compartment.



Remote greasing is used for the fan pulley shaft, tension pulley shaft, aftercooler fan, and other places that are difficult to reach, so lubrication is simplified.

One touch oil drain simplifies oil changes.

Quick coupler for hydraulic pressure inspection provides easy troubleshooting of the hydraulic system.

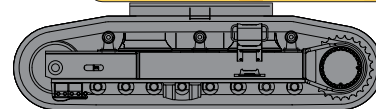
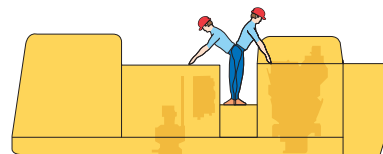
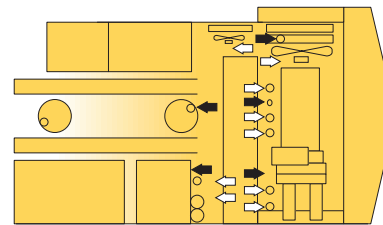
In-line filtration

The PC1100-6 has the most extensive filtration system available, providing an in-line filter as standard equipment. An in-line filter in the outlet port of the main hydraulic pump prevents any failure caused by the entry of dirt.

Self-diagnostic monitor allows display of vital machine data as well as provides a history of up to 20 previous failures.

One floor maintenance

A large platform is positioned in the center of the machine cab, allowing easy access to inspection and maintenance points from one location. Access doors open outward, making inspection of the engine and hydraulic systems easy.



Check before starting items



Periodic maintenance items

Increased Reliability

The PC1100-6 incorporates many improvements in strength and reliability.

Frame structure The revolving frame and center frame mount are improved, changing the structure so that force is transmitted directly to the thick plate of the frame without passing through any welding.

The double lock connectors prevent electrical connections from loosening during operation. The arm cylinder bracket is attached directly to the rigid top plate. This structure transmits force directly to the side plates for greater durability.

The **undercarriage** is strengthened to provide excellent reliability and durability even when working on rocky ground or blasted rock.

- The track links are increased one class in size, making them the largest in this class.
- The travel motors are inside, preventing them from being damaged by rocks.
- The hydraulic idler cushion is replaced with a spring assembly, preventing any problems of oil leakage, and facilitating removal and installation for transportation.

Metal guard rings protect all the hydraulic cylinders and improve reliability.

The boom and arm have increased cross-sectional dimensions, as well as continuous both-side groove welding, improving digging, and side-contact strength.

Wide catwalks around the PC1100-6 safely provide access to maintenance areas.

PRODUCTIVITY FEATURES

Increased Productivity

Engine

The PC1100-6 gets its exceptional power and work capacity from a Komatsu SAA6D170E-2 engine. Output is increased 13% to 611 hp, providing more hydraulic power while improving fuel efficiency. The engine meets emission regulations, including CARB, and noise levels are reduced for greater operator comfort.

Improved machine stability

The engine is moved 3.9" 100 mm to the rear, and the counterweight is increased from 14 tons to 17.5 tons, providing the stability needed for highest productivity.

Shockless boom control

The PC1100 features a shockless valve (double check slow return valve) that automatically reduces the amount of vibration present when operating the boom. Operator fatigue is reduced (which can improve safety and productivity), and spillage caused by vibration is prevented.

Additional features

- Large digging force
- Large drawbar pull
- Fast hydraulics
- Automatic hi-lo travel



Self-Diagnostic Monitor

Three Working Modes

Working mode selection

The **Avance** excavator is equipped with three working modes. Each mode is designed to match engine speed, pump speed, and system pressure with the current application; giving you the flexibility to match equipment performance to the job at hand.

Working Mode	Application	Advantage
DH	Maximum production	<ul style="list-style-type: none"> Maximum production/power Fast cycle times Heavy lift mode is available
H	Normal digging and loading	<ul style="list-style-type: none"> Good cycle times Good fuel economy Heavy lift mode is available
G	Light-duty	<ul style="list-style-type: none"> Maximum fuel efficiency Heavy lift mode is available

Heavy lift mode

Gives you approximately 10% more lifting force on the boom when you need it for handling rock or lifting large boulders.

Two settings for the boom

Smooth mode provides easy operation and longer component life for gathering blasted rock or scraping down operations. When maximum digging force is needed, switch to power mode for more effective excavating.

Swing priority setting

The swing priority setting allows the operator to use the same easy motion for 180° loading as 90° loading operations. By altering the oil flow this setting allows you to select either boom or swing as the priority for increased production.

Hydraulics

Unique three-pump system assures smooth compound movement of the work equipment. OLSS controls all three pumps for efficient engine power use. This system also reduces hydraulic loss during operation.

Three working modes

Heavy lift mode

Travel speeds



The LCD portion of the monitor has four different display modes that aid in identifying potential problems before they become major problems:

Four Diagnostic Modes

- 1 Time Display mode** is the default mode and shows the time and hour meter reading.
- 2 User Code Display mode** displays a trouble code and sounds an alarm when a problem has been detected.
- 3 Trouble Data Memory mode** monitors 32 separate items and stores up to 20 abnormalities over 999 hours for effective troubleshooting.
- 4 Operation Data mode** monitors 20 separate current operating conditions including system pressure and rpms to keep your machine operating at peak performance. *In addition*, 44-bit patterns allow you to diagnose electrical connections.

Together these modes allow you to troubleshoot 119 different problems to minimize downtime.

WORKING ENVIRONMENT

The Avance cab interior is spacious and provides a comfortable working environment...

Operator's Cab

Multi-position controls

The multi-position, pressure proportional control levers allow the operator to work in comfort while maintaining precise control.

A double-slide mechanism allows the seat and controllers to move together or independently, allowing the operator to position the controllers for maximum productivity and comfort.

The multi-position diagnostic monitor is easily reached and can be rotated to remove glare. Plus, the inclined dashboard makes the switches and fuel control dials easier to view and use.

Cab mounts

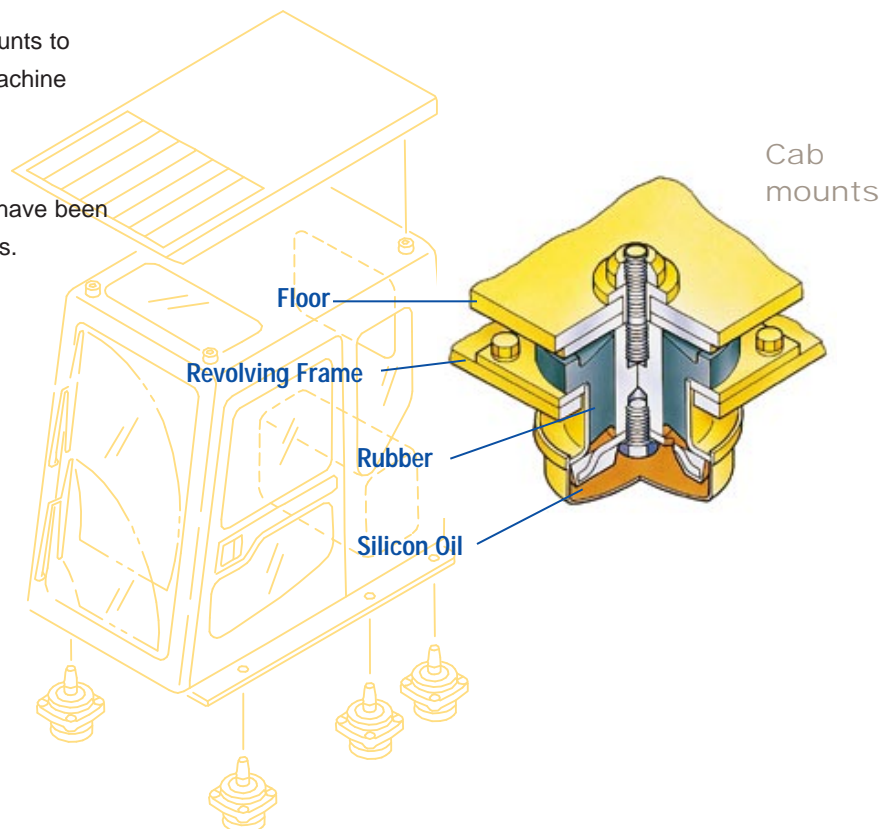
The cab rests on viscous damping mounts to reduce vibration and noise from the machine body. Operator fatigue is reduced.

Noise

The noise levels at the operator's ear have been decreased by improving the cab mounts.

Safety Features

- Pump/engine room partition prevents oil from spraying on the engine if a hydraulic hose should burst.
- Thermal guards are placed around high-temperature parts of the engine and accessory drive.
- Timer-off step light automatically provides light for one minute to allow the operator to get off the machine safely.
- Interconnected horn and flashing light give visual and audible notice of the excavator's operation when activated.





PC1100-6

HYDRAULIC EXCAVATOR

1. Adjustable monitor
2. Starter switch
3. Fuel control dial
4. Inclined dashboard
5. Adjustable armrests
6. Optional air conditioning
7. Fully adjustable seat
8. Hot/cold storage compartments
9. Low effort joysticks
10. Operator weight adjustment

SPECIFICATIONS



ENGINE

Model Komatsu SAA6D170E-2
 Type 4-cycle, water-cooled, direct-injection
 Aspiration Turbocharged and
 air-to-air aftercooled
 No. of cylinders 6
 Bore **6.69"** 170 mm
 Stroke **6.69"** 170 mm
 Piston displacement **1,413 in³** 23.15 ltr
 Flywheel horsepower:
611 hp 456 kW at **1800 rpm** (SAE J1349)
 Governor All-speed, electronic



HYDRAULIC SYSTEM

Type Open-center load-sensing system
 No. of selectable working modes 3
 Main pump:
 Type Variable-capacity piston pumps
 Pumps for Boom, arm, bucket, swing,
 and travel circuits
 Maximum flow **2 x 130.5 gpm** 2 x 494 ltr
1 x 158.5 gpm 1 x 600 ltr
 Sub-pump for control circuit Gear pump
 Hydraulic motors:
 Travel 2 x Axial piston motor
 with parking brake
 Swing 2 x Axial piston motor
 with swing holding brake
 Relief valve setting:
 Implement circuits
 up to **4,550 psi** 320 kg/cm²
 Travel circuit **4,980 psi** 350 kg/cm²
 Swing circuit **3,980 psi** 275 kg/cm²
 Pilot circuit **430 psi** 30 kg/cm²
 Hydraulic cylinders:
 Number of cylinders – bore x stroke
 Boom **2–8.9" x 94.1"** 225 mm x 2390 mm
 Arm **1–9.8" x 95.9"** 250 mm x 2435 mm
 Bucket
 Std. **2–6.3" x 71.8"** 160 mm x 1825 mm
 LC **2–6.3" x 71.8"** 160 mm x 1825 mm
 SP **2–6.3" x 76.8"** 160 mm x 1950 mm



DRIVES AND BRAKES

Steering control 2 levers with pedals
 Drive method Fully hydrostatic
 Travel motor Axial piston motor,
 in-shoe design
 Reduction system Planetary double reduction
 Maximum drawbar pull **154,320 lb** 70000 kg
 Gradability 70%
 Maximum travel speed
 Low **1.3 mph** 2.1 km/h
 High **2.0 mph** 3.2 km/h
 Service brake Hydraulic lock
 Parking brake Oil disc brake



SWING SYSTEM

Driven by Hydraulic motor
 Swing reduction Planetary gear
 Swing circle lubrication Grease-bathed
 Swing lock Oil disc brake
 Swing speed 5.8 rpm



UNDERCARRIAGE

Center frame H-leg frame
 Track frame Box-section
 Seal of track Sealed track
 Track adjuster Hydraulic
 No. of shoes 48 each side (Std, SP)
 55 each side (LC)
 No. of carrier rollers 3 each side
 No. of track rollers 8 each side (Std, SP)
 10 each side (LC)



COOLANT AND LUBRICANT CAPACITY (refilling)

Fuel tank **359.3 U.S. gal** 1360 ltr
 Radiator **37.3 U.S. gal** 140 ltr
 Engine **13.5 U.S. gal** 51 ltr
 Final drive, each side **5.7 U.S. gal** 22 ltr
 Swing drive **5.7 U.S. gal** 22 ltr
 Hydraulic tank **177.0 U.S. gal** 670 ltr



OPERATING WEIGHT (approximate)

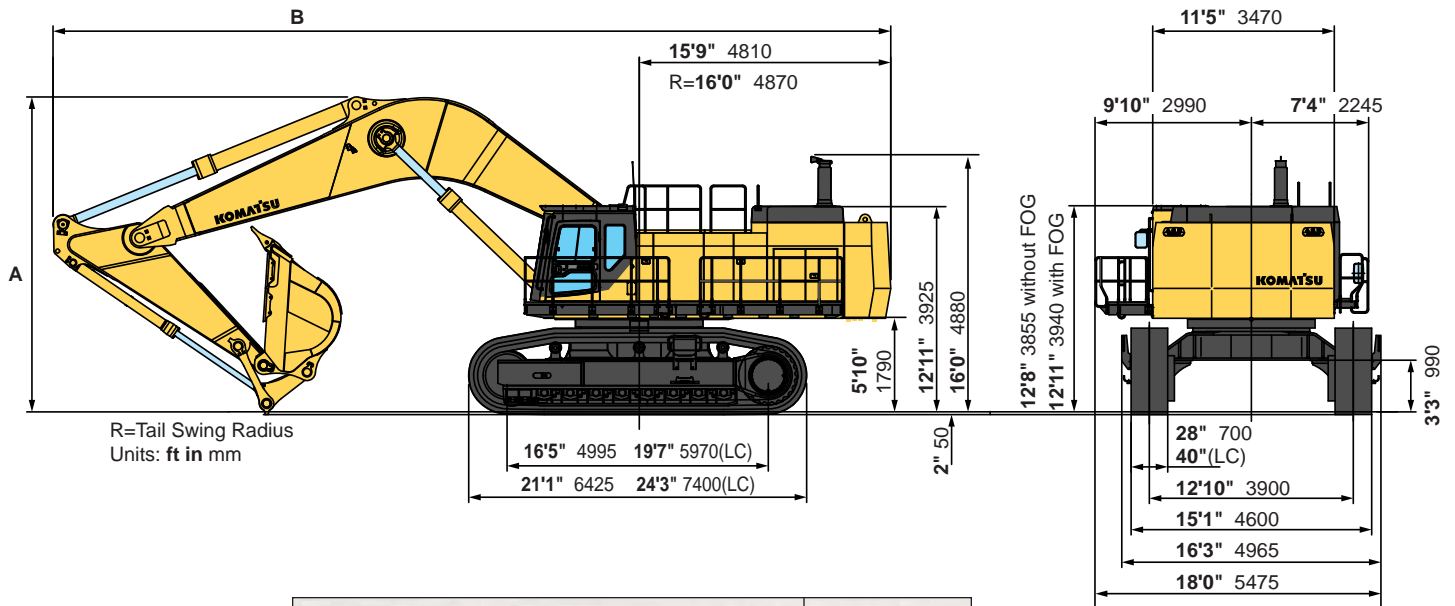
PC1100-6/LC-6: Operating weight, including **29'10"** 9100 mm boom, **11'2"** 3400 mm arm, SAE heaped **6.5 yd³** 5.0 m³ backhoe bucket, operator, lubricant, coolant, full fuel tank, and the standard equipment.

PC1100SP-6: Operating weight, including a **25'7"** 7800 mm boom, **11'2"** 3400 mm arm, SAE heaped **8.5 yd³** 6.5 m³ backhoe bucket, operator, lubricant, coolant, full fuel tank, and the standard equipment.

Double-Grouser Shoes	PC1100-6	
	Operating Weight	Ground Pressure
PC1100-6 28" 700 mm	227,100 lb 103000 kg	19.2 psi 1.35 kg/cm ²
PC1100-6 39.4" 1000 mm	232,170 lb 105300 kg	13.7 psi 0.96 kg/cm ²
PC1100LC-6 39.4" 1000 mm	244,710 lb 111000 kg	12.2 psi 0.86 kg/cm ²
PC1100LC-6 44.4" 1200 mm	248,060 lb 112500 kg	10.4 psi 0.73 kg/cm ²
PC1100SP-6 28" 700 mm	229,280 lb 104000 kg	19.34 psi 1.36 kg/cm ²



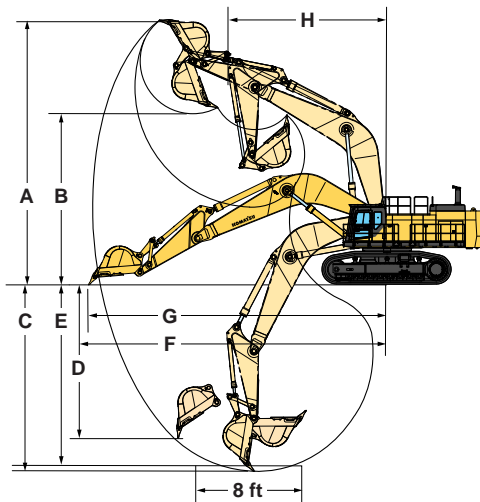
DIMENSIONS



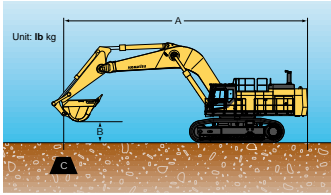
	PC1100-6/LC-6			PC1100SP-6
	11'2" 3.4 m arm	14'9" 4.5 m arm	18'6" 5.6 m arm	11'2" 3.4 m arm
A Overall Height	19'10" 6040 mm	21'2" 6460 mm	22'11" 6990 mm	20'7" 6265 mm
B Overall Length	52'7" 16020 mm	52'8" 16050 mm	52'0" 15840 mm	48'6" 14790 mm



WORKING RANGE



	PC1100-6/LC-6			PC1100SP-6
	11'2" 3.4 m arm	14'9" 4.5 m arm	18'6" 5.6 m arm	11'2" 3.4 m arm
A Max. digging height	44'0" 13400 mm	44'3" 13490 mm	45'8" 13910 mm	42'8" 13000 mm
B Max. dumping height	28'6" 8680 mm	29'6" 9000 mm	31'0" 9440 mm	27'9" 8450 mm
C Max. digging depth	30'8" 9350 mm	34'3" 10440 mm	38'0" 11590 mm	25'11" 7900 mm
D Max. vertical wall digging depth	25'0" 7610 mm	27'10" 8490 mm	31'1" 9480 mm	16'6" 5025 mm
E Max. digging depth of cut for 8' level	30'3" 9220 mm	33'11" 10340 mm	37'9" 11500 mm	25'5" 7745 mm
F Max. digging reach	50'4" 15350 mm	53'7" 16340 mm	57'3" 17450 mm	46'2" 14070 mm
G Max. digging reach at ground	49'3" 15000 mm	52'6" 16000 mm	56'2" 17130 mm	44'10" 13670 mm
H Min. swing radius	26'2" 7965 mm	26'3" 7990 mm	26'9" 8150 mm	21'1" 6415 mm
Bucket digging force (SAE)	94,800 lb 43000 kg	94,800 lb 43000 kg	77,160 lb 35000 kg	105,820 lb 48000 kg
Arm crowd force (SAE)	88,180 lb 40000 kg	73,410 lb 33300 kg	63,270 lb 28700kg	88,180 lb 40000 kg
Bucket digging force (ISO)	107,590 lb 48800 kg	107,590 lb 48800 kg	87,520 lb 39700 kg	120,150 lb 54500 kg
Arm crowd force (ISO)	91,930 lb 41700 kg	75,840 lb 34400 kg	64,375 lb 29200 kg	91,930 lb 41700 kg



PC1100LC-6 Long Arm

Equipment:

- Arm: **18'6"** 5.6 m
- Boom: **29'10"** 9.1 m
- Bucket: **4.5 yd³** 3.4 m³ with heavy lift on

- A: Reach from swing center
- B: Bucket hook height
- C: Lifting capacity
- Cf: Rating over front
- Cs: Rating over side
- ⊗: Rating at maximum reach

A \ B	20' 6.1 m		25' 7.6 m		30' 9.1 m		35' 10.7 m		40' 12.2 m		45' 13.7 m		⊗ MAX.	
	Cf	Cs	Cf	Cs	Cf	Cs	Cf	Cs	Cf	Cs	Cf	Cs	Cf	Cs
30' 9.1 m													*15,100 *6850	*15,100 *6850
25' 7.6 m									*29,800 *13500	*29,800 *13500	*20,200 *9200	*20,200 *9200	*15,200 *6850	*15,200 *6850
20' 6.1 m									*32,000 *14500	31,100 14150	*27,400 *12450	23,600 10700	*15,600 *7050	*15,600 *7050
15' 4.6 m					*44,800 *20350	*44,800 *20350	*38,700 *17550	*38,700 *17550	*34,600 *15700	29,900 13550	*32,000 *14500	22,900 10400	*16,300 *7400	*16,300 *7400
10' 3.0 m	*86,900 *39450	*86,900 *39450	*63,800 *28950	*63,800 *28950	*50,900 *23050	48,500 21950	*42,800 *19400	36,900 16750	*37,400 *16950	28,500 12950	*33,800 *15300	22,100 10000	*17,500 *7900	*17,500 *7900
5' 1.5 m	*76,900 *34900	*76,900 *34900	*71,400 *32400	61,300 27800	*56,200 *25500	45,700 20700	*46,500 *21100	35,000 15900	*40,000 *18150	27,300 12350	*35,400 *16050	21,300 9650	*19,100 *8650	18,600 8450
0' 0.0 m	*75,200 *34100	*75,200 *34100	*76,700 *34800	58,400 26500	*60,300 *27350	43,500 19750	*49,600 *22500	33,500 15200	*42,100 *19100	26,200 11900	*36,600 *16600	20,700 9350	*21,400 *9700	19,000 8600
-5' -1.5 m	*86,400 *39150	82,000 37200	*79,500 *36050	56,700 25700	*62,900 *28500	42,100 19100	*51,600 *23400	32,400 14700	*43,400 *19700	25,500 11550	*28,100 *12750	20,300 9200	*24,600 *11150	20,100 9100
-10' -3.0 m	*104,300 *47300	81,600 37050	*80,000 *36300	55,900 25350	*63,700 *28900	41,400 18750	*52,100 *23650	31,900 14450	*43,300 *19650	25,200 11450			*29,200 *13200	22,000 9950
-15' -4.6 m	*100,300 *45500	82,300 37300	*77,900 *35350	56,100 25450	*62,300 *28250	41,300 18750	*50,700 *23000	31,900 14450	*40,500 *18400	25,500 11550			*36,200 *16400	25,200 11450
-20' -6.1 m	*92,700 *42050	83,900 38050	*72,600 *32900	57,000 25850	*57,900 *26250	42,100 19100	*45,600 *20700	32,700 14850					*42,000 *19050	30,800 13950
-25' -7.6 m	*79,600 *36100	*79,600 *36100	*62,100 *28200	59,000 26750	*47,400 *21500	43,900 19950							*43,500 *19700	41,200 18700

*Load is limited by hydraulic capacity rather than tipping. Ratings are based on SAE Standard No. J1097. Rated loads do not exceed 87% of hydraulic lift capacity or 75% of tipping load.



BACKHOE BUCKET AND ARM COMBINATION

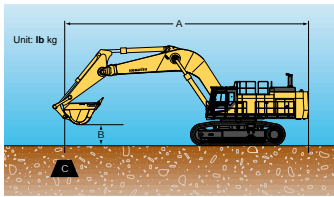
BUCKET CAPACITY (HEAPED)				WIDTH				WEIGHT (with side cutters)		ARM LENGTH		
SAE, PCSA yd ³ m ³		CECE yd ³ m ³		Without side cutters or shrouds in mm		With side cutters or shrouds in mm		lb	kg	ft in m		
PC1100-6 (use with 29'10" 9.1 m boom)										11'2" 3.4	14'9" 4.5	18'6" 5.6
4.4	3.4	3.9	3.0	61"	1550	66.7"	1695	7,940	3600	—	○	□
5.2	4.0	4.6	3.5	67.3"	1710	74"	1880	8,380	3800	○	□	▲
6.5	5.0	5.6	4.3	80.7"	2050	87.4"	2220	9,700	4400	□	▲	—
PC1100SP-6 (use with 25'7" 7.8 m boom)										11'2" 3.4		
8.5	6.5	7.5	5.7	69.8"	2280	96.5"	2450	11,690	5300	□		

These charts are based on over-side stability with fully loaded bucket at maximum reach.

- – General purpose use, weight up to 3,500 lb/yd³ 2.1 ton/m³
- – General purpose use, weight up to 3,000 lb/yd³ 1.8 ton/m³
- ▲ – General purpose use, weight up to 2,500 lb/yd³ 1.5 ton/m³
- X – Not useable



PC1100-6 LIFTING CAPACITY



PC1100-6

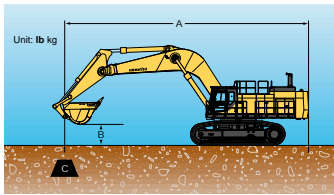
Equipment:

- Arm: 11'2" 3.4 m
- Boom: 29'10" 9.1 m
- Bucket: 6.5 yd³ 5.0 m³ with heavy lift on

- A: Reach from swing center
- B: Bucket hook height
- C: Lifting capacity
- Cf: Rating over front
- Cs: Rating over side
- ⊗: Rating at maximum reach

B \ A	15' 4.6 m		20' 6.1 m		25' 7.6 m		30' 9.1 m		35' 10.7 m		40' 12.2 m		⊗ MAX.		
	Cf	Cs	Cf	Cs	Cf	Cs	Cf	Cs	Cf	Cs	Cf	Cs	Cf	Cs	
30' 9.1 m															
25' 7.6 m															
20' 6.1 m															
15' 4.6 m															
10' 3.0 m															
5' 1.5 m															
0' 0.0 m															
-5' -1.5 m															
-10' -3.0 m															
-15' -4.6 m															
-20' -6.1 m															

*Load is limited by hydraulic capacity rather than tipping. Ratings are based on SAE Standard No. J1097. Rated loads do not exceed 87% of hydraulic lift capacity or 75% of tipping load.



PC1100-6 Semi-Long Arm

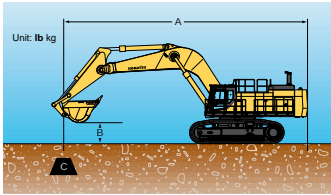
Equipment:

- Arm: 14'9" 4.5 m
- Boom: 29'10" 9.1 m
- Bucket: 5.25 yd³ 4.0 m³ with heavy lift on

- A: Reach from swing center
- B: Bucket hook height
- C: Lifting capacity
- Cf: Rating over front
- Cs: Rating over side
- ⊗: Rating at maximum reach

B \ A	15' 4.6 m		20' 6.1 m		25' 7.6 m		30' 9.1 m		35' 10.7 m		40' 12.2 m		⊗ MAX.		
	Cf	Cs	Cf	Cs	Cf	Cs	Cf	Cs	Cf	Cs	Cf	Cs	Cf	Cs	
30' 9.1 m															
25' 7.6 m															
20' 6.1 m															
15' 4.6 m															
10' 3.0 m															
5' 1.5 m															
0' 0.0 m															
-5' -1.5 m															
-10' -3.0 m															
-15' -4.6 m															
-20' -6.1 m															
-25' -7.6 m															

*Load is limited by hydraulic capacity rather than tipping. Ratings are based on SAE Standard No. J1097. Rated loads do not exceed 87% of hydraulic lift capacity or 75% of tipping load.



PC1100-6 Long Arm

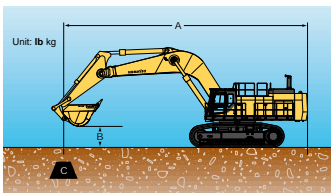
Equipment:

- Arm: 18'6" 5.6 m
- Boom: 29'10" 9.1 m
- Bucket: 4.5 yd³ 3.4 m³ with heavy lift on

- A: Reach from swing center
- B: Bucket hook height
- C: Lifting capacity
- Cf: Rating over front
- Cs: Rating over side
- ⊗: Rating at maximum reach

B \ A	20' 6.1 m		25' 7.6 m		30' 9.1 m		35' 10.7 m		40' 12.2 m		45' 13.7 m		⊗ MAX.		
	Cf	Cs	Cf	Cs	Cf	Cs	Cf	Cs	Cf	Cs	Cf	Cs	Cf	Cs	
30' 9.1 m														*15,100 *6850	*15,100 *6850
25' 7.6 m									*29,800 *13500	*29,800 *13500	*20,200 *9200	*20,200 *9200	*15,200 *6850	*15,200 *6850	
20' 6.1 m									*32,000 *14500	28,800 13050	*27,400 *12450	21,600 9800	*15,600 *7050	*15,600 *7050	
15' 4.6 m					*44,800 *20350	*44,800 *20350	*38,700 *17550	36,200 16450	*34,600 *15700	27,500 12500	28,000 12700	20,900 9450	*16,300 *7400	*16,300 *7400	
10' 3.0 m	*86,900 *39450	*86,900 *39450	*63,800 *28950	61,300 27800	*50,900 *23050	45,100 20450	*42,800 *19400	34,200 15500	34,600 15700	26,200 11900	27,200 12300	20,100 9100	*17,500 *7900	16,900 7650	
5' 1.5 m	*76,900 *34900	*76,900 *34900	*71,400 *32400	57,100 25900	55,500 25150	42,300 19200	42,500 19300	32,300 14650	33,300 15100	24,900 11300	26,300 11950	19,300 8750	*19,100 *8650	16,700 7600	
0' 0.0 m	*75,200 *34100	*75,200 *34100	72,000 32650	54,100 24550	53,200 24150	40,200 18200	41,000 18550	30,800 13950	32,200 14600	23,900 10850	25,700 11650	18,700 8450	*21,400 *9700	17,100 7750	
-5' -1.5 m	*86,400 *39150	76,100 34500	70,200 31850	52,400 23750	51,700 23450	38,800 17550	39,800 18050	29,700 13450	31,500 14300	23,200 10500	25,300 11500	18,300 8300	*24,600 *11150	18,100 8200	
-10' -3.0 m	103,300 46850	75,800 34350	69,400 31500	51,700 23450	50,900 23100	38,000 17250	39,300 17800	29,100 13200	31,200 14150	22,900 10350			27,300 12400	19,900 9000	
-15' -4.6 m	*100,300 *45500	76,400 34650	69,500 31550	51,800 23500	50,900 23100	38,000 17250	39,300 17800	29,200 13250	31,500 14300	23,200 10500			31,200 14150	22,900 10400	
-20' -6.1 m	*92,700 *42050	78,000 35400	70,600 32000	52,800 23950	51,700 23450	38,700 17550	40,200 18200	30,000 13600					37,700 17100	28,200 12800	
-25' -7.6 m	*79,600 *36100	*79,600 *36100	*62,100 *28200	54,800 24850	*47,400 21500	40,600 18400							*43,500 *19700	38,100 17250	

*Load is limited by hydraulic capacity rather than tipping. Ratings are based on SAE Standard No. J1097. Rated loads do not exceed 87% of hydraulic lift capacity or 75% of tipping load.



PC1100SP-6

Equipment:

- Arm: 11'2" 3.4 m
- Boom: 25'7" 7.8 m
- Bucket: 8.5 yd³ 6.5 m³ with heavy lift on

- A: Reach from swing center
- B: Bucket hook height
- C: Lifting capacity
- Cf: Rating over front
- Cs: Rating over side
- ⊗: Rating at maximum reach

B \ A	15' 4.6 m		20' 6.1 m		25' 7.6 m		30' 9.1 m		35' 10.7 m		40' 12.2 m		⊗ MAX.	
	Cf	Cs	Cf	Cs	Cf	Cs	Cf	Cs	Cf	Cs	Cf	Cs	Cf	Cs
30' 9.1 m							*44,600 *20250	*44,600 *20250					*31,900 *14450	*31,900 *14450
25' 7.6 m							*51,800 *23500	50,000 22700					*31,800 *14400	*31,800 *14400
20' 6.1 m			*81,800 *37100	*81,800 *37100	*65,100 *29550	*65,100 *29500	*55,500 *25200	48,600 22000	*42,500 *19250	34,900 15850			*32,800 *14900	*32,800 *14900
15' 4.6 m			*96,000 *43550	94,000 42650	*72,900 *33050	64,500 29250	*59,900 *27150	46,500 21100	44,500 20150	34,100 15450			*34,900 *15850	30,900 14000
10' 3.0 m			*106,300 *48250	87,200 39550	79,200 35950	60,800 27600	57,700 26200	44,400 20150	43,400 19650	33,100 15000			*38,200 *17300	29,700 13450
5' 1.5 m			*110,400 *50100	83,300 37800	71,000 32200	53,200 24100	55,900 25350	42,700 19350	42,400 19200	32,100 14550			39,500 17900	29,800 13500
0' 0.0 m			*109,200 *49550	81,800 37100	68,500 31050	50,800 23050	54,700 24800	41,600 18850	41,800 18950	31,500 14300			41,500 18850	31,300 14200
-5' -1.5 m	*106,100 *48150	*106,100 *48150	*103,700 *47050	81,700 37100	68,600 31100	50,900 23100	54,300 24650	41,200 18700					46,100 20900	34,900 15800
-10' -3.0 m	*117,500 *53300	*117,500 *53300	*93,100 *42200	82,900 37600	*70,300 *31900	53,500 24250	*54,700 *24800	41,900 19000					*54,500 *24750	41,800 18950
-15' -4.6 m	*93,200 *42250	*93,200 *42250	*74,400 *33750	*74,400 *33750	*55,100 *25000	*55,100 *25000							*52,300 *23700	*52,300 *23700
-20' -6.1 m														

*Load is limited by hydraulic capacity rather than tipping. Ratings are based on SAE Standard No. J1097. Rated loads do not exceed 87% of hydraulic lift capacity or 75% of tipping load.

PC1100-6 Loading Shovel

SPECIFICATIONS



ENGINE

Model Komatsu SAA6D170E-2
 Type 4-cycle, water-cooled, direct-injection
 Aspiration Turbocharged and
 air-to-air aftercooled
 No. of cylinders 6
 Bore **6.69"** 170 mm
 Stroke **6.69"** 170 mm
 Piston displacement **1,413 in³** 23.15 ltr
 Flywheel horsepower:
611 hp 456 kW at **1800 rpm** (SAE J1349)
 Governor All-speed, electronic



HYDRAULIC SYSTEM

Type Open-center load-sensing system
 No. of selectable working modes 3
 Main pump:
 Type Variable-capacity piston pumps
 Pumps for Boom, arm, bucket, swing,
 and travel circuits
 Maximum flow **2 x 130.5 gpm** 2 x 494 ltr
1 x 158.5 gpm 1 x 600 ltr
 Sub-pump for control circuit Gear pump
 Hydraulic motors:
 Travel 2 x Axial piston motor
 with parking brake
 Swing 2 x Axial piston motor
 with swing holding brake
 Relief valve setting:
 Implement circuits
 up to **4,550 psi** 320 kg/cm²
 Travel circuit **4,980 psi** 350 kg/cm²
 Swing circuit **3,980 psi** 275 kg/cm²
 Pilot circuit **430 psi** 30 kg/cm²
 Hydraulic cylinders:
 Number of cylinders – bore x stroke
 Boom . . . **2–8.9" x 71.2"** 225 mm x 1960 mm
 Arm . . . **2–7.3" x 69.5"** 185 mm x 1765 mm
 Bucket . **2–7.9" x 60.2"** 200 mm x 1530 mm
 Bucket Dump
 **2–5.5" x 17.1"** 140 mm x 435 mm



SWING SYSTEM

Driven by Hydraulic motor
 Swing reduction Planetary gear
 Swing circle lubrication Grease-bathed
 Swing lock Oil disc brake
 Swing speed 5.8 rpm



DRIVES AND BRAKES

Steering control 2 levers with pedals
 Drive method Fully hydrostatic
 Travel motor Axial piston motor,
 in-shoe design
 Reduction system . . Planetary double reduction
 Maximum drawbar pull . . **154,320 lb** 70000 kg
 Gradability 70%
 Maximum travel speed
 Low **1.3 mph** 2.1 km/h
 High **2.0 mph** 3.2 km/h
 Service brake Hydraulic lock
 Parking brake Oil disc brake



UNDERCARRIAGE

Center frame H-leg frame
 Track frame Box-section
 Seal of track Sealed track
 Track adjuster Hydraulic
 No. of shoes 48 each side
 No. of carrier rollers 3 each side
 No. of track rollers 8 each side



COOLANT AND LUBRICANT CAPACITY (refilling)

Fuel tank **359.3 U.S. gal** 1360 ltr
 Radiator **37.3 U.S. gal** 140 ltr
 Engine **13.5 U.S. gal** 51 ltr
 Final drive, each side **5.7 U.S. gal** 22 ltr
 Swing drive **5.7 U.S. gal** 22 ltr
 Hydraulic tank **177.0 U.S. gal** 670 ltr



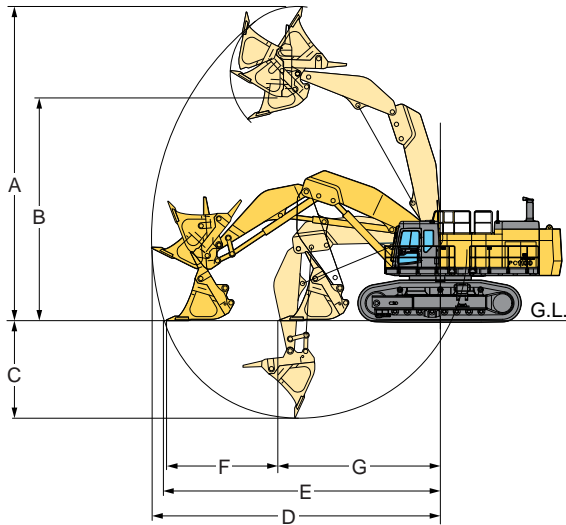
OPERATING WEIGHT (approximate)

PC1100-6 Loading Shovel: Operating weight, including **17'5"** 5300 mm boom, **12'6"** 3800 mm arm, **8.5 yd³** 6.5 m³ bottom dump bucket, operator, lubricant, coolant, full fuel tank, and the standard equipment.

Double-Grouser Shoes	PC1100-6	
	Operating Weight	Ground Pressure
28" 700 mm	238,100 lb 108000 kg	20.1 psi 1.41 kg/cm ²



WORKING RANGE AND BUCKET SELECTION



Working Range

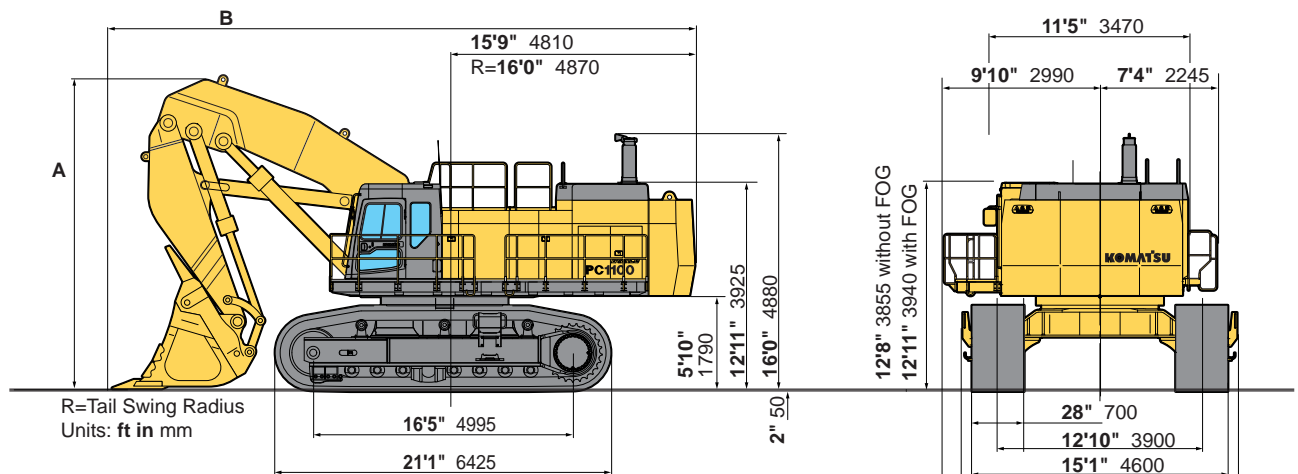
Type of bucket	Bottom dump		Bottom dump	
Capacity—heaped	8.5 yd³	6.5 m ³	9.2 yd³	7.0 m ³
A Max. cutting height	40'8"	12400 mm	41'4"	12600 mm
B Max. dumping height	28'10"	8790 mm	28'10"	8790 mm
C Max. digging depth	12'0"	3650 mm	12'8"	3850 mm
D Max. digging reach	37'5"	11400 mm	38'1"	11600 mm
E Max. digging reach at ground level	36'2"	11020 mm	36'9"	11210 mm
F Level crowding distance	15'2"	4630 mm	15'2"	4630 mm
G Min. crowd distance	20'9"	6320 mm	20'9"	6540 mm
Bucket digging force	128,970 lb	58500 kg	128,970 lb	58,500 kg
Arm crowd force	123,460 lb	56000 kg	123,460 lb	56000 kg

Bucket Selection

Type of bucket	Bottom dump		Bottom dump	
Capacity—heaped	8.5 yd³	6.5 m ³	9.2 yd³	7.0 m ³
Width	91'3"	2320 mm	91'3"	2320 mm
Weight	11,900 lb	5400 kg	12,570 lb	5700 kg
No. of bucket teeth	6		6	
Recommended uses	General-purpose digging and loading		Light-duty excavation and loading	



DIMENSIONS



Type of bucket	Bottom dump		Bottom dump	
Capacity—heaped	8.5 yd³	6.5 m ³	9.2 yd³	7.0 m ³
A Overall Height	19'5"	5910 mm	19'6"	5940 mm
B Overall Length	36'6"	11130 mm	37'3"	11350 mm



STANDARD EQUIPMENT

Engine and its related items:

- Air cleaner, double element dry
- Cooling fan, with fan guard
- Engine, Komatsu SAA6D170E-2

Electrical system:

- Alternator, 90 Amp, 24V
- Batteries, 2 x 12V, 200 Ah
- Starting motor, 11 kW x 2
- Working light, (2 boom, 1RH)
- Timer-off step light

Undercarriage:

- PC1100-6, PC1100SP-6, **28"** 700 mm double grouser
- PC1100LC-6, **39.4"** 1000 mm double grouser shoes
- PC1100-6, 8-track/3 carrier rollers (each side)
- PC1100LC-6, 10-track/3 carrier rollers (each side)
- PC1100SP-6, 8-track/3 carrier rollers (each side)
- Hydraulic track adjusters (each side)
- Track guiding guard (each side)

Guards and covers:

- Dust-proof net for radiator and oil cooler
- Pump/engine room partition cover
- Revolving frame undercover

Operator environment:

- Air conditioner with defroster
- Viscous mount, all weather sound suppression with tinted safety glass windows, pull-up front window with lock device, roof window, lockable door, two intermittent window wipers and washer, floor mat, cigarette lighter, ashtray, heater with defroster, storage box, hot/cool box, window lattice (right), and antenna
- Inclined dashboard
- Handrails for machine cab
- Instrument panel (angle adjustable) with electric display/monitor system with electrically-controlled throttle lever, electric service meter, gauges (coolant temp and fuel level), caution lights (electric charge, engine, oil pressure, and air cleaner clogging), indicator lights (engine preheating and swing lock light) level check light (coolant, engine oil, and hydraulic oil level), self-diagnostic system with trouble data memory
- Rearview mirrors, RH and LH
- Seat, fully adjustable with suspension

Hydraulic controls:

- Fully hydraulic, with Electronic Open Center Load Sensing (EOLSS) and engine speed sensing (pump and engine mutual control system)
- 1 gear pump for control circuit
- 2 axial piston motor for swing with single stage relief valve
- 1 axial piston motor per track for travel with counter balance valve
- 3 variable capacity piston pump
- 3 control valves, 5+4+4 spools (boom, arm, bucket, swing, and travel)
- Control levers, wrist control levers for arm, boom, bucket, and swing with PPC system
- Control levers and pedals for steering and travel with PPC system
- Oil cooler
- In-line filter

Drive and brake system:

- Brakes, hydraulic lock travel brakes, oil disc parking, and swing holding brake
- Hydrostatic, 2 travel speed system with planetary triple reduction final drive

Other standard equipment:

- Automatic swing holding brake
- Corrosion resister
- Counterweight, **38,580 lb** 17500 kg
- Horn, air
- Marks and plates, English
- One-touch engine oil drainage
- Paint, Komatsu standard
- PM tune-up service connector
- Remote greasing for radiator fan drive
- Travel alarm
- Wide catwalk and large handrails
- Vandalism protection locks



OPTIONAL EQUIPMENT

- Arms
 - 11'2" 3400 mm arm assembly
 - 11'2" 3400 mm SP arm assembly (std only)
 - 11'2" 3400 mm HD arm assembly (std only)
 - 14'9" 4500 mm arm assembly
 - 14'9" 4500 mm HD arm assembly (std only)
 - 18'6" 5600 mm arm assembly (std only)
- Boom
 - 29'10" 9100 mm
 - 25'9" 7800 mm SP boom
- Cab front full guard
- Grease gun, air pump
- Head guard (FOG)
- Revolving frame undercover (HD)
- Seat belt
- Shoes
 - 40" 1000 mm double grouser
 - 44" 1200 mm double grouser (LC-6 only)
- Track roller guards (full length)
- Track frame undercover
- Working lights, (2 on cab)


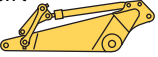
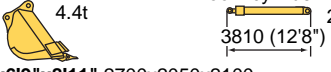


TRANSPORTATION GUIDE

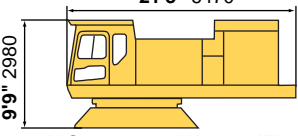
Posture for transportation (length X height X width) (1/2)

Four units for transportation (PC1100-6 STD spec.)

(1) Work equipment assembly **27.1 U.S. ton** 24.6t

<p>Boom+Arm cylinder 12.7 U.S. ton 11.5t</p>  <p>FWP01806</p> <p>31'1" x 4'10" x 9'6" 9475x1475x2895</p>
<p>Arm 6.3 U.S. ton 5.7t</p>  <p>FWP01807</p> <p>16'1" x 2'11" x 5'4" 4895x890x1625</p>
<p>Bucket 4.9 U.S. ton 4.4t Boom cylinder 2.6 U.S. ton 2.4t (total)</p>  <p>FWP01808</p> <p>8'10" x 6'9" x 8'11" 2700x2050x2100</p> <p>3810 (12'8")</p>

(2) Upper structure **34.1 U.S. ton** 30.9t



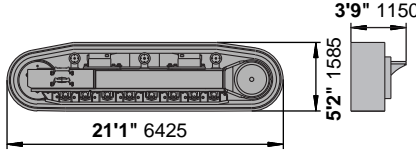
21'3" 6470

9'9" 2980

34.1 U.S. ton 30.9t Width **11'5" 3490**

FWP01809

(3) Undercarriage **33.6 U.S. ton** 30.5t



3'9" 1150

5'2" 1585

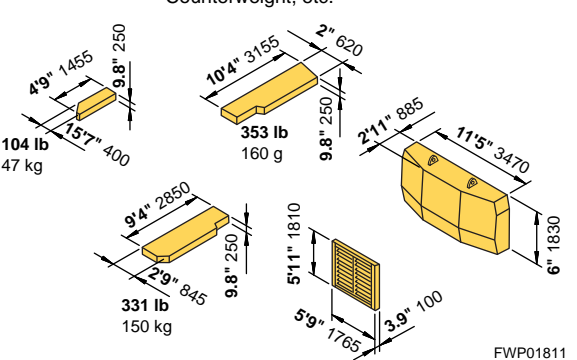
21'1" 6425

33.6 U.S. ton 30.5t Width **3'9" 1150**

FWP01810

(4) Others **19.6 U.S. ton** 17.8t

Counterweight, etc.



104 lb 47 kg

49" 1455

157" 400

9.8" 250

353 lb 160 g

104" 3155

2" 620

9.8" 250

211" 885

115" 3470

6" 1830

331 lb 150 kg

94" 2850

29" 845

9.8" 250

511" 1810

59" 1765

39" 100

FWP01811



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KOMATSU

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