

PC150-3

HYDRAULIC EXCAVATOR



Model shown may include optional equipment.

KOMATSU: The Quality is Standard.

- Two-mode selection system for high excavation efficiency.
- Komatsu OLSS system minimizes various types of hydraulic loss.
- Arm merge circuit shortens cycle time.
- Straight traveling assures safer lifting operation.
- Newly designed cab provides plenty of workspace and excellent visibility.
- Fuel-efficient Komatsu S6D95L direct-injection diesel engine.
- Monitoring system and full-open type machine covers.

Operating weight: 14700 kg (32,410 lb)

Bucket capacity (SAE heaped): 0.63 m³ (0.82 cu.yd)

Enhanced operator comfort and smooth controls maximize operating efficiency

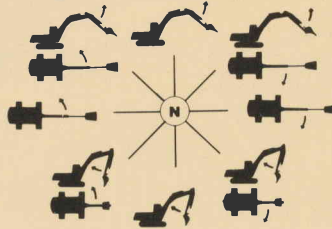
Human engineered cab: 940 mm (3'1") wide cab meets ISO standards as well as passes the world's strictest regulations. It provides ample work space, plus excellent visibility through the tinted glass window that not only softens strong sunshine but also increases the cooling efficiency of the optional air conditioner. Other features include: reclining seat with armrests and a pillow-type height-adjustable headrest, pull-up front glass window, and easy-to-clean floor.

Low-noise operation: Sophisticated OLSS hydraulics, quiet engine, closed engine room, and others—all help reduce operating noise to a low level.

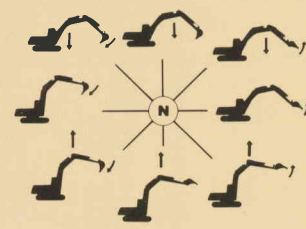
Smooth swing action is assured by control-valve-operated swing system. Swing starts and stops are always positive and smooth.



Swing and arm control (left lever)



Boom and bucket control (right lever)



Simple and easy maintenance requirements



Monitoring system not only allows fast daily checks but also keeps the operator constantly informed of any abnormality during operation.



Full-open type machine covers: Hinged hood and side covers allow quick access to internal components such as engine, hydraulic equipment, etc.

Wrist-control levers: Light-touch, short-stroke lever manipulation is assured by the proportional pressure control (PPC) system for smooth, responsive work-equipment control.

Travel/steering controls can be made with either the removable hand levers or the foot pedals, depending on operating conditions.

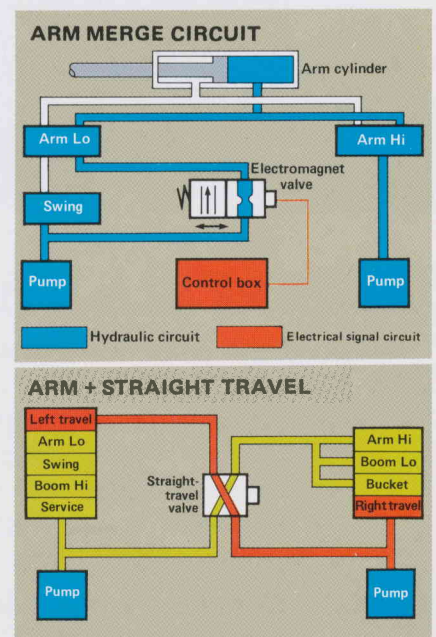
Advanced hydraulics assure smooth compound movements

Rational hydraulic system: The PC150-3 has an arm merge circuit for smooth compound bucket movement and high-speed bucket/arm action, resulting in shortened cycle time. This feature makes the PC150-3 one of the most productive excavators—especially in leveling and slope-finishing where frequent arm action is required.

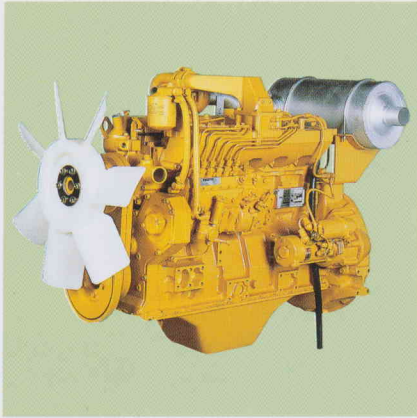
- When arm and swing actions occur simultaneously, oil normally used in the arm's "Lo" circuit shifts to the swing system for high-speed swing action.
- When only the arm is actuated, oil flow from two pumps is merged and sent to the arm circuit, accelerating arm speed.

Smooth compound travel and work-equipment movement: Thanks to the automatically controlled straight-traveling valve in the hydraulic system, swing and other work-equipment action can be made while the machine is trav-

eling in a straight line, making relocation or excavation in confined spaces easy and efficient. In addition, the arm can be used to pull the machine from soft terrain and to pull it up steep grades.



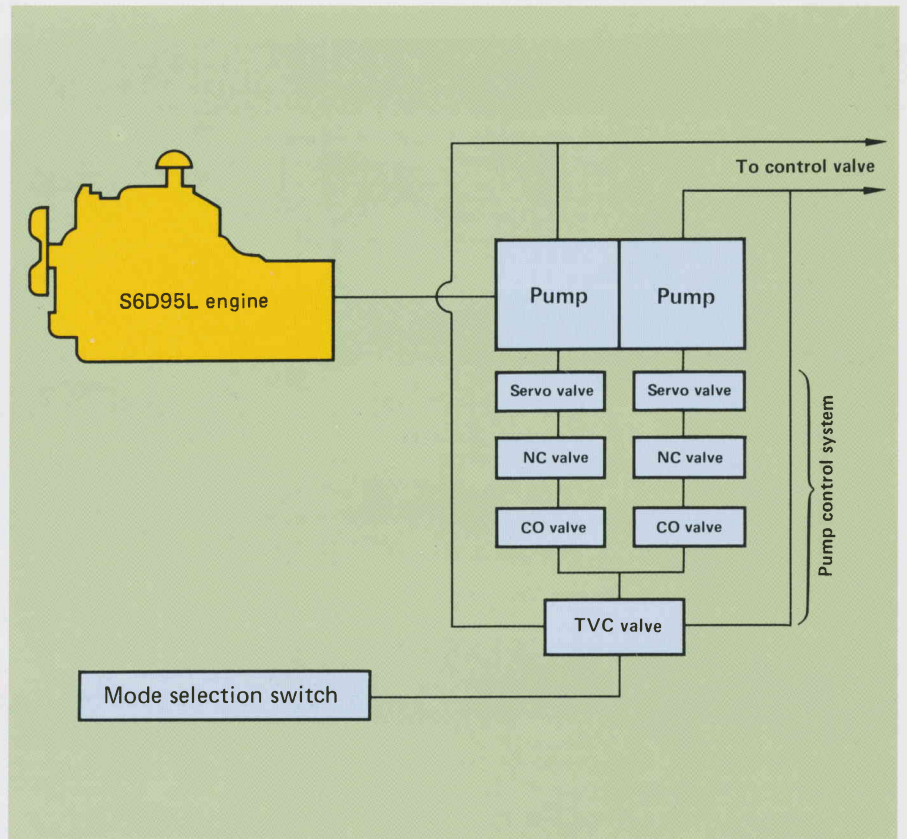
Low fuel consumption assures high operational economy



Komatsu S6D95L diesel engine with direct-injection system for reduced fuel consumption. Engine power is fully used thanks to the sophisticated power-efficient hydraulic system. The turbo-charger allows the S6D95L to attain high performance even on high-altitude jobsite.

OLSS (Open-center Load Sensing System) is built into hydraulic circuits as a hydraulic sub-system that reduces various types of hydraulic loss and realize full use of engine output. OLSS consists of NC (negative control) valves and CO (cut-off) valves. Depending on hydraulic oil flow and oil pressure, these valves control oil output from two piston pumps, minimizing the flow of unused oil.

• **Pump Neutral Control (PNC) and Pump Fine Control (PFC) functions:** When control levers are positioned in neutral or when they are precisely controlled, unnecessary oil flow is detected by the NC valve, so oil discharge volume from hydraulic pumps is reduced to a minimum.



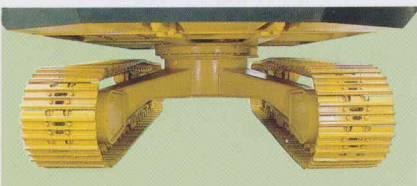
• **Cut-off (CO) function:** Whenever oil pressure is in relief condition during digging operation, unused relief oil may cause power loss. The CO valve detects this relief oil flow and accordingly reduces oil discharge volume from hydraulic pumps to a minimum.

Mode selection system: The mode selection switch determines pump driving torque in either two stages, STANDARD or LIGHT-DUTY mode. The best matched mode selection enhances operating efficiency.

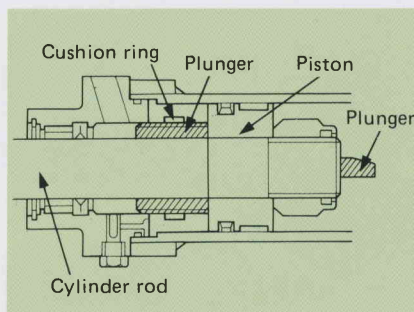
• **STANDARD mode** is selected for general digging/loading operations.

• **LIGHT-DUTY mode** makes it possible to maintain short cycle time while saving fuel. Choose this mode when the excavator is engaged in loading light materials, hoisting light loads, or slope-finishing work.

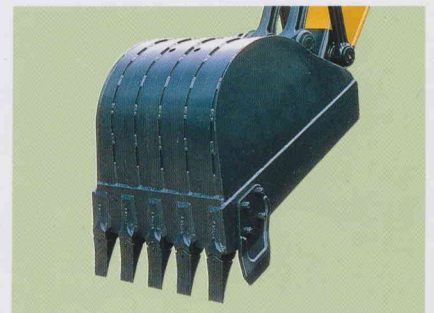
High durability reduces down-time for increased productivity



Travel motors are the in-shoe type, with hydraulic piping built into the X-leg type center frame; this prevents damage due to external obstructions.



Cushion mechanism adopted in the arm cylinder absorbs shocks due to arm retraction or extension; this adds to operating comfort and extends component life.



Backhoe bucket is made of high-tensile-strength steel for maximum rigidity to withstand wear. Side cutters are optionally available.

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:

99 HP (74 kW) at 2200 RPM (SAE J1349)
100 PS at 2200 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/110 Ah batteries.



HYDRAULIC SYSTEM

Two variable-capacity piston pumps with Open-center Load Sensing System (OLSS).

Hydraulic pumps

- Two variable-capacity piston pumps power boom, arm, bucket, swing and travel circuits.
Capacity (discharge flow) at engine 2200 RPM
Maximum flow 2 x 144 ltr. (38 U.S. gal)/min.
- One gear pump powers pilot control circuits.
Capacity (discharge flow) at engine 2200 RPM 55 ltr. (14.5 U.S. gal)/min. at 30 kg/cm² (430 PSI/2.94 MPa)

Hydraulic motors

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

Relief valve setting

Implement circuits 320 kg/cm² (4,550 PSI/31.4 MPa)
Swing circuit 235 kg/cm² (3,340 PSI/23.0 MPa)
Pilot circuits 30 kg/cm² (430 PSI/ 2.9 MPa)

Control valves

4-spool and 5-spool valves with a service valve.

Hydraulic cylinders

Cylinder	Numbers	Bore x stroke
Boom	2	110 mm x 1150 mm (4.33" x 45.3")
Arm	1	120 mm x 1280 mm (4.72" x 50.4")
Bucket	1	100 mm x 1025 mm (3.94" x 40.4")



STEERING

Steering/traveling controls are activated with either hand levers or foot pedals. Pushing both levers (or pedals) moves machine forward. Pulling them back makes machine go into reverse. Setting one lever (or pedal) 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 10500 kg (23,150 lb/102.7 kN)
Max. travel speed 3.9 km/h (2.4 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. Spring applied and hydraulically released oil disc parking brakes are built into each travel motor.



SWING SYSTEM

Hydraulic motor-driven through spur and planetary 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 12 RPM
Tail swing radius 2445 mm (8')
Min. swing radius 3330 mm (10'11")
(work equipment, fully retracted)



UNDERCARRIAGE

X-leg type center frame is integrally welded with reinforced box-section track frames. Sealed track. Lubricated rollers and idlers. Hydraulic track adjusters with shock absorbing springs. Assembled track-type tractor shoes with triple grousers.

Shoe width 510 mm (20")
Grouser height 25 mm (1")
Number of shoes 44 each side
Number of carrier rollers 1 each side
Number of track rollers 6 each side
Ground pressure 0.46 kg/cm² (6.54 PSI/45.1 kPa)



COOLANT & LUBRICANT CAPACITY (refilling)

	Liter	U.S. gallon
Fuel tank	230	60.8
Radiator	18.5	4.9
Engine	10.5	2.8
Final drive, each side	2.5	0.7
Swing drive	7.0	1.8
Hydraulic tank	134	35.4



OPERATING WEIGHT (approximate)

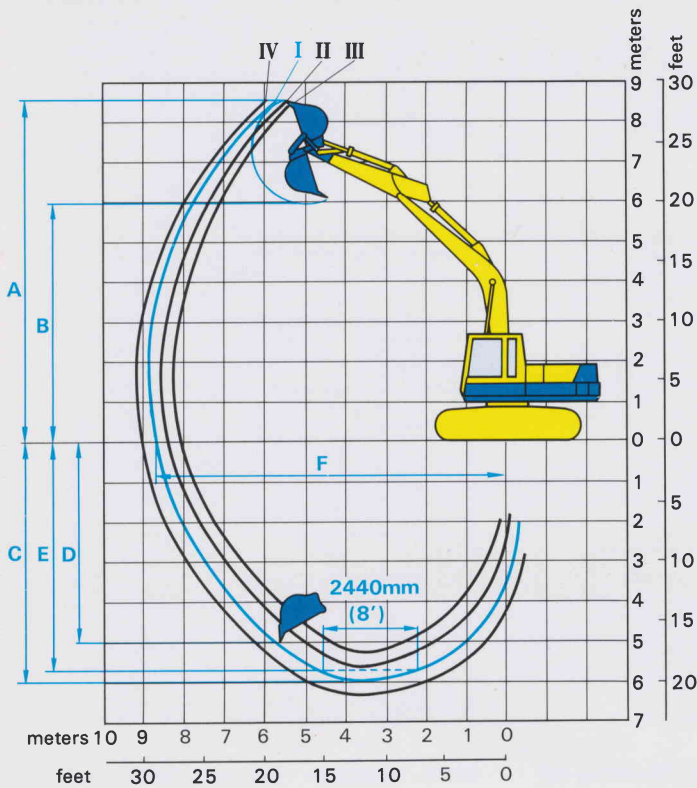
Operating weight including 5150 mm (16'11") one-piece boom, 2610 mm (8'7") arm, SAE heaped 0.63m³ (0.82 cu.yd) backhoe bucket, operator, lubricant, coolant and full fuel tank and the standard equipment 14700 kg (32,410 lb)

STANDARD EQUIPMENT

24 V/5.5 kW electric starting motor. 24 V/25 A alternator. Dry-type air cleaner. PPC hydraulic control. OLSS system. 510 mm (20") triple-grouser shoes. Hydraulic track adjusters. Full hydrostatic drive. Suction fan. 2 x 12 V/110 Ah batteries. Front lights (2). Bolt-on sprocket. Counterweight. All-weather steel cab (with safety glass windows, pull-up type front window, lockable door, window wiper, electric horn, room lamp and adjustable pillow-type seat with reclining device). Monitor system. Air cleaner service indicator. Fuel level sight gauge. Hydraulic oil level sight gauge.



WORKING RANGE



Arm length	I 2610 mm (8'7")	II 2250 mm (7'5")
A Max. digging height	8.50 m (27'11")	8.33 m (27' 4")
B Max. dumping height	5.95 m (19' 6")	5.78 m (19')
C Max. digging depth	6.05 m (19'10")	5.70 m (18' 8")
D Max. vertical wall digging depth	5.09 m (16' 8")	4.55 m (14'11")
E Max. digging depth of cut for 2440 mm (8') level bottom	5.82 m (19' 1")	5.43 m (17'10")
F Max. digging reach at ground level	8.80 m (28'10")	8.44 m (27' 8")
Bucket digging force	8500 kg (18,740 lb/83 kN)	8500 kg (18,740 lb/83 kN)
Arm crowd force	6600 kg (14,550 lb/65 kN)	7400 kg (16,310 lb/73 kN)

Arm length	III 1850 mm (6'1")	IV 2900 mm (9'6")
A Max. digging height	8.20 m (26'11")	8.70 m (28' 7")
B Max. dumping height	5.62 m (18' 5")	6.13 m (20' 1")
C Max. digging depth	5.30 m (17'5")	6.34 m (20'10")
D Max. vertical wall digging depth	4.37 m (14' 4")	5.35 m (17' 7")
E Max. digging depth of cut for 2440 mm (8') level bottom	5.02 m (16' 6")	6.13 m (20' 1")
F Max. digging reach at ground level	8.14 m (26' 8")	9.10 m (29'10")
Bucket digging force	8500 kg (18,740 lb/83 kN)	8500 kg (18,740 lb/83 kN)
Arm crowd force	9200 kg (20,280 lb/90 kN)	6200 kg (13,670 lb/61 kN)

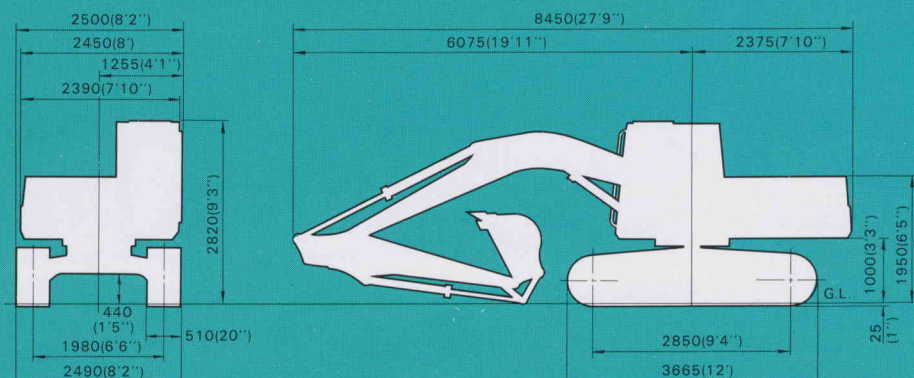
BACKHOE BUCKETS

Bucket capacity : m ³ (yd ³)			
JIS, CECE heaped	0.55 (0.72)	0.50 (0.65)	0.65 (0.85)
SAE, PCSA heaped	0.63 (0.82)	0.57 (0.75)	0.75 (0.98)
Struck	0.46 (0.60)	0.42 (0.55)	0.54 (0.71)
Bucket width : mm (in)			
without side cutters	960 (37.8)	900 (35.4)	1100 (43.3)
with side cutters	1085 (42.7)	1025 (40.4)	—
Bucket weight : kg (lb)			
(with teeth)			
without side cutters	443 (977)	415 (915)	450 (992)
with side cutters	465 (1,025)	435 (959)	—
No. of bucket teeth	5	4	5
Bucket type	Standard bucket	Narrow bucket	Light-duty bucket



DIMENSIONS

Unit: mm (ft.in)



With 5150 mm (16'11") one-piece boom, 2610 mm (8'7") arm, SAE heaped 0.63 m³ (0.82 cu.yd) backhoe bucket.

ATTACHMENTS

(Not available in certain areas.)

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

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

Ripper bucket for hard, rocky ground. 0.34 m³ (0.44 cu.yd) capacity. 880 mm (34.6") width.

Clamshell bucket is recommended for vertical digging. 0.4 m³ (0.52 cu.yd) capacity. 740 mm (29.1") width.

Rippers. Choice of single-shank or three-shank ripper. For rock-digging and crushing, hard-soil digging, pavement-removal work, etc. (Bucket capacity : JIS heaped)

Track shoes: Triple-grouser shoes for all applications. Swamp shoes (circular-arc shoes) for muddy or soft terrain.

Type of shoes	Ground pressure kg/cm ² (PSI/kPa)
720 mm (28") swamp shoes	0.33 (4.69/32.4)
610 mm (24") triple-grouser shoes	0.39 (5.55/38.2)
710 mm (28") triple-grouser shoes	0.34 (4.84/33.3)
810 mm (32") triple-grouser shoes	0.30 (4.27/29.4)
460 mm (18") triple-grouser shoes	0.51 (7.25/50.0)

2610 mm (8'7") standard arm is recommended for general digging operation. Weight: 476 kg (1,049 lb)

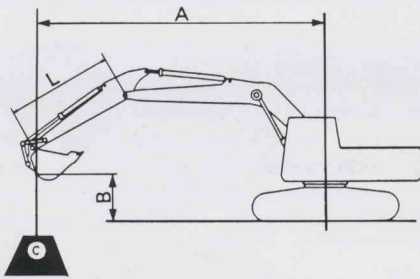
2250 mm (7'5") short arm is recommended for heavy-duty excavation. Weight: 443 kg (977 lb)

1850 mm (6'1") extra-short arm is recommended for extra heavy-duty excavation. Weight: 295 kg (650 lb)

2900 mm (9'6") long arm is recommended for light-duty excavation. Weight: 520 kg (1,146 lb)

Other options: Windshield washer. Cooler for cab. Air conditioner. FOPS. Head guard. Water separator. Under cover. Tool kit and ordinary spare parts.

LIFTING CAPACITY





L: Arm length 2610 mm (8'7")

A: Reach from swing center

B: Bucket hook height

C: Lifting capacity

Cf:  Rating over front

Cs:  Rating over side

⊗: Rating at maximum reach

Unit : kg (lb)

B \ A		A					
		MAX. ⊗	7.5 m (25')	6.0 m (20')	4.5 m (15')	3.0 m (10')	
6.0 m (20')	Cf	*1950 (4300)		*2500 (5600)			
	Cs	*1950 (4300)		2150 (4700)			
4.5 m (15')	Cf	*1900 (4200)		3350 (7400)			
	Cs	1500 (3300)		2100 (4600)			
3.0 m (10')	Cf	*2000 (4400)		3200 (7100)	*5150 (11300)	*8100 (17900)	
	Cs	1300 (2800)		2000 (4400)	3250 (7100)	6100 (13500)	
1.5 m (5')	Cf	2050 (4500)	2100 (4600)	3050 (6800)	4900 (10800)	*4100 (9000)	
	Cs	1200 (2600)	1200 (2700)	1850 (4100)	2900 (6400)	*4100 (9000)	
0 m (0')	Cf	2100 (4700)		2950 (6500)	4650 (10300)	*5350 (11800)	
	Cs	1200 (2700)		1750 (3800)	2750 (6000)	5050 (11200)	
-1.5 m (-5')	Cf	2400 (5300)		2900 (6400)	4600 (10100)	*8500 (18800)	
	Cs	1400 (3100)		1700 (3800)	2700 (5900)	5100 (11300)	
-3.0 m (-10')	Cf	3100 (6800)			4650 (10300)	*7800 (17200)	
	Cs	1850 (4000)			2750 (6000)	5250 (11600)	
-4.5 m (-15')	Cf	*3350 (7400)				*4750 (10400)	
	Cs	3350 (7400)				*4750 (10400)	

* 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.

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.

KOMATSU

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