

PC400LC-3

HYDRAULIC EXCAVATOR



Model shown may include optional equipment.

KOMATSU NEW PC SERIES

- A mode selection system for highly efficient work.
- Komatsu OLSS hydraulic system minimizes various types of hydraulic loss.
- A newly designed operator's compartment provides plenty of workspace and excellent visibility.
- An efficient hydraulic system for high productivity.
- Variable track gauge for easy shipment.
- Fuel-efficient Komatsu S6D125 direct-injection diesel engine.
- Monitoring system and full-open machine covers facilitate maintenance.
- Long tracks assure high machine stability for heavy excavation.

Operating weight: 42000 kg (92,590 lb)

Bucket capacity (SAE heaped): 1.30 ~ 2.24 m³ (1.70 ~ 2.93 cu.yd)

A newly designed operator's compartment provides plenty of workspace and excellent visibility

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.

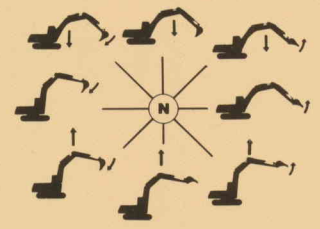
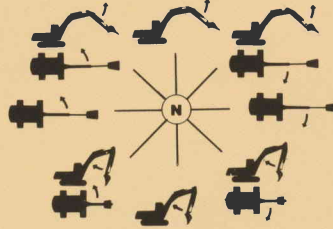
Low-noise operation: Sophisticated OLSS hydraulics, quiet engine, closed engine room, and others—all help reduce operating noise to a low level.

(Floor mat is optionally available.)



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.

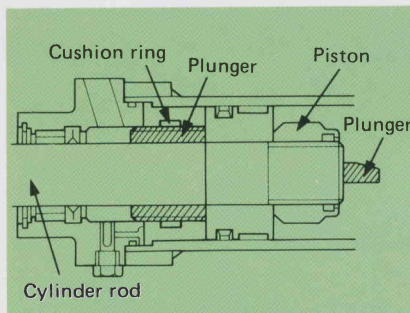


Full-open type machine covers: Hinged hood and side covers allow quick access to internal components such as engine, hydraulic equipment, etc.

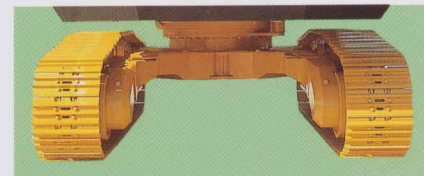
Wrist-control levers: Light-touch, short-stroke lever manipulation is assured by the proportional pressure control (PPC) system for smooth, responsive work-equipment control.

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

High durability reduces downtime for increased productivity



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



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. **Variable track gauge:** For shipping convenience, the track gauge can be reduced from 2.87 m (9'5") to 2.38 m (7'10").



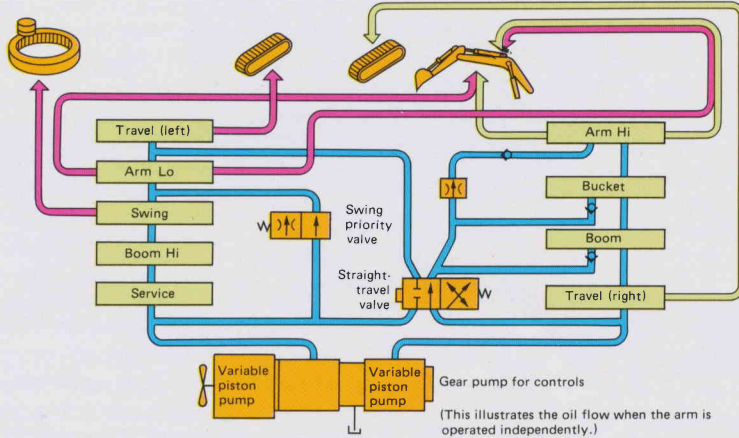
Long 4450 mm (14'7") tracks and wide shoes keep the PC400LC-3 stable as it carries out heavy excavation work on rough terrain. Its low ground pressure enables it to maneuver in relatively soft terrain, thus diversifying applications.

Advanced hydraulics assure smooth compound movements

Arm merge circuit: The PC400LC-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 PC400LC-3 one of the most

productive excavators—especially in leveling and slope-finishing where frequent arm action is required.

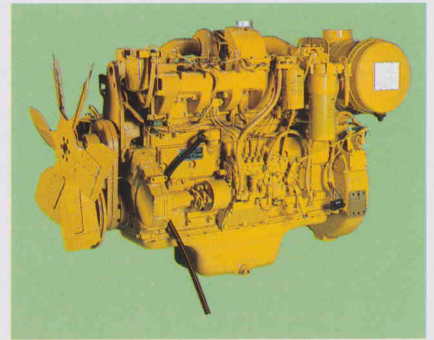
- When arm and swing actions occur simultaneously, oil normally used in the arm's "Lo" circuit shifts to the swing system for high-speed swing action.
- When only the arm is actuated, oil flow from two pumps is merged and sent to the arm circuit, accelerating arm speed.



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

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 traveling in a straight line, making relocation or excavation in confined spaces easy and efficient.

Two-stage travel speed: Thanks to employment of variable-displacement travel motors, travel speed can be shifted into two stages; high or low depending on the traveling conditions.



Komatsu S6D125 diesel engine with direct-injection system for reduced fuel consumption. Engine power is fully used thanks to the sophisticated power-efficient hydraulic system. The turbocharger allows the S6D125 to attain high performance even on high-altitude jobsite.

Low fuel consumption assures high operational economy

OLSS (Open-center Load Sensing System) is built into hydraulic circuits as a hydraulic sub-system that reduces various types of hydraulic loss and realizes full use of engine output. OLSS consists of NC (negative control) valves, CO (cut-off) valves, a TVC (torque variable control) valve. 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.

• **Torque Variable Control (TVC) function:** In addition to providing the torque constant control function, the TVC allows the load imposed on the pumps to be set to either the STANDARD or LIGHT-DUTY mode with the mode selector switch.



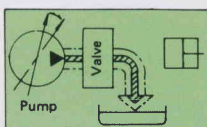
Mode selection system: The mode selection switch determines pump driving torque in either two stages, STANDARD or LIGHT-DUTY mode. The best matched mode selection enhances operating efficiency.

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

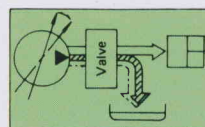
• **LIGHT-DUTY mode** makes it possible to maintain short cycle time while saving fuel. Choose this mode when the excavator is engaged in loading light materials, hoisting light loads, or slope-finishing work.

For ordinary work
For work giving priority to fuel savings

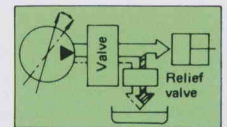
Kind of work \ Kind of soil	Kind of work			
	Digging	Loading	Finishing	Back filling and leveling
Soft clayey soil	S L	S L	S L	L L
Loose sandy soil	S L	S L	S L	L L
Compact sandy soil	S -	S L	-	L L
Gravel	S -	S L	-	S L
Compact soil containing pebble	S -	S L	-	S L
Soft rock	S -	-	-	-



Pump Neutral Control (PNC) function [with NC valve]



Pump Fine Control (PFC) function [with NC valve]



Cut-Off (CO) function [with CO valve]

SPECIFICATIONS



ENGINE

Komatsu S6D125, 4-cycle, water-cooled turbocharged diesel engine. 6 cylinders, 125 mm (4.92") bore x 150 mm (5.91") stroke and 11.05 ltr. (674 cu.in) piston displacement.

Flywheel horsepower:

266 HP (199 kW) at 2000 RPM (SAE J1349)
270 PS at 2000 RPM (DIN 6270 NET)

Direct-injection fuel system. All-speed mechanical governor. Force-lubrication driven by trochoid pump. Full-flow filter for lube purification. Dry-type air cleaner with automatic dust evacuator and dust indicator. 24 V/7.5 kW electrical starter motor. 24 V/25 A alternator. 2 x 12 V/150 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 2000 RPM
Maximum flow 2 x 300 ltr. (79.3 U.S. gal)/min.
- One gear pump powers pilot control circuits.
Capacity (discharge flow) at engine 2000 RPM
. 88 ltr. (23.2 U.S. gal)/min.

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)
Travel circuits 320 kg/cm² (5,000 PSI/34.3 MPa)
Swing circuits 280 kg/cm² (4,000 PSI/27.4 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	160 mm x 1565 mm (6.30" x 61.6")
Arm	1	180 mm x 1895 mm (7.09" x 74.6")
Bucket	1	160 mm x 1270 mm (6.30" x 50.0")



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 differential planetary eccentric single-reduction gear to track. Travel motors are neatly installed within track shoe's width (in-shoe design).
Max. drawbar pull 31000 kg (68,340 lb/304 kN)
Max. travel speed: High 4.3 km/h (2.7 MPH)
Low 2.9 km/h (1.8 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. Mechanical brake and pin-lock type swing lock are provided. Swing speed is proportional to swing control lever stroke.

Swing speed 9.0 RPM
Tail swing radius 3430 mm (11'3")
Min. swing radius 4710 mm (15'5")
(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 710 mm (28")
Grouser height 36 mm (1.4")
Number of shoes 53 each side
Number of carrier rollers 2 each side
Number of track rollers 8 each side
Ground pressure 0.61 kg/cm² (8.7 PSI/60 kPa)



COOLANT & LUBRICANT CAPACITY (refilling)

	Liter	U.S. gallon
Fuel tank	510	134.7
Radiator	55	14.5
Engine	28	7.4
Final drive, each side	11.5	3.0
Swing drive	12.0	3.2
Hydraulic tank	225	59.4



OPERATING WEIGHT (approximate)

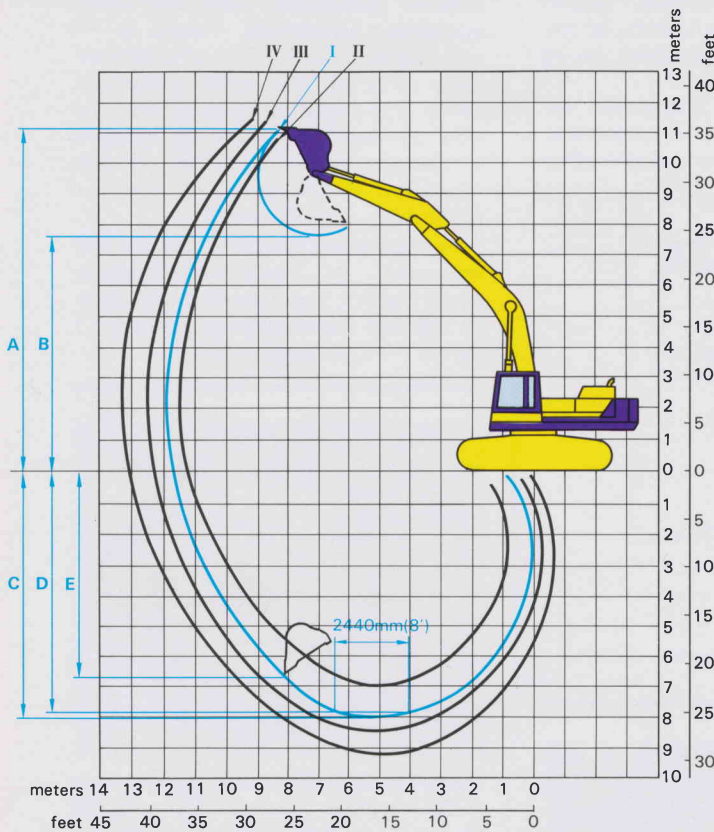
Operating weight including 7060 mm (23'2") one-piece boom, 3355 mm (11') arm, SAE heaped 1.8 m³ (2.4 cu.yd) backhoe bucket, operator, lubricant, coolant and full fuel tank 42000 kg (92,590 lb)

STANDARD EQUIPMENT

24 V/7.5 kW electric starting motor. 25 A alternator. Dry-type air cleaner. PPC hydraulic control. OLSS system. 710 mm (28") triple-grouser shoes. Hydraulic track adjusters. Full hydrostatic drive. Suction fan. 2 x 12 V/150 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. Tool kit and ordinary spare parts.



WORKING RANGE



Arm length		I. 3355 mm (11')	II 2900 mm (9'6")
A	Max. digging height	10.86 m (35'8")	10.23 m (33'7")
B	Max. dumping height	7.52 m (24'8")	7.04 m (23'1")
C	Max. digging depth	7.73 m (25'4")	7.28 m (23'11")
D	Max. vertical wall digging depth	6.56 m (21'6")	5.40 m (17'9")
E	Max. digging depth of cut for 2440 mm (8') level bottom	7.60 m (24'11")	7.09 m (23'3")
F	Max. digging reach at ground level	11.80 m (38'9")	11.22 m (36'9")
Bucket digging force		20500 kg (45,190 lb/201 kN)	20500 kg (45,190 lb/201 kN)
Arm crowd force		17200 kg (37,920 lb/169 kN)	20500 kg (45,190 lb/201 kN)

Arm length		III. 4000 mm (13'1")	IV. 4810 mm (15'9")
A	Max. digging height	10.96 m (36')	11.42 m (37'6")
B	Max. dumping height	7.65 m (25'1")	8.08 m (26'6")
C	Max. digging depth	8.38 m (27'6")	9.19 m (30'2")
D	Max. vertical wall digging depth	6.99 m (22'11")	7.94 m (26'1")
E	Max. digging depth of cut for 2440 mm (8') level bottom	8.25 m (27'1")	9.08 m (29'9")
F	Max. digging reach at ground level	12.35 m (40'6")	13.17 m (43'3")
Bucket digging force		20500 kg (45,190 lb/201 kN)	20500 kg (45,190 lb/201 kN)
Arm crowd force		15500 kg (34,170 lb/152 kN)	13500 kg (29,760 lb/132 kN)

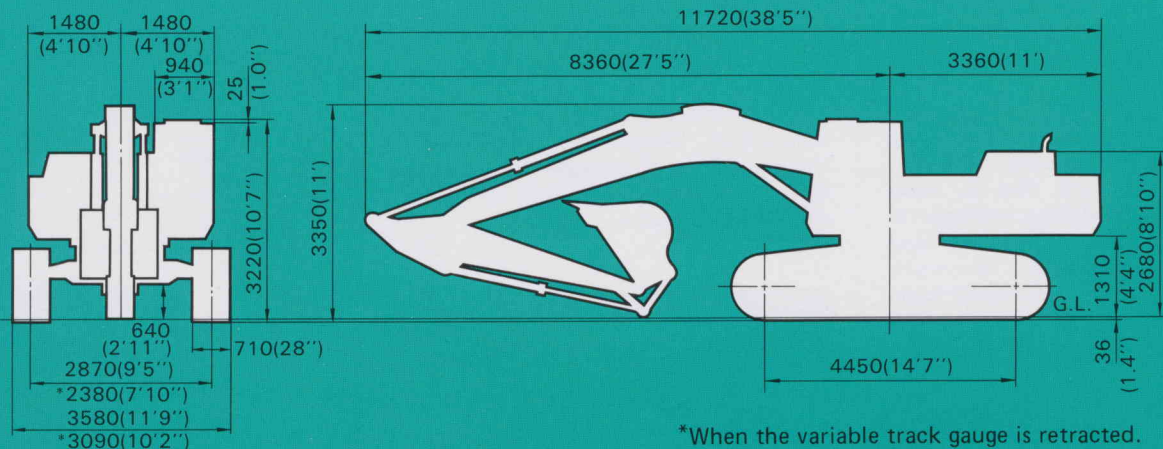
BACKHOE BUCKETS

Bucket capacity : m ³ (yd ³)					
JIS, CECE heaped	1.20 (1.57)	1.40 (1.83)	1.60 (2.09)	1.80 (2.35)	2.00 (2.62)
SAE, PCSA heaped	1.30 (1.70)	1.54 (2.01)	1.80 (2.35)	2.00 (2.62)	2.24 (2.93)
Struck	0.95 (1.24)	1.10 (1.44)	1.30 (1.70)	1.40 (1.83)	1.55 (2.03)
Bucket width : mm (in)					
without side cutters	1080 (42.5)	1225 (48.2)	1370 (53.9)	1515 (59.6)	1660 (65.4)
with side cutters	1230 (48.4)	1375 (54.1)	1520 (59.8)	1665 (65.6)	—
Bucket weight : kg (lb) (with teeth)					
without side cutters	951 (2,097)	1067 (2,352)	1280 (2,822)	1266 (2,791)	1340 (2,954)
with side cutters	1012 (2,231)	1128 (2,487)	1340 (2,954)	1327 (2,926)	—
No. of bucket teeth	4	4	5	5	5
Bucket type	Narrow bucket		Std. bucket	Light-duty bucket	



DIMENSIONS

Unit: mm (ft.in)



*When the variable track gauge is retracted.
With 7060 mm (23'2") one-piece boom, 3355 mm (11') arm, SAE heaped 1.8 m³ (2.4 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.

Rock bucket for hard ground. 1.60 m³ (2.01 cu.yd) capacity. 1350 mm (53.1") width.

Ripper bucket for hard, rocky ground. 1.16 m³ (1.52 cu.yd) capacity. 1250 mm (49.2") width.

Ripper (single-shank): For rock-digging and crushing, hard-soil digging, pavement-removal work, etc.

(Bucket capacity: SAE heaped)

Track shoes: Triple-grouser shoes for all applications.

Type of shoes	Ground pressure kg/cm ² (PSI/kPa)
610 mm (24") triple-grouser shoes	0.71 (10.0/69.1)
760 mm (30") triple-grouser shoes	0.58 (8.25/56.5)
810 mm (32") triple-grouser shoes	0.54 (7.68/53.3)
910 mm (36") triple-grouser shoes	0.49 (6.97/48.0)

3355 mm (11') standard arm is recommended for general digging operation.

2900 mm (9'6") short arm is recommended for extra heavy-duty excavation. Weight: 1114 kg (2,460 lb)

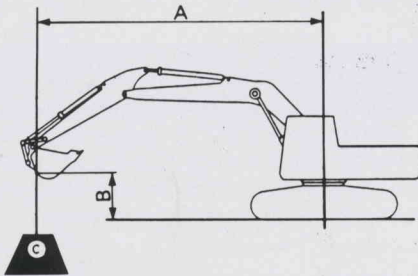
4000 mm (13'1") semi-long arm is recommended for light-duty excavation. Weight: 1436 kg (3,170 lb)

4810 mm (15'9") long arm for attaining extra reach. Weight: 1646 kg (3,630 lb)

Other options: Windshield washer. Cooler for cab. Air conditioner. FOPS. Head guard. Water separator. Fuel filter. Oil-suspension seat. Seatbelt. Window net. Vandalism protection. Radio.

LIFTING CAPACITY

[With 3355 mm (11') standard arm, SAE heaped 1.8 m³ (2.4 cu.yd) backhoe bucket and 710 mm (28") triple-grouser shoes]



- A: Reach from swing centerline
- B: Bucket hook height
- C: Lifting capacity
- F: Rating over front
- S: Rating over side or 360 degrees
- ⊗: Rating at maximum reach

Unit : kg (lb)

A m (ft) B m (ft)	⊗	9.0 (30)	7.5 (25)	6.0 (20)	4.5 (15)	3.0 (10)
6.0 (20)	F *4900 (10900)	*7150 (15700)	*7800 (17200)			
	S *4900 (10900)	5850 (12900)	*7800 (17200)			
4.5 (15)	F *5100 (11200)	*7500 (16600)	*8550 (18900)	*10350 (22800)		
	S 4550 (10100)	5700 (12600)	7850 (17400)	10350 (22800)		
3.0 (10)	F *5400 (12000)	*8000 (17600)	*9450 (20900)	*12000 (26400)	*17000 (37500)	
	S 4250 (9400)	5450 (12100)	7450 (16400)	10600 (23400)	16600 (36600)	
1.5 (5)	F *5950 (13200)	*8400 (18500)	*10250 (22600)	*13300 (29300)	*18050 (39800)	
	S 4100 (9100)	5250 (11600)	7050 (15600)	9950 (21900)	15350 (33900)	
0.0 (0)	F *6800 (15000)	*8650 (19100)	*10700 (23600)	*14000 (30800)	*17800 (39300)	
	S 4200 (9200)	5100 (11200)	6800 (14900)	9500 (21000)	14850 (32800)	
-1.5 (-5)	F *7650 (16900)	*8500 (18800)	*10750 (23700)	*13900 (30700)	*18850 (41500)	*11850 (26200)
	S 4500 (9900)	5000 (11000)	6650 (14600)	9350 (20600)	14800 (32600)	*11850 (26200)
-3.0 (-10)	F *7800 (17200)		*10100 (22300)	*13100 (28900)	*17250 (38100)	*17600 (38800)
	S 5100 (11300)		6650 (14600)	9350 (20600)	14950 (32900)	*17600 (38800)
-4.5 (-15)	F *7750 (17100)		*8450 (18600)	*11250 (24800)	*14650 (32300)	*19100 (42100)
	S 6400 (14100)		6800 (15000)	9550 (21100)	*14650 (32300)	*19100 (42100)
-6.0 (-20)	F *7050 (15600)			*7550 (16600)	*10250 (22500)	
	S *7050 (15600)			*7550 (16600)	*10250 (22500)	

* 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.

The Ordinary Spare Parts and Tool Kit are option.

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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