

KOMATSU®

PC3000 Super Shovel

OPERATING WEIGHT
250–258 ton **551,500–569,000 lb**

SHOVEL CAPACITY
15 m³ **19.5 yd³ SAE 2:1 heaped**

BACKHOE CAPACITY
15 m³ **19.5 yd³ SAE 1:1 heaped**



HYDRAULIC SHOVEL

PC3000

PC3000 Super Shovel

WALK-AROUND

Komatsu-integrated design for best value

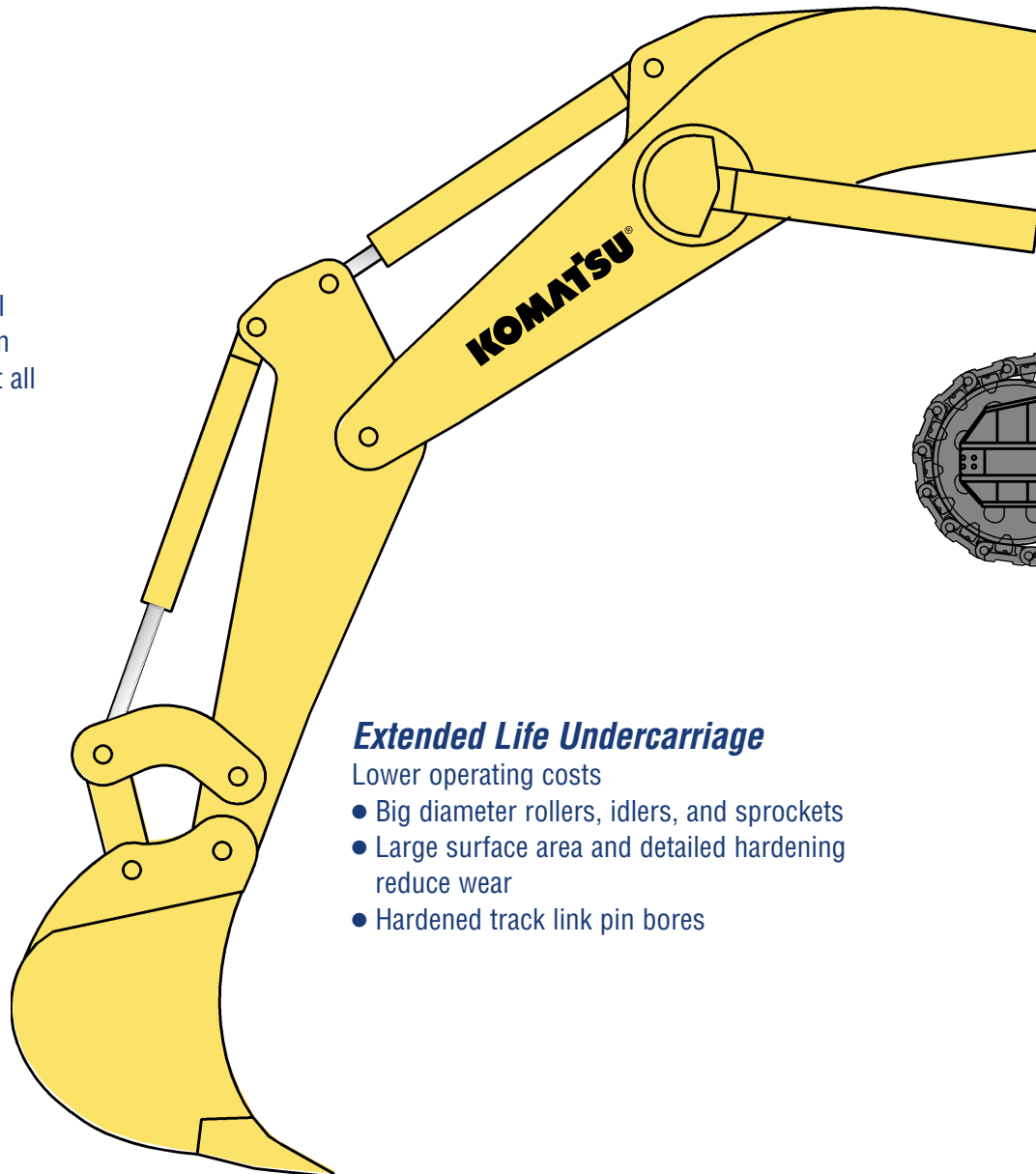
Combining high production, easy maintenance, and extended reliability.

- In-house experience and quality control confirmed by ISO 9001 certification
- Robotic and numerically controlled machine tools ensure consistent quality
- Continuous high investment in manufacturing tools, control, and personnel skills

Sustained High Production

Designed for more tons per hour

- Powerful digging forces
- Ease of bucket filling
- Proven attachment design
- All cylinders mounted under shovel attachment for additional protection
- Buckets and Wear Packages to suit all densities and ground conditions



Extended Life Undercarriage

Lower operating costs

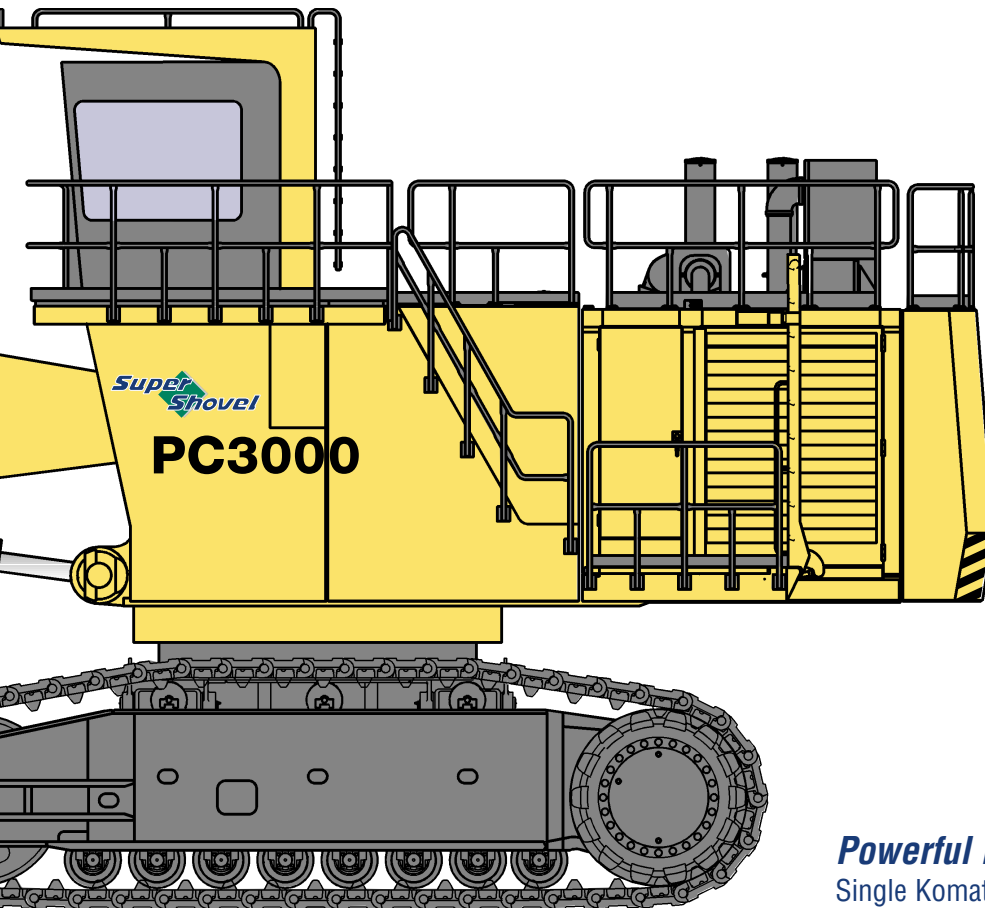
- Big diameter rollers, idlers, and sprockets
- Large surface area and detailed hardening reduce wear
- Hardened track link pin bores

Matched for
85 to 150 ton
trucks

SHOVEL AND BACKHOE
BUCKET CAPACITY
15 m³ 19.5 yd³

Operator Comfort

- Comprehensive climate control with pressurized filtered air ventilation and air conditioning
- High specification multi-adjustable suspension seat for full shift comfort
- Noise and heat insulated cabin with ISO 3449 FOPS structure
- Well elevated giving good all round view



Data Monitoring

- ETM electronic data monitor is standard
- Fault warning immediately alerts operator
- Automatic engine shut-down for critical malfunctions
- Failure summary and analysis can be down-loaded to an outside data base

Powerful Diesel Engine

Single Komatsu SSA12V159

- Rated 940 kW **1260 HP**, at 1800 rpm
- Low engine emission levels meet EPA Tier 1

Time Saving Options:

- **Centinel** engine oil management
- **Reserve** engine oil supply system
- **Eliminator** oil filter system

Preventative Maintenance

Simple, common-sense design provides quick easy access to all major components.

- Generous walk-through gangways around the power train and throughout the platform
- Enclosed, internally lit, engine house
- Automatic central lubrication
- Swing-out hydraulic oil coolers enables complete and regular service
- Ground-level access to hydraulically powered swing-down service arm with Wiggins connections

SPECIFICATIONS



DIESEL DRIVE

Model	Komatsu SSA12V159
Type	4-cycle, water-cooled, direct injection
Aspiration	Turbocharged and aftercooled
Number of cylinders	12
Rated power (SAE 1995/J1349)	940 kW 1260 HP @ 1800 rpm
Governor	All-speed, electronic

*Optional engine oil management system:

The integrated engine oil and filter system combining the oil stabilizing systems, Reserve and Centinel, with the Eliminator self cleaning oil filter extends, with oil analysis, the oil change interval to 4000 hours.



ELECTRIC SYSTEM

System	24 V
Batteries (series/parallel)	4 x 12 V
Alternator	100 A
Standard working lights	3 x 200 W halogen
Standard service lights	7 lights

*Optional lighting upon request



UNDERCARRIAGE

Undercarriage consists of one center carbody and two track frames, each attached by four large diameter hardened pins.

Center frame	H-type
Track frame	Steel box-section



CRAWLER ASSEMBLY

Track adjustment	Automatic hydraulic type
Number of shoes	46 each side
Number of top rollers	3 each side
Number of bottom rollers	8 each side



TRAVEL AND BRAKE SYSTEMS

Travel control	2 foot pedals
Gradeability	Up to 70%
Travel speed (maximum)	2.4 km/h 1.5 mph
Service brake	Hydraulic brake
Parking brake	Wet, multiple-disc



SWING SYSTEM

Hydraulic motors and drives	1
Swing brake, service	Hydraulic brake
Swing brake, parking	Wet, multiple-disc
Swing ring teeth	External
Swing speed (maximum)	4.6 rpm



ELECTRIC DRIVE

Type	Squirrel-cage induction motor
Power output	900 kW
Voltage	6600 V*
Amperage (approximate)	105 A
Frequency (standard)	50 Hz @ 1500 rpm
Optional frequency	60 Hz @ 1800 rpm

*Other voltages available on request



HYDRAULIC SYSTEM

The power train consists of one main drive. Diesel engine or electric motor can be supplied. One gearbox drives three identical pumps which draw hydraulic oil from an unpressurized hydraulic tank. Open circuit hydraulics provide maximum cooling and filtering efficiency.

Main hydraulic pumps	3 x 900 ltr/min	3 x 238 U.S. gal/min
Relief valve setting	310 bar	4,495 psi
Swing flow rate	800 ltr/min	211 U.S. gal/min
High pressure in line filters, one per pump located at the valve blocks	200 microns	

Full-flow return line filters (4 double) at head of hydraulic tank	10 microns
--	------------

The three-circuit system features a load-limiting governor with oil delivery summation to the working circuits and incorporates pressure cut-off control. Hydropilot prioritizes hydraulic flow giving smooth hydraulic response, simple hydraulic system layout, and a reduced number of components.



COOLING SYSTEM

The high capacity engine radiator is cooled by a mechanically driven fan for superior cooling efficiency and requires little maintenance. The hydraulic system includes two large swing-out vertical air-to-oil hydraulic coolers with temperature-regulated hydraulically driven fan.



AUTOMATIC CENTRALIZED LUBRICATION

Two hydraulically powered Lincoln single line automatic lubrication systems are provided as standard, complete with time and volume variable controls. Activity and malfunction events are linked to the ETM. The central lube grease system is supplied from a refillable 200 liter **53 gal.** barrel. A second, identical system supplies open gear lubricant to the swing ring teeth through a lube pinion. Replenishment of the barrels is through the Wiggins service arm.



SERVICE CAPACITIES

Hydraulic oil tank	2900 ltr	765 U.S. gal
Hydraulic system	.4400 ltr	1,160 U.S. gal
Fuel	.4500 ltr	1,190 U.S. gal
Engine coolant	.360 ltr	95 U.S. gal
Engine oil	.190 ltr	50 U.S. gal

CAB

The large operator's cab is mounted on rubber and manufactured in steel with heavy insulation. The ISO 3449 FOPS structure is externally mounted. The operator's eye is at 6.67 m 21'11". The cab is pressurized with filtered air, fitted with an air conditioner and a window defroster. A deluxe weight compensating, adjustable air suspension operator's seat with unique variable lumbar support is fitted as well as a fold-away auxiliary seat. Low effort joy stick controls are hydraulic with foot controls for face shovel, clam, crawler travel, and swing brake.

Full instrumentation and ETM are provided. AM/FM radio is fitted. The windshield wiper has two speeds and intermittent operation, with washer. External metal sun blinds. There is a left hand sliding window. All windows are tinted parsol green.

ETM VEHICLE MONITORING SYSTEM

The ETM (Electronic Text Monitoring) diagnostic system, mounted in the operator's console, continuously monitors the performance of the engine, gearbox, autolube and hydraulic systems. Error messages are immediately available to the operator via a digital display and in the event of critical malfunctions the engine is also shut down.

The digital storage provides failure summary and analysis, which can be down-loaded by laptop computer. This data will assist in reducing downtime.

OPERATING WEIGHTS

PC 3000 Backhoe:

Operating weight including 8600 mm 28'3" boom, 4000 mm 13'1" stick, 15 m³ 19.5 yd³ backhoe bucket, operator, lubricant, coolant, full fuel tank and standard equipment.

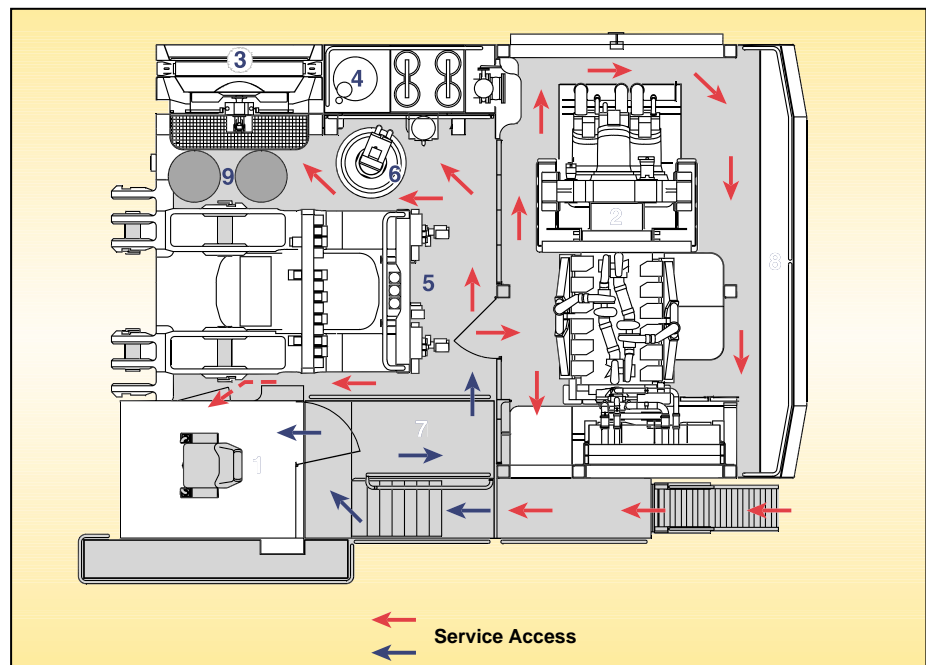
Shoe Width	Operating Weight	Ground Pressure
800 mm 31"	253 t 557,900 lb	23.7 N/cm ² 34.4 psi
1000 mm 39"	258 t 569,000 lb	19.4 N/cm ² 28.1 psi

PC 3000 Front Shovel:

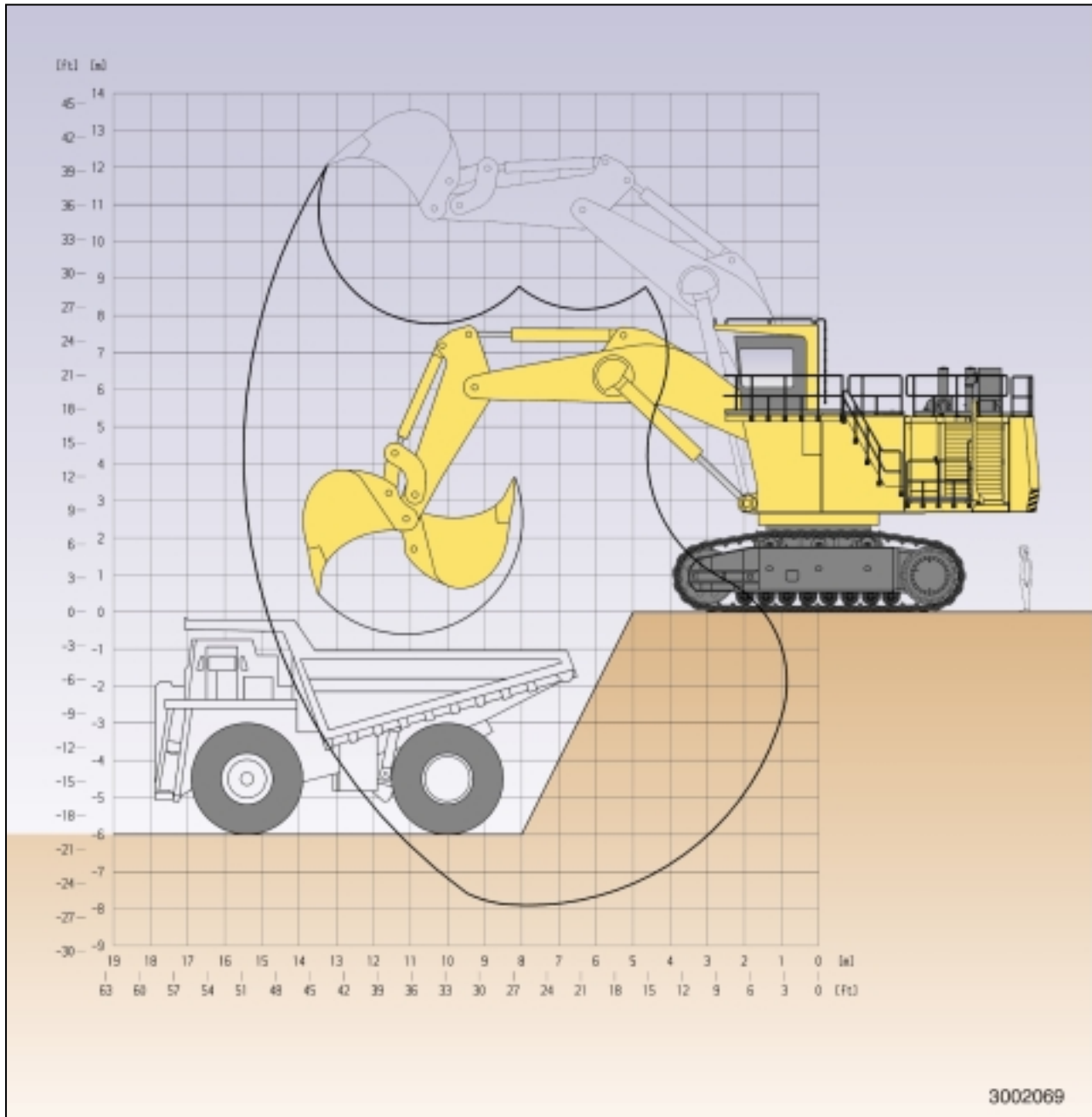
Operating weight including 6000 mm 19'8" boom, 4300 mm 14'1" stick, 15 m³ 19.5 yd³ shovel bucket, operator, lubricant, coolant, full fuel tank and standard equipment.

Shoe Width	Operating Weight	Ground Pressure
800 mm 31"	250 t 551,500 lb	23.4 N/cm ² 33.9 psi
1000 mm 39"	255 t 562,300 lb	19.1 N/cm ² 27.7 psi

- 1 Cab
- 2 Power Train
- 3 Hydraulic Cooler
- 4 Hydraulic Reservoir
- 5 Valve Blocks
- 6 Swing Motor
- 7 Fuel Tank
- 8 Counterweight
- 9 Autolube Systems



PC3000 Backhoe



DIGGING FORCES

Break-out force	850 kN	191,000 lb
Tear-out force	800 kN	179,800 lb

Maximum reach at ground level	14860 mm	48'9"
Maximum digging depth	7900 mm	28'11"

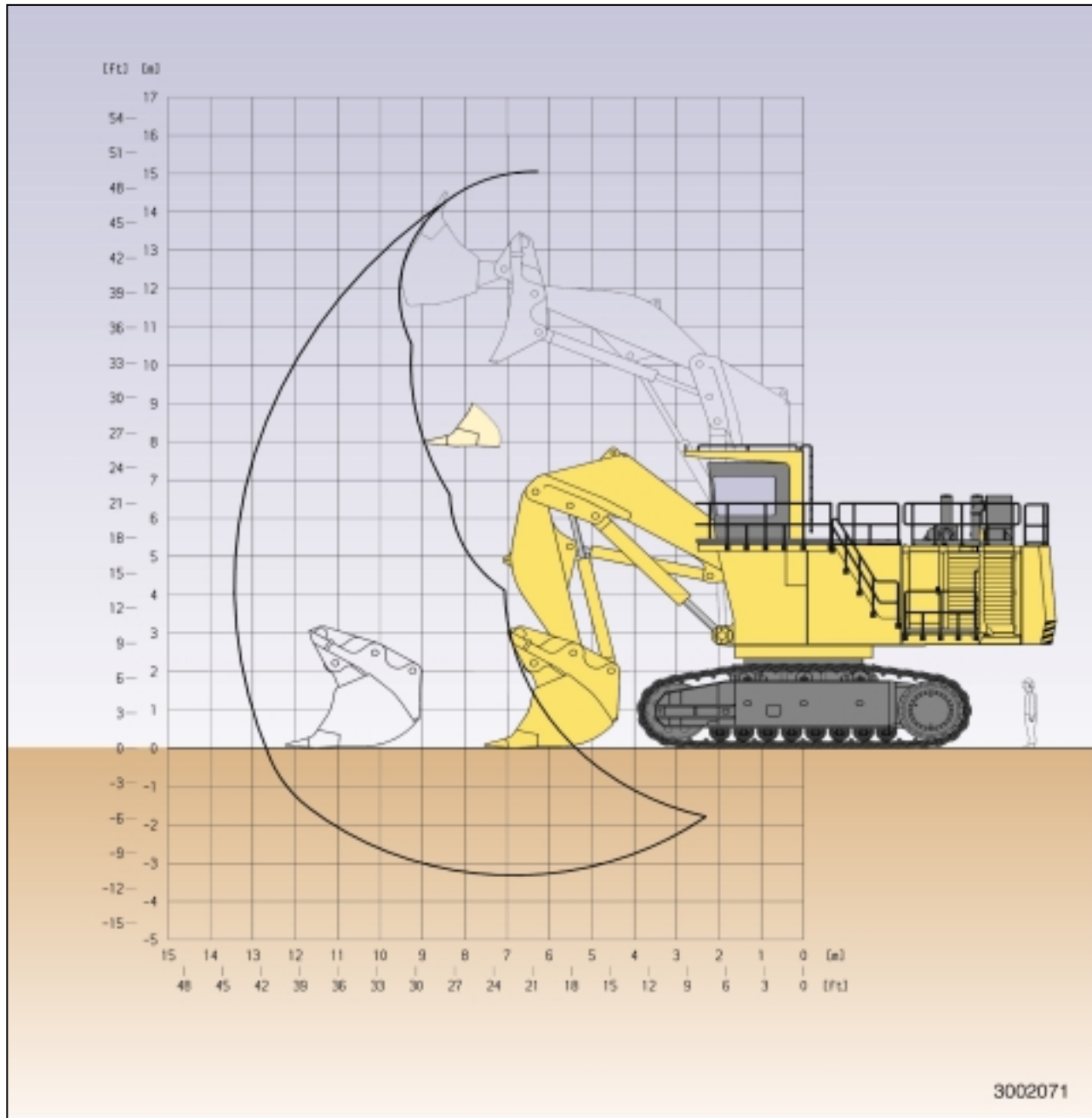


BACKHOE BUCKET, STICK AND BOOM COMBINATION

Bucket Capacity	Width	Teeth	Weight	Boom Length
SAE Heaped 1 : 1	3400 mm 11'2"	5		8600 mm 28'3"
			including Wear package 2	Stick Length 4000 mm 13'1"
15 m ³ 19.5 yd ³			15.6 t 34,400 lb	Material weight to 1.8 t/m ³ 3,050 lb/yd ³

Alternative buckets/wear packages are available

PC3000 Shovel



3002071



DIGGING FORCES

Break-out force	1000 kN	225,000 lb
Crowd force	1100 kN	247,500 lb

Level crowd at ground level	4700 mm	15'5"
Maximum dumping height	10100 mm	33'2"



SHOVEL BUCKET, STICK AND BOOM COMBINATION

Bucket Capacity		Width	Teeth	Weight	Boom Length
SAE/CECE					6000 mm
Heaped 2 : 1	Heaped 1 : 1			including Wear package-3	Stick Length
15 m ³ 19.5 yd ³	17.4 m ³ 22.7 yd ³	3790 mm	12'5"	23.1 t	4300 mm
			6	51,000 lb	Material weight to 1.8 t/m ³ 3,050 lb/yd ³

Alternative buckets/wear packages are available

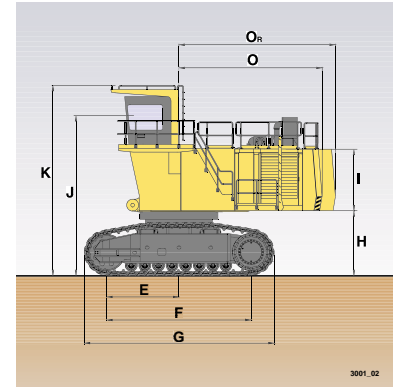
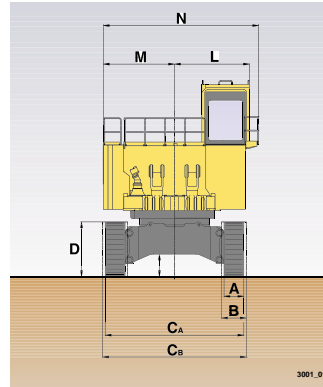


DIMENSIONS

BASIC MACHINE WITH COUNTERWEIGHT

A	800 mm	31"	H	2710 mm	8'11"
B	1000 mm	39"	I	2570 mm	8'5"
C_A	5600 mm	18'5"	J	6670 mm	21'11"
C_B	5800 mm	19'0"	K	7930 mm	26'0"
D	2210 mm	7'3"	L	3035 mm	9'11"
E	3000 mm	9'10"	M	2875 mm	9'5"
F	6000 mm	19'8"	N	6283 mm	20'7"
G	7905 mm	25'11"	O	5950 mm	19'6"
			O_R	6500 mm	21'4"

Ground Clearance: 908 mm 3'0"



STANDARD EQUIPMENT

Hydraulic Mining Shovel with Diesel Drive will comprise:

FRONT SHOVEL ATTACHMENT

6.0 m **19'8"** boom and 4.3 m **14'1"** stick complete with cylinders. 15 m³ **19.5 yd³** (SAE 2:1) shovel bucket with teeth and lip mechanical system.

OR

BACKHOE ATTACHMENT

8.6 m **28'3"** boom and 4.0 m **13'1"** stick with 15 m³ **19.5 yd³** (SAE 1:1) bucket with teeth and lip mechanical system.

CRAWLER UNDERCARRIAGE

Heavy-duty shovel type undercarriage consisting of a center carbody and 2 heavy box-type track frames, each having 8 bottom rollers, 3 top rollers, and 800 mm **31"** cast steel track shoes. Hydraulic track adjustment and parking brake provided.

SUPERSTRUCTURE

The main frame mounted over an externally toothed swing circle carries the main drive module, including Komatsu SSA12V159 diesel engine, oil and fuel reservoirs, counterweight, operator's cab and base.

LIGHTING

3 x 200 W halogen working lights.
7 service lights throughout platform.

OPERATOR'S CAB

The fully enclosed and insulated steel cab is rubber mounted with external ISO 3449 FOPS structure. GRAMMER full suspension operator's seat with lap-belt. Fold-away auxiliary seat. CARRIER SÜTRAK air-conditioning unit. Full selection of controls, switches, and ETM (Electronic Text Monitoring). Joy stick and pedal-operated controls are hydraulic. Windshield wiper with two speeds, intermittent operation, and washer with 7 ltr **1.8 gal** reservoir. AM-FM radio. External metal sun blinds. Left hand sliding windows. All windows tinted parsol green.

LUBRICATION

LINCOLN central lubrication for basic machine, attachment, and bucket. 200 ltr **53 gal** refillable barrel.

LINCOLN automatic lubrication system for swing circle teeth with 200 ltr **53 gal** refillable barrel.

WIGGINS service center mounted on a hydraulically powered swing-down arm for fill of fuel, engine oil and coolant, hydraulic oil, and the evacuation of coolant, and hydraulic and engine oils.

ACCESSORIES

- Acoustic travel alarm
- Hydraulically actuated ground access ladder
- Electric air horn



OPTIONAL EQUIPMENT

- 1000 mm **39"** trackshoes
- Extra or alternative, lighting
- Alternator 225A
- Alternative travel speed 3.5 km/h **2.2 m/h**
- Electric drive
- Cable reel (Electric version)
- Low temperature package
- Fire suppression system
- Engine oil management system

AQUADIGGER pontoon mounted marine excavator (further details on request from factory)

AE5513-02

©2003 Komatsu Printed in USA

DK02(3M)MG

02/03 (EV-1)

KOMATSU®

440 N. Fairway Drive
P.O. Box 8112
Vernon Hills, IL 60061-8112