

KOMATSU®

OPERATING WEIGHT
500–515 ton 1,102,500–1,135,500 lb

SHOVEL CAPACITY
26 m³ 34 yd³ SAE 2:1 heaped

BACKHOE CAPACITY
28 m³ 36.6 yd³ SAE 1:1 heaped

PC5500 SUPER SHOVEL



Photo may include optional equipment.

HYDRAULIC SHOVEL

PC5500

PC5500 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

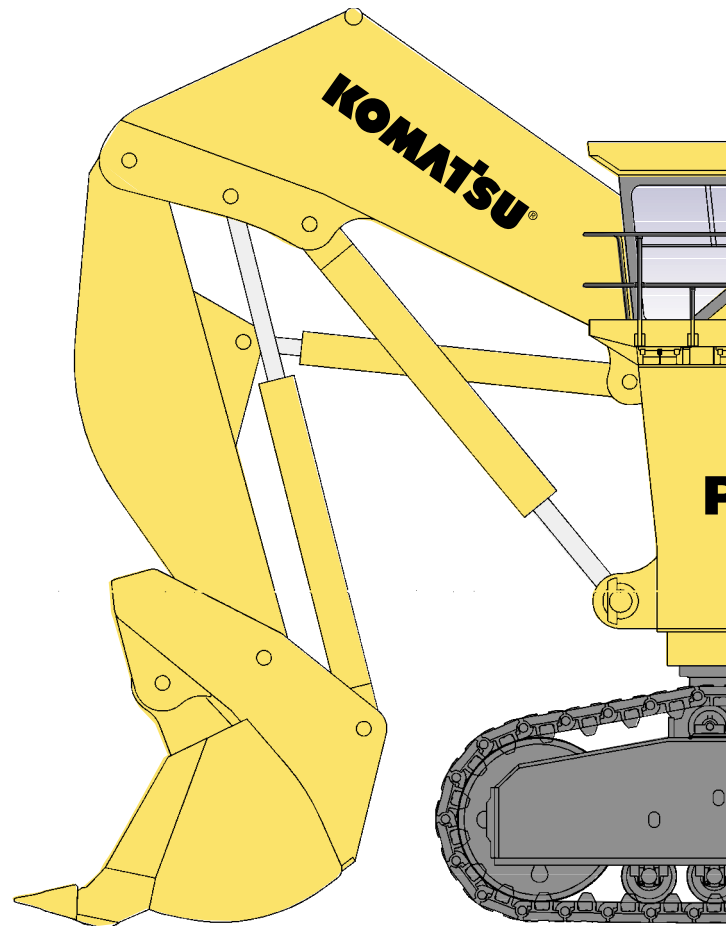
Designed for more tons per hour.

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

Time-proven Structures

Extended structural reliability is proven.

- Robust structural design developed from field experience and finite analysis expertise.
- Optimum use of castings at key points throughout the structure of the machine.



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
trucks
190 st and larger

SHOVEL BUCKET

26 m³ 34 yd³

BREAKOUT FORCE

1865 kN 419,200 lb

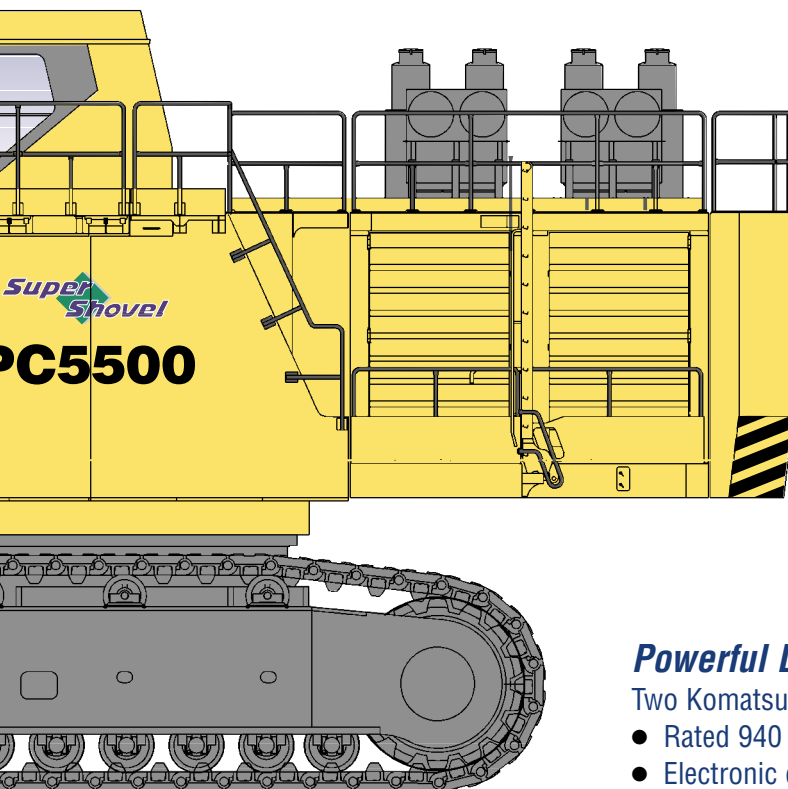
CROWD FORCE

1870 kN 420,300 lb

Operator Comfort

New large operator's cab.

- Low internal noise level.
- New generation viscous cab mounts.
- Comprehensive climate control with pressurised filtered air ventilation and air conditioning.
- High specification multi-adjustable air suspension seat incorporates variable lumbar control.



ECS Electronic Control System

Provides real time and stored information about the running status of the machine.

- Continuous text display.
- Service events retained in digital form with battery back-up security.
- Automatic engine shut-down for critical malfunctions.
- Data download capability, to a laptop computer.

Powerful Diesel Engines

Two Komatsu SSA12V159 engines.

- Rated 940 kW **1260 HP** each at 1800 rpm.
- Electronic engine management.
- Time saving options fitted as standard: **Centinel** Engine Oil Management System **Engine Reserve** Oil Supply System **Eliminator** Oil Filter System.
- Low engine emission levels meet EPA Tier 1.

Preventative Maintenance

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

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

SPECIFICATIONS



DIESEL DRIVE

Model 2x Komatsu SSA12V159
 Type 4-cycle, water-cooled, direct injection
 Aspiration Turbocharged and aftercooled
 Number of cylinders 12
 Rated power (2) 940 kW **1260 HP** @ 1800 rpm
 (SAE 1995/J1349)
 Governor All-speed, electronic
 The integrated engine oil and filter system combining the oil stabilising 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) 2 x 4 x 12 V
 Alternator 2x 100 A
 Standard working lights 8 Xenon Lights
 Standard service lights 12 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 43 each side
 Number of top rollers 3 each side
 Number of bottom rollers 7 each side



TRAVEL AND BRAKE SYSTEMS

Travel control 2 foot pedals
 Gradeability Up to 60%
 Travel speed (maximum) 2.2 km/h **1.4 mph**
 Service brake Hydraulic brake
 Parking brake Wet, multiple-disc



SWING SYSTEM

Hydraulic variable displacement motors and drive units 2
 Swing brake, service Hydraulic brake
 Swing brake, parking Wet, multiple-disc
 Swing ring teeth External
 Swing speed (maximum) 3.1 rpm



ELECTRIC DRIVE

Type 2x Squirrel-cage induction motor
 Power output 2x 900 kW
 Voltage 6600 V*
 Amperage (approximate) 215 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 two main drives. Diesel engines or electric motors can be supplied each connected to a gearbox and three identical pumps which draw hydraulic oil from an unpressurized hydraulic tank. Open circuit hydraulics provide maximum cooling and filtering efficiency. Rated flow (total output) 4200 ltr/min **1110 gpm**
 Relief valve setting 310 bar **4,495 psi**
 Swing flow rate 700 ltr/min **185 gpm**

High pressure in line filters 200 microns
 one per pump located at the valve blocks

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

The four-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 radiators are cooled by hydraulically driven fans for superior cooling efficiency and require little maintenance. The hydraulic system includes two large swing-out vertical air-to-oil hydraulic coolers with temperature-regulated hydraulically driven fans.



AUTOMATIC CENTRALISED 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 ECS. The central lube grease system is supplied from a refillable 300 litre **80 gal.** container. A second, identical system supplies open gear lubricant to the swing ring teeth through a lube pinion. Replenishment of the containers is through the Wiggins service arm.



SERVICE CAPACITIES

Hydraulic oil tank . . . . .	.3800 ltr	1,000 U.S. gal
Hydraulic system . . . . .	.6000 ltr	1,585 U.S. gal
Fuel . . . . .	.10800 ltr	2,853 U.S. gal
Engine coolant . . . . .	.2x 360 ltr	2x 95 U.S. gal
Engine oil . . . . .	.2x 190 ltr	2x 50 U.S. gal
Centinel engine oil make up tank . . . . .	.2x 580 ltr	2x 153 U.S. gal



CAB

The large operator's cab is constructed in steel and conforms to ISO 3449 as a FOPS structure. It is mounted on 18 viscous pads to reduce vibration and noise. The operator's eye is at 7.84 m **25'8"**. The cab is pressurised 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 electric over hydraulic and foot controls operate front shovel clam, crawlers and swing brake. Full instrumentation and ECS are provided. Space in the console is provided for an additional monitor. AM/FM radio is standard. The windshield wiper/washer has two speed and intermittent operation. (Water reservoir 7 litres **1.8 gal.**) Amenities include a wash basin with running water, water reservoir (50 litres **13 gal.**), refrigerator and storage cabinets. Working lights and powered mirrors are adjusted from inside the cab. There are left and right hand sliding windows. All windows are tinted parsol green. External metal louvres are provided on each cab side window.



ELECTRONIC CONTROL SYSTEM

The ECS digital diagnostic system, mounted in the operator's console, provides a text display of real time and stored information about the status of the operating machine. Non serious and critical faults are immediately announced, and for major malfunctions the engines are also shut down. The integrated digital storage provides full event history, which can be down loaded with a laptop computer. The ability to electronically record service events provides precise service information to assist in reducing downtime.



OPERATING WEIGHTS

PC 5500 Backhoe:

Operating weight including 10000 mm **32'10"** boom, 5100 mm **16'9"** stick, 28 m³ **36.6 yd³** backhoe bucket, operator, lubricant, coolant, full fuel tank and standard equipment.

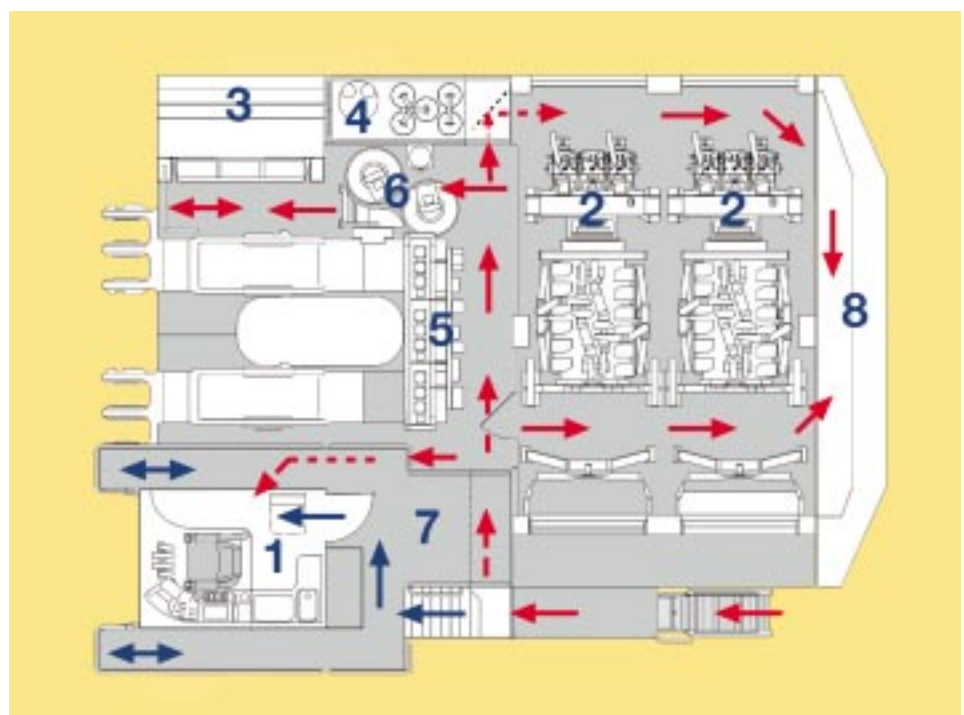
Shoe Width	Operating Weight	Ground Pressure
1350 mm 53"	500 t 1,102,500 lb	24.4 N/cm ² 35.4 psi
1800 mm 71"	515 t 1,135,500 lb	18.8 N/cm ² 27.3 psi

PC 5500 Front Shovel:

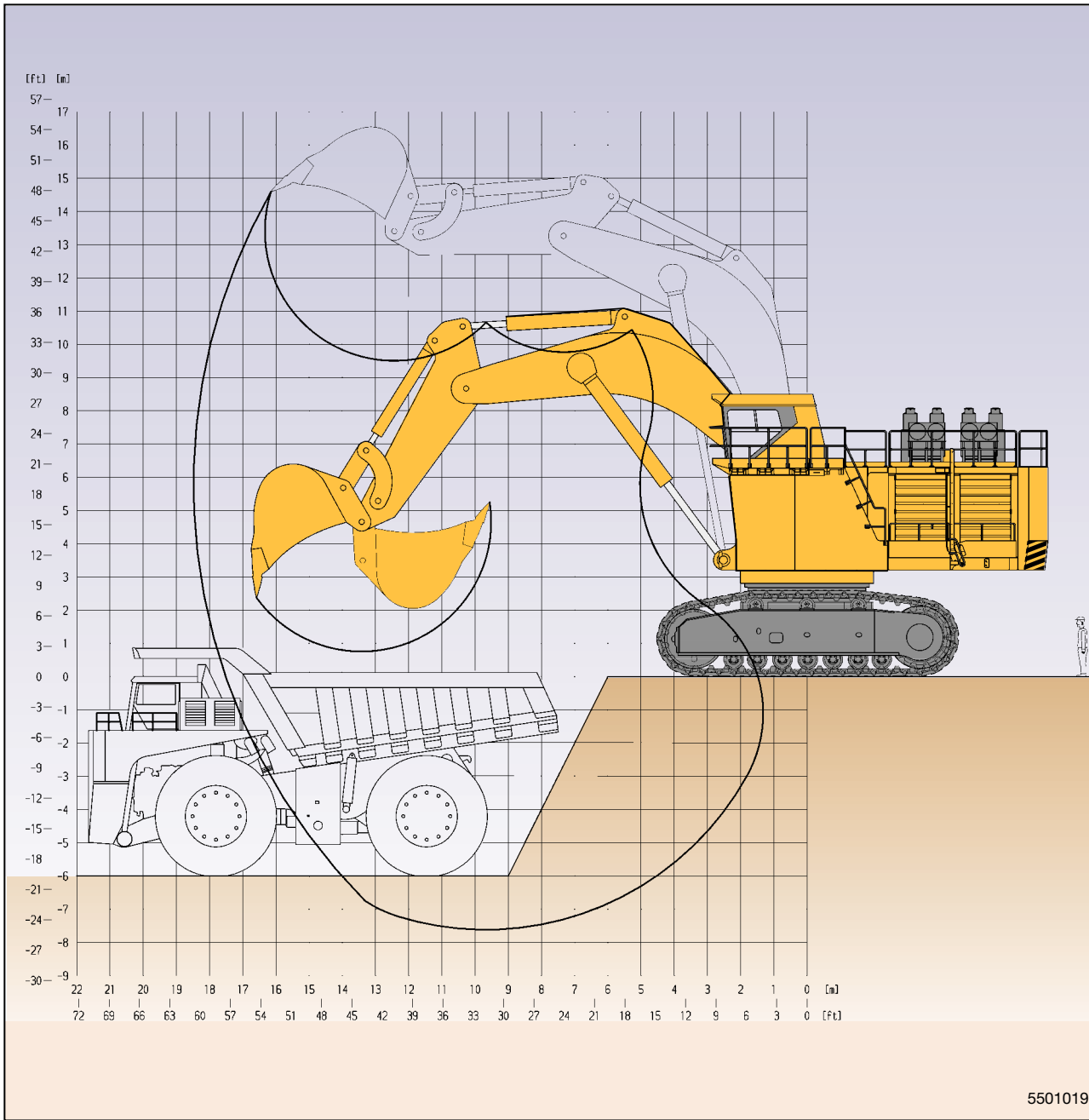
Operating weight including 7600 mm **24'11"** boom, 5600 mm **18'4"** stick, 26 m³ **34 yd³** shovel bucket, operator, lubricant, coolant, full fuel tank and standard equipment.

Shoe Width	Operating Weight	Ground Pressure
1350 mm 53"	500 t 1,102,500 lb	24.4 N/cm ² 35.4 psi
1800 mm 71"	515 t 1,135,500 lb	18.8 N/cm ² 27.3 psi

- 1 Cab
- 2 Power Trains
- 3 Hydraulic Cooler
- 4 Hydraulic Reservoir
- 5 Valve Blocks
- 6 Swing Motors
- 7 Fuel Tank
- 8 Counterweight
- 9 Autolube Systems
(on upper deck)



PC5500 Backhoe



DIGGING FORCES

Break-out force	1400 kN	314,700 lb
Tear-out force	1270 kN	285,500 lb

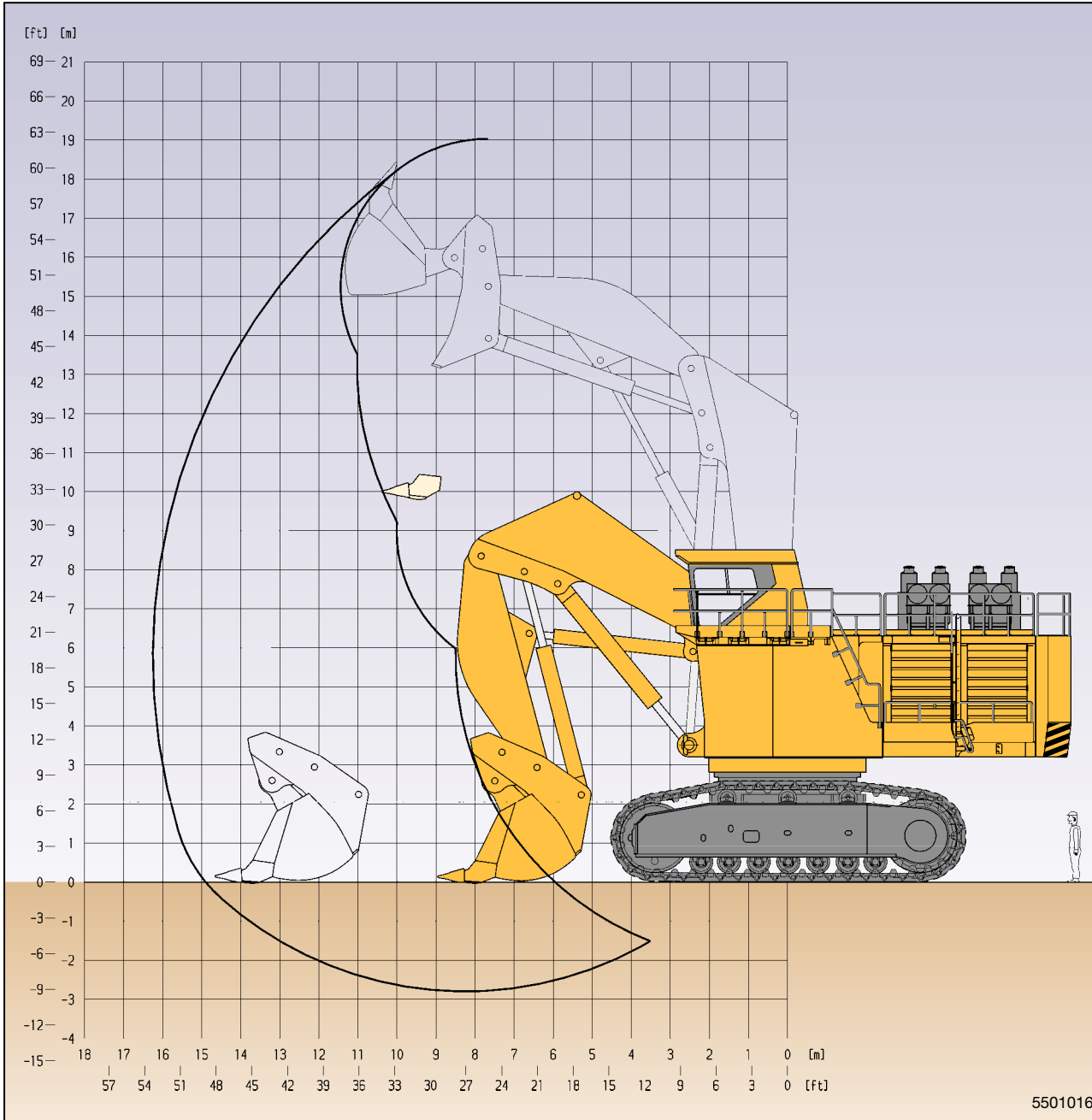
Maximum reach at ground level	17700 mm	58'0"
Maximum digging depth	7600 mm	25'0"

BACKHOE BUCKET, STICK AND BOOM COMBINATION

Bucket Capacity	Width	Teeth	Weight	Boom Length 10000 mm 32'10"
SAE Heaped 1 : 1			including Wear package-2	Stick Length 5100 mm 16'9"
28 m ³ 36.6 yd³	4220 mm 13'10"	5	30.4 t 67,000 lb	□ Material weight to 1.8 t/m ³ 3000 lb/yd³

Alternative buckets/wear packages are available

PC5500 Shovel



DIGGING FORCES

Break-out force	1865 kN	419,200 lb
Crowd force	1870 kN	420,300 lb

Level crowd at ground level	5700 mm 18'8"
Maximum dumping height	13200 mm 43'4"



SHOVEL BUCKET, STICK AND BOOM COMBINATION

Bucket Capacity		Width	Teeth	Weight	Boom Length
SAE/CECE Heaped 2 : 1	Heaped 1 : 1				7600 mm 24'11"
26 m ³ 34 yd³	31 m ³ 40 yd³	4565 mm 15'0"	6	47.3 t 104,300 lb	Stick Length
					5600 mm 18'4"
					Material weight to 1.8 t/m ³ 3000 lb/yd³

Alternative buckets/wear packages are available

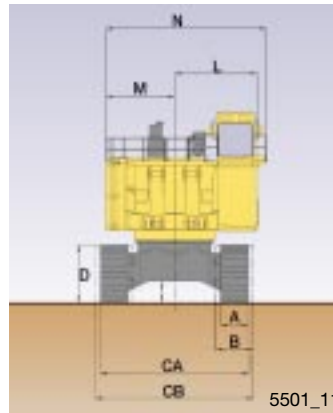


DIMENSIONS

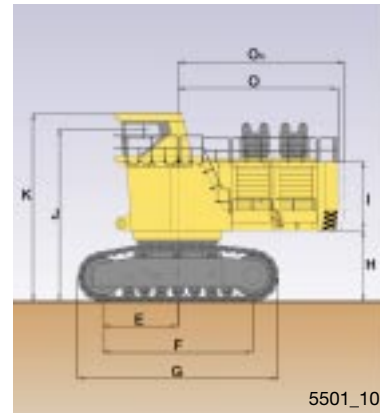
BASIC MACHINE WITH COUNTERWEIGHT

A	1350 mm	53"	H	3240 mm	10'8"
B	1800 mm	71"	I	3100 mm	10'2"
C _A	7150 mm	23'5"	J	7835 mm	25'8"
C _B	7600 mm	24'11"	K	8535 mm	28'0"
D	2600 mm	8'6"	L	3970 mm	13'0"
E	3400 mm	11'2"	M	3300 mm	10'10"
F	6800 mm	22'4"	N	7725 mm	25'4"
G	9100 mm	29'10"	O	7260 mm	23'10"
			O _R	7550 mm	24'9"

Ground Clearance: 970 mm 3'2"



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5501_10



STANDARD EQUIPMENT

Hydraulic Mining Shovel with Diesel Drive will comprise:

FRONT SHOVEL ATTACHMENT

7.6 m 24'11" boom and 5.6 m 18'4" stick complete with cylinders. 26 m³ 34 yd³ (SAE 2:1) shovel bucket with mechanical teeth and lip system.

OR

BACKHOE ATTACHMENT

10.0 m 32'10" boom and 5.1 m 16'9" stick with 28 m³ 36.6 yd³ (SAE 1:1) bucket with mechanical teeth and lip system.

CRAWLER UNDERCARRIAGE

Heavy-duty shovel type undercarriage consisting of a center carbody and 2 heavy box-type track frames, each having 7 bottom rollers, 3 top rollers, and 1350 mm 53" 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 two Komatsu SSA12V159 diesel engines, oil and fuel reservoirs, oil coolers, counterweight, operator's cab and base.

LIGHTING

8 Xenon high performance lights.
12 service lights throughout platform.

OPERATOR'S CAB

Fully enclosed steel cab which incorporates the ISO 3449 standard FOPS structure and CARRIER SUTRAK air conditioning unit. Cab is mounted on viscous pads. GRAMMER full suspension seat with seat belt. Fold-away auxiliary seat. Full selection of controls, switches, and ECS (Electronic Control System). Joystick and pedal-operated controls are electric over hydraulic. Windshield wiper/ washer with two-speed and intermittent operation (reservoir 7 ltr 1.8 gal). AM-FM radio. Washbasin with running water (reservoir 50 ltr 13 gal). Refrigerator and storage cabinets. Left and right hand sliding windows, external metal sunblinds. All windows tinted parsol green.

LUBRICATION

LINCOLN central lubrication for basic machine, attachment, and bucket. 300 ltr 80 gal refillable container.

LINCOLN automatic pinion lubrication system for swing circle teeth with 300 ltr 80 gal refillable container.

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

ACCESSORIES

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



OPTIONAL EQUIPMENT

- 1800 mm 71" track shoes
- Electric drive
- Low temperature package (including KIM hot start)
- Fire suppression system
- Extra or alternative lighting
- Cable reel (Electric version)
- Alternative travel speed 3.3 km/h 2.2 mph

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KOMATSU®

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