KOMATSU

ENGINE POWER
940 kW / 1260 HP @ 1800 rpm
OPERATING WEIGHT
250 – 261 ton / 511,300 – 575,500 lb
SHOVEL CAPACITY
16 m^3 21 yd^3 SAE 2:1 heaped
BACKHOE CAPACITY
15 m^3 19.5 yd^3 SAE 1:1 heaped

PC3000-6 Loading Shovel
PC3000-6 Backhoe

PC 3000

HYDRAULIC EXCAVATOR

WALK-AROUND

Quality in Manufacturing

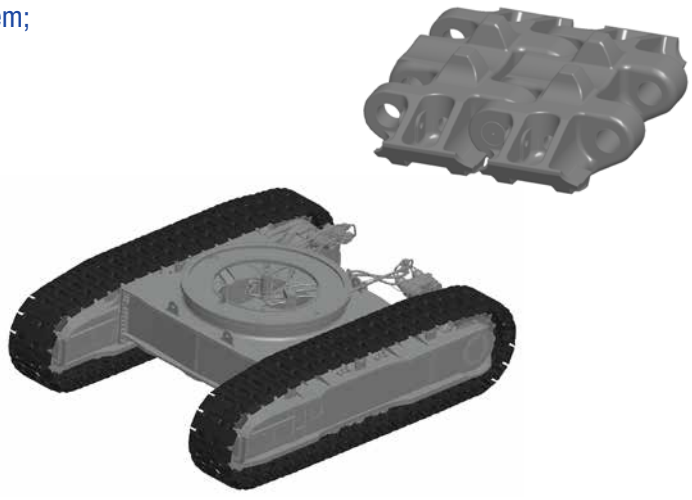
Commitment to „Quality and Reliability“

- Quality management ISO 9001
- Environmental management ISO 14001
- Occupational health and safety management system BS OHSAS 18001:2007
- Energy DIN EN ISO 50001
- High consistent quality through continuous investments in personnel, design and manufacturing systems and processes

Powerful Diesel Engine

Komatsu SDA12V159E-2 (Tier 2)

- Rated 940 kW / 1260 HP at 1800 rpm
- Electronic engine management
- Low engine emission levels
- Optional time saving Engine Oil Management System; Centinel, Engine Reserve Oil Supply and Eliminator Oil Filter System



Undercarriage

- Large diameter rollers, idlers and sprockets
- Large surface area and extensive precision hardening of all engaging components reduce track wear
- Hardened track link pin bores

MATCHES
85 to 165 U.S. ton TRUCKS

OPERATING WEIGHT
Shovel 250-258 ton
551,300-568,900 lb
Backhoe 252-261 ton
555,700-575,500 lb

BUCKET CAPACITY
Shovel 16 m^3 21 yd^3
Backhoe 15 m^3 19.5 yd^3

Reliability and Durability

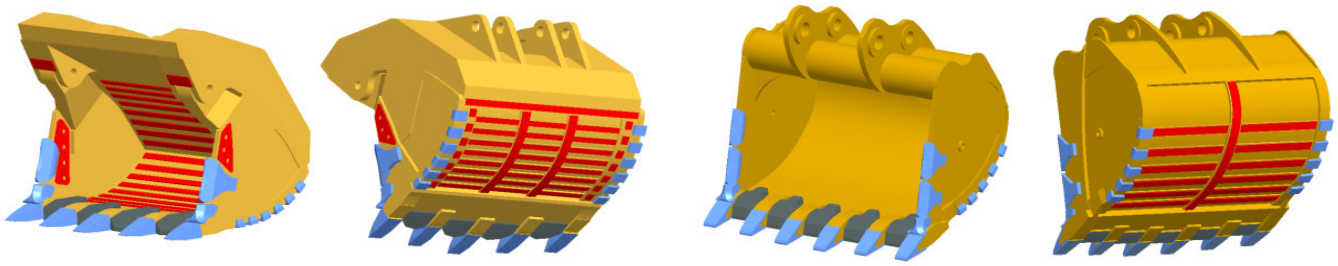
Long life and low operating cost by design

- Robust structural design developed from field experience and finite element analysis

Productivity

Designed for more tons per hour

- Powerful digging forces
- Ease of bucket filling
- Proven attachment design
- All cylinders mounted in the shadow of the attachment for protection
- Various buckets and wear packages to suit all material densities and properties



Advanced Hydraulics

Extended reliability and precise control

- Electronic pump management
- Comprehensive monitored filtration
- Simple open circuit hydraulic system with high efficiency swing out oil coolers

WALK-AROUND

Large Comfortable Cab

Comfortable for the whole day

- Komatsu low noise cab on multiple viscous mounts for reduced noise and vibration
- Large volume cab with full height front window
- Comprehensive climate control with pressurised filtered air ventilation and air conditioning
- High specification multi-adjustable air suspension seat plus trainer seat
- Well elevated operator position giving good all round view
- Large twin wiper covers windshield area for excellent visibility

Komtrax Plus

- Remote monitoring system with access to specific machine data
- Preventive maintenance scheduling
- Reporting information
- Data transfer via Satellite (Orbcom or Iridium)

Easy and Safe Maintenance

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

- Generous access to all major service points from machinery house floor level
- Enclosed, walk-in machinery house with partition wall separating engine from pump area
- Automatic central lubrication
- Ground-level access to hydraulically powered swing down service arm with Wiggins connections
- Acknowledges EMESRT design philosophies

SPECIFICATIONS

DIESEL DRIVE

Tier 2 engine:
Model ..... Komatsu SDA12V159E-2, Tier 2 certificated
Type ..... 4-cycle, water-cooled, direct injection
Aspiration ..... Turbocharged and aftercooled
Number of cylinders 12
Rated power .....940 kW 1260 HP @ 1800 rpm
(SAE J1995)
Governor ..... All-speed, electronic

Optional engine oil management system:
The integrated engine oil and filter system combining the oil stabilising systems, Reserve and Centinel, with Eliminator oil filter extends the oil change interval up to 4,000 hours based on oil analysis.

ELECTRIC DRIVE

Type ..... Squirrel cage induction motor
Power Output..... 900 kW
Voltage ..... 6,000 – 7,200 V*
Amperage (approximate) ..... 96 A - 80 A
Frequency standard ..... 60 Hz @ 1800 rpm
Frequency option ..... 50 Hz @ 1500 rpm
* Other voltages available on request

ELECTRIC SYSTEM

System .....24 V
Batteries (series/parallel) ..... 4 x 12 V
Alternator ..... 140 A
Standard working lights ..... 12 LED lights
Standard service lights ..... Throughout the platform

UNDERCARRIAGE

Track Adjustment ..... Automatic hydraulic type
Number of track shoes .....46 each side
Number of top rollers ..... 3 each side
Number of bottom rollers ..... 7 each side

TRAVEL AND BRAKE SYSTEMS

Gradeability ..... Up to 57 %
Travel speed (maximum) ..... 2.4 km/h 1.5 mph
Service brake ..... Hydraulic brake
Parking brake ..... Multiple-disk

SWING SYSTEM

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

HYDRAULIC SYSTEM

The power train consists of one main drive. Diesel or electric motor can be supplied. One gearbox drives three identical main pumps which draw hydraulic oil from an unpressurised hydraulic tank. Open circuit hydraulics provide maximum cooling and filtering efficiency.
Main hydraulic pumps ..... 3 x 910 ltr/min / 3 x 250 gpm
Relief valve setting..... 310 bar / 4,495 psi
Swing flow rate ..... 800 ltr/min / 211 gpm
High pressure in line filters..... 200 microns
one per pump located at the valve blocks
Full flow return line filters 3 x 10 microns and leakage line filter 3 microns all with monitored 200 microns by pass filters. The three-circuit system features a load-limiting governor with oil delivery summation to the working circuits and incorporates pressure cut-off control. Hydropilot prioritises hydraulic flow giving smooth hydraulic response, simple hydraulic system layout, and a reduced number of components.

AUTOMATIC CENTRALISED LUBRICATION

Two hydraulically powered Lincoln single line automatic lubrication systems are provided as standard, complete with time and volume variable controls. The central lube grease system is supplied from a refillable 200 litre (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 service arm.

SERVICE CAPACITIES

Hydraulic oil tank ..... 2,670 ltr / 705 U.S. gal
Hydraulic system ..... 4,400 ltr / 1,160 U.S. gal
Fuel ..... 4,500 ltr / 1,190 U.S. gal
Engine coolant ..... 254 ltr / 67 U.S. gal
Engine oil ..... 190 ltr / 50 U.S. gal
Lubrication system (total) ..... 400 ltr / 105 U.S. gal

ENVIRONMENT

Vibration levels
Hand-lever (ISO 5349-1)..... lower than 2.5m/s^2
Whole body vibration and shock (ISO 2631-1) ..... below 0.5m/s^2
Contains fluorinated greenhouse gas HFC-134a (GWP 1430)
PC 3000-6 D ..... Quantity of gas 3.7 kg, CO_2 equivalent 5.3 t
PC 3000-6 E ..... Quantity of gas 4.9 kg, CO_2 equivalent 7.0 t

OPERATOR CAB

The large and comfortable cab is mounted on 15 viscous damping pads and sound insulated. The cab has automatic climate control and is pressurised. The operator's seat is air suspended, electrically heated and has a lap seat belt and offers multiple adjustments. The trainer seat is also equipped with a seat belt. Low-effort hydraulic joystick controls are combined with foot controls for front shovel clam, crawler and swing brake. Full instrumentation, KOMTRAX Plus and an AM/FM radio with MP3 ready CD player with AUX in is fitted. Two windshield wash wipers are synchronised and have two speeds and intermittent operation. Two heated rear view mirrors are externally mounted. External metal sun blinds on the cab side windows and internal roller blinds on all windows are standard. There is a left hand sliding window. All windows are tinted parsol green. The cab is equipped with a special penetration proof front window (acc. DIN EN 1063, resistance classification BR2-S) to increase the safety level of the operator. A walkway is mounted in front of cabin. (Subject to change without notice)

Major cab engineering standards are:
- ISO 10262 Falling Objects Protection Structure (FOPS)
- ISO 6394 Noise in operator's cab is max. 77 dB(A)
- ISO 10263-4 Heating and air conditioning second heater as option

KOMTRAX PLUS HEALTH MONITORING SYSTEM

The KOMTRAX Plus monitoring system is designed for Komatsu mining equipment to provide real time and stored information about the operating status of the machine. Fault 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 predicting or reduction downtime. Optionally available is Orbcomm satellite transmission (check for availability in your territory).

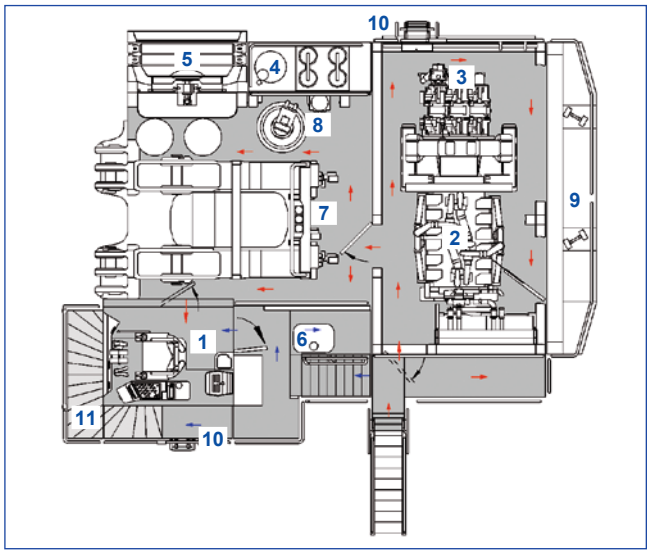
OPERATING WEIGHTS (APPROXIMATE)

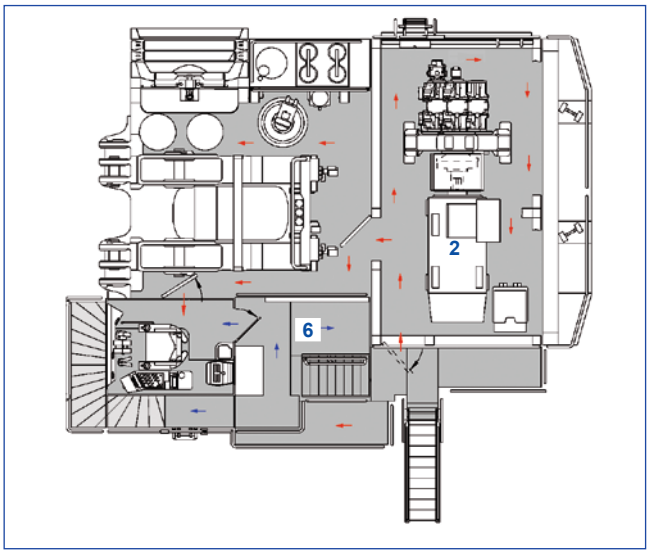
PC3000 Backhoe:
Operating weight including 8,600 mm 28'3'' boom, 4,000 mm 13'1'' stick, 15 m^3 (19.5 yd^3) backhoe bucket, operator, lubricant, coolant, 1/3 fuel and standard equipment.

Shoe Width	Operating Weight	Ground Pressure
800 mm 31"	252 t 555,700 lb	23.2 N/cm² 33.6 psi
1,000 mm 39"	261 t 575,500 lb	19.2 N/cm² 26.5 psi
1,200 mm 47"	261 t 575,500 lb	16.0 N/cm² 23.2 psi

PC3000 Front Shovel:
Operating weight including 6,000 mm 19'8'' boom, 4,300 mm 14'1'' stick, 16 m^3 (21 yd^3) shovel bucket, operator, lubricant, coolant, 1/3 fuel and standard equipment.

Shoe Width	Operating Weight	Ground Pressure
800 mm 31"	250 t 551,300 lb	22.9 N/cm² 33.2 psi
1,000 mm 39"	258 t 568,900 lb	19.0 N/cm² 27.5 psi
1,200 mm 47"	258 t 568,900 lb	15.8 N/cm² 22.9 psi





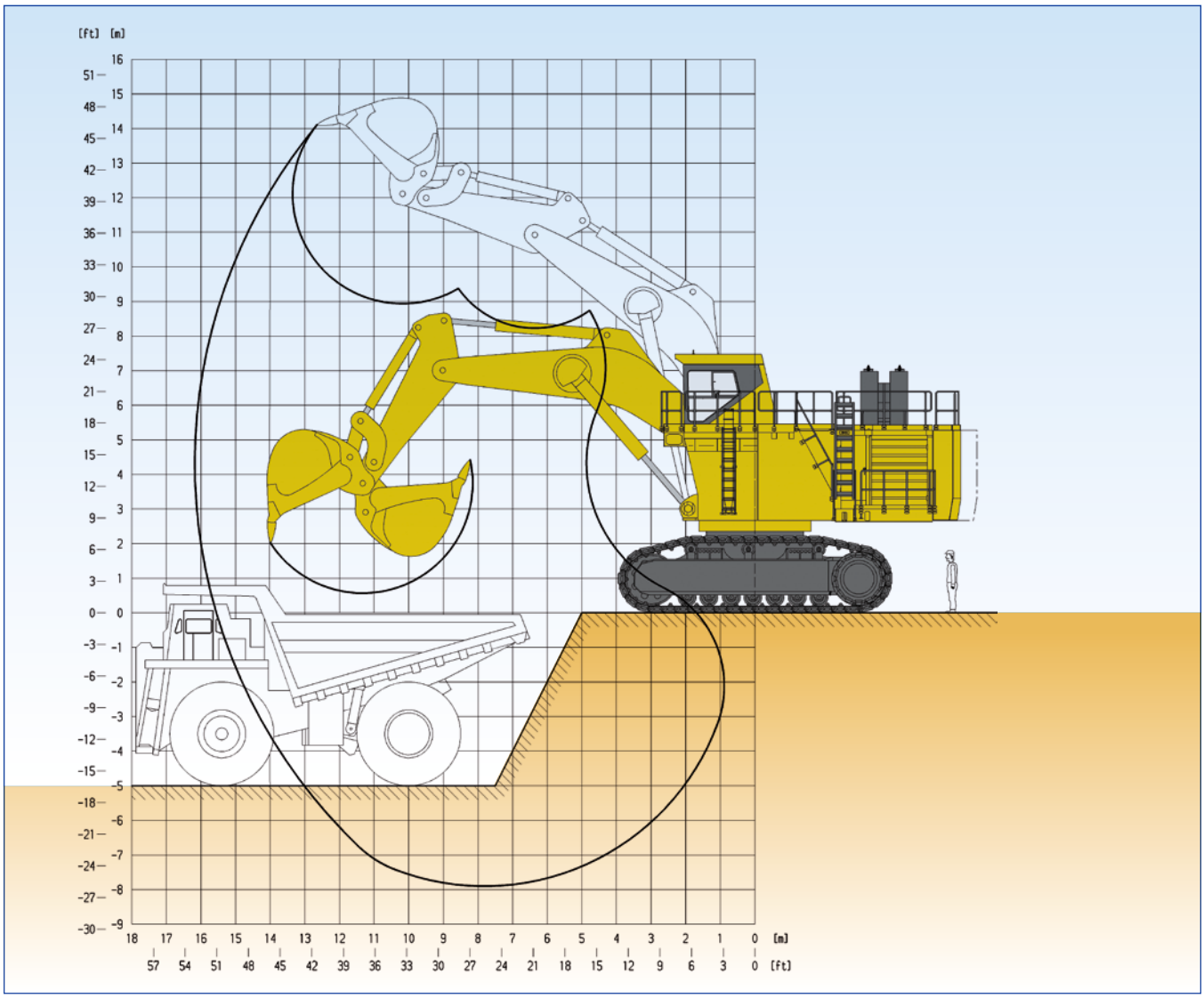
Diesel Drive
1 Cab
2 Diesel Engine
3 Hydraulic Pumps
4 Hydraulic Tank
5 Hydraulic Coolers
6 Fuel Tank
7 Valve Blocks
8 Swing Motors
9 Counterweight
10 Emergency egress
11 See-through Cat Walk

Variation for Electric Drive Version
2 Electric Motor
6 High Voltage Electric Cabinet

Walkways
Lower-Level
Upper-Level

PRODUCTIVITY-FEATURES

BACKHOE ATTACHMENT



Boom length	8,600 mm	28‘3“
Stick length	4,000 mm	13‘1“
Break-out force (ISO)	890 kN	200,050 lb
Tear-out force (ISO)	811 kN	182,290 lb

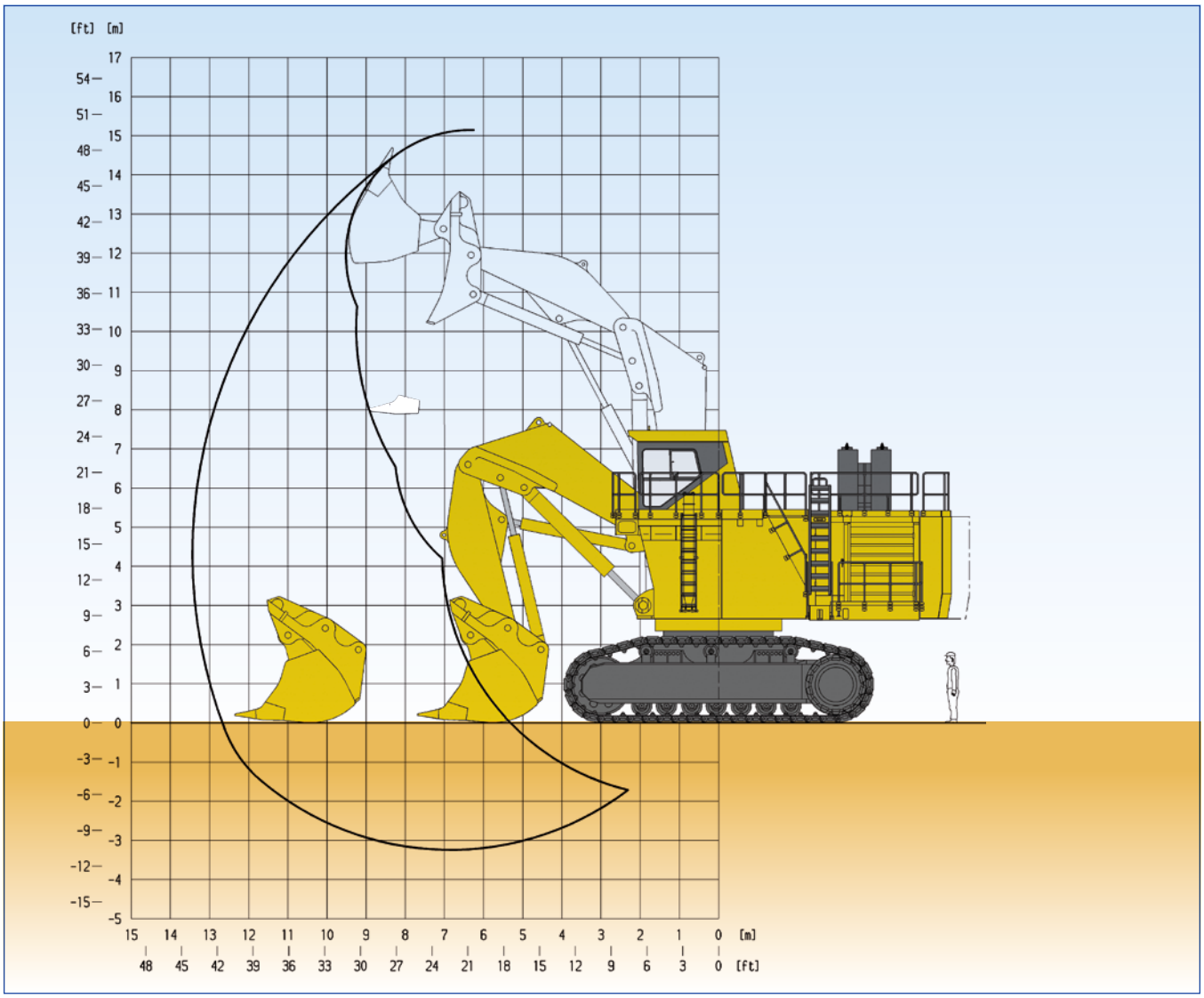
Max. digging height	14,100 mm	46‘3“
Max. dumping height	9,000 mm	29‘6“
Max. digging depth	7,900 mm	25‘11“
Max. digging reach	16,200 mm	53‘2“
Max. digging reach at ground level	15,600 mm	51‘2“

Bucket Capacity (Heaped 1:1) SAE		Width		Teeth	Wear Package acc.	GET System	Max. Material Density (Loose)	
cum	cuyd	mm	foot/inch	qty	abrasiveness		t/cum	lb/cuyd
12.0	15.7	3,045	9‘12“	5	heavy	Hensley XS 252 *	2.2	3,700
15.0	19.5	3,260	10‘8“	5	standard	Hensley XS 252 *	1.8	3,000
16.5	21.5	3,045	9‘12“	5	standard	Hensley XS 252 *	1.6	2,700

Alternative buckets on request

***other systems on request**

FRONT SHOVEL ATTACHMENT



Boom length	6,000 mm	19‘8“
Stick length	4,300 mm	14‘1“
Break-out force (ISO)	1,066 kN	239,600 lb
Crowd force (ISO)	1,136 kN	255,340 lb

Max. cutting height	15,100 mm	49‘6“
Max. dumping height	10,200 mm	33‘6“
Max. digging depth	3,300 mm	10‘10“
Max. digging reach	13,300 mm	43‘8“
Level crowd at ground level	4,700 mm	15‘5“
Bucket opening width	2,330 mm	7‘8“

Bucket Capacity (Heaped 1:1) **SAE**		**Width**		**Teeth**	**Wear Package acc.**	**GET System**	**Max. Material Density** (Loose)	
cum	**cuyd**	**mm**	**foot/inch**	**qty**	**abrasiveness**		**t/cum**	**lb/cuyd**
12.0	15.7	3,430	11‘3“	5	heavy duty	Hensley XS 252 *	2.4	4,000
16.0	21.0	3,790	12‘5“	6	standard	Hensley XS 252 *	1.8	3,000

Alternative buckets on request

***other systems on request**

STANDARD AND OPTIONAL EQUIPMENT

FRONT SHOVEL ATTACHMENT
- ● 6.0 m 19'8" boom, 4.3 m 14'1" stick
- ● 16 m³ (21 yd³) (SAE 2:1) shovel bucket incl. standard wear package with
- ● Hammerless GET system
- ○ Alternative buckets and GETs
- ○ Boom cylinder sliding guard
- ○ Stick cylinder sliding guard

BACKHOE ATTACHMENT
- ● 8.6 m 28'3" boom, 4.0 m 13'1" stick
- ● 15 m³ (19,5 yd³) (SAE 1:1) shovel bucket incl. standard wear package with
- ● Hammerless GET system
- ○ Alternative buckets and GETs
- ○ Buckets cylinder sliding guard

CRAWLER UNDERCARRIAGE
- ● Heavy-duty shovel type undercarriage
- ● Centre carbody
- ● 2 heavy box-type track frames
- ● 7 bottom rollers and 3 top rollers each side
- ● 800 mm 31" cast steel track shoes
- ○ 1,000 mm 39" cast steel track shoes
- ○ 1,200 mm 47" cast steel track shoes
- ● Hydraulic track adjustment and parking brake
- ● Drive gear box protection
- ○ Travel motor protection

SUPERSTRUCTURE
- ● Main frame mounted over an externally toothed swing circle carries the drive module
- ● Diesel Engine: Komatsu SDA12V159E-2 Tier 2
- ○ Electric drive various voltages
- ○ Cable guide without cable

LIGHTING
- ● 12 LED high performance working lights
- ● Service lights throughout the platform
- ● Rotaflare warning lights

OPERATOR CAB
- ● Enclosed steel cab mounted on viscous pads
- ● FOPS according ISO 10262
- ● Air-conditioning unit Sütrak
- ● Full suspension operator seat with belt
- ● Controls ergonomic
- ● KOMTRAX Plus (Monitoring System)
- ● Joysticks and controls are hydraulic
- ● 2 synchronised windshield wash wiper
- ● AM-FM radio with MP3 ready CD player and AUX in
- ● External metal sun blinds on side window
- ● Internal roller blinds on all windows
- ● Impact resistant front window (19mm)
- ● All windows tinted parsol green
- ● Walkway in front of cab
- ○ Additional cab heater

COLD WEATHER
- ○ Cold weather package down to -40° C (diesel and electro drive)
- ○ Arctic weather package down to -50° C (diesel and electro drive)
- ○ Hotstart temperature treatment for ambient temperature down to -50° C (diesel and electric drive), external power source not included

SERVICE AND LUBRICATION
- ● LINCOLN central lubrication for basic machine, attachment and bucket
- ● LINCOLN automatic pinion lubrication system for swing circle teeth
- ● WIGGINS service arm carrying fluid receiving connectors for filling of fuel, engine oil and coolant, hydraulic oil, grease, and the evacuation of coolant, hydraulic and engine oils
- ● Service transfer oil pump
- ● Service Monitor (incl. all relevant manuals)
- ○ Engine oil management package (Centinel, Reserve & Eliminator systems)

SAFETY FEATURES
Access and egress system
- ● 60° stairway design
- ● Hydraulically operated ground access ladder
- ● Equipped with hand rails up to cab
- ● All steps with antislip edge
- ● Illuminated system

Emergency egress system
- ● Two pieces flip down solid antislip steel ladder
- ● Easy release with foot lever
- ● One system on cab site (illuminated)
- ● One system on opposite site (illuminated)
- ● One machinery house escape system (ladder + hatch)

- ● Acoustic travel alarm
- ● Electric air horn
- ● Engine turbo and exhaust pipe covers
- ● Engine emergency stop at ground level
- ● Camera system acc. ISO5006
- ● Sidewalks and stairs are provided with skid-resistant plates
- ● Hand rails and steps on boom; tie off points on boom

Other Equipment
- ○ Fire supression system, Ansul (Agent LVS+Powder), diesel drive
- ○ Special painting
- ○ Biodegradable hydraulic oil

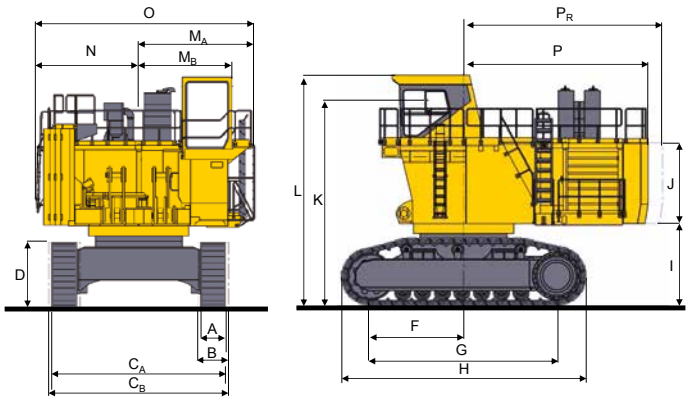
Further equipment on request

- ● Standard Equiptment
- ○ Optional Equipment

DIMENSIONS

BASIC MACHINE WITH COUNTERWEIGHT

A	800 mm	2'7"	**I**	2,670 mm	8'9"
B	1,000 mm	3'3"	**J**	2,610 mm	8'7"
C_A	5,640 mm	18'6"	**K**	6,802 mm	22'4"
C_B	5,840 mm	19'2"	**L**	7,479 mm	24'6"
D	2,160 mm	7'3"	**M_A**	3,740 mm	12'3"
E	935 mm	3'1"	**M_B**	3,010 mm	9'11"
F	3,000 mm	9'10"	**N**	3,340 mm	10'12"
G	6,000 mm	19'8"	**O**	7,080 mm	23'3"
H	7,914 mm	25'12"	**P**	5,950 mm	19'6"
			P_R	6,402 mm	20'12"



QESS0037 04

Komatsu Germany GmbH
Forststrasse 29
40597 Duesseldorf, Germany
Phone: +49(0)211 71 09-0
Fax: +49(0)211 71 58-22
info@komatsu-mining.de
www. komatsu-mining.de