

KOMATSU®

PC3000-6 Super Shovel

OPERATING WEIGHT
252-265 ton **556,000-584,000 lb**

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

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

PC
3000

HYDRAULIC SHOVEL



Photo may include optional equipment.

WALK-AROUND

Komatsu Technology and Expertise

- Quality management ISO 9001 certified
- Environmental Management ISO 14001 certified
- High, consistent quality through continuous investment in personnel, design and manufacturing systems and processes

Reliability and Durability

Designed for lower operating costs

- Robust structural design developed from field experience and finite element analysis
- Large diameter rollers, idlers and sprockets
- Large surface contact area with extensive precision hardening reduces wear
- Hardened track link pin bores

Productivity

Designed for more tons per hour

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

Advanced Hydraulics

Extended reliability and control

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



Large Comfortable Cab

Provides full shift comfort

- Komatsu low noise cab on multiple viscous mounts for reduced noise and vibration
- Large volume cab with full view front window (floor to ceiling) increases operator view
- Comprehensive climate control with pressurized, filtered air ventilation and air conditioning
- High specification multi-adjustable air suspension seat, redesigned for mining
- Well elevated operator position provides superior all around view

**MATCHED FOR
85 to 165 U.S. ton
TRUCKS**

**SHOVEL AND BACKHOE
BUCKET CAPACITY
15 m³ 19.5 yd³**



Photo may include optional equipment.

Powerful Diesel Engine

Komatsu SSA12V159 engine

- Rated 940 kW **1260 HP**, at 1800 rpm
- Electronic engine management
- Low engine emission levels – meets EPA Tier 2 emission regulations
- Optional time saving oil management system; Sentinel Engine Oil Management, Engine Reserve Oil Supply and Eliminator Oil Filter systems

Easy Maintenance

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

- Hydraulically operated ground access ladder; 60° angle with located bottom step
- Generous access to all major service points from machinery house floor level
- Enclosed, internally lit machinery house with wall separating engine from pump area
- Automatic central lubrication
- Electronic Text Monitoring (ETM) system provides real-time information on the operating status of the machine
- Ground-level access to hydraulically operated drop-down service center 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 940 kW **1,260 HP** @ 1800 rpm
 (SAE 1995/J1349)
 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.



ELECTRICAL SYSTEM

System 24 V
 Batteries (series/parallel) 4 x 12 V
 Alternator 150 A
 Standard working lights 8 Xenon lights
 Service lights 8 lights



HYDRAULIC SYSTEM

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

Main hydraulic pumps 3 x 910 ltr/min **3 x 240 U.S. gpm**
 Relief valve setting 310 bar **4,495 psi**
 Swing flow rate 800 ltr/min **211 U.S. gpm**

High pressure in-line filters 200 micron
 (one per pump located at the valve blocks)

Full flow return line filters (3) (10 micron) and leakage line filter
 (3 micron) all with monitored 200 micron bypass filters.

The three-circuit Hydropilot system features electronic engine and pump management to optimize hydraulic power for smooth hydraulic action, fast response, simple system layout and a reduced number of components. Filtration is at the oil intake to pumps, valve blocks, heat exchangers and oil tank.



DRIVES AND BRAKES

Travel control 2 foot pedals
 Gradeability Up to 57%
 Travel speed (maximum) 2.4 km/h **1.5 mph**
 Service brake Hydraulic
 Parking brake Wet, multiple-disc



SWING SYSTEM

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



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.



ELECTRIC DRIVE

Type Squirrel-cage induction motor
 Power output 900 kW
 Voltage 6600 V*
 Amperage (approximate) 96 A
 Frequency (standard) 50 Hz @ 1500 rpm
 Optional frequency 60 Hz @ 1800 rpm

*Other voltages available on request



UNDERCARRIAGE

The undercarriage consists of one center carbody and two track frames, each side attached by 38 high torque bolts.

Center frame H-type
 Track frame Steel box-section
 Track adjustment Automatic hydraulic type
 Number of shoes 46 each side
 Number of top rollers 3 each side
 Number of bottom rollers 7 each side



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 service center.



SERVICE REFILL 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 welded steel cab incorporating the ISO 3449 FOPS Level 2 structure is vibration isolated with 15 viscous combination pads and sound insulated to 75 dB(A). It is equipped with automatic climate control and is pressurized. The operator's seat is air suspended, electrically heated and has a lap seat belt. There is a trainer seat with belt.

Low effort joystick controls are hydraulic with foot controls for front shovel clam, crawler and swing brake.

Full instrumentation and Electronic Text Monitoring (ETM) are provided. AM/FM radio with CD player is included. Dual windshield wipers are synchronized with two-speed and intermittent operation.

2 heated rearview mirrors are externally mounted. External metal sun louvers and internal pull-down sun blinds. Left-hand sliding window. All windows are tinted parsol green.

ETM VEHICLE MONITORING SYSTEM

The Electronic Text Monitoring (ETM) system, mounted in the operator's console, continuously monitors the performance of the engine, gearbox, autolube and hydraulic systems. 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.

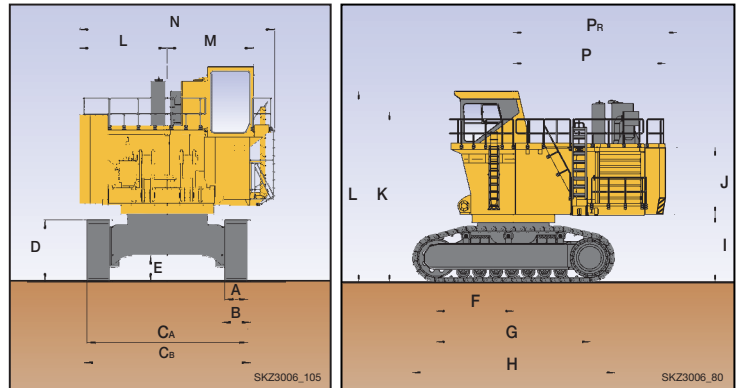
The digital storage provides failure summary and analysis, which can be downloaded by laptop computer. This data will assist in predicting or reducing downtime.

DIMENSIONS

BASIC MACHINE WITH COUNTERWEIGHT

A	800 mm	2'7"	I	2670 mm	8'9"
B	1000 mm	3'3"	J	2610 mm	8'7"
C _A	5600 mm	18'4"	K	6685 mm	21'11"
C _B	5800 mm	19'0"	L	7485 mm	24'7"
D	2160 mm	7'1"	M	3010 mm	9'11"
E	920 mm	3'0"	N	3060 mm	10'1"
F	3000 mm	9'10"	O	6800 mm	22'6"
G	6000 mm	19'8"	P	5950 mm	19'6"
H	7910 mm	25'11"	P _R	6410 mm	21'0"

Ground Clearance: 920 mm 3'0"



OPERATING WEIGHTS (APPROXIMATE)

PC 3000 Backhoe:

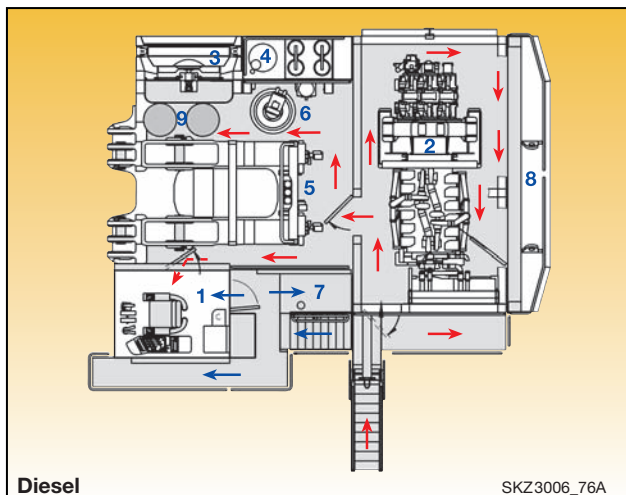
Operating weight including 8600 mm 28'3" boom, 4000 mm 13'1" stick, 15 m³ 19.5 yd³ backhoe bucket, operator, lubricant, coolant, full fuel tank and standard equipment.

Shoe Width	Operating Weight	Ground Pressure
800 mm 31"	256 t 564,500 lb	24.0 N/cm ² 34.8 psi
1000 mm 39"	265 t 584,300 lb	19.9 N/cm ² 28.9 psi

PC 3000 Front Shovel:

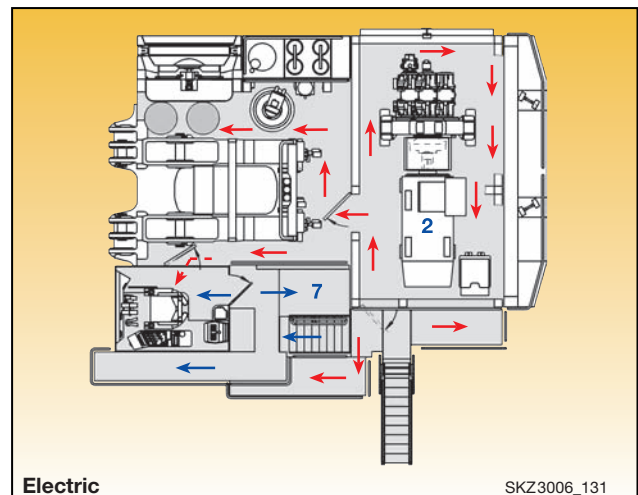
Operating weight including 6000 mm 19'8" boom, 4300 mm 14'1" stick, 15 m³ 19.5 yd³ shovel bucket, operator, lubricant, coolant, full fuel tank and standard equipment.

Shoe Width	Operating Weight	Ground Pressure
800 mm 31"	252 t 555,700 lb	23.6 N/cm ² 34.2 psi
1000 mm 39"	261 t 575,500 lb	19.6 N/cm ² 28.4 psi



Diesel

SKZ3006_76A



Electric

SKZ3006_131

Explanation

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

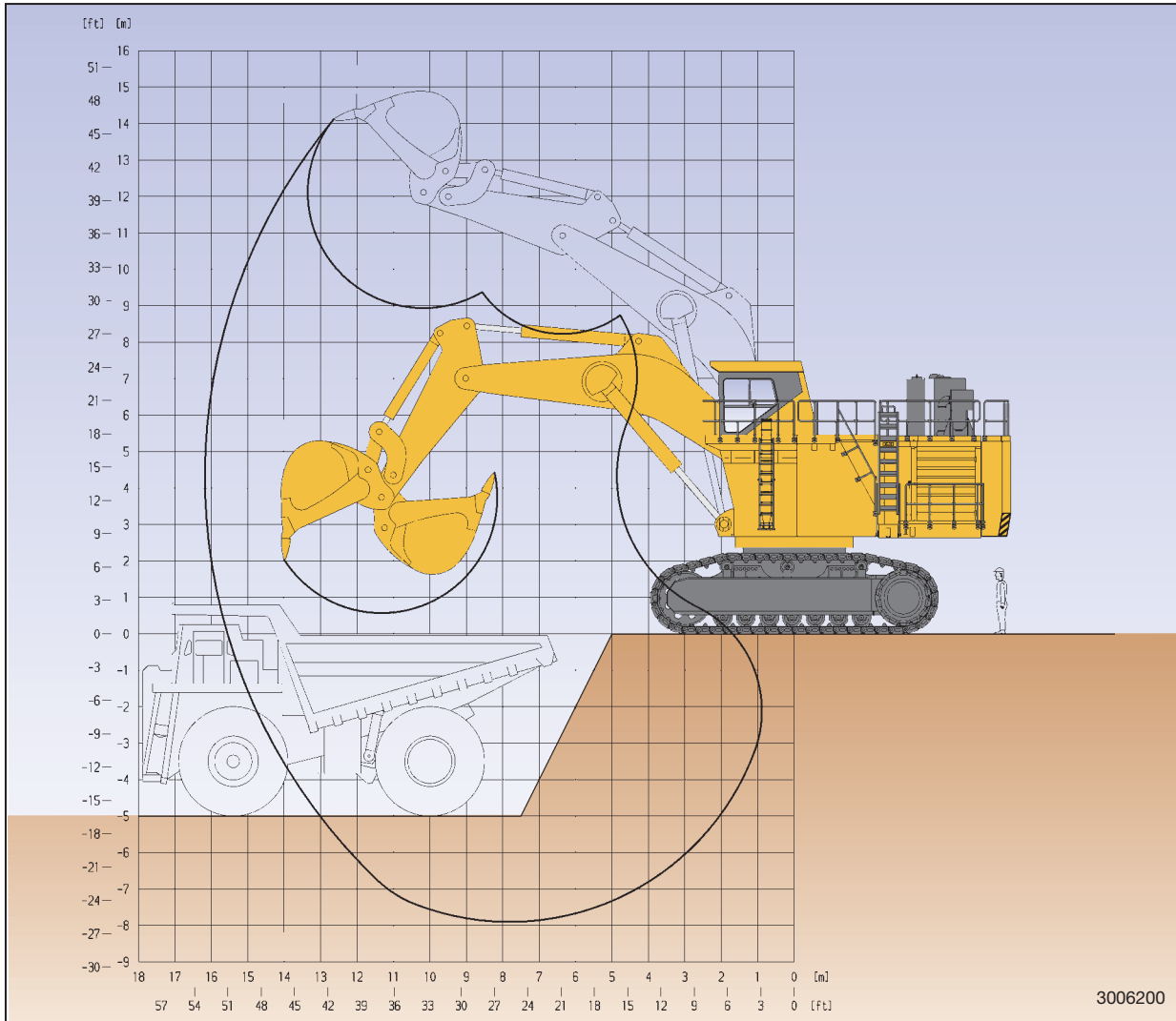
- Variation for Electric Drive Version
- | |
|---------------------------------|
| 2 Electric Motor |
| 7 High Voltage Electric Cabinet |

- Walkways
- ← Lower-Level
 - ← Upper-Level

PRODUCTIVITY FEATURES



BACKHOE BUCKET, STICK AND BOOM COMBINATION



Boom length	8600 mm	28'3"
Stick length	4000 mm	13'1"
Break-out force (SAE)	850 kN	191,000 lb
Tear-out force (SAE)	800 kN	179,800 lb

Max. digging height	14100 mm	46'3"
Max. dumping height	9000 mm	29'6"
Max. digging depth	7900 mm	25'11"
Max. digging reach	16200 mm	53'2"
Max. digging reach at ground level	15600 mm	51'2"

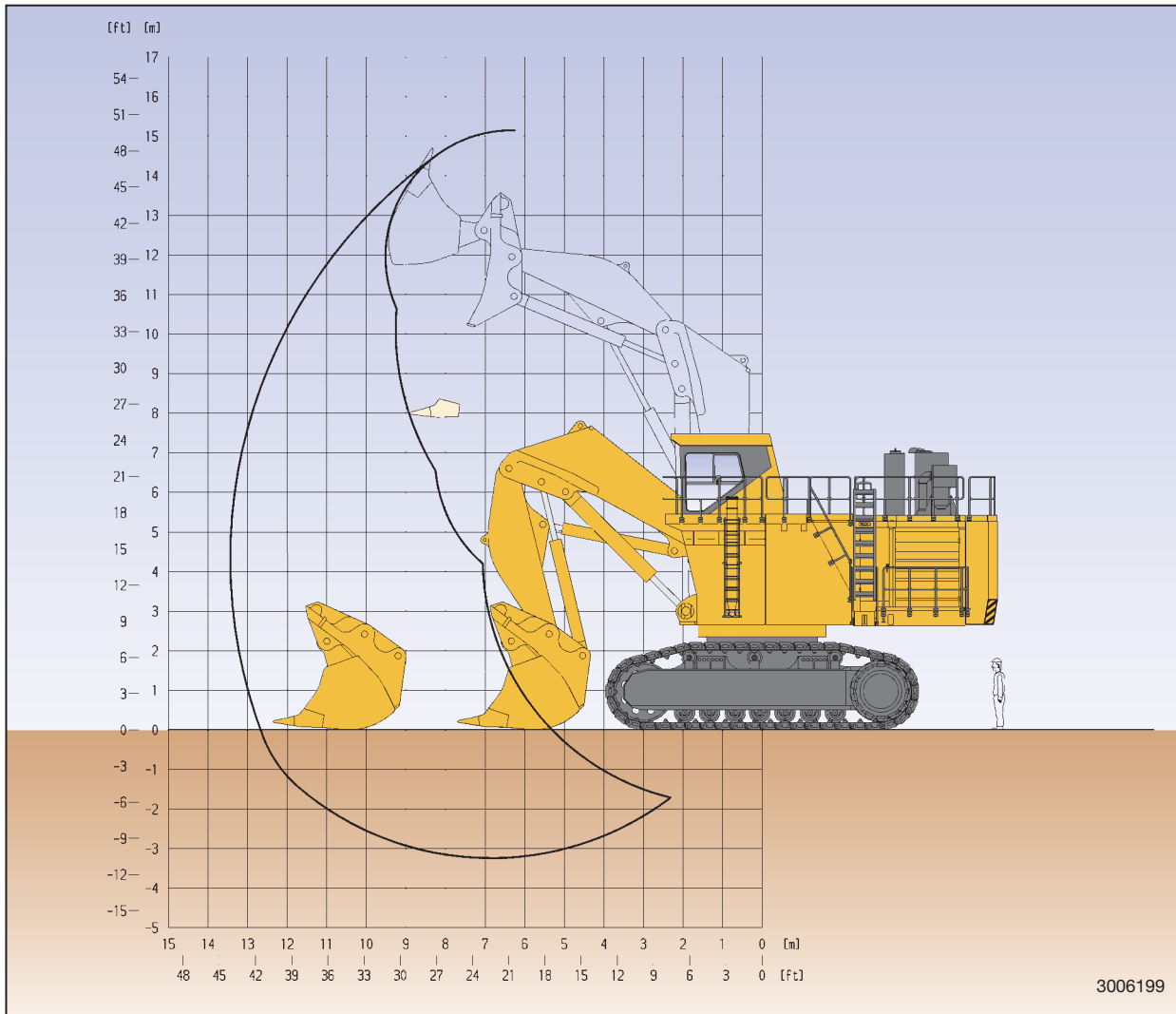
Bucket Capacity (Heaped 1:1) SAE		Width		Teeth	Weight*		Max. Material Density (Loose)		Wear Package	Recommended Mining Uses
m³	yd³	mm	ft and in	qty	t	lb	t/m³	lb/yd³		
12.0	15.7	3045	10'0"	5	15.2	33,500	2.2	3,700	WP-3	Heavy Duty
15.0	19.5	3400	11'2"	5	15.6	34,400	1.8	3,050	WP-2	Standard Mining

Alternative buckets on request

* Weight includes Backhoe Bucket, Stick and Boom Combination



SHOVEL BUCKET, STICK AND BOOM COMBINATION



3006199

Boom length	6000 mm	19'8"
Stick length	4300 mm	14'1"
Break-out force (SAE)	1000 kN	225,000 lb
Crowd force (SAE)	1100 kN	247,500 lb

Max. cutting height	15100 mm	49'6"
Max. dumping height	10200 mm	33'6"
Max. digging depth	3300 mm	10'10"
Max. digging reach	13300 mm	43'8"
Level crowd at ground level	4700 mm	15'5"
Bucket opening width	2330 mm	7'8"

Bucket Capacity (Heaped 2:1) SAE		Width		Teeth qty	Weight*		Max. Material Density (Loose)		Wear Package	Recommended Mining Uses
m ³	yd ³	mm	ft and in		t	lb	t/m ³	lb/yd ³		
15.0	19.5	3790	12'5"	6	23.1	51,000	1.8	3,050	WP-3	Standard Mining
16.0	20.9	3790	12'5"	6	23.6	52,000	1.7	2,900	WP-2	Light abrasive

Alternative buckets on request

* Weight includes Shovel Bucket, Stick and Boom Combination



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 mechanical teeth and lip 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 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 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

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

● OPERATOR'S CAB

Fully enclosed steel cab which incorporates the ISO 3449 standard FOPS Level 2 structure and CARRIER SÜTRAK air-conditioning unit. Mounted on viscous pads. GRAMMER full suspension operator's seat with lap-belt. A trainers seat with belt. Full selection of controls, switches, and Electronic Text Monitoring (ETM). Joystick and pedal-operated controls are hydraulic. Dual synchronized windshield wipers with two-speed and intermittent operation (reservoir 7 ltr **1.8 gal**). AM-FM radio, with CD player. External metal sun louvers and internal 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 pinion lubrication system for swing circle teeth with 200 ltr **53 gal** refillable barrel.

Service center (diesel version only as standard) on hydraulic arm carrying WIGGINS fluid receiving connectors for filling of fuel, engine oil and coolant, hydraulic oil, and the evacuation of coolant, and hydraulic and engine oils.

● ACCESSORIES

Acoustic travel alarm
Electric air horn
Emergency stops, ground level
Hydraulic cooler, 55°C **131°F**
Hydraulically actuated ground access ladder
Oil service transfer pump



OPTIONAL EQUIPMENT

- 1000 mm **39"** track shoes
- 4400 L **1,160 U.S. gal** biodegradable hydraulic oil
- Centinel and Reserve system
- Drive motor protection, bottom
- Electric drive
- Eliminator filter
- Engine oil management package (Centinel, Reserve & Eliminator systems)
- Fire suppression and detection system
- Lighting, extra or alternative
- Low temperature package
- Material for -50°C **-58°F**
- Oil for -25°C **-13°F** to +15°C **59°F**

- Oil for +5°C **41°F** to +55°C **131°F**
- Oil for Arctic, -40°C **-40°F** to +10°C **50°F**
- Rotoflare warning light
- Special painting and lettering
- Water separator

FRONT SHOVEL ATTACHMENT

- Arm cylinder sliding guard
- Boom cylinder sliding guard
- Bucket, 16.0 m³ **20.9 yd³**
- Handrails and step, boom
- Wear package #1, bucket
- Wear package #2, bucket
- Wear package #4, bucket

BACKHOE ATTACHMENT

- Boom cylinder sliding guard
- Handrails and step, boom
- Wear package #1, bucket
- Wear package #3, bucket

