# KOMATSU®

GROSS HORSEPOWER
1492 kW 2,000 HP
NOMINAL GVW
327499 kg 722,000 lb

**730E** 

**730**E





# WALK-AROUND

# **Productivity Features**

- High performance Komatsu SSDA16V159 engine Gross horsepower 1492 kW 2,000 HP
- IGBT AC electric drive system
- 2387 kW **3,200 HP** continuous retarding capability
- Automatic speed control (retard & propel) with automotive style cruise control
- Traction (spin-slide) control
- Customer specific body
- Tight turning radius 13.6 m 44'6"
- Payload Meter III®

# **Environmentally Friendly**

- Optional Tier 4 compliant Komatsu SSDA16V159 engine
- Fuel efficient engine



# Reliability Features

- Frame structurally enhanced for 181 tonne 200 short ton payload
- Proven wheelmotor design based on GEB25 and 788
- Simple and reliable hydraulic system
- Steering and brake accumulators
- Hydraulically actuated disc brakes
- Compact inverter
- Contactorless retarding with quad choppers

GROSS HORSEPOWER
1492 kW 2,000 HP @ 1900 rpm

**NOMINAL GVW** 327499 kg **722,000 lb** 

# **Operator Environment**

- Ergonomically designed spacious cab with improved visibility
- Fully adjustable driving position settings
- Four post ROPS/FOPS Level 2 Cab
- Advanced dash panel with payload display
- AM/FM/CD/MP3/USB radio
- Isolated cab mounts





# Easy Maintenance

- KOMTRAX Plus allows immediate diagnostics of key engine, chassis, and drive system components
- Automatic lubrication system
- In-tank quick fill fuel system
- Flange type rims
- Optional smart (speed) rims

# PRODUCTIVITY FEATURES



# **Electric Dynamic Retarder**

The 2387 kW **3,200 HP** retarding system provides state of the art braking capacity for navigating today's mining applications which contain steep continuous descents and sharp switchbacks. The continuous retarding capacity enhances the productivity of the vehicle operator, while eliminating the need for excessive mechanical braking effort.





# **IGBT AC Electric Drive System**

Invertex II® AC control system offers independent control of the rear wheelmotors, which in turn provides outstanding traction-ability during wet and slippery conditions, thus improving tire wear and operator confidence.

The air cooled Insulated Gate Bipolar Transistor (IGBT) inverter system technology provides the highest available reliability. The IGBT inverter is more compact and much simpler than the design of its predecessor, the Gate Turn Off (GTO) inverter, which improves serviceability and routine maintenance.

# **Traction (Spin-Slide) Control**

During slippery events caused by inclement weather conditions and/or application severity, the wheel Spin-Slide technology will detect and correct any wheel spin control events. Spin-Slide Control operates automatically and independently of the service brakes. During propulsion, "wheel slip control" reduces non-productive wheel spin in low traction conditions. During retarding, "wheel slide control" prevents wheel lockup and subsequent sliding.

# **Automatic Speed Control**

While in retard or propel, the operator has the ability to select a comfortable travel speed. Automatic Speed Control simultaneously manages the speed of each wheel independently to allow for any immediate adjustments needed during slippery underfoot conditions.

# **Customer Specific Body**

For all trucks, Komatsu goes through the Body Worksheet (BW) process to ensure that each body is designed to meet the requirements for each specific application while carrying its rated payload. Komatsu works with each customer to understand all of the material properties at a mine site and to identify the appropriate liner package.

Komatsu offers a standard all-welded steel, flat floor body with a full canopy and horizontal bolsters. This body includes a driver side eyebrow, body up sling, and rubber mounts on the frame.

• Standard Body Struck Capacity: 117 m3 153 yd3

• Standard Body SAE Heaped 2:1: 148 m<sup>3</sup> 193 yd<sup>3</sup>

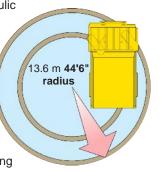
• Standard Komatsu Body Weight: 28169 kg 62,100 lbs



# **730E**

# **Tight Turning Radius**

By using double acting hydraulic steering cylinders with a six-point articulation linkage, the power steering system provides steering control with minimal operator effort. The turning radius is 13.6 m 44' 6", which provides excellent maneuverability for tight loading



and dumping conditions. The steering accumulators comply with ISO-5010 standards.

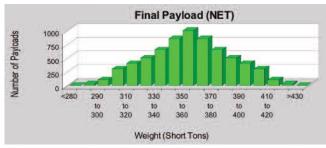


# Payload Meter III® (PLM III)

PLM III is an electronic system that monitors and records payload information for Komatsu's off-highway mining trucks. The accurate and reliable payload measurement system is designed to help optimize payload, maximize productivity and reduce the life cycle cost of the machine. PLM III tracks and records the following key production parameters:

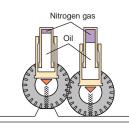
- Payload
- Empty Carry-Back
- Operator Identification
- · Haul Cycle, Loading, Dumping Time and Date
- Distance Traveled (Loaded and Empty)
- Cycle Time Information
- Maximum Speeds (Loaded and Empty)
- · TMPH Estimate for Front and Rear Tires
- Average Speed (Loaded and Empty)

## **Example of Payload Summary**



# **Hydropneumatic Suspension**

Hydrair II® is a suspension system that utilizes four nitrogen-over-oil cylinders. This suspension system is designed to maximize machine productivity by providing the operator with a smooth and comfortable ride. By absorbing



shocks to the chassis during operation,

Hydrair II® contributes to the durability of the machine's frame and components.



# **OPERATOR ENVIRONMENT**

# **Ergonomically Designed Cab**

The Komatsu 730E cab design provides a comfortable and productive environment to meet today's mining demands. The cab includes tinted windows, heating and air conditioning, acoustical insulation, double sealed doors, and provides filtered and pressurized air.

# **Operator Seat**

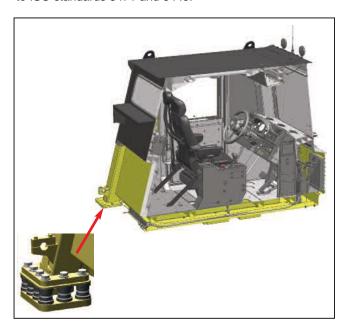
Komatsu recognizes that operator comfort is a key to productivity in today's mining environment. The five-way adjustable operator seat and the tilt-telescopic steering column provide an optimum driving posture for increased operator comfort and control over the machine. The air suspension seat absorbs vibrations transmitted from the machine, reducing operator fatigue. A 76 mm 3" wide three-point seat belt is provided as standard equipment.

# **Automotive Style Instrument Panel**

The 730E comes with a new operator friendly dash configuration which includes lighted gauges, switches, and information panel. This allows the operator to see the status of the machine during operation and informs them of any faults. An instructive message will appear after any fault is detected on the machine.

## **Built-in ROPS and FOPS Structure**

Integral ROPS/FOPS Level 2 cab. These structures conform to ISO standards 3471 and 3449.

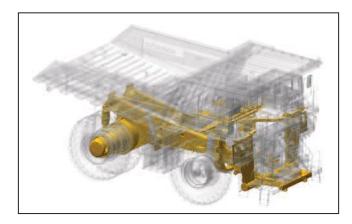




# RELIABILITY FEATURES

# **Structurally Enhanced Frame Design**

By using advanced computer-aided design, finite element analysis, and full-scale dynamic and static testing, the frame design has been structurally enhanced to carry 181 tonne **200 short tons** and provides the highest reliability in the industry.



# Simple and Reliable Hydraulic System

The hydraulic system is a proven and reliable design with fewer parts than other OEMs. The system utilizes a common tank, and therefore, common fluid for steering, braking, and hoisting. In-line, replaceable filtration elements provide additional hydraulic system protection from contamination.

To keep downtime to a minimum, Komatsu developed a sub-frame pump module that can be removed and replaced as a single unit. This reduces change-out time and allows easy access to the hydraulic pump module.



# **Castings Used in High Stress Areas**

To increase frame reliability, steel castings have been incorporated at key frame pivot points and key load bearing critical portions of the frame. This includes the rear body pivot and horsecollar sections.

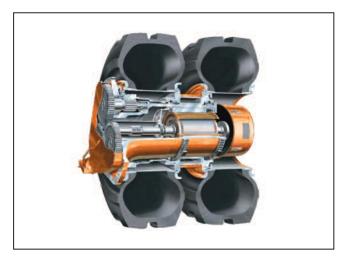
# **Steering and Brake Accumulators**

In the event that the hydraulic pressure in the steering or braking system drops below an acceptable minimum, nitrogen-charged accumulators will automatically apply the brakes so that the truck may be stopped. There are separate accumulators for the braking and steering systems.



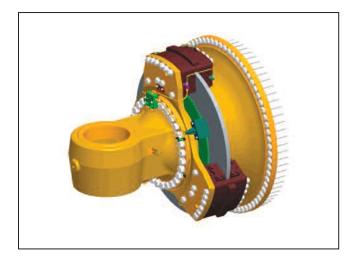
### **GEB35** with Combo Brake

The GEB35 is a proven wheelmotor design based on the GEB25 and 788. It has a standard gear ratio of 30.8:1 and is designed for 12% equivalent grades.



# **Fully Hydraulic Dry Disc Brakes**

The 730E comes standard with four-wheel hydraulically actuated dry disc service brakes. By using a fully hydraulic braking system, the formation of water and sediments - typical in air actuated braking systems - is no longer present. This prevents contamination, freezing and corrosion from affecting service brake component life.







# EASY MAINTENANCE

# Advanced Monitoring System – On-board Diagnostics

The Komatsu advanced monitoring system identifies maintenance items to the operator, reduces diagnostic times, indicates oil and filter replacement hours, and displays fault codes. This monitoring system is designed to maximize machine availability.

# **Automatic Lubrication System**

The automatic lubrication system is designed to reduce downtime for lubrication by having a centralized location that automatically distributes grease to all lubrication points.

# **Battery Isolation Station**

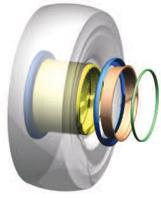
This box contains shutdown, lockout and light switches making it easier to perform basic maintenance functions at ground level. Component switches include:

- Engine shutdown
- · Access ladder light switch
- · Master disconnect switch
- Starter disconnect switch
- Propel lockout lever
- LED indicator lights (on/off)



# Flange Type Tire Rims

The flange type rims allow easy removal and installation of the tires and minimize the overall impact on downtime.



# Rim and tire maintenance can be hazardous unless the correct procedures are followed by trained personnel.

#### **KOMTRAX Plus**

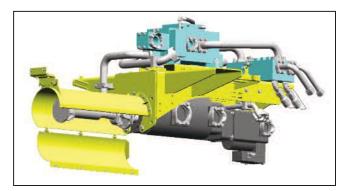
As part of a complete service and support program, Komatsu equips every mining and quarry sized machine with KOMTRAX Plus. By using a satellite-based communication system, KOMTRAX Plus offers a new vision of monitoring your valuable assets by providing insight to critical operating metrics and information that can be used to increase availability, lower owning and operating costs and maximize fuel efficiency.



The KOMTRAX Plus information available on MyKomatsu.com allows service personnel and asset owners to review cautions, operational data, fuel consumption, payloads and key component measurements provided in forms of trends. With KOMTRAX Plus, knowledge becomes the power to fuel your productivity.

# **Quick Change Pump Module**

To keep pump change-out time to a minimum, Komatsu has developed a sub-frame module which contains both the steering / brake and hoist pumps. This module can be removed and replaced as a single unit, helping limit potential downtime and allowing easy access to the hydraulic pumping system.



# **ADDITIONAL FEATURES**

# **Environmentally Friendly**

# Komatsu SSDA16V159 Engine

Optional Tier 4 compliant Komatsu SSDA16V159 engine.

# **Less Fluids Than Mechanical Drives**

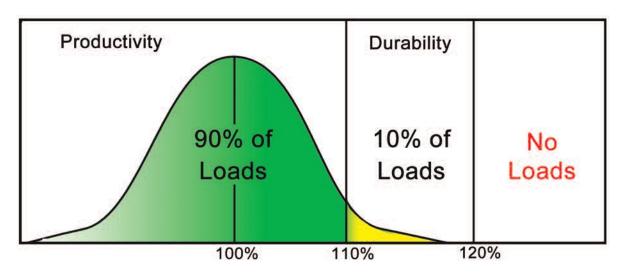
Komatsu electric drive trucks contain 57% less fluid compared to similar class mechanical drive trucks, creating a lower environmental impact and makes fluid replacement simpler, quicker and more economical.

# **Payload Policy**

# 10-10-20 Load Policy Criteria

Recognizing that variation occurs naturally in material density, fill factors, and loading equipment, Komatsu America Corp. deems it necessary to establish a consistent payload policy. This payload policy is intended to identify the guidelines and limitations for the loading of Komatsu mining trucks, and is valid for approved applications and haul profiles only.

- 1) The average monthly payload must not exceed the rated payload of the truck
- 2) 90% of all loads must be below 110% of the rated payload of the truck
- 3) 10% of all loads may be between 110% and 120% of the rated payload of the truck
- 4) No single payload may exceed 120% of the rated payload of the truck



**Percent of Rated Payload** 

# SPECIFICATIONS



### **INGINE**

Make and model*	Komatsu SSDA16V159
Fuel	Diesel
Number of cylinders	
Operating cycle	
Gross horsepower**	1492 kW <b>2,000 HP</b> @ 1900 rpm
Net flywheel power***	1405 kW <b>1,884 HP</b> @ 1900 rpm

- Optional Tier 4 emission compliant engine for North American market. Non-emissionized
- engine for markets outside of North America.

  \*\* Gross horsepower is the output of the engine as installed in this machine, at governed rpm and with engine manufacturer's approved fuel setting. Accessory losses included
- are water pump, fuel pump and oil pump.

  \*Net flywheel power is the rated power at the engine flywheel minus the average accessory losses. Accessories include fan and charging alternator. Rating(s) represent net engine performance in accordance with SAE J1349 conditions.



### **ELECTRIC DRIVE**

AC/I	DC CURRENT	
Α	lternator	GTA-49
D	Oual impeller in-line blower	393 m <sup>3</sup> /min 13,900 cfm
С	Control	AC Torque Control System
M	Notorized wheels*	<b>GEB35 Induction Traction Motors</b>

Speed (maximum) . . . . . . . . . . . . . . . . . . 64.5 km/h **40 mph** 

\* Wheel motor application depends upon gross vehicle weight, haul road grade, haul road length, rolling resistance and other parameters. Komatsu and G.E. must analyze each job condition to assure proper application.



### **TIRES AND RIMS**

Rock service, tubeless, radial tires Flange mount rim 686 mm x 1448 mm x 152 mm 27" x 57" x 6" rim assembly.

Rims rated at 758 kPa 110 psi cold inflation pressure. Tires should meet application requirements for tkph/tmph, tread, compound, inflation pressure, ply rating or equivalent, etc-



### **BODY**

All-welded steel flat floor body with horizontal bolsters and full canopy. Eyebrow, rear wheel rock ejectors, body up sling and rubber mounts on frame are standard. Pivot exhaust heating optional

iodino ori marrio dio otaridara. I mot oxinadot rioding optional.
Floor sheet
19 mm <b>0.75"</b> Center
1379 MPa 200,000 psi tensile strength steel
Front sheet
1379 MPa 200,000 psi tensile strength steel
Side sheet 8 mm <b>0.31"</b>
1379 MPa 200,000 psi tensile strength steel
Canopy sheet
690 MPa 100,000 psi tensile strength steel
Capacity struck117 m <sup>3</sup> <b>153 yd</b> <sup>3</sup>
SAE heaped 2:1
Standard Komatsu body weight 28169 kg 62,100 lb



# CAB

Advanced Operator Environment with integral 4-post ROPS/FOPS Level 2 cab, adjustable air suspension seat w/lumbar support and arm rests, full-size passenger seat, maximum R-value insulation, tilt and telescoping steering wheel, electric windshield wipers w/washer, tinted glass, power windows, Komatsu Payload Weighing System, 61,000 Btu/hr heater and defroster, 19,900 Btu/hr air conditioning (HFC - 134A refrigerant).



#### **FRAME**

Advanced technology, full butt-welded box sectional ladder-type frame with integral ROPS supports, integral front bumper, rear tubular cross members, steel castings at all critical stress transition zones, rugged continuous horsecollar.

Plate material	482.6 MPa <b>70,000 psi</b>
Casting material	tensile strength steel 620.5 MPa <b>90.000 psi</b>
3 3	tensile strength steel
Rail width	280 mm <b>11.02"</b>
Rail depth (minimum)	797 mm <b>31.38"</b>
Top and bottom plate thickness	32 mm <b>1.26"</b>
Side plate thickness	19 mm <b>0.75"</b>
Drive axle mounting Pir Drive axle alignment Swing link b	



### **BRAKING SYSTEM**

System meets ISO 3450/1996. Service brakes: all-hydraulic actuated.

Three calipers on a 1213 mm 47.75" O.D. disc. Two 635 mm 25" O.D. discs per side.

One caliper per disc.

Emergency brakes ......Automatically applied prior to hydraulic system pressure dropping below level required to meet secondary stopping requirements.

Wheel brake locks . . . . . . . . . . . . . . . . . . Switch-activated hydraulically released, with speed application protection.

Electric dynamic retarder (continuous) ...... 2387 kW 3,200 hp Continuously rated high-density blown grids w/retard at engine idle and retard in reverse propulsion.



#### SUSPENSION

Variable rate hydro-pneumatic with integral rebound	control
Max. front stroke	312 mm <b>12.28"</b>
Max. rear stroke	279 mm <b>10.98"</b>
Max. rear axle oscillation	±5.3°



### **COOLING SYSTEM**

L&M radiator assembly, split-flow, with deaerator-type top tank. Radiator frontal area ............................... 4.65 m<sup>2</sup> 50.1 ft<sup>2</sup>

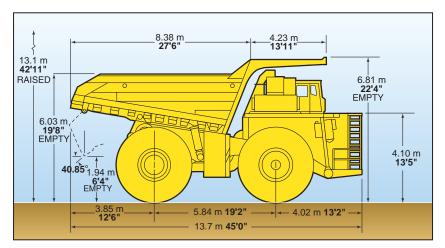


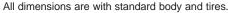
### SERVICE CAPACITIES

Cooling System	117 U.S. gal
Crankcase*	59 U.S. gal
Hydraulic system	210 U.S. gal
Motor gear box (each)38 L	10 U.S. gal
Fuel	800 U.S. gal

\* Includes lube oil filters





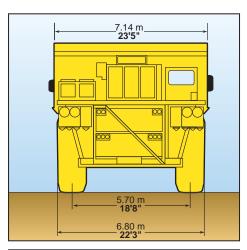


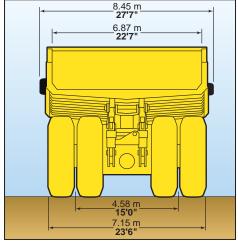
	Сар	Loading		
Body	Struck	2:1 Heap	Height*	
Standard	117 m <sup>3</sup> <b>153 yd<sup>3</sup></b>	148 m³ <b>193 yd³</b>	6.03 m <b>19'8''</b>	

<sup>\*</sup>Exact load height may vary due to tire make, type, and inflation pressure.



Steering . . . . Accumulator assisted with twin double acting cylinders provide constant rate steering. Secondary steering automatically supplied by accumulator. Turning circle diameter (SAE) ............................... 27.2 m 89' Filtration . . . . . . . . . . In-line replaceable elements Suction. . . . . . . . . . . . . . . . . Single, full flow, 100 mesh Hoist and steering . . . . . . . . . . . Dual, in-line, high pressure Brake component cabinet . . . . . . . Above deck, easily accessible with diagnostic test connections Hoist...... Two 3-stage dual-acting outboard cylinders, internal cushion valve, over-center dampening Hoist times Pumps . . . . . . Two pumps, single package, end of alternator Hoist and brake cooling . . . . . . . . . . . . Tandem gear pump with output of 666 lpm 176 gpm at 1900 rpm and 18961 kPa 2,500 psi Steering and brake . . . . . . Pressure-compensating piston pump with output of 254 lpm 67 gpm at 1900 rpm and 19134 kPa 2,775 psi System relief pressures 

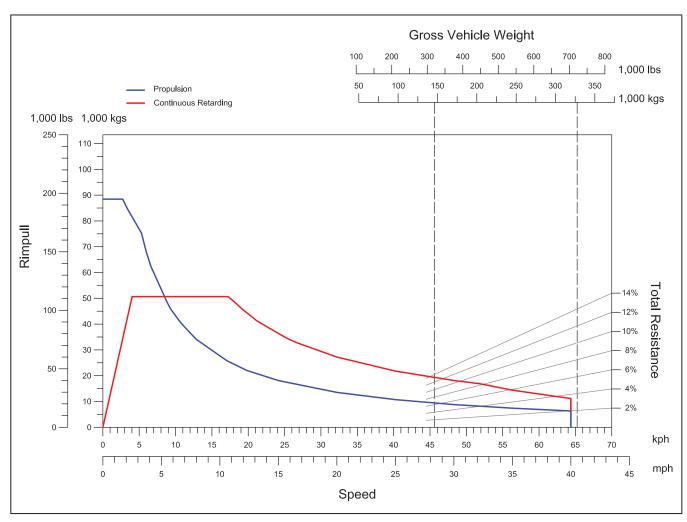




# ELECTRICAL SYSTEM

Alternator24 Volt, 25	ou amp
Lighting	24 volt
Cranking motors Two	/24 volt

### **PERFORMANCE CHART**



# KOMATSU PRODUCT LINE LOADER/TRUCK MATCHING

**Typical Number of Passes to Load** 

		102			10	Komats	u Trucks		30 50	
			HD785 100 ton	HD1500 159 ton	730E 200 ton	830E-AC 244 ton	860E-1K 280 ton	930E-4 320 ton	930E-4SE 320 ton	960E 360 ton
	PC2000	15.7 yd³	4	7						
ATORS	PC3000	19.5 yd³	4	6	7					
KOMATSU EXCAVATORS	PC4000	29 yd³	3	4	5	6	6			
KOMAT	PC5500	37 yd³		3	4	5	5	6	6	7
	PC8000	55 yd <sup>3</sup>				3	3	4	4	5

Nominal truck payload rating (short tons)

Bucket ratings are based on 1780 kg/lcm 3,000 lbs/lcy material density.

Empty Veh	nicle Weight			
	Front Axle Distribution	73030 kg	161,000 lbs	50.0%
	Rear Axle Distribution	73030 kg	161,000 lbs	50.0%
	Total EVW	146060 kg	322,000 lbs	
Gross Veh	icle Weight			
	Front Axle Distribution	110040 kg	242,592 lbs	33.6%
	Rear Axle Distribution	217459 kg	479,408 lbs	66.4%
	Nominal GVW	327499 kg	722,000 lbs	
Payload				
	Nominal Payload	181440 kg 181 metric tons	400,000 lbs 200 short tons	;

Nominal payload is defined by Komatsu America Corp's payload policy documentation. In general, the nominal payload must be adjusted for the specific vehicle configuration and site application. The figures above are provided for basic product description purposes.

Please contact your Komatsu distributor for specific application requirements.



- Air cleaners, Donaldson® w/evacuators
- Alternator (24 volt/250A)
- Auto lubrication system w/ground level fill & level indicator
- Back up alarm
- Batteries-4 x 8D (1450 CCA's)
- Battery charging cable and socket
- Body over center device
- Body impact plate
- Brakes: dry front & rear
- Cruise speed control
- Deck guard rails
- Electric start
- Fast-fill fuel system (in tank and left side remote)
- Filters, high pressure hydraulic
- Fuel tank sight gauge (3)
- Ground level radiator fill
- L&M Radiator
- Mud flaps
- Muffled exhaust-deck-mounted
- Power supply, 24 volt and 12 volt DC
- Quick disconnects (hoist and diagnostics)
- Radiator sight gauge
- Removable power module unit (radiator, engine, alternator, blower)
- Reverse retarding
- Service center-LH
- Thermostatic fan clutch

### **OPERATOR ENVIRONMENT & CONTROL**

- All hydraulic service brakes w/auto apply
- Auxiliary hydraulic system
- Battery disconnect switch
- Brake lock and drive system interlock
- Circuit breakers, 24 volt
- Dedicated auxiliary circuits in operator cab (ladder lights, 2-way radios, fire suppression power)
- Diagonal ladder tread cap plates
- Dynamic retarding with continuous rated element grids
- Engine access guard rail
- Engine shutdown at ground level
- Hoist propulsion interlock
- Horns (electric-front and back-up)
- Hydraulic tank ladder
- Integral ROPS/FOPS Level 2 cab

- Isolation mounted cab
- Maintenance and power lockout
- Parking brakes with warning light & speed application protection
- Power steering w/auto secondary steering Protective deck handrails
- Pre-shift brake test
- Pump driveline protector
- Radiator fan guard
- RH & LH multi-cambered convex mirrors
- Seat belts
  - Operator 3-point 76 mm 3" retractable
  - Passenger lap 76 mm 3" retractable
- Slip-resistant / dimpled surface on walkways
- Stairway

### STANDARD HIGH VISIBILITY DELUXE CAB

- · AC drive interface display
- Actia Dash & Status Panel
  - Body up
- Parking brake
- Propulsion system not ready
- No DC link voltage
- High engine oil temp
- No propel
- Service brake applied
- Wheel brake lock applied
- Maintenance monitor
- Air cleaner vacuum gauges Air conditioner HFC-134A
- AM/FM radio with CD, USB & MP3
- Column mounted speed control
- Digital tachometer and speedometer
- Dome light
- Engine hourmeter, oil pressure gauge, coolant temperature gauge, hydraulic oil temperature gauge
- Engine shutdown w/ "Smart Timer" delay
- Floor mat (double barrier)
- Fuel gauge in cab
- Fuel low level light and buzzer
- Gauges (w/backlight)
- Headlight switch
- Heater and defroster (heavy-duty)
- Heater switch
- High beam selector and indicator

- Horn (center of steering wheel)
- Indicator lights (blue)
- Engine servicè
   KOMTRAX Plus snapshot (IM)
- Insulation (Max R-Value)
- Komatsu Payload Meter III® KOMTRAX Plus with ORBCOMM
- Operator seat, adjustable w/air
- suspension, lumbar support and arm rests Panel lighting (adjustable)
- Passenger seat, mechanical suspension
- Power windows
- Pressurized cab air system w/fan on
- Single brake/retarder pedal
- Starter key switch
- Sunvisor (adjustable)
- Tilt & telescoping steering column Voltmeter (battery output)
- Windshield (tinted plate)
- Windshield wiper (dual) and washer (electric)

#### LIGHTING

- Auxiliary box (LED)
- Back-up lights-R and L deck mount (2) halogen
- Brake and retard lights on top of cab (LED)
- Brake cabinet (LED)
- Clearance lights (LÉD)
- Control cabinet service light (LED)
- Dynamic retarding, rear (2) (LED)
- Engine compartment service lights
- Fog lights (2) halogen
- Halogen headlights- all high & low beam positions (10)
- HID-style backup/ berm light
- Manual back-up light, switch and indicator
- Payload lights R and L (LED)
- Platform lights R, L and Center
- Recessed corner marker/ signal lighting (LED)
- Stairway lights
- Stop & fail lights (4) (LED)
- Turn signals (LED)
- Under-hood service lights



Note: Optional equipment may change operating weight.

- Accumulators (cold weather)
- Antifreeze (-40°C)

AESS844-00

- Body Liners\*
- · Bumper mounted headlights
- Extended canopy
- Fire extinguisher 9 kg 20 lb
- Evebrow
- HID headlights Hot start engine coolant (220V 2-2500W)
- Hot start engine oil (220V 2-500W) Hot start hydraulic oil
- Hydraulic folding access ladder
- ISRI 3 point seat
- Mudflaps on hydraulic tank & fuel tank
- Service center-RH
- Shutters (radiator)

AD09(Electronic View Only)

- Smart (speed) rims
- Special language decals
- Suspensions, cold weather Wiggins Quick Fluid Fill & Engine Oil Evacuation System

 Scoreboard PLM III Display · Heated body

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\*Available factory installed or non-installed. All other options and accessories listed are available factory installed only.

09/12 (EV-1)

