

# KOMATSU®

## 830E-AC

MAXIMUM GVW  
385848 kg 850,650 lb

GROSS HORSEPOWER  
1865 kW 2,500 HP



Photo may include optional equipment.

ELECTRIC DRIVE TRUCK

## SPECIFICATIONS



### ENGINE

*Make and model	Komatsu SDA16V160
Fuel	Diesel
Number of cylinders	16
Operating cycle	4 cycle
**Rated brake power	1865 kW <b>2,500 HP</b> @ 1900 rpm
***Flywheel power	1761 kW <b>2,360 HP</b> @ 1900 rpm
Weight (wet)	9608 kg <b>21,182 lb</b>

\* Tier 2 emissions certified. Tier 1 emissions engine is optional outside of North America.

\*\*Rated brake power 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

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



### ELECTRIC DRIVE

#### AC/DC CURRENT

Alternator	G.E. GTA-41
Dual impeller in-line blower	255 m <sup>3</sup> /min <b>9,000 cfm</b>
Control	AC torque control system
*Motorized wheels	GEB25
*Ratio	31.875:1
Speed (maximum)	64 kph <b>40 mph</b>

\* 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, tires (bias ply or radial)	
Standard tire	40.00R57
*Optional tire	46/90R57
Standard five (5) piece rim	
737 mm x 1488 mm x 152 mm <b>29" x 57" x 6"</b> rims.	
Typical tire weight	21081 kg <b>46,476 lbs</b>

\* Fitment of optional 46/90R57 tire shall increase nominal GVW rating to 392357 kg **865,000 lbs**

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. Rear wheel rock ejectors, body up sling and rubber mounts on frame are standard. Pivot exhaust heating optional.

Floor sheet	19 mm <b>0.75"</b> 1379 mPa <b>200,000 psi</b> tensile strength steel (two-piece)
Front sheet	12 mm <b>0.47"</b> 1379 mPa <b>200,000 psi</b> tensile strength steel
Side sheet	8 mm <b>0.31"</b> 1379 mPa <b>200,000 psi</b> tensile strength steel
Canopy sheet	5 mm <b>0.19"</b> 690 mPa <b>100,000 psi</b>
Struck	117 m <sup>3</sup> <b>153 yd<sup>3</sup></b>
Standard SAE heaped 2:1	147 m <sup>3</sup> <b>193 yd<sup>3</sup></b>
Standard Komatsu body weight	27669 kg <b>61,000 lbs</b>



### CAB

Advanced Operator Environment with integral 4-post ROPS/FOPS Level 2, (SAE J1040/ISO 3449) adjustable air suspension seat w/lumbar support and arm rests, passenger seat, maximum R-value insulation, tilt and telescoping steering wheel, electric windshield wipers w/washer, tinted glass, power windows, Komatsu Payload Weighing System, 55,000 Btu/hr heater and defroster, 21,600 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 horseshollar.

Plate material	482.6 mPa <b>70,000 psi</b> tensile strength steel
Casting material	620.5 mPa <b>90,000 psi</b> tensile strength steel
Rail width	305 mm <b>12"</b>
Rail depth (minimum)	864 mm <b>34"</b>
Top and bottom plate thickness	32 mm <b>1.25"</b>
Side plate thickness	16 mm <b>0.62"</b>
Drive axle mounting	Pin and spherical bushing
Drive axle alignment	Swing link between frame and axle



### BRAKING SYSTEM

System meets ISO 3450/1996.

Service brakes: all-hydraulic actuated.

Front	Wheel speed disc. Three calipers on a 1213 mm <b>47.75"</b> O.D. disc.
Rear	Dual disc armature speed. Two 635 mm <b>25"</b> 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
Parking brakes	Spring-applied, hydraulically released, with speed application protection.
Electric dynamic retarder (max.)	2983 kW <b>4000 hp</b>
	Continuously rated high-density blown grids w/retard at engine idle and retard in reverse propulsion.



### SUSPENSION

#### HYDRAIR® II

Variable rate hydro-pneumatic with integral rebound control.

Max. front stroke	335 mm <b>13.2"</b>
Max. rear stroke	279 mm <b>11.0"</b>
Max. rear axle oscillation	±10.3°



### COOLING SYSTEM

L&M radiator assembly, split-flow, with deaeration-type top tank.

Radiator frontal area 6.24 m<sup>2</sup> **67.2 ft<sup>2</sup>**

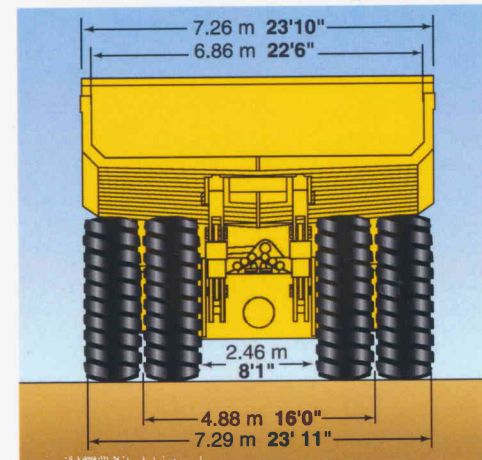
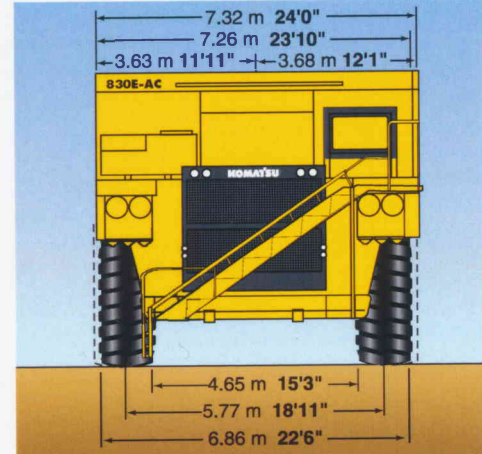
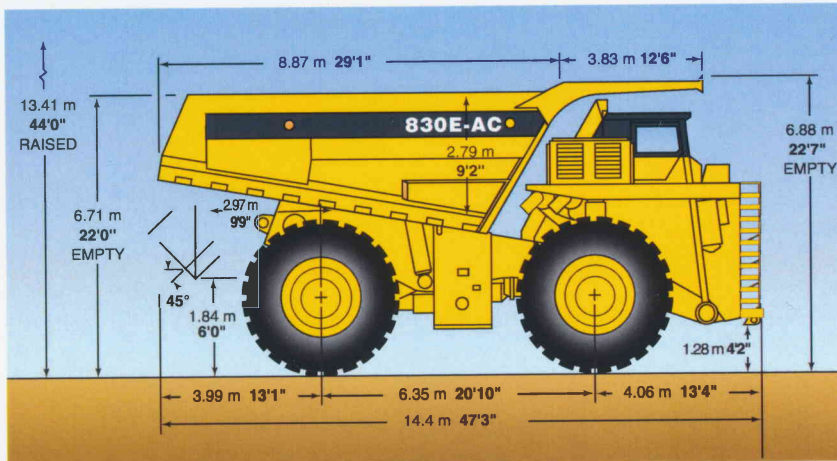


### SERVICE CAPACITIES

Cooling system	568 L	<b>150 U.S. gal</b>
*Crankcase	280 L	<b>74 U.S. gal</b>
Hydraulic system	946 L	<b>250 U.S. gal</b>
Motor gear box	38 L	<b>10 U.S. gal</b>
Fuel	4542 L	<b>1200 U.S. gal</b>

\* Includes lube oil filters



**DIMENSIONS**

All dimensions are with 147 m<sup>3</sup> 193 yd<sup>3</sup> body.

Body	Struck	2:1 Heap	Loading Height*
Standard	117 m <sup>3</sup> 153 yd <sup>3</sup>	147 m <sup>3</sup> 193 yd <sup>3</sup>	6.71 m 22'

\* Exact load may vary due to tire make, type and inflation pressure.

**HYDRAULIC SYSTEM**

- Steering ..... Accumulator-assisted twin cylinders provide constant rate steering. Emergency steering automatically supplied by accumulator.
- Turning circle diameter (SAE) ..... 28.4 m 93 ft
- Reservoir ..... 901 L 238 U.S. gal
- 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 damping.
- Hoist times
- Power-up loaded ..... 21 sec
- Power-down ..... 16 sec
- Float-down empty ..... 17 sec
- Pumps
- Hoist ..... Tandem gear-type pump with output of 851 lpm **225 gpm** @ 1900 rpm and 17240 kPa **2,500 psi**
- Steering and brake ..... Pressure compensating piston pump with output of 246 lpm **65 gpm** @ 1900 rpm and 18961 kPa **2,750 psi**
- System relief pressures
- Hoist ..... 17240 kPa **2,500 psi**
- Steering and Brake ..... 27580 kPa **4,000 psi**
- Quick disconnects standard for powering disabled truck and for system diagnostics.

**ELECTRICAL SYSTEM**

- 4 x 8D 1450 CCA, 12 volt batteries, in series/parallel, bumper mounted with disconnect switch.
- Alternator ..... 24 volt, 140 amp
- Lighting ..... 24 volt
- Cranking motors ..... two/24 volt

**WEIGHT DISTRIBUTION**

Empty Vehicle Weight		kg	lb	%
(Wet, 100% fuel, no options, standard Komatsu body, standard tires)				
Front axle	81279		<b>179,190</b>	50
Rear axle	82921		<b>182,810</b>	50
Total EVW	164200		<b>362,000</b>	
<b>Gross Vehicle Weight (Nominal)</b>				
Front axle	127330		<b>280,715</b>	33
Rear axle	258519		<b>569,936</b>	67
Total	385848		<b>850,650</b>	
Nominal Payload*	221648		<b>488,650</b>	
			<b>244 U.S. ton</b>	

\*Nominal payload is as defined within Komatsu America Corporation'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 Corp. distributor for specific application requirements.



## STANDARD EQUIPMENT

- Air cleaners, Donaldson SSG with dust evacuators
- Alternator (24 volt/140A)
- Auto lubrication system -90 lbs.
- Batteries (4 x 8D, 1450 CCA 12 volt)
- Battery charging receptacle, 24 V
- Body down indicator/body up buzzer
- Body over center device
- Brakes: Front: Wheel speed disc; Rear: dual disc armature speed
- Electric start
- Filters, high pressure hydraulic
- Gate valves on hydraulic tank
- Komatsu IGBT control cabinet
- Komatsu Payload Weighing System-PLM III
- Mirrors, LH flat and RH rectangular convex
- Mud flaps
- Muffled exhaust, deck-mounted
- On-board load box
- Quick disconnects (steering and hoist)
- Radiator sight gauge
- Removable power module unit (radiator, engine, alternator, blower)
- Retard grids, continuous rated, 14 element
- Retard speed control
- Reverse retarding
- Rock ejectors
- Thermostatic Fan Clutch
- Fast-Fill Fuel System (in-tank)
- Service Center (radiator, engine, hydraulics)

### OPERATOR ENVIRONMENT AND CONTROL:

- All-hydraulic service brakes with emergency auto apply
- Battery disconnect switch
- Body up cable
- Brake lock and drive system interlock
- Circuit breakers, 24 volt
- Diagonal staircase across grill
- Dynamic retarding with continuous rated grids
- Engine shutdown at ground level
- Hoist interlock

- Horns (electric, center of steering wheel)
- Integral roll-over protection ROPS/FOPS Level 2
- Maintenance & power lock-out
- Parking brake with warning light and speed application protection
- Power steering w/auto emergency steering
- Protective deck rails
- Pump drive guard
- Radiator fan guard
- Seat belts 76 mm 3" wide retractable
- Skid-resistant coating on walkways

### STANDARD HIGH VISIBILITY DELUXE CAB:

#### Instrumentation

- Alarm System warning lights (red)
  - Accumulator pre-charge
  - Coolant low level w/alarm
  - Coolant high temperature w/alarm
  - Electric drive system cooling blower w/alarm
  - Electric system fault w/alarm
  - Engine coolant temperature gauge
  - Hydraulic oil level w/alarm
  - Hydraulic oil temperature w/alarm
  - Low engine oil pressure w/alarm
  - Low brake pressure w/alarm
  - Motorized wheel temperature stop engine w/alarm
  - Steering pressure w/alarm
- Air cleaner vacuum indicators
- Air conditioner HFC 134a
- AM/FM cassette radio, CD player
- Blower pressure indicator light
- Digital tachometer and speedometer
- Dome light
- Engine hourmeter
- Engine shutdown
- Floor mat
- Fuel gauge in cab and on tank
- Fuel low level warning
- Gauges (backlighted)
- Headlight switch
- Heater and defroster (heavy-duty)
- Heater switch

- High beam selector and indicator
- Indicator lights (amber):
  - 5-minute idler timer
  - Auto lube alarm
  - Check engine w/alarm
  - Circuit breaker tripped
  - Dynamic retarding
  - Dump body up
  - Hydraulic oil filter
  - Low fuel level
  - Manual back-up lights
  - Park brakes applied
  - Retard speed control
  - Service brakes
  - Starter circuit
- Insulation (Max R-Value)
- Oil pressure gauge (engine)
- Operator seat, adjustable w/air suspension, lumbar support and arm rests
- Panel lighting (adjustable)
- Passenger seat
- Power windows
- Pressurized cab air system
- RS232 port-PLM III
- Starter key switch
- Steering system warning light and buzzer
- Sunvisor (adjustable)
- Tilt and telescoping steering wheel
- Komtrax Plus
- Windshield (tinted)
- Windshield wipers and washer (electric)

### LIGHTING:

- Back-up lights (2)
- Brake and retard lights on top of cab
- Clearance lights
- Control cabinet service light
- Dynamic retarding, rear (2)
- Headlights—(4) halogen
- Ladder lights
- Manual back-up light, switch and indicator
- Service light in rear axle
- Stop and tail lights (2)
- Turn signals
- Under-hood service lights



## OPTIONAL EQUIPMENT

(Optional equipment may change operating weight).

- Additional high-mounted headlights
- Arctic protection package (suspensions, antifreeze/lube below -40° C)
- Back-up lights, deck-mounted
- Body liners\*
- Eliminator, Centinel, Reserve
- Fire extinguisher 9 kg **20 lb**
- Fog lights
- Hot starts (engine oil, coolant, hydraulic tank)
- Hubodometer
- Mufflers between frame rails
- Pivot exhaust (heated body)
- PLM Scoreboard Display (RH and LH)
- Pressure fueling remote LH
- Radiator shutters
- Special language decals
- Tires 46/90R57

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

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