

# KOMATSU®

## 830E

**MAXIMUM GVW**  
385848 kg **850,650 lb**

**PAYLOAD**  
218-231 m ton **240-255 U.S. ton**

**GROSS HORSEPOWER**  
1865 kW **2,500 HP**



Photo may include optional equipment.

ELECTRIC DRIVE TRUCK

# 830E

# 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>

\* 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-26
Dual impeller in-line blower . . . . .	255 m <sup>3</sup> /min <b>9,000 cfm</b>
Control . . . . .	Statex III Fuelsaver
*Motorized wheels . . . . .	G.E. 787
*Ratio . . . . .	31.875:1
Speed (maximum) . . . . .	48.8 kph <b>30.3 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.

\*\*Optional ratios available.



## TIRES AND RIMS

Rock service, tubeless, tires (bias ply or radial)

*Standard tire . . . . .	40.00-57
Standard five (5) piece rim	
737 mm x 1488 mm x 152 mm <b>29" x 57" x 6"</b> patented Phase II New Generation rim assembly with patented 152 mm <b>6"</b> double forged flanges. Not interchangeable with other manufacturers' rims due to improved design for greater load support and longer fatigue life. Rated at 827 kPa <b>120 psi</b> cold inflation pressure.	

\* Tires should meet application requirements for **tmph**/tkph, 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 tilt cable, and rubber mounts on frame are standard. Pivot exhaust heating optional.

Floor sheet . . . . .	16 mm <b>0.63"</b> 1379 mPa <b>200,000 psi</b> tensile strength steel (two-piece)
Front sheet . . . . .	9 mm <b>0.35"</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>



## CAB

Advanced Operator Environment with integral 4-post ROPS/FOPS structure (meets J1040 Apr88), 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 safety 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

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 (18 element) blown grids. Two-speed overspeed retarding. Extended range retarding. Reverse retarding.



## 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>11.5"</b>
Max. rear axle oscillation . . . . .	+10.3°



## COOLING SYSTEM

L&M radiator assembly with sight gauge. Deaeration-type top tank. Dual pass cooling.

Radiator frontal area . . . . .	6.24 m <sup>2</sup> <b>67.2 ft<sup>2</sup></b>
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## SERVICE CAPACITIES

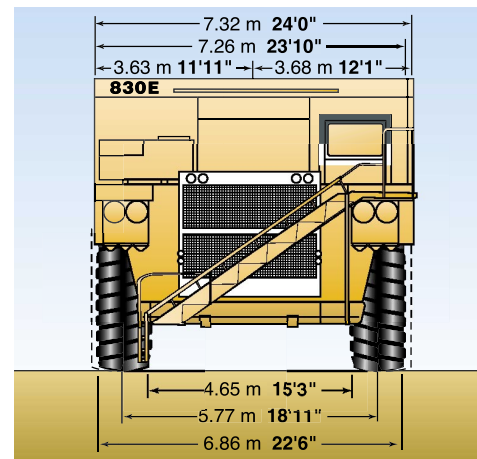
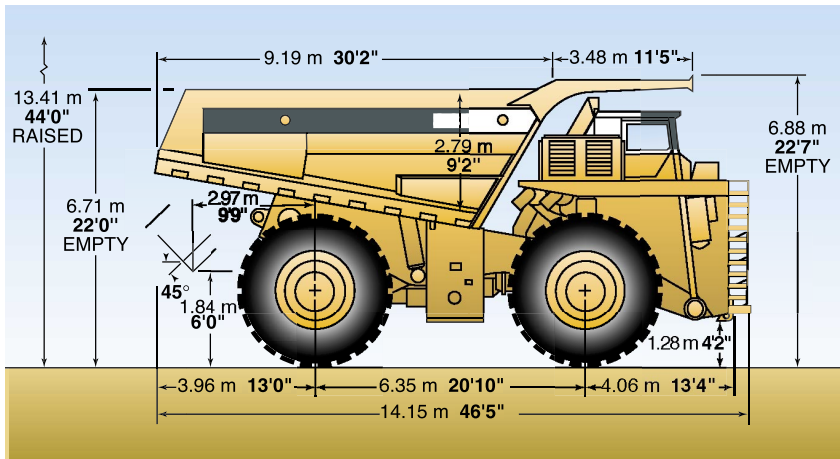
Cooling system . . . . .	.568 L	<b>150 U.S. gal</b>
*Crankcase . . . . .	.280 L	<b>74 U.S. gal</b>
Hydraulic system . . . . .	.946 L	<b>250 U.S. gal</b>
Motor gear box . . . . .	.40 L	<b>10.5 U.S. gal</b>
Fuel . . . . .	.4542 L	<b>1200 U.S. gal</b>

\* Includes lube oil filters





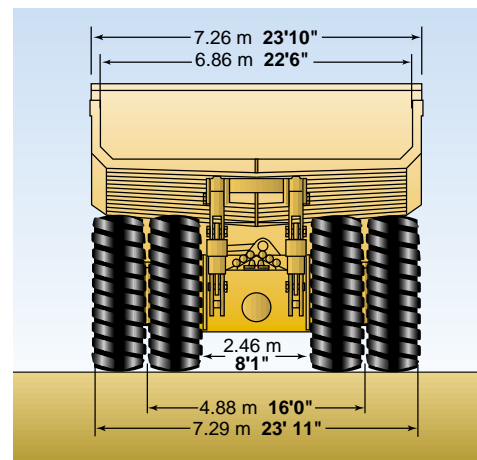
## DIMENSIONS



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

Bodies	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 applied 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  $\beta_{12} = 200$ .
  - 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 . . . . . 25 sec
    - Power-down . . . . . 27 sec
    - Float-down empty . . . . . 24 sec
  - Pumps
    - Hoist . . . . . Tandem gear-type pump with output of 870 liters 230 gpm@1900 rpm
  - Steering and brake . . . . . Axial piston type
  - 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, deck-mounted with disconnect switch.
- Alternator . . . . . 28-volt, 260 amp
- Lighting . . . . . 24-volt
- Starters . . . . . Two 24-volt



## WEIGHT DISTRIBUTION

Empty Vehicle	kg	lb	%
Front axle . . . . .	78638	<b>173,593</b>	49.7
Rear axle . . . . .	79521	<b>175,543</b>	50.3
Total (wet, 50% fuel) . . . . .	158159	<b>349,136</b>	
<b>Loaded Vehicle at maximum GVW rating</b>			
Front axle . . . . .	127330	<b>280,715</b>	33.0
Rear axle . . . . .	258518	<b>569,935</b>	67.0
Total . . . . .	385848	<b>850,650</b>	

NOTE: GVW shall not exceed 385848 kg **850,650 lb** including options, liners, fuel and payload, subject to application approval by Komatsu.

NOTE: Komatsu trucks comply with SAE specifications for cab noise, ROPS, steering and braking. Cover photos and illustrations may show optional equipment. Materials and specifications subject to change without notice.



## STANDARD EQUIPMENT

- Air cleaners, dry-type SRG
- Alternator (28V/260A)
- 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 valve on hydraulic tank
- Komatsu 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, 18-element, blown
- Retard speed control
- Reverse retarding
- Rock ejectors
- Thermostatic Fan Clutch
- Two-speed overspeed retarding
- Vari-volt alternator control
- Fast-Fill Fuel System (in-tank)
- Service Center (radiator, engine, hydraulics)

### SAFETY:

- All-hydraulic service brakes with emergency auto apply
- Battery disconnect switch
- Body prop cable
- Brake lock and drive system interlock

- Circuit breakers, 24 V
- Diagonal staircase across grill
- Dynamic retarding with continuous rated grids
- Engine shutdown at ground level
- Hoist interlock
- Horns (electric, center of steering wheel)
- 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 (wide, retractable)
- Skid-resistant coating on walkways

### CAB:

#### Instrumentation

- Warning system light and buzzer for: coolant low level, coolant high temperature, electric cooling blower, low oil pressure, ground relay, auto lube
- Accumulator pre-charge light
- Air cleaner vacuum indicators
- Air conditioner HFC 134a
- AM/FM cassette radio
- Blower pressure indicator light
- Coolant temperature gauge
- 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
- Hydraulic low level and oil temp light and buzzer
- Indicator lights for dynamic retarding, overspeed, service brakes
- Insulation (Max R-Value)
- Integral roll-over protection (ROPS)
- Motorized wheel temperature warning alarm
- Oil pressure gauge
- Operator seat, adjustable w/air suspension, lumbar support and arm rests
- Panel lighting (adjustable)
- Passenger seat
- Power windows
- Pressurized cab air system
- Starter key switch
- Steering system warning light and buzzer
- Sunvisor (adjustable)
- Tilt and telescoping steering wheel (adjustable)
- Voltmeter (battery output)
- Windshield (tinted safety plate)
- Windshield wipers and washer (electric)

### LIGHTING:

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



## OPTIONAL EQUIPMENT

(Optional equipment may change operating weight).

- 20-element grids with 7-step ERR
- Additional high-mounted headlights
- Air cleaner dust evacuators
- Arctic protection package (suspensions, antifreeze/lube below -40° C)
- Back-up lights, deck-mounted
- Body liners\*
- Eliminator, sentinel, reserve
- Fire extinguisher - 20 lb.
- Fog lights
- Hot starts (engine oil, coolant, hydraulic tank)
- Hubodometer
- Modular Mining Systems (MMS) ready
- Motorized wheel ratios (higher - lower)
- Mufflers BTW frame rails
- Pivot exhaust (heated body)
- Pressure fueling remote LH
- Radiator shutters
- Special language decals

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

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