KOMATSU®

830E-AC

MAXIMUM GVW
385848 kg 850,650 lb
GROSS HORSEPOWER
1865 kW 2,500 HP

ELECTRIC DRIVE TRUCK

Photo may include optional equipment.
**ENGINE**

*Make and model: Komatsu SDA16V160

Fuel: Diesel

Number of cylinders: 16

Operating cycle: 4 cycle

**Rated brake power:** 1865 kW @ 1900 rpm

**Flywheel power:** 1761 kW @ 1900 rpm

Weight (net): 8608 kg, 21,182 lb

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

**Flywheel power** is the rated power at the engine flywheel minus the average accessory losses. Rating(s) represent gross engine performance in accordance with SAE J1349 conditions.

**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, 70,000 psi
tensile strength steel

- Casting material: 620.5 mPa, 90,000 psi
tensile strength steel

- Rail width: 305 mm, 12"

- Rail depth (minimum): 864 mm, 34"

- Top and bottom plate thickness: 32 mm, 1.25"

- Side plate thickness: 16 mm, 0.62"

- Drive axle mounting: Pin and spherical bushing

- Drive axle alignment: Swing link between frame and axle

**ELECTRIC DRIVE**

AC/DC CURRENT

- Alternator: G.E. GTA-41

- Dual impeller in-line blower: 255 m³/min, 9,000 cfm

- Control: AC torque control system

- *Motorized wheels: GEB25

- *Ratio: 31.875:1

- Speed (maximum): 64 kph, 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, 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, 29" x 57" x 6" rims

Typical tire weight: 21081 kg, 46,476 lbs

* 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.

**BODY**

All-welded steel flat floor body with horizontal bolsters and full canopy.

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

- Floor sheet: 19 mm, 0.75" 1379 mPa, 200,000 psi
tensile strength steel (two-piece)

- Front sheet: 12 mm, 0.47" 1379 mPa, 200,000 psi
tensile strength steel

- Side sheet: 8 mm, 0.31" 1379 mPa, 200,000 psi
tensile strength steel

- Canopy sheet: 5 mm, 0.19" 690 mPa, 100,000 psi

- Struck: 117 m², 153 yd²

- Standard SAE heaped: 147 m², 193 yd²

- Standard Komatsu body weight: 27869 kg, 61,000 lbs

**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).

**BRAKING SYSTEM**

System meets ISO 3450/1996.

Service brakes: all-hydraulic actuated.

- Front: Three calipers on a 1213 mm, 47.75" O.D. disc.

- Rear: Two 635 mm, 25" O.D. discs per side.

- 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: 2983 kW, 4000 hp

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, 13.2"

- Max. rear stroke: 279 mm, 11.0"

- Max. rear axle oscillation: ±10.3"

**COOLING SYSTEM**

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

Radiator frontal area: 6.24 m², 67.2 ft²

**SERVICE CAPACITIES**

- Cooling system: 568 L, 150 U.S. gal

- *Crankcase: 280 L, 74 U.S. gal

- Hydraulic system: 946 L, 250 U.S. gal

- Motor gear box: 38 L, 10 U.S. gal

- Fuel: 4542 L, 1200 U.S. gal

* Includes lube oil filters
### ELECTRICAL SYSTEM

- **Alternator**: 24 volt, 140 amp
- **Lighting**: 24 volt
- **Cranking motors**: 24 volt

**WEIGHT DISTRIBUTION**

<table>
<thead>
<tr>
<th>Empty Vehicle Weight</th>
<th>kg</th>
<th>lb</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Front axle</td>
<td>81279</td>
<td>179,190</td>
<td>50</td>
</tr>
<tr>
<td>Rear axle</td>
<td>82921</td>
<td>182,810</td>
<td>50</td>
</tr>
<tr>
<td>Total EVW</td>
<td>164200</td>
<td>362,000</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Gross Vehicle Weight (Nominal)</th>
<th>kg</th>
<th>lb</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Front axle</td>
<td>127330</td>
<td>280,715</td>
<td>33</td>
</tr>
<tr>
<td>Rear axle</td>
<td>258519</td>
<td>569,936</td>
<td>67</td>
</tr>
<tr>
<td>Total</td>
<td>385848</td>
<td>850,650</td>
<td></td>
</tr>
<tr>
<td>Nominal Payload*</td>
<td></td>
<td>221648</td>
<td>488,650</td>
</tr>
<tr>
<td></td>
<td></td>
<td>244 U.S. ton</td>
<td></td>
</tr>
</tbody>
</table>

*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.

### 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**: 301 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 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 @1900 rpm and 17240 kPa (2,500 psi)
  - **Steering and brake**: Pressure compensating piston pump with output of 246 lpm @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.

### DIMENSIONS

- **All dimensions are with 147 m³ (193 yd³) body.**

<table>
<thead>
<tr>
<th>Body</th>
<th>Struck</th>
<th>2:1 Heap</th>
<th>Loading Height*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Standard</td>
<td>117 m³</td>
<td>153 yd³</td>
<td>147 m³ 193 yd³</td>
</tr>
</tbody>
</table>

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

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

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)
- Hubometer
- 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.