

# KOMATSU

## 930E-5SE

Electric drive truck



Safety



Reliability



Productivity



**Gross horsepower**  
2 611 kW (3,500 HP)

**Nominal GVW**  
521 631 kg (1,150,000 lbs.)

# 930E-5SE

## Engine

Make and model	Komatsu SSSDA18V170
Fuel	Diesel
Number of cylinders	18
Operating cycle	4 cycle
Gross horsepower*	2 611 kW (3,500 HP) @ 1,800 rpm
Net flywheel power**	2460 kW (3,346 HP) @ 1,800 rpm
Weight (wet)	11747 kg (25,897 lbs.)
Weight (dry)	11247 kg (24,798 lbs.)

\*Optional Tier 4 emissions 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

<b>AC/DC current</b>	
Alternator	GTA-62
Single impeller in-line blower	127.4 m <sup>3</sup> /min (4,500 cfm)
Control	AC torque control system
Motorized wheels*	GDY106-C
Ratio	32.62:1
Speed (maximum)	64.5 km/h (40 mph)

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

## Tires and rims

Rock service, tubeless, radial tires	
Standard tire*	53/80 R63
Flange mount, five-piece rim	
914 mm x 1600 mm x 127 mm (36" x 63" x 5") rim assembly	
Rims rated at 758 kPa (110 psi) cold inflation pressure	
Typical tire weight	26 127 kg (57,000 lbs.)

\*Tires should meet application requirements for tkph/tmph, tread, compound, inflation pressure, ply rating or equivalent, etc.

\*Tires sold separately.

## Cab

Advanced operator environment with integral 4-post ROPS/FOPS level 2 structure (ISO 3449), adjustable air suspension seat with lumbar support and arm rests, full-size passenger seat, maximum R-value insulation, tilt and telescoping steering column, electric windshield wipers with washer, tinted safety glass, power windows, payload meter IV, 55,000 Btu/hr heater and defroster, 21,600 Btu/hr air conditioning (HFC-134A refrigerant).

## Suspension

Variable rate hydropneumatic with integral rebound control	
Maximum front stroke	328 mm (12.92")
Maximum rear stroke	239 mm (9.40")
Maximum rear axle oscillation	±6.5°

## 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 (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	45 mm (1.77")
Side plate thickness	25 mm (0.98") rear / 32mm (1.26") front
Drive axle mounting	Pin and spherical bushing
Drive axle alignment	Swing link between frame and axle

## Body

All-welded steel flat floor body with horizontal bolsters and full canopy. Rubber mounts on frame, eyebrow and body up sling are standard. Extended canopy and pivot exhaust heating are optional.	
Floor sheet	16 mm (0.63") outer/19 mm (0.75") center 1 379 MPa (200,000 psi) tensile strength steel
Front sheet	10 mm (0.39") outer/12 mm (0.47") center 1 379 MPa (200,000 psi) tensile strength steel
Side sheet	8 mm (0.39") 1379 MPa 1 379 MPa (200,000 psi) tensile strength steel
Canopy sheet	6 mm (0.24") 690 MPa 690 MPa (100,000 psi) tensile strength steel
SAE heaped 2:1	202 m <sup>3</sup> (264 yd <sup>3</sup> )
Standard Komatsu body weight	36 228 kg (79,869 lbs.)

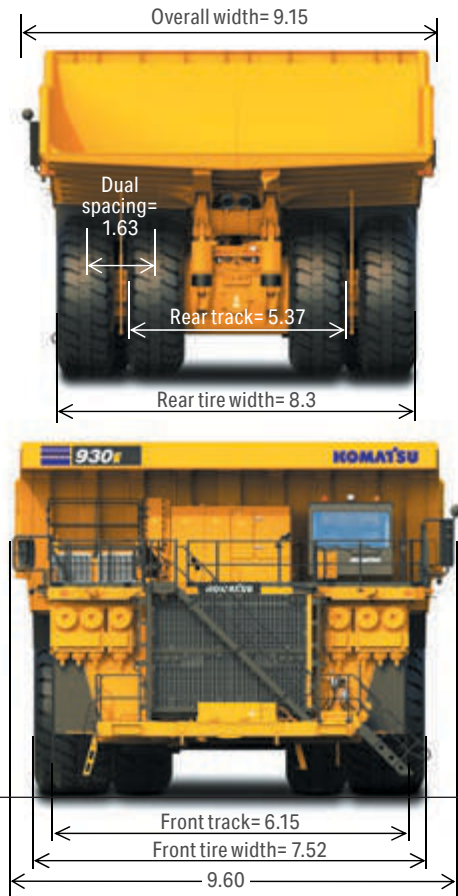
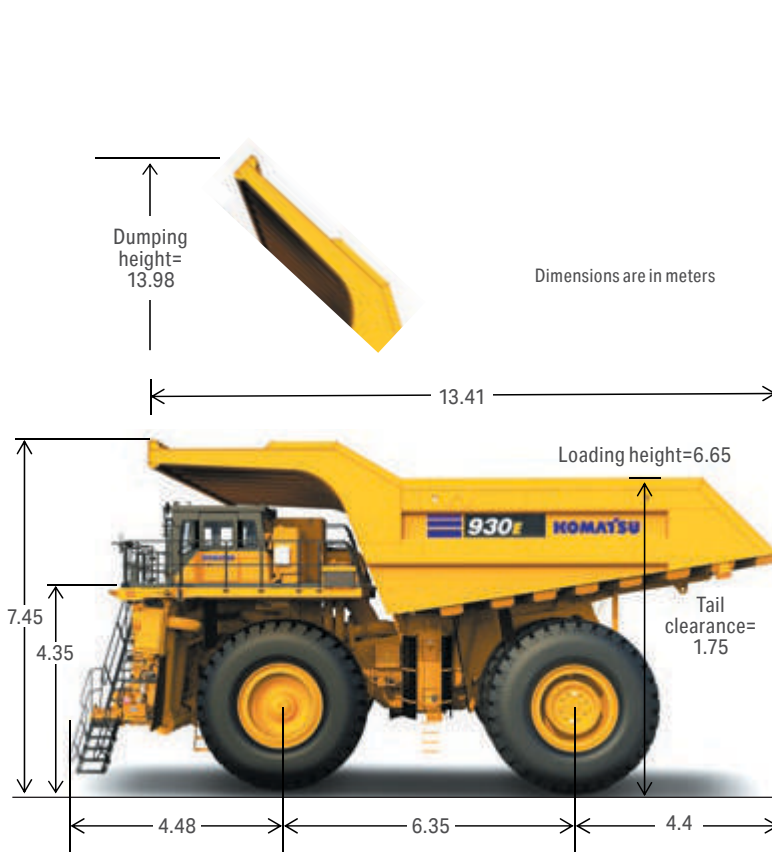
## Braking system

Service brakes	Oil-cooled, hydraulic actuated, multiple disc brakes at each wheel
Traction system	Wheel spin-slide control
Max. service apply pressure	17 236 kPa (2,500 psi)
Total friction area per brake	97 025 cm <sup>2</sup> (15,038 in <sup>2</sup> )
Auto apply system	Automatically applied prior to hydraulic system pressure dropping below level required secondary stopping requirements
Secondary brake system	Complies with ISO-3450 standards
Wheel brake lock	Switch-activated
Parking brakes	Multiple disc, spring-applied, hydraulically released, dry brakes on inboard end of each wheel motor rotor shaft. Rated to hold on ±15% grade at maximum gross vehicle weight
Electric dynamic retarder	4 026 kW (5,400 HP)

## Cooling system

L&M radiator assembly, split-flow, with deaerator-type top tank.	
Radiator frontal area	7.02 m <sup>2</sup> (75.5 ft. <sup>2</sup> )

## General specifications



### Hydraulic system

Steering	Accumulator assisted with twin double acting cylinders provide constant rate steering; secondary steering automatically supplied by accumulator
Turning circle diameter (SAE)	32 m (105')
Reservoir	947 L (250 US 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 dampening
Hoist times	
Power-up loaded	21 s
Power-down (high idle)	12 s
Float-down empty (low idle)	18 s
Pumps	Two pumps, single package, in-line
Hoist and brake cooling	Tandem gear pump with output of 908 lpm (240 gpm) at 1,800 rpm
Steering and brake	Variable displacement piston pump with output of 242 lpm (64 gpm) at 1,800 rpm
System relief pressures	
Hoist and brake cooling	17 237 kPa (2,750 psi)
Steering and brake	27 579 kPa (4,000 psi)
Ports available for powering disabled truck and for system diagnostics	

Body	Capacity		Loading height*
	Struck	2:1 Heap	
Standard	151 m <sup>3</sup> (197 yd <sup>3</sup> )	202 m <sup>3</sup> (264 yd <sup>3</sup> )	6.65 m (21'10")

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

### Electrical system

4 x 8D 1450 CCA, 12 volt, in series/parallel, 220 ampere-hour, bumper-mounted with disconnect switch and lock-out.

Alternator	24 V, 275 A
Lighting	24 V
Cranking motors	2 x 24 V

### Service refill capacities

Cooling system	568 L (150 gal)
Crankcase	363 L (95.8 gal)
Hydraulic system	1325 L (350 gal)
Motor gear box (each)	57 L (15 gal)
Fuel tank (non-emissionized)	5 299 L (1,400 gal)
Fuel tank (tier IV)	4 542 L (1,200 gal)
DEF tank	288 L (84 gal)

## Standard equipment

- Air cleaners, Donaldson SSG with auto evacuators
- Alternator (charging 24 V x 275 A)
- Automatic lubrication system with ground-level fill, level indicator and dynamic timing
- Backup alarm
- Batteries — 4 x 8D (1,450 CCAs)
- Battery charging/jump start connector
- Body over — center device
- Body-up sling (with KAC-supplied body)
- Brakes: oil-cooled, multiple disc (front and rear)
- Electric start
- Eliminator, Cense
- Fast-fill fuel system (in tank and left side remote)
- Filters, high pressure hydraulic
- Ground-level radiator fill
- Mirrors:
  - LH: Flat with convex aux mirror
  - RH: Heated, multi-cambered convex
- Mud flaps
- Muffled exhaust — deck-mounted
- Power supply, 24 V and 12 VDC
- Quick disconnects (steering, hoist and diagnostics)
- Retard speed control with set indicator
- Radiator sight gauge
- Removable power module unit (radiator, engine, alternator)
- Reverse retarding
- Service center — LH
- Electronically controlled viscous fan clutch

## Operator environment and control

- All hydraulic service brakes with auto apply
- Battery disconnect switch
- Brake lock and drive system interlock
- Circuit breakers, 24 V
- Diagonal staircase across grille
- Dynamic retarding with continuous-rated element grids
- Engine shutdown at ground level
- Hoist propulsion interlock
- Horns (electric-front)
- Integral ROPS/FOPS cab level 2
- Maintenance and power lockout
- Parking brakes with warning light and speed application protection
- Power steering with auto secondary steering
- Protective deck handrails
- Pump driveline protector
- Radiator fan guard
- Seat belts
  - Operator 3-point 51 mm (2") retractable
  - Passenger lap 51 mm (2") retractable
- Slip-resistant walkways

## Lighting

- Backup lights — rear-mount (2) LED
- Backup lights — R and L — deck mount (2) halogen
- Brake and retard lights on top of cab
- Clearance lights (LED)
- Dynamic retarding, rear (2) (LED)
- Engine compartment service lights
- Fog lights (2) halogen
- Headlights (8) halogen
- Manual backup light, switch and indicator
- Payload lights R and L (LED)
- Stairway lights
- Stop and tail lights (2) (LED)
- Turn signals (LED)

## Standard high visibility deluxe cab

- AC drive interface display
- Air conditioner HFC-134A
- AM/FM radio with CD, USB and MP3
- Dome light
- Electronic dash panel
  - Body up
  - Engine oil temperature (high)
  - Parking brake
  - Propulsion system not ready
  - No DC link voltage
  - No propel
  - Service brake applied
  - Wheel brake lock applied
  - Maintenance monitor
- Engine hour meter, oil pressure gauge, coolant temperature gauge, hydraulic oil temperature gauge
- Engine shutdown with Smart timer delay
- Floor mat (double barrier)
- Fuel gauge in cab
- Fuel low level light and buzzer
- Gauges (with backlight)
- Headlight switch
- Heater and defroster (heavy-duty)
- Heater switch
- High beam selector and indicator
- Horn switch (center of steering wheel)
- Indicator lights (blue)
  - Engine service
  - Komtrax Plus Snapshot (IM)
- Komatsu Payload Meter IV (PLM IV)
- Komtrax Plus
- Operator seat, adjustable with air suspension, lumbar support and arm rests
- Panel lighting (adjustable)
- Passenger seat, mechanical suspension
- Power windows
- Pressurized cab air system with fan on
- Single brake/retarder pedal
- Sunvisor (adjustable)
- Tilt and telescoping steering column
- Voltmeter (battery output)
- Windshield (tinted safety glass)
- Windshield wiper (dual) and washer (electric)

## Optional equipment

Note: Optional equipment may change operating weight.

- Amber beacon light
- Application-specific body structure
- Body liners
- Body-up sling
- Bumper access — hydraulic retractable steps
- Bumper-mounted headlights
- Double wall exhaust tubes
- Engine access platform, LH
- Extended canopy
- Eyebrow
- Fire extinguisher 9 kg (20 lbs.)
- Heated body
- Hot start engine oil (220 V, 2-500 W)
- Hot start hydraulic oil
- Hot start engine coolant (220 V, 2-500 W)
- Hubodometer
- Komatsu Smart type rims
- KomVision all-around monitoring system
- LED headlights
- Mufflers between frame rails (standard tier IV)
- PLM IV scoreboards
- Premium operator seat
- Reversed access ladder
- Rock ejectors
- Service center, RH
- Shutters (radiator)
- Spare rim
- Spare Smart rim
- Special language decals
- Suspensions (cold weather)

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