

830E-5

### **ELECTRIC DRIVE TRUCK**





GROSS HORSEPOWER 2,500 HP 1865 kW NOMINAL GVW 906,400 lb 401136 kg

## WALK-AROUND

#### **PRODUCTIVITY FEATURES**

- $\bullet$  High performance Komatsu SDA16V160 engine Gross Horsepower 1865 kW 2,500 HP
- 3207 kW 4,300 HP retarding
- Traction (spin-slide) control
- Cruise control
- Komatsu designed application specific body
- Tight turning radius 14 m 45' 9"
- Payload Meter IV®

#### **ENVIRONMENTALLY FRIENDLY**

- Komatsu SDA16V160 engine with after-treatment meets U.S. EPA Tier 4 Final emissions regulations
- Fuel efficient engine
- · Less fluids compared to mechanical drive trucks

Photos may include optional equipment.

HORSEPOWER Gross: 2,500 HP 1865 kW **NOMINAL PAYLOAD** 250 US tons 227 metric tons



#### **OPERATOR ENVIRONMENT**

- Ergonomically designed spacious cab with excellent visibility
- Fully adjustable driving position settings
- Four post ROPS/FOPS level 2 cab
- User friendly display with payload information
- Komatsu Hydrair® II suspensions designed for optimum ride comfort

KOMATSU

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• AM/FM/MP3/USB/weather band radio

#### **EASY MAINTENANCE**

- KOMTRAX Plus allows immediate diagnostics of key engine, chassis, and drive system components
- Automatic lubrication system
- Eliminator<sup>®</sup> oil filtration system
- Flange mounted rims with optional Komatsu Smart, speed type rims
- In-tank and remote fast fuel
- Oil-cooled, wet disc, front braking system reduces wear and extends replacement intervals

#### **RELIABILITY FEATURES**

- Frame design optimized for 227 metric tons 250 US tons
- Simple and reliable hydraulic system
- · Steering and brake accumulators

## **PRODUCTIVITY FEATURES**

### Komatsu High Horsepower Engine

Komatsu's 2500 HP engine will operate in most of today's mining applications without experiencing power derate. Fuel efficiency is maximized due to optimized air handling. Standard features include:

- A standard pre-lube system designed to reduce startup wear and increase overhaul life.
- CENSE<sup>®</sup> on board monitoring of engine performance for each cylinder.
- ELIMINATOR<sup>®</sup> filtration system reduces oil and filter changes by one-third.

### **IGBT AC Electric Drive System**

The GTA51 traction alternator coupled with GEB36 wheelmotors and Invertex IIe® AC control system provides reliable performance and easy maintenance. Invertex IIe® 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.

### **Electric Dynamic Retarder**

The 3207 kW **4,300 HP** retarding system provides state of the art braking capacity for navigating today's mining applications which contain steep continuous descents and sharp switch-backs. Continuous retarding capacity enhances the productivity of the vehicle operator, while eliminating the need for excessive mechanical braking effort.



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

During slippery conditions, the 830E-5 wheel traction control technology detects and corrects wheel spin or slide events. Traction 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 potential subsequent sliding.

### **Cruise Control**

Cruise control, both in propulsion and retarding, allows the operator to concentrate on steering and situational awareness while maintaining a constant speed. A set speed indicator provides confirmation the truck speed matches the desired speed selected by the operator, with simple automotive style controls.

#### Komatsu Designed Application Specific Body

Utilizing the required Body Worksheet (BW) process, Komatsu ensures 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 t he 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 SAE Heaped 2:1: 158 m<sup>3</sup> 207 yd<sup>3</sup>
- Standard Komatsu Body Weight: 29830 kg 65,762 lbs



## **PRODUCTIVITY FEATURES**



### **Tight Turning Radius**

By using double acting hydraulic steering cylinders with a six-point articulation linkage, the 830E-5 power steering system provides positive steering control with minimal operator effort. The turning radius of the 830E-5 is 14 m **46'**, which provides excellent maneuverability for tight loading and dumping conditions. The steering accumulators comply with ISO-5010 standards.

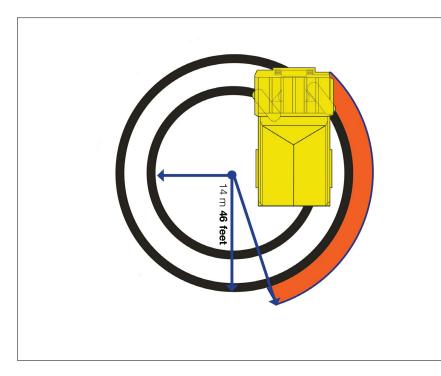
### Payload Meter IV (PLM IV®)

PLM IV<sup>®</sup> 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 IV<sup>®</sup> 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)

### Hydrair II® Hydropneumatic Suspension

Hydrair II<sup>®</sup> is a suspension system that utilizes four nitrogenover-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<sup>®</sup> contributes to the durability of the machine's frame and components.





## **OPERATOR ENVIRONMENT**

### **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 provides 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 51 mm **2 in** wide, blaze orange, three-point seat belt is provided as standard equipment.

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

These structures conform to ISO standards 3471 and 3449.

### **Ergonomically Designed Cab**

The Komatsu 830E-5 cab design provides a comfortable and productive environment to meet today's mining demands. The cab includes tinted safety glass windows, heating and air conditioning, acoustical insulation, double sealed doors and filtered and pressurized air to reduce dust.

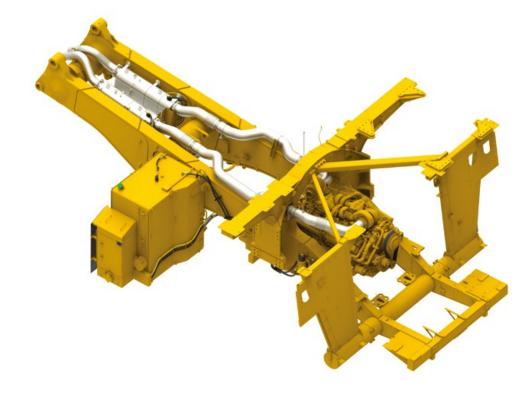
### **User Friendly Display**

The 830E-5 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.



Photo may include optional equipment.

## **TIER 4 AND ELECTRIFICATION**



#### **Evolutionary, not Revolutionary Design**

Komatsu's Tier 4 solution begins with a base engine which is very similar to the previous Tier 2 platform. In keeping the basic operation of the engine the same, durability is assured. Utilizing High Pressure Common Rail fuel delivery ensures atomization of the fuel/air mixture to a level which reduces particulate matter, meeting U.S. EPA Tier 4 standards.

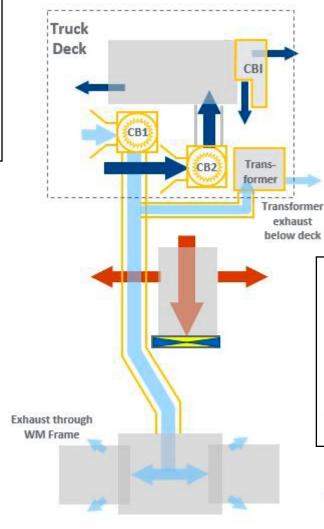
#### **Komatsu After-treatment**

Removal of NOx is accomplished by treating the exhaust through Selective Catalytic Reduction (SCR). The introduction of Diesel Exhaust Fluid (DEF) into the SCR canister generates a chemical reaction which breaks down the oxides of nitrogen into oxygen and nitrogen, both nonpollutants. Internal cleaning of the SCR is performed through an automatic process.



### On-Demand Cooling

- Separate cooling circuits for control group and wheel motor systems
- Allows intelligent control of cooling
- Maintain optimal temperatures for each system



### Alternator Self-Cooling Only

- Reduced impeller size by 25%
- Reduced cooling housing/ impeller
- 500 lb 227 kg weight reduction

# Uses Wheel Motor generator retarding energy for cooling

- Control Group
- Wheel Motors
- Grid Blower

## **RELIABILITY FEATURES**

### **Structurally Enhanced Frame Design**

By using advanced computer-aided design, finite element analysis, and full-scale dynamic testing, the frame has been designed to carry 227 metric tons 250 short tons and provides the high structural reliability Komatsu is known for.

### **Castings Used in High Stress Areas**

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



### Simple and Reliable Hydraulic System

The hydraulic system is a proven and reliable design with fewer parts than other OEMs. The system utilizes a single tank, providing one common source of fluid for steering, braking, and hoisting. In-line, replaceable filtration elements provide protection from hydraulic system contamination, making the system easier to service.

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.

### **Proven Wheel Motor Design**

The GEB36 wheel motor builds on the success of its predecessor. Held to the highest standards, the transmission was subjected to extensive testing and quality confirmation. A full scale controlled durability and field test was conducted at Komatsu's Proving Grounds during development to confirm design quality prior to production. By using planetary design, extensive machining is not required during a standard rebuild.





### Fully Hydraulic Controlled Multiple-Disc Front Wet Brakes

While the dynamic retarding system is the primary braking force, the 830E-5 comes standard with front-wheel, hydraulically actuated, oil-cooled service brakes and rear-wheel, dual disc, dry brakes. In the event that the truck's hydraulic system pressure drops below an acceptable level, the accumulators will automatically apply front and rear brakes to bring the truck to a complete stop.

Max. service apply pressure: 13,100 kPa 1,900 psi Total friction area per brake: 61,016 cm2 9,458 in2

The oil-cooled brake system provides lower maintenance costs and higher reliability versus dry disc brakes. This system is fully sealed to help keep contaminants out and reduce brake wear and maintenance. The brakes are hydraulically actuated; no pneumatic system is used. There are three independent hydraulic circuits that provide hydraulic back-up.

### **Rear-Wheel Hydraulically Actuated Dry Disc Brakes**

- Rear Dual 25 in (635 mm) Diameter Disc with a single Caliper per disc
- Static Dry Disc Park Brakes
- Park Brake will not apply at truck speeds above 0.8 km/h or 0.5 mph
- Rated to Hold Maximum GVW @15% Grade

System meets ISO 3450-2011



## **EASY MAINTENANCE**

### Access, Service and Convenience

Located on the front left bumper adjacent to the main entry to the machine, Komatsu installs many service and convenience items. This central location simplifies maintenance events, reducing the time the truck is out of service for routine upkeep.

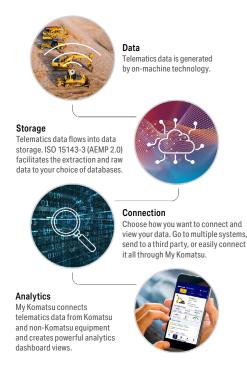
- 1. Auto-lubrication tank and controls (right side)
- 2. Power, starter and drive system lockout (lock-out/ tag-out capable switches)
- 3. Emergency engine shut-down
- 4. Fluid service center (coolant, engine oil, hydraulic oil, grease fill)
- Hydraulic step up/down switch (hydraulic stairs are optional)

### **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 the user can manage increased availability, lower owning and operating costs and maximize fuel efficiency.

The information available through KOMTRAX Plus allows service personnel to review faults and trends, improve the quality of the troubleshooting process and reduce unscheduled machine downtime.





### Flange Type Tire Rims

Komatsu Smart rim technology allows easy removal and installation of the tires to minimize the overall impact on downtime.

Smart Type Rim (7 Piece Type Rim components)						
	234	432				
+	= İ 📩 İ		ITEM	QTY	DESCRIPTION	
			1	1	Rim Base	
			2	2	Smart Lock Ring	
			3	2	Bead Seat Band	
~			4	2	Side Ring	

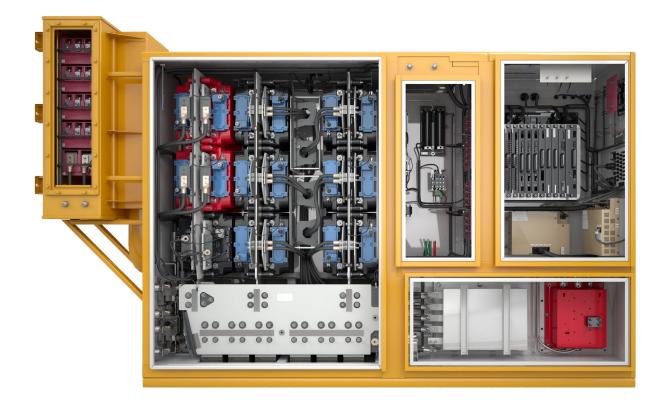
## **DRIVE SYSTEM**

### **Drive System (Invertex IIe)**

- Cooling Blower Inverters (CBI)
- True Quad Chopper Eliminates RP Contactors
- Only Single Stack IGBT's
- From 24 to 12 Traction IGBT's Reduces Weight & Size
- Meets IP54 for Dust & Moisture Control
- Increased Cabinet Rigidity
- Reduced Rigid Multi-axis Joints
- Fiber Optic Cards Integrated Into Backplane
- Front Placement of Indicator & Interface Panels
- Front Access for Maintenance
- All LED Lighting

### **Improved Bus Bar**

- Close Molded Design- Eliminates Potting
- No Soldered Bushings
- Edge Protection
- FR4 & Abrasion Protection
- Simplified, More Robust Bus Bar Design



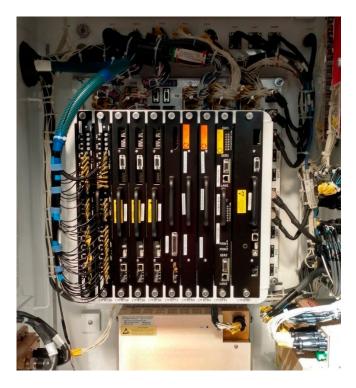
## **DRIVE SYSTEM**

### Improved Truck Performance

- Retains Wheel Slip/Slide control in all Modes of Operation
- Cruise Control (Both Motoring & Retarding)
- Fuel Saver 2 Built-in

### **Technology Advancements**

- Supports Data Collection & Transmission for Remote Monitoring
- New Generation Technology for Faster Processing with Higher Capacity (90% Faster Data Transfer)
- Common CAN Network Consists of Engine, Truck & Drive System
- Supports CAN, Ethernet & USB



### **VID Display**

- Replaces DID Panel
- In-cab Touch Screen Display for Setup, Maintenance & Troubleshooting
- Access, Download & Update System from the Operators Cab
- Entry to Control Cabinet no Longer Required for Basic Troubleshooting

Events Tests	Di	ata	Setting	js S	ystem	Lan	guage
Ver: 6.09a Truck I	D: 42415	OEM:	Komatsu	Model:	330E-5		
Status:	Oł	Activ	e Faults:	Drive:	0	Engine:	0
Mode:	PROPEL	No A	ctive Drive	Faults			
Speed Limit:	40.0						$\wedge$
Payload:	319	9					
Engine Speed:	1800	)					$\checkmark$
Battery Volts:	27.5	5					
Link Volts:	1199	9					
Control Group Blower (RP	M): 3600	)					
Wheel Motor Blower (RPM	1): 3600	)					
Grid Blower 1 (RPM):	879	9					
Grid Blower 2 (RPM):	879	9					
NORETARD NOPROP	SPDLIM	LIMP	CONT-RET	TRAC-D	S CHOP	-DIS	CBI-DIS

### WebPTU

- Replaces wPTU
- Primary Maintenance & Troubleshooting Tool for all Future Systems
- Browser Based Access & Visualization of Truck System
   Data
- Eliminates Dependency on Legacy PC's & Operating Systems
- Accessible in Operators Cab via Ethernet

Real Tim	e Logic	Config	Tests Eve	ents Stat	istics S	etup						Version	: 6.09a Date:	2018-12-07 Ti
ruck														
Truck ID:	42415	Driver	ID: 0	C	EM:	Komatsu	Model:	830E-5	Status:	0000				
nalogs														
BAROP	AME		AF-I	ENGO		BAT	DSCMOL	E	Propel	TRUCK	7.	53 MPH	0.00 MPH/Sec	
11.1 PSI	21.5		190 A	1830		27.5 V	SUBSTAT	Έ	Ent/Ex	Left Fr	18	LS RPM	7.5 MPH	
SPD-V 14.5	AFS 22		1199 V	ENGS 1800	IPD SPM	AFCURREF 0.00	DSCLIN	۲.	On	<b>Right Fr</b>	18	LS RPM	7.5 MPH	
POTREF	PTE		LINKI	HPAL		A3PV	CBI-SS		On	Left R	55	IS RPM	7.5 MPH	
10.0 V	17.5		1363 A	2271		1200 V	ACCEL-S	iL.	1.00	Right R	55	IS RPM	7.5 MPH	
RESIST	GFA		HPLINK	HPA		GRIDI	RETRD-S	81	0.00	Cruise	0.	O MPH		
9.9 %	0 11		2189 HP	161		1A IDLEFLR	DIR-SE		FOR	SpdLim	40	O MPH	Looded	
GRADE 8.0 %	PAY 285		BRKPRESS 0 PSI	TRAC 10351		0 RPM	CRUISE		Not-Active					
EV20TIME							ENG CAN	OK	OK					
999							KAC CAN	OK.	OK					
nputs														
KEYSW	PRKB	RKFB	AXI, EP	EORF	EO	GFF8	ENGSTRTRE	0 04	ERPAYLD	Coolant	3	ec.	Des Perc	
CPSER	BRAK			REVE	FO	GENCO	ENGKILL		AIRROST	Oil		C	Des HP	0
PSOK	Wheel					PROPLO	ENGWARN		OVDWN	Boost	0		Desorb Cntr	10
PS-UN	BRKTS		CRUISE	REST	SW	OFMACCIN	WARM-UP		UTON	Induce		D	Decoke Cntr	
			SPINDIS	RESET		DATAST	ENG-SPOLE		NOPROP	Exhquist	0		Decoke Tmr	99
						ABM-PWR	A8M-While		BM-SOL	Foults			Def Thow	0
outputs														
SYSRUN	GE	CPR	AES	E E	ORT	ISCM	REVERSE	SPD1	BRKTSTL	т				
or offering the	GFR	CMC			EVT	ISCH	ENGSPD	SPD2	FSYSBUS					
Computed	OTIC	ene				10011	CHOSTO	0102	1313003	i norrene				
					-	-						-		
NOPOWER			NOPROPEL	SPDU		SPDLIM	LIMPOK		VSPIN1	WSPIN2	ACCI			
DLYSHTDW			LDBXDIS	LDB		RTRDCONT	SCACTIVE		/SLIDE1	WSLIDE2	PROPI		ABMSupEn	ABMImpRe
INV1DIS	INV2		INV3DIS	INV4		INV5DIS	INVEDIS			FULLPAYLD	OVERP/	YLD	ABMSupinh	ABMDelayRs
CHOP1DIS	CHOP	2015	CHOP3DIS	CHOP	ADIS	PLUG	EV20PRE	AUT	ONMODE					
nverters - C	hoppers													
Inverter 1-TMC1		TqCmd 134 Ft Lb	TrqFb 9134 R Lb	Link 1198 V	Power 1039 HF	Mode 0	Test Complete	ACGnd	DCGnd 0.0 V		Chop 1 0 %	Chop 2 0%	Chop 3 0 %	Chop 4 0 %
		134 Ft Lb	9134 Ft Lb		1039 HF		Complete				0.76 0.A		0% 0A	
2-TMC2	RUN	134 PT LD	9134 HE LD	1198 V	1039 HP		Complete	0.0 V	0.0 V			0A		0A
Inverter	RUN S	iecCmd	SecV	PriV	Power	Mode	Test	ACGnd	DCGnd		.981 Ohm AvgPril	2.381 Ohr AvgSecl	n 2.144 Ohm Liminfo	2.144 Ohm PUsd
3-DAB	RUN :	653 V	653 V	1198 V	0 HP	0	Complete	0.0 V	0.0 V	300 HP	0.4	0 A	0	0.20
Inverter		ipdCmd	SpdFb	SecLink	Power	Mode	Test	ACGnd	DCGnd	PwrLim	Trg			
	RUN	600 RPM	3600 RPM	653 V	25 HP	0	Complete	0.0 V	0.0 V	27 HP	32 Ft Lb			
4-CNTL	RUN	600 RPM	3600 RPM	653 V	25 HP		Complete	0.0 V	0.0 V	27 HP	32 Ft Lb			
4-CNTL 5-AXLE		VIO RPM	879 RPM	653 V	3 HP		Complete	0.0 V	0.0 V		1 Ft Lb			
	RUN													
5-AXLE		BO RPM	879 RPM	653 V	3 HP		Complete	0.0V	0.0 V	4 HP	1 Ft Lb			

## **ADDITIONAL FEATURES**

### **Environmentally Friendly**

### Less Fluids than Mechanical Drives

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

### **U.S. EPA Compliant**

The Komatsu SDA16V160 engine is compliant with the U.S. EPA Tier 4 emissions regulations.

### **Reduced Fuel Consumption**

The engine and drive system are specifically tuned together, providing efficient power usage and minimizing fuel consumption.

### **Komatsu Loading Policy for Mining Trucks**

In normal loading operations, variations in payloads occur. The loading policy identifies the guidelines and limitations for the loading of those Komatsu Mining Truck models specified.

### **Definitions:**

- Rated GVW (Gross Vehicle Weight) includes the chassis, body, tires, accessories (including local options), lube, fuel, operator, payload and any excess material build-up.
- Rated Payload is the resultant difference of Rated GVW minus EVW.
- Overload refers to any payload amount in excess of the Rated Payload.
- Never to exceed GVW is the maximum allow able GVW under the guidelines of this Policy.

Actual payloads greater than the Rated Payload are allowable, but shall not result in a GVW that is greater than the Never to Exceed GVW.

No single payload that results in a GVW in excess of the Never to Exceed GVW is allowed under any circumstances.

The mean of all payloads for a rolling 30-day period shall not exceed the Rated Payload.

Truck Model	830	E-5
Specification	lb	kg
Rated GVW	906,400	411,136
Standard Tire Size	50/80	)R57
Rated / Nominal Payload	500,000	226,800
Never To Exceed GVW	1,006,367	456,480

## SPECIFICATIONS



Make and modelKomatsu SDA16V160
FuelDiesel
Number of cylinders16
Operating cycle4 cycle
Gross horsepower* 1865 kW 2,500 HP @ 1800 rpm
Net flywheel power** 1778 kW 2,385 HP @ 1800 rpm
Weight (wet)
Weight (dry)
* 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.

### 

#### AC/DC CURRENT

	GTA-51
Dual impeller in-line blower	71.2 m <sup>3</sup> /min 2,515 cfm
Control	AC Torque Control System
Motorized wheels*	GEB36 Induction Traction Motors
Ratio	
Speed (maximum)	
* Drive system performance depends	upon gross vehicle weight, haul road grade,
haul road length, rolling resistance an	d other parameters. Komatsu must analyze

each job condition to assure proper application.

## **TIRES AND RIMS**

Rock service, tubeless, radial tires

Standard tire\*.....50/80 R57 Flange mount, five piece rim

813 mm x 1448 mm x 152 mm **32" x 57" x 5.5"** rim assembly. Rims rated at 827 kPa **120 psi** cold inflation pressure.

Typical tire weight...... 23016 kg **50,750 lb** 

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

\* Tires sold separately.



Advanced Operator Environment with integral 4-post ROPS/FOPS Level 2 structure (ISO 3449), adjustable air suspension seat w/ lumbar support and arm rests, full-size passenger seat, maximum R-value insulation, tilt and telescoping steering column, electric windshield wipers w/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).

### 

Variable rate hydro-pneumatic with integral re-	ebound control
Max. front stroke	335 mm <b>13.2"</b>
Max. rear stroke	279 mm <b>11.3"</b>
Max. rear axle oscillation	±10.3°



#### 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	
	tensile strength steel
Casting material	620.5 mPa 90,000 psi
	tensile strength steel
Rail width	
Rail depth (minimum)	
Top and bottom plate thickness	
Side plate thickness	
Drive axle mounting	Pin and spherical bushing
Drive axle alignmentS	wing link between frame and axle

### BODY

Front sheet	12 mm 0.47" Outer 12 mm 0.47" Center
137	79 MPa 200,000 psi tensile strength steel
Side sheet	8 mm <b>0.39"</b> 1379 MPa
137	9 MPa 200,000 psi tensile strength steel
Canopy sheet	
68	39 MPa 100,000 psi tensile strength steel
SAE heaped 2:1	
	weight 29830 kg 65,762 lb

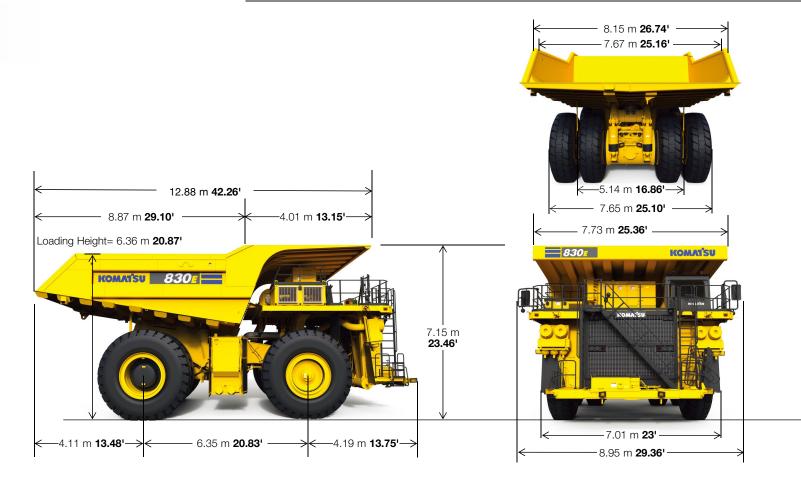
### BRAKING SYSTEM

Service brakesAll hydraulically actuated Traction system	ol si 1 <sup>2</sup>
Secondary stopping requirements Secondary brake systemComplies with ISO-3450 Standard Wheel brake lock	d c,



L&M radiator assembly, split-flow, with deaerator-type top tank.	
Radiator frontal area	2

### 830**E-**5





Steering...... Accumulator assisted with twin double acting cylinders provide constant rate steering. Secondary steering automatically supplied by accumulator. 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-down ......16 sec Float-down empty ......17 sec Pumps...... Two pumps, single package, in-line Hoist and brake cooling...... Tandem gear pump with output of 931 lpm 246 gpm at 1900 rpm and 18960 kPa 2,750 psi

Steering and brake .......Pressure-compensating piston pump with output of 246 lpm **65 gpm** at 1900 rpm System relief pressures

Hoist	17237 kPa <b>2,500 psi</b>
Steering and brake	20685 kPa <b>3,000 psi</b>
Ports available for powering disabled truck a	and for system diagnostics

Pody	Capa		Loading
Body	Struck	2:1 Heap	Height*
Standard	119 m <sup>3</sup> 156 yd <sup>3</sup>	158 m <sup>3</sup> 207 yd <sup>3</sup>	6.26 m <b>21'</b>

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

### ELECTRICAL SYSTEM

4 x 8D 1400 CCA, 12 volt, in series/parallel, 275 ampere-hour, bumper-mounted with disconnect switch & lock-out.

Alternator	24 volt, 275 amp
Lighting	
Cranking motors	Two/24 volt

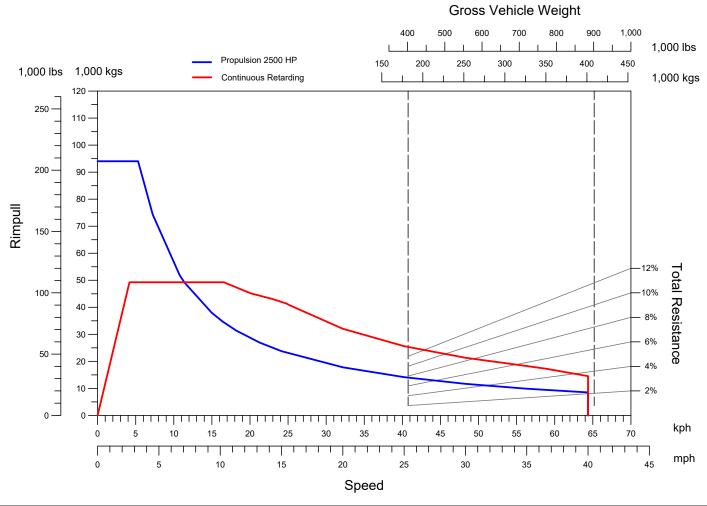
### SERVICE REFILL CAPACITIES

Cooling System	568 L	150 U.S. gal
Crankcase	363 L	96 U.S. gal
Hydraulic system	1325 L	350 U.S. gal
Motor gear box (each)	58 L	15 U.S. gal
Fuel tank	4542 L	1,200 U.S. gal
DEF tank	288 L	76 U.S. gal

## SPECIFICATIONS

### **Truck Performance Graph**

### 830E-5 PERFORMANCE



2500 HP - 50/80 R57 TIRES

302-5

	nicle Weight* Front Axle Distribution	136684 kg	301,336 lbs	<b>48</b> %	
	<b>Rear Axle Distribution</b>	274452 kg	605,064 lbs	<b>67</b> %	
	Total EVW	411136 kg	906,400 lbs		
Gross Veh	icle Weight				
	Front Axle Distribution	94457 kg	208,243 lbs	51%	
	Rear Axle Distribution	89863 kg	198,115 lbs	<b>49</b> %	
	Nominal GVW	184321 kg	406,358 lbs		
Payload					
	Nominal Payload	226800 kg	500,000 lbs		
		227 metric t	227 metric tons 250 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 the basic product description purposes. Please contact your Komatsu distributor for specific application requirements.

\*Includes options allowance



### STANDARD EQUIPMENT

- Air cleaners, Donaldson<sup>®</sup> SSG w/ auto evacuators
- Alternator (Charging 24 volt/250A)
- Automatic lubrication system w/ground level
- fill, level indicator & dynamic timing
- Back-up alarm
- Batteries–4 x 8D (1450 CCA's)
  Battery charging/jump start connector
- Body over-center deviceBody-up sling (w/KAC supplied body)
- Cruise control
- Electric start

**Q** 

- Eliminator®, Cense®
- Fast-fill fuel system (in tank and left side remote)
- · Filters, high pressure hydraulic
- · Ground level radiator fill
- · Hydraulically actuated rear dry disc brakes
- Mirrors, heated, multi-cambered convex LH & RH
- Mud flaps
- Muffled exhaust-deck-mounted
- Power supply, 24 volt to 12 volt DC
- Quick disconnects (steering, hoist and diagnostics)
- Radiator sight gauge
- · Removable power module unit (radiator,
- engine, alternator)
- Reverse retarding
- Service center–LH
- · Electronically controlled viscous fan clutch

#### **OPERATOR ENVIRONMENT & CONTROL:**

**OPTIONAL EQUIPMENT** Note: Optional equipment may change operating weight.

- · All hydraulic service brakes with
- auto apply
- Battery disconnect switch
- · Brake lock and drive system interlock
- Circuit breakers, 24 volt
- Diagonal staircase across grille
- Dynamic retarding with continuous
- rated element grids

Amber Beacon Light

Body liners

· Body up sling

Extended canopy

Heated body

AESS924-01

Evebrow

Application Specific Body Structure

Bumper Mounted Headlights

Double Wall Exhaust Tubes

Engine Access Platform-LH

Fire extinguisher 9 kg 20 lb

KOMA

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Note: All comparisons and claims of improved performance made herein are made with respect to the prior Komatsu model unless otherwise specifically stated.

- 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 & speed
- application protection · Power steering w/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

#### STANDARD HIGH VISIBILITY DELUXE CAB:

- AC drive interface display
- Air conditioner HFC-134A
- AM/FM radio, USB & MP3
- Dome light
- · Electronic Dash & Status 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 hourmeter, oil pressure gauge, coolant temperature gauge, hydraulic oil temperature . daude
- 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

• Hot start engine oil (220V 2-500W)

Hot start engine coolant (220V 2-2500W)

Komvision All-Around Monitoring System

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AD009(POD)

· Hot start hydraulic oil

Komatsu Smart Rims

• Mufflers between frame rails PLM IV<sup>®</sup> scoreboards

Hubodometer

LED Headlights

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KOMATSU

 Service center–RH Shutters (radiator)

- · Horn switch (center of steering wheel)
- Indicator lights (blue) - Engine service
- Komtrax Plus<sup>®</sup> snapshot (IM) Komatsu Payload Meter IV
- Komtrax Plus
- 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
- Sunvisor (adjustable)
- Tilt & telescoping steering column
- Voltmeter (battery output)
- Windshield (tinted safety glass)
- · Windshield wiper (dual) and washer (electric)

#### LIGHTING:

- Back-up lights-rear mount (2) halogen
- Back-up lights–R and L-
- deck mount (2) halogen Brake and retard lights on top of cab
- Clearance lights (LED)
- Dynamic retarding, rear (2) (LED)

Manual back-up light, switch

Payload lights R and L (LED)

Stop & tail lights (2) (LED)

- · Engine compartment service lights
- Fog lights (2) halogen Headlights (8) halogen

and indicator

Stairway lights

Spare Rim

Spare Smart Rim

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Rock Ejectors

Suspensions (cold weather)

06/24 (EV-1)

Turn signals (LED)