

EX3600

**HITACHI**

# **GIANT EX3600**



■ **Engine Gross Power**

: 1 400 kW (1 880 hp)

■ **Operating Weight**

Loading Shovel : 350 000 kg  
(772 000 lb)

Backhoe : 348 000 kg  
(767 000 lb)

■ **Loading Shovel Bucket**

PCSA Heaped : 21.0 m<sup>3</sup> (27.5 yd<sup>3</sup>)  
23.0 m<sup>3</sup> (30.1 yd<sup>3</sup>)

■ **Backhoe Bucket**

PCSA Heaped : 22.0 m<sup>3</sup> (28.8 yd<sup>3</sup>)  
CECE Heaped : 19.2 m<sup>3</sup> (25.1 yd<sup>3</sup>)





# SOLUTION GIANT

Giant-Sized Productivity  
Based on Hitachi's  
Theory of Evolution.

Each Hitachi generation listens to the needs of the work site and gives birth to an even better new generation.

Note: Photos in this catalog may include optional equipment.

### Bucket Passes to Dump Trucks

	HITACHI EH3000	HITACHI EH3500
Maximum Payload	173.0 US ton	213.1 US ton
Body Capacity <small>(SAE 2:1 Heaped)</small>	101.9 m <sup>3</sup> (133.3 yd <sup>3</sup> )	115.1 m <sup>3</sup> (150.5 yd <sup>3</sup> )
Loading Shovel 21.0 m <sup>3</sup> (27.5 yd <sup>3</sup> )	5	5 or 6
Backhoe 22.0 m <sup>3</sup> (28.8 yd <sup>3</sup> )	5	5 or 6

**Powerful Single Engine — Ready for the task.**  
Time-proven Hitachi diesel engine produces a total of 1400 kW (1880 hp) for handling the big excavation jobs.

1218 kW (1634 hp) **▶ 1400 kW (1880 hp)**  
EX3500-3

**Emission Control Engine — Helping to protect our environment.**  
Conforms to U.S. EPA Tier 2 and EC Tier 2 emission regulations.

**Efficient E-P Control — Adjusts power output to the work being performed.**  
Hitachi's computer-aided Engine-Pump Control (E-P Control) coaxes optimum efficiency from the engine and hydraulic pumps. This innovative system senses load demand and controls engine and pump output for maximum operating efficiency.

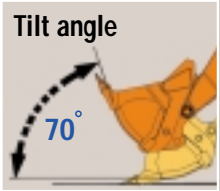
**Larger Bucket Provides High Work Capacity.**

● Loading shovel bucket:	● Backhoe bucket:
<b>21.0 m<sup>3</sup> (27.5 yd<sup>3</sup>)</b>	<b>22.0 m<sup>3</sup> (28.8 yd<sup>3</sup>)</b>

**Maximum Excavating Force.**

● Loading shovel: Arm crowding force	● Backhoe: Arm crowd force
<b>1200 kN</b> (122 000 kgf, 269 000 lbf)	<b>951 kN</b> (97 000 kgf, 214 000 lbf)
Bucket digging force	Bucket digging force
<b>1130 kN</b> (115 000 kgf, 254 000 lbf)	<b>1050 kN</b> (107 000 kgf, 236 000 lbf)

**Large Bucket — Design for enhanced efficiency.**  
The large bucket has been shaped specifically to enhance scooping and loading operations. Its sharp tilt angle helps boost operating efficiency.



**Productivity-boosting Auto-Leveling Mechanism — One-lever leveling control.**  
This is another unique Hitachi function developed exclusively for more efficient leveling operations.

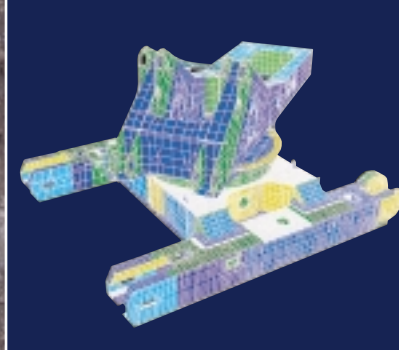




# SOLUTION GIANT

## More Than Durable — Just Plain Tough

Built-in toughness means the Hitachi will continue to get giant-sized jobs done fast.

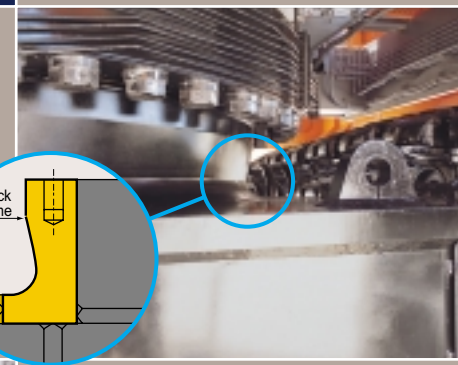
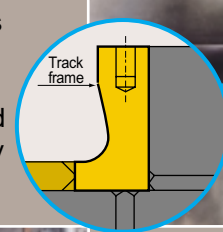


### Rigid Box Design — Resists bending and twisting forces.

Computer-assisted analysis was used to check that the frame box can withstand heavy-duty excavation work.

### Solid Cast Track Frame — More strength for this key area.

The track frame is cast as a solid unit and includes a flange for improved reliability. This non-welded design is used exclusively on large Hitachi models.



### Strategically Positioned Oil Coolers — Help keep oil temperatures lower.

Two oil coolers are used for optimal cooling efficiency. They are positioned far from the engine radiator for even better cooling potential.

### High-mounted Compact Travel Motors and Optional Travel Motor Guard — Help boost durability at rugged work sites.

This design helps protect the travel motors from damage by rocks.

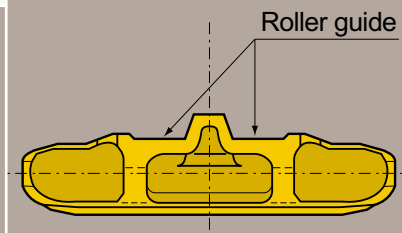


### Rugged Track Links — Shoes include roller guides for extended service life.

This design has proven itself on Hitachi's popular Giant EX Series. The roller guides have been added to help extend service life.

### Constant Correct Track Tension — Nitrogen gas accumulators absorb abnormal track tension.

Helps prevent abnormal track tension from causing damage. Travel is automatically stopped if accumulator pressure exceeds a preset level.





# SOLUTION GIANT

## Giant-sized Comfort & Easy Maintenance

The entire machine is designed to provide comfort to the operator and to make maintenance easier for the mechanic.

### High Visibility 6.95 Meter (22' 10") Cab Height — Providing a clear view of the work area.

Gives the operator a clear view, even when a large 200 US-ton class dump truck is being loaded. This high height and forward-sloping cab provides a view that boosts productivity.

### Efficient Cab Layout —

#### All controls within natural reach of operator.

The ergonomic layout of the cab means the operator will do less stretching and reaching when operating. This adds up to less operator fatigue and greater operating efficiency.

### Easy-to-Monitor Curved Instrument Panel — Provides at-a-glance monitoring of operating status.

Positioned so that the operator can continually monitor the status of key functions during operation. All buttons and instruments are easy to see and operate.

### Constant-Cab-Comfort Air Conditioner — Keeps the cab pressurized to keep out dust while maintaining comfortable temperature.

### Adjustable Sliding Cockpit —

#### Moves to the best position for the operator.

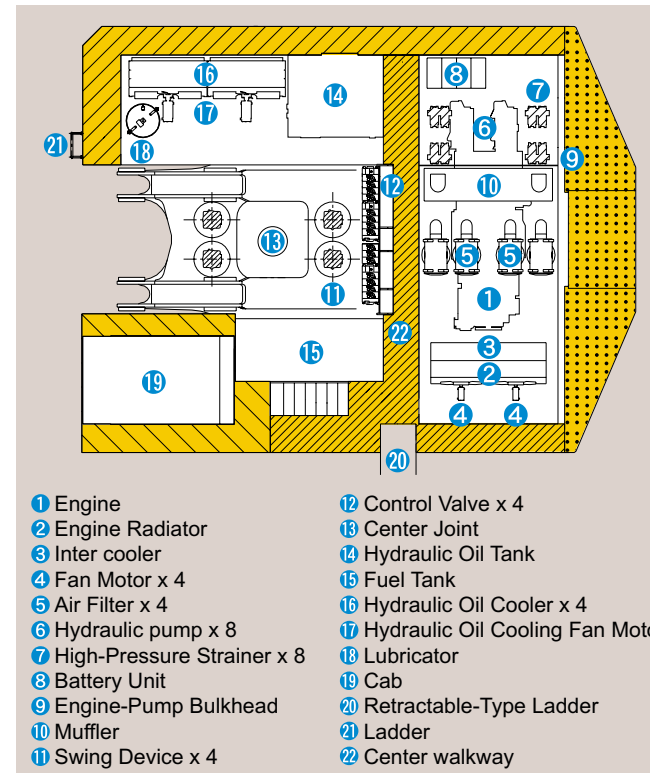
The operator can adjust the position of the levers and the seat to custom-fit his size and operating style.

### Comfortable Cab — Comfort for reducing operator fatigue.

Fluid-filled elastic mounts help absorb vibration to provide durability and comfortable ride.



### Easy Access and Maintenance — Easy access speeds inspections and maintenance.



### Multipurpose Counterweight — Easier access for maintenance.

A walkway around the entire counterweight provides easy access to key rear areas. This means faster and safer inspection and maintenance.



### Wide-Open Service Area — Provides the space needed for quick and easy inspection and maintenance.

This area is conveniently located at the center of the body and provides access to the engine as well as the hydraulic and electrical systems.



### Auto Lubrication System — Eliminates the need for manual lubrication.

This system automatically lubricates the front joint pins and swing circle. This eliminates cumbersome daily lubrication.

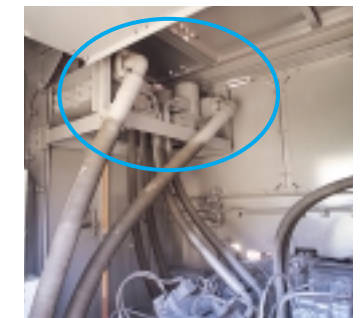


### Easy-to-replace Grease Drum Can — Designed to provide quick and easy grease drum can changes.

The compartment floor slides down to lower a drum for simple, easy replacement.

### Convenient Centralized Filter System — Designed to make filter inspection and maintenance easier.

Centralized position means that inspection and maintenance can be performed quickly and easily.

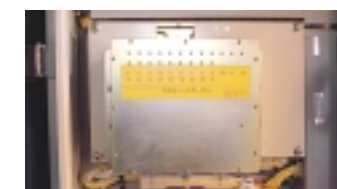


### The Centralized Lubrication System: Fast filling System (option)

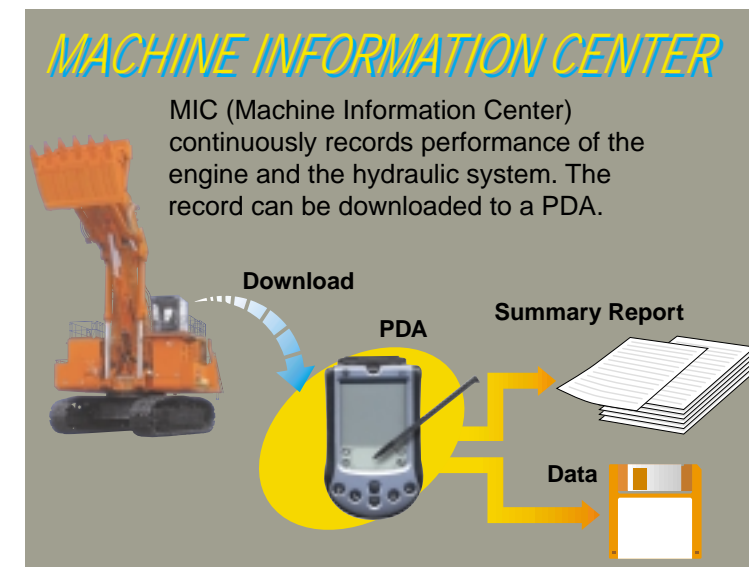
### Low Maintenance Dust Ejector — Automatically expels dust from the air cleaner.

This is one less time-consuming task during routine maintenance.

### Contamination sensor — Alerts the operator of excessive contaminants in the oil.



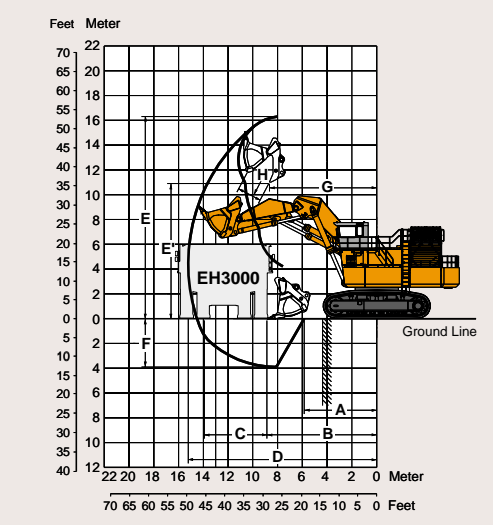
This system detects accumulated contaminants that could cause damage and alerts the operator before trouble occurs.



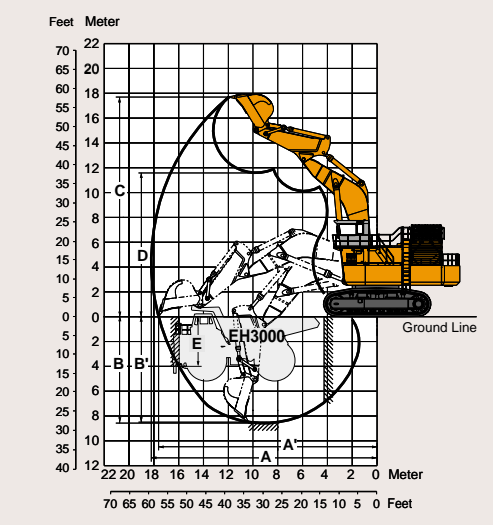


SPECIFICATIONS

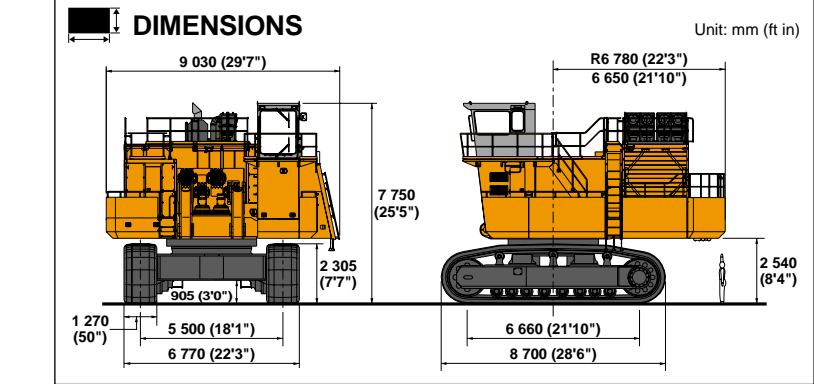
WORKING RANGES



**Loading Shovel**  
**A** Min. digging distance  
5 850 mm (19'2")  
**B** Min. level crowding distance  
8 870 mm (29'1")  
**C** Level crowding distance  
5 050 mm (16'6")  
**D** Max. digging reach  
15 220 mm (49'11")  
**E** Max. cutting height  
16 300 mm (53'6")  
**E'** Max. dumping height  
10 990 mm (36'1")  
**F** Max. digging depth  
3 910 mm (12'10")  
**G** Working radius at max. dumping height  
8 650 mm (28'5")  
**H** Max. bucket opening width  
1 950 mm (6'5")  
**Arm crowding force**  
1 200 kN (122 000 kgf, 269 000 lbf)  
**Bucket digging force**  
1 130 kN (115 000 kgf, 254 000 lbf)



**Backhoe**  
9.6 m (31' 6") BE-boom  
4.5 m (14' 9") BE-arm  
**A** Max. digging reach  
18 190 mm (59' 8")  
**A'** Max. digging reach (on ground)  
17 600 mm (57' 9")  
**B** Max. digging depth  
6 580 mm (21' 5")  
**B'** Max. digging depth (8' level)  
8 490 mm (27' 10")  
**C** Max. cutting height  
17 690 mm (58' 0")  
**D** Max. dumping height  
11 590 mm (38' 0")  
**E** Max. vertical wall  
4 060 mm (13' 4")  
**Bucket digging force**  
**ISO**  
1 050 kN (107 000 kgf, 236 000 lbf)  
**SAE: PCSA**  
932 kN (95 000 kgf, 209 000 lbf)  
**Arm crowd force**  
**ISO**  
951 kN (97 000 kgf, 214 000 lbf)  
**SAE: PCSA**  
922 kN (94 000 kgf, 207 000 lbf)



ENGINE

Model ..... Hitachi S16R-Y1TAA1  
Rated power  
DIN 6271.net ..... 1 400 kW (1 900 PS) at 1 600 min<sup>-1</sup> (rpm)  
SAE J1995, gross ..... 1 400 kW (1 880 hp) at 1 600 min<sup>-1</sup> (rpm)  
Piston displacement ..... 65.4 L (3 990 in<sup>3</sup>)  
Fuel tank capacity ..... 7 200 L (1 900 US gal, 1 580 Imp gal)

HYDRAULIC SYSTEM

Main pumps ..... 8 x variable piston  
Pressure setting ..... 29.4 MPa (300 kgf/cm<sup>2</sup>, 4 270 psi)  
Max.oil flow ..... 8 x 500 L/min (8 x 132 US gpm, 8 x 110 Imp gpm)

UPPERSTRUCTURE

Swing speed ..... 3.2 min<sup>-1</sup> (rpm)

UNDERCARRIAGE

Travel speeds ..... High: 0 to 2.2 km/h (1.4 mph)  
Low : 0 to 1.7 km/h (1.1 mph)  
Maximum traction force ..... 1 760 kN (179 500 kgf, 395 700 lbf)  
Gradeability ..... 30° (60%) max.

WEIGHTS AND GROUND PRESSURE

**Loading Shovel**  
Equipped with 21.0 m<sup>3</sup> (27.5 yd<sup>3</sup>; PCSA heaped) bottom dump bucket

Shoe width	Operating weight	Ground pressure
1 270 mm (50")	350 000 kg (772 000 lb)	181 kPa (1.85 kgf/cm <sup>2</sup> , 26.3 psi)

**Backhoe**  
Equipped with 9.6 m (31'6") BE-boom, 4.5 m (14'9") BE-arm and 22.0 m<sup>3</sup> (28.8 yd<sup>3</sup>; PCSA heaped) bucket

Shoe width	Operating weight	Ground pressure
1 270 mm (50")	348 000 kg (767 000 lb)	180 kPa (1.84 kgf/cm <sup>2</sup> , 26.1 psi)

LOADING SHOVEL ATTACHMENTS

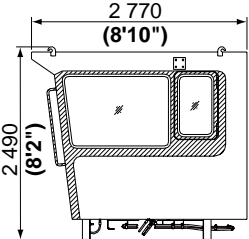
**Bucket Capacity (PCSA 2:1 heaped)**  
21.0 m<sup>3</sup> (27.5 yd<sup>3</sup>)  
23.0 m<sup>3</sup> (30.1 yd<sup>3</sup>)

BACKHOE ATTACHMENTS

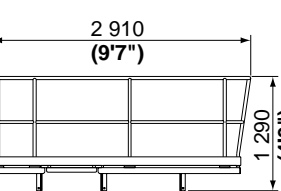
**Bucket Capacity (PCSA 1:1 heaped)**  
22.0 m<sup>3</sup> (28.8 yd<sup>3</sup>)

UPPERSTRUCTURE Assembly requires no welding.

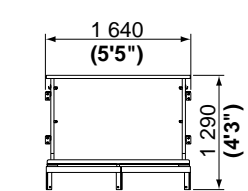
**Cab assembly**  
Weight: 1 630 kg (3 590 lb)  
Width: 1 600 (5'3")



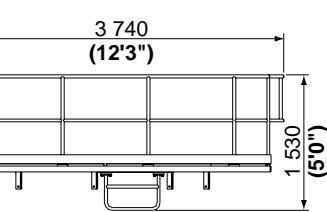
**Sidewalk**  
Weight: 53 kg (117 lb)  
Width: 630 (2'1")



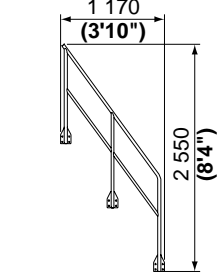
**Sidewalk**  
Weight: 53 kg (117 lb)  
Width: 630 (2'1")



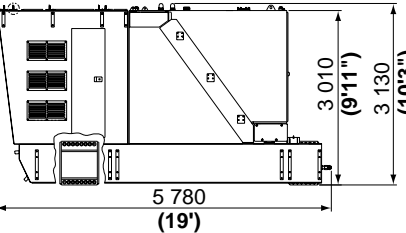
**Sidewalk**  
Weight: 147 kg (324 lb)  
Width: 680 (2'3")



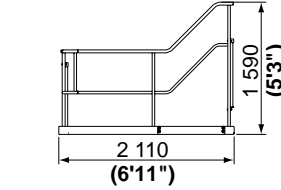
**Handrails**  
Weight: 20 kg (44 lb) x 2



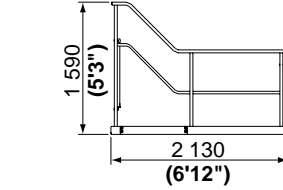
**Bed (left) assembly**  
Weight: 8 400 kg (18 500 lb)  
Width: 2 160 (7'1")



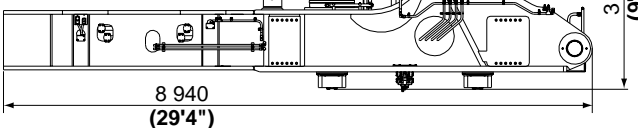
**Handrail (left)**  
Weight: 35 kg (77 lb)  
Width: 430 (1'5")



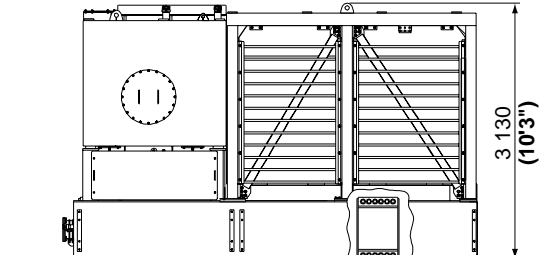
**Handrail (right)**  
Weight: 33 kg (73 lb)  
Width: 290 (11")



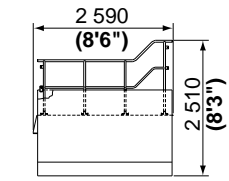
**Main frame assembly**  
Weight: 39 300 kg (86 700 lb)  
Width: 3 490 (12'11")



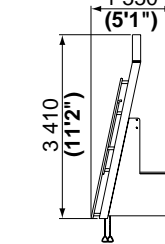
**Bed (right) assembly**  
Weight: 11 300 kg (24 900 lb)  
Width: 2 220 (7'3")



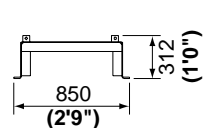
**Sidewalk**  
Weight: 278 kg (613 lb)  
Width: 674 (2'3")



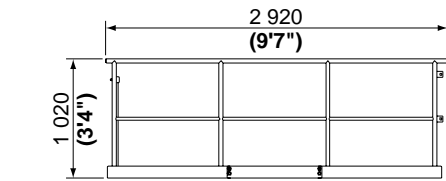
**Ladder**  
Weight: 416 kg (917 lb)  
Width: 650 (2'2")



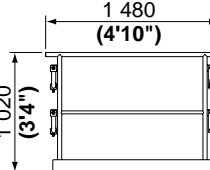
**Handrail**  
Weight: 40 kg (88 lb)  
Width: 400 (1'4")



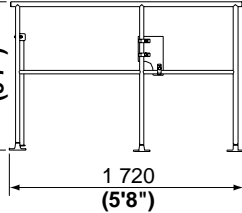
**Handrail**  
Weight: 32 kg (71 lb); Width: 285 (11")



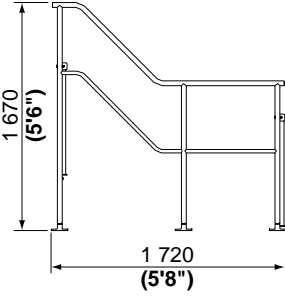
**Handrail**  
Weight: 17 kg (38 lb)  
Width: 223 (9")



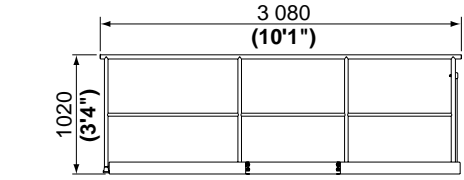
**Handrail**  
Weight: 17 kg (38 lb)  
Width: 261 (10")



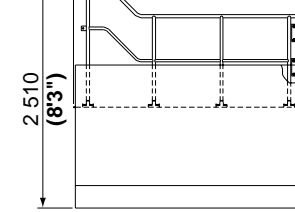
**Handrail**  
Weight: 34 kg (75 lb)  
Width: 261 (10")



**Handrail**  
Weight: 33 kg (73 lb); Width: 285 (11")



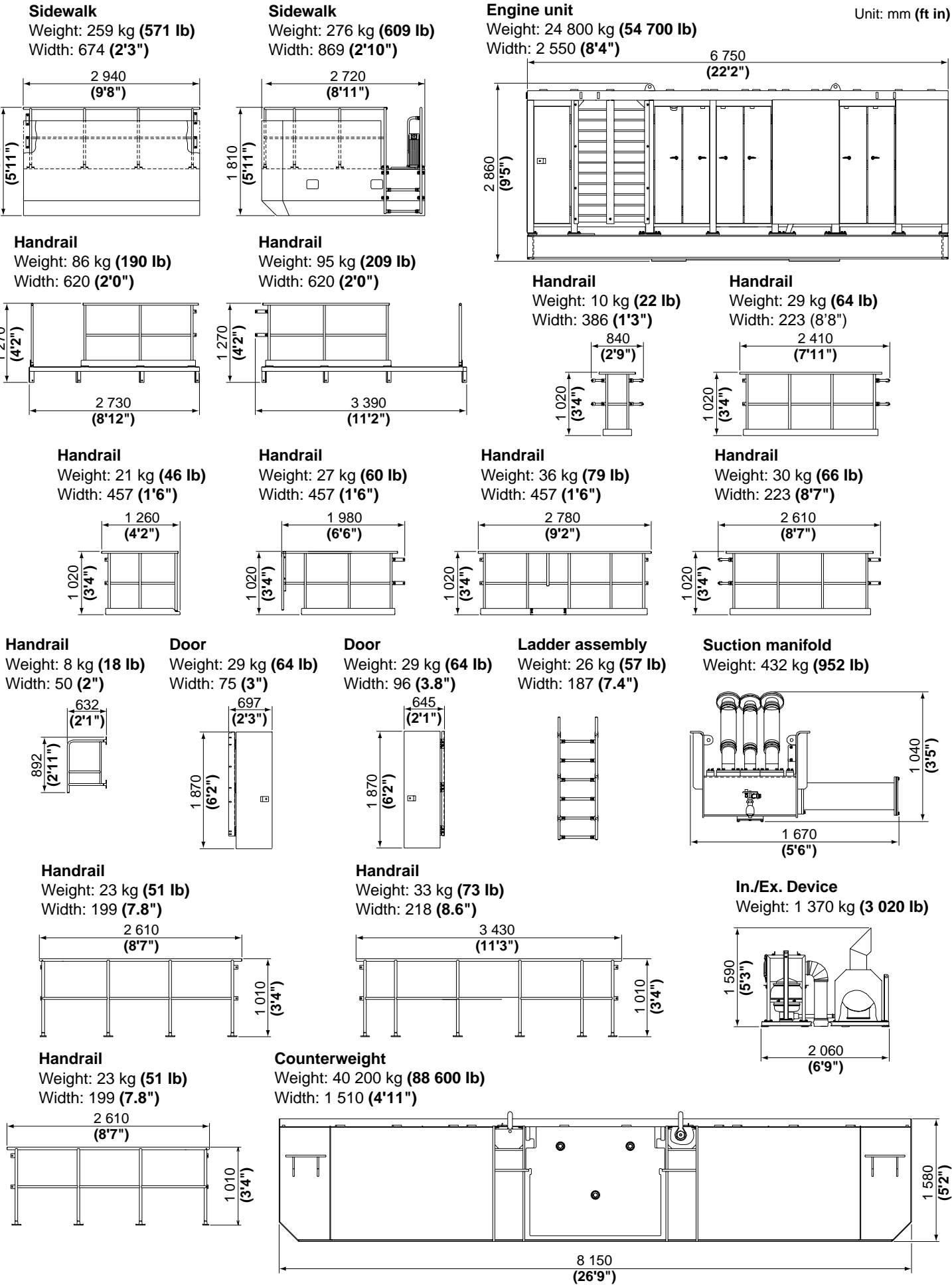
**Sidewalk**  
Weight: 258 kg (569 lb)  
Width: 674 (2'3")



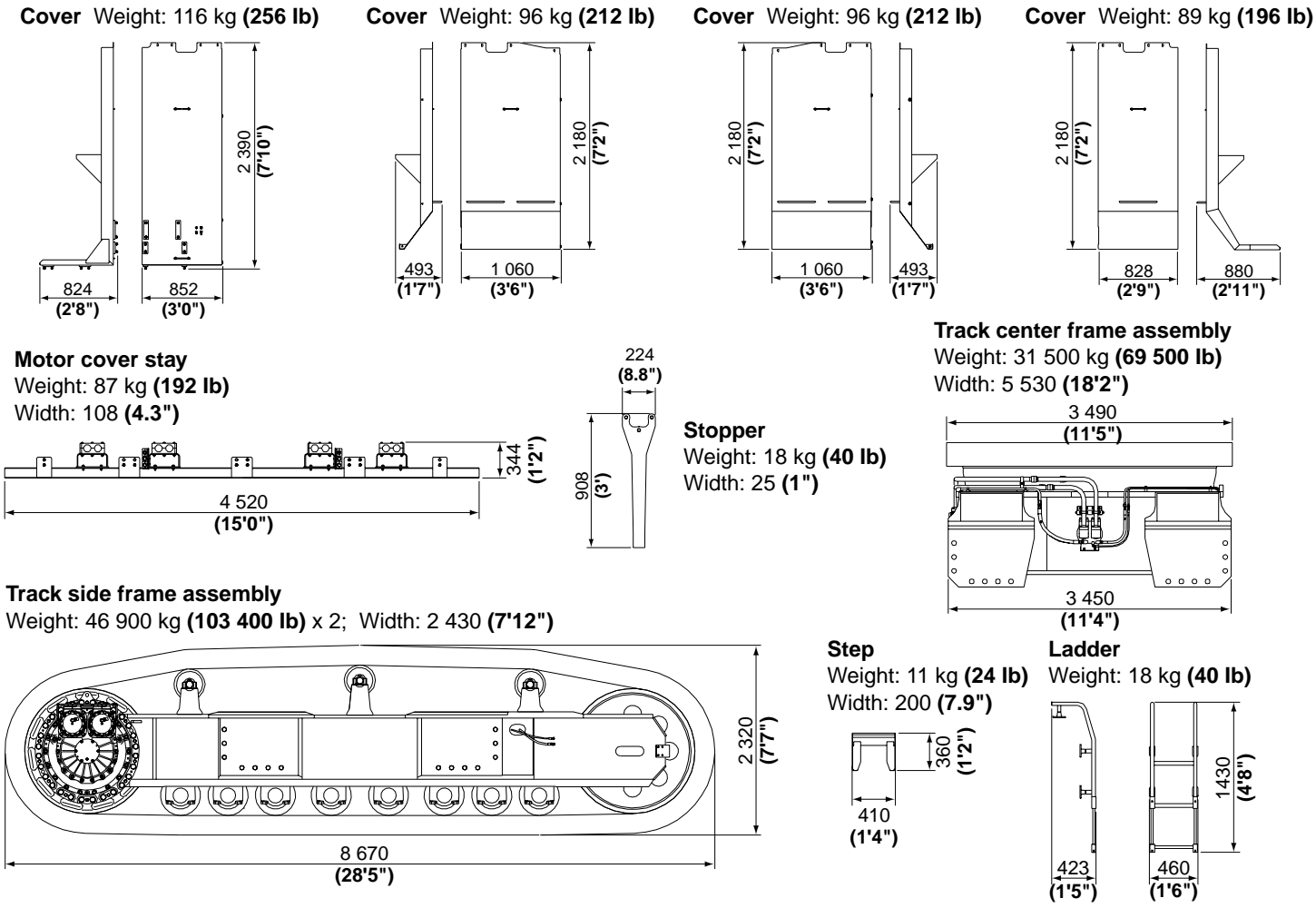
**Sidewalk**  
Weight: 247 kg (545 lb)  
Width: 674 (2'3")



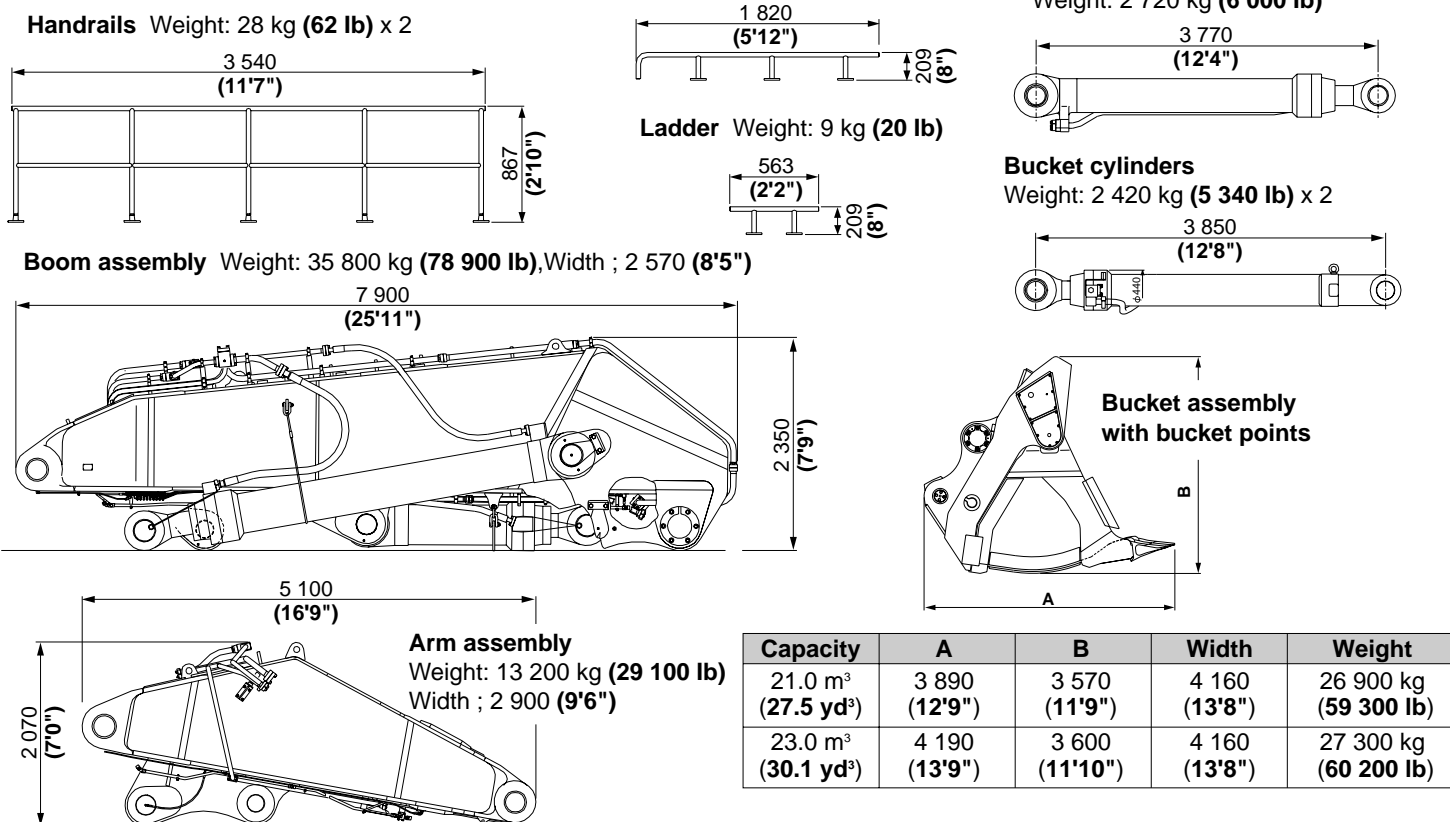
**Sidewalk**  
Weight: 247 kg (545 lb)  
Width: 674 (2'3")



UNDERCARRIAGE



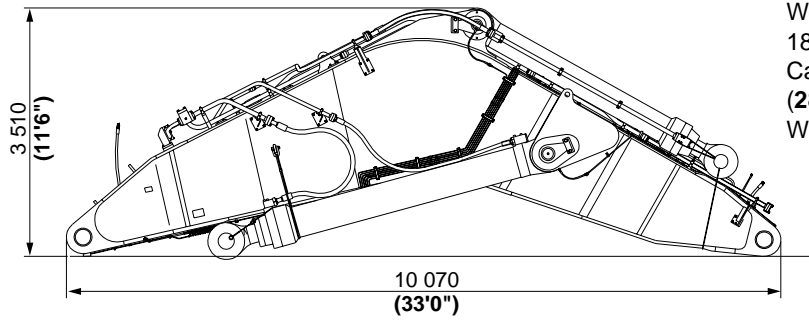
LOADER ATTACHMENT



# EX3600-5

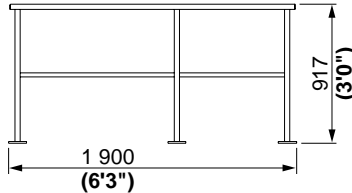
## BACKHOE ATTACHMENT

**Boom assembly** Weight: 40 700 kg (89 700 lb); Width: 2 540 (8'4")



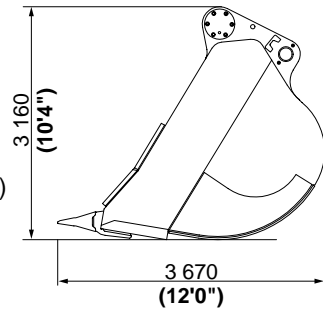
### Handrails

Weight: 16 kg (35 lb) x 2  
Width: 50 (2")



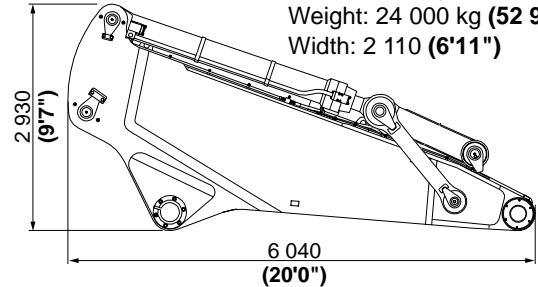
### Bucket assembly

Weight:  
18 400 kg (40 600 lb)  
Capacity: 22.0 m<sup>3</sup>  
(28.8 yd<sup>3</sup>; PCSA heaped)  
Width: 3 790 (12'5")

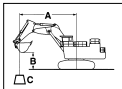


### Arm assembly

Weight: 24 000 kg (52 900 lb)  
Width: 2 110 (6'11")



## LIFTING CAPACITIES



**A:** Load radius  
**B:** Load point height  
**C:** Lifting capacity

















Rating over-side or 360 degrees



Rating over-front















Unit: 1 000 lb

### ENGLISH MEASURE

Conditions		Load point height	Load radius												At max. reach			
			25 ft		30 ft		35 ft		40 ft		45 ft		50 ft					
																	ft in	
EX3600-5 Boom BE-boom Arm BE-arm Bucket PCSA	31'6"	40 ft							*67.6	*67.6					*33.1	*33.1	53'5"	
		30 ft							*66.7	*66.7	*67.7	*67.7			*31.7	*31.7	57'0"	
		25 ft					*66.5	*66.5	*71.8	*71.8	*72.7	*72.7	*57.5	*57.5	*32.0	*32.0	57'11"	
		20 ft					*90.1	*90.1	*85.4	*85.4	*81.1	*81.1	*68.2	*68.2	*33.0	*33.0	58'3"	
		15 ft					*150.9	*150.9	*111.5	*111.5	*94.7	*94.7	*76.6	*76.6	*34.6	*34.6	57'11"	
	14'9"	10 ft					155.9	*162.3	122.7	*133.6	97.9	*112.3	78.7	*84.8	*37.1	*37.1	57'2"	
		5 ft					149.4	*161.8	117.8	*133.0	94.4	*110.6	76.5	*90.9	*40.5	*40.5	55'9"	
		0 (Ground)					145.4	*155.1	114.5	*128.0	92.0	*105.3	75.1	*83.8	*40.8	*40.8	53'7"	
		—5 ft				*167.9	*167.9	*142.1	*142.1	112.7	*117.6	90.8	*95.0	*69.1	*69.1			
		—10 ft	*137.7	*137.7	*142.1	*142.1	*122.3	*122.3	*100.5	*100.5	*77.2	*77.2						
—15 ft	*111.4	*111.4	*108.2	*108.2	*93.8	*93.8	*74.0	*74.0										

Unit: 1 000 kg

### METRIC MEASURE

Conditions		Load point height	Load radius												At max. reach			
			8 m		10 m		12 m		14 m		15 m		16 m					
																	m	
EX3600-5 Boom	9.6 m	13 m						*29.5	*29.5							*15.4	*15.4	15.8
		12 m						*31.0	*31.0							*14.9	*14.9	16.3
		10 m						*29.8	*29.8	*28.0	*28.0					*14.4	*14.4	17.1
		8 m						*31.4	*31.4	*31.9	*31.9	*27.2	*27.2			*14.5	*14.5	17.6
		6 m				*44.4	*44.4	*39.5	*39.5	*36.5	*36.5	*32.8	*32.8			*15.0	*15.0	17.7
BE-boom	4.5 m	4 m				*79.6	*79.6	*59.0	*59.0	43.7	*44.3	37.7	*38.1	*26.5	*26.5	*16.1	*16.1	17.5
2 m					76.6	80.8	55.6	*62.1	41.6	*48.9	36.1	*43.3	*27.6	*27.6	*17.8	*17.8	17.1	
0 (Ground)					73.9	76.5	53.4	*59.5	40.1	*46.0	35.1	*39.6			*18.5	*18.5	16.3	
Bucket	22.0 m³	—2 m				*62.8	*62.8	*66.9	*66.9	52.5	*52.6	*39.0	*39.0	*30.8	*30.8			
PCSA		—4 m				*58.1	*58.1	*51.5	*51.5	*40.0	*40.0	*23.8	*23.8					
CECE		19.2 m³	—5 m				*45.1	*45.1	*41.0	*41.0	*30.3	*30.3						

**Notes:** 1. Ratings are based on SAE J1097.

2. Lifting capacity of the EX Series does not exceed 75% of tipping load with the machine on firm, level ground or 87% full hydraulic capacity.

3. The load point is a hook (not standard equipment) loaded on the back of the bucket.

4. \*Indicates load limited by hydraulic capacity.

# HITACHI

Hitachi Mining Products

P.O. Box 8806 • 1515 5th Avenue • Moline, IL 61265

[www.hitachimining.com](http://www.hitachimining.com)

These specifications are subject to change without notice. Illustrations and photos show the standard models, and may or may not include optional equipment, accessories, and all standard equipment with some differences in color and features.

DKAEX3600HT (03-01)