



# Cat<sup>®</sup> 7495 HD

## Electric Rope Shovel

### Specifications

#### Dimensions

Dipper payload	81.8 tonnes (90 tons)
Dipper capacity	19.1-61.2 m <sup>3</sup> (25-80 yd <sup>3</sup> )
Length of boom	20.4 m (67 ft 0 in)
Effective length of dipper handle	10.9 m (35 ft 10 in)
Overall length of dipper handle	14.3 m (47 ft 0 in)

#### Weights

Working weight, with dipper and standard links	1 306 346 kg (2,880,000 lbs)
Net weight, domestic, without ballast or dipper	972 502 kg (2,144,000 lbs)
General-purpose dipper 49.78 m <sup>3</sup> (65 yd <sup>3</sup> )	73 482 kg (162,000 lbs)
Ballast (furnished by customer)	260 362 kg (574,000 lbs)

- These weights will vary slightly depending upon dipper and optional Main Structures

#### Main Structures

##### Crawler Mounting

Overall width 213.36 cm (84 in) treads, standard	9.98 m (32 ft 9 in)
Overall width 274.32 cm (108 in) treads	10.44 m (34 ft 3 in)
Overall length of mounting	10.41 m (34 ft 2 in)
Total effective bearing area (213.36 cm treads)	32.0 m <sup>2</sup> (344 ft <sup>2</sup> ) 401 kPa (58.1 Psi)
Total effective bearing area (274.32 cm treads)	41 m <sup>2</sup> (442.3 ft <sup>2</sup> ) 311 kPa (45.2 Psi)
Number and diameter of rollers	Lower: 8, 139.70 cm (55 in) Upper: 10, 60.96 cm (24 in)
Take-up tumblers diameter	157.48 cm (62 in)
Number and pitch of treads	74, 61.91 cm (24.375 in)

#### Planetary Propel

Dual-motor independent drive

#### Revolving Frame (Center Section)

Welded, impact-resistant steel      Length: 8.38 m (27 ft 6 in)  
Width: 4.29 m (14 ft 1 in)

#### Turntable

Forged rim alloy steel swing rack pitch diameter	5.18 m (17 ft 0 in)
Teeth external cut	24.13 cm face (9.5 in)
Tapered, forged alloy steel roller rails diameter	4.5 m (14 ft 9 in)
Number of tapered rollers	56
Tapered rollers diameter	20.96 cm (8.25 in)

#### Swing

Two planetary gearboxes, each driven by a vertically mounted motor, are mounted on either side of the revolving frame. Dual-output pinion shafts from each gearbox engage the swing rack.

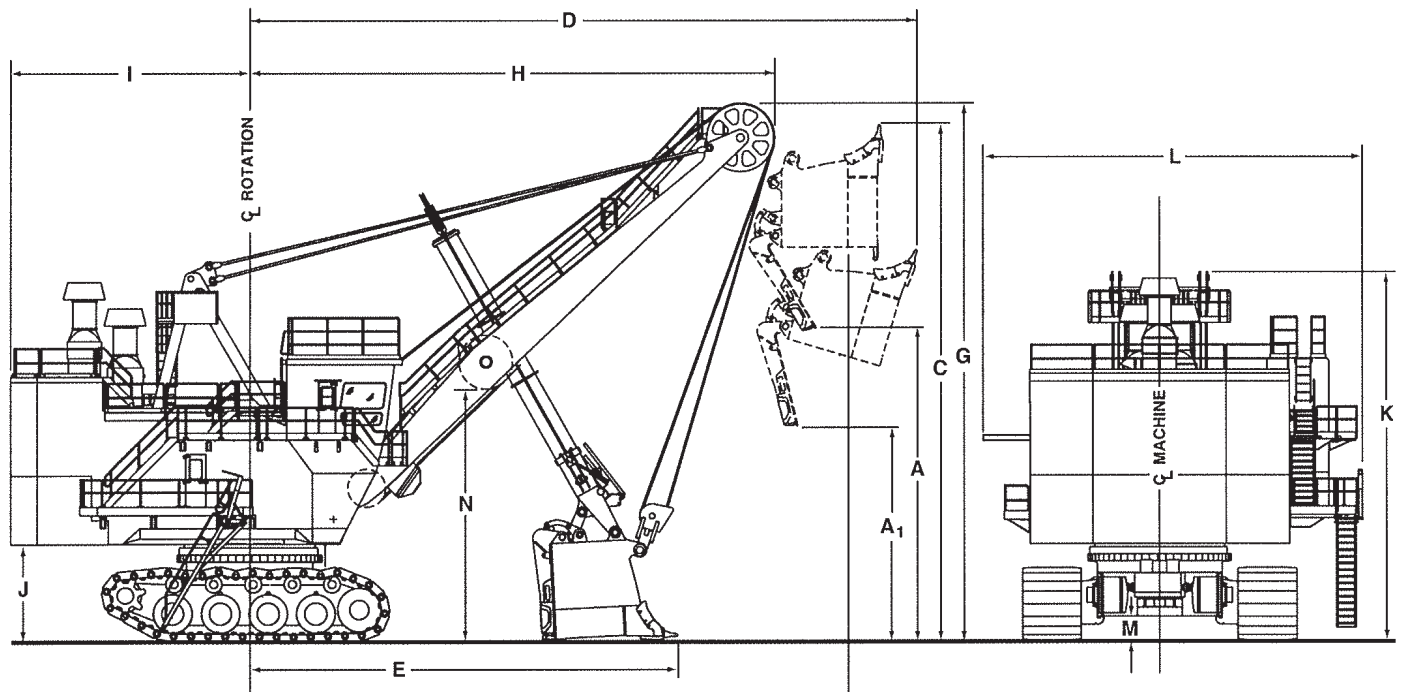
#### Hoist

A planetary gearbox with dual-output pinions provides the hoist torque transfer from the electric motor to the hoist drum gear.

#### Lube System

- Single-line system applies lubricant and grease via the PLC
- 6 pumps (4 for lubricant and 2 for grease) located in an insulated, double-walled lube room

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## Optimal Working Ranges

A	Dumping height	10.6 m (34 ft 10 in)
A <sub>1</sub>	Dumping height at maximum electric crowd limit	8.45m (27 ft 9 in)
B	Dumping radius (maximum)	21.0 m (69 ft 0 in)
C	Cutting height (maximum)	17.3 m (56 ft 10 in)
D	Cutting radius (maximum)	23.97 m (78 ft 8 in)
E	Radius of level floor	16.92 m (55 ft 6 in)
G	Clearance height (boom point sheaves)	20.1 m (65 ft 10 in)
H	Clearance radius (boom point sheaves)	19.74 m (64 ft 9 in)
I	Clearance radius (revolving frame)	8.67 m (28 ft 5 in)
J	Clearance under frame (to ground)	3.45 m (11 ft 4 in)
K	Height of A-frame	13.3 m (43 ft 8 in)
L	Overall width	13.01 m (42 ft 8 in)
M	Clearance under lowest point in truck frame/propel gearcase	0.86 m (34 in)
N	Operator's eye level	8.64 m (28 ft 4 in)

## Electrical

### Drive

IGBT Acutrol drive system

### Power Requirements

Voltage	3 phase, 50/60 Hz, 7200 V
Average 15-minute demand	832-1 165 kW
Peak power	3 330 kW

- Other voltage options available to suit customer requirements

### Distribution System Requirements

Machine on separate system	3 500 kva
Machine on large system	2 000 kva

### Main Electrical Systems

System voltage (nominal)	50/60 Hz, 7200 V
Trail cable (furnished by customer)	SHD-3-#1/0 at 8000 V
Transformer, auxiliary	350 kva, 7200 V primary
Lighting transformer	25 kva 120/240 V secondary

### Lights

- HPS lights on boom feet, top of A-frame, machinery house, lube room, control room, utility room and flood lights
- Incandescent lights on ground lights, walkways and operator's cab

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## Front End

### Boom

Boom	welded, impact-resistant steel
Boom point sheaves	twin-grooved, flame-hardened
Boom point sheave diameters	2.43 m (8 ft)
Handle diameter	86.36 cm (34 in)
Wall thickness (nominal)	7.62 cm (3 in)

### Rope Data

	No.	Diameter	Type	Construction
Hoist	2	69.8 mm (2.75 in)	twin dual	6 x 37
Crowd	1	63.5 mm (2.5 in)	single dual	6 x 37
Retract	1	63.5 mm (2.5 in)	single dual	6 x 37
Boom susp.	4	82.6 mm (3.25 in)	equalized	struct.strand
Dipper trip	1	15.9 mm (.625 in)	single	6 x 37

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