



Cat®

7495 HF

with HydraCrowd™

Electric Rope Shovel

Specifications

Dimensions

Dipper payload	100 tonnes (110 tons)
(Available dipper payloads up to 109 tonnes (120 tons) when specified)	
Dipper capacity	30.6 - 61.2 m³ (40-80 yd³)
Length of boom	20.4 m (67 ft)
Effective length of dipper handle	10.9 m (35 ft 10 in)
Overall length of dipper handle	14.3 m (47 ft)

Weights

Working weight, with dipper, and standard links	1 442 274 kg (3,179,670 lbs)
Net weight, domestic, without ballast or dipper	1 059 056 kg (2,334,820 lbs)
General-purpose dipper 56 m³ (73 yd³)	80 603 kg (177,700 lbs)
Ballast (furnished by customer)	302 614 kg (667,150 lbs)

- These weights will vary slightly depending upon dipper and optional equipment selection

Main Structures

Crawler Mounting

Overall width 317.5 cm (125 in) treads, standard	12.73 m (41 ft 9 in)
Overall width 355.6 cm (140 in) treads	13.5 m (44 ft 3 in)
Overall length of mounting	11.43 m (37 ft 6 in)
Total effective bearing area (317.5 cm treads)	57.1 m² (615 ft²) 248 kPa (35.9 Psi)
Total effective bearing area (355.6 cm treads)	64 m² (689 ft²) 221 kPa (32.1 Psi)

Number and diameter of rollers	Lower: 16, 79.4 cm (31.25 in) Lower rear: 2, 106.7 cm (42 in) Upper: Slides
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Take-up tumblers diameter	162 cm (63.8 in)
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Number and pitch of treads	94, 50 cm (20 in)
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Planetary Propel

Dual-motor independent drive

Revolving Frame (Center Section)

Welded, impact-resistant steel	Length: 8.38 m (27 ft 6 in) Width: 3.68 m (12 ft 1 in)
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Turntable

Forged rim, alloy steel swing rack pitch diameter	5.26 m (17 ft 3 in)
Teeth external cut	24.13 cm face (9.5 in)
Tapered, forged alloy steel roller rails diameter	4.52 m (14 ft 10 in)
Number of tapered rollers	50
Tapered rollers diameter	27.31 cm (10.75 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

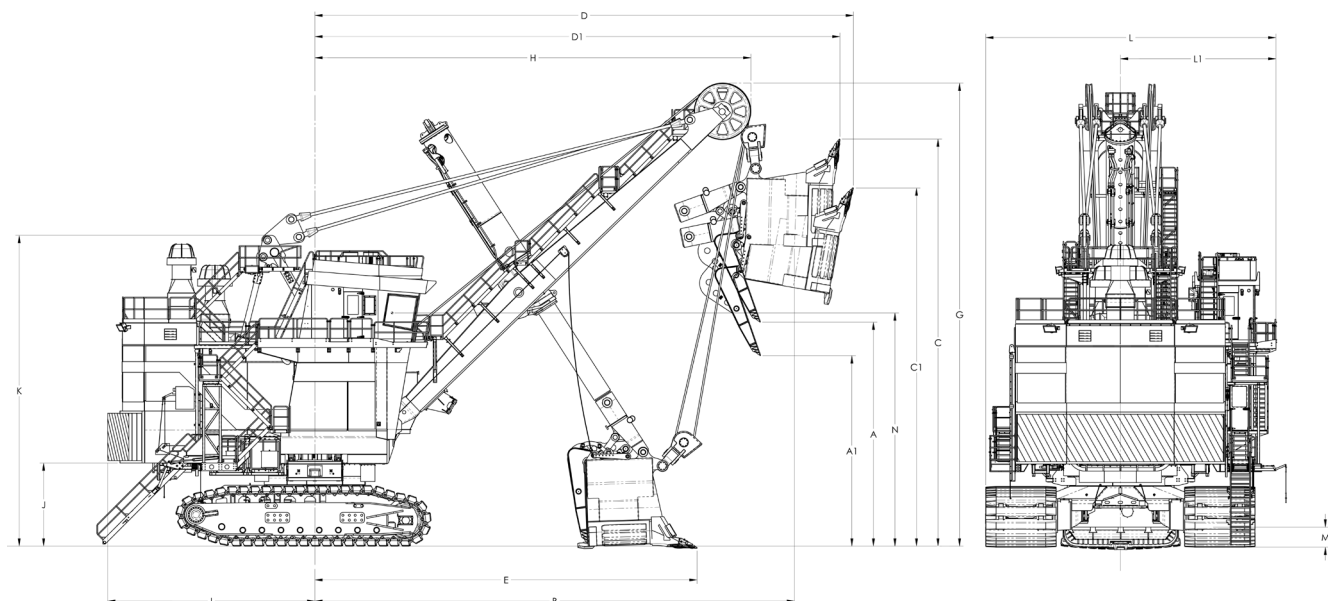
Hoist

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	10.06 m (33 ft)
A ₁	Dumping height at maximum electric crowd limit	8.61m (28 ft 3 in)
B	Dumping radius (maximum)	21.64 m (71 ft)
C	Cutting height (maximum)	17.8 m (58 ft 5 in)
D	Cutting radius (maximum)	25.2 m (82 ft 8 in)
E	Radius of level floor	17.47 m (57 ft 4 in)
G	Clearance height (boom point sheaves)	20.87 m (68 ft 6 in)
H	Clearance radius (boom point sheaves)	19.65 m (64 ft 5 in)
I	Clearance radius (revolving frame)	9.34 m (30 ft 8 in)
J	Clearance under frame (to ground)	3.76 m (12 ft 4 in)
K	Height of A-frame	14 m (46 ft)
L	Overall width	13.96 m (46 ft 1 in)
M	Clearance under lowest point in truck frame/propel gearcase	0.90 m (2 ft 11.5 in)
N	Operator's eye level	10.61 m (34 ft 10 in)

Electrical

Drive

IGBT Acutrol drive system

Power Requirements

Voltage	3 phase, 50/60 Hz, 7200 V
Average 15-minute demand	945-1 322 kW
Peak power	3 778 kW

- Other voltage requirements available to suit customer requirements

Distribution System Requirements

Machine on separate system	4 000 kva
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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	2 at 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 m (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
Boom susp.	4	82.6 mm (3.25 in)	equalized	struct. strand
Dipper trip	1	19.1 mm (.75 in)	single	6 x 37

Crowd

HydraCrowd, hydraulic power skid, located at the front center of the revolving frame deck, powers a large hydraulic cylinder to move the dipper handle fore and aft

Hydraulic cylinder bore diameter (nominal) 35.6 cm (14 in)

Hydraulic cylinder rod diameter (nominal) 24.5 cm (10 in)

(Optional) Rope Crowd, the crowd machinery is located at the front center of the revolving frame, consisting of motor, brake, drum and gearing. Plastic-coated crowd and retract ropes are 63.5 mm (2.5 in) single dual, 6 x 37 construction running ropes are used to move the dipper handle fore and aft.

For more complete information on Cat products, dealer services, and industry solutions, visit us on the web at mining.cat.com and www.cat.com

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