

Cat® 7495 HF with Rope Crowd

ELECTRIC ROPE SHOVEL

Specifications

Dimensions

Dipper payload (Available dipper payloads		
up to 109 tonnes [120 tons] when specified)	100 tonnes	110 tons
Dipper capacity	30.6-61.2 m ³	40-80 yd ³
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	1 429 120 kg	3,150,670 lb
Net weight, domestic,		
without ballast or dipper	1 045 902 kg	2,305,820 lb
General purpose dipper 56 m³ (73 yd³)	80 603 kg	177,700 lb
Ballast (furnished by customer)	302 614 kg	667,150 lb

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

Main Structures

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Crawler Mounting		
Overall width 317.5 cm		
(125 in) treads, standard	12.73 m	41 ft 9 in
Overall length of mounting	11.43 m	37 ft 6 in
Overall width 355.6 cm (140 in) treads	13.5 m	44 ft 3 in
Total effective bearing area	57.13 m ²	615 ft ²
(317.5 cm/125 in treads)	245 kPa	35.6 psi
Total effective bearing area	64 m ²	689 ft ²
(355.6 cm/140 in treads)	219 kPa	31.8 psi
Number and diameter of rollers		
Lower (16)	79.4 cm	31.25 in
Lower rear (2)	106.7 cm	42 in
Upper	Slides	
Take-up tumblers diameter	162 cm	63.8 in
Number and pitch of treads (94)	50.8 cm	20 in
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

Main Structures (cont'd)

urntable		
Forged rim, alloy steel swing rack pitch diameter	5.26 m	17 ft 3 in
Teeth external cut (face)	24.13 cm	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.

Electrical

Drive

· IGBT Acutrol drive system.

Power Requirements

Voltage	3 phase, 50/60 Hz, 7,200V
Average 15-minute demand	926-1297 kW
Peak power	3706 kW

• Other voltage options available to suit customer requirements.

Distribution System Requirements

Machine on separate system 4000 kVA

Main Electrical Systems

System voltage (nominal) 50/60 Hz, 7,200V
Trail cable (furnished by customer) SHD-3-#1/0 at 8,000V
Transformer, auxiliary 350 kVA, 7,200V primary
Lighting transformer 2 at 25 kVA, 120/240V secondary



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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.

Front End

Boom

Boom welded, impact-resistant steel Boom point sheaves twin-grooved, flame-hardened Boom point sheave diameters 243.84 cm 96 in Handle diameter 86.36 cm 34 in Wall thickness (nominal) 7.62 cm 3 in

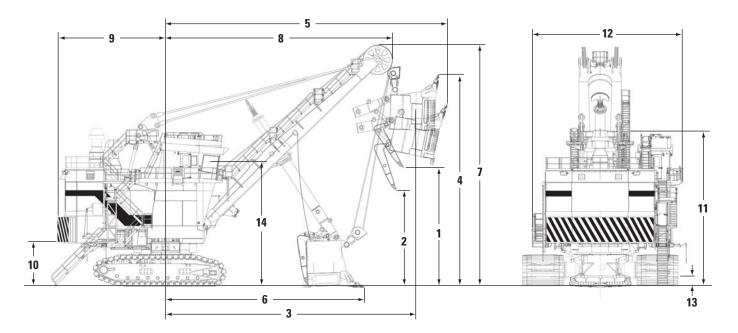
Front End (cont'd)

Rope Data

	No.	Diameter	Туре	Construction
Hoist	2	69.8 mm (2.75 in)	twin dual	8 × 37
Crowd	1	63.5 mm (2.5 in)	single dual	8 × 37
Retract	1	63.5 mm (2.5 in)	single dual	8 × 37
Boom susp.	4	82.6 mm (3.25 in)	equalized	struct. strand
Dipper trip	1	19.1 mm (0.75 in)	single	7 × 25

Crowd

· Rope Crowd with crowd machinery located at the front center of the revolving frame, consisting of motor, brake, drum and gearing. Plastic-coated crowd and retract ropes are used to move the dipper handle fore and aft.



Optimal Working Ranges

1 Dumping height	10.06 m	33 ft 0 in
2 Dumping height at maximum electric crowd limit	8.61 m	28 ft 3 in
3 Dumping radius (maximum)	21.64 m	71 ft 0 in
4 Cutting height (maximum)	17.8 m	58 ft 5 in
5 Cutting radius (maximum)	25.2 m	82 ft 8 in
6 Radius of level floor	17.47 m	57 ft 4 in
7 Clearance height (boom point sheaves)	20.87 m	68 ft 6 in

8 Clearance radius (boom point sheaves)	19.65 m	64 ft 5 in
9 Clearance radius (revolving frame) (max.)	9.34 m	30 ft 8 in
10 Clearance under frame (to ground)	3.76 m	12 ft 4 in
11 Height of A-frame	14 m	46 ft 0 in
12 Overall width	13.96 m	46 ft 1 in
13 Clearance under lowest point in truck frame/propel gearcase	0.90 m	2 ft 11.5 in
14 Operator's eve level	10.61 m	34 ft 10 in

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Materials and specifications are subject to change without notice. Featured machines in photos may include additional equipment. See your Cat dealer for available options.



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