

Cat[®] FH120

FACE HAULER

MAJOR FEATURES:

- Integrated battery lift mechanism simplifies battery change out, reducing change-out time.
- Major components designed and positioned for simplified service and minimal downtime.
- Optimum payload capacity giving you greater cost effective haulage per battery discharge.
- Tire and battery options to suit your application.

Specifications

General Data

Operating Height	1422-2133 mm	56-84 in
Frame Height	1168-1245 mm	46-49 in
Payload Capacity	17 tonnes	19 tons
Power Type	Battery	

Wheelbase

Empty Weights		
Without Battery	27 025 kg	59,580 lb
With 120-SSP110-19 Battery	37 566 kg	82,820 lb
With 120-SSP140-19 Battery	39 471 kg	87,020 lb

Design Gross Vehicle Weight

Cubic Meters/Cubic Feet Capacity: (Maximum Payload – Calculated)

Heaped with No Sideboards	18.49 m ³	653 ft ³
Heaped with 50.8 mm (2 in) Sideboards	19.20 m ³	678 ft ³
Heaped with 101.6 mm (4 in) Sideboards	19.88 m ³	702 ft ³
Heaped with 152.4 mm (6 in) Sideboards	20.64 m ³	729 ft ³

Turning Radius

Steering Articulation	120 degrees total	
Tram Speed (speed will vary depending on floor conditions)	0-9.66 km/h	0-6 mph
Discharge Time	24 seconds	
Terrain Compensation	(+) 15 degree	
Articulation	(-) 10 degree	

Hydraulics and Controls

- Pressure-compensated pump hydraulic system for optimal performance
- Hydraulic component design and placement for ease of service and/or maintenance and fewer hydraulic components and hoses
- Bulkhead-mounted hosing for ease of service and/or maintenance
- Battery lift load-locking counterbalance valves for safety
- Tuned battery-lift shock absorption for ride comfort
- Battery-lift float function to ease battery change
- Auto-retract function to automatically return ejector to load position while tramping
- Larger brake release hand pump – 8 to 10 pumps required
- 37.85 L/min (10 gal/min) powered and filtered hydraulic oil tank fill
- Service tees provided for ease of gauge installation to troubleshoot and/or service

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Hydraulics

Pump Motor	Mine-duty laminated frame; alternating current motor: MSHA totally enclosed, explosion-proof, non-ventilated cooling, and foot-mounted.
Pump	Main hydraulic system, pressure compensated piston pump directly splined to pump motor at 20 687 kPa (3,000 psi) and monitored by a glycerin-filled main system pressure gauge.
Reservoir	257.408 L (68 gal) capacity reservoir equipped with breather and removable suction strainer.
Valve Bank	Five-section parallel type equipped with glycerin-filled pressure-monitoring gauge for the following functions: ■ Eject/Retract ■ Vertical Articulation (Terrain Compensation) ■ Battery Lift (Changer) ■ Battery Lock ■ Steering
Battery Float	Two position-3-way valve.
Steering Cylinder	Two (2) double-acting cylinders with 63.5 mm (2.5 in) forged rods. Equipped with integrated shock-absorption relief system.
Battery Changer Cylinder	Two (2) double-acting cylinders with 63.5 mm (2.5 in) forged rods and internal load checks.

Drive Train

Two proprietary design, double-reduction parallel primary reducers equipped with integral multiple wet disc brakes and axle shaft, mounted to a proprietary design planetary wheel end.

Electric Drive Train

- Variable-frequency traction drive
- 56 kW (75 hp) AC inductance traction motor
- 36 kW (48 hp) inverter duty AC inductance pump motor
- Operator interface diagnostic and information display
- Control system with operator interface accelerator and operator interface control handle
- Lead acid battery DC power source

Brakes

Service	Two (2) hydraulically actuated, multiple wet disc brakes
Automatic Brake	Spring-applied, hydraulic-released braking system controlled by electrical/hydraulic solenoid and equipped with totally enclosed multiple wet disc brake in each drive unit, manual hand pump brake release, and glycerin-filled pressure monitoring gauge.

Frame

Heavy-duty, with bends utilized where applicable to reduce the number of indeterminate stresses introduced by welding.

Center Section

Heavy-duty, dual-articulation joint, welded steel construction with steel pivot pins, complete with horizontal self-aligning pivot thrust bearings on the primary articulation and ball bearing on secondary articulation with an axial load rating of 261 269 kg (576,000 lb).

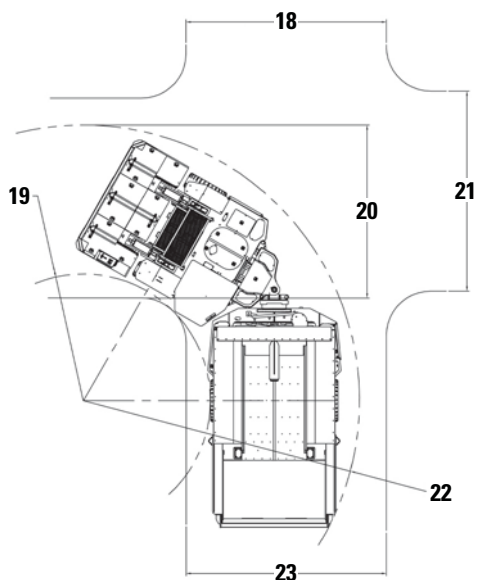
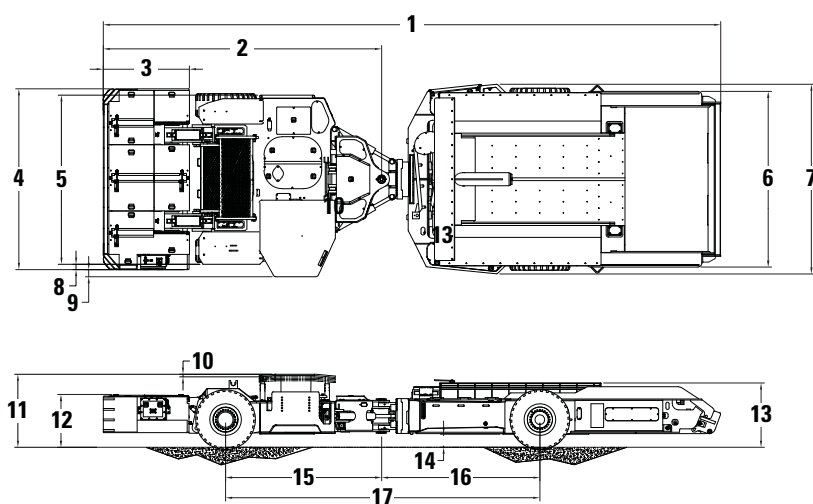
Battery Changer

Ground Level Battery Changer System. The FH120 is equipped with an Attach/Detach tilt-style battery change system. No battery stands are required.

Operator's Compartment

Features

- Full height back and head protection
- Side egress, access
- Heavy-duty, adjustable, ergonomically designed operator's seat
- Ergonomically designed control stick, for one-hand control of pump motor, park brake, travel direction, traction assist, stop/shutdown and headlight controls
- Right-foot-operated accelerator switch pedal
- Dual panic tape switches that de-energize electrical system and apply automatic brake
- Warning gong
- Left-hand mechanical steering handle
- Right-hand false bottom ejection/retraction handle
- Right-hand vertical articulation handle (terrain compensation)
- Right-hand battery changer handle
- Right-hand battery lock/unlock handle
- Right-hand battery float handle (independently located separate from valve bank)
- Left-foot brake pedal
- Easily visible glycerin-filled gauges
- Manual breaker lever reset



Dimensions (All dimensions are approximate.)

1	11 884 mm	39 ft 0 in	13	1237 mm	4 ft 1 in
2	5357 mm	17 ft 7 in	14	253 mm	10 in
3	1658 mm	5 ft 5 in	15	3004 mm	9 ft 10 in
4	3480 mm	11 ft 5 in	16	3048 mm	10 ft 0 in
5	3254 mm	10 ft 8 in	17	6050 mm	19 ft 10 in
6	3381 mm	11 ft 1 in	18	5486 mm	18 ft 0 in
7	3650 mm	12 ft 0 in	19	3477 mm	11 ft 5 in
8	104 mm	4 in	20	4748 mm	15 ft 7 in
9	136 mm	5 in	21	5486 mm	18 ft 0 in
10	51 mm	2 in	22	7563 mm	24 ft 10 in
11	1406 mm	4 ft 7 in	23	5482 mm	18 ft 0 in
12	1015 mm	3 ft 4 in			

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